



Department of
Primary Industries

Best Practice Management for Meat Chicken Production in NSW

Manual 1 – Site Selection & Development

INTENSIVE ANIMAL INDUSTRIES DEVELOPMENT | POULTRY MEAT INDUSTRY COMMITTEE



Best Practice Management for Meat Chicken Production in New South Wales

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Poultry Meat Industry Committee

INTENSIVE ANIMAL INDUSTRIES DEVELOPMENT



Department of
Primary Industries

Title: Best Practice Management for Meat Chicken Production in New South Wales, Manual 1 (Site Selection & Development)

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Foreword

Chicken meat production is a major component of agricultural production in NSW.

The chicken meat industry is facing significant change as chicken meat consumption continues to grow while wholesale margins for chicken meat shrink and industry expansion collides with urbanisation and increasing environmental demands.

The industry must increase production if it is to meet the growing demand for chicken meat, by either expanding existing farms or developing new, larger farms. However, farms have to meet the regulated standards if approval is to be given for their development.

The Poultry Meat Industry Committee was set up by government to help the industry to meet its challenges. Committee Members are keen to help industry break down barriers to production in NSW and have identified variation in the interpretation of environmental regulations by regulatory authorities as a significant barrier to industry expansion.

Accordingly, the Committee has, with specialist input from the Department of Planning and Infrastructure, Department of Primary Industries, Office of Environment and Heritage, interstate regulatory authorities, local government and industry, developed a set of best management practices to help chicken meat growers to set up and manage their poultry farms.

The Committee also advocates the use of the *Best Practice Management* Manuals by regulatory authorities in assessing development applications for chicken meat developments.

Best Practice Management for Meat Chicken Production in New South Wales (Manuals 1 and 2) addresses shed-based operations (not free range) and replaces the *NSW Meat Chicken Farming Guidelines* published by the NSW Department of Primary Industries in 2004.



Stephen Carroll
Chairman, Poultry Meat Industry Committee
1 June 2012





1 Introduction

The Australian Poultry Industry is concentrated in NSW; about 32% of Australian chicken meat was produced in this state in 2011.

The chicken meat industry is a significant part of the NSW agricultural industry and is the third-largest agricultural commodity in NSW, with an annual gross value of \$686 million (*ABS 2010 data*).

The industry is well developed in NSW, particularly in the regions of the Sydney basin, Central Coast, Hunter, Tamworth, North Coast and Griffith. Most production is undertaken by a small number of corporate vertically integrated companies (operating breeding farms, hatcheries, feed mills, processing plants, further processing plants and, in some cases, chicken grow-out farms) in conjunction with third-party contract growers of chickens.

Consumption of chicken meat in Australia is currently around 43kg per capita per year and continues to increase. An important factor for the continued development of an efficient and sustainable meat chicken industry in NSW is good management, development of new housing systems, and expansion and renovation of existing housing systems. With the increasing scale and intensity of chicken meat farming, effective management of the potential environmental, health and amenity impacts are becoming more important.

1.1 Purpose of Manuals 1 and 2

The Manuals provide guidance for the planning, design, construction, and management of meat chicken farms in NSW, with a particular focus on minimising environmental impacts. They were developed by the NSW Poultry Meat Industry Committee in conjunction with the Department of Primary Industries (NSW DPI), the Office of Environment and Heritage (OEH), the Department of Planning and Infrastructure (DP&I) and Local Government representatives, in consultation with equivalent agencies in Queensland and Victoria and industry groups.

The Manuals address shed-based production (not free range) and jointly replace the *NSW Meat Chicken Farming Guidelines* published by the Department of Primary Industries (NSW DPI) in 2004.

Best practice is dictated by industry standards and benchmarks, but it also needs to consider the economic feasibility of various methods that might be available to a specific type of operation. It should also incorporate the concept of continuous improvement and the development of improved approaches to environmental management.

Growers considering building new farms, or expanding or renovating existing farms, should use Manual 1 to plan and design their farms and Manual 2 to determine the management practices they will use to minimise environmental impact. Operators of existing farms are also encouraged to use Manual 2 to determine current best management practice for operating meat chicken farms.



The Manuals will also help other key stakeholders, including consent authorities, regulatory agencies and industry consultants. When assessing a meat chicken farm development proposal, or resolving land-use conflicts, consent authorities are encouraged to use the Manuals to identify reasonable current best management practices. The Manuals (particularly Manual 1) can also provide guidance for developing planning policies, plans and guidelines for meat chicken farming and for the execution of responsibilities under the provisions of the *Protection of the Environment Operations Act 1997*.

The Manuals give details of location, design and management principles to ensure that meat chicken farming can be environmentally sustainable. Potential environmental impacts of meat chicken farms (including community amenity and water and land contamination) have been identified, along with measures to minimise the potential for these impacts. This is achieved by providing:

- » information on siting, design and construction of farms
- » explanations of the development application (DA) and approval processes, requirements and legislation
- » performance objectives and best practice advice for managing the environmental impacts of meat chicken farms during their development and operation.

1.2 Scope and operation of the Manuals

The Manuals concentrate on standard, modern tunnel-ventilated sheds, as it is expected that almost all new and expanding meat chicken farms will be tunnel-ventilated. However, many of the principles in these manuals (excluding separation distances and buffer zones) apply to other production systems, such as naturally ventilated (conventional) sheds.

The Manuals do **not** apply to:

- » poultry farms operating for egg production (egg farms and breeder and pullet raising farms)
- » non-meat-chicken poultry species, such as quail, duck, turkey and geese
- » chickens for meat production where the chickens have access to an outdoor range.

However, the principles referred to in the Manuals and some of the guidelines listed may be applied to these operations, as appropriate. Advice on the development of these proposals should be sought from local government and the NSW Department of Primary Industries.

Lawfully established meat chicken farms may continue to operate in accordance with current approvals under existing legislation, although the Manuals are intended to encourage all farms to adopt and implement a culture of continuous improvement.

The Manuals recognise the involvement of both growers and processors in meat chicken farming. Whereas the grower directly operates the farm, processors determine shed specifications, provide and own the chickens, arrange transport, provide the feed, provide veterinary and management advice, and process and market the chickens. In most instances the grower operates under a contract to a processor, and the ongoing performance of the farm therefore depends on the actions of both the farmer and the processor.



Manual 1 provides a description of the planning process and the best practice guidelines to be followed for the development of meat chicken farms. These requirements are provided for the benefit of all parties, but in particular Manual 1 sets out requirements to be taken into account when the proponent (typically the growers' consultant) is preparing a DA.

Manual 2 provides the best practice guidelines to be followed for the operation of meat chicken farms.

The Manuals should be applied uniformly across NSW, and they may be referenced in planning documents.

Following the Manuals alone will not ensure compliance with planning and environmental management requirements.

The Manuals must be read in conjunction with other planning and environmental management policies, plans, guidelines and legislation (see Appendix 4).

The word **must** is used in the Manual to refer to any obligatory requirements to meet relevant legislation, policies or regulations. Not meeting these specific requirements can mean a direct contravention of the legislation.

1.3 Review of Manuals

The Manuals will be revised as new information and expertise relating to the operation, management and environmental impact of meat chicken farms becomes available. Major reviews should be undertaken by industry and government every 5 years, or more often if justified (e.g. if there are legislative changes or major changes in farm design).

The best practice guidelines included in this document are based on current information, knowledge and practice at the time of publication. Further investigation, research and innovation in farm practice may, in future, be used to establish new accepted standards and redefine best practice for the industry.

The most current version of the Manual will be available on NSW DPI website (www.dpi.nsw.gov.au).



2 The NSW chicken meat industry

The size of the Australian meat chicken industry has increased dramatically in the last three decades. Over 1 million tonnes of chicken meat, with a retail value exceeding \$4.5 billion (ACMF 2011), is produced annually. Chicken meat now exceeds beef (and veal) as Australian consumers' most popular meat. Over the past few years, production has grown by around 4% to 5% a year.

The NSW poultry meat industry exists within the context of a national integrated structure. NSW has the largest production in Australia, with around 176 million birds processed annually; this was approximately 32% of total national production in 2010 and contributes directly and indirectly up to \$1.4 billion to the NSW economy. The poultry industry provides direct employment for around 6000 people on-farm and in processing, with another 39000 indirectly employed in service and supply to the industry; value adding, distribution and point of sale.

The industry is dominated by chicken meat, supplemented by a relatively small amount of turkey meat. Approximately 85% of birds are produced by contract growers, with the remainder produced on company farms, but this is changing, with a trend toward larger corporate organisations and increasing capital investment in the industry through ownership of farms, reducing processor involvement in grow-out facilities. There are approximately 270 contract chicken meat growers in NSW.

NSW has four processors; in order of size they are Baiada, Inghams, Cordina/Summertime and Red Lea. Processing plants are located near Sydney, in the Hunter Valley, on the Central Coast, at Tamworth, in the Riverina and on the North Coast. Growing farms tend to be located close to these plants and their associated feed mills in order to minimise transportation costs of feed and day-old chicks, as well as pick-up costs, and to ensure the quality of birds for processing and bird welfare during transport.

In the Sydney area and the Central Coast and Hunter, where several processors operate, growers may transfer between processors, but in other areas where only a single processor operates this is not possible, with growers limited to the one processor. Processors may also require growers in the Central Coast and Hunter areas to switch from turkey to meat chicken production, or vice versa, on occasions.

2.1 Chicken meat production systems

To understand how meat chicken farms may interact with the environment, an understanding of production systems is required (Figure 1). This section provides a brief description of these.

2.1.1 Breeding farms

Breeding farms are separate specialist operations that produce the fertile eggs that become chickens for commercial meat production. Grandparent and parent birds are generally housed at low densities in large deep-litter sheds. The fertile eggs they produce are collected daily and stored for transport to the hatchery. The progeny from breeding birds ultimately supplies day-old chickens for commercial meat chicken production.

Grandparent and parent birds are productive for about 12 months. At the end of their productive lives they are removed for meat processing. The litter is cleaned from the sheds at the end of each life cycle.

The Manual does not cover breeder farms, as their operations are distinct from those of meat chicken production farms and they typically have significantly lower environmental risks.



2.1.2 Hatcheries

Eggs from parent breeding birds are incubated at hatcheries. The chickens produced are graded for quality and sex, vaccinated, and dispatched to meat chicken production farms within hours of hatching.

The Manual does not cover hatcheries, as their operations are distinct from those of meat chicken production farms and they typically have significantly lower environmental risks.

2.1.3 Meat chicken production farms

Batches of day-old chicks are delivered to meat chicken (grower) farms. Here they are raised within large naturally or mechanically ventilated sheds with some climate control. Usually the day-old chicks are placed in an insulated hot air brooding section, which occupies about one-third to half of the shed. As the chickens grow, the occupied floor space is increased over 10 to 14 days, and ultimately the chicks occupy the entire shed.

Meat chickens are not caged and are free to move around the shed and feed from specially designed feeders that are automatically filled from bulk bins or silos. Drinking water is continuously available through specially designed drinkers that minimise water leakage.

Meat chickens are reared on litter that absorbs their manure and any spilt feed or water. Litter may consist of sawdust, wood shavings, rice hulls, paper or chopped straw, depending on availability, price and absorbency. It is typically cleaned out and replaced at the end of each batch (single batch), but it may also be partially cleaned out after each batch and then cleaned out fully after several batches. With the approval of the processor, litter can be re-used; the litter is heaped between batches and composted before respreading.

Modern meat chicken sheds are typically 100 to 150 m long and 12 to 20 m wide, housing approximately 20 000 to 50 000 meat chickens. Most farms have three or four sheds; newer farms generally have larger numbers of bigger sheds.

Meat chickens are raised in batches. When they reach market weight they are caught, placed in crates and transported to processing plants.

Part of the flock is usually caught and processed after about 5 weeks (first thin-out), with the remainder (the majority of the flock) harvested between 6 and 7 weeks of age. Sheds are generally empty for 7 to 10 days after bird harvest for shed cleanout. Farms usually raise five or six batches of meat chickens per year.

All growers have contracts with large, vertically integrated, meat chicken processors. The farmer has a contract to provide labour, management, shedding, equipment and bedding material to raise birds. The processor provides the day-old chicks, feed supplies, medication, technical advice, and chicken pick-up crews and transport (often independent contractors).

This guideline does not cover free-range meat chicken farms where birds have access during the day to a fenced grassed area beside the shed, as their operations are distinct from those of meat chicken production farms and they have different environmental impacts.



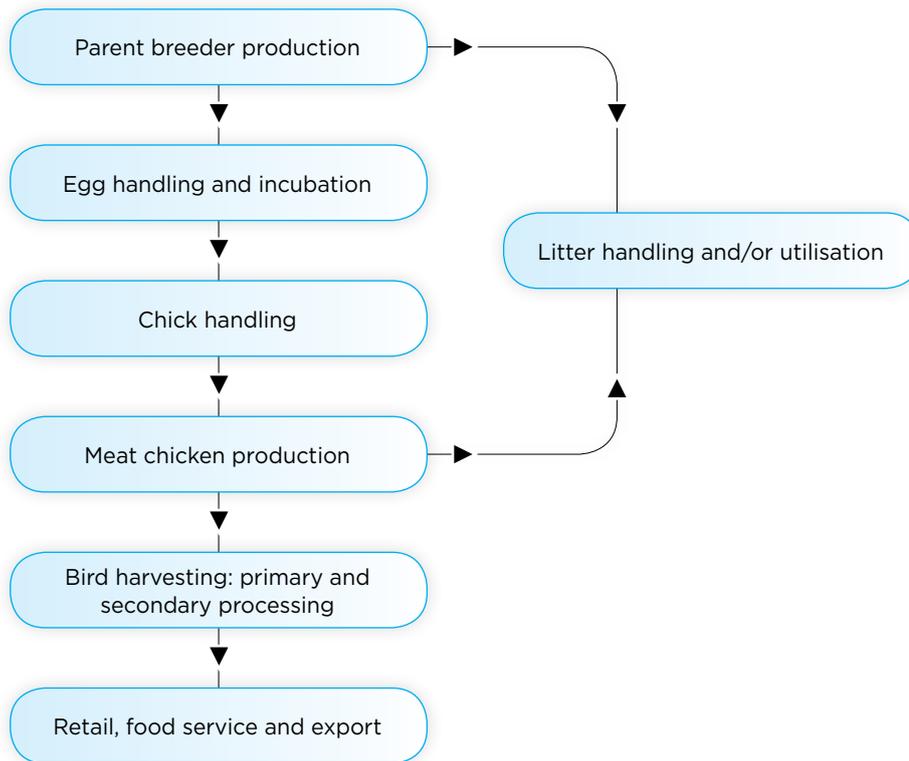


Figure 1: Flow diagram of meat chicken production stages



3 Farm location and shed siting

NSW chicken meat farms must comply with a range of regulations that are designed to protect the environment, including the local amenity.

Appropriate siting is the most cost-effective way of minimising environmental performance issues such as odour, dust, noise, stormwater management and the protection of surface water and ground water. If these issues are addressed at the planning stage, then ongoing operational costs and management issues can be significantly reduced.

The cost and time required to complete a DA and have it assessed are also directly related to the scale and complexity of the development proposal and the level of environmental risk. Hence, the most practical and effective means of streamlining the DA process and reducing the costs of gaining consent is to:

1. Select a suitable site with no anticipated significant environmental constraints.
2. Ensure adequate separation distances to minimise impacts on neighbours and meet biosecurity requirements.
3. Investigate all possible issues and seek advice early, rather than having to backtrack.
4. Understand the planning process and legal requirements.
5. Prepare a quality DA that addresses all relevant issues.

3.1 Site selection considerations

Site selection affects all subsequent poultry farm development and operating costs. It is also fundamental to gaining approval and to the sustainability of your farm.

Consider possible future development of the locality and of your business. Ideally, select a local government area with good prospects for the continued operation and expansion of poultry farms and a Local Environmental Plan (LEP) with rural planning strategies that support intensive agriculture development.

Meat poultry farms should be located in zones where Intensive Livestock Agriculture is permissible (either with or without consent). This is typically a Rural Primary Production Zone (RU1) or Primary Production Small Lots Zone (RU4), or the equivalent. Some LEPs may also permit poultry farms within the Rural Landscape Zone (RU2).

Section 4 of this Manual: 'Planning the development of a meat chicken farm - preparation of the DA' provides guidelines for preparing a DA and for the consent authority assessment process.

For information on site selection see the **Better site selection factsheet** on the NSW DPI website.

3.1.1 Confirm that the site is suitable for a new poultry farm

After checking that the proposed poultry farming site is in an LEP zone that permits poultry farming, growers also need to be satisfied that the site is suitable in practical, financial and environmental terms. A useful step is to list the reasons for choosing the preferred site and why alternative sites were not selected.



Various environmental and economic factors also need to be considered when selecting a site, as outlined in the sections below. On some sites some of these factors may conflict and will require careful evaluation. For instance, a location within reasonable proximity to the processing plant will minimise the cost of transport for processors and may reduce transport stress for birds. Power and water supplies may also be reliable nearer to town. However, in such locations the lot sizes may be smaller and a concentration of residential or rural lifestyle developments may increase the risk of conflict with neighbours and require additional measures, such as noise-reducing bunds.

Poor site selection can pose significant financial costs and can also result in requirements for additional costly studies, delays in gaining approval (or refusal), and additional monitoring or operational constraints and stress.

3.1.2 Confirm that the site is suitable for poultry farming expansions or upgrades

For existing chicken farms, where expansions of operations or other significant changes are proposed, risk assessment and a cost-benefit analysis are useful first steps to determine if it is worth further investment in the current site versus possible relocation options.

Among other matters, the risk assessment should consider the current land-use trends in the vicinity (such as the pressures for an intensification of residential uses), along with any change in flooding or bush fire risk.

The cost-benefit analysis should include council levies and charges (such as section 94 of the *Environmental Planning and Assessment Act 1976* and Regulations for contributions for road upgrades and maintenance); any costs due to changes to water or electricity supplies; the cost of financing the improvements; and any costs associated with upgrading of noise or odour controls (for instance, this may be required if there is any reduction in separation distances or if an increased number of birds will be produced). An approximation of the section 94 costs can be obtained from the local council.

Fortunately, help is available from councils, government agencies and other growers. Appendix 2 of this manual also provides a comprehensive checklist of site selection factors to consider.

Best management practice recommendations:

- ✓ Use the checklist in Appendix 2 to confirm the suitability of one or more proposed sites for a new meat chicken farm, before you commit to buy or lease a property and before you commit to preparing a DA. It can also help to identify issues that might require more detailed assessment and management.
- ✓ Similarly, use the checklist as a planning tool for proposed changes to an existing meat chicken poultry farm; this will help you to identify potential issues that will require further consideration and management.
- ✓ Consider taking a draft of the checklist to a preliminary meeting with the local council (before DA lodgement) to review jointly with council planners.
- ✓ Consider attaching a completed checklist to the DA to demonstrate to the council the depth of your research and planning.
- ✓ Where an expansion of existing operations or other significant changes are proposed, do a risk assessment and a cost-benefit analysis to consider whether it is worth continuing operations on the site and to compare relocation options with expansion on the existing site.



3.2 Separation distances and siting considerations

3.2.1 Farm size

The area required for a chicken farm will vary considerably depending on many factors, including the size of the operation, capital cost, local topographical and climatic features, surrounding land uses, the technology used for the development and the proposed management practices, local zoning laws and development control plans, and the size of farms in the area. As a general rule, the smaller the block, the higher the dependence will be on technology to manage impacts such as odour and noise.

Best management practice recommendations:

- ✓ Ensure that the poultry farming site can adequately provide for the chicken sheds and feed silos, amenity block, storage sheds, internal roads, litter composting or stockpile areas (where appropriate) and dead-bird management or storage areas, as well as for relevant mitigation measures for odour and noise impacts.
- ✓ Consult with the local council or planning consent authority about any recommended setbacks from boundaries or neighbouring residents, and be prepared to justify any variation as part of a subsequent DA.

3.2.2 Topography, drainage and designated development

Meat chicken sheds operate as closed systems with little or no water movement from sheds to ground water or to drainage lines. The local topography and drainage, however, can influence construction impacts and costs. Hence it is preferable to avoid high erosion-risk sites, such as those where a large volume of cut or fill is required.

Additional run-off and nutrient controls are required if litter is to be stored or applied on the property. The area needed to ensure sustainable application of the available litter must also be calculated (see section 3.2.3).

Designated development is a particular class of development that has the potential to significantly affect the environment, including local communities. Key triggers are the size of the development and proximity to waterways or water bodies. Avoiding a site that would invoke designated development provisions can help to reduce the costs and time required to prepare a DA. It may also reduce subsequent costs for additional control measures. Further advice on designated development and other planning controls is provided in section 4.4.

It should be noted that all livestock intensive industries are designated developments in the Sydney drinking water catchment, which is within the Sydney Catchment Authority's area of operations.

Clause 21(4) of Schedule 3 of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) defines the following poultry proposals as designated developments:



21 Livestock intensive industries

- (4) Poultry farms for the commercial production of birds (such as domestic fowls, turkeys, ducks, geese, game birds and emus), whether as meat birds, layers or breeders and whether as free range or shedded birds:
- (a) that accommodate more than 250,000 birds, or
 - (b) that are located:
 - (i) within 100 metres of a natural waterbody or wetland, or
 - (ii) within a drinking water catchment, or
 - (iii) within 500 metres of another poultry farm, or
 - (iv) within 500 metres of a residential zone or 150 metres of a dwelling not associated with the development and, in the opinion of the consent authority, having regard to topography and local meteorological conditions, are likely to significantly affect the amenity of the neighbourhood by reason of noise, odour, dust, lights, traffic or waste.

Best management practice recommendations:

- ✓ Check whether the proposal and site would comprise designated development. If an environmentally sensitive site cannot be avoided, be prepared to undertake additional environment assessment; adopt additional protection measures; and ensure you can justify the chosen location in the DA.
- ✓ Consult with the local council or planning consent authority about any recommended setbacks from water courses and be prepared to justify any variation as part of the DA.
- ✓ A reasonably level site for the chicken sheds is preferable to a sloping one, to minimise erosion and building costs (avoid major cut and fill). Flat to gently sloping cleared grazing lands are preferred for reusing poultry litter.
- ✓ An elevated site is preferred for natural ventilation and drainage, but sites where cold air drainage will carry odour down to residences should be avoided.
- ✓ The proposed site should be above the level of flooding, with an average recurrence interval of 1 in 100 years. Flooding should not impede road access to the farm.
- ✓ Plan for engineered gently sloping, wide, open drains that are well grassed and kept mown to manage stormwater run-off from sheds and minimise erosion.

3.2.3 Separation distances to avoid unreasonable odour and dust impacts

Raising meat poultry is an intensive form of animal husbandry and is an inherently odour-producing process. If farms are not well located, sited, designed and operated, odour emissions can extend beyond the farm boundary and have adverse impacts on the amenity of surrounding sensitive users and neighbours. Generally, the greater the frequency, intensity, duration and offensiveness of an odour and the higher the number of sensitive receptors, the more likely it is to cause annoyance and lead to complaints.



Odour is derived from the anaerobic decomposition of manure, spilt feed and other organic matter, and also from the birds and bird respiration. High moisture content in the litter promotes this anaerobic digestion and the generation of odours. Site conditions such as topography, calm conditions and lack of filtering vegetation may contribute to a higher risk of odour impacts.

Three ways of avoiding poultry farm emissions from adversely affecting the amenity of nearby sensitive uses are to:

- » provide an effective separation distance between the meat chicken shed, associated litter stockpiles or dead-bird composting areas and existing or potential sensitive uses, such as nearby dwellings
- » employ best practice in the design, siting, landscaping, operation and management of the meat chicken farm
- » use proven odour-reducing technologies to further reduce the levels of dust and odour emission.

In NSW the separation distance for assessing odour impacts is defined as the distance from the nearest odour emission point to the closest point of the receptor. For conventional sheds this would be the nearest edge of the nearest poultry shed to the nearest edge of the closest dwelling on land beyond the meat chicken farm property. For tunnel-ventilated sheds it is appropriate to measure from the fan outlet nearest the dwelling. Dwellings directly associated with the meat chicken farm operations, that are located on the same property do not need to be considered in this process.

Separation distances provide sufficient space to disperse and hence minimise the risk of offensive odour (and also dust or noise) emissions under both routine and abnormal conditions. The greater the separation distance, the lower the probability of offensive odour and dust affecting the surrounding community.

The NSW framework for assessing odour (*Technical Framework: Assessment and Management of Odour from Stationary Sources in NSW, NSW DEC 2006*) provides a three-tiered assessment system for identifying potential odour impacts and recommended separation distances.

Entry level (known as 'Level 1') assessment is a simple, low-cost means of rapidly identifying the likely odour risk and the required separation distance for a particular farming proposal. Poultry industry research (*Separation Distances for Broiler Farms, RIRDC 2010 [10/073]*) has confirmed that the Level 1 odour formula for meat chickens provides the best surety that the separation distance will be sufficient to avoid unacceptable odour impacts.

The NSW OEH website (www.environment.nsw.gov.au/air/odour.htm) provides a Level 1 odour risk calculator that allows meat chicken growers, their consultants, or council planners to readily check the recommended separation distances, using basic site information. (*For Level 1 assessment, basic information is required on the size and type of poultry farm; the local topography and vegetation; prevailing wind flows; and the locations of neighbouring residences in relation to the proposed/current poultry sheds.*)

No further odour studies are required if the typically conservative Level 1 assessment identifies that the available separation distances between the proposed or current sheds and the nearest residences meet or exceed the recommended distance calculated by using the Level 1 formulae or calculator.



If Level 1 assessment identifies that there is a risk of odour conflict, several options are available. It may be possible to adjust the development proposal, for instance by reducing the number, size or location of the proposed sheds, and to then reassess using the Level 1 formulae. Another property or location might be considered, or otherwise more detailed and significantly more costly site-specific Level 2 or 3 odour assessments can be done to demonstrate that the proposed farm can be operated without adversely affecting surrounding sensitive receptors. Level 2 or 3 assessment may also be used to take into account any additional odour control technologies.

Level 2 and 3 odour assessments use complex odour dispersion modelling, and they generally necessitate engaging the services of relevant air quality experts at considerable additional cost. Although more site specific, the models rely on various assumptions to simulate odour dispersion. These models also have specific limitations that can reduce the reliability of the odour predictions. Hence, using Level 1 assessment to calculate the required separation distances can avoid:

- » additional odour monitoring costs and ongoing risks of odour conflict
- » delays in getting your DA approved, as a technical review of Odour 2 or 3 modelling may be needed and there may be disputes among odour experts.

Odour impact assessment is a site-specific design tool, but it can predict only the likely odour impacts. In some cases, once the facility is operational, unforeseen odour impacts may be experienced at some locations. If this occurs, poultry growers will need to address these odour impacts and, if necessary, modify the facility on the basis of the actual (rather than predicted) operational outcomes.

Manual 2 of this series (Meat Chicken Growing Management) gives details of the management practices that can affect odour impacts. It is better to plan for these practices before the farm is operating, rather than trying to subsequently reduce an existing conflict.

Appendix 3 provides worked examples and information on how to use the Level 1 formulae and calculator for meat poultry farm site selection and for the DA process. (This Appendix is drawn from section 5 of the *Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW*, DEC 2006).

Best management practice recommendations:

- ✓ Consider both design and management measures to minimise odour impacts as early as possible in the planning process. If the site has minimal odour risks, then other conflict risks, such as noise or dust, can usually also be satisfactorily managed.
- ✓ Identify the recommended separation distance by completing a Level 1 odour assessment (*in accord with the requirements of the Technical Framework: Assessment and Management of Odour from Stationary Sources in NSW* (www.environment.nsw.gov.au/air/odour.htm) before you purchase a property, or before you meet with council to discuss the proposed development.
- ✓ If the available separation distance is insufficient, modify the proposed development or complete further, more specific assessment in accord with the Level 2 or 3 requirements of the *Technical Framework: Assessment and Management of Odour from Stationary Sources in NSW* (www.environment.nsw.gov.au/air/odour.htm).
- ✓ Investigate the option of using proven odour-reduction technologies to reduce the separation distance required.



3.2.4 Separation distance to avoid unreasonable noise impacts

Noise from meat chicken farms can adversely affect nearby sensitive land uses. The predominant sources of noise on poultry farms are truck and forklift movements; feed blowers, and fans. Emergency generators and alarms – especially reversing alarms on vehicles – and noisy pickup crews at night can also be highly intrusive. Noise impacts can also occur during construction.

The transmission of noise is affected by factors such as atmospheric conditions, local topography, and other noise barriers such as bunds or noise-control fences. Residents are much more sensitive to noise in the evening and night, when background noise levels are lower.

Careful site selection and farm design can minimise noise impacts and ensure that noise levels generated by a poultry farm and related activities do not exceed the requirements of the *NSW Industrial Noise Policy* (NSW EPA 2000). If the vehicles are on a public road, the *NSW Road Noise Policy* (DECCW 2011) applies.

Best management practice recommendations:

- ✓ In all areas, the likely noise impacts are assessed in accord with the *NSW Industrial Noise Policy* (NSW EPA 2000).
- ✓ Noise-reduction options to consider when selecting a site include locating farm access points, internal roads, loading pads, sheds and fans as far away as possible from neighbouring dwellings.
- ✓ Ensure that traffic can access the site without unduly disturbing local residents (for instance, the main driveway is not near neighbouring houses and trucks are able to slow without hard braking).
- ✓ If sufficient separation distance is not available, it may be necessary to install noise-reduction barriers such as earthen, vegetated bunds. It may also be possible to select fans with a lower noise rating and less intrusive frequency.

3.2.5 Biosecurity separation

The risk of disease transmission between farms can be reduced through appropriate farm siting and management.

Disease outbreaks (from pathogenic bacteria and viruses) in poultry can spread between farms and significantly affect poultry growing enterprises and the meat chicken industry through substantial losses of birds (including breeding stock if a breeder farm is involved). Breeder farms are normally located remotely from other poultry farms, and maintaining that level of separation can be critical for state or national chicken meat production.

Loss of birds, production capacity and income may be a direct result of disease, or of destruction orders implemented by NSW DPI to control the risk of further disease spread.

The risk of disease developing on a farm is influenced by many factors, including the management of litter, feed and water; disinfection of sheds; vermin removal; disposal of used litter and dead birds; and the effectiveness of biosecurity measures adopted for people and equipment entering the farm. The *National Farm Biosecurity Manual for Chicken Growers* (ACMF, 2010) provides more information on the best ways to control threats from pathogenic microorganisms and viruses.

Consideration should also be given to the threat that disease outbreaks may pose to human health through the transmission of bioaerosols, as well as to the possible need to dispose of large numbers of dead birds, with its associated environmental risks and costs.



Maximising the separation between farms remains the primary tool for reducing the potential for cumulative impacts on the local amenity and community, such as from bioaerosols, odour, dust, noise or traffic. Although the assessment of disease risk is a business decision for processors and growers, farms that are closely co-located may also create additional costs for government in controlling disease outbreaks and imposing quarantine controls. Current guidelines for controlling an exotic disease outbreak specify a 3-kilometre quarantine zone around affected premises.

Although there is no set distance that will uniformly eliminate all risks of disease transfer, generally the greater the distance the lower the risk. When assessing distance, other factors such as topography and prevailing winds should also be considered.

Best management practice recommendations:

- ✓ Locate new poultry farms as far apart as possible to minimise the risk of disease transfer between farms. There should be a minimum of 1000 metres to other intensive poultry farms (500 metres when there are extenuating circumstances such as farms with a common owner or farms supplying the same processor); 3000 metres to commercial duck farms; and 5000 metres to poultry breeder farms.
- ✓ Preferably locate new farms away from waterways and wetlands (ideally 3000 metres) that are used extensively by waterfowl, as these birds can carry avian diseases.
- ✓ As existing farms may not comply with the recommended biosecurity separation distances, growers proposing to expand their operations should assess the potential commercial risk in consultation with their processor.

3.2.6 Separation distance or a buffer?

Separation distances are used to reduce the effects of odour, dust, bioaerosols, noise and biosecurity and traditionally extend across adjoining properties that are not owned by the grower. Not having control of how that land is used is a major risk to the poultry farm. It can also prevent future changes or expansion of poultry production on an existing farm.

In contrast, a buffer is where you have legal control of the land needed to separate the poultry sheds from adjoining developments. A buffer may be open farmland, or a landscape area that hides views of the sheds or helps to disperse air movement and odours. Buffers are a sound business investment, because they help to:

- » limit the risk of land-use conflict by protecting against a change of neighbours and/or incompatible development of the adjoining lot, such as construction of a residence
- » minimise the ongoing cost and stress of monitoring environmental impacts
- » avoid the need for expensive post-approval attempts to reduce odour, dust, bioaerosols or noise impacts
- » support proposals for the option of on-farm use of poultry litter.

Boundary setbacks may be required by councils and are defined as the distance between the nearest external edge of any new meat chicken shed (or litter stockpile/compost pile) and the farm boundary. Boundary setbacks mitigate visual amenity issues and the immediate impact of odour, noise and dust emissions from broiler sheds, litter stockpiles or compost piles on the amenity of adjacent land and the surrounding area.



Best management practice recommendations:

- ✓ Ensure appropriate separation or buffer distances to sensitive receptors.
- ✓ Maximise boundary setbacks wherever practical, by locating sheds and facilities near the centre of the farm, especially on smaller properties.
- ✓ Check with the local council on the required boundary setbacks and comply with these.
- ✓ If boundary setbacks recommended in a council Development Control Plan cannot be met, carefully consider the risks and what can be done to avoid adverse impacts. Be prepared to clearly justify your proposal as part of the DA.

3.3 Power supply

A reliable, adequate and constant three-phase power supply must be available to ensure bird welfare. A reliable power supply is required to deliver water and feed to the birds, to light the sheds, and ensure that they are appropriately ventilated (fans and evaporative cooling is particularly critical for tunnel-ventilated sheds). Power supplies may also be critical for monitoring equipment and warning alarms.

Best management practice recommendations:

- ✓ Ensure access to a reliable, adequate and constant power supply (three-phase).
- ✓ Consider power requirements for possible future expansions of the farm.
- ✓ Install standby generators with auto-switch control to manage the power supply in the event of mains supply failures, so that water supply, feed delivery, lighting and the operation of ventilation fans are not disrupted. During hot weather, mass bird deaths can result from small interruptions to ventilation and cooling equipment.

3.4 Water supply

Meat chicken farms must have an adequate and continuous supply of water for drinking and cooling for bird welfare.

Meat chickens require approximately 2 litres of drinking water for every kilogram of feed consumed. Thus, a 100 000-bird meat chicken farm would require approximately 32 000 litres of water per day when all the birds are at 35 days of age (the age of the typical first thin-out).

Water requirement for cooling of sheds is highly variable and depends on the prevailing environmental conditions. As a rule of thumb, 1.2 litres of water per bird per day is required to service the evaporative cooling (water wall) when birds are at maximum feed consumption. Conventional sheds also use water to cool birds by generating a fine mist spray (fog).

Shed floors are swept clean after the litter is removed. Dust on the walls, ceiling and equipment is removed using high pressure (with low water volumes) at a standard rate of 6 000 to 8,000 litres per shed. This water is retained within the shed, where it evaporates and does not contribute to run-off. Although the volume might seem large, a modern meat chicken shed is typically 100 to 150 metres long and 12 to 20 metres wide, and the total surface area of the roof and walls is between 9 000 and 21 000 square metres.



Meat chicken sheds operate as closed systems, with little or no water escaping into the outside environment. Any water spilt inside the shed from drinking equipment or during cleaning is readily absorbed by the flooring material and subsequently evaporated.

Larger farm proposals may also need water for facilities such as lunch and rest rooms.

Water may be sourced from ground water, from surface water drawn from a dam or a river, from town water supplies or (less commonly) from rainfall run-off. Water, other than town water, must be treated appropriately to comply with the *National Water Biosecurity Manual – Poultry Production* (DAFF 2009).

Meat chicken farms must comply with the *Water Management Act 2000* and supporting legislation pertaining to drawing water from watercourses or bores and catching overland flows in dams.

Best management practice recommendations:

- ✓ Ensure adequate supply of water is available for all on site needs, including poultry drinking water, shed management and cooling.
- ✓ Confirm the suitability of all water sources (other than town water), particularly in terms of salinity and microbial content.
- ✓ If water other than town water is used, ensure that the poultry water is treated to drinking water standards. This reduces the risk of disease transmission from wild birds to the meat chickens, as recommended by the poultry industry's *National Water Biosecurity Manual – Poultry Production* (DAFF 2009).
- ✓ Provide a backup supply or storage able to hold at least 2 days' total requirement (estimated to be 2 litres per bird) in case of a breakdown or loss of supply. Plan for the worst-case scenario of maximum water use over the hottest period.
- ✓ Have an appropriate water licence and comply with the licence conditions (e.g. not exceeding the licensed allocation).

3.5 Bush fire risk and native vegetation protection

In selecting a site for a meat chicken farm, native vegetation and bush fire risk are important factors to consider. Selecting a site that is not bush fire prone and does not require the clearing of native vegetation will help to:

- » streamline the assessment of your proposal
- » avoid the costs and delays of the specialist investigations, consultation and reports that typically require specialist consultants
- » avoid the need for remedial actions to reduce bush fire risks or offset the loss of native vegetation.

You can find out whether a property is located in a bushfire-prone area by viewing the bushfire-prone land map at your local council or the Rural Fire Service. This will also be noted on a section 149 Certificate (*Environmental Planning and Assessment Act 1979*) for the property, obtainable from council.



If the property is in bush fire prone area, you will need to assess the bush fire risk and report on how your proposal complies with mandatory Planning for Bush Fire Prevention requirements (see section 4.6.2 of this manual). You will also need to meet any bushfire protection construction requirements under the Building Code of Australia (BCA). Local councils are usually the consent authority for Bush Fire Prevention measures and BCA requirements.

Native vegetation is any species of vegetation that existed in NSW before European settlement and includes trees, saplings, shrubs, scrub, understorey, groundcover and wetland plants. The *Native Vegetation Act 2003* provides the legislative framework for native vegetation management across NSW, except in the case of urban areas (e.g. residential, industrial and commercial zones), national parks and other conservation areas, and state forests and reserves.

Should any native vegetation need to be removed to allow the development of a meat chicken farm, additional consent may be required from your local Catchment Management Authority (CMA) under the *Native Vegetation Act 2003*. (See section 4.6.1 of this manual.)

For further information about native vegetation contact your local CMA (details are available at www.cma.nsw.gov.au). A series of factsheets and additional information on the *Native Vegetation Act 2003* can also be found by visiting the website www.environment.nsw.gov.au/vegetation/nvmanagement.htm

Best management practice recommendations:

- ✓ Avoid sites that are bush fire prone or have significant native vegetation. This includes trees, shrubs, heathlands, wetlands and native grasslands.
- ✓ If native vegetation (including isolated paddock trees) may need to be cleared or disturbed, check with your local CMA and be prepared to meet legislative requirements, including additional assessment and documentation.
- ✓ If the site is bush fire prone, check with your local council or consultant and be prepared to meet legislative requirements, including additional assessment and documentation.
- ✓ Ensure that a clear separation can be provided between the building and the bushfire hazard in the form of fuel-reduced zones. (These are referred to in the **Planning for Bush Fire Protection 2006 guidelines** as asset protection zones.)

3.6 Road access design

Suitable all-weather vehicle access able to support articulated vehicles of up to 40 tonnes should be provided from a public road for the transport of birds, litter, wastes and feed. Contact the local council or Roads and Maritime Services for further information.

In the design of road access, measures to limit vehicle speed and the use of exhaust brakes will help to reduce noise and dust impacts associated with vehicle movements.



Best management practice recommendations:

- ✓ Choose transport routes to and from the farm that avoid truck movements through towns and near sensitive land uses such as schools and hospitals.
- ✓ Locate and design access points, on-farm roads and on-farm parking areas to minimise; noise, dust, bioaerosols, vehicle light impacts and road safety risks to nearby sensitive land uses such as residential accommodation including dwellings, residential care facilities for seniors, schools, child care centres, sports fields and the like.
Some roadwork may be needed to accommodate this, such as development of turning lanes. Gain the approval of the relevant authority for the location and design of access to the site.
- ✓ Construct the access to a standard that minimises deterioration of the road pavement, avoids sharp turns, and provides sufficient road width for turning vehicles.
- ✓ Place the access gate (from a public road) far enough inside the boundary that trucks can park off the road without affecting passing traffic. Alternatively, the access roadway can be fenced off.
- ✓ Establish the access road on a compacted sub-base with good table drains, and with a compacted gravel layer with a good camber to shed rainwater to the drains. In some situations it may be appropriate to seal the farm access road.
- ✓ Provide areas for parking articulated vehicles for loading and unloading, as well as an on-site manoeuvring area, to enable all vehicles to enter and exit the site in a forward direction.
- ✓ Design and construct level concrete aprons outside sheds to facilitate loading of birds during pickup and to minimise noise.
- ✓ Provide for biosecurity measures such as wheel washes near access points to the production area.
- ✓ Make adequate provision for the parking of vehicles anticipated to be using the farm.
- ✓ Avoid vehicle headlight intrusion on neighbouring houses.
- ✓ Use large bunds along driveways to deaden sound from trucks entering, or small bunds to redirect water away from internal roads.



3.7 Shed design

Most meat chicken sheds are steel-framed, clear-span, gable-roofed structures. The ability to control the internal environment of meat chicken sheds regardless of the external environment is essential for optimum bird growth, bird welfare, odour control and dust suppression.

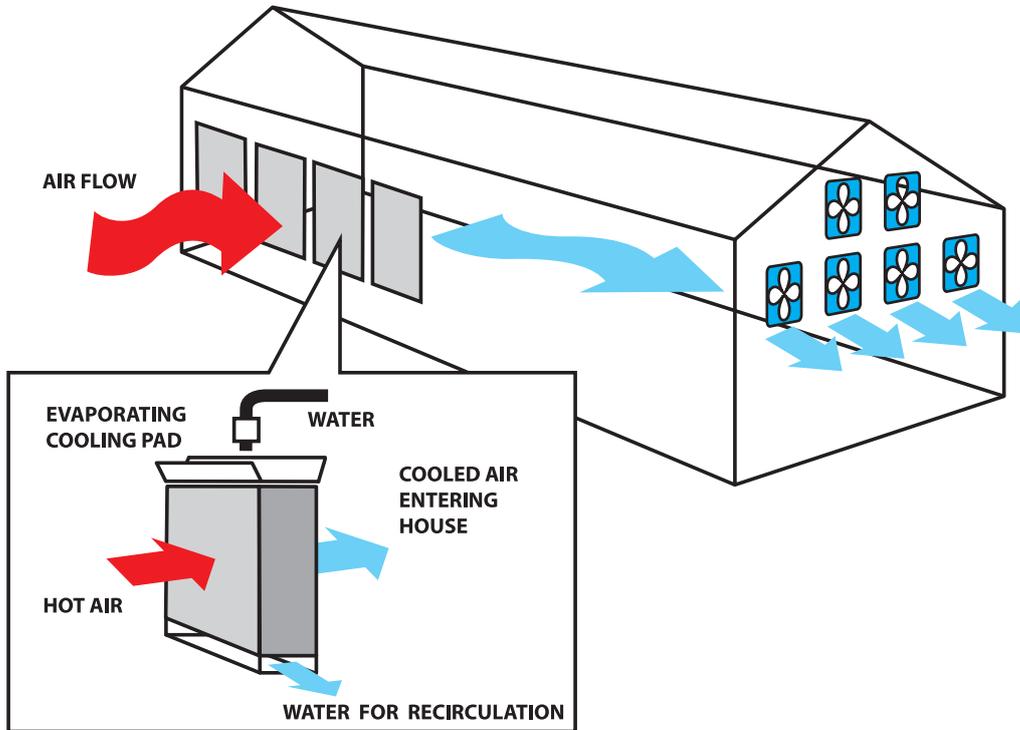


Figure 2: Example of pad cooling with tunnel ventilation

Best management practice recommendations:

- ✓ Current best practice for intensive chicken meat production is for sheds to be designed with tunnel ventilation and pad cooling (Figure 2).
- ✓ Insulate shed roofs to reduce condensation and help keep litter dry.

3.7.1 Shed separation and orientation

Good planning of sheds in the early stages of a development can help to decrease potential impacts and reduce energy costs.

Best management practice recommendations:

- ✓ Provide adequate separation distance between the discharge end of meat chicken buildings and sensitive land uses to prevent amenity impacts.
- ✓ Provide sufficient roof overhang and sidewall height to prevent rainwater from entering the shed and wetting the litter.
- ✓ Ensure sufficient distance is provided between sheds to enable bird collection from the centre of each shed or from each end, as appropriate.
- ✓ Where practical, orient the long axis of sheds east-west to minimise solar heat absorption during hot weather. With tunnel-ventilated sheds, varying the shed orientation may help to minimise odour, dust and noise impacts on the surrounding community.



3.7.2 Shed floors and drainage system

To meet the requirements of the *Protection of the Environment Operations Act 1997* (POEO Act) shed floors, spent litter stockpiles and stormwater retention systems must be designed, constructed and managed to minimise the risk of nutrient leaching and surface water contamination. This will also help with shed clean-out operations.

Best management practice recommendations:

- ✓ Construct shed floors with an impermeable material to eliminate the risk of ground water contamination. The use of impermeable hard surfaces such as concrete offers benefits with respect to cleaning and disinfection and will potentially help to eliminate pathogen/virus carryover between batches.
- ✓ Sites must prevent stormwater inflow and contaminated runoff. To achieve this, the ground may require external earthworks for reshaping or construction of drains and bunds. Compacting of any drains or stormwater retention systems is required.
- ✓ Raise the base of the sheds above the natural surface level to prevent the entry of stormwater runoff.
- ✓ Construct stormwater management systems to control runoff from around the meat chicken farm complex (the controlled drainage area) in accordance with council requirements.

3.7.3 Ventilation system

Sheds must be adequately ventilated for bird health and welfare. Ventilation helps to maintain acceptable moisture content in the litter; this in turn helps to prevent excessive odour generation and controls the accumulation of water vapour, heat, gases, dust particles and bioaerosols.

The ventilation system should be capable of achieving the requirements for good air quality (i.e. minimum ventilation rate) and temperature control (i.e. maximum ventilation rate). In NSW's climate, providing adequate cooling in warm weather is essential for keeping the birds within their thermo-neutral zone (effective temperature in the range 18°C to 21°C) after week 4. The combination of cooling and wind chill through ventilation can achieve the desired conditions.

Best management practice recommendations:

- ✓ Design sheds to maintain a uniform airflow down the shed width to ensure consistent bird comfort and productivity, in accordance with processor specifications.
- ✓ Position fans to direct any exhaust air away from sensitive land uses or, if justified, implement other strategies to avoid odour or health impacts.
- ✓ Lower the roof pitch or install deflectors (baffles) in tunnel-ventilated sheds to improve airflow and energy efficiency.
- ✓ Operate an automated system that maintains optimum ventilation rates by monitoring relative humidity and temperature and controlling evaporative cool pads, fans and mini vents.



3.7.4 Feeding and watering system

Feeding and watering systems must be adequately designed and distributed within the shed to ensure that the wellbeing and comfort of the chickens complies with the *Model Code of Practice for the Welfare of Animals – Domestic Poultry* (CSIRO 2002). This also ensures that an acceptable moisture content is maintained in the litter to avoid odour production. Wet and spoiled feed can produce excessive odours.

Best management practice recommendations:

- ✓ Install feeding and watering systems that can be adjusted to meet the requirements of the birds as they grow.
- ✓ Properly install and maintain feeders to minimise feed wastage.
- ✓ Install drinkers that ensure minimal spillage onto the litter.
- ✓ Properly design silos and feed-lines to avoid feed spillage and the ingress of water. Using interconnected (banked) silos gives more efficient feed usage.

3.7.5 Monitoring and control systems

Most new sheds and renovated existing sheds are fitted with automatic controllers for temperature and ventilation, feed, water, fans and blinds to ensure animal welfare and effective and efficient operation.

Best management practice recommendations:

- ✓ Install automated systems that continuously monitor temperature levels and (for tunnel-ventilated sheds) internal relative humidity, to allow for maximum control over the shed environment.
- ✓ Fit tunnel-ventilated sheds with telemetry alarms (also visual alarms, if appropriate) to alert the farm manager to malfunctions or extended abnormal shed conditions. Audible alarms are suitable only if they do not affect neighbouring sensitive land uses.

3.8 Landscaping

Well-designed landscaping helps improve the visual amenity of meat chicken farms and reduces noise, light and dust impacts. The choice of shed materials and use of topography can also help to reduce visual impact.

Because of the large size of the poultry sheds and additional costs, however, it is not practical to mandate the use of coloured metal sheeting. Poultry farms, however, should be located in a zone that supports intensive agricultural developments, and design considerations such as setbacks and shed siting should minimise the visual intrusion.

Most landscaping is vegetative, although earthen banks or constructed walls may also provide screening.



Best management practice recommendations:

- ✓ Develop a landscaping plan for the site and include this as part of the DA or Environmental Management Plan. It should be designed to ensure the long-term effectiveness of screening of farm sheds and structures and should be approved by the approval authority.
- ✓ Construction materials (e.g. the colour of any side curtains) are selected, where practicable, to minimise visual impact.
- ✓ Use the natural vegetation and terrain of the site to best advantage to maximise visual screening and improve biodiversity. Retain existing trees and incorporate them into the landscaping where practical.
- ✓ Landscape plantings must take into account fire risk, airflow, pest and vermin control and control of odour and dust. Select plant species that require little maintenance and are suited to the location. Preferably select species indigenous to the region, as these are likely to suit the area, grow quickly and require little maintenance. Forests NSW, the local CMA or a reputable local nursery will be able to advise on suitable/appropriate species.
- ✓ If a vegetative screen is used, species chosen should consist of a low and high canopy and have slender leaves to trap dust. The species selected must also be able to cope with elevated nutrient loads. If a vegetative screen is used it should be at least 10 metres wide.
- ✓ Install a vegetative screen or other suitable odour emission-reduction control measure at the exhaust end of tunnel-ventilated sheds at a distance that does not affect the performance of the ventilation system. Plantings near shed fan exhausts should consist of species that are able to withstand elevated nutrient levels.

3.9 Litter storage and dead-bird management areas

If dead birds or litter are kept on farm, plan the location of additional facilities to avoid odour impacts, nutrient runoff, ground water contamination, and dust and bioaerosol dispersion. The re-use of nutrients held within dead birds and poultry litter is preferable to disposing to landfill.

Note that in the Sydney drinking water catchment, the Sydney Catchment Authority does not permit the disposal of dead birds on site except during an exotic disease outbreak.

If authorised facilities are within ready access, regular removal of birds off-farm for composting or for rendering is preferable. The next alternative to ensure nutrient re-use and avoid adverse impacts on watertables is to effectively compost birds on farm in a facility designed to effectively manage the expected loadings and additional environmental risks associated with these practices.

Dead birds and litter should be composted on a concrete slab or other suitably impermeable material and covered by a roof. These measures are designed to prevent contamination of ground or surface waters or the surrounding area and to achieve the necessary temperatures for destruction of pathogenic bacteria and viruses. For more information, see Manual 2 sections 3.2 and 3.3.

Disposal of dead birds by burial should be the last option and may require approval from the local council and/or the OEH.



On-farm litter and/or bird composting operations generally do not trigger POEO Act licensing requirements provided that the materials are generated on site. Such proposals should address the minimum design requirement goals defined in section 5 of the DEC's *Environmental Guidelines: Composting and Related Organics Processing Facilities (2004)* in order to protect surface and ground waters from pollution. See also sections 3.2 and 3.3 of Manual 2 for additional guidelines on the management of composting facilities and on-farm disposal of litter.

Productive re-use of poultry litter on-farm may be an option if the processor supports this and if a suitable area outside the biosecure production area (see Manual 2 section 3.2) exists to ensure ongoing nutrient management.

Poultry litter must not be spread in any location where there is a risk of impact to human health.

Best management practice recommendations:

- ✓ Locate on-farm composting areas, dead bird management facilities and litter storage areas away from boundaries and neighbours.
- ✓ Locate dead-bird storage facilities to avoid impacts on neighbours, and ensure they are designed to prevent scavenging.
- ✓ Locate dead-bird composting or disposal areas and litter storage areas on a gently sloping site away from drainage lines and floodplains. Also select a site that will avoid ground water contamination over time.
- ✓ Address the minimum design requirement goals defined in section 5 of the OEH's *Environmental Guidelines: Composting and Related Organics Processing Facilities* in order to protect surface and ground waters from pollution.
- ✓ Any poultry litter re-use areas on farm should be appropriately designed on the basis of a nutrient budget that considers the proposed annual litter volumes and nutrient loads, soil types, current soil nutrient levels (determined by soils tests) and pasture use rates.
- ✓ Poultry litter should not be spread or stored within the biosecure poultry production area.
- ✓ Divert natural runoff away from litter storage and from dead-bird composting or disposal areas.
- ✓ Retain existing trees wherever practical, and visually screen litter storage and dead-bird composting or disposal areas.

3.10 Surface water and ground water

Surface and ground waters must be protected in accordance with the *Water Management Act 2000* and section 120 of the POEO Act. The *Environmental Planning and Assessment Act 1979* (EP&A Act) also requires consideration of catchment and water impacts, including consideration of any location within the catchment of a priority oyster-growing area.

Major potable water supply storages and watercourses within drinking water catchments generally require the greatest protection.

The construction of new poultry sheds can involve significant site disturbance. Potential impacts to surface waters and to catchments can be avoided by using good site design and by adopting appropriate routine soil-erosion mitigation measures.



Meat chicken poultry farms where birds are fully contained are designed to effectively exclude storm and flood waters from the shed environment. Consent authorities may also require other controls, such as sedimentation ponds. Guidance on the design and construction of sediment and erosion controls in both urban and rural areas is provided in *The Blue Book - Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition, March 2004*, published by Landcom; *Volume 2A: Installation of Services*, published by the Department of Environment and Climate Change (DECC) in January 2008; and *Volume 2C: Unsealed Roads*, also published by DECC in January 2008.

The risk of ground water contamination is primarily avoided via appropriate site selection and by engineered construction and compaction of the shed floor.

Best management practice recommendations:

- ✓ Locate the meat chicken farm complex (sheds and spent litter stockpiles) above the 1-in-100-year flood line. Information on flood levels is available from the NSW Office of Water.
- ✓ Avoid locating the meat chicken farm complex near major potable water supply storages and watercourses within drinking water catchments. (The Sydney Catchment Authority specifically requires that meat chicken farm complexes are not to be located within 100 metres of a major potable water supply or reservoir, or within 40 metres of a watercourse in the Sydney drinking water catchment.)
- ✓ Protect surface waters through sound design and management of meat chicken farm complexes and spent litter utilisation areas.
- ✓ Protect riparian zones with appropriate buffers zones and vegetative filter strips. The greater the vegetative cover and width of the buffer, the greater the possibility of filtering out nutrients (particularly phosphorus) and pathogens.
- ✓ Design (and manage) spent litter utilisation areas to achieve a nutrient balance and sustainably use nutrients.

3.11 Community consultation

3.11.1 Good neighbour policy

Good relations are built on principles of mutual trust, good neighbourliness and consideration. Taking the time to talk to neighbours before you lodge the DA can allow you to consider (and address) any concerns they may have with the plans.

Neighbours may suggest ways that the plans could be changed to address their concerns, and if you incorporate the changes it may help with good neighbour relations in the future. You should mention any such changes in your DA.

The level of community alarm about the environmental impact of the proposal can also increase the stress of seeking approval for a new poultry farming development. So consult widely, early and often, and act on the advice you receive.

Active and comprehensive engagement with your neighbours and community early on can establish a firm foundation for good relationships and ensure that they know what is proposed, rather than having to rely on rumours. This consultation may also produce information that will help during the assessment by council.

Organising a visit to a nearby similar enterprise of high standard, or taking people on a tour of your existing farm, may also reduce the concerns of neighbours or communities who are unfamiliar with how the proposed development would operate.



Key issues you may need to discuss with your neighbours include the following:

- » the scale, design and layout of the sheds
- » separation distances from existing residences or other sensitive land uses
- » odour management
- » waste management
- » truck movements and routes.

Best management practice recommendations:

- ✓ Thoroughly inform potential neighbours before you commit to a proposal, and certainly before you lodge the DA.
- ✓ Be open and honest about all aspects of the proposal, and take time to listen to what your neighbours have to say.
- ✓ Rely on the person with the best communication skills to contact neighbours, and/or consider additional training to help address this key business risk.

3.11.2 Contacting the authorities

In addition to maintaining good relations with neighbours, it is imperative that good relations are built with the local and state government authorities.

Consent and regulatory authorities make their decisions by taking into consideration relevant legislation, including environmental planning instruments, and their assessment of the likely implications of the construction and operation of the chicken farm proposal. As part of that assessment, councils must consider the 'public interest' or overall benefit of the proposals to the community. The level of support from the local community and neighbours and the concerns they raise can influence the local council's assessment of this.

Although applications are assessed on their merits, community opposition may indicate that the standard of the application is poor or that the proposal is not well suited to the location. Hence, strong community opposition to a chicken farm proposal, linked to specific, real environmental concerns, may require additional consideration of particular issues and can delay the determination of the proposal. Where community concerns are justified the DA may not be approved. If it is approved despite community resistance, and the application is a designated development, the objectors can appeal the decision to the Land and Environment Court.

Council may also impose additional conditions on consent, such as additional monitoring requirements. There may also be a risk of ongoing complaints that then take additional time and money to resolve.

If the proposal is considered early, it may be possible to modify it so that it can proceed with the neighbours' support, or at least without their opposition. It may also be possible to provide additional information and justification when producing the Statement of Environmental Effects (SEE) or Environmental Impact Statement (EIS); this may prevent unjustified concerns from being raised and may be easier and less costly than having to submit such material after the event.

Best management practice recommendations:

- ✓ Discuss all aspects of the proposal with the consenting authorities before you finalise the DA.
- ✓ Ensure that the application addresses neighbours' issues and justifies the proposed design and operation. (Refer to the **Land Use Conflict Risk Assessment factsheet** on the NSW DPI website for more information.)



4 Planning the development of a meat chicken farm: preparation of the DA

4.1 Introduction

All new and expanding meat chicken farms must comply with a range of legislation and regulations that are designed to provide for economic investment while protecting the environment including the local communities.

The *Environment Planning and Assessment Act 1979* (EP&A Act) is the major legislation governing land use and environmental assessment in NSW. It provides for a hierarchy of environmental planning instruments, which include State Environmental Planning Policies (SEPPs) and LEPs. The Act establishes a framework for local government zoning, assessment requirements, development control plans, and development consent provisions.

A DA for a new or expanding meat chicken farm is usually lodged with the relevant local council, and the determination is made by the council or a Joint Regional Planning Panel (JRPP). There are also various licences required from other government agencies to regulate various aspects of the chicken farms operation.

The key steps in the planning assessment and approval process are outlined in Figure 3 in section 4.7 of this Manual. It is important to understand the planning approval process, as well as what information must be submitted to the local council, the role of other government agencies, public consultation requirements, and the likely time frames. The time taken to complete the planning approval process depends on the scale and complexity of the proposed chicken farm, as well as on the level of concern expressed by neighbours and the broader community about the environmental performance.

4.2 Confirm that the site is suitable for your development

Before you talk to the council about detailed planning issues you need to be satisfied that the site is practically, financially and environmentally suitable. Check in the council's Local LEP that the land is in a zone where intensive livestock industries are permitted.

For existing chicken farms, undertaking a risk assessment and a cost-benefit analysis will help you decide whether to continue operating on the existing site or to relocate. The risk assessment should consider, among other matters, the current land-use trends in the vicinity, including any intensification of residential uses and any change in flooding profiles.

The cost-benefit analysis should include council levies and charges, such as section 94 contributions for road upgrades and maintenance, as well as any costs associated with connection to water supply and any likely costs associated with upgrading of odour controls; the latter may be required because of residential intensification in the vicinity. An approximation of the section 94 costs can be obtained from the local council.



Best management practice recommendations:

- ✓ Follow the guidelines in section 3 for site selection criteria.
- ✓ Record the reasons for choosing the preferred site, taking into consideration the site selection criteria and why the alternatives were not selected.
- ✓ If an expansion of an existing operation is proposed, do a risk assessment and a cost-benefit analysis to consider whether you should continue operating on the site and to compare relocation options.

4.3 Contact your local council

Before you commit to developing a new chicken farm on a site, it is important to find out whether poultry farming is *permissible* on that land under the LEP. You can ask the local council to issue you with a section 149 Certificate (under the EP&A Act) that will identify all the planning provisions applying to your site. Where relevant, these provisions will need to be addressed in the DA.

Best management practice recommendations:

- ✓ Consult with your local council about LEP definitions, zones where poultry farming is a permissible development, what form of application would be required to gain consent, and the likely costs of this.

4.3.1 Is the proposal permissible?

- a) Check the LEP definitions

Under former planning provisions each council could adopt its own definition of intensive agriculture or poultry farming, so planning requirements could vary among councils. Hence it is important to check the definition of chicken farms and relevant local planning provisions with the relevant local council planning section.

All councils are progressively adopting consistent definitions under the new **Standard Instrument LEP** (NSW DP&I 2011). These definitions are:

agriculture means any of the following:

- (a) aquaculture,
- (b) extensive agriculture,
- (c) intensive livestock agriculture,
- (d) intensive plant agriculture.

intensive livestock agriculture means the keeping or breeding, for commercial purposes, of cattle, poultry, pigs, goats, horses or other livestock that are fed wholly or substantially on externally-sourced feed, and includes any of the following:

- (a) dairies (restricted),
- (b) feedlots,
- (c) piggeries,
- (d) poultry farms

but does not include extensive agriculture, aquaculture or the operation of facilities for drought or similar emergency relief.



- b) Check whether 'intensive livestock agriculture' is permitted on the land

LEPs and zoning maps are accessible on most local council websites or at council offices. The maps show the land-use zone for each property in that local government area, and you can check with the local council planning staff to confirm the zone.

The LEP sets out what developments are permitted in each zone. Each zone includes a list of land uses that are either:

- » permitted without consent,
- » permitted with consent, or
- » prohibited.

In most LEPs commercial meat chicken farms are defined as intensive livestock development and require consent. This means that a DA is required for new meat chicken farms and for any significant changes (for instance, changes to buildings or an increase in the total number of birds or density of the bird population).

Depending on the specific details of any existing development consent, approval may also be required to shift from shed-based poultry farming to pasture-based (where the birds can access outside areas during the day).

If the meat chicken farm is permitted with consent in the LEP, you may lodge a DA to obtain approval to undertake the development.

In some cases, if your proposal is minor, such as a small addition or alteration to your existing farm, it may be classified as 'complying development' or 'exempt development' or modification to an existing consent. Council can advise you about the requirements.

If the zone prohibits your proposal, you may not lodge a DA for a new chicken farm and you will need to find a new site or apply for a rezoning.

The exception to this is when there is an existing chicken farm that is prohibited under its current zoning. The existing chicken farm may be altered, extended or rebuilt subject to the approval of a DA under existing use rights, provided it does not result in significant additional environmental impacts (such as additional odour or noise levels). You should discuss existing use rights options with the local council or employ a consultant town planner.

4.4 What level of assessment is required?

Schedule 1 of the State and Regional Development SEPP identifies the categories of development that qualify as State Significant Development. This includes development for the purpose of intensive livestock agriculture that has a Capital Investment Value of more than \$30 million (this excludes the value of the land and various other costs, as defined in the **EP&A Regulation**). Meat poultry farms are defined as Intensive Livestock agriculture in the **Standard Instrument LEP**. State Significant Developments are submitted to, assessed by and determined by the DP&I.

Regional development is defined in Schedule 4A of the EP&A Act. Poultry farm proposals with Capital Investment Value of over \$20 million but less than \$30 million qualify as regional development. Regional development proposals are submitted to, and assessed by, a local council but are determined by the relevant JRPP. Development with a Capital Investment Value between \$10 million and \$20 million can also be referred to the regional panel by the applicant after 120 days with council.

Most poultry farming developments are required to lodge a DA at the local council and are referred to as 'local development'. Local development can be either designated development or non-designated development.



4.4.1 Designated development

Designated development is a particular class of development that is identified as having the potential to significantly affect the environment. If the proposed chicken farm is a designated development:

- » an EIS must accompany your DA when it is submitted to the local council. When you preparing an EIS, it is strongly recommended that you use a suitably qualified consultant.
- » matters to be addressed in the EIS must be formally requested in writing to the Director General (DG) of the DP&I and duly responded to. The letter setting out the DG's requirements also needs to be included with the DA when it is lodged with the consent authority.
- » the development is determined by the local council if the development is under \$20 million (capital investment value).
- » If the development is over \$20 million and under \$30 million (capital investment value), the development is assessed by the local council staff and determined by a JRPP. For more information about JRPPs see <http://jrpp.nsw.gov.au/>.
- » objectors to your DA have third party rights of appeal to the Land and Environment Court against any approval. They must lodge their appeal within 28 days of a determination. Applicants may lodge an appeal within 6 months of a determination.

Poultry farms that qualify as a designated development, are defined in clause 21(4) of *Schedule 3 of the EP&A Regulation 2000*.

- 21 (4) Poultry farms for the commercial production of birds (such as domestic fowls, turkeys, ducks, geese, game birds and emus), whether as meat birds, layers or breeders and whether as free range or shedded birds:
- (a) that accommodate more than 250,000 birds, or
 - (b) that are located:
 - (i) within 100 metres of a natural waterbody or wetland, or
 - (ii) within a drinking water catchment, or
 - (iii) within 500 metres of another poultry farm, or
 - (iv) within 500 metres of a residential zone or 150 metres of a dwelling not associated with the development and, in the opinion of the consent authority, having regard to topography and local meteorological conditions, are likely to significantly affect the amenity of the neighbourhood by reason of noise, odour, dust, lights, traffic or waste.

Note; The **State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011** additionally specifies that all livestock intensive industries (includes meat chicken farms) in the Sydney drinking water catchment, are designated developments. Such developments require the concurrence of the Chief Executive of the Sydney Catchment Authority, and consent may not be granted unless the development has a neutral or beneficial effect on water quality.



4.4.2 Non-designated development

Non-designated developments are proposals that do not meet the criteria for designated development. If your proposed chicken farm is not a designated development, then you need to prepare a SEE to accompany your DA. Although there is no specified format for an SEE (each council specifies the information that a DA should contain) the SEE should adequately describe the proposal, assess the likely environmental impacts, and outline the proposed measures that will be adopted to avoid or mitigate those impacts.

4.5 Is your proposal an 'integrated development'?

Some developments require permits or licences from state government agencies, as well as council consent.

If a development requires one or more of the approvals listed in Table 1, it is considered to be an 'integrated development'. Either designated or non-designated development can be an integrated development.

Council must refer your application to the relevant agency so that a joint assessment can be undertaken, and agencies may request further information be provided. Agencies will then issue to council 'general terms of approval', which will be included in the local council's development consent.



Table 1: Relevant approvals under section 91 of EP&A Act (Integrated Development)

ACT	PROVISION	APPROVAL
<i>Fisheries Management Act 1994</i>	s. 201	permit to carry out dredging or reclamation work
	s. 205	permit to cut, remove, damage or destroy marine vegetation on public water land or an aquaculture lease, or on the foreshore of any such land or lease
	s. 219	permit to: (a) set a net, netting or other material, or (b) construct or alter a dam, floodgate, causeway or weir, or (c) otherwise create an obstruction, across or within a bay, inlet, river or creek, or across or around a flat.
<i>Heritage Act 1977</i>	s. 58	approval in respect of the doing or carrying out of an act, matter or thing referred to in s. 57 (1)
<i>Mine Subsidence Compensation Act 1961</i>	s. 15	approval to alter or erect improvements within a mine subsidence district or to subdivide land therein
<i>National Parks and Wildlife Act 1974</i>	s. 90	grant of Aboriginal heritage impact permit
<i>Protection of the Environment Operations Act 1997</i>	ss. 43 (a), 47, 55	Environment protection licence to authorise carrying out of scheduled development work at any premises.
	ss. 43 (b), 48, 55	Environment protection licence to authorise carrying out of scheduled activities at any premises (excluding any activity described as a 'waste activity' but including any activity described as a 'waste facility').
	ss. 43 (d), 55, 122	Environment protection licences to control carrying out of non-scheduled activities for the purposes of regulating water pollution resulting from the activity.
<i>Roads Act 1993</i>	s. 138	consent to: (a) erect a structure or carry out a work in, on or over a public road, or (b) dig up or disturb the surface of a public road, or (c) remove or interfere with a structure, work or tree on a public road, or (d) pump water into a public road from any land adjoining the road, or (e) connect a road (whether public or private) to a classified road
<i>Rural Fires Act 1997</i>	s. 100B	authorisation under s. 100B in respect of bush fire safety of subdivision of land that could lawfully be used for residential or rural residential purposes or development of land for special fire protection purposes
<i>Water Management Act 2000</i>	ss. 89, 90, 91	water use approval, water management work approval or activity approval under Part 3 of Chapter 3

4.5.1 Environment Protection Licence

Meat chicken farms that accommodate more than 250 000 birds require a licence, as they are listed in Schedule 1 of the POEO Act. As a general rule, if the development is a type that requires an EIS, it will also require a licence from the Environment Protection Authority (EPA). The EPA is responsible for administering environmental protection legislation, including the POEO Act.

Consult with the EPA early in the process, particularly in relation to avoiding or minimising air and water quality impacts, or if the site is likely to have been contaminated by previous use of chemicals or fuels. If a licence is required, then the development is an integrated development, and these matters must be considered jointly by council and the EPA during the development approval process.



4.5.2 Water licences and approvals

Extraction of water from rivers or aquifers for commercial purposes requires a licence and/or other approval from the NSW Office of Water. For water licences and associated water trading (the buying and selling of water licences or annual allocation water), licensing provisions come under the *Water Management Act 2000* or the *Water Act 1912* (Table 2).

Table 2: Water licensing Acts

ISSUE	LEGISLATION	APPROVAL OR LICENCE
Access to water	<i>Water Act 1912</i> (for all water sources in NSW not subject to a Water Sharing Plan under the <i>Water Management Act 2000</i>)	Part 2 - surface water licence Part 5 - ground water (aquifer) licences
	<i>Water Management Act 2000</i> ; for water sources subject to a proclaimed water sharing plan or water management plan	Access licences Harvestable rights Water supply work approvals (e.g. bore) Water use approvals Flood work approvals Aquifer interference approvals
Construction near/within or across estuaries, lakes, rivers, creeks and floodplains	<i>Water Management Act 2000</i> ; <i>Controlled Activities Water Act 1912</i> , Part 8 (Flood Control Works)	Approval for works within 40 metres of the bed or bank of a river, creek or lake Approval for works likely to affect the distribution or movement of floodwaters

Please note that the provisions in the *Water Act 1912* and the *Water Management Act 2000* are complex. Contact your nearest Office of Water for more information concerning your particular area. Additional information and guidelines on water availability and licensing requirements are available from www.water.nsw.gov.au

If your development is 'integrated development' or requires another approval not listed in Table 1, you should contact the relevant agency before committing to developing a particular site. Before lodging a DA you need to determine whether it is possible to meet the relevant requirements of the additional approvals.

4.6 Other approvals

4.6.1 Permit for clearing native vegetation

The *Native Vegetation Act 2003* provides the legislative framework for native vegetation management across NSW, with the exception of urban areas (such as residential, industrial and commercial zones), national parks and other conservation areas and state forests and reserves.

Native vegetation is any species of vegetation that existed in NSW before European settlement, including trees, saplings, shrubs, scrub, understorey, groundcover or plants in a wetland. Clearing of native vegetation can include the removal of isolated remnant trees, but there are also a range of exemptions and management options.

If approval to clear native vegetation is required, an application must be lodged with your local CMA before, or at the same time as, the DA is lodged with the local council. Clearing of native vegetation may be approved only if the clearing, together with proposed management actions to offset the impacts of the clearing, will improve or maintain environmental outcomes related to biodiversity, water, salinity and land degradation.



Two development approval options are provided for under the *Native Vegetation Act 2003 Act*:

- » Development consent for tree clearance may be used only for a single clearing event and is generally issued for a period of not more than 5 years. Development consent will not be granted unless the clearing itself improves or maintains environmental outcomes.
- » A Property Vegetation Plan (PVP) is a voluntary but legally binding agreement between a landholder and the local CMA that outlines how a landowner intends to manage native vegetation to 'improve or maintain' biodiversity outcomes for their overall property. In developing a PVP, the CMA works with the landholder to identify any required offsets and determine whether the 'improve or maintain' test can be met. Offsets are actions that a landholder agrees to in order to balance any negative impacts of clearing. Offsets may include, for example, agreeing not to clear regrowth, reducing stocking rates from areas of remnant vegetation, planting, re-seeding, or improving habitat by weed control.

Clearing approvals within a PVP can last up to 15 years; offsets are secured in perpetuity.

For more information about protected native vegetation, the types of clearing that can be undertaken without approval, approvals to clear native vegetation, and PVPs, contact your nearest CMA or visit www.nativevegetation.nsw.gov.au

Note: The Native Vegetation Regulation is currently under review at the time of writing. Check with your local CMA office or visit www.nativevegetation.nsw.gov.au for changes to the regulations when these have been finalised.

4.6.2 Bush fire risk requirements

New buildings on bush fire-prone land must comply with the provisions of *Planning for Bush Fire Protection* (NSW RFS 2006) (PBP), as well as any bush fire protection construction requirements under the Building Code of Australia (BCA).

Where a development proposal is located on bush fire-prone land, the Statement of Environmental Effects must include a Bush Fire Assessment Report that demonstrates compliance with general aims and objectives, the specific objectives for the development type, and the specified performance criteria set out in *Planning for Bush Fire Protection*.

The planning consent authority (usually a local council) may assess bush fire compliance, or it may rely on certification from a person recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment.

Planning for Bush Fire Protection (NSW RFS 2006) recognises that an acceptable level of protection from bush fires is achieved through a combination of measures. It identifies six key Bush Fire Protection Measures:

- » clear separation between the building and the bush fire hazard in the form of fuel reduced zones (referred to in *Planning for Bush Fire Protection* as the asset protection zone (APZ))
- » appropriate construction standards and design
- » appropriate access for fire-fighters, and for persons seeking evacuation (public roads, private access, fire trails)
- » adequate water supply and pressure
- » adequate emergency management arrangements
- » suitable landscaping to limit fire spreading to a building.



In relation to construction standards, the BCA does not contain specific requirements for the protection of commercial poultry buildings from bush fire. However, the BCA does contain general building fire safety requirements. These requirements address the fire hazard within, and the potential for fire spread to and from, adjacent fire source features. Compliance with these requirements is accepted by *Planning for Bush Fire Protection* as sufficient for meeting the aims and objectives of *Planning for Bush Fire Protection*, provided that the other Bush Fire Protection Measures are addressed.

In designing for compliance with *Planning for Bush Fire Protection* and other applicable development standards and controls, there are numerous factors to consider. It may therefore be prudent to consolidate considerations – for example, to place required on-site parking and loading areas in the most appropriate location in order to establish defensible space for fire-fighting purposes.

4.6.3 Threatened species

In NSW the term ‘threatened species’ refers to threatened species, populations or ecological communities, or their habitats, and critical habitat. These include terrestrial and aquatic animal and plant groups (e.g. mammals, reptiles, birds, amphibians, fish, trees, shrubs, grasses, algae and seagrasses).

You will find a list of critical habitats, as well as threatened species, populations, ecological communities and their habitats, in the *Threatened Species Conservation Act 1995* or the *Fisheries Management Act 1994*. Lists of species likely to occur within particular geographic areas and vegetation types can be generated at the Threatened Species website at: www.threatenedspecies.environment.nsw.gov.au/tsprofile/index.aspx

It is best to try to design your proposal so that it avoids negative interactions with threatened species. If there is a possibility that threatened species will be affected by the proposal, either directly or indirectly, a ‘test of significance’ (the Seven-part Test) must be done and submitted to the consent authority. The test must consider the likely impacts of the proposed development on the habitat and life cycles of threatened species, populations or ecological communities. Guidance on applying the test of significance can be found at www.abeleecology.com.au/7_Pt_Test_Guidelines.htm

The test is used to determine whether the development impacts are likely to significantly affect threatened species. If that is likely, a Species Impact Statement (SIS) must be prepared. Preferably this decision should be made before you lodge the DA, so that if a SIS is needed it can be prepared and included in the SEE or EIS. If an SIS is required, the Director General of the OEH or the NSW DPI must be consulted for requirements before preparation of the SIS. Proposals that are likely to affect threatened species will require approval from the relevant government agency.

4.6.4 Commonwealth environmental approvals

Under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), an approval may be required if the development is likely to affect matters of national significance, including threatened species, wetlands and heritage items. An online search of matters can be done by using the Environmental Reporting Tool at www.environment.gov.au/epbc/index.html



If the development is likely to affect these matters, the development proposal should be referred to the Commonwealth Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) in Canberra before the DA is lodged with the local council.

If an approval is required, a joint assessment can usually be undertaken under the EPBC Act in conjunction with the DA process. If you have any questions about the application of the EPBC Act to your proposal, you should contact the DSEWPC in Canberra; see www.environment.gov.au/epbc/assessments/process.html

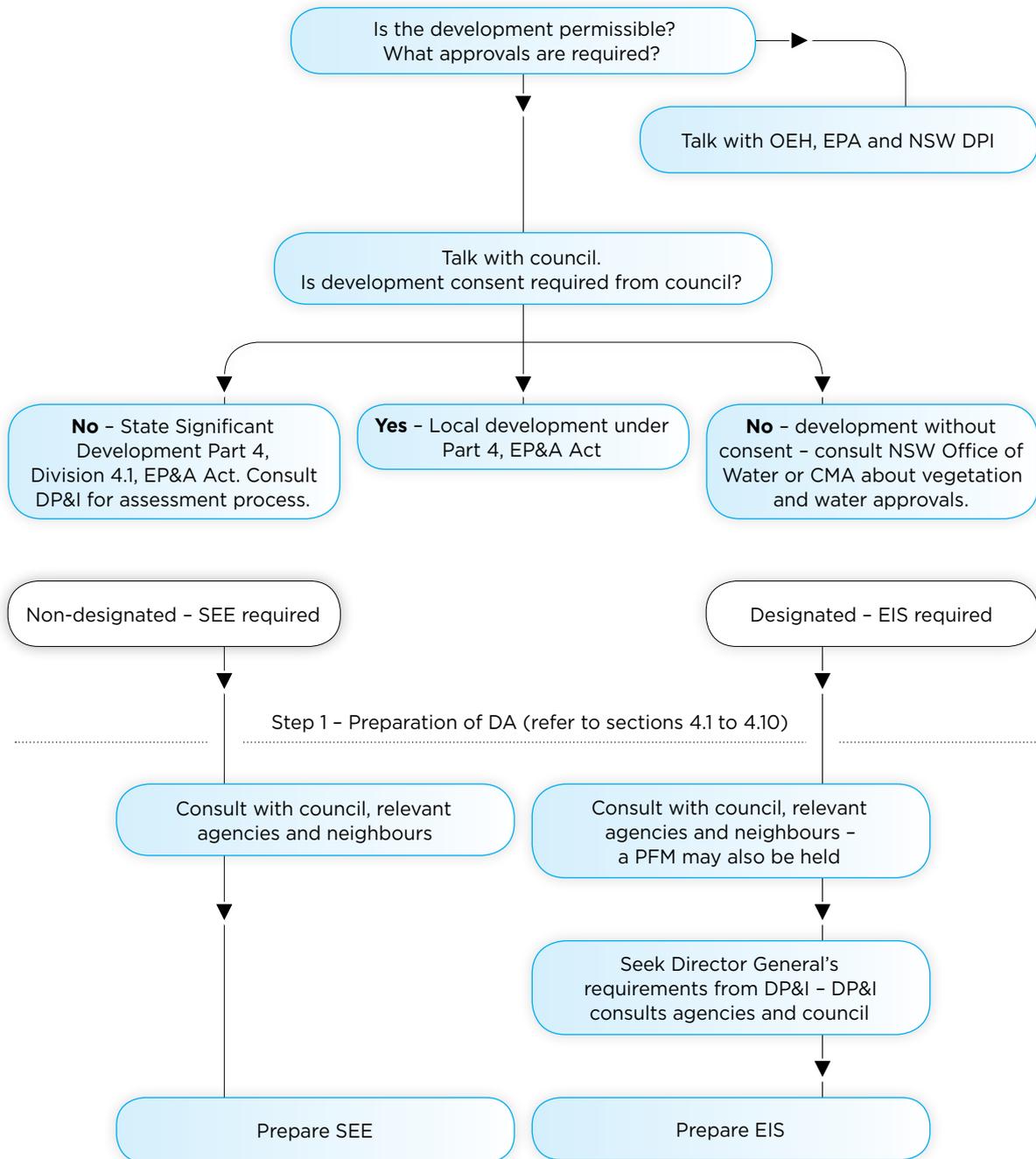
Best management practice recommendations:

- ✓ Check with the local CMA whether separate consent is required to clear native vegetation. If so, undertake the necessary studies and consultation, and if required seek approval before, or at the same time as, you submit your DA.
- ✓ Check with the local council or the Rural Fire Service whether additional assessment of bush fire risk is required. If so, complete the necessary studies and consultation and lodge the relevant application as part of your DA.
- ✓ Check with the local council or your consultant whether consent is required under the Commonwealth's EPBC Act. If so, complete the necessary studies and lodge the relevant application with your DA.



4.7 Preparing a DA

Key steps in the development approval process are shown in Figure 3 below.



CMA: Catchment Management Authority

DA: Development Application

DP&I: Department of Planning and Infrastructure

NSW DPI: NSW Department of Primary Industries

EIS: Environmental Impact Statement

EPA: Environment Protection Authority

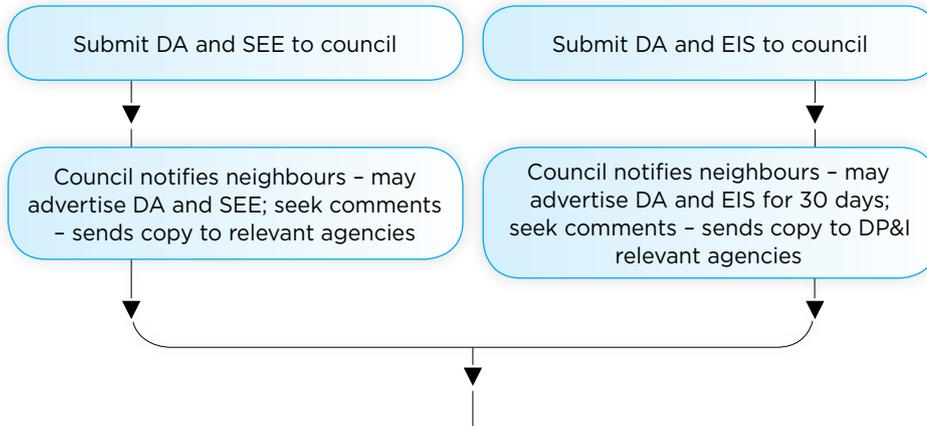
JRPP: Joint Regional Planning Panel

PFM: planning focus meeting

SEE: Statement of Environmental Effects



Step 2 – Lodgement of DA and consultation (refer to section 4.11)



Step 3 – Assessment and determination (refer to section 4.12)

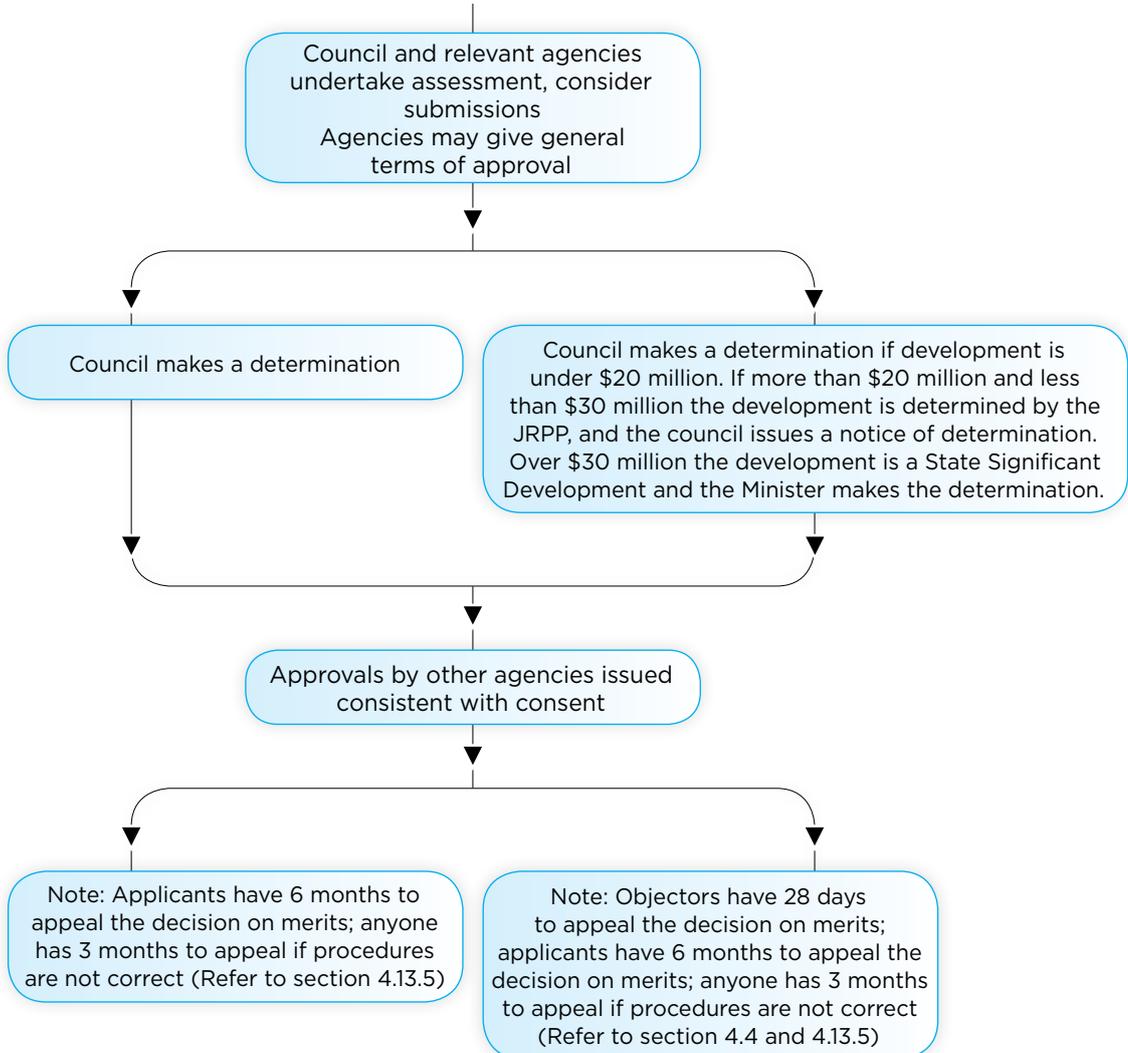


Figure 3: Key steps in the development assessment process



4.7.1 Pre-DA meeting with council and any relevant agencies

It is recommended that you hold a meeting with council before the preparation of the DA and supporting documents. These meetings are usually called pre-DA meetings or planning focus meetings (PFMs). If your proposal is a designated development (see sections 3.2.2 and 4.4.1) and/or an integrated development, when you request the meeting also ask the council to invite representatives of the other relevant government agencies that might need to issue licences or permits.

The key benefit of these meetings is the early identification of the full range of issues that will need to be addressed by the DA and accompanying environmental assessment. This can greatly reduce the risk of DA processing delays associated with the need for councils and agencies to request additional information. It also reduces the risk that council will reject your DA at lodgement because of inadequate information. Ask the council at the meeting to provide you with written advice as to the matters they consider should be addressed in the environmental assessment (i.e. the SEE or EIS).

When seeking advice from the local council, it is important to provide enough information to allow them to fully understand the proposed development. Put any queries to either the local council or other government agencies in writing, and ask for a written advice so that you can then refer to the information during the application process.

If the development is likely to be contentious, the council may recommend further meetings involving councillors and the community, so that their concerns can be identified.

Information to be provided to the pre-DA PFM or when requesting the Director General's requirements

The proponent should provide information that is adequate to identify issues for consideration by the council and relevant agencies, including:

- (a) an outline of the project and its scale and likely layout and transport routes, supported by preliminary plans
- (b) a brief description of the site and surrounding area, its character, and the existing and previous land use, supported by a map and highlighting matters of uncertainty where further investigations may be required
- (c) a brief description of the planning controls applicable to the development project (council can help with this)
- (d) a list of the agency approvals identified as applicable to the project. As part of the information provided, it is useful for the proponent to explain the principles upon which compliance with the statutory requirements of the EPA and other authorities will be achieved, as well as (if feasible) the options available to achieve a level of environmental performance that goes beyond basic compliance.
- (e) an identification of the generalised nature of impacts and likely areas to be affected and other likely environmental issues, as understood by the proponent at that time
- (f) the proponent's view of the timetable, including anticipated key timing milestones
- (g) information to highlight any broader issues that may need resolution or integration into the proposal.



4.7.2 Director General's requirements

For proposals that are designated developments and require the development of an EIS, the Director General of the DP&I must be consulted about requirements as to the matters that must be assessed when preparing the EIS. In order for the Department to understand your proposal and provide relevant advice, it is necessary to attach the information listed in the box immediately above in section 4.7.1.

The postal address of the Department is GPO Box 39, Sydney NSW 2001,
Tel: 02 9228 6111, Fax: 02 9228 6455, email: information@planning.nsw.gov.au

4.8 Information to be included with the DA

4.8.1 Development Application form

Each local council will have a DA form that identifies the relevant information to be submitted with the DA and the number of copies of the supporting information to be provided.

4.8.2 Development assessment documentation – SEE or EIS

The level of environmental assessment undertaken should match the level of impact the proposed development might have.

If the application is a non-designated development, the DA must be accompanied by an SEE. Schedule 1 of the EP&A Regulation sets out the minimum specific requirements for information required in a DA. Depending on the circumstances of your development proposal (size, location, surrounding land uses), the council may also request additional information to be submitted. Holding a pre-DA meeting with the council can help identify the additional information required.

If the application is a designated development, the DA must be accompanied by an EIS. This must be signed by the person responsible for preparing it, to declare that the information in the assessment is not false or misleading. Schedules 1 and 2 of the EP&A Regulation set out the general requirements for an EIS, and the Director General's requirements will set out specific items to include in the EIS for a particular proposal.

In preparing the information to accompany the DA, consideration should also be given to the matters that the consent authority must consider under s. 79(c) of the EP&A Act in evaluating the application and determining whether to approve the development – and if so, what conditions should be applied. These matters include:

- » any relevant provisions in an environmental planning instrument (includes SEPP, a Regional Strategy and LEP), Development Control Plan (DCP) and planning agreement (check with your local council about the relevant documents and provisions)
- » the likely impacts on the natural and built environment
- » social and economic impacts
- » the suitability of the site for the proposed development
- » any issues raised in submissions
- » the public interest.

(Note: Copies of SEPPs and LEPs may be found at: www.legislation.nsw.gov.au
Copies of Regional Strategies may be found at www.planning.nsw.gov.au)



4.8.3 DA fees

The DA must be accompanied by the relevant DA fees. DA fees are based on the estimated capital value of the project (excluding the land value). Additional charges are levied if the project is a designated development or an integrated development, if the DA is to be advertised, or if it requires concurrence from another authority. A quotation on DA fees can be obtained from council before formal lodgement of the DA.

4.9 The DA: summary of information required

Name and address of the applicant

The Development:

- (i) Description of the proposal, and
- (ii) The estimated cost of the development

The Land and Ownership:

- (i) The address where the development is to be carried out
- (ii) Formal particulars of title of the land
- (iii) Landowner – If the applicant is not the owner of the land, a statement signed by the owner of the land to the effect that the owner consents to the making of the application

Other Approval Authorities

- (i) A list of any approvals of the kind referred to in section 91 (1) of the Act that must be obtained before the development may lawfully be carried out,
- (ii) A list of any authorities from which concurrence must be obtained before the development may lawfully be carried out, and
- (iii) An indication if a 7 Part Test has been carried out and if a Species Impact Statement is required.

A list of Documents Accompanying the Application:

- (i) A site plan of the land
- (ii) A sketch of the development
- (iii) An A4 plan of the building that indicates its height and external configuration, as erected, in relation to its site (see clause 56 of EP&A Regulation)
- (iv) If non-designated, a statement of environmental effects (SEE)
- (v) If designated, an Environmental Impact Statement (EIS)
- (vi) In the case of land that is, or is part of, critical habitat or development that is likely to significantly affect threatened species, populations or ecological communities, or their habitats, a Species Impact Statement may be required unless the development is biodiversity compliant
- (vii) If any subdivision work is involved, preliminary engineering drawings of the work to be carried out
- (viii) Infrastructure or services issues: if an environmental planning instrument requires arrangements for any matter to have been made before development consent may be granted (such as arrangements for the provision of utility services), documentary evidence that such arrangements have been made
- (ix) If modifying an existing building: Scaled plan of the existing building if the development involves building work to alter, expand or rebuild an existing building. If the development involves a change of use of a building: a description of the change of use and any building alterations including plans.

A list of the fire safety provisions under the **Building Code of Australia** that will apply to the buildings.



4.10 Assessment document: information to be provided in the SEE or EIS

In preparing the SEE or EIS, the following should be provided:

- » description of the proposal
- » description of the site and a site analysis
- » compliance with relevant planning controls
- » assessment of environmental impacts
- » proposed mitigation measures and justification for the development
- » Each of these is detailed below.

4.10.1 Description of the proposal

Provide a statement of objectives of the development and describe the nature and scale of the proposed development, including:

1. Bird numbers (stocking program) and size of the operation (e.g. production targets and estimated value of production each year).
2. Any staging of the development.
3. Employee numbers.
4. Relevant abattoir or marketing arrangements.
5. Method of production (sheds, open-range or pens), the area under production at any time, and the relationship between production areas.
6. Shed management, including bedding, lighting, ventilation, heating and cooling systems and hours/days of operational activities.
7. Stocking density and animal health and welfare arrangements.
8. Biosecurity management/protocols in relation to live and dead birds.
9. Storage and use of chemicals and fuels.
10. Feed handling, storage and any on-site processing.
11. Odour and dust management in relation to farm operations and waste management.
12. Noise management in relation to farm operations and transport.
13. Pest management and measure to prevent interaction with native birds or fauna.
14. Transport arrangements, including pickup and delivery times and number and timing of truck movements per day/week.
15. Internal road layout, parking, turning, loading areas, access and public road routes.
16. Landscaping and vegetation screening.
17. Power supply and backup supply (including energy efficiency considerations).
18. Water supply requirements and sources (including licensing requirements, water storage, reliability of supply and use/re-use efficiency considerations).
19. Waste management (including dead birds, used bedding and wastewater) including storage, composting, recycling and on-site and off-site disposal.
20. Stormwater management.
21. Emergency management strategies (e.g. in the case of power failure, water shortages, emergency pest or disease outbreaks, mass mortality events, extreme heat, flood or bush fire).



The DA should also include plans showing:

- » the location of any proposed buildings or works (including extensions or additions to existing buildings or works) in relation to the land's boundaries and adjoining development
- » floor plans of any proposed buildings, showing layout, partitioning, room sizes and intended uses of each part of the building
- » elevations and sections showing proposed external finishes and heights of any proposed buildings (other than temporary structures)
- » proposed finished levels of the land in relation to existing and proposed buildings and roads
- » proposed parking arrangements, entry and exit points for vehicles, and provision for movement of vehicles within the site (including dimensions, where appropriate)
- » proposed landscaping and treatment of the land (indicating plant types and their height and maturity)
- » proposed methods of draining the land
- » any water storages or waste disposal areas.

4.10.2 Description of the site and site analysis

The site analysis is an important component of the SEE and EIS. The site analysis usually comprises a plan and a written statement describing the site and the surrounding lands. Council will provide you with a list of information to include in the site analysis. However, the following information should be provided:

1. zoning and permissibility on the site
2. previous and existing land use on the site
3. topography of the site and surrounding lands
4. surrounding pattern of existing and likely future land use
5. prevailing winds and meteorological characteristics likely to affect the farm
6. distance from sheds, pens or any waste management facilities to any nearby dwellings, school or other public building
7. any existing chicken farms in the vicinity (5000 metres)
8. public roads providing access to the site, and routes for poultry trucks
9. watercourses, drainage lines or drinking water catchments in the vicinity
10. wetland/waterways used extensively by waterfowl in the vicinity (3000 metres)
11. views to the site – sight lines from dwellings or public places
12. location of any heritage items on the site likely to be affected by the development
13. flood liability of the site and available exit routes
14. ground water depth and vulnerability (if on-site disposal of waste is proposed)
15. soil type and capability (if on-site disposal of waste is proposed)
16. vegetation characteristics on site and surrounding areas; any areas to be cleared
17. potential bush fire hazard direction and source
18. locations of local and major roads and any bridges likely to limit truck movements
19. locations of any power, water or gas utilities across or adjacent to the site.



The site plan of the land must include:

- » the location, boundary dimensions, site area and north point of the land
- » existing vegetation and trees on the land and any areas to be cleared
- » the locations and uses of existing buildings on the land
- » existing levels of the land in relation to buildings and roads
- » the locations and uses of buildings on sites adjoining the land.

4.10.3 Compliance with relevant planning and other controls

The SEE or EIS must also demonstrate compliance with the relevant planning and other controls. The following information should be provided:

1. A list of environmental planning instruments applicable to the site and the proposed chicken farm (intensive livestock agriculture), and information to demonstrate compliance with the relevant planning controls and policies. Filling in Table 3 should help you to demonstrate compliance.
2. A list of any approvals that must be obtained under any other Act before the development may lawfully be carried out.

Table 3: Environmental planning Instruments

PLANNING CONTROL	RELEVANT PROVISION, INCLUDING CLAUSE NUMBER	DEMONSTRATE COMPLIANCE WHERE REQUIRED (DESCRIBE)
Any relevant provisions in council's LEP		
Any relevant provisions in the council's Development Control Plan		
Any relevant provisions in a SEPP applying to the land		

4.10.4 Assessment of environmental impacts

Describe the extent of environmental impact associated with the proposal. With each issue the level of detail should match the level of importance of the issue in decision-making. The analysis should indicate the level of confidence in the predicted outcome and the ability of the environment to cope with the impacts:

1. Odour issues to be documented include:
 - » details of the odour studies completed, the methods used and inputs to the formulas / models. A Level 1 assessment in accord with the *Technical Framework: Assessment and Management of Odour from Stationary Sources in NSW*, DEC 2006) is recommended. If a Level 2 or Level 3 Odour Assessment is undertaken you will also need to state why Level 1 assessment was not relevant for the proposal. (Refer to (i) Appendix 3 of this Manual, and (ii) Appendix 5 of this Manual and specifically Odour - Technical Framework and Notes)
 - » the findings of the odour studies and discussion of the likely implications given the proposed management regime, the potential for cumulative impacts, and the alternative siting, design and odour management regimes considered
 - » additional design and/or management measures that will be adopted to avoid, contain or manage odour impacts to avoid offensive odour impacts.



2. Other air quality issues, including:
 - » any likely impacts from the emission of dust and bioaerosols (including from bedding, feed and waste management, unsealed roads and unsealed loads)
 - » design and management measures to avoid, contain or manage impacts.
3. Noise issues (if there are residences nearby likely to be affected), including:
 - » any likely impacts from operation of the sheds (e.g. electricity generation, ventilation systems, use of forklifts to load birds, backing of trucks, or traffic along local truck routes at night)
 - » design and management measures to avoid, contain or manage noise impacts.
4. Waste management issues, including
 - » approaches to waste management and likely impacts (e.g. collection, storage and treatment, composting, wastewater treatment, on-site use and/or off-site disposal)
 - » design and management measures to avoid, contain or manage waste impacts.
5. Biosecurity
 - » potential biosecurity risks, including interaction with other farms and visitors, dead bird management, pest management, and contact with wild birds, pets and pests
 - » design and management measures to avoid, contain or manage any biosecurity risks.
6. Flooding issues, if on flood-prone land, including:
 - » details of whether the proposal is located in a floodway, flood storage, flood fringe area, or in a council-mapped flood planning area (see the *Floodplain Development Manual*; DIPNR 2005). Where flood mapping is not available from council, refer to historical records of the previous 1-in-100-year flood levels.
 - » flood vulnerability of sheds, chemical and feed storages and waste areas, as well as likely implications if flooded (e.g. implications for access)
 - » design and management measures to avoid, contain or manage flooding issues.
7. Water supply issues, if the farm is not connected to the 'town' water supply, including:
 - » any issues associated with the source, reliability and quality of water supply and any backup sources during drought, including likely implications for other water users in the catchment or from any onsite water extraction or storage
 - » design and management measures to avoid, contain or manage any adverse water supply impacts.
8. Water quality issues, including:
 - » potential sources of nutrient load and water contamination of surface and ground water resources, including likely implications from any on-site waste disposal schemes
 - » likely sensitivity or vulnerability of any waterway, wetlands, riparian corridor or ground water to impacts
 - » design and management of chemical and feed storage and use; waste management, storage and disposal systems; erosion or sediment control; and drainage and stormwater systems to avoid, contain or manage water quality impacts.



9. Soil issues, if onsite disposal of waste, including:
 - » soil characteristics and likely implications in terms of salt accumulation, nutrient imbalance, soil erosion and leaching into ground water
 - » design and management measures to avoid, contain or manage any adverse soil impacts.
10. Native vegetation and threatened species issues if any vegetation clearing, including:
 - » clearing of native vegetation and relationship to any PVP applying to the farm
 - » likely implications of clearing or poultry operations for threatened species, populations, ecological communities or their habitats, or for any sensitive areas such as wetlands, riparian corridors, remnant vegetation or corridors
 - » design and management measures to avoid, contain or manage any adverse vegetation and species impacts, including any vegetation restoration or enhancement.
11. Traffic and road issues, including:
 - » likely issues associated with proposed access to the site, onsite truck parking, loading and turning arrangements, light, noise and dust
 - » likely issues associated with volume and timing of truck movements, and alternatives considered
 - » proposed routes and alternatives considered; any changes required to local roads; and any road safety and maintenance issues
 - » design and management measures to avoid, contain or manage any adverse traffic impacts.
12. Lighting issues, if there are residences nearby, including:
 - » any issues arising from the scope and nature of lighting impacts from sheds and vehicles
 - » design and management measure to avoid, contain or manage lighting intrusion.
13. Visual impacts
 - » any issues arising from sight lines to sheds and other structures from off-site dwellings or public places, and the likely effectiveness of any proposed landscaping to avoid, contain or manage any adverse impacts
 - » if in highly valued landscape areas, the likely implications of the design and layout for those values, and the use of design and management measures to avoid, contain or manage any adverse impacts.
14. Heritage issues
 - » any items of Aboriginal, non-aboriginal or natural heritage significance likely to be affected by the development; assess the likely significance of the impacts on heritage values
 - » design and management measures to avoid, contain or manage any adverse heritage impacts.
15. Social issues, if there are residences nearby, including:
 - » any likely implications for the amenity or health of neighbours and the broader community in terms of adverse air quality, water quality and or supply, noise, visual impacts or road safety
 - » design and management measures to avoid, contain or manage any adverse social impacts.



16. Economic issues

- » any likely implications for the local and regional economy, including in relation to employment numbers, support of service industries and other multiplier effects; also implications for any processing facilities or other industries in the area, including regarding access to water supply
- » management measures to avoid, contain or manage any adverse economic impacts.

4.10.5 Proposed mitigation measures and justification for the development

Provide a compilation of measures to mitigate adverse environmental impacts. This should include an operational Environmental Management Plan to show how environmental impacts will be managed during operation, including:

1. odour, dust and noise management
2. waste management
3. protocols for truck movements
4. emergency management
5. any proposed monitoring program for odour, noise and water quality
6. complaints management and community engagement to resolve any issues if they arise.

This section of the SEE or EIS should also include a clear justification for the development, as proposed, having regard to the principles of ecologically sustainable development (ESD) i.e. biophysical, economic and social considerations.

If an EIS is required under Schedule 2 of the EP&A Regulations, the following matters must be addressed:

- » summary of the EIS
- » statement of the objectives of the development
- » an analysis of any feasible alternatives to the carrying out of the development, having regard to its objectives, including the consequences of not carrying out the development or activity
- » environmental assessment – an analysis of the development, including:
 - (a) a full description of the development
 - (b) a general description of the environment likely to be affected by the development, together with a detailed description of those aspects of the environment that are likely to be significantly affected, and
 - (c) the likely impact on the environment of the development, and
 - (d) a full description of the measures proposed to mitigate any adverse effects of the development on the environment, and
 - (e) a list of any approvals that must be obtained under any other Act or law before the development or activity may lawfully be carried out.
- » compilation of measures to mitigate adverse effects
- » justification of the development, having regard to biophysical, economic and social considerations, including the principles of ESD.



4.11 Lodging a development application with council

4.11.1 Submit the completed DA and supporting information to the consent authority

The DA may be delivered by hand, sent by post or transmitted electronically to the principal office of the relevant local council. Check with councils regarding the preferred approach.

4.11.2 Considering whether information is adequate

The council has 14 days after the lodgement of a DA to decide whether to accept or reject the application.

Consent authorities may reject applications that:

- » are illegible or unclear as to the development consent sought
- » do not contain any information, or are not accompanied by any document, specified in Part 1 of Schedule 1 of the EP&A Regulation 2000
- » if the DA is on land that comprises a critical habitat or if is likely to significantly affect threatened species, are not accompanied by a Species Impact Statement
- » fail to identify all of the approvals referred to in section 91 of the EP&A Act, or fail to include appropriate information or fees
- » are not accompanied by the correct concurrence fees, if this is relevant (for example integrated developments where consent is required from another government agency).

The council must refund the whole of any application fee when rejecting an application. The council must also notify the applicant in writing of the reasons for the rejection of the application. The council must also notify any relevant agencies that the DA has been rejected. The applicant may write to the council and request the council to review its decision to reject the application, but the applicant must justify why they are requesting a review in response to the issues raised in the council's rejection letter.

4.11.3 Exhibition and notification of DA

The consent authority must notify, in writing, the adjoining or nearby landowners of the DA, and it must provide the opportunity for them to comment. This notice will usually advise that the documents are available for inspection at the council offices and/or library and on the council's website.

If the project is a designated development, the DA must be advertised in the local newspaper, and often in the Sydney press, seeking submissions. This notice will advise where a copy of the document can be inspected, including at the DP&I's Sydney office and relevant regional office. The submission period is 30 days.

If the development is an integrated development, the DA must also be advertised with a submission period of 30 days. The council will send copies of the documentation to relevant agencies to seek their views. A copy of submissions received as a result of the exhibition is also sent to relevant agencies.



4.11.4 Request for additional information

In assessing a DA, the consent authority (e.g. council) may request additional information to help them in their assessment. If the request is made within 25 days of the consent authority receiving the DA, 'stop the clock' provisions can be triggered. This means that the assessment period is suspended until the applicant provides the additional information.

Councils and agencies may request additional information outside the 25-day period. However, if they do so outside this period, the 'stop the clock' provisions cannot be triggered.

4.12 Assessment and determination by council

4.12.1 Who is the consent authority?

If the proposal has a capital investment value less than \$20 million, the council is the consent authority. The councillors, after consideration of the council officers' assessment report and recommendations, may determine the DA at a council meeting or committee meeting, at which the community may make presentations. Alternatively, council planners may be delegated the responsibility for determining the application.

If the proposal is more than \$20 million, the local council undertakes the assessment and provides an assessment report and recommendation to the relevant JRPP for determination. The JRPP must consider the assessment and recommendations before making a determination. As part of its consideration of the matter, the JRPP may visit the site and hold a meeting at which the community may make presentations. More information about JRPPs may be obtained at: <http://jrpp.nsw.gov.au>

If the proposal is more than \$30 million, the development is classified as a State Significant Development and the Minister is the consent authority.

4.12.2 Matters for consideration in making a determination

The consent authority will decide to grant consent accompanied by conditions, or to refuse consent. Matters taken into account are listed under section 79C of the EP&A Act. (A copy of section 79C is provided below.) The applicant will be notified in writing of the decision, and the decision will be made public.



Section 79C Evaluation

1. Matters for consideration – general

In determining a DA, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the DA:

- (a) the provisions of:
 - (i) any environmental planning instrument, and
 - (ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and
 - (iii) any development control plan, and
 - (iiia) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F, and
 - (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and
 - (v) any coastal zone management plan (within the meaning of the *Coastal Protection Act 1979*), that apply to the land to which the DA relates.
- (b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,
- (c) the suitability of the site for the development,
- (d) any submissions made in accordance with this Act or the regulations,
- (e) the public interest.

Note. The consent authority is not required to take into consideration the likely impact of the development on biodiversity values if:

- (i) the development is to be carried out on biodiversity certified land (within the meaning of Part 7AA of the *Threatened Species Conservation Act 1995*), or
- (ii) a biobanking statement has been issued in respect of the development under Part 7A of the *Threatened Species Conservation Act 1995*.

4.12.3 Consideration of submissions

The council must consider issues raised in submissions, as well as those identified by the council in their assessment. Typically issues in submissions relate to matters:

- » likely to directly affect households or businesses
- » likely to affect the local area or region, in terms of, for example, associated jobs or economic activity, local/regional traffic issues, local/regional water supply issues, the 'image' of the area, and associated cumulative odour impacts
- » likely to have broader implications, such as greenhouse emissions and animal rights.

Council may organise meetings between the applicant and the people who have made submissions, so as to clarify the issues and, if appropriate, develop suitable management measures to apply as conditions of consent.



4.12.4 Advice from panels or independent experts

Councils may engage independent experts to help them assess the development and to hold consultations with the community and other parties to give the community opportunities to raise issues with technical experts. Some councils have Independent Hearing and Assessment Panels that can do this consultation and provide independent advice to help them assess the development.

4.12.5 Advice from agencies

In assessing a DA, the consent authority may seek advice from the OEH, EPA, NSW DPI and other relevant state government agencies that may be responsible for issuing a permit or giving a concurrence.

The council will have sent a copy of the DA to other government agencies at the outset, seeking advice as to whether there is adequate information for the agency to assess the aspects of the proposal of relevance to that agency. The agency may ask the council to contact the applicant to provide additional information. Following the consultation stage, the council must send copies of the submissions to the relevant agencies and will seek the agencies' advice. The agency undertakes an assessment of the proposal, taking into consideration any relevant matters in the submissions, and it will provide advice to the council on technical, legislative or policy matters.

For integrated developments, the agency provides the council with 'general terms of approval', which must be included in the consent authority's consent conditions if it intends to approve the DA. The consent authority incorporates the agencies' advice into its assessment and the general terms into the consent conditions. If the agency refuses to provide general terms of approval, the consent authority must refuse the DA.

Where a concurrence is required from an agency, the agency must provide advice to the council as to whether the agency concurs with the consent authority approving the development, and if so whether specified conditions must be included in that approval in order for the concurrence to be issued. If the agency refuses to issue a concurrence, the council must refuse the DA.

4.12.6 Impacts on council infrastructure

If the development is likely to result in impacts on council infrastructure, such as roads and bridges, the council may charge a development contribution under section 94 of the EP&A Act as part of the approval conditions. This may be a one-off contribution or an annual payment, for example where increased truck movements are likely to result in additional road maintenance costs. Council development contribution plans are available to the public and are usually on the council's website, so you can identify the contribution amount before you lodge your DA.

4.13 After the DA decision

4.13.1 Approval under other Acts

Once the DA has been approved, any permits or licences required under other legislation must be obtained before construction and operation of the development: for example, licences under the POEO Act or the *Water Management Act 2000*, the EP&A Act, and other Acts. If the approval is an integrated approval, the permit or licence must be consistent with the General Terms of Approval previously specified and incorporated in the DA consent.



4.13.2 Approval to begin building works – Construction Certificate

Once the DA is approved, the next step is to obtain approval to undertake the building of the development. A Construction Certificate must be obtained from council or an accredited private certifier to certify that the building works (e.g. a poultry shed, road or stormwater system) that you intend to do will comply with the BCA and any other relevant standards. When lodging an application for a Construction Certificate, you must provide detailed design and construction plans of the proposed building works. These must be consistent with the plans approved by the consent authority and must comply with the BCA.

Before any work can start, you must choose a principal certifying authority (PCA). This can be an accredited private certifier. At least 2 days before starting work, you must tell the council who the PCA is, if it is not the council.

4.13.3 Approval to occupy – Occupation Certificate

You must obtain an Occupation Certificate from the certifying authority before occupying or using a new building. The Occupation Certificate will specify what works need to be completed before occupation of the development.

4.13.4 Compliance check

The consent authority will monitor the development to ensure that the approval conditions are being met. If the development does not comply, you may be:

- » issued with a penalty notice and fined
- » ordered to rectify or make changes to the development or the activities carried out at the premises.

Action may also be initiated in the Land and Environment Court. The court may order you to carry out necessary works (such as making repairs), or it may forbid you to use the premises.

4.13.5 Right of appeal under the EP&A Act

If, as the applicant, you are unhappy with the decision by the consent authority, you can request a review of the determination by the consent authority under section 82A of the EP&A Act. However, this review provision does not apply for integrated or designated development. The applicant may also consider an appeal to the Land and Environment Court under section 97 of the EP&A Act within 6 months of the consent authority's decision.

If the project is a designated development, and it is approved, anyone who objected in writing to the proposal during the exhibition period may appeal to the Land and Environment Court within 28 days after the notice of the decision has been given.

Further to this, anyone may appeal to the Land and Environment court within 3 months if they consider there has been a breach of the EP&A Act, or that appropriate procedures have not been followed in the assessment of the application.



Best management practice recommendations:

- ✓ Confirm the suitability of your preferred site before you commit to buy or lease a property and before you prepare a DA.
- ✓ Where an expansion or changes to an existing operation are proposed, do a risk assessment and a cost-benefit analysis to consider whether it is worth continuing operation on the site, and to compare relocation options with expansion on the existing site.
- ✓ Contact your local council to find out whether the planned poultry farm is permissible on your selected site, and what level of assessment is required. Assessment varies depending on whether the proposal is a designated development or non-designated development. Designated development requires an EIS to be prepared. Non-designated development requires an SEE to be prepared. Both are submitted to the local council.
- ✓ Find out what permits or licences from state government agencies are required and whether your farm is an 'integrated development'. Check if any approval is required under the Commonwealth EPBC Act.
- ✓ Before lodging a DA with the council, contact the relevant agency to determine whether it is possible to meet the relevant requirements of other approvals or licences.
- ✓ Contact your neighbours before you lodge the DA with the council.
- ✓ Hold a pre-DA meeting with the council.
- ✓ Ensure the DA contains all the required information.
- ✓ Before any works on the site, ensure a Construction Certificate is obtained.
- ✓ Before occupying or using the building ensure you have obtained an Occupation Certificate.
- ✓ Obtain a letter of support from the poultry meat processor.



Appendix 1: Definitions

These definitions apply to both Manual 1 and Manual 2.

Advice agencies – Agencies consulted by the assessment manager for advice in relation to planning applications. They may only recommend that conditions be opposed and have no powers over approvals.

Applicant – Any person or company submitting a DA for land-use approval (also called the proponent or developer).

Appropriate regulatory authority – The authority responsible for development consent approval other approvals or licences under environmental legislation and/or for regulating or providing advice on development and operational issues. Examples are the local council or OEH.

Assessment manager – The agency responsible for deciding if a planning application has been properly made, issuing acknowledgment notices, determining the referral agencies that require input into the application assessment and assessing whether the application is successful through an assessment of the environmental impact of proposals against the provisions of the EP&A Act 1979 and relevant industry guidelines.

Best management practice (BMP) – The underlining philosophy of BMP is the adoption of management practices that reflect the best information and technologies presently available. The best management practices continually change as new information and research demonstrates improved methods. Hence, BMP encourages continual improvement.

Bioaerosol – An aerosol that contains live or dead micro-organisms or biological fractions.

Biosecurity – Protection from biological contaminants such as disease organisms.

Buffer zone – The distance between the odour source (shed centroid [see below] or spent litter utilisation area) and the boundary of the property from which the odour source arises. (i.e. on the land owned by the poultry farm).

Bund – Watertight wall designed to prevent liquid escaping or entering as a result of seepage or leaks, or to reflect noise.

Centroid – A centroid is a point 25 metres out from the exhaust end of a tunnel-ventilated meat chicken shed, assuming that 90% or more of the total emissions from the shed are discharged by the fans and the shed is operated only as a fan-forced tunnel shed. Each shed will have its own centroid for the purposes of calculating separation and buffer zone distances. Where it cannot be demonstrated that 90% of the emissions will be discharged from fans in sheds operated as fan-forced tunnel sheds, the centroid concept is not applicable.

Community amenity – A fact or condition being agreeable to the community.

Composting – Breakdown of organic matter by microbial action.

Concurrence agencies – Other government departments that also have an approval role in the assessment of the particular development applications (for instance if it's an integrated development that requires a water licence). Such agencies are able to request further information from the applicant, direct the imposition of approval conditions, and direct the assessment manager to refuse an application.

Conditional consent – Approval of a DA by a consent authority subject to one of more binding conditions.

Consent authority – Authority responsible for approving a DA (usually the local council in relation to a development, or the EPA in relation to a licence).



Contaminant – A gas, liquid or solid; an odour; an organism (whether alive or dead), including a virus; energy, including noise and heat; or a combination of these.

Contamination – The release of a contaminant to the environment in the form of a gas, odour, liquid, solid, organism or energy.

Controlled drainage area – An area that collects contaminated stormwater runoff and excludes clean rainfall runoff.

Development application (DA) – Application to a consent authority for approval to develop the land.

Development control plan (DCP) – A DCP is made under Division 6 of Part 3 of the *Environmental Planning and Assessment Act 1979* and is a relevant matter for the consent authority to take into account in determining a development application.

Designated development – A development with the potential for significant environmental effect, and therefore requiring an EIS to accompany the DA. Criteria for designated developments are determined in the EP&A Act 1979. Many designated developments will also require a licence from the OEH.

Dispersion modelling – Computer-based software modelling used to mathematically simulate plume dispersion under varying atmospheric conditions; used to calculate spatial and temporal fields of concentrations and particle deposition due to emissions from various source types.

Environmental Impact Statement (EIS) – A detailed assessment of the potential environmental impacts of a proposed development. It is submitted as part of a DA. An EIS is necessary for designated developments and for state significant development.

Environmental Management Plan (EMP) – A plan developed by the applicant to explain how they will manage the environmental impact of their operations on the basis of an Environmental Management System (EMS) approach.

Environmental Management System (EMS) – A system developed using a 'plan, do, check and act' approach, with a philosophy of continual improvement of the system and operation to manage the environmental impact of operations.

Enteritis – Inflammation of the small intestine.

Environmental harm – Any adverse effect or potential adverse effect (whether temporary or permanent) to an environmental value.

Erosion – The wearing away of the land surface by rain or wind, removing soil from one point to another (e.g. gully, rill or sheet erosion).

Friable – Crumbles easily.

General environmental duty – All practical measures are taken to prevent harm to the environment.

Grower – Farmer who provides shedding and care of poultry from when they arrive on the farm until they are removed for processing.

Ground water – All water below the land surface that is free to move under the influence of gravity.

Integrated development – A development that requires one or more licences or approvals as well as development consent. Determination of approvals and licences is integrated with determination of development consent. Many designation developments are integrated developments.

Integrator – Company that owns birds and provides food and technical advice for the grower to grow-out birds until they are picked up for processing.

Leaching – Process where soluble nutrients (e.g. nitrogen) are carried by water down through the soil profile.



Local environmental plan (LEP) – A plan formulated by the local government to specify planning controls in a local government area, including zoning into land-use categories. The LEP outlines the permitted and prohibited uses for each zone and sets standards for certain aspects of land use.

Local government – The council for the area in which the existing or proposed poultry farm is located.

Major water supply storage – Any public water supply storage, lake, lagoon, marsh or swamp.

Meat chicken farm complex – Includes the sheds used to produce meat chickens and associated infrastructure (e.g. silos) and any nearby spent litter/compost stockpiles. Excludes any spent litter utilisation areas. For tunnel-ventilated sheds it includes a distance of 25 metres out from the exhaust end of the sheds.

Meat chicken production – the growing of chickens specifically for commercial meat production involving in excess of 1000 birds, as defined in the *Poultry Meat Industry Act 1986*.

Must – Used in the Manuals to refer to any obligatory requirements to meet relevant legislation, policies or regulations. Not meeting these specific requirements can mean a direct contravention of the legislation.

Nutrient – A food essential for a cell, organism or plant growth. Nitrogen, phosphorus and potassium are examples of foods essential for plant growth. In excess they are potentially serious pollutants that encourage nuisance growth of algae and aquatic plants in water. Nitrate-nitrogen in water supplies is harmful to human health. Phosphorus present with nitrogen is considered the major element responsible for potential algal blooms.

Nutrient balance – Matching of nutrient application rates with safe soil-storage ability, crop uptake and allowable losses to avoid pollution and ensure environmentally sustainable nutrient application.

Odour units (OU) – Units used to measure the concentration of odorous mixtures. The number of odour units is the concentration of a sample divided by the odour threshold or the number of dilutions required for the sample to reach the threshold. This threshold is the numerical value at which 50% of a testing panel correctly detect an odour.

Offensive odour – An odour that, by reason of its nature, character, components, quality or strength, or the time at which it is made, is likely to be harmful to, and/or to be offensive to, and/or to interfere unreasonably with the comfort or rest of, people at/or beyond the boundaries of the premises from which the odour originates.

Olfactometry – A procedure where a selected and controlled panel of up to eight respondents are exposed to precise variations in odour concentrations in a controlled sequence. The results are analysed by using standard methods to determine the point at which half the panel can detect the odour.

Organic matter – Living or dead plant and animal material.

Planning focus meeting (PFM) – A meeting usually held on the site of the proposed development to identify the issues to be covered in the DA. The meeting is usually attended by the applicant, their consultant/s, representatives from council and relevant state government agencies.

Poultry farming – Farming of poultry, including egg and fertile egg production and the rearing of hatchlings, starter pullets, layers and poultry for meat.

Pollution – Direct or indirect alteration of the environment, causing contamination or degradation.

Principal certifying authority (PCA) – An accredited certifier that ensures work is done in accordance with the development consent and approved construction plans.



Production area – includes the meat chicken sheds and immediate surrounding biosecure area, which together are typically fenced or segregated from the remainder of the farm.

Recharge – The replenishment of a ground water body by gravity movement of surplus soil water that percolates through the soil profile.

Referral agencies – Agencies consulted by the assessment manager in relation to planning applications. They include concurrence agencies, advice agencies or third-party advice agencies.

Responsible authority – an authority responsible for providing advice on planning, development and operational issues (but without approval authority); an example is NSW DPI.

Runoff – Runoff consists of all surface water flow, both over the ground surface as overland flow and in streams as channel flow. It may originate from excess precipitation that cannot infiltrate the soil, or as the outflow of ground water along lines where the watertable intersects the Earth's surface.

Salinity – Electrical conductivity (EC) is the generally accepted measure of salinity (i.e. the concentration of salts in solution). The salts that occur in significant amounts are the chlorides, sulfates and bicarbonates of sodium, potassium, calcium and magnesium. In water these salts dissociate into charged ions, and the EC of the solution is proportional to the concentration of these ions, providing a convenient means of measuring salinity. Usually expressed as deciSiemens per metre (dS/m) or its equivalent, milliSiemens per centimetre (mS/cm).

Scheduled activities – Activities that require licensing by the EPA under the POEO Act. Many designated developments are classed as scheduled activities.

Sensitive land use – Includes a dwelling, dependent persons unit, residential building, hospital, school, child care centre, caravan park and other uses involving the presence of people for an extended period of time.

Separation distance – The shortest distance measured from the centroid of the meat chicken shed or edge of the spent litter utilisation area to the nearest part of a building associated with a sensitive land use. The land is not necessarily owned by the chicken farm. (See also definitions for 'buffer', 'centroid' and 'sensitive land use').

Statement of environmental effects (SEE) – An assessment, prepared by the developer, of the potential environmental impacts of a proposed development. It is submitted with the DA for proposals that are local, rather than regionally or state significant, and are not designated developments.

State environmental planning policies (SEPP) – Policies formulated by DP&I that specify planning controls to deal with issues significant to the state.

Surface waters – Include dams, impoundments, rivers, creeks and all waterways where rainfall is likely to collect.

Third-party advice agencies – Agencies consulted by the assessment manager to help assess and decide on the merits of a planning application. Although not formally recognised in legislation, they can provide non-binding advice to the assessment manager to help understand issues and help with decision-making.

Topography – The shape of the ground surface as depicted by the presence of hills, mountains or plains; that is, a detailed description or representation of the features, both natural and artificial, of an area, such as are required for a topographic map.

Watercourse – A naturally occurring drainage channel that includes rivers, streams and creeks. It has a clearly defined bed and bank, with water flows at any time. Refer to the *Water Management Act 2000* for a legal definition.



Appendix 2: Best management practice checklist

The following list includes best management practices for meat chicken farms.

The checklist is designed to help grower applicants and consultants in the development process for new and existing farms, as well as to help the relevant authorities to assess development applications (DAs).

Following the checklist can also help in determining the suitability of one or more proposed sites for a new meat chicken farm before any commitment is made to buy or lease a property and before a DA is prepared. It can also help to identify issues that might require more detailed assessment and management.

The checklist can also be used as a planning tool for proposed changes to an existing meat chicken poultry farm to identify potential issues that will require further consideration and management.

It is strongly recommended that you take a draft of the checklist to any preliminary meeting with the local council (pre-DA lodgement) to review with council planners. You should also consider attaching the final checklist to the DA.

A checklist for management issues that require addressing as part of a farm management system is included in Manual 2 (Appendix 2).

Note that issues such as the utilisation of spent litter on-farm may not always be relevant.

BEST MANAGEMENT PRACTICE	YES	NO	N/A
Farm location and shed siting considerations (refer to section 3 of Manual 1)			
Planning considerations			
Does the council's LEP permit chicken farming (intensive livestock agriculture) on the site? (3.1)			
Has a risk assessment and a cost-benefit analysis been undertaken? (3.1.2)			
Does the site adequately provide for: the chicken sheds and feed silos, amenity block, storage sheds, internal roads, litter composting or stockpile areas (where appropriate) and dead-bird management or storage areas, as well as relevant mitigation measures for odour and noise impacts? (3.2.1)			
Has the local council and/or planning consent authorities been consulted about whether the zone permits chicken farms and any recommended setbacks from boundaries or neighbouring residents, and are you able to justify any variation as part of the DA? (3.1) (3.2.1) (4.1)			
Does the proposal and site comprise a designated development? (3.2.2) (4.4.1)			
If an environmentally sensitive site cannot be avoided, have you undertaken additional environmental assessment, adopted additional protection measures and ensured you can justify the chosen location in the DA? (3.2.2)			
Is the proposed site above the level of flooding, with an average recurrence interval of 1 in 100 years? (3.2.2)			
Have you planned for engineered, gently sloping, wide, open drains that are well grassed and kept mown to manage stormwater runoff from sheds and minimise erosion. (3.2.2)			
Will design and management measures minimise odour impacts? (3.2.3)			
Has an odour risk assessment using the Level 1 odour risk calculator been undertaken? (3.2.3)			
If Level 1 requirements cannot be met, have further, more specific assessments in accord with Level 2 or Level 3 requirements of the <i>Technical Framework: Assessment and Management of Odour from Stationary Sources in NSW</i> been undertaken? (3.2.3)			
Has the option of using proven odour reduction technologies been considered to reduce the separation distance required? (3.2.3)			
Have noise reduction options been considered when selecting a site, include locating farm access points, internal roads, sheds and fans as far as possible from neighbouring dwellings? (3.2.4)			



BEST MANAGEMENT PRACTICE	YES	NO	N/A
Has the likely noise impact been calculated in accord with the NSW Industrial Noise Policy? (3.2.4)			
If sufficient separation distance is not available, have you considered installing noise-reduction barriers (such as an earthen, vegetated bund) or selected fans with a lower noise rating? (3.2.4)			
Have the recommended biosecurity separation distances between poultry farms, as specified in section 3.2.5 of this manual, been complied with? (3.2.5)			
Is your farm located away from waterways and wetlands that are used extensively by waterfowl? (3.2.5)			

Separation and buffer distances

Are there appropriate separation or buffer distances from sensitive receptors? (Refer to definitions in Manual 1.) (3.2) (3.2.6)			
Have boundary setbacks been maximised wherever practical, by locating sheds and facilities near the centre of the farm? (3.2.6)			
If the boundary setbacks recommended in a council Development Control Plan cannot be met, have you carefully considered the risks and identified what can be done to avoid adverse impacts, and are you able to clearly justify your proposal as part of a DA? (3.2.6)			

Electricity and water supply

Does the farm have access to a reliable, adequate and constant power supply (three-phase) to ensure water supply and feed delivery to the birds and to light and ventilate the sheds? (3.3)			
Is the power availability sufficient for possible future expansions of the farm? (3.3)			
Will standby generators with auto-switch control be installed to manage power supply in the event of mains supply failures? (3.3)			
Is an adequate supply of water available for all on site needs, including the poultry water, shed management and cooling? (3.4)			
Are all water sources (other than town water) suitable, particularly with regard to salinity and microbial content? (3.4)			
Is back-up water supply or storage available (at least 2 days' total requirement) in case of a breakdown or loss of supply? (3.4)			
Do you have an appropriate water licence and are you complying with the licence conditions? (3.4)			

Native vegetation protection and bush fire risk

Has the local Catchment Management Authority been consulted before clearing or disturbing native vegetation? (3.5)			
Is there a clear separation between buildings and bush fire hazards, in the form of fuel-reduced zones? (3.5)			
Is there appropriate access for fire-fighters and for persons seeking evacuation (public roads, private access, fire trails)? (3.5)			
Is there adequate water supply and pressure for fire-fighting purposes? (3.5)			
Have you planned emergency management arrangements? (3.5)			
Is suitable landscaping provided to limit fire spreading to a building? (3.5)			

Road access design

Do transport routes to and from the farm avoid truck movements through towns and near sensitive land uses such as schools and hospitals? (3.7)			
Do site and design access points, on-farm roads and on-farm parking areas minimise noise, dust, bioaerosols, vehicle light impacts and road safety risks to nearby sensitive land uses? (3.7)			
Have you gained the approval of the relevant authority for the location and design of access to the site? (3.7)			
Is the access constructed to a standard that minimises deterioration of the road pavement, avoids sharp turns, and provides sufficient road width for turning vehicles? (3.7)			
Is the access gate (from a public road) placed far enough inside the boundary to enable trucks to park off the road without affecting passing traffic? (3.7)			
Will the access road be established on a compacted sub-base with good table drains, and with a compacted gravel layer with a good camber to shed rainwater to the drains? (3.7)			



BEST MANAGEMENT PRACTICE	YES	NO	N/A
Will parking areas for articulated vehicles be designed for loading and unloading, and with an on-site manoeuvring area to enable all vehicles to enter and exit the site in a forward direction? (3.7)			
Will level concrete aprons be designed and constructed outside sheds to facilitate loading of birds during pickup and to minimise noise? (3.7)			
Will biosecurity measures such as wheel washes be established near the access point to the production area? (3.7)			
Will adequate provision for the parking of vehicles anticipated on the farm be provided? (3.7)			
Have roads been designed so as to avoid vehicle headlight intrusion on neighbouring houses? (3.7)			
Have large bunds along driveways been constructed to deaden sound from trucks entering, or have small bunds been built to redirect water away from internal roads? (3.7)			

Shed design

Is your shed to be designed with tunnel-ventilation and pad cooling? (3.8)			
Have shed roofs been insulated to reduce condensation and help maintain dry litter? (3.8)			
Are the separation distances between the discharge end of meat chicken buildings and sensitive land uses sufficient to prevent amenity impacts? (3.8.1)			
Has sufficient roof overhang and sidewall height been provided to prevent rainwater from entering the shed and wetting the litter? (3.8.1)			
Has sufficient distance been provided between sheds to enable bird collection from the centre of each shed or from each end? (3.8.1)			
Is the long axis of sheds orientated east-west to minimise solar heat absorption during hot weather? (3.8.1)			
Will shed floors be constructed with an impermeable material to eliminate the risk of ground water contamination? (3.8.2)			
Will drains or stormwater retention systems be compacted? (3.8.2)			
Is the base of the sheds raised above the natural surface level to prevent the entry of stormwater runoff? (3.8.2)			
Will stormwater management systems be constructed to control runoff from around the meat chicken farm complex (the controlled drainage area) in accordance with council requirements? (3.8.2)			
Are sheds designed to maintain a uniform airflow across the shed width in accordance with processor requirements? (3.8.3)			
Will fans be positioned to direct any exhaust air away from sensitive land uses, or, if justified, will other strategies be implemented to avoid odour health impacts? (3.8.3)			
Will the roof pitch be lowered or deflectors (baffles) installed in tunnel-ventilated sheds? (3.8.3)			
Will an automated system be operated to maintain optimum ventilation rates by monitoring relative humidity and temperature and controlling evaporative cool pads, fans and mini vents? (3.8.3)			
Will feeding and watering systems be installed that can be adjusted to meet the requirements of the birds as they grow? (3.8.4)			
Will feeders be installed and maintained to minimise feed wastage? (3.8.4)			
Will drinkers be installed that ensure minimal spillage onto the litter? (3.8.4)			
Are silos and feed-lines designed to avoid feed spillage and the ingress of water? (3.8.4)			
Will automated systems that continuously monitor temperature levels (and, for tunnel-ventilated sheds, internal relative humidity) be installed to allow for maximum control over the shed environment? (3.8.5)			
Will tunnel-ventilated sheds be fitted with telemetry alarms (also visual if appropriate) to alert the farm manager to malfunctions or extended abnormal shed conditions? (3.8.5)			

Landscaping

Has a landscaping plan been developed for the site? (3.9)			
Will natural vegetation and terrain of the site be used to best advantage to maximise visual screening and improve biodiversity? (3.9)			



BEST MANAGEMENT PRACTICE	YES	NO	N/A
Will existing trees be retained and incorporated into the landscaping? (3.9)			
Have landscape plantings taken into account fire risk, airflow, pest and vermin control and control of odour and dust? (3.9)			
Will a vegetative screen or other suitable odour emission reduction control measure be installed at the exhaust end of tunnel-ventilated sheds? (3.9)			
Will species that are able to withstand elevated nutrient levels be planted near shed fan exhausts? (3.9)			

Litter storage and dead bird management

Will on-farm composting areas, dead-bird management facilities and litter storage areas be located away from boundaries and neighbours? (3.10)			
Will dead-bird storage facilities be designed to prevent scavenging? (3.10)			
Will dead-bird composting or disposal areas and litter storage areas be located on a gently sloping site away from drainage lines and flood plains? (3.10)			
Have the minimum design requirement goals defined in section 5 of the OEH's Composting Guidelines been addressed in order to protect surface and ground waters from pollution? (3.10)			
Have poultry litter re-use areas on-farm been appropriately designed on the basis of a nutrient budget that considers the proposed annual litter volumes and nutrient loads, soil types, current soil nutrient levels (determined by soils tests) and pasture use rates? (3.10)			
Will litter disposal areas be located outside the biosecure poultry production area? (3.10)			
Will natural runoff be diverted away from litter storage and dead-bird composting or disposal areas? (3.10)			
Will existing trees be retained wherever practical, and will litter storage and dead-bird composting or disposal areas be visually screened? (3.10)			

Protection of surface water and ground water

Has the meat chicken farm complex (sheds and spent litter stockpiles) been located above the 1-in-100-year flood line? (3.11)			
Is the meat chicken farm complex located away from major potable water supply storages and watercourses within drinking water catchments and protected oyster catchments? (3.11)			
Are surface waters protected through sound design and management of meat chicken farm complexes and spent litter utilisation areas? (3.11)			
Will riparian zones be protected with appropriate buffers zones and vegetative filter strips? (3.11)			
Have spent litter utilisation areas been designed (and will they be managed) to achieve a nutrient balance and sustainable use nutrients? (3.11)			

Community and consenting authority consultation

Have you spoken to the neighbours before lodging the DA? (3.11.1)			
Has the person with the best communication skills been tasked to consult with neighbours (3.11.1)			
Have all aspects of the proposal been discussed with the consenting authorities before finalisation of the DA? (3.11.2)			
Have you ensured that the application addresses neighbours' issues and justifies the proposed design and operation (refer to the <i>Land Use Conflict Risk Assessment</i> factsheet on the NSW DPI website for more information) (3.11.2)			

Planning the development of a meat chicken farm (Preparation of DA) (refer to section 4)

Have you confirmed the suitability of your preferred site before committing to buy or lease a property and before preparing a DA? (4.13.5)			
Have you consulted with your local council about LEP definitions, and also in regard to where poultry farming is a permissible development, what form of application would be required to gain consent, and the likely costs of this? (4.13.5)			
Have you found out what permits or licences from state government agencies are required and whether the farm is an 'integrated development'? (4.13.5)			
Is any approval required under the Commonwealth <i>Environmental Protection and Biodiversity Conservation Act 1999</i> ? (4.13.5)			
Has a pre-DA meeting been held with council? (4.13.5)			
Does the DA contain all the required information? (4.13.5)			



Appendix 3: Meat chicken (broiler) farms – Level 1 odour impact assessment

Introduction

Objectives of the impact assessment

Odour impact assessment aims to ensure that offensive odours do not cause unreasonable interference to the community.

Acceptable impact standards

A meat chicken farm should not have an unreasonable impact on the amenity of the local environment and should comply with the provisions of the *Protection of the Environment Operations Act 1997*.

This appendix sets out how to readily calculate recommended separation distances for proposed meat chicken farms using current standard production technologies, including tunnel or traditional ventilation. The prescribed distances have been demonstrated to avoid unacceptable air quality impacts on the local environment.

Level one assessment provides for a choice from a listed range of site factors that are applicable for most existing meat chicken farms and management practices. If new technology is used and it can be demonstrated and quantified that the technology will reduce odour, then the separation distances recommended by the Level 1 assessment could be adjusted.

Adopting the calculated Level 1 separation distance and broiler chicken shed numbers system will help to minimise the air quality impact associated with broiler chicken farms.

Approved operating practices

The most effective way of reducing offensive odour impacts is by implementing good design, good management practices and appropriate separation distances.

Environmental pollution, such as offensive odours, can be controlled by good meat chicken shed design, good management practices, restricting meat chicken shed numbers and maintaining suitable separation distances between meat chicken sheds and impact areas.

All activities that are likely to increase emissions of odours, such as manure cleaning and manure spreading, should be performed at a time of day and in weather conditions that cause least odour emission and impact on neighbouring properties.

Separation distances

Variable separation distances are measured from the closest odour emission point of the meat chicken farm to the closest point of a receptor (e.g. a residence, school or public recreation area).

Variable separation distances allow for the dispersion of odours from the source. They are used to determine the allowable numbers of meat chicken sheds and the management practices needed satisfy air quality objectives. A weighting factor allows for different types of premises.



The distance between the meat chicken sheds and a sensitive receptor (typically a dwelling) is not increased directly proportionally to the number of meat chicken sheds, but in accordance with recognised patterns of odour dispersion.

Calculating the recommended number of meat chicken sheds or recommended separation distance

The NSW technical framework for assessing odour impacts sets out Standard (Level 1) equations that allow calculation of the recommended number of meat chicken sheds (N) for a site at known distance from a sensitive receptor such as a dwelling, or of the distance (D) required for a specified number of meat chicken sheds.

A meat poultry (broiler) Level 1 odour assessment calculator is available on the OEH website (www.environment.nsw.gov.au/air/odour.htm) to make this process easier. Growers or their consultants can use the calculator to rapidly assess a site for the potential development of new meat poultry farms. The calculator uses Equation 1.1 or 1.2 (see page 65) to respectively calculate either the allowable number of chicken sheds for a given separation distance or the recommended separation distance for a given number of proposed meat chicken sheds.

The specific guidance provided below on selecting the appropriate options for each site faction (S1 to S5) should be carefully consulted when using the calculator. The choices adopted may also be reviewed by consent authorities if the calculated results are submitted in support of a meat chicken farm DA.

Composite site factor(s)

The site factor value (S) used in the Level 1 odour assessment depends on site-specific information pertaining to the proposed shed type, the nearest at-risk receptor(s), the terrain, the intervening vegetation and the wind frequency, as set out in the following tables.

Shed factor S1

The shed factor S1 depends on how the shed is ventilated and is determined from Table A3.1. Some sheds will have controlled fan ventilation and some will have natural ventilation; S1 is proportional to the numbers of each type of shed.

Table A3.1: Shed factor S1

SHED TYPE	VALUE
Controlled fan ventilation without barriers*	980
Controlled fan ventilation with barriers	690
Natural ventilation	690

* A barrier is a windbreak wall, earthen berm or other structure designed to mitigate dust and odour emissions from controlled fan-ventilated sheds, or a screen located near the exhaust end of a meat poultry shed.



Receptor factor S2

The receptor factor S2 varies depending on the likely impact area and is determined from Table A3.2.

The nearest sensitive receptor might be a neighbour's house or a small or large town that may be affected by odour generated at the meat chicken sheds. Any likely future receptor locations (such as a possible dwelling on an adjoining separate lot) should also be considered.

For a town, the distance is measured from the closest point of the proclaimed town boundary. For a rural farm residence, the distance is the closest part of the residence itself, excluding any yards.

Table A3.2: Receptor factor S2

RECEPTOR TYPE	VALUE
Large towns, greater than 2000 persons	1.05
Medium towns, 500–2000 persons	0.75
Medium towns, 125–500 persons	0.55
Small towns, 30–125 persons	0.45
Small towns, 10–30 persons	0.35
Single rural residence	0.30
Public area (occasional use)*	0.05*

* Higher values may be appropriate for public areas used frequently or sensitive in nature, such as frequently used halls and recreation areas. These should be assessed individually.

Terrain factor S3

Topographical features at the selected site may adversely affect the odour impact under certain circumstances. During the early evening or night time, under low wind-speed conditions, receptors located in a valley at a lower elevation than a meat chicken farm may be subject to higher odour concentrations as a result of down-valley wind (cool air or katabatic drainage) or the occurrence of low-level inversions.

The terrain factor S3 varies according to topography. Its ability to disperse odours and is determined from Table A3.3.

Table A3.3: Terrain factor S3

TERRAIN BETWEEN MEAT CHICKEN FARM AND RECEPTOR	VALUE
Valley drainage zone – topography at low relief with significant confining sidewalls.	2.0
Low relief – terrain that is generally below the 2% falling slope from the meat chicken sheds. Thus the receptor will be downhill from the meat chicken sheds.	1.2
Flat – less than 10% upslope, 2% downslope and not in a valley drainage zone.	1.0
Undulating country – terrain where the topography consists of continuous rolling, generally low-level hills and valleys with minimal vegetation cover, but without sharply defined ranges, ridges or escarpments.	0.9
High relief or significant hills and valleys between meat chicken farm and receptor. Upslope terrain or a hill that projects above the 10% rising slope from the meat chicken sheds. Thus the receptor location will be either uphill from the meat chicken sheds or behind a significant obstruction or it will have significant hills and valleys between the sheds and the receptor.	0.7



Vegetation factor S4

The vegetation factor S4 varies according to vegetation density, as shown in Table A3.4. The vegetation density is assessed by the effectiveness with which the vegetation stand will reduce odour by dispersion. Tree cover should be maintained, as far as practicable, for the life of the meat chicken sheds.

To improve visual amenity and odour dispersion, meat chicken farms are encouraged to plant and maintain upper- and lower-storey vegetation in locations that would not cast shadows on the sheds.

Table A3.4: Vegetation factor S4

VEGETATION*	VALUE
Crops only, no tree cover	1.0
Few trees, long grass – open country with a permanent covering of grass or pasture of around 1 metre or more in height and with a light scattering of timber that is distributed continuously across the buffer area. Topography would be predominantly flat to slightly undulating. Isolated clumps of trees would not be sufficient to attract this concession. Land being actively cropped would not attract this concession because of the extended periods when it is bare or carrying only very low ground cover.	0.9
Wooded country – open forest country with tree density not sufficient to provide a continuous canopy, but sufficiently dense to influence air movement. There would be little or no lower storey vegetation. The density needs to be such that the vegetation can be considered as a contiguous belt; isolated clumps would not attract this concession. The minimum tree height is 4 metres and the minimum extent in the direction of the receptor is 400 metres.	0.7
Heavy timber – tall forest areas with dense timber stands providing a continuous canopy. There is limited understorey vegetation, mainly associated with regrowth. The minimum tree height is 4 metres and the minimum extent in the direction of the receptor is 400 metres.	0.6
Heavy forest (both upper and lower storey) – dense layers of taller timber with an interlocking canopy and with extensive amounts of lower storey vegetation of various species resulting in almost complete ground cover and a dense upper canopy. Examples are uncleared brigalow areas and dense eucalypt forests where little or no clearing or harvesting have occurred. The minimum tree height is 4 metres and the minimum extent in the direction of the receptor is 400 metres.	0.5

* No concession should be given for an *intention* to plant a barrier, because if a premises were to fail to maintain a stipulated barrier then a reduction in the allowed number of meat chicken sheds would be necessary.

Wind frequency factor S5

The wind frequency factor S5 is determined from Table A3.5. Wind speed and direction vary annually and diurnally (i.e. by the season and by the hour of the day). Although there is generally one direction that is the most frequently observed (prevailing wind), the wind direction usually blows from all of the directions at some time.

Table A3.5: Wind frequency factor S5

WIND FREQUENCY TOWARDS RECEPTOR	VALUE
High frequency towards receptor – the wind can be classed as high frequency towards the receptor if the wind is blowing towards the receptor (± 40 degrees) with a frequency of at least 60% of the time for all hours over a whole year.	1.5
Normal wind conditions	1.0
Low frequency towards receptor – the wind can be classed as low frequency towards the receptor if the wind is blowing towards the receptor (± 40 degrees) with a frequency of less than 5% of the time for all hours over a whole year.	0.7



Applying the equations for Level 1 odour assessment

A ready reckoner calculator for Level 1 meat poultry (broiler) odour assessment is available on the OEH website (www.environment.nsw.gov.au/air/odour.htm).

Growers or their consultants can use the calculator to rapidly assess a site for the potential development of new meat poultry farms.

The calculator uses Equations 1.1 or 1.2 (below) to respectively calculate either the allowable number of chicken sheds for a given separation distance or the recommended separation distance for a given number of proposed meat chicken sheds.

Equation 1.1: Allowable number of meat chicken sheds for a given separation distance

$$N = (D \div S)^{1.4}$$

- N Number of standard meat chicken shed units (1 standard shed is equivalent to 22 000 meat chickens)
- D Separation distance in metres between the closest points of the meat chicken sheds and the most sensitive receptor or impact location
- S Composite site factor = $S1 \times S2 \times S3 \times S4 \times S5$. Site factors S1, S2, S3, S4 and S5 relate to shed design, receptor, terrain, vegetation and wind frequency, respectively. See Tables A3.1 to A3.5.

Equation 1.2: Separation distance for a given number of meat chicken sheds

$$D = (N)^{0.71} \times S$$

- N Number of standard meat chicken shed units (1 standard shed is equivalent to 22 000 broiler chickens)
- D Separation distance in metres between the closest points of the meat chicken sheds and the most sensitive receptor or impact location
- S Composite site factor = $S1 \times S2 \times S3 \times S4 \times S5$. Site factors S1, S2, S3, S4 and S5 relate to shed design, receptor, terrain, vegetation and wind frequency, respectively. See Tables 5.1 to 5.5 in Chapter 5 of the *Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW* (DEC, 2006).

Some precautions

It is the proponent's responsibility to justify the adequacy of Level 1 assessment in a particular circumstance. Where doubt exists, the proponent should seek advice from the consent authority responsible for the particular development. For all scheduled developments (more than 250 000 birds) advice should be sought from the EPA.

If a proponent of a meat chicken farm can demonstrate a clear 'pass' from a Level 1 odour impact assessment, there is no need to undertake a more complex Level 2 or 3 assessment, regardless of the size of the development, unless there are special risk factors.

Special risk factors include:

- » topographic or meteorological features (e.g. katabatic drift) that may funnel the odour plume or cause it to accumulate
- » a populated area located just outside the calculated separation distance.



Current standard odour assessment equations assume that meat chicken sheds are all approximately 100 metres by 13 metres in size and contain 22 000 chickens. Hence the number of standard-sized sheds must be calculated for sheds of differing capacity. The calculator also provides for this.

When working out separation distances, all waste and manure/litter stockpile areas should be regarded as part of the meat shed complex until evidence dictates otherwise.

Where a second chicken farm is proposed (whether on the same or another property) in close proximity to an existing farm or another proposed one, the two meat chicken farms may need to be considered as either one entity or two separate meat chicken farms, depending on their distance from each other and their distance from the receptor in question.

If they are considered as separate entities, the separation distance between the second meat chicken farm and a receptor may need to be modified. Further guidance is provided in Chapter 5 of the *Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW* (DEC, 2006).

Odour reporting requirements

The report of the Level 1 odour impact assessment must contain the information specified below (Table A3.6). The information required for each category, in particular Shed Factor (S1), focuses on identifying and managing potential odour sources, not on general operation and pollution control.

Table A3.6: Reporting requirements for Level 1 Odour impact assessment

ISSUE	SPECIFIC INFORMATION REQUIRED
Variable separation distance calculation	Step-by-step calculation of the separation distance using equation 1.2 that clearly identifies each S factor adopted.
Number of sheds	Clear description of: <ul style="list-style-type: none"> » the number and size of all sheds on the property (both current and proposed) » total proposed growing capacity (number of birds) » number of standard broiler shed units (a standard shed unit is 22 000 birds).
Shed factor S1	Description of the poultry sheds, including: <ul style="list-style-type: none"> » any current sheds, ventilation systems and side-wall materials » the proposed sheds, ventilation systems and side-wall materials. A detailed discussion of all potential odour-generating risks, including: <ul style="list-style-type: none"> » areas where poultry litter is composted or stored » any areas where poultry litter is applied to pastures or crops » the locations of dead-bird disposal areas or equipment. A description of all odour management practices and controls, with particular regard to any odour control equipment such as emission stacks, screens or other proven technologies.
Receptor factor S2	Layout of the site, clearly showing: <ul style="list-style-type: none"> » all emissions sources (e.g. locations of sheds, exhaust fan direction and litter heaps) » the boundary of the site » locations of sensitive receptors (e.g. nearest residences and towns).
Terrain factor S3	Description of the terrain, including either: <ul style="list-style-type: none"> » a topographical map, or » photographs (from the sheds looking towards the nearest receptor). Site-specific terrain survey supported by report.



ISSUE	SPECIFIC INFORMATION REQUIRED
Vegetation factor S4	Description of the vegetation, including either: <ul style="list-style-type: none"> » photographs clearly showing the vegetation between the sheds and the nearest receptors » a vegetation map, or » an aerial photograph.
Wind frequency factor S5	Description of the prevailing wind directions and cold air drainage patterns at the proposed site, including: <ul style="list-style-type: none"> » wind rose diagrams for the nearest Bureau of Meteorology site, or » historical records of prevailing winds.

Examples of separation distance calculations

Example 1: Two standard meat chicken sheds

Scenario: A meat chicken farm with two standard-size sheds, full natural ventilation, flat topography, no significant trees and normal wind conditions.

Site data:

S1: 690 (Table A3.1, Natural ventilation)

S2: 0.3 for a house and 0.55 for a town > 125 people (Table A3.2)

S3: 1.0 (Table A3.3, Flat topography)

S4: 1.0 (Table A3.4, No tree cover)

S5: 1.0 (Table A3.5, Normal wind frequency)

Calculation of the required separation distance $D = (N)^{0.71} \times S$

The minimum distance from a rural residence) is:

$$(2)^{0.71} \times 690 \times 0.3 \times 1.0 \times 1.0 \times 1.0 = 339 \text{ m.}$$

The minimum distance from a town with >125 people is:

$$(2)^{0.71} \times 690 \times 0.55 \times 1.0 \times 1.0 \times 1.0 = 621 \text{ m.}$$

Example 2: Five standard meat chicken sheds

Scenario: A meat chicken farm with five standard-size sheds, full natural ventilation, flat topography, no significant trees and normal wind conditions.

Site data:

S1: 690 (Table A3.1, Natural ventilation)

S2: 0.3 for a house and 0.55 for a town > 125 people (Table A3.2)

S3: 1.0 (Table A3.3, Flat topography)

S4: 1.0 (Table A3.4, No tree cover)

S5: 1.0 (Table A3.5, Normal wind frequency)

Calculation of the required separation distance $D = (N)^{0.71} \times S$

The minimum distance from a rural residence) is:

$$(5)^{0.71} \times 690 \times 0.3 \times 1.0 \times 1.0 \times 1.0 = 649 \text{ m.}$$

The minimum distance from a town >125 people is:

$$(5)^{0.71} \times 690 \times 0.55 \times 1.0 \times 1.0 \times 1.0 = 1190 \text{ m.}$$



Example 3: Five standard meat chicken sheds

Scenario: A meat chicken farm with five standard-sized sheds, full natural ventilation, significant hills between the farm and a neighbouring house, wooded country and a high frequency of winds towards the house.

Site data:

S1: 690 (Table A3.1, Natural ventilation)

S2: 0.3 for a house and 0.55 for a town > 125 people (Table A3.2)

S3: 0.7 (Table A3.3, High relief topography)

S4: 0.7 (Table A3.4, Wooded country)

S5: 1.5 (Table A3.5, High wind frequency towards house)

Calculation of the required separation distance $D = (N)^{0.71} \times S$

The minimum distance from a rural residence is:

$$(5)^{0.71} \times 690 \times 0.3 \times 0.7 \times 0.7 \times 1.5 = 477 \text{ m.}$$

The minimum distance from a town >125 people is:

$$(5)^{0.71} \times 690 \times 0.55 \times 0.7 \times 0.7 \times 1.5 = 875 \text{ m.}$$

Example 4: Two non-standard sheds of 40 000 birds each

Scenario: A meat chicken farm with two sheds each containing 40 000 birds, full natural ventilation, significant hills between the farm and a neighbouring house, heavy timber and normal winds to a neighbouring house and small town.

Site data:

S1: 690 (Table A3.1, Natural ventilation)

S2: 0.3 for a house and 0.5 for a town > 125 people (Table A3.2)

S3: 0.7 (Table A3.3, High relief topography)

S4: 0.6 (Table A3.4, Heavy timber)

S5: 1.0 (Table A3.5, Normal wind conditions)

Calculation of the required separation distance $D = (N)^{0.71} \times S$

The number of standard sheds is:

$$2 \times 40\,000 \div 22\,000 = 80\,000 \div 22\,000 = 3.63 \text{ standard sheds.}$$

The minimum distance from a rural residence is:

$$(3.63)^{0.71} \times 690 \times 0.3 \times 0.7 \times 0.6 \times 1.0 = 217 \text{ m.}$$

The minimum distance from a town >125 people is:

$$(3.63)^{0.71} \times 690 \times 0.55 \times 0.7 \times 0.6 \times 1.0 = 399 \text{ m.}$$



Appendix 4: Relevant legislation with agencies responsible

This appendix applies to both Manual 1 and Manual 2.

Major relevant legislation

The operation of new and existing poultry farms is regulated through legislation, the terms and conditions attached to the development consent, and any associated licences or approvals. (Non-compliance with these terms and conditions will result in liability to prosecution under the relevant legislation.) The major pieces of legislation that a new or existing poultry farm must follow are described below.

LEGISLATION	ADMINISTERING AUTHORITY	PURPOSE
<i>Environmental Planning and Assessment Act (1979)</i>	Department of Planning and Infrastructure (DP&I)	Provides for a hierarchy of environmental planning instruments, which include SEPPs and LEPs. The Act also provides the framework for local government zoning, assessment requirements, development control plans, and development consent provisions for operating poultry farms. It is the major legislation governing the development of poultry farms and the first port of call for potential developers.
<i>Exotic Diseases of Animals Act (1991)</i>	NSW Department of Primary Industries (NSW DPI)	Aims to protect Australian livestock industries from exotic (foreign) diseases. It requires anyone who suspects exotic disease in livestock to immediately notify NSW DPI. The Act allows for quarantine, testing and control measures for elimination of the disease. Notifiable exotic diseases for chickens include avian influenza (highly pathogenic); Newcastle Disease; infectious bursal disease (hyper-virulent form); and screw worm fly. Poultry can be carriers of other notifiable diseases.
<i>Local Government Act (1993)</i>	Local councils	Lets local councils provide for the current and future needs of local communities and manage local resources. It also requires them to use the principles of ecologically sustainable development. Under the LG Act councils may abate a public nuisance. A public nuisance is one that materially interferes with public health, safety, property, enjoyment or comfort. In some instances, odour from existing operations has been dealt with as a public nuisance.
<i>National Parks and Wildlife Act (1974)</i>	Office of Environment and Heritage (OEH)	Specifies that consent is required from OEH to destroy Aboriginal artefacts, relics or places. It also addresses protection of native fauna and native plants.
<i>Native Vegetation Act (2003)</i>	Office of Environment and Heritage (OEH) Catchment Management Authorities (CMAs) - Approvals/ Property Vegetation Plans	Regulates clearing of native vegetation. Clearing beyond the scope of the exemptions for Routine Agricultural Management Activities requires approval via a Property Vegetation Plan. Property Vegetation Plan development, guidance and approval.
<i>Native Vegetation Act (2003)</i>	Catchment Management Authorities (CMAs) - Approvals/ Property Vegetation Plans	Regulates clearing of native vegetation. Clearing beyond the scope of the exemptions for Routine Agricultural Management Activities requires approval via a Property Vegetation Plan.
<i>Occupational Health and Safety Act (2000)</i>	NSW WorkCover Authority	Aims to protect workers in the workplace. There are many Regulations under this Act, including the Occupational Health and Safety Regulation 2001 under the OHS Act. The Regulation consolidates Regulations relating to specific hazards, including plant and machinery, hazardous substances and noise, and lays down requirements for consultation with workers relating to meeting OHS obligations.



LEGISLATION	ADMINISTERING AUTHORITY	PURPOSE
<i>Pesticides Act (1999)</i>	NSW Environment Protection Authority (EPA)	Aims to reduce the risks associated with the use of pesticides to human health, the environment, property, industry and trade by controlling and regulating the use of pesticides in NSW. The Act empowers the EPA to enforce the proper use of all pesticides in NSW after the point of sale. The Act also provides Regulation-making powers. The Pesticides Regulation 2009 sets out the requirements for record-keeping of pesticide use. The Regulation also establishes training standards that people using pesticides in certain circumstances must hold. These requirements apply to commercial users of pesticides (including farmers). For further information contact the EPA. Chemical and pesticides storage is regulated by WorkCover.
<i>Pesticides Act (1999)</i>	Office of Environment and Heritage (OEH)	Aims to reduce the risks associated with the use of pesticides to human health, the environment, property, industry and trade by controlling and regulating the use of pesticides in NSW. The Act empowers OEH to enforce the proper use of all pesticides in NSW after the point of sale. The Act also provides Regulation-making powers. The Pesticides Regulation 2009 sets the requirements for record-keeping of pesticide use. The Regulation also establishes training standards that people using pesticides in certain circumstances must hold. These requirements apply to commercial users of pesticides (including farmers). For further information contact OEH.
<i>Poultry Meat Industry Act (1986)</i>	NSW Department of Primary Industries (NSW DPI)	Regulates the contractual arrangements between poultry growers and processors. The Poultry Meat Industry Committee operating under the Act sets guidelines for drawing up agreements between processors and growers. The committee also helps negotiate in disputes between processors and growers.
<i>Prevention of Cruelty to Animals Act (1979)</i>	NSW Department of Primary Industries (NSW DPI)	Regulates the care and welfare of animals, including chickens. The <i>Model Code of Practice for the Welfare of Animals - Domestic Poultry</i> (ARMCANZ 2002) is a guide for people responsible for the welfare and husbandry of domestic poultry and is prescribed under the Act. The RSPCA and the Animal Welfare League have inspectors empowered under the Act.
<i>Protection of the Environment Operations Act (1997)</i>	NSW Environment Protection Authority (EPA)	Aims to protect, enhance and restore the environment having regard to the need to maintain ecologically sustainable development. It also aims to reduce risks to human health and prevent degradation of the environment. It controls the environmental impact of existing and future human activities through a system of licences and environment protection notices. The EPA administers this Act at sites that are required to hold an Environment Protection Licence (as defined in Schedule 1 of the POEO Act). Local councils are also empowered under the Act to control the environmental impacts at sites that are not required to hold an Environment Protection Licence.
<i>Public Health Act (1991)</i>	NSW Department of Health	Provides power to make certain orders and give directions during a state of emergency and at times in regard to the disinfection or destruction of items and the closure of water supplies and premises. The Public Health Act and advice on issues relating to public health and protection of the safety of food, water and air are administered by Environmental Health Officers located in Public Health Units of the local Area Health Service.
<i>Road and Rail Transport (Dangerous Goods) Act (1997)</i>	NSW Environment Protection Authority (EPA)	Sets out requirements for the transport of Dangerous Goods (including pesticides and other chemicals) on roads. WorkCover NSW regulates the off-road handling and storage of Dangerous Goods.
<i>Road Transport (General) Act (2005)</i>	Department of Transport, Roads and Maritime Services (DTR&MS)	Provides for the administration and enforcement of road transport legislation. It provides for the review of decisions made under road transport legislation and makes provision for the use of vehicles on roads and road-related areas.
<i>Road Transport (Safety and Traffic Management) Act 1999</i>	Department of Transport, Roads and Maritime Services (DTR&MS)	Makes provision for safety and traffic management on roads and road related areas.



LEGISLATION	ADMINISTERING AUTHORITY	PURPOSE
<i>Stock (Chemical Residues) Act (1975)</i>	NSW Department of Primary Industries (NSW DPI)	Aims to prevent contamination of human food with pesticides, drugs and chemicals. The Act allows for the setting of maximum residue limits for various chemicals. Contaminated stock may be placed in detention to prevent them or their products entering the human food supply. The stock or products may be destroyed, and action may be taken to prevent the use of contaminated land or buildings for livestock.
<i>Stock Diseases Act (1923)</i>	NSW Department of Primary Industries (NSW DPI)	Places an obligation on owners of stock to notify the presence of any disease under the Act to an inspector. Notifiable diseases for chickens include egg drop syndrome (EDS 76); infectious laryngotracheitis; <i>Salmonella pullorum</i> disease; chlamydiosis; <i>Salmonella enteritidis</i> ; avian tuberculosis; and Newcastle Disease. The Act enables inspectors to quarantine stock that they suspect are infected with disease and to order testing, treatment and/or slaughter, as appropriate, to control the disease.
<i>Stock Foods Act (1940)</i>	NSW Department of Primary Industries (NSW DPI)	Stipulates the requirements for production and labelling of stock feeds. Feeds not meeting requirements may be withdrawn from supply.
<i>Stock Medicines Act (1989)</i>	NSW Department of Primary Industries (NSW DPI)	Legislates the registration, supply, labelling and use of stock medicines. Because of the significance of residues in food products, chickens should be treated only with registered products, according to the label instructions (unless authorised otherwise by a veterinarian), and the withholding period should always be adhered to. Under the Act, poultry producers may not: be in possession of unregistered stock medicines; use unregistered stock medicine (unless approved by a permit or order); use stock medicine that is not for use in food-producing animals (unless approved by permit or order); use stock medicine contrary to label directions (unless authorised in writing by a veterinarian).
<i>Threatened Species Conservation Act (1995)</i>	Office of Environment and Heritage (OEH)	Aims to conserve threatened species, populations and ecological communities. The Act requires a licence to be obtained from the OEH to pick or harm a threatened species, population or ecological community. The Act may also require, through the EP&A Act, an assessment of the potential impacts on threatened species for development approval.
<i>Water Management Act (2000) and Water Act (1912)</i>	NSW Office of Water	A water licence or other approval from the NSW Office of Water is generally required to extract water from rivers or aquifers to use for commercial purposes. NSW is currently operating under two pieces of legislation relevant to water licences and water trading (the buying and selling of water licences or annual allocation water): <ul style="list-style-type: none"> » The <i>Water Management Act 2000</i> governs the issue of new water licences and the trade of water licences and allocations for those water sources (rivers, lakes and groundwater) in NSW where water sharing plans have commenced. For more information go to www.water.nsw.gov.au » The <i>Water Act 1912</i> governs the issue of water licences in other areas. For more information go to www.water.nsw.gov.au Under the Water Management Act, water licences are fully separated from the land title when a water sharing plan commences. This facilitates water trading. For information on this process and the timing of the separation of water licences from land in NSW go to www.water.nsw.gov.au



Administering authorities

ADMINISTERING AUTHORITY	FUNCTION	CONTACT DETAILS
Department of Planning and Infrastructure (DP&I)	Responsible for: <ul style="list-style-type: none"> » sustainable growth in the right locations » improved investor and community confidence » effective management of natural and cultural resources » diverse, equitable and pleasant neighbourhoods that reflect community needs and aspirations » integrated delivery of regional infrastructure and government activities. 	23-33 Bridge Street, Sydney NSW 2000 GPO Box 39, Sydney NSW 2001 Tel: 02 9228 6333, Fax: 02 9228 6555 Email: information@planning.nsw.gov.au Web: www.planning.nsw.gov.au
Local councils	Responsible for management, improvement and development of the resources in their areas and for administering some regulatory systems. Local councils are also regulatory authorities under the POEO Act. Local council planning systems operate under DP&I systems. The local council is a valuable first point of contact for both new and existing poultry farm operations. Councils can provide information on: <ul style="list-style-type: none"> » any planning controls that apply to a particular parcel of land » any additional information that may need to be supplied with the DA » development consent conditions. 	Contact your local council
NSW Ministry of Health	Responsible for the administration of the <i>Public Health Act 1991</i> , 'an Act relating to the maintenance of proper standards of health for the public and for other purposes'. The Public Health Act provides power to make certain orders and give directions during a state of emergency and at times in regard to the disinfection or destruction of items and the closure of water supplies and premises. The Public Health Act and advice on issues relating to public health and protection of the safety of food, water and air are administered by Environmental Health Officers located in Public Health Units of the local Area Health Service.	73 Miller Street, North Sydney NSW 2060 Locked Mail Bag 961, North Sydney NSW 2059 Tel: 02 9391 9000, Fax: 02 9391 9101 Web: www.health.nsw.gov.au To contact your local Public Health Unit go to the website and look under 'Find your Local Health Service'
NSW Department of Primary Industries (NSW DPI)	Delivers agricultural research, extension, education and regulation and is responsible for administering a number of Acts affecting poultry producers. NSW DPI has Agricultural Environment Officers located around the state who can provide advice on the development assessment process, convene a planning focus meeting if required, and provide advice on how to manage the ongoing environment regulations associated with poultry farming. A Poultry Advisory Officer is also available to provide advice on poultry farming and development. For poultry health issues the department provides veterinary diagnostic services and is the lead agency in the event of an exotic disease outbreak in NSW. A Poultry Health Technical specialist is employed by NSW DPI to manage state-wide poultry health issues.	161 Kite Street, Orange NSW 2800 Locked Bag 21, Orange NSW 2800 Tel: 1800 808 095, Fax: 02 6391 3336 Email nsw.agriculture@dpi.nsw.gov.au Web: www.dpi.nsw.gov.au Emergency Animal Disease Hotline for reporting unusual disease signs, abnormal behaviour, or unexplained deaths in livestock is 1800 675 888.



ADMINISTERING AUTHORITY	FUNCTION	CONTACT DETAILS
NSW Office of Water	<p>The NSW Office of Water in the NSW Department of Primary Industries is responsible for the management of the State's surface water and groundwater resources.</p> <p>The Office of Water reports to the NSW Government for water policy and the administration of key water management legislation, including the <i>Water Management Act 2000</i>, <i>Water Act 1912</i>, and the <i>Hawkesbury-Nepean River Act 2009</i>.</p> <p>Key responsibilities and functions include:</p> <ul style="list-style-type: none"> » surface water and groundwater management » water licensing and compliance » water information and modelling » policy and regulation of local water utilities. 	<p>Level 18, 227 Elizabeth Street, Sydney NSW 2000 GPO Box 3889, Sydney NSW 2001 Tel: 02 8281 7777, Fax: 02 8281 7799 Email: information@water.nsw.gov.au Web: www.water.nsw.gov.au</p>
NSW WorkCover Authority	Responsible for ensuring health, safety and welfare in the workplace and for administration of, and advice on, the NSW Workers Compensation scheme and injury management requirements.	<p>92-100 Donnison Street, Gosford NSW 2250 Locked Bag 2906, Lisarow NSW 2252 Tel: 02 4321 5000, Fax: 02 4325 4145 Email: contact@workcover.nsw.gov.au Web: www.workcover.nsw.gov.au</p>
NSW Environment Protection Authority (EPA)	<p>Responsible for:</p> <ul style="list-style-type: none"> » protecting the environment and administering a number of Acts to control waste, pollution of the environment, pesticide use, dangerous goods transport, contaminated land management and radiation. EPA is responsible for administering environment protection licences and notices under the Protection of the Environment Operations Act. 	<p>Level 14, 59-61 Goulburn Street, Sydney South NSW 1232 PO Box A290, Sydney South NSW 1232 Tel: 131 555, Fax 02 9995 5999 Email: info@environment.nsw.gov.au Web: www.environment.nsw.gov.au/epa</p>
Office of Environment and Heritage (OEH)	<p>Responsible for:</p> <ul style="list-style-type: none"> » the protection of cultural heritage and fauna and flora, particularly in relation to threatened species issues. OEH can provide advice on these issues and related legislation. 	<p>Level 14, 59-61 Goulburn Street, Sydney South NSW 1232 PO Box A290, Sydney South NSW 1232 Tel: 02 9995 5000 (switchboard) Tel: 131 555, Fax: 02 9995 5999 Email: info@environment.nsw.gov.au Web: www.environment.nsw.gov.au</p>
Department of Transport, Roads and Maritime Services (DTR&MS)	<p>Responsible for:</p> <ul style="list-style-type: none"> » improving road safety » testing and licensing drivers and registering and inspecting vehicles » managing the road network to achieve consistent travel times. <p>It provides financial assistance to local councils to manage 18 474 kilometres of Regional Roads and also provides some funding and support to the 144 750 kilometres of council-managed local access roads, which are funded by local ratepayers and federal road assistance grants.</p>	<p>101 Miller Street North Sydney NSW 2060 Locked Bag 928 North Sydney NSW 2059 Tel: 131 782, Fax: 02 8588 4105 For general enquiries phone 132 213 To contact the local Motor Registry, go to the website www.rta.nsw.gov.au and look under 'Motor Registries'</p>
Sydney Catchment Authority	Responsible for supplying raw water and for protection of the environment. Also has an administrative and concurrence role in accordance with the State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011.	<p>Level 4, 2-6 Station Street, Penrith NSW 2750 PO Box 323, Penrith NSW 2751 Tel: 02 4724 2200, Fax: 02 4725 2599 Email: info@sca.nsw.gov.au Web: www.sca.nsw.gov.au</p>
Commonwealth Department of Sustainability, Environment, Water, Population and Communities	The Commonwealth Department of Sustainability, Environment, Water, Population and Communities develops and implements national policy, programs and legislation to protect and conserve Australia's environment and heritage.	<p>John Gorton Building, King Edward Terrace, Parkes ACT 2600 GPO Box 787, Canberra ACT 2601 Tel: 1800 803 772, Switch: 02 6274 1111 Web: www.environment.gov.au</p>

Appendix 5: References and further reading

This appendix applies to both Manual 1 and Manual 2.

Animal welfare

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Intensive Animal Industries Development
Poultry Meat Industry Committee



Department of
Primary Industries

