6. Odour Environmental Risk Assessment (Odour ERA)

An Odour Environmental Risk Assessment (Odour ERA) must be completed for all Special Class and Farm Cluster broiler farm planning permit applications, following the requirements set out in this section.

The Odour ERA must be conducted in accordance with the requirements of the SEPP (AQM), and as described in the section below ‘Requirements for undertaking an Odour ERA’.

The Odour ERA must be presented in a manner which enables the responsible authority to determine the acceptability of the risk of offensive odour adversely impacting on:

- the amenity of existing sensitive uses beyond the broiler farm boundary
- orderly and sustainable use and development of land beyond the broiler farm property boundary having regard to:
  - the existing and likely future use and development of the land, including any approved sensitive use
  - the purpose and decision guidelines of the zone applying to the land and any other relevant decision guideline in the planning scheme
  - any strategies and policies in the planning scheme which may affect the use and development of land.

An Odour ERA for Farm Cluster broiler farms must assess cumulative odour emissions from all the broiler farms within the cluster.

More information on conducting an Odour ERA in accordance with the requirements of the SEPP (AQM) is provided in the Guidelines for an Odour Environmental Risk Assessment for Victorian Broiler Farms (at www.dpi.vic.gov.au/broilercodes).

Under Clause 66.05 of the Victoria Planning Provisions and all planning schemes, notice of an application for a Special Class Farm or Farm Cluster must be given under section 52(1)(c) of the Planning and Environment Act 1987 to EPA Victoria.

This notice should be given as soon as the permit application is received so that EPA Victoria can provide its response and enable the responsible authority to require any necessary further information early in the application process.

In its response, EPA Victoria should state whether:

- the Odour ERA has been appropriately conducted
- the Odour ERA has adequately addressed the relevant odour amenity issues
- the Odour ERA is consistent with the principles of the SEPP (AQM).

The responsible authority must not accept any Odour ERA not conducted in accordance with the SEPP (AQM).

For Special Class Farms and Farm Clusters, the applicant is encouraged to contact EPA Victoria early to seek advice regarding the Odour ERA requirements and what information will be required as part of this analysis. Such consultation will assist in avoiding delays in the application assessment stage by ensuring all the necessary information is provided up-front.
What is an Odour ERA?

An Odour ERA is a staged process of modelling and analysing odour emissions from broiler farms that enables the responsible authority to assess the acceptability of the risk of offensive odour adversely impacting beyond the broiler farm boundary.

An Odour ERA will:

- enable assessment of environmental risks (odour) on a case-by-case basis
- help the responsible authority to understand the level of risk in relation to the local characteristics of an area
- provide greater certainty to industry that an investment in a new or expanded broiler farm will not have detrimental impacts on surrounding community amenity beyond the broiler farm boundary
- provide greater certainty to the community that a broiler farm will not affect their amenity.

An Odour ERA will not:

- determine a separation distance
- describe an acceptable level of risk. The responsible authority needs to decide on the acceptability of the risk.
Requirements for undertaking an Odour ERA

An Odour ERA involves determining potential odour emissions and sources, and analysing potential impacts. An Odour ERA must be conducted in accordance with the requirements of the SEPP (AQM). To achieve this, a permit applicant may need to undertake one or more of the following stages to demonstrate that the proposed development (including the existing farm for an expansion application) is unlikely to affect surrounding sensitive uses.

Stage 1

Air dispersion modelling (odour modelling) is the first stage in an Odour ERA and must be done in accordance with the SEPP (AQM). The modelling is used to predict the geographic area (potential impact zone) and intensity of odour plume. The predicted impact can then be compared against an assessment criteria (that is the design criteria) described in the SEPP (AQM). If the odour modelling results meet the SEPP (AQM) design criteria at and beyond the broiler farm boundary, then the responsible authority should accept that the risk of odour amenity impact is low and no further assessment is required.

Stage 2

In the majority of permit applications, the odour modelling results will exceed the SEPP (AQM) design criteria at and beyond the broiler farm boundary. However, this does not necessarily make the application unacceptable. Rather, it indicates that further assessment is required (Stage 2).

Stage 2 involves analysis of the odour modelling results to determine the frequency (how often) of odour impact, duration (the length of time) and extent (the number of odour units) on surrounding sensitive uses (that is, for dwellings). This information can then be used to determine whether the risk of adverse odour impacts beyond the broiler farm boundary is acceptable.

Typically, this analysis is undertaken at the locations of existing sensitive uses within the predicted odour plume. However, the responsible authority may also require analysis at other points to determine the risk of offensive odour adversely impacting the orderly and sustainable use and development of land beyond the broiler farm boundary.

At this stage, the applicant should use the odour modelling results and information, interpretation of outcomes and site-specific information, together with any site management, technologies, or reactive management/contingency plans that reduce the likelihood of risk, to demonstrate why the level of risk is acceptable.

Stage 3

If, following Stage 2 analysis, the risk of adverse odour impacts beyond the broiler farm boundary is considered to be unacceptable, then design of the broiler farm will need to be modified. This may include, for example, reducing the number of chickens and / or relocating the broiler sheds.

Depending on the assessed level of risk, the nature and extent of the required changes to the application and the stage of the planning permit process at which the assessment has been made, the responsible authority can choose to:

- require the applicant to submit further information
- provide the applicant with the opportunity to amend their application
- issue a notice of decision to refuse the granting of a planning permit.

Note: Odour modelling is not suitable to determine a specific separation distance, but will help to understand the risk of odour emissions at various distances from a broiler farm. Sensitive uses may be located within the impact zone identified through the odour modelling. The Odour ERA will then describe the risk in relation to the sensitive uses.

Odour reduction technology

Odour reduction technology is any technology, equipment or measure that is proven to significantly absorb or reduce odour emissions from the shed. Where its use is proposed, an Odour ERA must examine the effectiveness of the technology and its ability to reduce off-site impacts. The modelling results must support the acceptability of having a reduced separation distance compared to the minimum requirements of the Code. These modelling results will help the prospective applicant and the responsible authority to determine the acceptability of this technology for the planning permit application.

Stacks: Ventilation stacks can be added onto one or more of the exhaust fans of sheds to alter the dispersion of odour emissions from the sheds. Short stacks are commonly used on broiler sheds. Recent studies7 have indicated that the efficacy of short stacks in improving odour dispersion was variable and no definitive conclusion of overall performance could be reached. For this reason, stacks (particularly short stacks) are not considered acceptable technology to support a reduction in the minimum separation distance requirements of this Code. However, in the above studies, short stacks did exhibit greater dispersion resulting in decreased downwind ground level concentrations. Short stacks may be a useful option to consider in resolving an odour emission problem. However the selection of stacks (exit velocity of air required, the height and number of stacks required) needs to be carefully considered on a case-by-case basis.

7 Dunlop, M. and Galvin, G. 2006, Dunlop, M. 2009. See the “Publications” section of this Code.
7. Farm Design and Operation Elements

This section specifies the six best practice elements of broiler farm siting, design and operation that make up the key components of this Code. Each of the six elements addresses the different issues that prospective permit applicants must consider when planning a broiler farm development.

All planning permit applications (regardless of the farm classification) for a new or expanded broiler farm must be assessed against each element.

This Code divides the six elements into three parts – ‘Location, farm size and setback requirements’; ‘Farm design’; and ‘Farm operation and management’ – as follows:

PART 1 Location, farm size and setback requirements
Element 1 (E1): Location, siting and size

PART 2 Farm design
Element 2 (E2): Farm design, layout and construction
Element 3 (E3): Traffic, site access, on farm roads and parking
Element 4 (E4): Landscaping
Element 5 (E5): Waste management

PART 3 Farm operation and management
Element 6 (E6): Farm operation and management (environmental management plan (EMP))

The Code defines objectives, standards and approved measures as follows:

Objectives: An objective describes the desired outcome to be achieved from the completed development and operation of the broiler farm. All permit applications must satisfy the objectives for each element.

Standards: A standard contains the requirements to meet the objective. In most cases, a standard is expressed as a design or operational requirement. All permit applications must comply with all relevant standards.

Approved measures: An approved measure is an approach, action, practice or method that permit applicants should incorporate into their development proposal to comply with the standard. Where the development proposal adopts all the approved measures for a standard, the application is deemed to comply with the standard.

Alternative measures: Development proposals will usually meet an approved measure. Circumstances of a particular development proposal may however provide a need or an opportunity to propose alternative ways of meeting the objectives and standards. The responsible authority may consider an alternative measure if the applicant can demonstrate that the relevant Code objectives and standards can still be met with equivalent or superior performance. Responsible authorities should consider development proposals that include new technology and innovative approaches if these can be demonstrated to satisfy Code requirements.

The Code elements should be considered as a whole, as many of the approved measures are inter-related. A responsible authority may require more detailed information to demonstrate compliance with particular elements, depending on the circumstances and risks of the proposed development and the development site.
SECTION SEVEN: ELEMENTS
Element 1 (E1): Location, siting and size

This element addresses the location and siting objectives that a proposed development must meet to minimize potential amenity or environmental impacts, including odour, dust and noise emissions, and the pollution of ground and surface waters. These objectives are primarily addressed by providing sufficient separation (or ‘setback’) of emission sources (namely, broiler sheds, temporary litter stockpiles, compost piles and litter spreading areas) from sensitive uses, waterways and other existing broiler farms.

Note: The following requirements apply in addition to the separation distance requirements used to determine farm classification (found in the ‘Classification of broiler farms’ section of this Code).

Note: Other requirements of the planning scheme, including the purpose and decision guidelines of the zone or overlays, and strategies and policies, may influence the location and siting of a broiler farm. For example, if a Special Building Overlay, Environmental Significance Overlay, Land Subject to Inundation Overlay, Floodway Overlay or Rural Floodway Overlay affects the development site, then additional requirements may apply to the permit application (including referral to the relevant authority for approval).

Note: The responsible authority should ensure works at or near waterways protect and enhance the environmental qualities of waterways, and consider any relevant river restoration plans or waterway management works programs approved by a Catchment Management Authority or waterway authority.

Objective, element 1

To ensure the location and size of the broiler farm, and the siting of the broiler sheds, temporary litter stockpiles, compost piles and litter spreading areas:

• minimise the risk of adverse amenity impacts on nearby existing, planned and potential future sensitive uses as a result of odour, dust and noise
• do not adversely affect the use and development of nearby land
• avoid pollution of ground and surface waters
• avoid adverse impacts on the visual quality of the landscape
• minimise biosecurity risks.

Standard E1 S1 Amenity protection

Adverse impacts on the amenity of the surrounding area are minimised by ensuring broiler sheds, temporary litter stockpiles, compost piles and litter spreading areas are adequately separated from existing and planned residential and rural living areas, sensitive uses and broiler farm property boundaries.

To comply with this standard, applicants should incorporate the following approved measures into their development proposal:
Approved measure E1 M1.1
The nearest external edge of a new or existing broiler shed(s) or temporary litter stockpile / compost pile is / are set back by at least 1000 m from the boundary of a:
• residential zone, urban growth zone or other urban zone where housing is a primary purpose of the zone or
• future residential area, shown on a plan or strategy incorporated in the planning scheme.

Approved measure E1 M1.2
The nearest external edge of a new or existing broiler shed(s) or litter stockpile / compost pile is / are set back by at least 750 m from the boundary of a:
• zone that provides for rural living (ie. a Rural Living Zone or Green Wedge A Zone), or
• future rural living area shown on a plan or strategy incorporated in the planning scheme.

Approved measure E1 M1.3
Prevailing meteorological conditions and topographical features are taken into account in determining the adequacy of separation distances to nearby sensitive uses. The minimum separation distances (as prescribed by Formula 1 of the Code) may need to be greater for some limited site specific circumstances. For example, the separation distance to a sensitive use located downslope in a drainage valley may need to be increased to minimise the risk of odour impacts.

Approved measure E1 M1.4
The nearest external edge of any new shed or temporary litter stockpile / compost pile is / are set back at least 100 m from the broiler farm property boundary. This distance is referred to as the boundary setback.

For the purposes of this measure, a new shed includes an extension to an existing shed to house an increased number of birds.

Approved measure E1 M1.5
The nearest external edge of a temporary litter stockpile / compost pile is / are set back at least 300 m from an existing sensitive use beyond the broiler farm property boundary.

Approved measure E1 M1.6
The nearest external edge of a litter spreading area is set back at least 20 m from the broiler farm boundary.

Approved measure E1 M1.7
The nearest edge of a litter spreading area is set back at least 100 m from any existing sensitive use beyond the broiler farm property boundary.
To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

**Approved measure E1 M2.1**

A natural vegetative buffer zone of at least 30 m (or any greater distance specified in the planning scheme, or by the Catchment Management Authority) is maintained along waterways. No buildings, roads or litter storage or litter re-spreading areas are located in the vegetative buffer zone. The measuring point for a waterway is the point water may reach before flowing over a bank (the bank-full discharge level).

**Approved measure E1 M2.2**

A clearance of a further 20 m from the edge of the natural vegetative buffer zone to the nearest external edge of any broiler shed is provided to ensure adequate shed ventilation, minimise vermin habitat and provide adequate access to the sheds and fire-fighting protection.

**Note:** Under Clause 15.01-2 of the Victoria Planning Provisions and all planning schemes, planning authorities should encourage, where possible, the retention of natural drainage corridors with vegetated buffer zones at least 30 m wide along waterways to maintain the natural drainage function, stream habitat, wildlife corridors and landscape values, to minimise erosion of stream banks and verges, and to reduce polluted surface run-off from adjacent land. Greater distances may be required to address site-specific issues, the requirements of the planning scheme, or any relevant river restoration plans or waterway management works programs approved by a Catchment Management Authority or other waterway authority.

**Approved measure E1 M2.3**

No solid or liquid waste (including temporary litter stockpiles, compost piles and litter spreading areas) is stored or disposed of within:

- 800 m of any potable water supply take-off controlled by a statutory authority
- 200 m of any waterway supplying potable water
- 100 m of any other type of waterway.

**Standard E1 S2 Waterway protection**

Adverse impacts on waterways are avoided by ensuring that broiler sheds, temporary litter stockpiles, compost piles and litter spreading areas are adequately separated from waterways, or other risk mitigation measures are incorporated and approved by the responsible authority.

**Standard E1 S3 Protecting the visual quality of the landscape**

Buildings and works are sited to account for the topography of the site and views from public roads, to minimise their visual impact on the landscape.

To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

**Approved measure E1 M3.1**

Buildings and works are not sited on steep slopes (greater than 20 per cent slope).

**Approved measure E1 M3.2**

Buildings and works are oriented to follow the contours of the land.

**Approved measure E1 M3.3**

Existing ridgeline vegetation is maintained to avoid breaking the ridgeline silhouette.
To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

**Approved measure E1 M4.1**

The nearest external edge of new or existing broiler sheds is / are set back from sheds on other poultry farms by the distance specified in Table 1 of Biosecurity Guidelines for Poultry Producers (Agnote AG1155 at www.dpi.vic.gov.au/notes).

**Approved measure E1 M4.2**

Temporary litter stockpiles or compost piles are separated by at least 100 m from a new or existing broiler shed on the subject land, or are sited and managed as otherwise stipulated by the processor to meet biosecurity requirements.

**Approved measure E1 M4.3**

The litter spreading area is separated by at least 20 m from a new or existing broiler shed on the subject land, or is sited and managed as otherwise stipulated by the processor to meet biosecurity requirements.

To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

**Approved measure E1 M5.1**

Class B Farms – The required minimum separation distance covers no more than 50 per cent of the area of a property located beyond the broiler farm property boundary.

**Approved measure E1 M5.2**

Class B Farms – Where a property located beyond the broiler farm property boundary is not currently developed with a dwelling (excluding a caretaker’s house or a bed and breakfast) the remaining area of the property (unaffected by the separation distance requirement) is capable of providing a 20 metre x 30 metre building envelope for a dwelling taking into account the following siting considerations:

- any applicable planning scheme requirements including zoning considerations and any setback requirements for buildings not requiring a planning permit under the applicable zoning provisions
- whether the land is encumbered by steep terrain, native vegetation, offsite impacts of an existing intensive animal industry or any other significant topographic, environmental or land use characteristic that may significantly limit the ability to establish and use a dwelling
- whether the land is identified in the planning scheme as being subject or susceptible to flooding (both river and coastal inundation), landslip or any other form of hazard that may limit the ability to establish and use a dwelling.

However, the remaining land does not need to be capable of providing a building envelope if the land covered by the minimum separation distance requirement is equally unacceptable in terms of providing the building envelope having regard to the siting considerations listed above.

Special Class and Farm Clusters – There are no approved measures for Special Class and Farm Clusters under Standard E1 S5. These broiler farm applications must be assessed against this standard on a case-by-case basis using the information produced by the Odour ERA (see the ‘Odour Environmental Risk Assessment (Odour ERA)’ section of this Code).

Note: Appendix 1 provides a summary of setback measures to meet the Code’s objectives and standards, and a diagrammatic example of separation distances and some setbacks.
Element 2 (E2): Farm design, layout and construction

This element focuses on the farm design, layout and construction considerations to maximise farm efficiency while avoiding amenity impacts (odour, dust, noise) or environmental issues.

Objective, element 2

To ensure the design and construction of the broiler farm minimise the risk of adverse amenity and environmental impacts, and support the cost-effective operational efficiency of the farm.

Standard E2 S1 Protecting the visual quality of the landscape

Buildings and works are designed and constructed to minimise their visual impact. Site topography and existing and proposed vegetation are used to best advantage to screen new buildings and works from public roads and neighbouring properties.

To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

Approved measure E2 M1.1

Buildings are constructed in response to the topography of the land as follows:

- On flat land, buildings directly in the view line of adjacent roads and dwellings on neighbouring properties are screened by vegetation (see Element 4: Landscaping).
- On hilly terrain, the construction of terraces or earth platforms avoids unnecessary or excessive earthworks, and suitable erosion control measures are in place (see also Standard E1 S3 and Approved measures E1 M3.1-3.3).

Approved measure E2 M1.2

Broiler shed walls are clad externally in materials that are non-reflective and finished in natural colours and tones of surrounding vegetation, soil, rocks or other natural features, to improve the visual integration of buildings with the natural landscape.

Standard E2 S2 Efficient farm operation

The design and layout of the whole broiler farm provides environmental and amenity protection while maximising the efficiency of farm operations, including:

- orderly management of feed and water, including:
  - adequate (quality and quantity) water supply
  - drinker technology that minimises wetting of litter through water spillage
  - treatment and disinfection of non-potable drinking water supply (dams, rivers and bores).
- efficient placement of silos and feed systems
- efficient placement and collection of birds
- efficient placement of fresh litter
- collection, handling and treatment of all wastes
- cleaning and maintenance of collection areas
- protection against birds and other vermin
- efficient energy and water use.

To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

Shed design and orientation

Approved measure E2 M2.1

New broiler sheds are orientated to minimise the risk of odour, dust and noise impacts on the surrounding community with tunnel ventilation fans being located at the furthest point away from the nearest sensitive use and taking into account the locality and concentration of other sensitive uses.

Approved measure E2 M2.2

The design and construction of broiler sheds, associated works and roads facilitates the efficient delivery of feed and birds, collection of birds, and the cleaning and maintenance of sheds and collection areas.
Approved measure E2 M2.3
Broiler sheds and feed silos are constructed to prevent access by wild birds, vermin and rodents.

Feeding and watering systems

Approved measure E2 M2.4
A continuous water supply is available to the proposed development site (from reticulated town water supply, dams or a bore) for drinking, shed cooling and shed wash down (disinfection).

Approved measure E2 M2.5
A back-up supply or storage of water is available to hold at least one day’s total requirement, in case of a breakdown or loss of normal water supply.

Approved measure E2 M2.6
When dam or river water is used to supply water, chlorination, ultraviolet light systems or other appropriate disinfection procedures are used to disinfect the water.

Approved measure E2 M2.7
Feed and watering systems can be adjusted to meet the requirements of the birds as they grow.

Approved measure E2 M2.8
Nipple drinkers with trays are used to provide drinking water.

Approved measure E2 M2.9
Silos and feed systems are designed, sited and constructed to minimise spills of feed.

To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

Approved measure E2 M3.1
A concrete hard stand area is located at the entrance to each broiler shed.

Broiler shed floors

Approved measure E2 M3.2
The base of the broiler sheds is constructed from low permeability materials such as concrete, compacted clay or another sealed surface.

Approved measure E2 M3.3
The finished floor level of the broiler sheds is above the natural surface level to prevent the entry of stormwater run-off. Alternatively, the shed is bunded or a surface drainage system is installed to prevent the entry of stormwater run-off.
Appendix 2 provides information on typical noise criteria that apply within the Metropolitan Region (the policy area for SEPP N-1), and country Victoria.

To comply with this standard, applicants should incorporate the appropriate measures of Element 1 (E1 M1.1 – 1.4) and Element 3 (E3 M2.1, E3 M4.1 – 4.2), and the following approved measures into their development proposal:

**Farm equipment**

**Approved measure E2 M4.1**

The design, siting and selection of all mechanical equipment, including fans, pneumatic feed systems and other equipment, minimises the generation of mechanical noise and the likelihood of off-site vibration.

**Standard E2 S4 Noise management**

The broiler farm development meets the requirements of the Interim Guidelines for Control of Noise from Industry in Country Victoria N. 3/89 (or its most recent update). To achieve this, in addition to the requirements of Element 1, Standard 1 (E1 S1); and Element 3, Standard 2 and Standard 4 (E3 S2 and E3 S4), the broiler farm further manages noise levels by ensuring farm vehicles and equipment associated with farm operations do not cause adverse noise impacts on nearby sensitive uses.

**Standard E2 S5 Stormwater drainage**

Stormwater and / or wastewater run-off from the broiler farm does not contaminate nearby waterways or groundwater, or cause erosion. Stormwater is also prevented from entering the broiler sheds.

To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

**Approved measure E2 M5.1**

Clean stormwater collection areas are separated from areas that broiler farm waste may affect.

**Approved measure E2 M5.2**

Stormwater from sheds and hard standing apron areas is collected and managed on site in a dam(s) or tanks within the broiler farm boundary.

**Approved measure E2 M5.3**

Stormwater table drains with an appropriate gradient are established along all building lines to collect stormwater run-off from sheds and hard standing apron areas.

**Approved measure E2 M5.4**

In areas subject to soil erosion, the system design incorporates mitigation methods such as crushed rock traps and drops.

**Approved measure E2 M5.5**

Stormwater management is consistent with any stormwater management plan of the responsible authority.

**Approved measure E2 M5.6**

Retaining dams are constructed with the capacity to retain run-off from a one-in-ten-year storm.
Element 3 (E3): Traffic, site access, on farm roads and parking

This element is concerned with vehicle movements to and from the site, and the accommodation of farm vehicles on site. The prospective applicant should contact the responsible authority at an early stage to determine appropriate access and road layout requirements, and to identify whether the approval of VicRoads is required. The permit application must include a traffic plan that addresses the objectives and standards of this element.

Objective, element 3

To ensure the location, design and construction of the farm access points, internal roads and parking areas, and the movement of vehicles for broiler farm operations support the safe and efficient operation of the farm, and minimise adverse amenity impacts on nearby sensitive uses.

Standard E3 S1 Site access (Standard 1)

Vehicle access points are designed and constructed to allow all-weather safe entry and exit for the anticipated type and frequency of vehicles, accounting for road and traffic conditions.

To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

Approved measure E3 M1.1

Access points are constructed to a standard that minimises deterioration in the road pavement, avoids sharp turns and provides sufficient road width for truck turning movements.

Approved measure E3 M1.2

For site access from a public road, the gate to the broiler farm is at least 30 m inside the broiler farm boundary, so articulated vehicles requiring access can park off the public road while the gate is being opened.

Standard E3 S2 Site access (Standard 2)

Vehicle access points to the broiler farm from public roads are located to minimise noise and vehicle light impacts on existing sensitive uses.

To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

Approved measure E3 M2.1

Vehicle access points are located as far away as possible from a sensitive use not associated with the broiler farm.

Approved measure E3 M2.2

All lighting is located, directed and baffled to limit light beyond the development site boundaries.
Standard E3 S3 Internal roads and car parking (Standard 1)

Internal roads and parking areas are designed, constructed and maintained to operate in all weather conditions. Adequate provision is made for the parking and movement on the property of articulated and other vehicles associated with the farm’s operation, including the delivery of birds, litter and feed to the premises, and the collection of birds and waste.

To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

- **Approved measure E3 M3.1**
  Internal roads and parking areas are constructed of a compacted sub-base with table drains, and a compacted gravel layer with a camber to shed rainwater to the drains.

- **Approved measure E3 M3.2**
  An area(s) is provided for parking articulated vehicles involved in loading and unloading stock, feed, litter and waste.

Standard E3 S4 Internal roads and car parking (Standard 2)

Internal roads and parking areas are designed and sited to minimise noise and light impacts on neighbouring sensitive uses.

To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

- **Approved measure E3 M4.1**
  Internal roads and parking areas are designed to ensure efficient traffic flow and to reduce the need for vehicles to reverse. The layout allows ease of access to the site, avoids the use of sharp turns, and for vehicles to leave the farm travelling in a forward direction.

- **Approved measure E3 M4.2**
  Internal roads and parking areas are located as far away as possible from a sensitive use not associated with the broiler farm.

- **Approved measure E3 M4.3**
  All lighting is located, directed and baffled to limit light beyond the development site boundaries.
Element 4 (E4): Landscaping

This element focuses on the role of landscaping to soften the visual impact of broiler farms, to integrate farms into the landscape and to help avoid light and dust impacts on surrounding sensitive uses. Landscaping is also important to manage on farm biodiversity.

Prospective applicants should seek advice from the responsible authority in the early stages of planning to identify any additional overlays and to understand their obligations to manage on-farm vegetation and biodiversity. The permit application must include a landscape plan that addresses the objectives and standards of this element.

For further information on best practices for broiler farm landscaping, contact the Victorian Farmers Federation Chicken Care program.10

Objective, element 4

To ensure landscaping is used to minimise the visual impact of broiler sheds and litter storage areas, further reduce the risk of adverse impacts from light and dust on nearby sensitive uses, and protect, manage and enhance on-farm native vegetation and biodiversity.

Standard E4 S1 Landscaping

Landscaping provides substantial visual screening from roads, public areas, nearby sensitive uses not associated with the broiler farm; integrates the farm into the surrounding landscape; and provides adequate access and clearance around the sheds.

To comply with this standard, applicants should incorporate the following approved measures into their development proposal:

Approved measure E4 M1.1

The landscape plan provides for dense vegetation and planting along frontages to public roads and other highly exposed site boundaries to provide screening of the broiler farm buildings, structures and handling areas.

Approved measure E4 M1.2

The landscape plan incorporates a mix of trees and large shrubs to ensure effective upper level and lower level screenings of the farm.

Approved measure E4 M1.3

As far as possible, the landscape plan retains existing trees, particularly native vegetation, and a mix of native and local indigenous plant species that blend into the landscape.11

Approved measure E4 M1.4

Mounds to a height of approximately 2 m are used if the combination of natural topography and tree planting cannot effectively screen a broiler farm. Soil from shed excavation, stormwater drains and farm dams may be suitable for constructing these mounds.

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10 See footnote 4.
11 A planning permit may be required to remove, destroy or lop any native vegetation. Where native vegetation is removed as part of a development, the applicant may be required to off-set this removal.
Approved measure E4 M1.5

Plantings and vegetation are located no closer than 20 m from the perimeter of the broiler sheds to ensure adequate shed ventilation, minimise vermin habitats, and provide adequate shed access and fire-fighting protection.

Approved measure E4 M1.6

Unpaved areas around sheds are grassed to prevent soil erosion and minimise the heat load on the buildings through radiation from bare ground.

Approved measure E4 M1.7

Ground surfaces that are exposed to erosion are stabilised with ground cover planting or other means to minimise erosion.

Approved measure E4 M1.8

The permit approval requires the establishment of a landscape performance bond, to ensure effective implementation of a landscape plan approved by the responsible authority. This plan includes a reasonably detailed estimate of the quantity and types of materials, watering equipment, plants and other inputs required. The amount of the bond provides an incentive for the broiler farm operator to fully implement the landscape plan and maintain the vegetation during the establishment period.

The bond arrangement is based on:

- a quote that the permit applicant obtains from a reputable landscape business to implement the landscape plan, with sufficient detail to identify the costs of materials, plants and labour
- the responsible authority’s verification of the quote, based on its experience
- application of a 25 per cent margin of the verified quote for unforeseen costs – that is, the total bond equals the cost of the quotation plus a 25 per cent margin
- a bank guarantee for the total amount of the bond to be lodged with the responsible authority
- a time limit for landscape works to be completed
- release of 85 per cent of the bond when landscape works are completed to the satisfaction of the responsible authority
- retention of 15 per cent of the bond by the responsible authority as a maintenance bond for three years
- inspection by the responsible authority at the end of the three-year maintenance period, and release of the maintenance bond if the landscaping has been maintained to the satisfaction of the responsible authority
- if the landscaping has not been satisfactorily maintained, the maintenance bond amount is used by the responsible authority to restore the landscaping to the required standards.
Element 5 (E5): Waste management

This element is concerned with the environmentally responsible management of all waste generated by the operation of the broiler farm.

Further information on best practice for waste management can be obtained from the National Environmental Management System for the Meat Chicken Industry, which contains the Manual of Good Environmental Practice. In addition, the Victorian Farmers Federation Chicken Care program contains a range of technical notes to manage waste.

Objective, element 5

To manage waste from broiler farm operations to:

- minimise adverse amenity impacts from odour and dust on nearby sensitive uses
- prevent the pollution of ground and surface waters and land
- avoid biosecurity risks.

Standard E5 S1 Spent litter

The management and disposal systems for spent litter are designed to minimise odour and dust generation and the likelihood of disease transmission, and to prevent nutrient run-off to surrounding land, waterways or groundwater.

To comply with this standard, applicants should incorporate the appropriate setback measures of Element 1 (that pertain to litter stockpiles/compost piles or litter spreading areas) and the following approved measures into their development proposal:

Temporary stockpiling or composting of litter on farm

- **Approved measure E5 M1.1**
  Temporary litter stockpiles or compost piles are not visible or are well screened from neighbouring sensitive uses. If piles are visible from the broiler farm boundary, then they are screened by shedding or other suitable material.

- **Approved measure E5 M1.2**
  Temporary litter stockpiles or compost piles are located to prevent water run-off into sensitive areas, such as stormwater drains, waterways and catchments. Additional bunding may be required to prevent entry to, and contamination of, stormwater run-off. It may also be required to prevent extraneous stormwater run-off from entering the compost pile.

- **Approved measure E5 M1.3**
  Nutrient-rich run-off from the temporary litter stockpiles or compost piles is collected in a sump or dam and may be re-used to add moisture to the pile.

- **Approved measure E5 M1.4**
  Temporary litter stockpiles or compost piles are on an impermeable base such as concrete, compacted clay or cement-stabilised soils, to prevent nutrient leaching.

Re-use (spreading) of litter on farm

- **Approved measure E5 M1.5**
  The litter application site is not on land subject to flooding, steep slopes (greater than 10 per cent), rocky, slaking or highly erodible land or highly impermeable soils where there is any risk of nutrient run-off to waterways, surrounding land or groundwater.
Standard E5 S2 Dead birds

The management and disposal of dead birds is designed to minimise the likelihood of disease transmission, complies with the National Biosecurity Manual for Contract Meat Chicken Farming13 (or its most recent update) and minimises odour and dust generation.

Additional general measures

Approved measure E5 M2.5

Incineration of dead birds is conducted only in incinerators built for purpose.

Approved measure E5 M2.6

On-site burial of dead birds is undertaken only in an emergency situation and with the approval of the relevant authorities (the Chief Veterinary Officer of the Department of Primary Industries and EPA Victoria).

Disposal by removal off farm

Approved measure E5 M2.1

Where birds are to be frozen before collection, adequate freezers and space for the freezers are provided.

Approved measure E5 M2.2

The collection point (for the collection vehicle) is as far as practical away from the farm site so that dead bird bins are not left in public view, and the collection vehicle does not come in close proximity to the broiler sheds.

Approved measure E5 M2.3

The collection point is appropriately constructed so the bins are protected from extreme weather conditions (for example, from winds that will cause lids to open or bins to tip over); and the site can be easily cleaned in the event of a spill.

Approved measure E5 M2.4

Dead bird collection vehicles and all containment systems are leak proof and vermin proof.

Disposal by composting on farm

Approved measures E5 M1.1-1.4 all apply to meet the standard for this system of dead bird management.

Standard E5 S3 Chemical waste

The management and disposal systems for chemical waste and general farm waste are designed to ensure the safe storage, use and disposal of chemicals.

Approved measure E5 M3.1

Secure sheds, with an impermeable concrete base and appropriate bunding to avoid contaminated runoff, are provided to store chemicals, fuels, chemical waste and / or waste containers (before disposal).
Element 6 (E6): Farm operation and management (Environmental Management Plan (EMP))

Effective operation and management of a broiler farm may significantly reduce the potential for environmental problems to arise. An environmental management plan (EMP) is an effective tool to recognise environmental risks and to provide clear strategies and measures to minimise those risks. An EMP includes strategies and measures to minimise environmental risks, and also contingency actions to manage environmental problems that may arise in the day-to-day operation and management of the farm.

Planning permit applications must include an EMP that addresses the objective and standard of this element detailed below. When planning permission has been granted, the EMP will form the basis to conduct regular or special auditing of farm operations.

The responsible authority needs to recognise that the EMP should be regularly reviewed and updated in line with continuous improvements of the environmental management system on farm. The ‘Auditing requirements’ section of this Code outlines how to update the EMP within the scope of the responsible authority’s approval.

The permit applicant should develop the EMP in consultation and agreement with the processor they will be servicing to ensure management practices, contingency plans and other actions align with those of the processor. Some processors require specific management approaches. If these requirements are not built into the EMP, further permit applications may be required to amend the approved EMP.

Objective, element 6

To apply best practice management of the broiler farm to avoid or minimise the risk of adverse amenity and environmental impacts on the surrounding environment and nearby sensitive uses.

Standard E6 S1

An environmental management plan (EMP) is developed that includes strategies and measures to avoid or minimise environmental risks, and also contingency actions to manage environmental problems that may arise, as follows:

The EMP must have the following components in an auditable format:

- overall objectives that addresses the following components with specific, measurable and time-bounded targets:
  - management of facilities and stormwater system
  - odour and dust management through best practice operations
  - noise management
  - road and traffic management
  - landscaping management
  - waste management issues (spent litter, dead birds, waste chemicals and chemical containers)
  - chemical handling
  - fire prevention.
An environmental management plan (EMP) is developed that is site specific and based on the approved generic EMP (as amended and updated from time to time). If the EMP lodged with permit application does not address any part of the generic EMP, the applicant has addressed why that part is not relevant or applicable.

Alternatively, the EMP may be developed under the Victorian Farmers Federation Chicken Care program. To expand an existing Chicken Care-accredited farm, the EMP must be updated to incorporate any new or additional risks as a result of the farm development and to ensure compliance with this Code. Where the EMP does not address any part of the generic EMP, the applicant has addressed why that part is not relevant or applicable.

The farm grower / operator maintains and updates (as required) a manual containing the EMP, which is available for inspection by the responsible authority.

Note: Appendix 3 provides additional guidelines for the best management practice of litter for broiler farms, including the monitoring of litter moisture levels in order to reduce the likelihood of offensive odours beyond the site boundary.