

D.6: POULTRY FARMS – NEIGHBOURING LAND USES

6.1 INTRODUCTION

Poultry meat production is an important agricultural enterprise in the Hunter Valley. In 1997, poultry meat produced in the Cessnock Local Government Area (LGA) was valued at over \$10.1 million. In 2001, the value to the Cessnock LGA had decreased to over \$4.4 million.

Poultry eggs are also of significant economic importance to the Cessnock economy. In 1997, poultry egg production was valued at \$6.9 million within the LGA. In 2001, the value of egg production had decreased to over \$6.5 million. The poultry industry is an important agricultural enterprise within the Cessnock LGA and the Hunter Valley generally, but is in decline due to urban development and new legislation within the industry.

From a planning perspective, a major threat to agriculture in the Hunter comes from urban development. The poultry industry is extremely sensitive to urban encroachment. Indeed, NSW Industry and Investment (Agriculture) estimates that approximately 90% of poultry farms in the region are under some form of pressure from this type of activity.

Complaints made against poultry farms centre particularly on odour, noise, night lights and the visitation of heavy vehicles. In Cessnock, complaints regarding poultry farming have resulted in conflict between farmers and residents. Such conflict can cause the affected residents much discomfort and distress while farmers may be put to greater capital expenditure and personal stress. In addition, the resources of Council are often employed for long periods in an attempt to resolve these conflicts. In some areas of the State, the level of complaints raised against poultry farms have contributed to the closure of such enterprises.

If the agricultural and economic importance of the poultry industry of the Cessnock LGA and the Hunter is to be realised, and neighbouring land uses kept free from the potential adverse impact of such an industry, controls shall be introduced to avoid conflict between the poultry enterprises and surrounding land uses.

6.1.1 Application

This Chapter applies to all land to which this DCP applies, for the following development scenarios:

- the development of land for the purposes of a poultry farm including the extension or expansion of existing poultry operations and encompassing related ancillary development; and
- the subdivision and / or development of land within the 'Zone of Affectation' of existing poultry farms.

6.1.2 Purpose

To provide detailed guidelines for the poultry industry in relation to site selection and management of poultry farms, and controls on development of land affected by existing operations.

6.1.3 Aims and Objectives

- (a) To ensure sites selected for poultry farms are appropriate for long term operation.
- (b) To provide guidelines for the establishment and expansion of poultry farming enterprises within the Cessnock Local Government Area, with particular consideration of the potential effects on existing neighbouring development.

- (c) To assist poultry producers in the management and operation of their farms through consideration of environmental, product quality and human and animal health and welfare objectives.
- (d) To discourage further subdivision/development in proximity to existing poultry farms to minimise potential conflict between landuses.
- (e) To encourage the proper consideration of the effects of proposed new development on existing poultry farms.

6.2 PRE-APPLICATION PROCESS

6.2.1 *Planning checklist – new and existing Poultry Farms*

- (a) Research the initial idea thoroughly including the physical and technical requirements, market structure, basic budgets and feasibility of the idea. You may need to seek assistance from NSW Industry and Investment (Agriculture), other agencies or consultants.
- (b) Determine the basic requirements for a site identified by this background research.
- (c) After reading the site selection component, develop a more detailed list of site requirements for the proposed development.
- (d) Identify the availability and costs of potential sites in consultation with real estate agents and compile a short list of sites with high potential. Rework initial budget in light of current land prices.
- (e) If possible, discuss potential sites with Council's Development Control Planners.
- (f) Consider design and site interaction of the potential sites and make a selection which provides the most cost-effective and practical alternative.
- (g) Prepare basic sketch plans of the proposed development and organise a meeting with one of Council's Development Control Planners to discuss Council requirements.

6.2.2 *Consultation*

The NSW Industry and Investment (Agriculture) has available guidelines for the establishment of poultry farms and the creation of residential development (subdivision and building) adjoining established poultry farming areas. These guidelines contain consideration of matters relating to farm management, waste management, poultry house design, amelioration of environmental impacts, transportation, pest control and animal welfare.

Consultation with the Department of Environment, Climate Change and Water (DECC&W) or Council's Environmental Services Department regarding concerns with noise, air or water pollution is advisable. The DECC&W or Council staff will be able to advise on measures to prevent or minimise such impacts.

Council should also be consulted prior to lodgement of the application to assist in identification of issues and to determine the need for specific additional information. It may in some circumstance, be beneficial to discuss the proposal in its preliminary form with members of Council's Development Assessment Unit (DAU) prior to lodgement of the development application.

For large or contentious poultry farms, the proponent may wish to host a **Planning Focus Meeting**. Planning focus meetings are a forum normally hosted by the proponent of a major development to brief relevant agencies of their proposal and to identify issues of concern prior to submission of a formal development application. The benefits gained from conducting such a meeting are that the development proposal is able to receive scrutiny before a formal application is lodged. An extensive range of factors can be considered such as the suitability

of the site, infrastructure provision, neighbourhood amenity and environmental management. A Planning Focus Meeting will enable the preparation of a more comprehensive Statement of Environmental Effects (SOEE) or Environmental Impact Statement (EIS) if required. NSW Department Industry and Investment (Agriculture) may be able to assist in the co-ordination of this meeting.

Early consultation with the respective authority will result in the timely identification and reduction or eliminations of potential land use conflict and environmental impacts. Awareness of these matters will reduce delays in the development application process.

6.2.3 Submission Requirements

New Poultry Farm

A Statement of Environmental Effects specifying:

- (a) details of the number and type of birds to be housed and whether the birds are for meat or egg production;
- (b) hours of operation and number of employees;
- (c) shed clean out frequency and method;
- (d) heating and cooling requirements;
- (e) rodent and pest control measures;
- (f) full details of any chemical usage;
- (g) numbers and types of vehicles used for feed delivery, bird pick-up, product transport etc;
- (h) approximate times of all truck movements;
- (i) location and transport route to processing facilities;
- (j) waste removal and disposal methods, including disposal of dead birds;
- (k) the topography and local climate of the site and its relationship with surrounding lands (including diagrams);
- (l) method of dust and soil erosion control, particularly during construction;
- (m) details of any proposed landscaping;
- (n) details of any known natural hazards relating to the land;
- (o) water supply; and
- (p) electricity supply.

Plans shall show adjoining land use and identify all buildings within proximity to the proposed farm site.

Expanding Farms

Development consent is required for the expansion of existing poultry farms.

In submitting a development application for an expanding farm, Council will require a similar level of detail as discussed for a new poultry farm.

Development / Subdivision within the 'Zone of Affectation'

With regard to proposed development or subdivision within the 'zone of affection', Council will require sufficient details of the development and site to determine the extent of conflict between the proposed development and poultry farm. Necessary information shall include:

- site plans drawn to scale showing all proposed buildings and boundaries in relation to established poultry farms;
- topography of the development site and poultry farm site;

- activities and management practices of the farm and identification of activities which may result in conflict;
- measures proposed to reduce potential impacts; and
- any other details determined following consultation with Council's Planning staff.

6.3 NEW POULTRY FARMS AND EXPANSION OF EXISTING FARMS

6.3.1 Site Selection

The selection of a suitable site for poultry development is vital to ensure a profitable, long term operation with minimum impact on the natural and social environment. The location will be determined after an objective analysis of the physical characteristics of the site and surrounding land use. Consideration shall also be given to the proximity of markets and farm supplies and the availability of utility services.

6.3.2 Physical Considerations

The location or physical characteristics of a site may represent limitations to potential development. For example, it is inappropriate to consider a site immediately adjoining a residential land use, or, designing a land based waste management system on a site without a suitable area of land.

Zoning

The zoning of any proposed development site should be one of the first considerations of the site selection process. Under the Cessnock Local Environmental Plan, poultry farms and associated facilities are permissible with consent in the RU2 Rural Landscape zone. Proposals shall also be consistent with the objectives of the zone.

Site Area

The major factors determining the minimum site area required for a poultry farm are size of the enterprise, types of neighbouring development, production system, distance between on-site buildings and the distance to adjacent land uses.

As a general rule, total roof area of poultry houses should not exceed more than 8% of the site area. This minimum requirement does not take into account the area needed for land application of wastes or free range production systems. The minimum required areas for these types of farms will be determined by the physical limitations of the environment.

Topography

Poultry kept in open-sided sheds benefit from an elevated site which allows free air movement and catches cooling breezes in hot weather. Whilst this is a distinct advantage, such a location may increase the farms visual impact and potential odour problems associated with air movement downslope and subsequently down valley. Appropriate landscaping is to be employed to reduce visual impact whilst maintaining cooling breezes.

Investigation of the potential visual impact and local meteorological conditions (prevailing wind directions and cold air drainage patterns in particular) are to be undertaken during the site selection phase of the development.

Existing Vegetation

Where possible, existing native and planted vegetation shall be retained. Vegetation provides

a natural screen for the operation, reducing the potential visual impact and protects against airborne spread of disease.

Clearing of vegetation in the rural areas of the Cessnock Local Government Area (LGA) is controlled by the Hunter – Central Rivers Catchment Management Authority and the clearing of native vegetation may also require approval under the *Native Vegetation Act 2003*.

Natural Hazards

Investigation into the frequency and intensity of natural hazards such as floods, storms, high winds and bushfires are an important consideration in the siting of any development.

Organisations such as the DECC&W, State Emergency Services and local bushfire brigades are able to supply relevant information.

6.3.3 Socio – Economic Considerations

The satisfactory location of poultry developments is dependent on economic factors, location of support infrastructure and availability of services.

Economic Factors

Access and distance to markets should be considered in site selection. Most poultry growers in the Cessnock area are contracted to Australian Poultry Limited, located at Beresfield. Australian Poultry Limited supplies day old chickens, turkey poults, feed and processing facilities to growers. It is generally considered that growers should be within one to one and a half hours of their market, therefore, the Cessnock LGA is well placed to service the Beresfield plant.

Support Infrastructure

Support infrastructure such as: poultry processing plants; breeder farms; hatcheries; feed mills; egg packing and processing facilities; waste utilisation facilities; labour; veterinary; and advisory services, need to be within reasonable distance of proposed developments. Egg packing and processing is generally carried out on the farm and spent litter and dead birds are generally handled by contractors.

Advisory services such as NSW Industry and Investment (Agriculture), Chicken Growers Association representatives and industry service representatives are readily available to the Cessnock area.

Availability of Services

Reliable provision of services such as: power; fuel; water; telephone; domestic; and farm supplies and suitable road access, are required for the successful operation of a poultry farm. Cessnock City provides all these services. The City has several commercial centres: Cessnock; Kurri Kurri; and Branxton / Greta, and is near other major service centres: Newcastle; Maitland; and Singleton. An extensive road network already exists throughout the City and most domestic services are available throughout.

6.4 FARM MANAGEMENT

6.4.1 Waste Management

Effective waste management is a crucial element in the successful operation of any poultry enterprise. The waste issues of greatest concern to poultry operators and to Council are the management of dead birds, manure and spent litter.

Dead Birds

Three methods of dead bird disposal are generally available.

- (a) Composting, is the favoured method of management for routine bird mortality. Once composted, the material must either be taken off-site with the spent litter or incorporated into a suitable land application strategy.
- (b) Off-site disposal, either to a rendering plant or suitable area for burial, is required for high mortality events. If the burial option is taken, it is important to ensure that the burial site meets appropriate environmental requirements to the satisfaction of the Council.
- (c) On-site disposal, such as burial, is considered the least desirable of the three options. If this method is to be employed, the pit/s shall be located away from environmentally sensitive sites (eg. dwelling-houses, water courses and public utilities), constructed to ensure no leaching of nutrient into ground or surface water occurs, ensure no access to other animals, be permanently marked and a record kept of the location and number of carcasses buried. All details of such disposal are to be forwarded to Council.

Manure & Litter

Poultry manure and litter are a valuable fertiliser. It is superior to conventional fertilizers under certain conditions as it has a: high nutrient value; high organic matter aiding physical soil structure; and a slow release of nutrient, aiding in plant uptake and reducing the potential for nutrient leaching. Therefore, its management should reflect its value.

(a) Off-site removal

A common method of management is off-site removal to commercial re-utilisers such as: composting / pelleting operations; graziers; the nursery industry; and market gardens. Where the poultry establishment is on limited area this method is Council's preferred option, however, direct land application may well be acceptable in many situations.

(b) Direct land application

Direct land application is another option. If organic by-products, manure, spent litter and composted dead birds are to be utilised as part of a land application strategy, the applicant shall demonstrate how the management system will meet the following objectives:

- effective utilisation of both the nutrient and organic matter components of the organic byproducts, manure, spent litter and composted dead birds;
- protection of the land resource from degradation, such as soil structural decline and salinisation;
- protection of groundwater resources from nutrient pollution;
- protection of surface waters from nutrient and particulate pollution; and
- maintenance of community amenity (ie. human health risk, odour, noise and visual

impact minimisation).

In order to meet these objectives the proponent will need to supply Council, with at least the following information.

Site Plan - an accurate map of the site showing the location of:

- (a) the area intended for the application of wastes;
- (b) any areas of land degradation;
- (c) manure and litter collection, treatment, and storage facilities;
- (d) areas of existing vegetation and land use;
- (e) any dwelling-houses, sheds or structures in proximity to application areas, including those on neighbouring properties; and
- (f) any watercourses.

Soil Description - an assessment of the soil's suitability for the proposal, including any structural works required. The soil description should identify the physical and chemical properties of the soil and assess its suitability for waste application. A general soil description (eg. sandy loam, grey cracking clay), some profile description (eg. duplex, gradational, uniform profile), and basic chemical characteristics (eg. pH, phosphorous sorption capacity), will usually be adequate. Your local Soil Conservationist or District Agronomist can assist.

Waste Description - an assessment of the volume and characteristics of the manure and litter to be applied. The most important information is the relative nutrient level in the waste. Nutrients such as nitrogen, phosphorous and potassium are vital for healthy plant growth, however, excessive application of these elements can result in contamination of ground and surface waters. For small scale proposals the waste information contained in Agfact AC.20 Organic Fertilisers – An Introduction, 1992, (included in Schedule 1 to this Chapter) may suffice while larger proposals should have an analysis of the wastes undertaken.

Nutrient Budget - the budget should estimate the levels of applied nutrients, mainly nitrogen, phosphorous and potassium, and show to what extent they are removed in crops and pastures or by grazing animals. Cropping would normally remove greater quantities of nutrient compared with grazing since nutrients will not be recycled as animal manure. It is important that nutrients applied are not greatly in excess of nutrients removed to ensure sustained crop / pasture health and avoid environmental degradation. Information on the nutrients used by various crops and pastures are available from NSW Industry and Investment (Agriculture).

Application Methods - this should describe the method of application, how the application area is separated from sensitive areas and proposed rates of manure and litter. The most common application method is topdressing with a bulk spreader.

Areas for waste application are to be separated from waterways and areas of native vegetation by a 20 metre wide vegetated filter strip. This will reduce nutrient losses after heavy rain. Nutrient pollution of waterways can cause eutrophication and algal growth while native vegetation suffers from increased competition from exotic species and general decline when subjected to high nitrogen and phosphorous fertilisers.

As the soil fertility in the Cessnock area is generally low to moderate, initial rates of fertiliser use may be higher than that required for general maintenance of soil nutrient and sustained production of crops and pasture. To determine initial application rates, a soil test may be useful. As a guide, maintenance applications are likely to be in the order of 4 t/ha/yr for high yielding harvested crops and pastures and 0.5 t/ha/yr for grazed pastures. Your local NSW Industry and Investment (Agriculture) District Agronomist can provide site specific advice on suitable application rates.

There may need to be a withholding period between application of wastes and grazing by livestock for animal health reasons. Your local Rural Lands Protection Board (Maitland) or NSW Industry and Investment (Agriculture) Veterinary Officer can assist.

Environmental Monitoring - monitoring of the application site and immediate environs is essential to ensure sustainable use of the site. The monitoring program should outline:

- (a) the indicators to be monitored - typically these indicators include the changes in nutrient status of surface and sub-surface soils;
- (b) when and how these indicators will be monitored - surface soils should be monitored on an annual basis while sub-surface soils need only be monitored on a three yearly basis (if surface soil conditions are acceptable); and
- (c) proposed management response to the results - it is vital that farm management respond to the results of monitoring, for example, if the soils are accumulating nutrients, application rates may need to be reduced;
- (d) the monitoring results are to be supplied to Council's Environmental Health Manager every year within one month of receipt by the farmer.

If any manure or litter is to be stored on site, for either commercial or domestic scale land application, it is essential that it is stored in such a way as to maintain the nutrient quality of the product and avoid any adverse environmental impacts. In general, such storage facilities would keep the material dry, avoid the potential for leaching of nutrients and restrict the potential for odour generation.

For further information on the land application of organic wastes contact your local office of NSW Industry and Investment (Agriculture).

Other Wastes, By-Products

Other wastes and by-products, such as used packaging, scratch trays, chick boxes and feed bags are to be recycled where possible, either in the existing form (after decontamination) or reconstituted for other purposes. Where this is not possible, prompt and safe disposal is to be arranged. Refuse SHALL not be allowed to accumulate around the farm as it provides ideal harbours for pests and vermin.

6.4.2 Transport

The timing and manner of transport activities relate directly to the likely impacts of the farm on other properties. Deliveries of feed, transport of eggs and pick-up of grown birds constitute the majority of heavy transport movements around the poultry farm site. Transport movements may be a source of problems with noise, dust and lights. Legislation such as the *Protection of the Environment Operations Act* may have a direct influence on acceptable practices.

Transport issues include:

- timing and frequency of operations and the effects on nearby properties;
- the use of transport routes through built-up or residential areas;
- method of movement, size of vehicle and equipment used for loading, transfer, etc.;
- speed of operation and operator behaviour;
- public safety;
- hygiene and poultry health;
- poultry welfare;

- operator and worker safety;
- spillage, loss of load or escaping birds from loads; and
- feathers from loads of birds.

Where a farm is to be located in a potentially sensitive area from a transport viewpoint, the use of noise reduction technologies are to be considered. Mufflers fitted to trucks, fork-lifts and other noisy equipment can reduce noise significantly.

The behaviour and practices of vehicle drivers are of importance. The following suggestions are made to reduce noise, dust and light problems:

- drive at moderate speeds, particularly on narrow, local, or unsealed roads;
- secure loads carefully to prevent the loss of birds;
- use covers on loads such as litter, manure, and feed to prevent dust and feathers blowing from the load;
- avoid prolonged idling or parking in proximity to residences;
- avoid the use of exhaust brakes or noisy gear changes close to residences;
- avoid directing powerful driving lights towards dwelling-houses; and
- consider methods of minimising feather loss from live birds during transport.

6.4.3 Pest Control

Pests and vermin control strategies need to be designed and conducted efficiently and regularly. Starlings, sparrows, rats, mice, flies, mosquitoes, lice, mites, and ticks all have implications in the transmission of poultry diseases and product quality, with some having additional human health considerations. Free range farms have the additional problem of foxes, hawks, crows, cats and dogs to contend with.

The control of pests shall be integrated with other site management operations. A four part management strategy is recommended, which is to be submitted to Council for approval as part of the development application:

- eliminate breeding sites and harbours;
- exclude access to poultry houses, food and water;
- maintain control programs; and
- encourage natural predators.

6.4.4 Disease Control

Poultry diseases are a constant threat to the intensive poultry farm. Management programs should include strategies including:

- isolation from other poultry farms;
- separation distance from boundaries;
- property quarantine;
- source and introduction of stock; and
- vaccination and medication programs.

Maintenance of quarantine facilities and procedures is vital in the prevention of disease on the farm. Quarantine, hygiene and vaccination should be the first choices in disease control and a failure in any of these primary areas will inevitably result in increased disease control costs. For further information contact your local office of NSW Industry and Investment (Agriculture).

6.4.5 Poultry House Environmental Control

An important issue in the welfare and productivity of the poultry on the farm is the maintenance of the environment in which the birds live. Under intensive production systems, the poultry house design features to control the internal environment include: insulation; fans; foggers; reflective paints; brooders; blinds; and curtains. Given the dependence of many environmental control mechanisms on electricity, and in the interests of animal welfare, intensive poultry farm operations should possess an alternate power supply in case of an emergency. This may be by way of power generating equipment or tractor operated pumps. At modern shed stocking densities the lives and welfare of poultry livestock do depend on a backup source of power supply.

6.4.6 Maintenance

Even the best designed and located poultry facility has the potential for significant conflict with surrounding land uses in the absence of a basic level of farm maintenance. Roadways, landscaping, waste systems, farm plant and machinery, buildings, and drainage systems are among the major elements which require maintenance in order to avoid adverse off-site impacts.

The advantages of a well maintained farm include:

- improved public perception of the cleanliness and professional nature of the farm;
- reduced visual impact;
- improved farm security in relation to disease control, predator control and maintenance of quarantine; and
- product quality control.

6.5 POTENTIAL IMPACTS ON SURROUNDING LAND USES, MINIMISATION OF IMPACTS – PLANNING ISSUES

6.5.1 Potential impacts on surrounding land uses

Intensive poultry industries can result in conflict with nearby land uses, particularly residential activities, as a result of: odour; noise; dust; lights; and declining visual amenity.

The development application process addresses the potential conflicts apparent at the time of application lodgement. Development approval does not guarantee a right to continue to operate, even if the most advanced technology and management practices are employed. Relevant pollution control legislation such as the *Protection of the Environment Operations Act* shall be complied with at all times.

For these reasons it is recommended that poultry operations locate in isolated areas and that operators be aware of proposed developments in proximity to their boundaries.

6.5.2 Impact Minimisation

Poultry sheds and facilities require isolation from other land uses to reduce potential adverse impacts on community amenity and to ensure poultry health.

Community Amenity

In order to prevent conflict between the poultry farm and surrounding land uses, separation distances shall be carefully considered.

The separation distance between the source of the impact (odour, dust, noise or lights), and each receptor will be a function of:

- the source and strength of the impacts;
- the number of receptors;
- receptor proximity to the development
- the prevailing local meteorological conditions; and
- the nature of the intervening terrain and vegetation.

Therefore, proposals for poultry farms require evaluation on individual merits due to the complexity of the determination of a separation distance. A merit based system will need to identify the sources of potential conflict, methods of impact amelioration and make an assessment of the suitability of these methods. **Table 1**, below, identifies the types of impacts and the sources of these impacts, while **Table 2** identifies the general amelioration principles by which these proposals shall be assessed. It should be noted that this list is not exhaustive and depending on the location and type of farm proposed the relevance of these factors will change.

Recommended separation distances for proposed adjoining land uses and poultry developments are provided in Part C: General Guidelines, Chapter 4: Land Use Conflict & Buffer Zones. These figures are a guideline only, and effective distances will depend on the nature of the site and surrounding land uses and the methods proposed to reduce impact.

Table 1: Impacts & their sources: Assessment of Poultry Development Proposals.

Impacts	Sources
Lights	Laying sheds; vehicles and machinery.
Noise	Vehicles; plant and machinery; stock; feed mills.
Odour	Wet manure, birds and feed; burning of waste; bird odour; dead birds; chemicals and feed; manure/litter stockpiles; waste utilisation areas.
Dust	Feed deliveries; vehicles; manure stockpiles; site operations; feed mills.
Visual	Untidy site; obtrusive structures, such as plain metal feed hoppers.

Source: NSW Agriculture, 1993.

Table 2: General principles for the amelioration of adverse impacts.

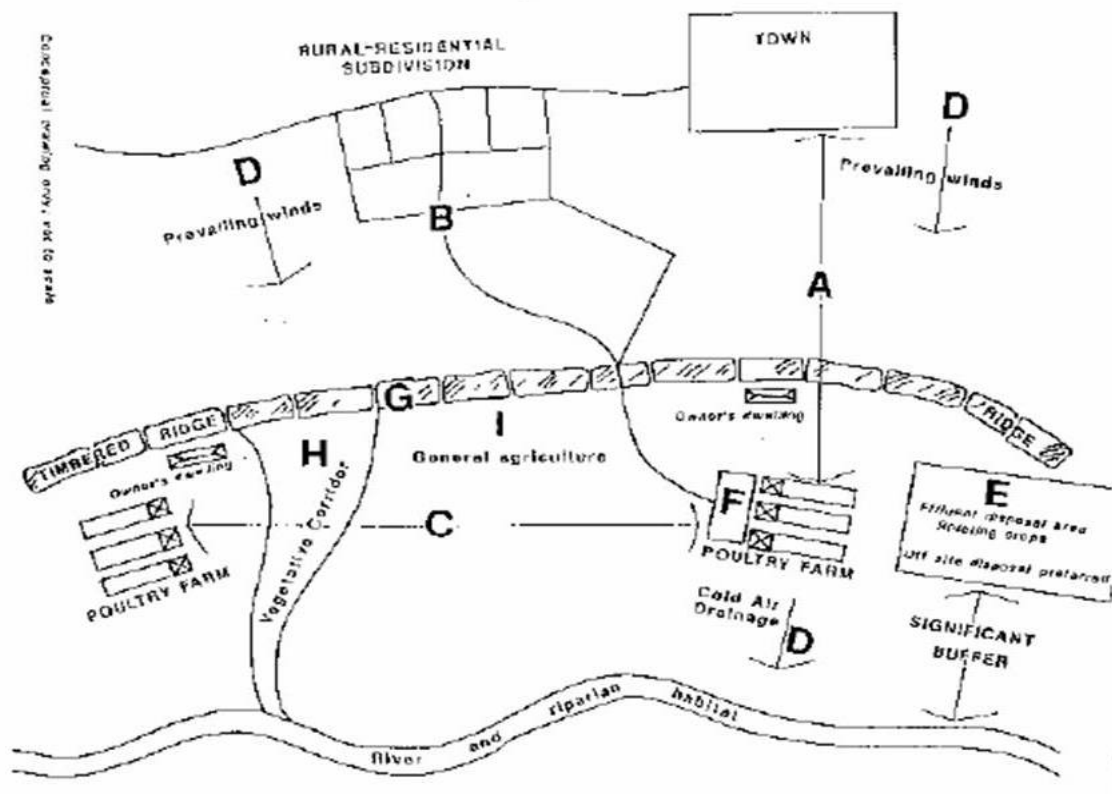
- | |
|---|
| <ul style="list-style-type: none"> • Separation from points of perception. • Site management. • Farm design. • Conditions. • On-site shed and facility location. • Vegetative screens. • Bund walls. • Landscaping. • Construction materials. • Check local weather conditions. |
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Source: NSW Agriculture, 1993.

Figure 1 (below) demonstrates the practical application of many of these principles.

While the selection of a site with one or more unfavourable environmental parameters is not encouraged, some site disadvantages can be overcome or reduced by appropriate engineering works or superior management practices. Where such a site is chosen, design features will need to clearly demonstrate how the site disadvantages will be overcome. Performance of these sites will require close monitoring.

Figure 1: General Principles for the amelioration of adverse impacts



Explanatory Notes

- A Large separation distance to established residential areas is required.
- B Urban development, increasing allotment size close to poultry development and maintenance of suitable setback is required.
- C Suitable separation distance between poultry houses.
- D Prevailing winds away from established residential areas. Cold air drainage away from established residential areas.
- E On-site effluent disposal areas (if adopted), to:
 - be located on suitable land;
 - have adequate area for rotations;
 - have adequate nutrient harvesting;
 - be separated from sensitive sites (eg. waterways); and
 - be monitored.
- F Vehicle parking, turning and loading area screened to avoid headlights disturbing poultry and neighbours and to reduce noise nuisance.
- G Visual screening by trees and topography.
- H Native vegetation to be linked to allow for movement of fauna.
- I General agricultural activity is compatible with poultry development and is a suitable surrounding land use.

Poultry Health

Poultry health can be affected by surrounding land uses and the size of the farm tends to determine the required separation distance from roads, property boundaries and other poultry farms. Farm sizes are defined in **Table 3** while recommended separation distances are given in **Table 4**. The issues facing large farms are more complex and therefore, suitable separation distances should be assessed on individual merits.

Managers of established farms should be aware of proposed poultry developments in proximity to their operation and should raise any concerns over the encroachment of other farms during the development application process.

Table 3: Sizes of Poultry Farms.

	Small	Typical	Large
Broilers			
Sheds	1 - 2	3 - 5	> 5
Birds	< 45,000	45,000 – 75,000	> 75,000
Floor area (m ²)	< 4,000	4,000 – 6,500	> 6,500
Layers			
Birds	< 10,000	10,000 – 30,000	> 30,000
Floor area (m ²)	< 600	600 – 1,800	> 1,800
Breeding farms			
Birds	< 15,000	15,000 – 25,000	> 25,000
Floor area (m ²)	< 4,000	4,000 – 7,000	> 7,000

Source: Draft NSW Poultry Farming Guidelines, NSW Agriculture, 1993.

Table 4: Recommended external separation distances for small and typical poultry farms for the purposes only of poultry health.

Situation	Small Farm	Typical Farm
Property boundary	50 metres	50 metres
Well trafficked public road	100 metres	100 metres
Other poultry farms	500 metres	1000 metres

As with all separation distances, the physical environment, design and management features will affect the suitability of the distance, therefore, the distances provided in Table 4 are given as a guide only.

Source: Draft NSW Poultry Farming Guidelines, NSW Agriculture, 1993.

6.6 GUIDELINES FOR DEVELOPING LAND AROUND POULTRY FARMS

6.6.1 The impact of further Development or Subdivision around Poultry Farms

As poultry farms have the potential to adversely affect surrounding land uses, increased development / subdivision in proximity to existing poultry farms, also has the potential to significantly impact upon their operation.

Further development and subdivision around poultry farms increases the number of land users around the farm. Any increase in the number of land users in proximity to an existing poultry farm will increase the potential for conflict because of an increase in the number of

odour, dust, noise, and light receptors, an increase in the number of people viewing the site and the potential for collective action by those people.

In considering an application for further development / subdivision around existing poultry farms, the applicant will be required to make a detailed assessment of the following:

- proximity of the proposed development / subdivision to the existing farm;
- existing and proposed development densities around the poultry farm;
- the need for building envelopes to restrict the location of dwelling-houses within the subdivision;
- topographic relationship between the proposed development / subdivision and the existing poultry farm;
- local climatic relationship between the proposed development / subdivision and existing poultry farm (eg. wind pattern, cold air drainage);
- visual relationship between the proposed development / subdivision and existing poultry farm;
- the impact of any clearing associated with the subdivision and details of any proposed landscaping.

6.7 POULTRY PRECINCTS WITHIN THE CESSNOCK LOCAL GOVERNMENT AREA

There are two important poultry precincts within the Cessnock Local Government Area:

- (1) Sawyers Gully; and
- (2) Branxton – Greta.

In order to protect the economic viability of these important poultry precincts, specific controls shall determine the continued development of land adjoining and in proximity to existing poultry farms as detailed in Figures 3 & 4. Applications will be required to conform to specific precinct plans as well as the requirements of this Chapter.

6.8 IMPACTS OF SURROUNDING LAND USES ON POULTRY FARMS

Surrounding land uses have the potential to impact upon the management, productivity and animal welfare of existing poultry farms.

Examples of incompatible surrounding land uses include:

- residential development;
- hospitals; and
- industrial.

NOTE: indicates that the activity can indirectly impact on an existing poultry farm by increasing the number of receptors around the farm which may result in increased conflict.

- recreation facilities;
- other poultry farms; and
- animal boarding or training establishments.

NOTE: indicates that the activity can directly impact on an existing poultry farm (eg. by way of noise, disease carrying, animal intrusion etc).

Incompatible land uses will be discouraged in proximity to existing poultry farms.

6.9 CONFLICT MINIMISATION

The development of land around existing poultry farms requires careful consideration to reduce the potential for conflict between land uses.

Table 5 demonstrates practical applications which are to be used to ensure that development on land in proximity to existing poultry operations is acceptable and which at the same time promotes a desirable environment for the new development.

Minimum recommended separation distances for developments not listed in Part C: General Guidelines, Chapter 4: Land Use Conflict & Buffer Zones, will be merit based and dependent upon the nature of the development and site.

Figure 3 - Precinct 1 - Sawyers Gully

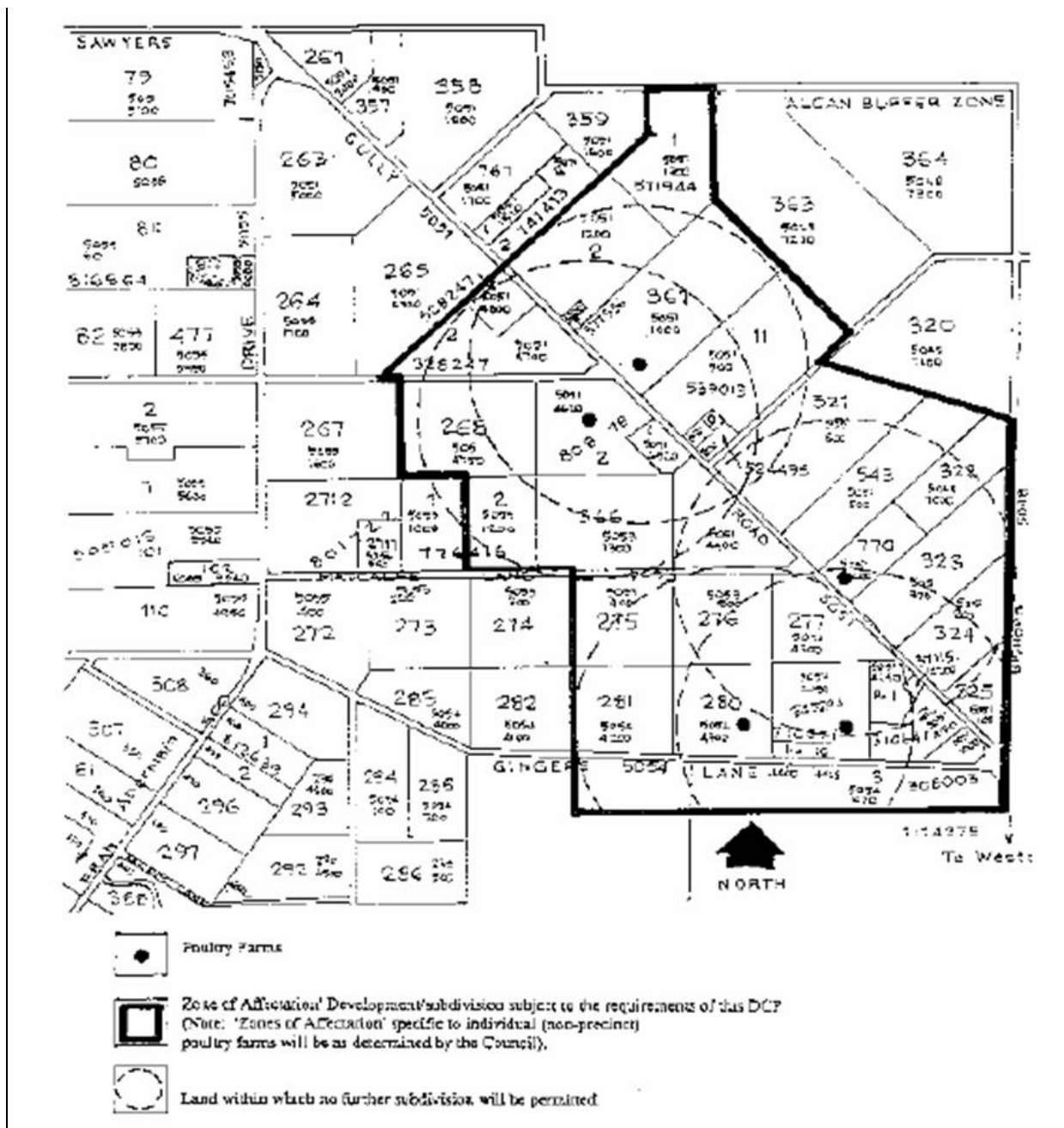


Figure 4 - Precinct 2 - Branxton - Greta.

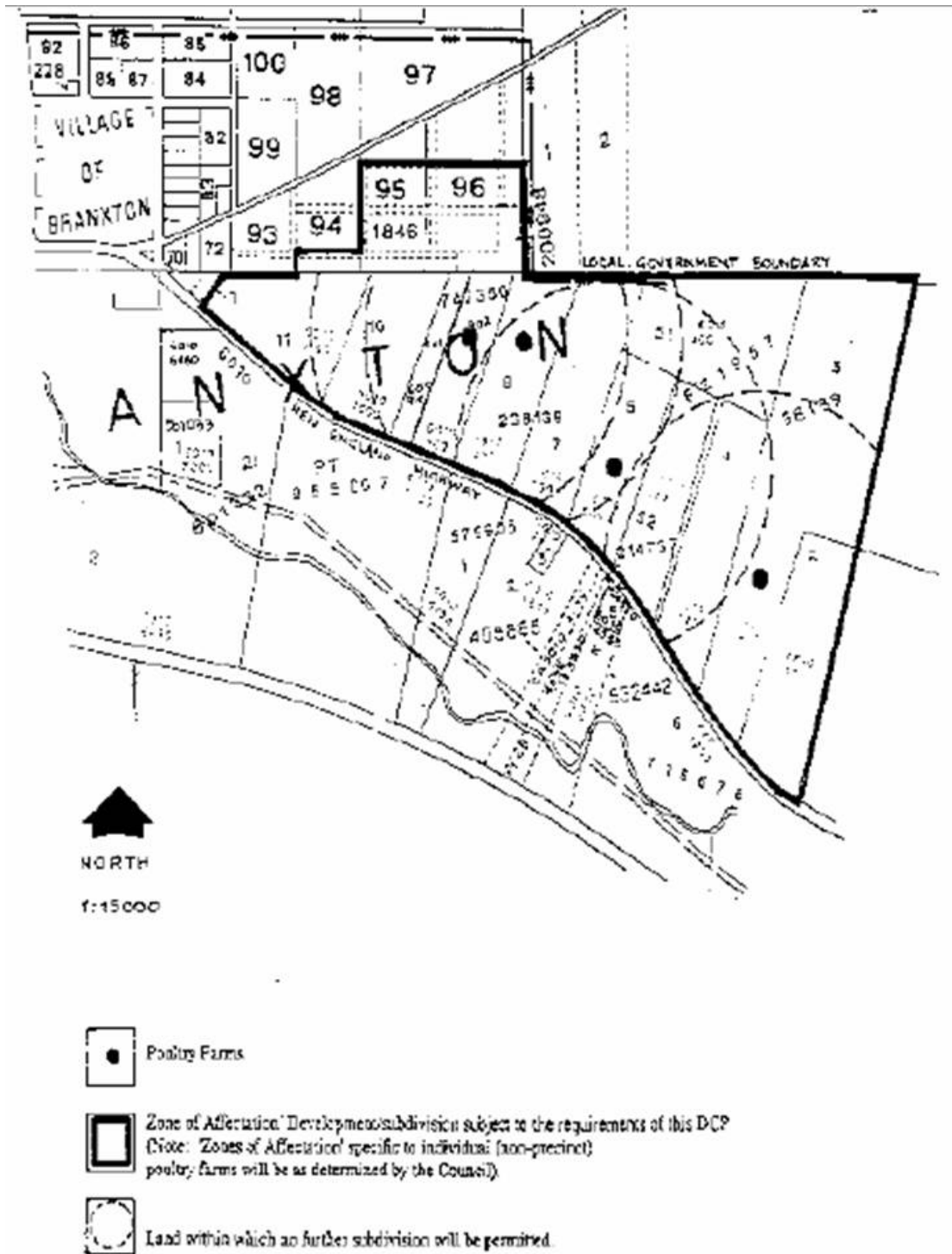


Table 5: Potential Impacts - Conflict Reduction

Potential Impact	<i>Adjoining land uses can reduce conflict with existing poultry operations and promote a desirable environment for themselves.</i>
<i>Visual</i>	<ul style="list-style-type: none"> * Where possible, site development out of the line of visual impact (eg. where topography / distance can prevent visual impact from occurring). * Provide vegetative screening between the sight line of the development and poultry operation. Existing vegetation can be utilised where suitable. * Design the building so that windows of frequently used areas (eg. dining, living and kitchen areas) do not face the poultry operation.
<i>Noise</i>	<ul style="list-style-type: none"> * Site the development at a reasonable distance from the poultry operation. * Use vegetative screening as an acoustic buffer to divert and filter direct noises. * Design the building so that any bedrooms, studies etc. do not face direct noise sources. * Locate site operations to reduce potential noise generation (eg. noisy machinery may need to be housed).
<i>Lights</i>	<ul style="list-style-type: none"> * Site the development at a reasonable distance from the poultry operation. * Use vegetative screening to soften the impact of lights. * Design the building so that any bedrooms do not directly face obtrusive lights, including on-coming vehicle lights. * Design site lighting to ensure lights do not affect existing farms (ie. by frightening poultry).
<i>Odour</i>	<ul style="list-style-type: none"> * Pay particular attention to lands in relation to the topography and microclimate of the area and ensure that the development is not sited in areas where concentrated odours can occur, such as: (1) downhill of a poultry farm where cold air drainage promotes channelling of strong odours; or (2) areas directly down wind of the poultry farm, particularly in summer. * Use vegetation to divert and diffuse pungent odours.
<i>Dust</i>	<ul style="list-style-type: none"> * Site the development at a reasonable distance from the poultry operation. * Pay particular attention to the relationship between lands in respect of the topography and microclimate (especially wind strength and direction) of the area and ensure that the development is not sited in areas where dust problems will occur. * Use vegetation to divert and diffuse any dust.

When locating a new development in proximity to an existing poultry farm, consideration shall also be given to the potential impacts on the farmer. Greater personal stress, reduced quality of life and requirements for greater capital expenditure may all result from encroaching unsympathetic development. These impacts may contribute significantly to operation closure or relocation.

SCHEDULE 1

Typical NPK levels (dry weight basis) of some wholly organic materials.			
	<i>Nitrogen (N) %</i>	<i>Phosphorus (P)</i>	<i>Potassium (K) %</i>
Poultry manure (litter)	2.6	1.8	1.0
Poultry manure (cage)	3.1	2.5	1.6
Cow Manure	1.5	0.5	1.2
Sheep Manure	1.7	0.5	1.2
Blood and Bone	5.3	5.2	-
Seaweed (kelp)	0.2	0.1	0.5
Fish Meal	10.4	2.5	-
Rat Guano	13.0	2.3	-
Sewage Sludge	2.0	1.0	-
Dried blood	14.0	-	-
Hoof and horn meal	13.0	-	-

Source: Agfact AC.20 Organic Fertilisers - An Introduction, 1992.