global environmental solutions

Intensive Livestock Agriculture

Euroley Poultry Production Complex

Briefing Paper

Report Number 610.14072

19 December 2014

ProTen Holdings Pty Limited
PO Box 1746
North Sydney, NSW 2060
Australia.

Version: Revision 0

Intensive Livestock Agriculture

Euroley Poultry Production Complex

Briefing Paper

PREPARED BY:

SLR Consulting Australia Pty Ltd
ABN 29 001 584 612
2 Lincoln Street
Lane Cove NSW 2066 Australia
(PO Box 176 Lane Cove NSW 1595 Australia)
T: +61 2 9427 8100 F: +61 2 9427 8200
sydney@slrconsulting.com www.slrconsulting.com

DOCUMENT CONTROL

Reference	Status	Date	Prepared	Checked	Authorised
610.14072	Revision 0	19 December 2014	Jessica Elmes	Nicole Armit	Nicole Armit
610.14072	Draft 1	18 December 2014	Jessica Elmes	Nicole Armit	Nicole Armit

Table of Contents

Table of Contents

1 INTRODUCTION

1.1 Overview

ProTen Pty Limited (ProTen) intends to seek development consent under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to develop an intensive poultry broiler production farm known as the Euroley Poultry Production Complex, within a rural property near Euroley in south-western New South Wales (NSW).

The Euroley Poultry Production Complex (herein referred to as the development) comprises the development of five poultry production units (PPU), where broiler birds will be grown for human consumption. Each PPU will comprise 16 tunnel-ventilated fully-enclosed climate-controlled poultry sheds, with associated support infrastructure and staff amenities. Each shed will have the capacity to house a maximum of 49,000 broilers at any one time, equating to a PPU population of up to 784,000 broilers, and a total farm population of 3,920,000 broilers.

An Environmental Impact Statement (EIS) will be prepared in accordance with the EP&A Act and associated *Environmental Planning and Assessment Regulations 2000* (EP&A Regulations) to accompany the development application. It will present a comprehensive and focussed evaluation of the matters pertinent to the proposal to a level of detail commensurate with the scale of the development, industry standards and the legislative framework under which it is permissible.

This Briefing Paper is intended to inform the relevant government agencies of the proposed development, identify and overview the key environmental issues, and provide sufficient information to allow the preparation of appropriately targeted Secretary's Environmental Assessment Requirements (SEARs). On this basis, this Briefing Paper comprises the following information:

- A brief description of the proposed development site and surrounding locality (**Section 2**);
- An overview of the primary components of the proposed development (**Section 3**);
- An outline of the planning considerations applicable to the proposed development (**Section 4**);
- Identification of the key environmental issues (**Section 5**); and
- A summary of project management matters (**Section 6**).

1.2 The Proponent

ProTen currently owns and operates eight poultry production complexes within Australia, including seven in NSW near Griffith and Tamworth, and one in Western Australia (WA) near Serpentine. Cumulatively, these complexes comprise 172 poultry sheds and have an annual capacity of close to 42 million birds.

ProTen has long term extendible contracts to supply chickens to Australia's largest chicken processor, Baiada Poultry Pty Ltd (Baiada), who markets and sells chicken products under the well established brand names of Baiada, Steggles and Lillydale. The company currently employs close to 60 people in NSW and WA.

1.3 Project Team

SLR has been engaged by ProTen to project manage the development application and prepare the EIS required to accompany the development application for the proposed development. The following specialist consultants have been engaged to undertake key specialist studies to assist in the assessment of the proposed development:

- Pacific Environment – Air Quality Impact Assessment;
- Global Acoustics – Noise Impact Assessment;
- RoadNet – Traffic Impact Assessment;
- SLR – Ecology Assessment; and
- OzArk – Aboriginal Heritage Assessment.

At this point in time, the engagement of additional specialist consultants for the EIS is not considered necessary, with SLR intending to address other identified environmental issues in-house (see **Section 5**).

1.4 Development Rationale

1.4.1 Strategic Context

According to statistics published by the Australian Bureau of Agricultural and Resources Economics and Sciences (ABARES), the popularity of chicken meat has grown enormously over the last 30 years to the extent that it is currently the most consumed meat in Australia. The total chicken meat production in Australian has increased from approximately 380,000 tonnes in 1989-90 to around 1,046,000 tonnes in 2012-13, and it is expected to continue increasing to close to 1,250,000 tonnes in 2018-19.

Over 95 percent of the chicken meat produced in Australia is consumed domestically. The 2012-13 per capita rate of consumption was 44.1 kilograms, compared to 36 kilograms in 2008-09 and just 13 kilograms in 1975. ABARES estimates that chicken meat consumption in Australia will continue to rise, reaching 47.7kg per person by 2018-19. This trend is closely associated with price, nutrition and the industry's innovation to provide a variety of chicken meat products.

In 2012-2013, approximately 550 million chickens were processed in Australia, and based on current growth projections, it is estimated that by 2018-19 this will rise to close to 700 million birds per year.

1.4.2 Project Objective

ProTen's primary objective is to develop an intensive broiler production farm within the wider Griffith area, adopting best practice in design, operation and management, to meet the immediate and projected long-term demand for broiler/meat chickens.

The poultry industry has a high recognition factor in the Griffith region and provides a significant contribution to the local economy. Combined with the operations of Baiada, including a chicken hatchery, a poultry feedmill and a poultry processing farm, the poultry industry within the Griffith area is a perfect example of vertical integration where each of the operations produce a different product or service and these combine to satisfy a common need.

It is imperative that poultry broiler farms, such as that proposed, be allowed to exist in close proximity to the grain belt, a reliable water supply and interdependent hatchery, feedmill and processing facilities.

2 SITE DESCRIPTION

2.1 Development Site

The proposed development site is positioned off the Sturt Highway, approximately 26 kilometres north-west of Narrandera and 48 kilometres south-east of Griffith in south-western NSW (see **Figure 1** and **Figure 2**). It compromises approximately 1,160 hectares of rural land within the Parish of Ourendumbee, County of Boyd and Local Government Area (LGA) of Narrandera.

The topography of the development site (and surrounding lands) is relatively flat, ranging between approximately 133 metres Australian Height Datum (AHD) and 138 metres AHD. As evident on **Figure 2**, the visual amenity is that of a rural property that has been significantly modified by historic land clearing and long-term agricultural production activities.

2.2 Zoning

Under the provisions of the *Narrandera Local Environmental Plan 2013* (Narrandera LEP 2013), the development site (and all surrounding lands) is zoned RU1 Primary Production. Intensive livestock agriculture is permissible within this zone.

2.3 Land Ownership

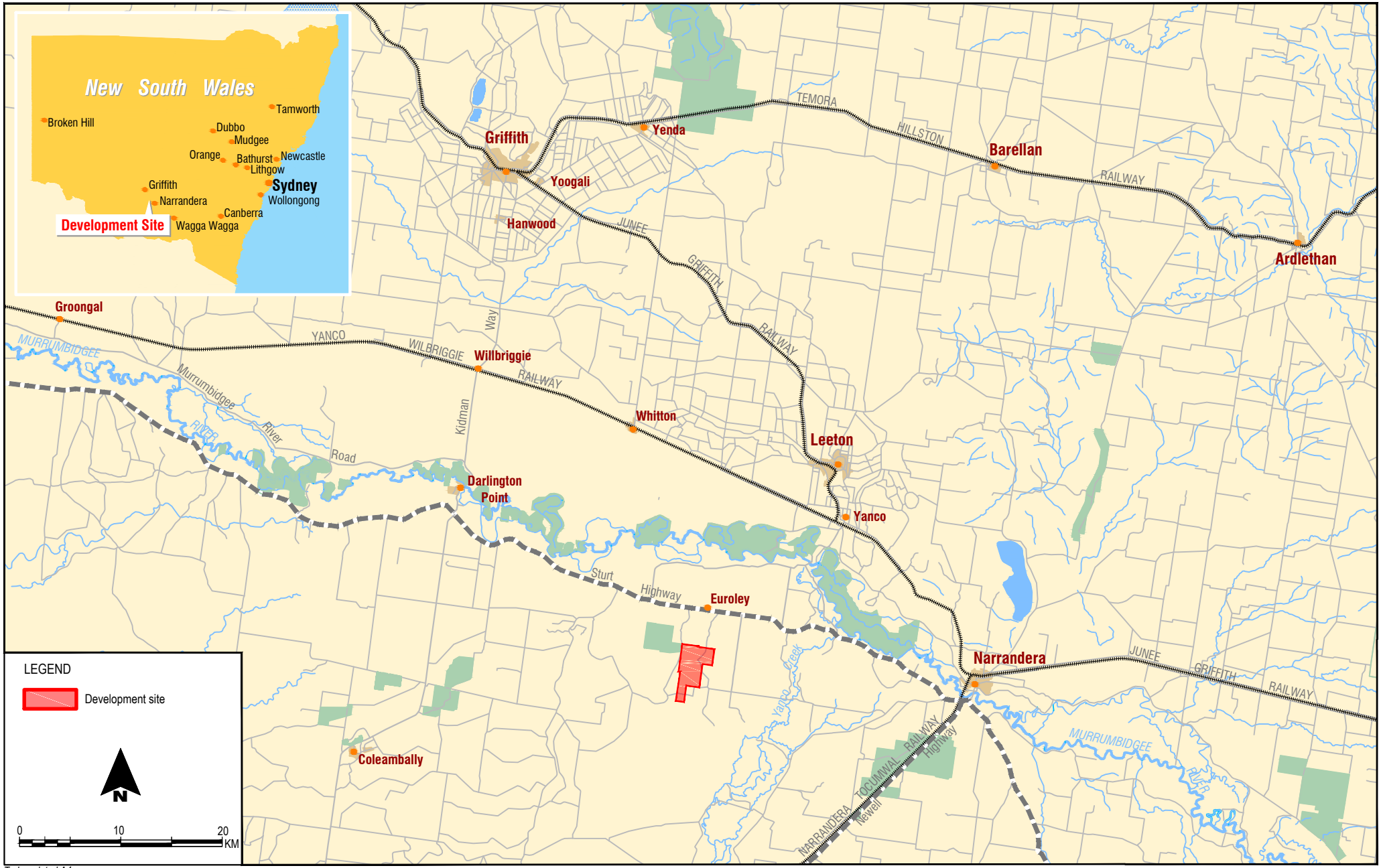
ProTen has entered into a conditional contract for the purchase of the development site from the current land owners, with settlement subject to receiving development consent. This conditional contract covers the land parcels listed in **Table 1** which are the subject of this Development Application (refer **Figure 2**).

Table 1 Schedule of Lands

Lot	Deposited Plan
41	750898
42	750898
1	750898
1	1054064
44	750898
45	750898
54	750898

2.4 Existing Land Use

The long-standing and existing use of the development site is traditional agricultural production. As discussed above, the site primarily comprises paddocks that have been consistently cropped and grazed for many years. No large remnant patches of vegetation remain within the development site. Across the site there are small areas of vegetation, such as in the north east corner and along the drainage lines that traverse the site. The surrounding neighbourhood is also primarily characterised by traditional agricultural production.

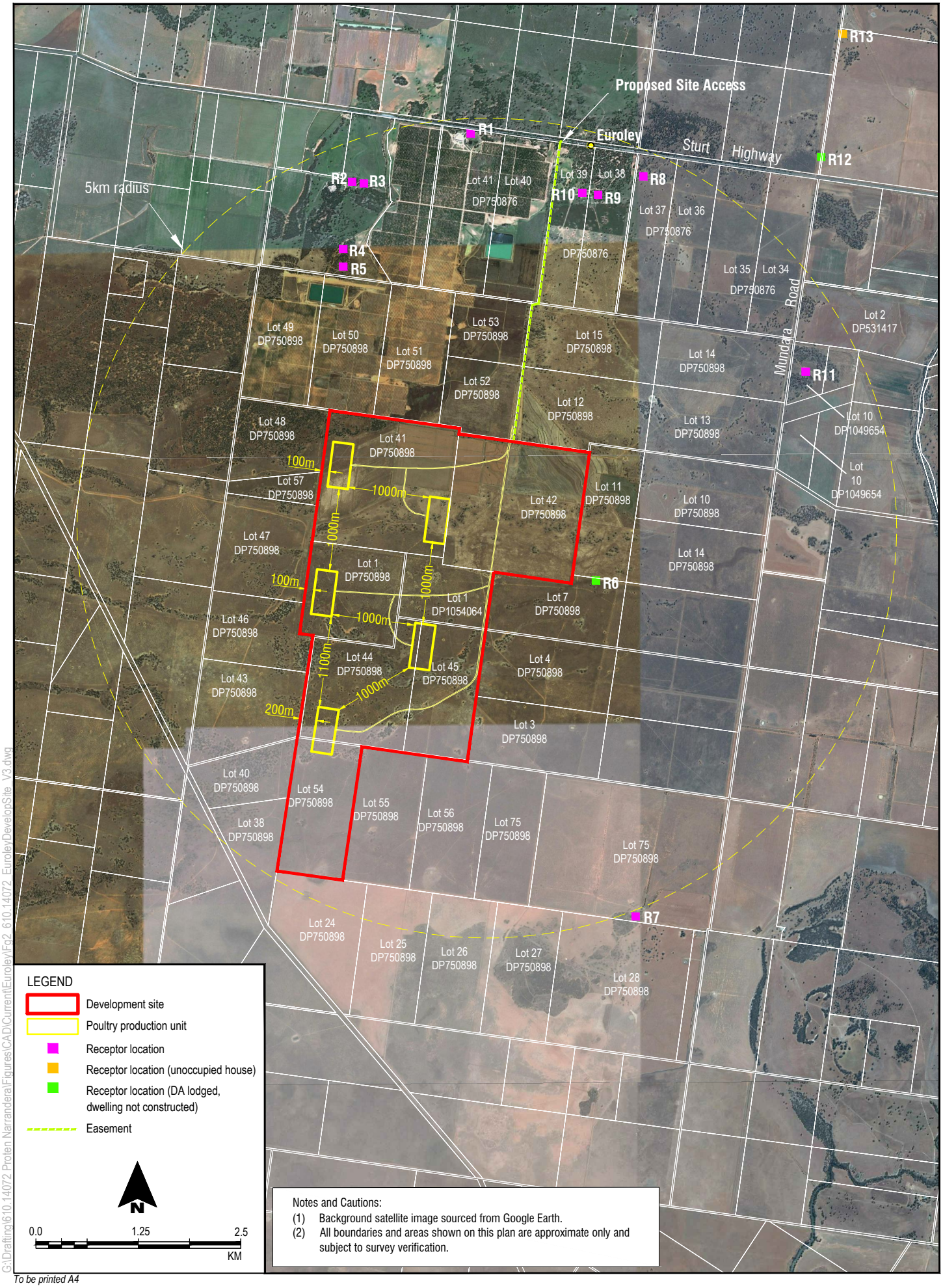


To be printed A4

SLR

Regional Locality

FIGURE 1



G:\Drafting\610.14072 Proten Narrandera\Figures\CAD\Current\EuroleyIFg2_610.14072_EuroleyDevelopSite_V3.dwg

To be printed A4

SLR

Development Site

FIGURE 2

2.5 Surrounding Residences

The development site is removed from any urban areas and, as evident on **Figure 2**, there is a very low density of surrounding residential dwellings. The nearest populated area is identified as the Narrandera township located approximately 26 kilometres to the south-east of the site.

The nearest privately-owned residences, R5 and R4 are located approximately 2.1 kilometres and 2.3 kilometres respectively to the north of the northern-most PPU, as illustrated on **Figure 2**.

In addition, it is understood that a Development Application has been lodged with Narrandera Shire Council for a dwelling approximately 2.2 kilometres east of the development site (R6). Whilst a residence has not been constructed on this property, given that a DA has been lodged, this receptor will be considered in the EIS.

2.6 Vegetation

The majority of the site is devoid of significant vegetation, primarily comprising paddocks that have been consistently cropped and grazed for many years. There are however small sections of vegetation, particularly to the north of the site, and along the drainage lines.

Terrestrial biodiversity is addressed in Part 6 clause 6.5 of the Narrandera LEP 2013. This clause applies to land that is identified as 'biodiversity' on the Terrestrial Biodiversity Map in the LEP. Parts of the proposed site are mapped as 'biodiversity' under the Narrandera LEP 2013. Before determining a development application for development on land mapped as biodiversity, the consent authority must consider whether the development is likely to have any adverse impact on fauna and flora on the land, and any measures proposed to avoid, minimise or mitigate the impacts of the development (refer **Section 5.3.6**).

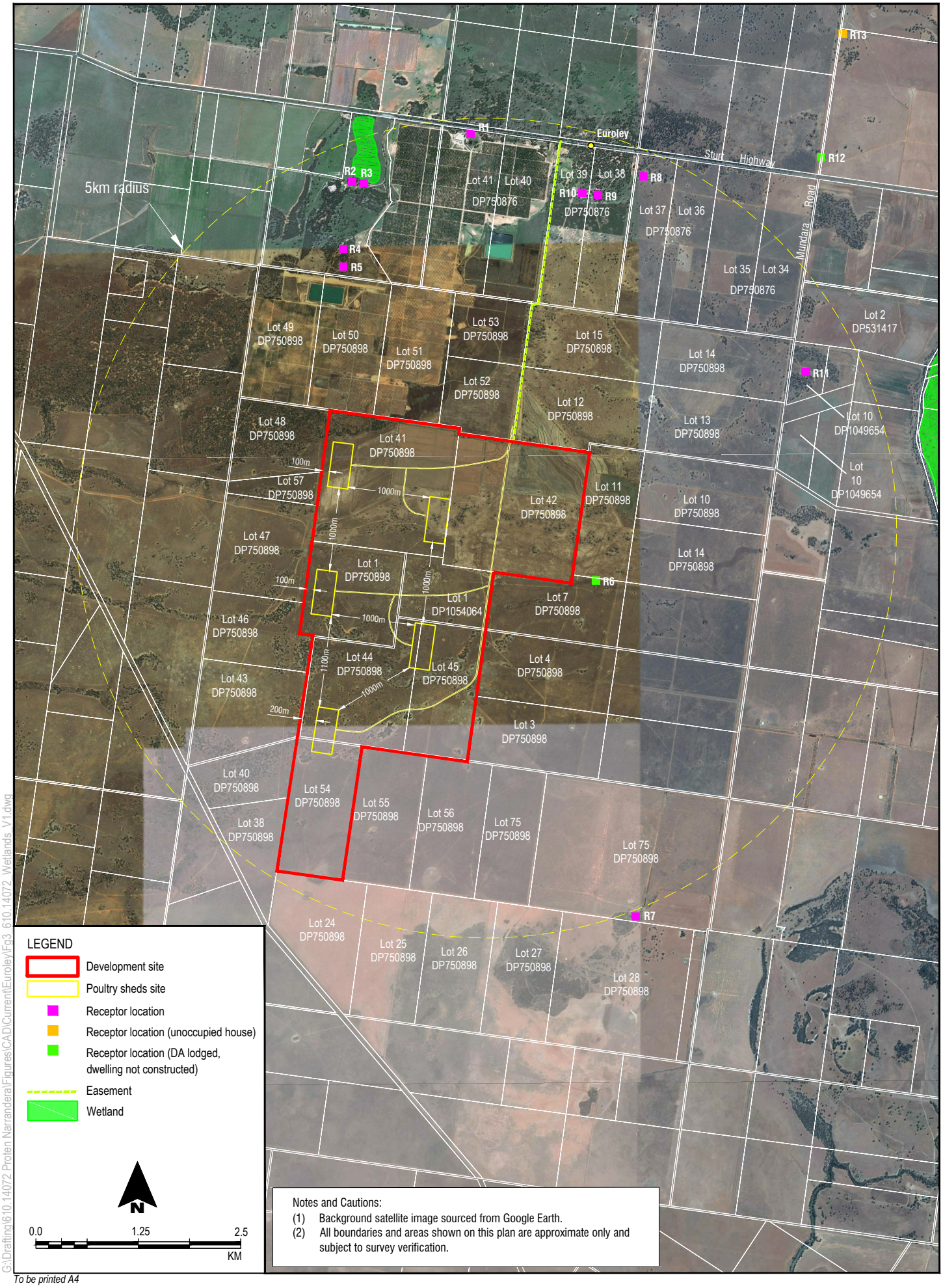
2.7 Water

There are no water courses mapped within the development site as shown on the Watercourse Map in the Narrandera LEP 2013. There are however some ephemeral drainage lines that traverse the site.

Flood planning is addressed in Part 6 clause 6.2 of the Narrandera LEP 2013. This clause applies to land that is identified as 'flood planning area' on the flood planning map in the LEP, or to other land at or below the 'flood planning level' (FPL). The development site is not identified as 'flood planning area' in the Narrandera LEP 2013, however a Flood Management Plan will be prepared as part of the EIS.

There are no wetlands mapped within the development site as shown on the Wetlands Map in the Narrandera LEP 2013. The nearest wetland is approximately 3.2km north of the northernmost PPU as shown on **Figure 3**.

Groundwater management is addressed in Part 6 clause 6.5 of the Narrandera LEP 2013. This clause applies to land that is identified as 'groundwater vulnerable' on the groundwater vulnerability map in the LEP. The site is mapped as groundwater vulnerable under the Narrandera LEP 2013.



G:\Drafting\610.14072 Proten Narrandera\Figures\CAD\Current\Euroley\Fg3_610.14072_Wetlands_V1.dwg

To be printed A4

SLR

Wetlands

FIGURE 3

3 PROPOSED DEVELOPMENT

3.1 Overview

ProTen intends to submit a development application seeking consent under Part 4 of the EP&A Act to develop five PPUs where broiler birds will be grown for human consumption. **Figure 4** shows the preferred location and conceptual layout of the development site, and **Table 2** contains a summary of some of the key development elements.

Table 2 Summary of Proposed Development

Development Characteristic	Proposed Development
Purpose	Birds grown for human consumption
Number of PPUs	Five, with a total footprint of around 70 hectares
Number of poultry sheds per PPU	16, each measuring 160 metres long by 17 metres wide
Type of poultry sheds	Tunnel-ventilated, fully-enclosed, climate-controlled
Maximum shed population	49,000 birds
Maximum PPU population	784,000 birds
Maximum farm population	3,920,000 birds
Maximum bird density within sheds	40 kg/m^2
Hours of operation	24 hours a day, 7 days a week
Production cycle length	Approximately 9 weeks, comprising a maximum bird occupation of 8 weeks and a cleaning phase of 1 week.
Number of production cycles per year	Approximately 5.7 on average

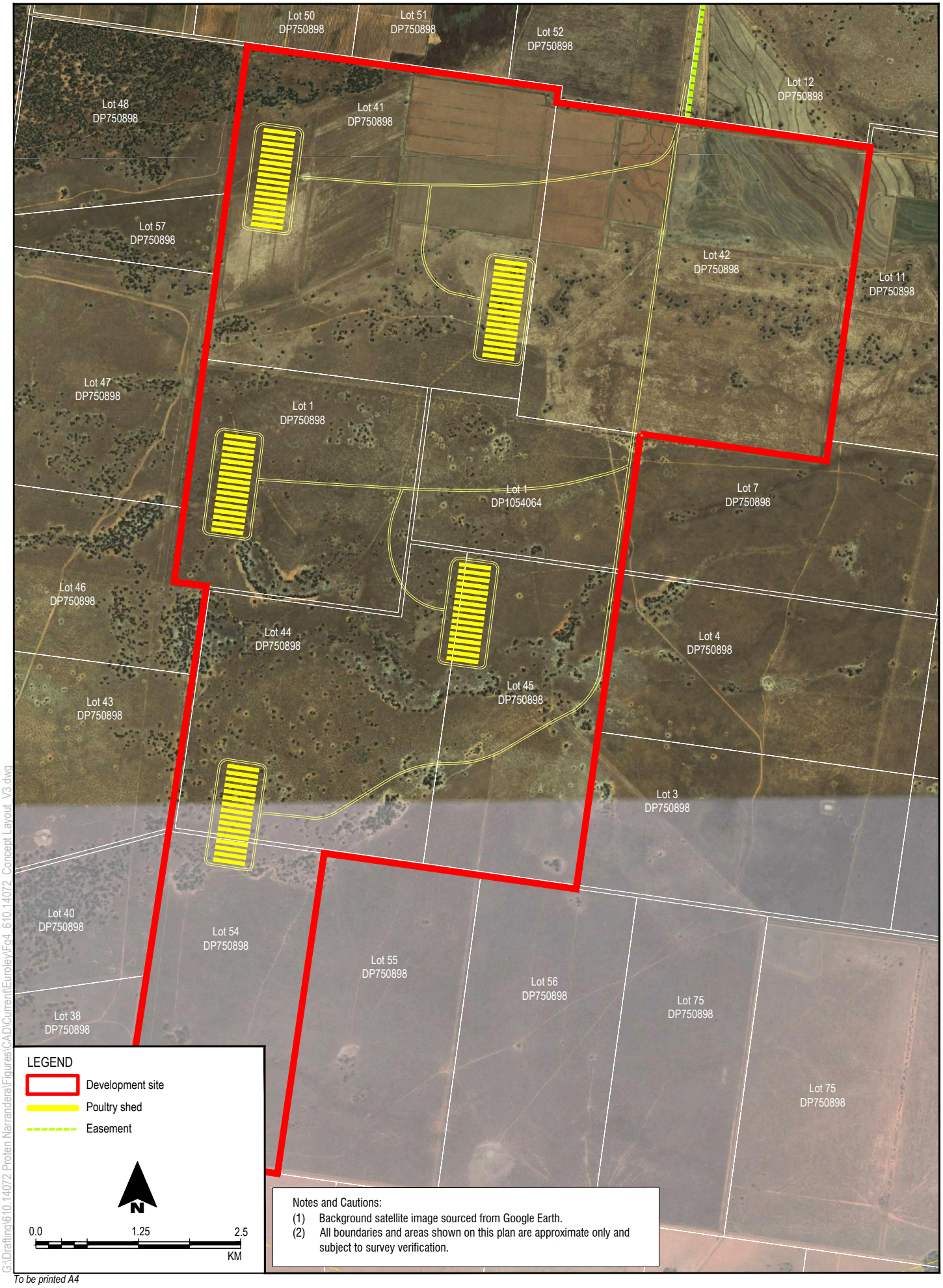
Each of the proposed PPUs will comprise 16 tunnel-ventilated fully-enclosed climate-controlled poultry sheds, with associated support infrastructure and staff amenities. Each shed will have the capacity to house a maximum of 49,000 broilers at any one time, equating to a PPU population of up to 784,000 broilers. The total maximum population for Complex will be 3,920,000 broilers at any one time.

The proposed disturbance footprint of the development will be relatively small and the commercial activities associated with the poultry operation will be largely confined to this area. At this point in time it is intended to continue using the land outside of the disturbance footprint for continued agricultural production purposes under some form of lease or share farming arrangement.

In addition to poultry shedding, the development will also include:

- The construction of 10 residential dwellings to accommodate farm managers and assistant farm managers; and
- The construction of ancillary infrastructure and improvements required to support the poultry production operation.

Plate 1 shows the recently developed Jeanella Poultry Production Farm also located in the Griffith region. This shows the typical layout of poultry sheds and ancillary infrastructure and improvements.



G:\Drafting\610.14072 Proten Narrandera\Figures\CAD\Current\Euroley\Fg4_610.14072_Concept Layout_V3.dwg

To be printed A4

SLR

Conceptual Layout

FIGURE 4

Photo location: ProTen's Jeanella Poultry Production Complex, Goolgowi NSW

Plate 1 Example Poultry Broiler Sheds

3.2 Poultry Sheds

Each poultry shed will measure approximately 160 metres long by 17 metres wide, with a bird space of approximately 2,720 square metres. They will measure approximately 4.2 metres to the ridge of the roof and approximately 2.4 metres to under the eaves.

Photo location: ProTen's Murrami Broiler Complex near Tamworth NSW

Plate 2 Example Poultry Broiler Sheds

The poultry sheds will be separated laterally within the PPU by a distance of approximately 15 metres. Construction will comprise steel framework, zincalume corrugated iron roofs and cool room sandwich panel walls (two metal faces with a fully insulted core) using a non-reflective colour-bond type material in an appropriate shade, such as eucalyptus green. The sheds will have fully-sealed concrete flooring and will be surrounded by a dwarf concrete bund wall to prevent rainwater and runoff entering the sheds and to allow for the controlled discharge of wash down water from the sheds.

A relatively thick layer of clean and fresh floor bedding material, such as soft wood shavings, rice hulls or chopped straw, will be spread over the floor of the sheds prior to the placement of day old chicks. Feed and water lines will run the length of each poultry shed and will be automatically supplied by external silos and water storage tanks. Feed pans and water nipple drinkers (with drip cups) will be spaced along these lines at regular intervals so that the birds are never more than a few metres from food and water.

The sheds will be fully-enclosed climate-controlled and tunnel-ventilated. On each shed, air extraction fans mounted at one end will uniformly draw air into the shed through minivents along the sides of the shed and later in the growing cycle across cooling pads and through tunnel vents. The air is pulled over the chickens and exhausted through the extraction fans. Temperature sensors within the sheds will allow the ventilation to be adjusted as required. Heating, which is anticipated to be required for up to 14 days of each production cycle, will be provided by wall mounted gas heaters.

The use of tunnel ventilated sheds has grown to steadily replace poultry housing that conventionally relied on natural ventilation. Tunnel ventilation is easier to manage then natural ventilation and enables the grower to provide close to optimum conditions for bird health, growth and performance throughout the year. An additional benefit includes control over shed moisture, which is directly related to odour production, and reduced consumption of power and water.

Additional shed features include front and rear access, external lighting over the loading-unloading pads, and fully computer controlled and alarm monitored.

3.3 Supporting Infrastructure

Additional infrastructure necessary to support the operation of the proposed development includes the following:

Residential Dwellings

The proposal includes the construction of 10 residential dwellings within the development site to house the farm managers and assistant farm managers. These dwellings are considered ancillary and subsidiary to the proposed development, in that it will provide necessary support to the poultry production operation.

The proposed location for the residences are yet to be decided, however it will be advised in the EIS.

Ancillary PPU Improvements

In addition to the poultry shedding, ancillary improvements will be required at the PPUs to support the poultry production operation. This infrastructure will comprise:

- An amenities facility encompassing office space, toilets, and staff change rooms;
- Servicing infrastructure to ensure that the development's electricity, gas and water requirements can be met (see **Section 3.8**);
- An engineered surface water drainage and management system (see **Section 3.10**);
- Dead bird chiller/chiller room;
- Chemical storage;
- Generator shed;
- Workshop and vehicle storage;
- Wheel wash facility at the PPU entrance;
- Feed silos, which will automatically dispense the feed into the poultry sheds;
- Water storage tanks, with the capacity to store adequate supply at peak demand;
- Poultry shed floor bedding material storage shed; and
- Pump shed.

3.4 Hours of Operation

While the proposed development will operate 24 hours a day, seven days a week, the majority of activity will be carried out between 7.00 am and 7.00 pm. For reasons of livestock welfare, as the birds reached their desired slaughter weight they will be removed from the sheds and transported from the site between 8.00 pm and 2.00 pm, when it is cooler and the birds are more settled. There will typically be one daily shift for farm workers commencing at 7.00 am and finishing at 4.00 pm.

3.5 Vehicular Access

Access to the development site will be via the Sturt Highway (refer **Figure 2**). The development will require a new intersection to be constructed, which will be addressed in the Traffic Impact Assessment being undertaken for the Project. ProTen will also apply for an easement to be granted along the eastern boundaries of Lot 39 DP 750876, Lot 15 DP 750898 and Lot 12 DP 750898, to allow access to the site, which will be through Lot 42 DP 750898.

The development will have one-way circulation roads (ring roads) around the perimeter of each PPU to enable traffic to enter, exit and manoeuvre around the PPUs for loading-unloading and servicing activities in a forward direction to minimise the potential for traffic conflict and noise. The roads will be constructed as all-weather rural-type roads able to carry the anticipated heavy vehicle movements.

3.6 Traffic Generation

The majority of traffic generated by the development will travel between the site, Darlington Point and Hanwood (approximately 6 kilometres south of Griffith on Kidman Way). The primary operational activities that will generate traffic to and from the development site are:

- Delivery of the shed floor bedding material in rigid trucks from a storage facility located near Hanwood;
- Delivery of day-old chicks from Baiada's hatchery facility located approximately 3 kilometres west of Griffith on Snaldero Road in insulted pantechnicon trucks;
- Delivery of feed from Baiada's feedmill facility located approximately 1 kilometre south of Hanwood on the corner of Kidman Way and McWilliams Road in semi-trailers;
- Delivery of bulk liquid petroleum gas (LPG) from Griffith in rigid trucks;
- Removal of birds to Baiada's processing complex located approximately 1 kilometre south of Hanwood on the corner of Kidman Way and Murphy Road in semi-trailers;
- Removal of shed floor litter (spent bedding material) in semi-trailers to various locations;
- Removal of dead birds to Baiada's processing complex, which includes a protein recovery/rendering plant, located approximately 1 kilometre south of Hanwood on the corner of Kidman Way and Murphy Road in rigid trucks;
- Removal of general garbage in rigid trucks to disposal facilities located within the vicinity of Griffith; and
- Staff visits by cars. This element of traffic generation is difficult to accurately report due to possible times when additional labour will be called upon and possibly car-pooling. In addition, the farm manager will live on-site. It is assumed that the majority of farm workers will travel from Narrandera and Griffith areas.

Table 3 summarises the anticipated traffic volumes to be generated by the proposed development over a typical nine week production cycle and over a typical year comprising 5.7 production cycles.

The following points should be noted in terms of the volume of traffic to be generated:

- It is estimated that close to 35 percent of the total traffic will be generated by light vehicles (cars); and
- With the exception of live bird removal, which will generally occur between the hours of 8.00 pm and 2.00 pm, all transport activities will occur during daylight hours.

Heavy vehicle trips will be mostly spread over the nine week production cycle and will be distributed relatively evenly over the predicted delivery hours.

Table 3 Estimated Traffic Volumes for the Development

Activity	Vehicle Type	Vehicles (Two Way Vehicle Trips)	
		Production Cycle (approx. 9 weeks)	Annual (approx. 5.7 cycles)
Heavy Vehicles			
Delivery of shed bedding material	Twin axle rigid truck	108 (216)	613 (1226)
Delivery of chicks	Twin axle rigid truck	45 (90)	256 (513)
Delivery of feed	Semi-trailer	722 (1,445)	4,118 (8,236)
Delivery of fuel	Rigid tanker	2 (4)	12 (24)
Delivery of gas	Rigid tanker	10 (20)	56 (112)
Removal of birds	Semi-trailer	745 (1,490)	4,246 (8,493)
Removal of birds – catching equipment transporter	Semi-trailer	6 (12)	34 (68)
Removal of birds – catching staff	Bus	42 (84)	240 (480)
Removal of shed litter material	Semi-trailer	178 (355)	1012 (2024)
Shed wash down equipment transporter	Semi-trailer	2 (4)	12 (24)
Removal of dead birds	Twin axle rigid truck	64 (128)	364 (728)
Removal of garbage	Rigid truck	2 (4)	12 (24)
Heavy Vehicle Sub-Total		**1,926 (3,852)**	**10,975 (21,950)**
Light Vehicles			
Staff Visits (ProTen and Baiada)	Car	970 (1,940)	5,529 (11,058)
Tradesman	Ute / Van	10 (20)	58 (116)
Catching equipment maintenance	Van	22 (44)	126 (252)
Shed litter material removal contractors	Car	24 (48)	136 (272)
Shed wash down contractors	Car	36 (72)	206 (412)
Light Vehicle Sub-Total		**1,062 (2,124)**	**6,055 (12,110)**
TOTAL		**2,988 (5,976)**	**17,030 (34,060)**

3.7 Servicing

Electricity

Reticulated electricity will be the development's principal source of energy and will be used to operate the tunnel ventilation systems, shed lighting, cooling pads, water pumps and staff amenities. ProTen has commenced consultation with Essential Energy with regards to making the appropriate arrangements for the extension and upgrade (if necessary) of the existing power supply infrastructure to service the requirements of the development site. Power supply infrastructure will need to be constructed from existing infrastructure at Yanco to the development site.

Emergency standby diesel generators will be installed for when power from the electricity grid is lost. They will be appropriately sited and housed to minimise noise emissions.

Gas

Heating of the poultry sheds, which is anticipated to be required for up to 14 days of each production cycle, will be provided by wall mounted gas heaters. At present the only option is LPG, which will be supplied from Griffith and stored on-site in bulk tanks.

Water Supply

Poultry broilers are like any other livestock in that they need to drink water each day of their life-cycle. Water lines, with nipple drinkers and drip trays, will run the length of each poultry shed and will be automatically supplied by external water storage tanks.

Photo sourced from Australian Chicken Meat Federation

Plate 3 Day Old Chicks at Nipple Drinkers

Each shed will be temperature controlled by tunnel ventilation during the hotter months, with evaporative cooling pads used once the external air temperature reaches approximately 30 degrees Celsius.

Based on industry acknowledged figures, the development will require a total water supply of around 430 megalitres per annum. This includes water supply for shed ventilation, bird consumption, shed cleaning, landscaping and staff requirements.

The development site's water requirement will be soured via a new groundwater bore to be constructed on the site. ProTen will transfer the water access licence from a bore located on Lot 52 DP 750906, (approval number 40CA403632 issued under the *Water Management Act 2000* for the Lower Murrumbidgee Deep Groundwater Source) to a new bore to be constructed on Lot 41 DP 750898. ProTen have commenced discussions with NOW on the transfer of this water access licence.

Sewage

Sewage generated by the on-site staff amenities and residence will be appropriately treated and disposed of via on-site waste water management systems installed and operated in accordance with the requirements of Council and the relevant standards/guidelines.

3.8 Waste Management

Appropriate systems will be implemented to ensure that all waste streams generated by the development, including general daily waste, chemical containers, poultry litter and dead birds, are effectively managed and/or disposed of off-site. There will not be any on-site stockpiling or disposal of waste materials.

3.9 Surface Water Management

An engineered surface water management system will be designed and installed to provide long-term structural controls and management to mitigate the impact of surface water runoff throughout the life of the development. The main operational water sources from the PPU will be:

- Wash down water from within the sheds at the end of each nine week production cycle (approximately 5.7 times per year);
- Rainfall runoff from the shed roofs; and
- Rainfall runoff from the ground surfaces surrounding the poultry sheds and additional improvements.

The surface water management system will include clean water diversions and an on-site detention dam to contain and manage shed wash down water and rainfall runoff from within the PPU site. It will be subject to site survey, engineering design and the requirements and approval of Council. It is anticipated that the surface water management system design can be imposed as a consent condition to be fulfilled prior to issue of the Construction Certificate.

3.10 External Lighting

The primary source of external lighting will comprise one luminaire mounted at a height of approximately 4 metres over the front and rear loading-unloading areas of each poultry shed. Each luminaire will be aimed downwards and only switched on during loading-unloading and servicing activities outside of daylight hours and during heavy fog.

3.11 Landscaping

ProTen will undertake significant landscaping activities to improve the visual and environmental amenity of the development. A landscaping strategy will be prepared and included within the EIS. It is anticipated that the landscaping will comprise suitable tree and shrub species of differing growth habits strategically planted around the perimeter of the PPUs. ProTen will progressively establish the landscape plantings following bulk earthworks and construction of development infrastructure.

3.12 Site Maintenance

The development will be managed in strict compliance with ProTen's standard operating procedures. A regular site maintenance program will be implemented in order to minimise the potential for adverse environmental impacts, extend the life of farm equipment, reduce operating costs and maximise operational efficiency. Emphasis will be placed on keeping the insides of the poultry sheds and surrounding environs as clean as possible.

3.13 Animal Health and Welfare

The conditions under which broiler poultry are housed and the way that they are managed during their growing phase, transportation and slaughter are prescribed in several government and industry endorsed Codes of Practice designed to safeguard their health and welfare.

Throughout its history within the poultry industry, ProTen has proven its commitment to high standards of bird welfare. The company understands that bird welfare, flock performance and economic functioning go hand-in-hand. ProTen has advised that it is committed to the standards of care and management detailed in the *National Animal Welfare Standards for the Chicken Meat Industry* (Barnett et al, 2008), which is based on the Model Codes of Practice for poultry production, Australian Standards, international and national guidelines for animal welfare, and scientific evidence. Key features of this commitment will be detailed in the EIS.

3.14 Biosecurity

Biosecurity refers to those measures taken to prevent or control the introduction and spread of infectious agents to a flock. It aims to prevent the introduction of infectious diseases, and prevent the spread of disease from an infected area to an uninfected area. Biosecurity plays a vital role in the incidence of disease and is an integral part of any successful poultry production system.

ProTen has demonstrated strict biosecurity commitment over the years. A copy of the ProTen's Biosecurity Policy will be kept at the development site and staff will be provided with training in the relevant parts of the *National Farm Biosecurity Manual for Chick Growers* (Australian Chicken Meat Federation 2009). The key biosecurity measures that will be implemented will be detailed in the EIS.

3.15 Operational Environmental Management Plan

ProTen will prepare and implement a site-specific Operational Environmental Management Plan (EMP) for the proposed development to ensure that the commitments made within the respective EIS documents, along with the conditions imposed by the development consents and Environment Protection Licences (EPLs), are fully implemented and complied with.

The EIS Guideline – Poultry Farms (Department of Urban Affairs and Planning 1996) states:

> *an EMP is a technical document which is usually finalised during or after detailed design of the proposal following approval of the development application…..the level of detail required in an EMP is usually not considered necessary for an EIS.*

On this basis the EMP will be prepared following development consent and prior to commencing operation. The EMP will establish the framework for managing and mitigating the potential environmental impacts of the farm over the life of the operation. It is envisaged that the Operational EMP will address the following key components:

Development Consent and Regulatory Approvals

This will include the development consents and EPLs, along with any other statutory requirements.

General Site Maintenance Requirements

This will identify and address the on-going site maintenance requirements under ProTen's standard operating procedures, which are aimed at minimising the potential for adverse environmental impact, extending the life of farm equipment, reducing operating costs and maximising operational efficiencies.

Statement of Commitments

This will comprise the best management practices and mitigation measures that ProTen will implement to prevent, minimise and/or manage the potential for adverse impacts upon the local environment and surrounding populace.

Environmental Management Strategies

- Surface Water Management Strategy;
- Landscaping Strategy;
- Pollution Incident Response Management Plan;
- Complaints and Incidents Management Strategy; and
- Mass Mortality Disposal Strategy.

Environmental Management Requirements

This will comprise performance objectives, performance indicators, staff responsibilities, management commitments, monitoring and recording activities, and contingencies for potential environmental impacts.

Environmental Monitoring and Reporting Requirements

Such requirements will be necessary to validate the success of the EMP, identify any changes required to operational and management regimes, and confirm the continual compliance with environmental performance indicators/targets and commitments. It is envisaged that the primary requirement in this regard will be the preparation of an Annual Environmental Management Report (AEMR) and submission of this document to the relevant government agencies.

3.16 Socio-Economic Aspects

Employment

ProTen has advised that the development will require a total of 30 full time employees, as follows:

- 10 employees who will live on-site (farm managers and assistant farm managers); and
- Approximately 20 full-time equivalent staff members.

There may be times when additional labour will be called upon.

Capital Investment

The construction costs associated with the proposed development is estimated at approximately $60 million. It is important to note that this capital is a permanent investment within the Narrandera LGA.

Consumables and Flow-On Benefits

At this point in time, it is difficult to quantify the expenditure in terms of the various consumable products and services that will be required to construct, operate and maintain the development. Some examples include:

- Annual telecommunications, electricity, water and gas supply costs;
- Opportunities for local transport companies to participate in the haulage of materials to and from the site;
- Opportunities for local growers and suppliers to provide various goods, including bedding material, fuel, tyres, clothing and groceries, to name a few; and
- Opportunities for local business to fulfil maintenance and servicing requirements.

The additional grain needed to fulfil the feed demand of the development represents a significant increase in the potential market for regional farmers. It is estimated that the operation will consume around 55,000 tonnes of poultry feed per annum, which represents a yearly recurrent expenditure of around $16.5 million (based on the average price of feed at the time this document was prepared).

With the amount of the money that will be spent on consumables, along with the significant flow-on benefits, it is obvious that the stimulus to the local and regional economies will be substantial.

4 PLANNING CONSIDERATIONS

The proposed poultry development will be assessed in full consideration of the applicable statutory planning instruments. The following sub-sections overview some of the primary considerations.

4.1 Approval Pathway

The development assessment and approval system in NSW is set out in Parts 4 and 5 of the EP&A Act. Division 4.1 of Part 4 provides for the assessment and determination of State Significant Development (SSD). Pursuant to Section 89C of the EP&A Act, projects are classified as SSD if they are declared to be such by the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP). Clause 3 of Schedule 1 of the SRD SEPP identifies development for the purposes of intensive livestock agriculture with a CIV of more than $30 million as SSD. As a result, pursuant to clause 8(1) of the SRD SEPP and as a result of the development having a CIV of approximately $60 million, the proposed development comprises SSD. As outlined in **Section 4.5**, the development is permissible with consent under the provision of the Narrandera LEP 2013.

The Minister for Planning (or their delegate) determines development applications for SSD under Part 4 of the EP&A Act. The Minister has delegated the consent authority function for SSDs projects to the NSW Planning Assessment Commission (PAC) and to senior staff of the DP&E.

Environment Protection Licence

As a result of having the capacity to accommodate more than 250,000 birds at any one time, the proposed development will be a scheduled activity under Clause 22 of Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act) (see **Section 4.3.2**) and will be required to operate under an EPL administered by the Environment Protection Authority (EPA) under Section 43(b) of the POEO Act.

4.2 Commonwealth Legislation

4.2.1 Environmental Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is administered by the Commonwealth Department of the Environment (DoE) and provides a legal framework to protect and manage nationally important flora, fauna, ecological communities and heritage places defined as matters of National Environmental Significance. An action that "*has, will have or is likely to have a significant impact on a matter of National Environmental Significance*" may not be undertaken without prior approval of the Commonwealth Minister, as provided under Part 9 of the EPBC Act.

While not anticipated, an assessment of whether the proposed development may have a significant impact on any matters of National Environmental Significance will be undertaken during the EIS investigations. Once that is complete, a decision on whether referral to the Commonwealth Minister is required will be made.

4.3 NSW State Legislation

4.3.1 Environmental Planning and Assessment Act 1979

The EP&A Act is the principal piece of legislation overseeing the assessment and determination of development proposals in NSW. It aims to encourage the proper management, development and conservation of resources, the protection of the environment and ecologically sustainable development (ESD). As stated above in **Section 4.1**, the proposed poultry development is classified as SSD Division 4.1 of Part 4 of the EP&A Act.

4.3.2 Protection of the Environment Operations Act 1997

The POEO Act establishes the State's environmental regulatory framework and includes licensing requirements for certain activities. As advised in **Section 4.1**, as a result of having the capacity to accommodate more than 250,000 birds at any one time, the proposed development will be a scheduled activity under Clause 22 of Schedule 1 of the POEO Act and will be required to operate under an EPL.

4.3.3 Other Key NSW State Legislation

The provisions and requirements of other relevant pieces of NSW legislation will be considered and addressed within the EIS as applicable.

4.4 State Environmental Planning Policies

State Environmental Planning Policies (SEPPs) are legal Environmental Planning Instruments (EPIs) prepared by the Minister to address issues significant to NSW. The following SEPPs are identified as relevant considerations for the proposed development:

- SEPP (State and Regional Development) 2011;
- SEPP (Infrastructure) 2007;
- SEPP No. 55 – Remediation of Land;
- SEPP No. 44 – Koala Habitat Protection; and
- SEPP No. 33 – Hazardous and Offensive Development.

As SEPP No. 30 – Intensive Agriculture relates specifically to cattle feedlots and piggeries only, it is not a relevant consideration with regards to the proposed development.

4.5 Local Environmental Plans

Local Environmental Plans (LEPs) are legal EPIs that guide planning decisions for local government areas. They allow Council's to supervise the ways in which land is used through zoning and development consents.

Narrandera Local Environmental Plan 2013

The development site is zoned RU1 Primary Production under the provisions of the Narrandera LEP 2013. The objectives of this zone include:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To encourage diversity in primary industry enterprises and systems appropriate for the area.
- To minimise the fragmentation and alienation of resource lands.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.

Intensive livestock agriculture is permissible, with development consent, within the RU1 Primary Production zone.

4.6 Development Control Plans

Development Control Plans (DCPs) differ from EPIs in that they are never more than factors to be considered. DCPs are not legally binding even though they might spell out planning policy and development standards in quite specific terms.

The Narrandera Development Control Plan 2012 was made under section 74(C)(1) of the EP&A Act and applies to all land within the Narrandera LGA. However Clause 11 of the SRD SEPP states that DCPs do not apply to SSD Projects. Clause 7 of the SRD SEPP also states that in the event of an inconsistency between the SRD SEPP and another environmental planning instrument, the SRD SEPP prevails to the extent of the inconsistency.

Therefore the Narrandera Development Control Plan 2012 is not applicable to the proposed development.

5 ENVIRONMENTAL ASSESSMENT

5.1 Identification of Issues

The key development-related issues warranting detailed assessment and reporting will be identified through:

- The existing environmental context of the development and surrounding locality;
- The legislative framework applicable to the development (see **Section 4**);
- A broad brush pre-project risk assessment, which has already been completed (see **Section 5.2**);
- The outcomes of consultation to be undertaken with government agencies and other relevant stakeholders; and
- Specialist studies completed as part of the preparation of the EIS (see **Section 5.3**).

5.2 Pre-Project Risk Assessment

A pre-project broad brush risk assessment was completed by SLR and ProTen personnel in order to:

- Identify those issues relating to the proposed development that represent the greatest risk to the local environment and surrounding populace; and
- Assist in setting (and justifying) priorities for the level of assessment required to address each identified risk within the EIS.

A qualitative risk assessment methodology, which was developed in accordance with the requirements of the *Australian Standard AS/NZS 31000:2009 – Risk Management – Principles and Guidelines*, was utilised to provide a consistent and reliable approach. Where the individual risk(s) was considered unacceptable, or where a knowledge gap was identified, specialist studies are being commissioned and additional mitigation measures and/or management responses will be nominated.

The Risk Register contained in **Appendix A** was prepared to document the findings and outcomes. The various issues considered, in no particular order, are:

- Project planning and Consultation;
- Visual Amenity;
- Land Use Conflict;
- Greenhouse Gas;
- Air Quality;
- Site Services;
- Noise;
- Waste Management;
- Traffic and Transport;
- Chemicals;
- Lighting;
- Poultry Disease;
- Flora and Fauna;
- Pest Populations;
- Water Resources;
- Cumulative Impacts;
- Heritage; and
- Socio-Economic.

The risk assessment did not identify any high risk issues (Level IV or V). This can primarily be attributed to the location of the development site, including distance from urban areas, low density of surrounding residential dwellings, the nature of the existing environment, and the best management practices and mitigation measures to be employed by ProTen. There were however three medium risks (Level III) identified associated with odour emissions, traffic generation and site servicing. Specialist consultants have been engaged to assess air quality (odour and dust) and traffic related issues, along with noise (see below). As outlined in **Section 3.8**, servicing of the development in terms of electricity, gas and water, should not be an issue and ProTen will consult with the relevant stakeholders.

5.3 Key Environmental Issues

The following sub-sections identify and outline the key environmental issues identified during the pre-project risk assessment.

As outlined in **Section 1.3**, the following external consultants have been engaged to undertake specialist studies to assist in the assessment of the proposed development:

- Pacific Environment – Air Quality Impact Assessment;
- Global Acoustics – Noise Impact Assessment;
- RoadNet – Traffic Impact Assessment;
- OzArk – Heritage Assessment; and
- SLR – Ecology Assessment.

At this point in time, the engagement of additional specialist consultants is not considered necessary, with SLR intending to address other identified environmental issues in-house.

5.3.1 Land Use Conflict

The potential for conflict between the proposed development and the existing surrounding agricultural production activities is considered low. The two proposed PPU sites will be relatively small and the commercial activity associated with the development will be largely confined to this area. On this basis, the proposal will not deny access to large areas of viable agricultural lands nor significantly reduce the land area available for agricultural production.

At this point in time it is intended to continue using the land outside of the disturbance footprint for continued agricultural production purposes (crop cultivation and/or livestock grazing) under some form of lease or share farming arrangement.

5.3.2 Air Quality

Air quality is a sensitive issue associated with intensive poultry developments. Given the nature of such operations it in inevitable that there may be the intermittent release of fugitive odours and particulate matter during the poultry production cycle. However this statement is applicable to many agricultural pursuits. The odour and particulate matter produced in broiler farms, such as that proposed is generally less than that associated with older poultry and also other intensive livestock operations such as piggeries and cattle feedlots. The poultry industry has come a long way over the previous 20 years and operates on the basis of continual environmental improvement driven by environmental legislation and community expectations.

The proposed development site offers several advantages in terms of potential air quality impacts. These include being removed from any urban areas, very low density of surrounding residences and significant separation distances.

Pacific Environment has been engaged to undertake the appropriate assessment and reporting of air quality issues associated with the proposed poultry development. It will be undertaken in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (DEC 2005) and *Assessment and Management of Odours from Stationary Sources in NSW* (DEC 2006).

ProTen acknowledges that good management practices play a significant role in reducing the potential for offensive odour and particulate matter emissions. A range of development design features, best management practices and mitigation measures will be implemented to minimise and manage potential air quality impacts.

5.3.3 Noise

While noise generated by construction and operational activities have the potential to impact upon surrounding residences, noise has been demonstrated not to be an issue for well-managed poultry broiler production operations. Again, the proposed development site offers several advantages in terms of potential noise impacts, including being removed from any urban areas, low density of surrounding residences and significant separation distances. Furthermore, the five proposed PPU sites are relatively small and the commercial activity associated with the development will be largely confined to this area.

Global Acoustics has been engaged to undertake the appropriate assessment and reporting of potential construction and operational noise impacts, as well as potential noise impacts generated by heavy vehicle traffic movements at residences along the primary transport route/roads. This assessment will be undertaken in accordance with the *Interim Construction Noise Guideline* (DECC 2009), *Industrial Noise Policy* (EPA 2000) and the *NSW Road Noise Policy* (DECCW 2011).

A range of best management practices and mitigation measures will be implemented to minimise and manage potential noise impacts.

5.3.4 Traffic and Transport

As detailed in **Section 3.7**, the development is expected to generate additional operational traffic amounting to approximately 1,926 heavy vehicles per nine week production cycle or 10,975 heavy vehicles per year, along with approximately 6,055 light vehicle (car, van, ute) movements per year associated with staff, contractors and tradesmen. The majority of traffic generated by the proposal will travel between the development, Griffith and Hanwood (approximately 6 kilometres south of Griffith on Kidman Way).

RoadNet has been engaged to attend to the appropriate assessment and reporting of traffic and transport issues associated with the proposed poultry development. This assessment will be undertaken in consultation with the RMS and will include the consideration of peak traffic generation, the design of site access from the Sturt Highway, heavy vehicle route(s) and potential impacts on the external road network.

Appropriate mitigation measures will be implemented in an effort to prevent and/or minimise potential traffic related issues.

5.3.5 Water Resources

The potential for adverse impact to surface water and groundwater resources from the development of intensive poultry farms is very low, with the risk of impact considered far less than the unknown and sometimes absent management techniques of traditional agricultural activities.

Given the controlled environment in which the development will operate, along with the environmental licensing conditions it will need to comply with, it poses a low risk to local water resources and no detectable impact is expected. Points to note include:

- The proposed poultry development will be a largely dry operation, with no effluent generated as a result of the poultry-rearing itself;
- The development site is not located on flood-liable land and is removed from any identified watercourses or drainage features;
- The poultry shed will have fully sealed concrete flooring and will be surrounded by a dwarf concrete bund wall to prevent rainwater and runoff entering the sheds;
- Appropriate systems for chemical storage, handling and incident response will be implemented; and
- Improved flow from the PPU sites will be managed via an engineered surface water management system (see **Section 3.10**).

Additionally, there are no wetlands mapped within the development site as shown on the Wetlands Map in the Narrandera LEP 2013. The nearest wetland is a small area identified as a wetland on the NSW Wetlands Database (Department of Climate Change and Water 2006), located approximately 3.2km north of the northernmost PPU as shown on **Figure 3**. The proposed development is therefore in accordance with *Best Practice Management for Meat Chicken Production in New South Wales Manual 1 – Site Selection & Development* (DPI, 2012), which states that new farms should be preferentially located 3000 metres away from waterways and wetlands that are used extensively by waterfowl.

Various other best management practices and mitigation measure will be implemented during construction and operation to safeguard local water resources and minimise the potential for impact.

5.3.6 Flora and Fauna

Significant disturbance of the natural environment within the development site has occurred as a result of historic clearing and long-term agricultural production. The modified nature of the vegetation, particularly cropped and mostly treeless paddocks, significantly limits the value of the area as habitat for native fauna. There are small patches of trees within the development site; however as can be seen on **Figure 2**, the location of the PPUs have been chosen to ensure vegetation clearing is kept to a minimum.

SLR will prepare an ecological assessment to assess the impacts to flora and fauna associated with the proposed poultry development. This assessment will include a field survey of the site to identify plant species, vegetation communities and potential fauna habitat that may be impacted by the development. The ecology assessment will also include a search of the Office of Environment and Heritage's (OEH) *Bionet Atlas of NSW Wildlife* to determine if any threatened species have been sighted within or near the development site, and a Protected Matters Search on the DoE's website to ascertain if any matters of national environmental significance protected by the EPBC Act had been identified as occurring in or relating to the site.

A range of best management practices and mitigation measures will be implemented to further minimise potential ecological impacts.

5.3.7 Aboriginal Heritage

Significant disturbance of the land within the development site has occurred as a result of historic land clearing and long-term agricultural production activities. The current level of disturbance demonstrates that the land on which the development is proposed to be established has been significantly modified such that should Aboriginal sites have existed in the past, they would unlikely remain extant.

OzArk has been engaged to prepare a heritage assessment to assess the impacts to aboriginal heritage associated with the proposed poultry development. This assessment will include a field survey of the proposed disturbance area and a search of the OEH's Aboriginal Heritage Information Management System (AHIMS) in order to identify any records for known Aboriginal sites or objects in or near the proposed development site.

A range of best management practices and mitigation measures will be implemented to further minimise potential impacts to Aboriginal heritage.

5.3.8 Visual Amenity

The visual amenity of the development is that of a rural property that has been significantly modified by historical land clearing and long-term agricultural activities. As discussed above it is largely devoid of significant vegetation cover and primarily comprises treeless paddocks that have been consistently cropped for many years.

The five proposed PPUs will be relatively small and the commercial activity associated with the development will be largely confined to this area. A Landscaping Strategy will be prepared and implemented to screen the development and generally improve the visual and environmental amenity of the development site.

5.3.9 Chemicals

The only chemicals that will be used at the site will be for sanitisation and disinfection purposes, along with pest and vermin control. Chemicals will be purchased from a local chemical supply company and/or delivered to the site by Baiada. It is the usual practice for chemicals to be delivered only a few days prior to the commencement of the cleaning phase in order to minimise on-site chemical storage requirements and time. Appropriate bunded areas or specifically-purchased chemical sheds will be installed at the Site for the short-term storage of the limited volumes of chemicals delivered.

On the basis of the best management practices and mitigation measures to be implemented, including appropriate staff training and incident management procedures, the potential for adverse environmental impact from chemical use is considered relatively low.

The Operational EMP (see **Section 3.16**) will include a Pollution Incident Response Management Plan.

5.3.10 Cumulative Impacts

The cumulative impact of the development with surrounding existing landuses will be included in the air quality, noise and traffic impact assessments.

5.3.11 Socio-Economic Considerations

The potential for adverse socio-economic impact as a result of the development, including upon local land use and amenity, is considered minimal. Points to note in this regard include:

- The proposed development presents the opportunity for significant and sustained economic activity within the surrounding region. The generated economic activity, unlike some other business ventures that are largely seasonal, will be all year round;
- The development site is removed from any urban areas and there is a very low density of surrounding residential dwellings; and
- The development will employ best management practices and mitigation measures to minimise the potential for adverse impacts upon the local environmental and surrounding populace.

The Griffith area is well known as a major centre for the poultry industry, providing significant employment. The proposed development has the potential to increase the supply of broiler poultry by up to 22 million birds per year. This is integral to the industry's strategy for continued growth within both the Griffith region and NSW.

6 PROJECT MANAGEMENT

6.1 Development Application Timing

The proposed development is a priority for ProTen (the Applicant). On this basis, SLR is aiming to have the EIS document ready for lodgement with the DP&E by February 2015.

An indicative timeline for the development assessment process is presented in **Table 4**.

Table 4 Development Indicative Timeline

Action	Indicative Timeline
Submit Briefing Paper to the DP&E	December 2014
Receive SEAR's	January 2015
Submit EIS to the DP&E for Adequacy Review	February 2015
Exhibit EIS and invite public submissions	March 2015
Submit a response to submissions (if required, within 21 days)	April 2015
Determination	May 2015

6.2 Contacts

The primary contacts for the proposed poultry development are listed in **Table 5**.

Table 5 ProTen and SLR Contacts

SLR Consulting	ProTen Holdings
Nicole Armit	Daniel Bryant
Principal Consultant	CEO
Email: narmit@slrconsulting.com	Email: Daniel@proten.com.au
Phone: 02 4037 3238	Phone: 02 9458 1700
Mob: 0407 910 841	Mob: 0438 498 292
Address 10 Kings Road, New Lambton NSW 2305	Address: PO Box 1746, North Sydney NSW 2060

APPENDIX A

PRE-PROJECT RISK REGISTER

ProTen Holdings Pty Limited
Euroley Poultry Production Complex, Sturt Highway, Euroley NSW
Pre-Project Broad Brush Risk Assessment

Version:- 1
December
2014

Risk Category	Risk Ref. Number	Potential Issue / Risk (Impact)	Loss Type	Inherent/Existing Controls and/or Management Responses	RCE	Inherent Controls				Proposed Additional Controls and/or Management Actions	Comments / Notes	Responsibility
						C	L	Rating				
Project Planning and Consultation	001	Issues and/or objections received from local community during the development exhibition period delays consent.	CR, MI, FI	Legislative development assessment process for SSD under Part 4 of the EP&A Act.	Improving	2	B	2B	II	Ensure the assessment and consultation requirements specified in the SEARs, where applicable & appropriate, are undertaken. Prepare and implement a consultation register.		SLR / ProTen
	002	Issues raised by government agencies during the development exhibition and assessment phases delays consent.	CR, MI, FI	Legislative development assessment process for SSD under Part 4 of the EP&A Act.	Improving	2	C	2C	II	Ensure the assessment and consultation requirements specified in the SEARs, where applicable & appropriate, are undertaken. Prepare and implement a consultation register.		SLR / ProTen
Agronomic and Land Use Conflict	NA	The potential for conflict between the proposed poultry development and the existing surrounding agricultural production activities is considered low. The proposed PPU sites are relatively small and the commercial activity associated with the development will be largely confined to these areas. For further discussion refer to the Project Briefing Paper.										
Air Quality	003	Proposed poultry development generates unacceptable odour emissions impacting on surrounding privately-owned residences.	CR, EN, LC	Development site is removed from any urban areas and there is a low density of surrounding privately-owned residences. Specialist air quality consultancy (Pacific Environment) has been engaged to undertake appropriate assessment and reporting, including cumulative impacts. Development design. ProTen's knowledge and experience, including best management practices.	Improving	3	C	3C	III	Based on PacEnv's Air Quality Impact Assessment, ensure best practice development design, management practices and mitigation measures are implemented. If necessary, undertake additional consultation with the EPA. Include air quality management in an Operational EMP.	Air quality is a sensitive issue associated with intensive poultry. It is inevitable that there may be the intermittent release of some fugitive odours and particulate matter during the production cycle. However this statement is applicable to many agricultural pursuits. The odour and particulate matter produced in broiler farms (as proposed) is generally less than that associated with older poultry and also other intensive livestock operations (e.g. piggeries and cattle feedlots).	SLR, PacEnv and ProTen
	004	Construction and operation of the proposed poultry development generates unacceptable particulate matter emissions impacting on surrounding privately-owned residences.	CR, EN, LC	Development site is removed from any urban areas and there is a low density of surrounding privately-owned residences. Specialist air quality consultancy (PacEnv) has been engaged to undertake appropriate assessment and reporting, including cumulative impacts. Development design. ProTen's knowledge and experience, including best practice management.	Improving	2	B	2B	II			
Noise	005	Construction and operation of the proposed poultry development generates unacceptable noise levels at surrounding privately-owned residences.	CR, EN, LC	Development site is removed from any urban areas and there is a low density of surrounding privately-owned residences. Specialist noise consultancy (Global Acoustics) has been engaged to undertake appropriate assessment and reporting, including cumulative impacts. Development design. ProTen's knowledge and experience, including best practice management.	Improving	2	B	2B	II	Based on Global Acoustics' Noise Impact Assessment, ensure best practice development design, management practices and mitigation measures are implemented. If necessary, undertake appropriate consultation with the relevant agencies. Include noise management in the Operational EMP.		SLR, Global Acoustics and ProTen
	006	Traffic movements associated with the proposed poultry development generate unacceptable noise levels at residences along the primary transport route/roads.	CR, EN, LC	Apart from the designated heavy vehicle transport routes through Griffith, there is a low density of residences along the primary transport route. Specialist noise consultancy (Global Acoustics) has been engaged to undertake the appropriate assessment and reporting, including cumulative impacts.	Improving	2	B	2B	II			
Traffic and Transport	007	Traffic movements associated with the operation of the proposed poultry development increases impacts and/or safety risks on local traffic and transport routes.	HS, CR, LC	Development site is located within a rural environment on the Sturt Highway, which appears in adequate condition A new intersection will be required off the Sturt Highway to teh developmetn site. Specialist traffic consultancy (RoadNet) has been engaged to undertaken appropriate assessment and reporting. Relevant contribution(s) will be imposed for road maintenance works under the applicable Section 94 plan.	Improving	3	C	3C	III	Based on RoadNet's Traffic Assessment, ensure necessary road works, management practices and mitigation measures are implemented. If necessary, undertake additional consultation with relevant agencies. Include traffic and transport in the Operational EMP.	Intersection construction on the Sturt Highway will require consultation with RMS.	SLR, RoadNet and ProTen
Lighting	008	External development lighting negatively impacts upon surrounding privately-owned residences.	CR	Development site is removed from any urban areas and there is a low density of surrounding privately-owned residences. Development design.	Satisfactory	2	A	2A	I	External lighting to be addressed in the EIS, including best management practices and mitigation measures. Include external lighting in the Operational EMP.	The primary source of external lighting will comprise one luminaire mounted over the loading-unloading pad areas of each poultry shed. Each luminaire will be aimed downwards and will only be switched on when the loading-unloading areas are in use outside of daylight hours of during times of heavy fog.	SLR
Flora and Fauna	009	Proposed poultry development will impact upon threatened flora and fauna.	EN	The proposed disturbance footprints are highly disturbed and do not appear to support significant vegetation.	Satisfactory	2	B	2B	II	Flora and fauna to be addressed in the EIS, including best management practices and mitigation measures. This is to include: - a search of OEH's "Bionet Atlas of NSW Wildlife"; and - a EPBC Act Protection Matters Search on DE's website. Include flora and fauna management in the Operational EMP.	The development site is highly modified and largely devoid of significant vegetation due to historic land clearing and long-term agricultural production activities.	SLR
Water Resources	010	Proposed poultry development will result in unacceptable impacts to the flow and/or quality of local surface water and/or groundwater resources.	EN	No notable surface water or drainage features identified within the development site. Development operation will be subject to the conditions imposed by the EPL administered by the EPA. Broiler complexes are largely dry operations with minimal chemical usage. Development design, including fully sealed shed floors and perimeter concrete dwarf walls, and engineered surface water management system. No on-site mass disposal of birds in the event of a mass mortality is proposed, therefore no potential impact on groundwater as a result.	Improving	2	B	2B	II	Engage a suitably qualified consultant to develop engineered surface water management system. Include water management in the Operational EMP.		SLR and engineering consultancy
		Flooding in the area resutling in isolation of the farm.	FI	A minimum of 5 different options exist for access to and from the development site, minimising the risk of isolation during a flood event.	Improving	2	B	2B	II	A flood management plan will be prepared as part of the EIS		SLR and ProTen

ProTen Holdings Pty Limited
Euroley Poultry Production Complex, Sturt Highway, Euroley NSW
Pre-Project Broad Brush Risk Assessment

Version:- 1
December
2014

Risk Category	Risk Ref. Number	Potential Issue / Risk (Impact)	Loss Type	Inherent/Existing Controls and/or Management Responses	RCE	Inherent Controls				Proposed Additional Controls and/or Management Actions	Comments / Notes	Responsibility
						C	L	Rating				
Heritage	011	Proposed poultry development will impact upon areas/sites of Aboriginal cultural heritage significance.	CR	The proposed disturbance footprints are highly disturbed. OzArk engaged to prepare an Aboriginal Heritage Imapct Assessment of the proposed development.	Improving	2	B	2B	II	Cultural heritage to be addressed in the EIS, including best management practices and mitigation measures. OzArk engaged to undertake an Aboriginal Heritage Imapct Assessment. This is to include a search of OEH's AHIMS database. Include Aboriginal heritage in the Operational EMP.	The development site is highly modified and disturbed due to historic land clearing and long-term agricultural production activities.	SLR
	012	Proposed poultry development will impact upon items of European heritage significance.	CR	The proposed disturbance footprints are highly disturbed.	Improving	2	A	2A	I	European heritage to be addressed within the EIS, including best management practices and mitigation measures. Include European heritage in the Operational EMP.		SLR
Visual Amenity	013	Proposed poultry development adversely impacts upon the visual amenity of the local area.	CR	Development site is located in a rural environment removed from any urban areas and there is a low density of surrounding privately-owned residences. Development design.	Improving	2	C	2C	II	Visual amenity to be addressed in the EIS, including best management practices and mitigation measures. Include a Landscaping Strategy in the EIS. Include visual amenity in the Operational EMP. Visual amenity would be included in an Operational Management Plan.	The proposed PPU sites are relatively small and the commercial activity associated with the development will be largely confined to these areas. The development site is highly modified and largely devoid of significant vegetation cover due to historic clearing and long-term agricultural production activities.	SLR
Greenhouse Gas	014	Proposed poultry development leads to unacceptable additional greenhouse gas emissions.	EN, CR	Tunnel-ventilated fully-enclosed climate-controlled poultry sheds (as proposed) improve efficiency by continuously monitoring parameters such as light, temperature, humidity and static pressure, and adjusting ventilation to suit conditions. As such, the development will require less energy to regulate the internal conditions of the poultry sheds. It is understood that a series of larger sheds (as proposed) is more energy efficient to operate than a greater number of smaller sheds.	Satisfactory	2	B	2B	II	Greenhouse gas and energy efficiency to be addressed within the EIS, including best management practices and mitigation measures.		SLR
Site Services	015	Inadequate servicing infrastructure is available to service the proposed poultry development.	FI, MI, LC	Consultation has commenced with Essential Energy regarding the upgrade of electricity in the area to service the development site. Consultation has also commenced with NSW Office of water regarding water supply.	Improving	3	B	3B	III	Continue consultation with the relevant service providers to ensure requirements can be met. Address site servicing provisions in the EIS.		ProTen and SLR
Waste Management	016	Inappropriate storage and/or disposal of waste materials generated by the poultry operation results in environmental risks and/or impacts to surrounding populace (e.g. odour).	EN, CR	ProTen's knowledge and experience, including best practice management. ProTen has committed to no on-site stockpiling or disposal of waste materials. Development operation will be subject to the conditions imposed by the EPL administered by the EPA.	Improving	2	B	2B	II	Waste management to be addressed in the EIS, including best management systems and mitigation measures. Include waste management in the Operational EMP.	ProTen has committed to no on-site stockpiling or disposal of waste materials.	SLR
Chemicals	017	Inappropriate storage and use of chemicals, or inappropriate management and disposal of chemical containers, results in environmental risk or incident.	EN, HS	ProTen's knowledge and experience, including best practice management. Development design, including fully sealed shed floors and concrete dwarf walls. Poultry developments typically have limited chemical requirements. Development operation will be subject to the conditions imposed by the EPL administered by the EPA.	Improving	2	B	2B	II	Chemical management to be addressed within the EIS, including best management practices and mitigation measures. Include chemical management in the Operational EMP.		SLR
Poultry Disease	018	A major poultry disease outbreak at the development site.	CR, MI, FI	ProTen's knowledge and experience, including best practice management and strict biosecurity procedures. Development design and operation, including PPU separation, strategic timing of bird placement, pest control measures, etc.	Satisfactory	3	A	3A	II	Poultry disease, disease prevention and disease management (in the unlikely event of an outbreak) to be addressed within the EIS, including biosecurity measures. Include biosecurity in the Operational EMP.	ProTen has demonstrated a strict biosecurity commitment and will implement a range of proven biosecurity measures. These, with Australian's strong record on quarantine and stringent disease control measures, will be key to maintaining flock health.	SLR
Pest Populations	019	Poor farm management leads to increased pest populations.	HS, CR, EN	ProTen's knowledge and experience, including best management practices and pest control measures. Development design and operation.	Satisfactory	2	B	2B	II	Pest management to be addressed within the EIS, including best management practices and mitigation measures. Include pest management in the Operational EMP.		SLR
Cumulative Impacts	NA	Cumulative impacts will be addressed in the EIS, including air quality, noise and traffic.										
Socio-Economic	NA	The potential for notable adverse socio-economic impacts as a result of the proposed poultry development, including upon local land use and amenity, is considered minimal. The proposal actually presents the opportunity for significant and sustained economic activity within the Narrandera LGA and local region.										