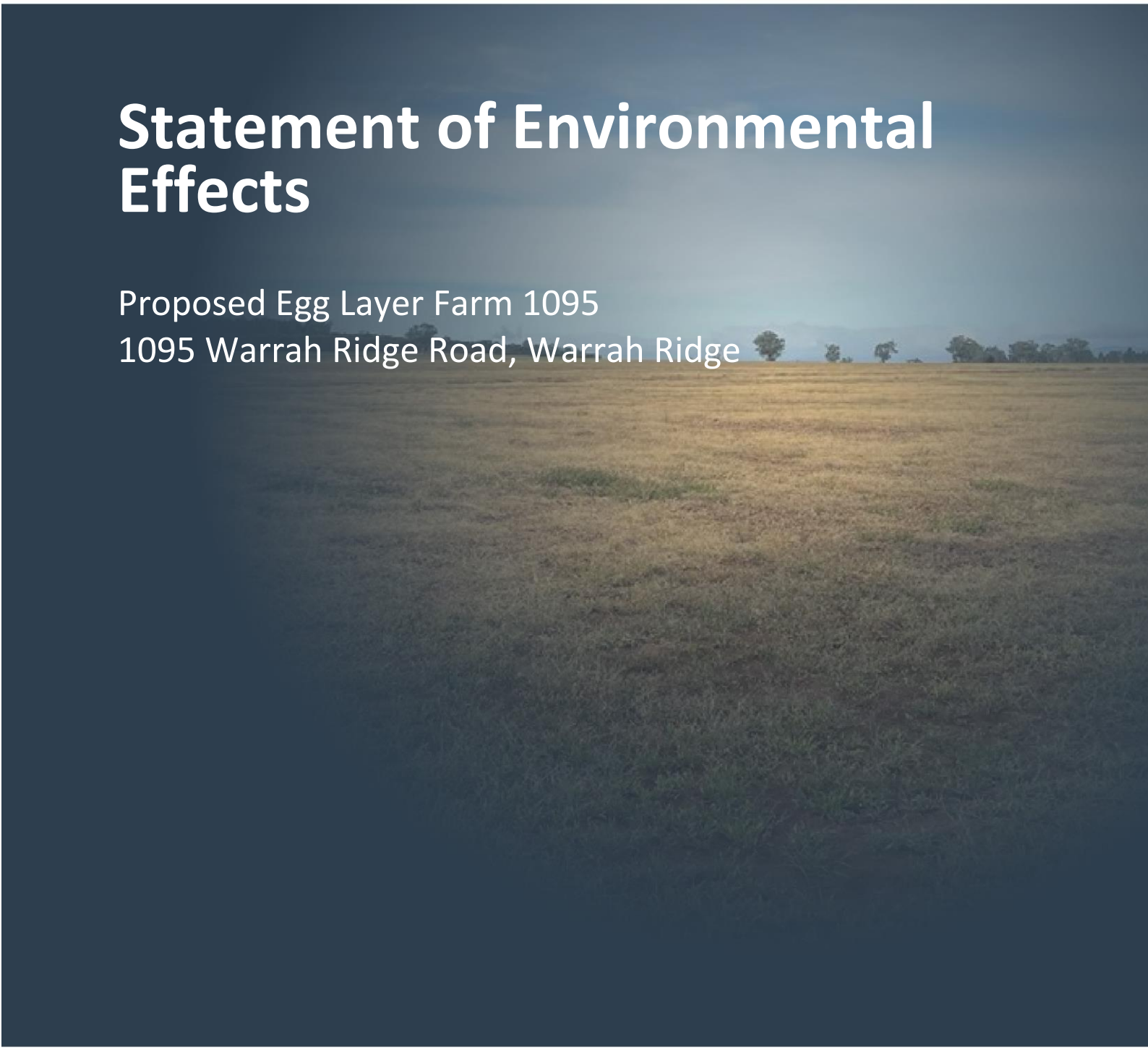
PSA CONSULTING

Statement of Environmental Effects

Proposed Egg Layer Farm 1095
1095 Warrah Ridge Road, Warrah Ridge



30 May 2023

pace farm
the enjoyable egg

Document Control

Document: Project Name: Warrah Ridge Layer Farm 1095
PSA Job Number: 1435
Report Name: Statement of Environmental Effects

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Revision History

VERSION	DATE	DETAILS	AUTHOR	AUTHORISATION
V2	30 May 2023	FINAL	Cliff Schmidt	David Ireland

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LIST OF ACRONYMS

AECL	Australian Egg Corporation Limited
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
BAL	Basic Left Turn
BAR	Basic Right Turn
BC Act	Biodiversity Conservation Act
BHAMP	Bushfire Hazard Assessment and Management Plan
BOS	Biodiversity Offset Scheme
CIV	Capital investment value
DA	Development Application
dB	decibels
DCP	Development control plan
DPI	Department of Primary Industries
DPIE	Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
ESA	Egg Standards Australia
FTE	Full time equivalent
ha	hectare
HACCP	Hazard Analysis Critical Control Point
l	litre
LEP	Local Environmental Plan
LPG	Liquified petroleum gas
LPSC	Liverpool Plains Shire Council
NPfI	Noise policy for industry
NSW	New South Wales
ODIA	Odour and dust impact assessment
ou	Odour unit
PBP 2019	Planning for Bush Fire Protection 2019
PCT	Plant Community Types
RBL	Rating Background Levels
RNP	Road Noise Policy
SEE	Statement of Environmental Effects
SEPP	State Environmental Planning Policy
TIA	Traffic Impact Assessment
WMP	Waste Management Plan

1 INTRODUCTION

PSA Consulting (Australia) Pty Ltd, has been engaged by Pace Farm Pty Ltd to prepare this Statement of Environmental Effects (SEE) to accompany a Development Application seeking Development Consent for the construction of eight (8) layer sheds with free range areas and two (2) packing sheds on land at 1095 Warrah Ridge Road, Warrah Ridge (described as Lot 1 DP576340, Lot 52 DP 1168698, Lot 171 DP751033, Lot 170 DP751033). Plans of the proposed development are provided in **Appendix 1**.

Consistent growth in demand for eggs within the Australian market has resulted in Pace Farm outgrowing current farming facilities. In response, Pace Farm is investing in a new layer farm on the subject site to accommodate 248,000 birds.

1.1 BACKGROUND

Since the early 1970's, Pace Farm have been supplying and distributing eggs (including free range, cage free, cage and organic eggs) to the Australian marketplace. Pace Farm have a presence in each of the eastern states of Australia, although their major production, processing, warehousing, and distributions facilities are predominantly located within New South Wales and Victoria. The company sells a large percentage of their eggs through major supermarket chains and selected independents in Australia, with the balance of eggs sold as egg products and ingredients to commercial kitchens and food manufacturers.

As shown in Figure 1, research undertaken by the Australian Egg Corporation Limited (AECL) indicates that the sale of retail eggs has increased since 2018. The COVID-19 pandemic has caused uncertainty surrounding egg production in the 2020, 2021 and 2022 financial years. One side of this uncertainty was with changed consumer demand (increased supermarket consumption, decreased café/restaurant consumption). The other side of this uncertainty was supply chain issues such as staff shortages due to infections and restrictions. It is unlikely that COVID-19 uncertainty will continue, certainly not to the same extent.

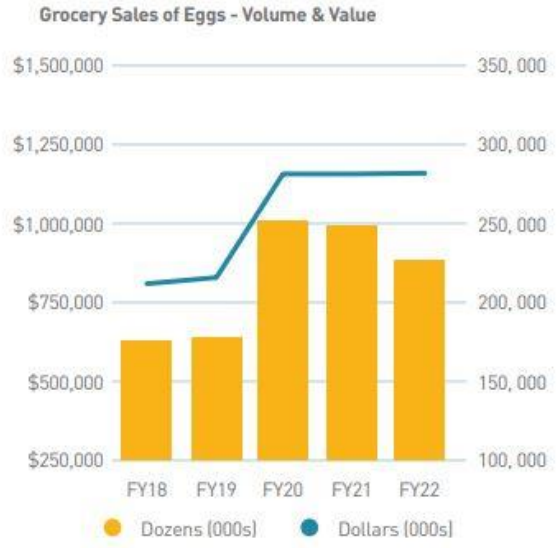

Figure 1: Egg production and market value (AECL, 2022)

In response to the historic growth and continued demand for table eggs in Australia, as well as the changes in demand for the type of egg product, Pace are investing in a new free range layer farm to be located on the subject site. The proposed layer sheds align with the requirements for free range eggs and will allow for future growth in this market.

1.2 SITE DESCRIPTION

The proposed development site is located at 1095 Warrah Ridge Road, Warrah Ridge and is currently vacant, rural land. The site has been historically and continually used for a range of agricultural activities including cropping and grazing.

Topographically, the subject site is raised towards the eastern and southern boundary and falls gently to the north and west. The proposed layer farm is situated in the centre of the site wholly within the cleared and cultivated area. Access to the site is provided via a new driveway connecting to Warrah Ridge Road.

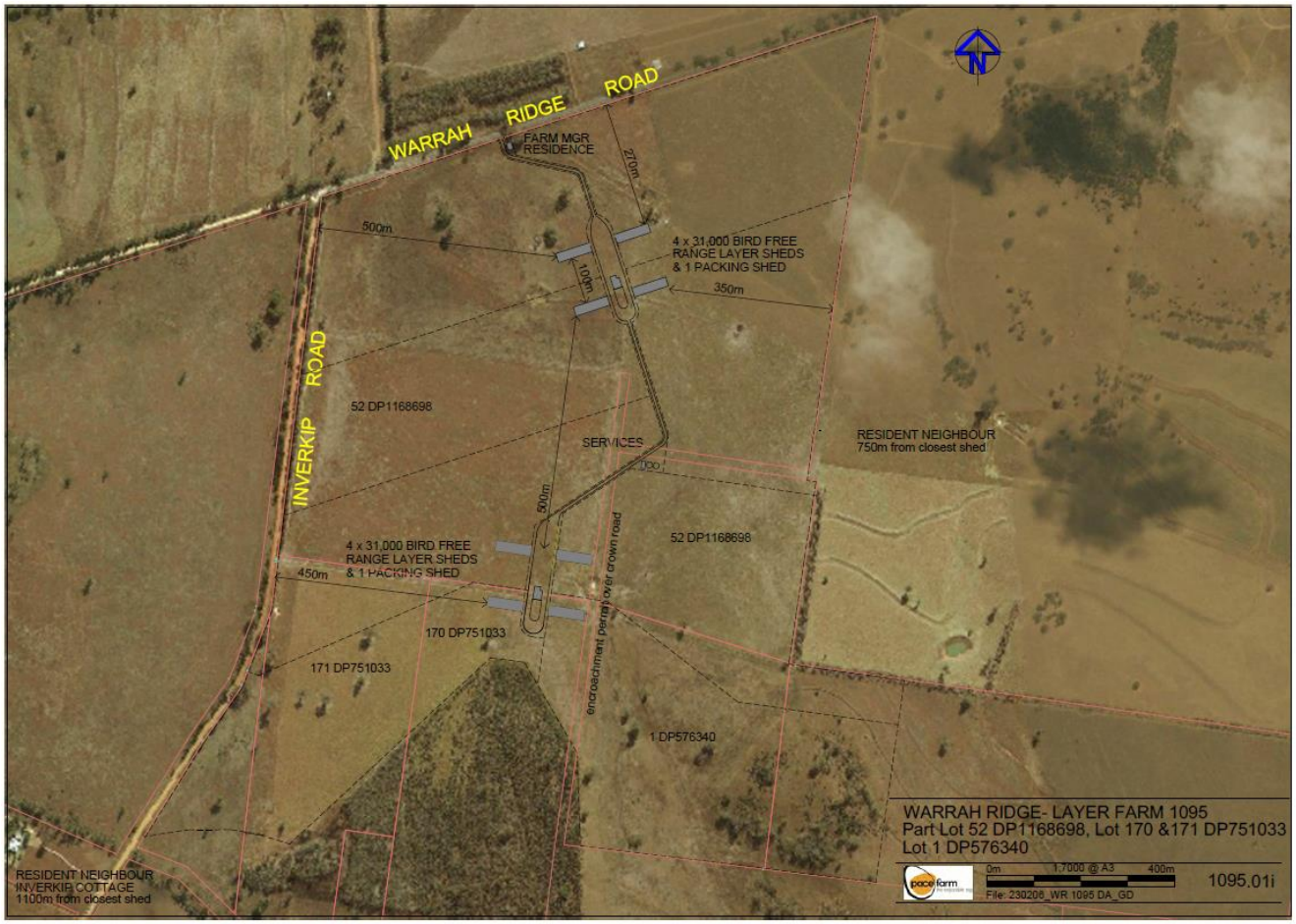

Figure 2: Site Location (Pace Farm, 2023)

Further site details are provided in Table 1 below.

Table 1 Site Details

ADDRESS	1095 Warrah Ridge Road, Warrah Ridge 2343
PROPERTY DESCRIPTION	Lot 1 DP576340 Lot 52 DP1168698 Lot 170 DP751033 Lot 171 DP751033 Lot 154 DP751033
APPLICANT	Pace Land Holdings Pty Ltd
LAND OWNER	Annagrove Agriculture Pty Limited
TOTAL SITE AREA	179 hectares (ha)
EXISTING USE	Agriculture (Cropping and Grazing)

PROPOSED DEVELOPMENT	Poultry layer farm (248,000 birds)
CONSENT AUTHORITY	Liverpool Plains Shire Council
LOCAL ENVIRONMENTAL PLAN	Liverpool Plains Local Environmental Plan 2011
ZONE	RU1 – Primary Production

1.3 CROWN ROAD RESERVE

As noted on the proposal plans, the site includes an unmade, crown road reserve which will be located within the free range paddock areas, which is subject to an existing road closure permit. As part of the preparation of this Development Application, advice was sought from the Department of Planning and Environment Property Management Officers, who confirmed that as the proposed free-range egg production does not require any structures on the Crown road within Lot 52 DP 1168698 and will be used solely for the purpose of grazing, the existing Enclosure Permit (EP) is all that is required. A copy of this correspondence is included as **Appendix 11**.

1.4 SURROUNDING DEVELOPMENT

The subject site is approximately 15km south-west of Quirindi, which is the closest population centre. The site is located in a predominately rural area characterised by cropping and grazing. An aerial photo showing the site and the surrounds is provided in Figure 3.

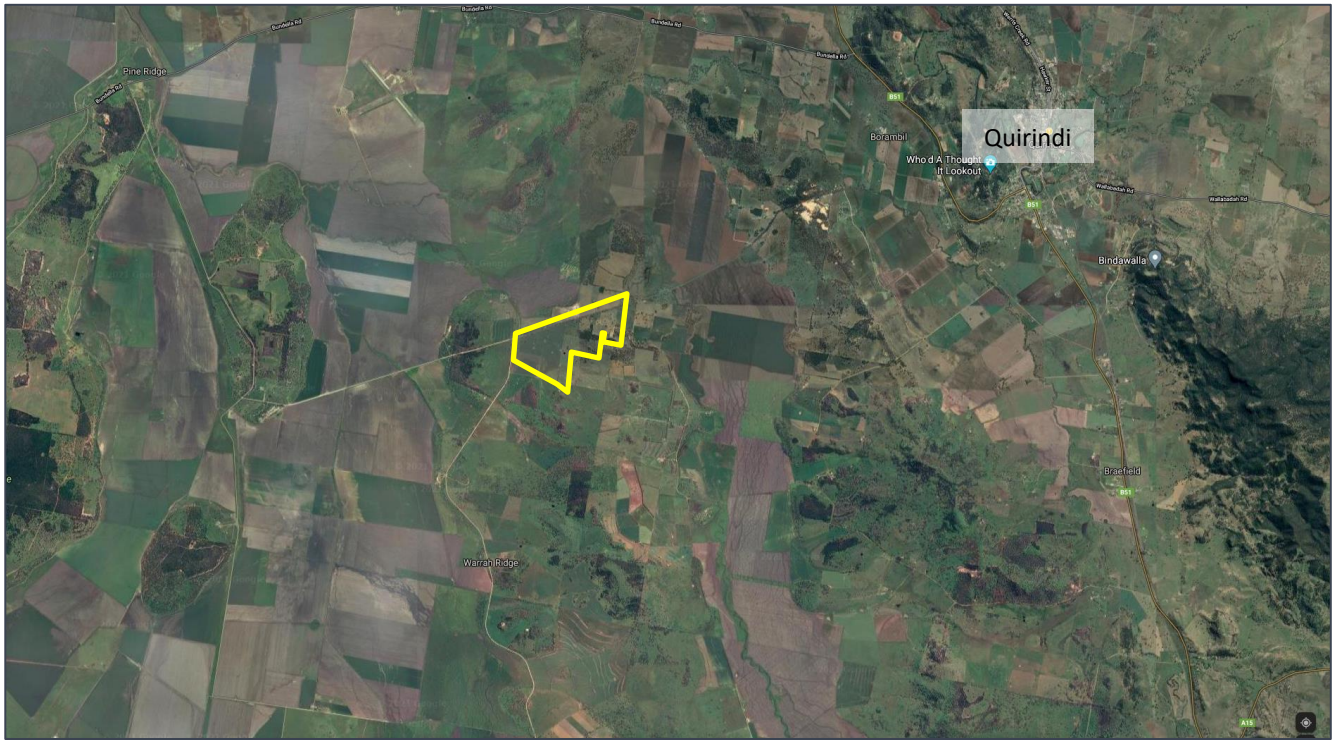

Figure 3: Subject Site and surrounds (Google Maps, 2021)

2 PROPOSED DEVELOPMENT

2.1 DEVELOPMENT OVERVIEW

The proposed development involves the establishment of a new, poultry laying farm on land at 1095 Warrah Ridge Road, Warrah Ridge, which is formally described as Lot 52 DP 1168698, Lot 170 DP751033, Lot 1 DP576340 and Lot 171 DP751033. As outlined above, the development is proposed in response to the ongoing growth in demand for eggs and egg products in Australia, as well as changes in the market place, including increases in customer demand for free range eggs.

The birds will be reared at a company rearing farm such as Farm 687 located further south on Inverkip Road and approved by Council in February 2022. At around 16 weeks of age, the birds will be placed in the proposed layer farm where they will produce eggs for human consumption.

As outlined above, the farm will incorporate eight (8) layer sheds with surrounding, fenced free range areas and two (2) packing sheds. Each shed will accommodate a maximum of 31,000 birds. The proposed laying sheds provide the hens with shelter, food, water and nest boxes for laying eggs. The sheds are opened during the day to enable free ranging of the hens within the surrounding paddocks. Conveyors located under the nest boxes collect the eggs and transport them to an egg collection room for daily collection. Eggs from the farm are then transported via a refrigerated truck to an off-site grading facility for retail packaging or further processing.

The proposed site plan is provided in **Figure 4** below. Detailed development plans are included in **Appendix 1**. The proposed development site has been carefully chosen based on consideration of a number of factors including:

- The site has been historically cultivated and is free from environmental (significant flora or fauna or threatened ecological communities) and physical constraints (steep gradient, unsuitable geology, flooding and other natural hazards).
- The site is appropriately zoned and free from planning constraints which enable a development application to be considered.
- The site has suitable road access allowing for the movement of heavy vehicles and staff to and from the site.
- The farm is located within a grain growing region to minimise transport costs associated with feed.
- The farm is in proximity to a population centre which can provide employees and accommodation to support the operation.
- The farm will have access to adequate and reliable bore water supply.
- The site has suitable separation distances to sensitive receptors (the closest house is ~ 750m) to ensure no unacceptable amenity impacts.
- The site has suitable separation distances to other poultry farms, intensive livestock operations and other land uses which may introduce a bio-security risk.

As demonstrated in this SEE, the subject site exhibits all of these features and is inherently suitable for development of the proposed layer farm.

2.2 BUILDING WORKS

As shown on the development plans (**Appendix 1)**, the proposed layer farm will consist of the following physical components:

- Eight (8) laying sheds (75.7m x 20.5m) accommodating a maximum of 31,000 birds each.
- Fenced free range paddocks.
- Two (2) egg packing sheds.
- Internal access and manoeuvring areas.
- Associated plant and infrastructure.

The proposed sheds are low profile buildings, 75.7m long, 20.5m wide with a maximum roof height of 6.76m above ground level. The sheds will utilise muted colours (Colourbond paper bark) to ensure that their appearance is complementary to the surrounding rural area.

Tree planting and screening is also proposed between the nearest poultry shed and Warrah Ridge Road to provide an additional visual buffer.

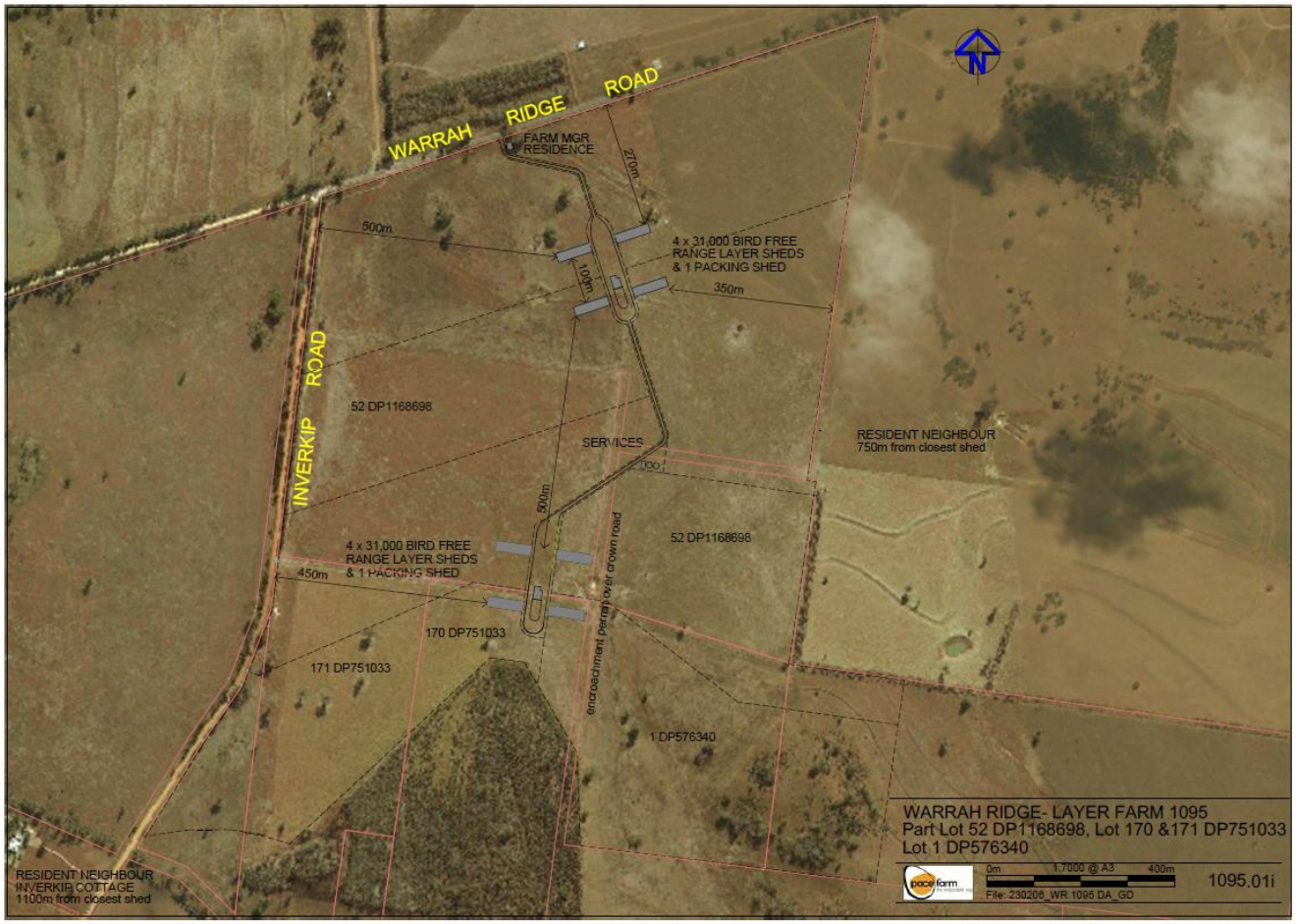

Figure 4: Site Layout (Pace Farm, 2023)

2.3 ACCESS AND PARKING

Access to the farm will be gained through an internal driveway which will connect to Warrah Ridge Road. Warrah Ridge Road is a two-lane sealed road and is classified as a local road which intersects with Inverkip Road to the south-west. Warrah Ridge Road continues west connecting to Cattle Lane which is a single lane unsealed Local Road and to the east of the site continues to the Kamilaroi Highway which is a State controlled road. Inverkip Road, Warrah Ridge Road and Cattle Lane all fall under the "Approved Area with Traffic Conditions" as per the Transport for NSW Combined Higher Mass Limits (HML) and Restricted Access Vehicle (RAV) Map, which for B-Doubles require the following operating guidelines:

- It is the responsibility of the driver of the B-Double transport to satisfy themselves that the proposed route is suitable for use under the conditions existing at the time and undertake a risk assessment of the route prior to traveling route to assess the sustainability of travel along the route.
- Temporary route restrictions may be imposed when routes become impassable for heavy vehicles.
- Following rainfall, the driver of a B-Double transport must check with the Liverpool Plains Shire Council, or the RTA Area Office, regarding possible road closures.
- Extreme care must be taken on the route especially during west weather or during school hours.

Vehicles trips associated with the operation of the layer farm are identified below. Table 2 shows vehicle trips associated with normal weekly operations, while Table 3 show the operations at the end of each laying cycle which will occur for a 2 week period, twice per year. For the purpose of the traffic assessment, the farm is expected to generate an average of 24 staff car trips (12 in / 12 out) and 4 heavy vehicle trips (2 in / 2 out) on a typical day.

Table 2: Weekly Traffic Generation

ACTIVITY	REQUIREMENTS	TRIPS / WEEK	TYPE	TYPICAL DAYS	TYPICAL HOURS
Egg Collection	4 Trucks Per Week	8	B-Double	Across 7 days	Day
Feed Delivery	4 Trucks per Week	8	B-Double	Across 7 Days	Day / Night (Depends on Feed Supplier)
Manure Collection	4 Trucks per Week	8	B-Double	Across 7 Days	Day
Staff	12 cars per day	128	Car	Mon – Friday 2 Staff - 7 Days	Day

Table 3: End of Cycle Traffic Generation (2 Week Period, Twice Per Year)

ACTIVITY	REQUIREMENTS	TRIPS	TYPE	TYPICAL DAYS	TYPICAL HOURS
Bird Pick Ups	8 Trucks	16	Truck and Dog	Across 4 Days	Day / Night
Bird Collection Crew	4 Mini Buses	8	Mini Bus	Across 4 Days	Day / Night
Shed Clean Out	2 Trucks	4	Semi	Across 2 Days	Day
Shed Set Up	2 Trucks	4	Semi	Across 2 Days	Day
Bird Delivery	5 Trucks	10	B-Double	Across 4 Days	Day
Staff	12 cars per day	168	Car	Across 2 Weeks	Day

2.4 INFRASTRUCTURE AND SERVICING

2.4.1 Power

Power to the site will be provided via connection to the Essential Energy overhead network which runs along the northern side of Warrah Ridge Road and western side of Inverkip Road from the Quirindi zone substation. The applicant is currently working with Essential Energy to confirm connection requirements. Backup generators will be provided on site to assist in the event of a power outages.

2.4.2 Water Supply

Water demand for the farm is expected to be in the order of 30ML per year and will be supplied by existing bores and under existing licenses. Specifically, this water will be sourced from Upper Namoi Zone 6 - Groundwater under Water Access License WAL12847 (allocation of 158ML) and WAL44169 (Allocation of 100ML) sourced from the Gunnedah Oxley Basin aquifer.

The layer farm will have 2ML on site storage tanks for storage of bore water prior to use on the farm. Peak farm usage is expected to be approximately 110,000 litres per day in summer peak drinking and cooling conditions.

Water for staff amenities will be provided via 2 x 1ML on-site rainwater tanks which can be topped up via tanker if required.

2.4.3 Waste Water Treatment

The staff amenities will be serviced by separate standard septic systems (Envirocycle/Ecosystem or similar). Installation of these systems will require separate approval from Council and can be conditioned accordingly.

2.5 HOURS OF OPERATION

The farm will operate 24 hours per day, 7 days per week, however most activity on the farm will be undertaken during daylight hours. Occasional night collections of birds may occur if a collection date corresponds with a particularly hot period in summer where animal welfare requirements will dictate that birds are collected and transported during the cooler night time period.

2.6 EMPLOYEES

The farm will provide employment for twelve (12) full time equivalent (FTE) workers. Additional contractors will be engaged separately on an as needed basis for collection and placement of birds, cleanout, and set up of the layer sheds in between batches.

2.7 RANGE AREAS

The proposed layer is surrounded by 166.7 Hectares of fenced free range paddocks which will be available for the hens to use during daylight hours. The free range paddocks have been aligned with area subject to previous cropping and to retain patches of native outside of the fenced area.

Management of the free range area will be undertaken in accordance with the Australian Eggs Guidelines / Environ Fact Sheet to ensure the ground cover is protected and nutrient build up is avoided.

With respect to nutrient levels on the range area, manure is deposited from a free-range layer facility in two locations; within the shed and the range area. In regard to manure deposition, birds behaviourally produce a significant component of this manure deposition when drinking and eating. This occurs when the birds are in the shed. This is a consequence of industry biosecurity standards (National Farm Biosecurity Technical Manual for Egg Production, 2015) and The Australian Eggs, Egg Corp Assured accredited programs that do not allow commercial chickens to eat or drink outside due to the risk of cross contamination from wild birds.

Birds are normally confined to sheds for around 12 to 16 hours a day with 8 hours of daylight time on the range. Peak feeding time is when the majority of manure is produced and is deposited within the sheds. Manure from the sheds will be cleaned out via a conveyor belt system 4 times a week. This system also dries the manure reducing the risk of odour. From the shed, the manure is deposited directly into a truck for transportation off site for use as a fertiliser and soil conditioner and is never disposed of within the range areas.

In addition, at the end of each laying cycle, accumulated bedding material and floor litter (comprising of soft wood shavings/rice hulls/chopped straw and manure accumulated) will be removed from each of the sheds. At the end of each cycle, the material will be collected from the sheds and loaded directly into trucks for removal from the site.

Based on recent research (Wiedemann et. al., 2018, Larsen et al., 2017) it is estimated that around 86% of manure deposition occurs within the shed, with decreasing amounts deposited as you move away from the shed. As such, 86% of the manure produced is entirely separated from the range areas and is removed from the site.

With respect to the remaining 14%, The Australian Eggs guidelines identifies the following zones of deposition and provides management actions for each zone. The following measures have been adopted by the Applicant:

Area of Range	Distance From Shed	Estimated Manure Deposition
Zone 1	0–10m	10.5%
Zone 2	10–25m	1.5%
Zone 3	> 25m	2.0%

Zone 1

- Construction of a 1m wide concrete apron around the sheds with a 1m wide eave to divert run off from the apron. Aprons can be swept clean, and manure collected if build up is occurring.
- Construction of a compacted gravel area extending ~ 9m from the apron in the high traffic areas to prevent bird scratching, erosion and nutrient run off.

- Construction of contour banks upslope flow from the sheds site to convey flows to downstream areas.

Zone 2 & 3

- Retention of ground covers, trees and planting within the range area to protect range areas from erosion an absorb nutrients.
- Planting of additional vegetation / pastures within the range areas.
- Farm managers to move external shade structures to allow pasture to recover in highly traffic areas.
- Construction of contour banks with scour protection at discharge points to control overland flows, slow velocities reduce sediments load and minimise the risk of erosion.
- Retention of Vegetated Filter Strips (VFS) along the downstream edges of range area. VFS are small areas of well-maintained, thick ground covers as a secondary control measure (insurance policy) for further filtering of unexpected run-off.

As identified above, the ~86% of the manure will be deposited within the sheds which is entirely removed from the site. A further 10.5% of the manure is deposited within the controlled Zone 1 area. The remaining 3.5% of manure deposition on the range area is managed through the retention of ground covers, and appropriate control of stormwater flows.

The proposed siting, design, management and mitigation strategies employed on the free-range layer site demonstrate that the risk of environmental impact from nutrients generated on the range are low.

In addition, given that the farm is situated on areas which have been historically cropped and grazed, and will no longer be subject to fertilizer use, or deposition of cattle manure, the use is not expected to generate any new or unacceptable soil or water quality impacts.

2.8 INDUSTRY STANDARDS

The proposed layer farm will be operated in accordance with the Egg Standards of Australia (ESA) for Rearing and Laying Farms. This standard covers the industry practices relating to day old chicks or started pullets to the farm, up to the point of removal of started pullets, spent hens and eggs for human consumption from the farm.

ESA is a voluntary quality assurance program developed through an extensive consultation process with industry and represents a robust, credible and workable QA standard that meets the needs of regulators and retailers. ESA is a practical mechanism for delivering consistency across the egg industry and provides a framework for producers to demonstrate compliance.

The ESA provides a robust set of compliance standards that have been independently reviewed against current Australian retailer and regulatory requirements.

ESA is based on the principles of Hazard Analysis Critical Control Point (HACCP) and addresses many aspects of egg production including hen welfare, egg quality, biosecurity, food safety, work health and safety and environmental management.

The components are structured into multiple levels to enable adoption at a level that suits the farm business' needs and customer requirements. The proposed farm will be certified as Level 3 – Comprehensive, which is an advanced level suited to egg farmers with a fully developed compliance system and record keeping procedures, to meet the requirements of major retail customers. Egg farms certified at this level must be audited against all three levels of compliance criteria.

In addition to the Egg Standards of Australia for Rearing and Laying farms, the farm will also be operated in accordance with the following documents:

- Land Transport of Poultry Standards and Guidelines, September 2011.
- Code of Practice for Shell Egg, Production, Grading, Packing and Distribution, August 2010.
- Code of Practice for Biosecurity in the Egg Industry Second Edition, January 2015.
- Model Code of Practice for the Welfare of Animals Domestic Poultry 4th Edition – SCARM Report 83, 2002.
- National Farm Biosecurity Manual Poultry Production, May 2009.
- National Water Biosecurity Manual Poultry Production, August 2009.
- National Farm Biosecurity Technical Manual for Egg Production, April 2015.
- Egg Industry Environmental Guidelines, May 2018.
- Development and Extension of Industry Best Practice for On- Farm Euthanasia of Spent Layer Hens May 2015.

- Biosecurity (Salmonella Enteritidis) Control 2020.
- Any DPI Directives.
- Specific Customer Requirements.

Farms are subject to regular independent audits and inspections in accordance with the above standards and hence they are well run, highly managed, and regularly audited operations.

2.8.1 Biosecurity

Biosecurity measures are essential to the successful operation of proposed layer farm and in preventing and minimising the risks of introducing disease or other infectious agents into a flock. The critical control points to prevent disease are primarily identified in the *Code of Practice for Biosecurity in the Egg Industry* and include:

- Entry of bedding material, started pullets (day old chicks), adult fowls, equipment, vehicles, people and feed into egg production farms.
- The presence of wild birds and rodents in or around sheds.
- Water sanitation on farms using surface water for internal shed fogging or bird drinking water and for disposal systems for dead birds, reject eggs and manure from the farm.
- The presence of non-poultry bird species, other poultry and pigs on the farm.

To ensure that these critical control points are considered, monitored and controlled, the layer farm will have stringent bio-security protocols in place including:

- Ensuring all farm boundaries are fenced and secure to prevent access of unauthorised visitors or animals.
- Only bringing birds, litter, feed etc in from reliable sources that are disease-free.
- Not allowing visitors or vehicles and equipment onto the farm if they have been in contact with other poultry within 48 hours.
- Ensuring only treated bore water is used for fogging or drinking water.
- Minimising the risks access of wild birds and other animals to the birds through maintenance of fencing and sheds, control of feed sources, pest control programs, and keeping the farm areas clean and clear of contaminants.
- No storing of water in open dams on the site that may attract waterfowl.
- Disinfecting vehicles that need to enter or closely approach sheds by an approved method.
- Disinfect shed equipment in between flocks.
- Disposal of manure within the proposed composting facility in the approved manner.

In the unlikely event of disease entering the farm, the farm manager will follow the *Emergency Animal Disease* arrangements and maintaining optimum conditions in the sheds until instructions are received form the Chief Veterinary Officer and/or the Australian Veterinary Emergency Plan Operational Procedures can be implemented. Treatment, euthanising, collection and disposal of diseased birds will all be undertaken in accordance with the instructions from the Chief Veterinary Officer and would likely take the form of collection in sealed, refrigerated containers and transport off site to an approved disposal site.

In response to a mass mortality event which is not disease related, Pace Farm will enact an internal Mass Mortality Disposal Plan which includes implementation of quarantine conditions, collection of mortalities into sealed refrigerated containers and transport of birds to an offsite rendering plant or licensed disposal site. Again, guidance will be sought from the Chief Veterinary Officer depending on the specific circumstances and actions required.

2.8.2 Animal welfare

Animal welfare refers to the protection of the health and well-being of animals. It concerns how an animal is coping in its living environment in terms of freedom from hunger and thirst, fear and distress, discomfort, pain injury or disease, and the freedom to express natural behaviours.

Pace Farm are committed to achieving high standards of bird welfare and understand that bird welfare and economic performance go hand-in-hand. As well as being in the bird's best interest, it makes sound economic sense to ensure that flocks are maintained in an environment in which they are safe, comfortable and free from injury or harm.

With respect to animal welfare, the proposed layer farm will be operated in accordance with the *Model Code of Practice for the Welfare of Animals, Domestic Poultry 4th Edition SCARM Report 83* as well as additional internal standards and customer requirements.

Farms are also subject to regular independent audits and inspections to ensure compliance in accordance with the above requirements and hence are well run, highly managed, and regularly audited operations.

2.8.3 Disaster Preparedness

In order to ensure operation of the layer farm can continue during periods of flooding, disaster or other unforeseen events (e.g. supplier issues), the following actions will be adopted:

- 7 – 10 days of poultry feed is retained on site at all times.
- Back up diesel generators are provided to run the farms during black outs.
- 2ML of water is also retained on site for drinking and cooling water supply.

3 ENVIRONMENTAL ASSESSMENT

A detailed assessment of the potential environmental impacts associated with the proposed development is provided in the following sections.

3.1 ODOUR IMPACT ASSESSMENT

An Odour and Dust Impact Assessment (ODIA) has been prepared by Astute Environmental Consulting to assess the potential impact of the development in terms of odour and dust. This assessment is included as **Appendix 2**. The odour modelling has been prepared in accordance with the NSW EPA's *Approved Method for the Modelling and Assessment of Air Pollutants in New South Wales*.

The scope of work for this odour impact assessment included:

- Obtaining information about the proposed sheds;
- Analysing regional weather data;
- Analysing on site weather data;
- Modelling meteorology for the area using TAPM/CALMET;
- Estimating odour and dust emissions based on data in Poultry CRC (2011);
- Predicting odour dispersion using CALPUFF;
- Assess Layer Farm 1095 in isolation and cumulatively with the approved Warrah Ridge Farm 687; and
- Documenting the findings and recommendations.

3.1.1 Modelling

The odour criteria used in New South Wales are detailed in the Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales. For a complex mixture of odorants (i.e. odour measured as odour units), the criterion is selected based on the population density in an area. This is based on the concept that as population density increases, the number of people who may be sensitive to an odour increases. The impact assessment criteria for varying populations is shown in Figure 5 below.

Population of affected Community	Impact assessment criterion for complex mixtures of odorous air pollutants (ou)
Urban (≥~2000) and/or schools and hospitals	2.0
~500	3.0
~125	4.0
~30	5.0
~10	6.0
Single rural residence (≤~2)	7.0

Figure 5: Odour Impact Assessment Criteria

As outlined in the Odour Impact Assessment, application of the standard methodology identifies that a criterion of 7 odour units (ou) would apply. However, to ensure conservatism in the modelling, an odour criterion of 5 ou has been adopted.

The K factor is a scaling factor which is used to reflect the odour emissions/performance of a poultry shed. For the proposed farm, a K factor of 2.0 has been used which is typical for meat chicken farms. As noted in the previously submitted Odour Assessment for Farm 687, layer farms typically have lower emissions, and less offensive odour than meat chicken farms with the same sized sheds, and as such, a realistic average K factor of 0.8 may be appropriate. Again, to be conservative and test the veracity of the modelling results, both K-Factor scenarios have been run.

3.1.2 Results

The modelling results (including potential cumulative impacts with the approved Farm 687) show that the predicted ground level 99th percentile 1 second concentrations comply with the relevant odour criterion.

The conservative modelling undertaken for the proposed rearing farm shows clear compliance with the NSW EPA odour Impact Assessment Criteria of 5ou and indicates that the operation of the proposed site would not lead to any exceedances of the odour criterion of 5 ou at the nearest sensitive receptors.

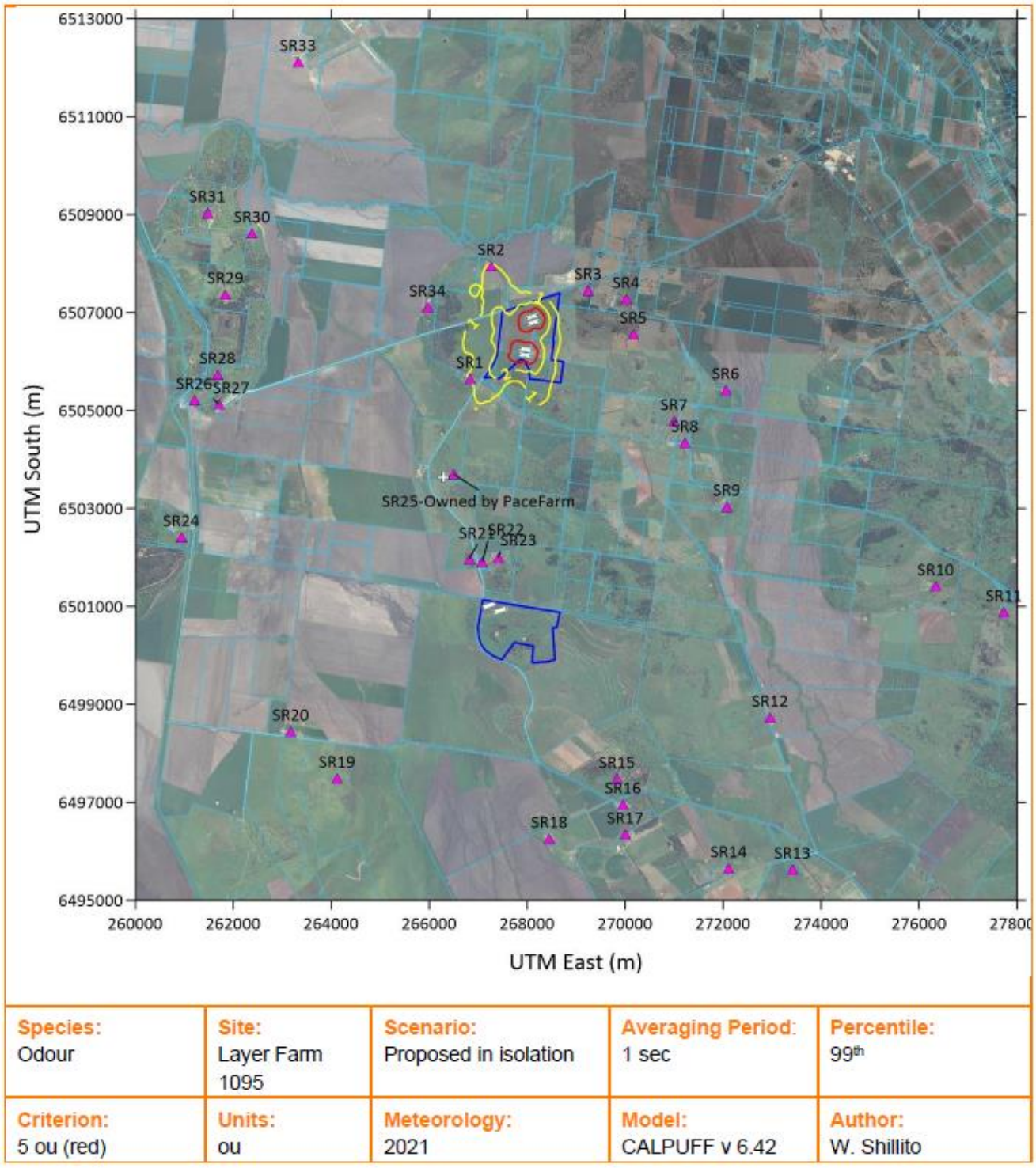

Figure 6: Predicted Cumulative Odour Concentrations (Astute Environmental, 2023)

3.2 DUST IMPACT ASSESSMENT

An ODIA has been prepared by Astute Environmental Consulting to assess the potential impact of the development in terms of odour and dust. This assessment is included in **Appendix 2**.

3.2.1 Modelling

The Approved Methods (NSW EPA, 2016) also specifies the air quality assessment criteria relevant for assessing impacts from dust-generating activities. For this assessment, particulate matter less than 10 micrometres (PM_{10}) was included as the assessment parameters for dust emissions. PM_{10} is the size fraction that is generally the limiting dust parameter from poultry farms as it is generated by normal activities in the sheds (as opposed to combustion sources). This means that if the PM_{10} criteria are met, there is minimal risk of exceedances od dust deposition or particulate matter less than 2.5 micrometres ($PM_{2.5}$).

The PM_{10} emission rates have been calculated using an emission rate for layers and the predicted ventilation rates. The relationships were derived based on emission rate data from Poultry CRC (2011).

3.2.2 Results

The maximum predicted ground level concentrations of particulate matter (PM_{10}) including maximum background data from Tamworth complies with the air quality impact criteria. The modelling has demonstrated that the risk associated with particulate matter is low as there will not be any exceedances at the receptors.

3.3 NOISE MANAGEMENT

A Noise Impact Assessment has been prepared by Reverb Acoustics (refer to **Appendix 3**).

3.3.1 Project Noise Trigger Levels

Background noise levels have not been measured for the project and as such, the lowest possible Rating Background Levels (RBLs) of 30dB(A), L90 for evening and night and 35dB(A),L90 for day have been adopted, in accordance with Table 2.1 of the NSW Environment Protection Authority's (EPA's) Noise Policy for Industry (NPfI).

Project Noise Trigger Levels for the project, have been selected as the more stringent of the intrusiveness criteria and the amenity / high traffic criteria, and are as follows:

- Day **40dB LAeq,15 Minute** 7am to 6pm Mon to Sat or 8am to 6pm Sun and Public Holidays
- Evening **35dB LAeq,15 Minute** 6pm to 10pm
- Night **35dB LAeq,15 Minute** 10pm to 7am Mon to Sat or 10pm to 8am Sun and Public Holidays

3.3.2 Operational Noise

There will be a range of plant and equipment operating at the site, including ventilation fans, trucks, generators, forklifts, and the like. To be conservative, the modelling undertaken assumes that that all ventilation fans, truck movements and the emergency generator are operating simultaneously.

The modelling shows that site operations are predicted to be compliant with the criteria at all nearby residential receivers during the day and night for neutral and adverse weather conditions. Due to some uncertainty in all theoretical calculations minor exceedances are possible at the nearest residence north of the site R4 during adverse weather conditions at night.

As noted above the modelling assumes all ventilation fans, truck movements and the emergency generator are operating simultaneously. In reality, all items and activities will not occur at the same time. In addition, as noted in the Acoustic Report, the ventilation fans are the main noise sources of concern, followed by feed silo refuelling, truck movements and loading/unloading which are unlikely to occur simultaneously at night.

However, the number of fans that will run during the evening and night at each shed will reduce as ambient temperatures decline. As a result, fan noise levels are expected to reduce by 3-4dB(A) at receivers, implying compliance, during inversion conditions.

With consideration of the modelling result, Reverb Acoustics concludes that no special acoustic modifications are necessary to achieve compliance with the project noise trigger levels.

3.3.3 Road Traffic Noise

In addition, the assessment of road traffic has also shown that the noise levels from cars and trucks travelling to and from the proposed poultry farm along Warrah Ridge Road are predicted to be compliant with the Roads Noise Policy (RNP) day and night criteria for all residences.

3.4 TRAFFIC IMPACT ASSESSMENT

A Traffic Impact Assessment (TIA) has been prepared by PSA Consulting (refer to **Appendix 4**) which covers the following aspects:

- Calculation of design traffic volumes for year of opening and 10-year design horizon.
- Assessment of turn warrants.
- Adequacy of on-site parking requirements.
- Adequacy review of site access condition and site distance.
- Assessment of the swept path of the largest vehicle proposed to access the site.

3.4.1 Background Traffic

Due to the remote location and limited number of entry and exit points on Warrah Ridge Road, historic traffic counts were not obtained for the site. While traffic has been observed to be incredibly light, as an extremely conservative estimate the assessment assumed that the bidirectional light vehicle traffic on Warrah Ridge Road will be 50 vehicles (assuming an additional 10% will be heavy vehicles) in the AM and PM peaks traffic flow periods.

Based on similar farms, proposed development has been assumed to generate an average of 28 trips per day, where a trip is defined as a vehicle entering or exiting the development (i.e., 14 incoming and 14 outgoing trips). Of these trips, 24 are assumed to be light vehicles (i.e., staff coming and going) while the remainder have been assumed to be heavy vehicles, associated with operation of the layer farm e.g. delivery of feed, egg and manure collection.

3.4.2 Assessment results

3.4.2.1 Intersections

Using the assumptions above, and a conservative background traffic growth rate of 3%, future year background traffic volumes have been calculated and combined with the development generated traffic volumes to obtain the design traffic volumes for this assessment. Austroads *Guide to Traffic Management Part 3: Traffic Study and Analysis Methods (2009)* lists the intersection capacity – uninterrupted flow conditions for a arrange of traffic volumes for unsignalised intersections. As the year of opening and 10-year design horizon traffic volumes are less than the uninterrupted flow conditions, intersection analysis was not necessary.

3.4.2.2 Site access

A turn warrants assessment has been carried out for Warrah Ridge Road and site access T-intersection. Both the year of opening (2026) and 10-year design horizon (2036) traffic volumes have been analysed. The turning warrants assessment has found that for both the year of opening and the 10-year design horizon warranted the construction of a Basic Right and Basic Left (BAR and BAL, respectively) at the intersection of Warrah Ridge Road and the development site access.

3.4.2.3 Parking and manoeuvring

The Liverpool Plains Shire Council DCP does not require a specific parking rate be met for intensive animal industries. For Intensive Agriculture, the DCP refers to the NSW Government of Primary Industries (DPI) Guidelines with regard to industry-specific farm management practices. The DPI *Best Practice Management for Meat Chicken Production in NSW* requires "adequate provision for the parking of vehicles anticipated to be using the farm". There is sufficient space on the site for parking and manoeuvring to be provided for all staff and visitors. Provision has been made at the site entrance for staff and visitors to safely enter and exit the facility in accordance with bio-security protocols.

Swept path analysis has been undertaken which confirms that the largest design vehicle (B-Double) can safely manoeuvre through the site and enter and exit the farm in forward gear.

3.4.2.4 Driver Code of Conduct

Pace Farm is willing to implement a Driver Code of Conduct which will be signed by all staff and transport contractors accessing the site which will include:

- A map of the primary transport route/s highlighting critical locations and any safety initiatives to manage driver behaviour and safe interaction with traffic.
- An induction process for heavy vehicle operators and staff.
- Procedures for travel along any school bus route/s.
- Procedures to minimise potential impacts of heavy vehicle movements such as noise and dust.
- A complaint resolution and disciplinary procedure.

This can be implemented prior to commencement of operations and can be conditioned accordingly.

3.5 FLORA AND FAUNA ASSESSMENT

A Flora and Fauna Assessment Report has been prepared by 28 degrees South and is included as **Appendix 5**. As noted in the report, the development footprint has a history of rural use, including cropping which commenced before 1970 (the earliest photo available) and expanded through the 1980's and 1990's and continued seasonally since.

The Proposed Development's configuration reflects the final step in an iterative design process between Pace Farms and 28 South Environmental in which various aspects of the proposed development have been reconfigured or repositioned to locate all activities within the historically cropped areas and avoid ecological features including watercourse, paddock trees, and native vegetation.

The iterative design process defining the development footprint and other mitigation measures ensure that there will be no:

- Unavoidable impacts;
- Impacts to biodiversity values that are uncertain; or
- Serious and Irreversible impacts (SAII).

The proposed development has been carefully located within cleared portion of the site which has been subject to cultivation. As such, there is no clearing of land which exceed the biodiversity offsets scheme (BOS) threshold (Section 7.2 *Biodiversity Conservation Regulation 2017*. Therefore, there is no requirement to offset the proposed development under the provisions of the BCA.

Further, there is no requirement to lodge a controlled action referral under EPBC Act to determine the need for assessment and approvals under the Act.

3.5.1 Koala Habitat Protection SEPP

The Koala habitat protection SEPP 2021 and SEPP 2020 contain provisions for retaining Koala habitat. Under the SEPP, if the development site meets the definition of potential Koala habitat and is zoned RU1 it must be assessed under the Core Koala habitat guidelines as detailed in the Koala SEPP 2020.

Part 4 of the SEPP 2020 prescribes that "*potential koala habitat means areas of native vegetation where trees of the types listed in Schedule 2 constitute at least 15% of the total number of trees in the upper and lower strata of the tree component*".

With reference to Part 7(a) of the SEPP, the Site is within a local government area to which the policy applies (Liverpool Plains) and is not Exempt Land.

With reference to Part 8 of the SEPP, there is a requirement to determine if the land is Potential Koala Habitat. Part 4 of the SEPP defines Potential Koala Habitat as "*areas of native vegetation where trees of the types listed in Schedule 2 of the SEPP constitute at least 15% of the total number of trees in the upper and lower strata of the tree component*."

The Site does not support species listed in Schedule 2 of the SEPP and is therefore not an area of Potential Koala Habitat as defined by the SEPP. There is no requirement to comply with Clause 9 of the SEPP.

3.6 BUSHFIRE MANAGEMENT

A Bush Fire Hazard Assessment and Management Plan (BHAMP) has been prepared by Meridian Urban and is included in **Appendix 6**. The BHAMP has been prepared in accordance with Planning for Bush Fire Protection, 2019 published by the Rural Fire Service.

As shown in Figure 7, the subject site is mapped as Bush Fire Prone Land – Vegetation Category 3. This mapping covers areas with 'medium' bush fire risk and includes grasslands, freshwater wetlands, semi-arid woodlands, alpine complex and arid shrublands. Areas of Category 1 Vegetation directly are present in the southern extent of the site approximately 100m from the southern laying sheds. In the case of the subject site, grasslands is the dominant vegetation community.

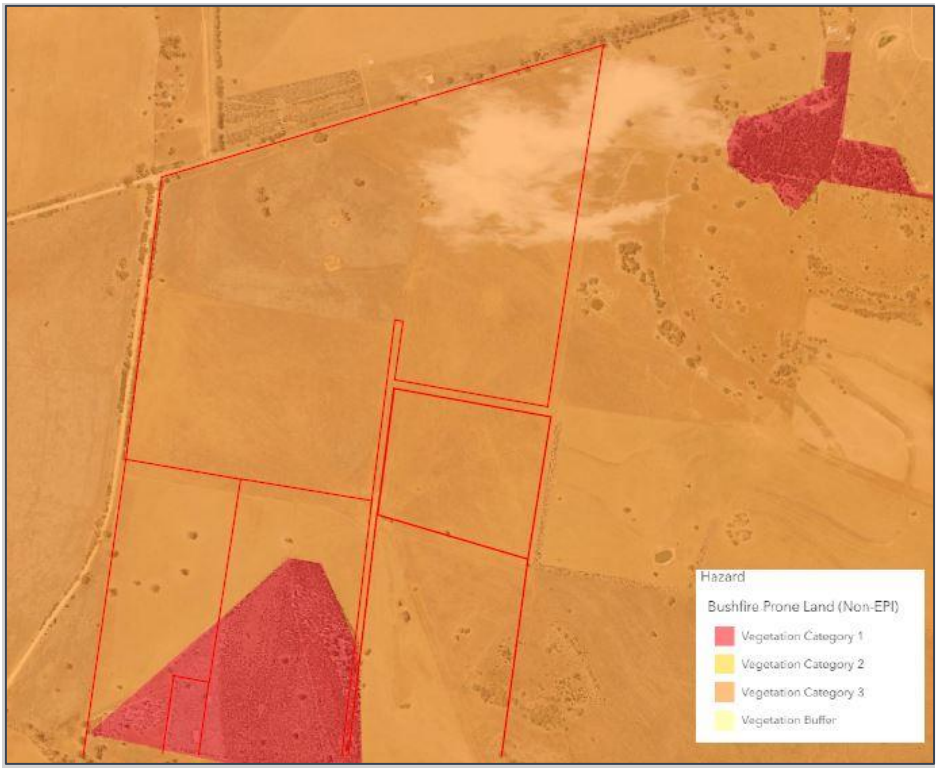

Figure 7: Liverpool Plains Bush Fire Mapping (NSW Planning Portal and Meridian Urban, 2023)

The BHAMP considers the bush fire exposure and protection measures required for the proposed intensive livestock agriculture activity involving a poultry farming operation at Warrah Ridge Road, Warrah Ridge. Based upon a range of analytical methodologies, protection measures are identified for incorporation as part of the proposed development to aid in the defence against grass fire with respect to classifiable vegetation surrounding the development site.

Based on this assessment, a range of protection measures have been derived. These are summarised as follows:

1. The farm manager's dwelling is to comply with the BAL-12.5 and 23m APZ provisions of this assessment, except where a further specific assessment is undertaken at building application stage. Its asset protection zone is to be maintained in a low fuel condition (grass height not exceeding 10cm) all-year round, in perpetuity.
2. Internal road and driveway network design and dimensions comply with those set out.
3. Defensible space areas for each laying shed, services building and water tanks are provided at a minimum of 10m in width.
4. Consider the preparation of a bush fire emergency management and evacuation plan to support the safe operation of the facility.
5. The static water supply for the facility meets the following recommendations of this assessment:
    a. a 10 metre defensible space area is provided around each tank.

b. each steel tank is to facilitate fire appliance access by providing an outlet within 4 metres of the standing position of a Category 1 tanker, which is likely to pull up on the central access road. The outlet is to be fitted with a 65mm metal Storz outlet with gate or ball valve.

c. the tanks are to be topped up to full capacity at the start of each regulated fire season and water levels observed throughout each fire season to ensure sufficient firefighting capacity is maintained for the duration of the season.

d. ensure the fire safety provisions of the NCC are implemented and consider the ability for firefighting equipment provided on site to protect the entirety of each building (i.e. hoses are located and can stretch the perimeter around buildings, etc.).

6. Provide electricity supply in a manner which complies with the requirements of PBP 2019 and undertake annual checks and maintenance to limit the ignition hazard posed by electricity supply.
7. Ensure any landscaping is undertaken in a manner which complies with the relevant inner or outer protection zone provisions of PBP 2019.
8. Continue to maintain the existing trail and track network across the broader subject site.

3.7 CULTURAL HERITAGE

Niche Environment and Heritage (Niche) was engaged to undertake an Aboriginal Due Diligence Assessment for the proposed development. Niche had followed the methodology provided by NSW Environment, Climate Change & Water's *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*. No Heritage items were listed in the heritage registers (i.e. AHIMS, Australian World Heritage Database, the Commonwealth Heritage List, National Heritage List, State Heritage Register, State Heritage Inventory, the Liverpool Plains LEP 2011 and the Liverpool Plains DCP 2012) within the study area.

A Niche heritage consultant undertook a visual inspection of the study area on 21 February 2023. The inspection involved walking over the proposed areas of disturbance and inspecting the ground surface for Aboriginal objects and/or features. The site inspection identified the majority of the Activity Area had been subjected to historical vegetation clearing, ploughing and vegetable cropping on the flats, lower and mid slopes.

The majority of the Activity Area is located within 200 m of non-perennial tributaries of Warrah Creek. The closest permanent water source to the Activity Area includes Warrah Creek, a perennial stream that is located to the north of the Activity Area. These landscape features represent areas with an elevated likelihood for Aboriginal cultural material to occur. However, the Activity Area is disturbed as it has been subjected to human activity that has altered the lands surface, including vegetation clearance and ploughing. Therefore, despite the Activity Area being located within a sensitive landscape, the potential to disturb Aboriginal objects is considered low.

During the visual inspection, the heritage consultant was able to confirm that the entire study area has be subject to extensive disturbance. The historic use of the site has resulted in the clearing of existing native vegetation. This disturbance can be attributed to extensive clearing of vegetation and continuous farming practices within the Activity Area (ploughing), as visible in historical imagery of the area and confirmed during a site inspection. Historical imagery demonstrates a constant clearance of vegetation and constant agricultural use of the Activity Area from 1953. This assessment indicates that in situ Archaeological deposits are unlikely to occur within the Activity Area due to the high degree of disturbance and as such, there is no compelling reason to move or avoid the activity.

While the ground has been extensively disturbed, once cultural heritage site, being a scarred tree was identified within the proposed range areas. Warrah Ridge Scar Tree 1 was recorded in the northern portion of the activity area approximately 150 m south of Warrah Ridge Road and 530 m east of Inverkip Road. The proposed tree is to be retained within the range areas and the layer farm will not result in any physical impacts on this cultural heritage site.

Figure 8 Aboriginal cultural heritage site Warrah Ridge Scar Tree 1 (AHIMS ID#TBC)

In response to the findings of the Aboriginal Due Diligence Assessment, Niche has provided the following recommendations that will be adopted for the project:

- Temporary high visibility fencing must be erected around the recorded location Warrah Ridge Scar Tree 1 (AHIMS ID#TBC) prior to any construction works proceeding. This barrier should cover a 20 m radius from the base of the tree. The recorded location, plus 20 m buffer, should be identified as a "no go zone" on all construction and management plans as well as all induction materials. Once the temporary fencing has been constructed two georeferenced photos of the constructed temporary fencing are to be sent to a qualified Niche heritage consultant for approval prior to work commencing. All works and machinery (including vehicle access) must avoid this area at all times.
- A site card must be submitted for AHIMS site Warrah Ridge Scar Tree 1 as per the visual inspection findings.
- If impacts are proposed to the "no go zone" (Warrah Ridge Scar Tree 1 (AHIMS ID# 29-5-0100) or the proposed development footprint is altered, then further archaeological assessment, likely in the form of an Aboriginal Cultural Heritage Assessment (ACHA) with Aboriginal community consultation, will be required. These will be used to inform an Aboriginal Heritage Impact Permit (AHIP) to allow harm to the site.
- All site workers and contractors should be inducted to the area and informed of their obligations under the *National Parks and Wildlife Act 1974*.
- In the unlikely event that Aboriginal objects are found, all activities with the potential to impact the objects must be stopped. A fence must be erected with a 10m buffer and an appropriately qualified archaeologist is to be engaged to assess the findings.
- In the unlikely event that suspected human remains are encountered, all work in the rea that must be stopped. A fence must be erected with a 20m buffer and NSW Police must be contacted immediately.

The assessment concludes that an Aboriginal Heritage Impact Permit (AHIP) will not be required. A copy of the Due Diligence Report is provided in **Appendix 7**.

3.8 STORMWATER MANAGEMENT

3.8.1 Stormwater Quantity

A Concept Stormwater Plan has been prepared by Hanlons Consulting and is included in **Appendix 8**.

The concept arrangement proposes to utilise a combination of the construction of new drains and culverts as well as augmenting existing contour banks present onsite. The concept design aims to prevent upslope flow from entering each of the four (4) layer sheds site. The new works will comprise a series of three (3) metre wide trapezoidal channels and other drainage structures to collect and divert stormwater flows.

The channels and drainage structures have been sized to accommodate the anticipated design flows and convey them to downstream areas. All discharge points associated with the drainage structures will feature appropriate scour protection measures to dissipate, slow velocities and reduce any sediments loads.

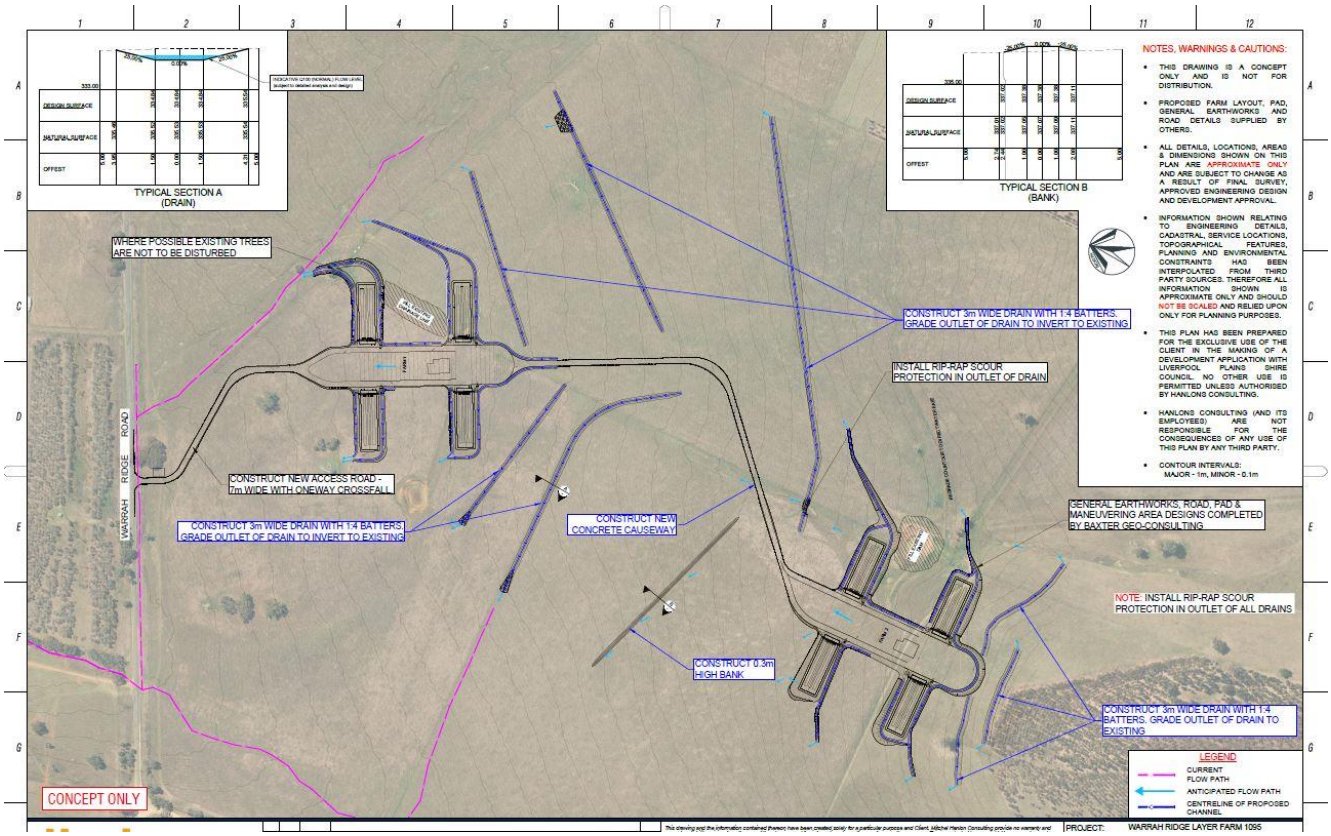

Figure 9 Concept Drainage Layout Plan. Source: Hanlons, 2023

3.8.2 Stormwater Quality

The proposed poultry sheds are constructed on an elevated pad and concrete slab and surrounded by a waterproof blockwork at the base of the insulated panel wall. As such internal shed areas are entirely separated from interaction with stormwater or roof water. As identified in Section 2.7 above, the ~86% of the manure will be deposited within the sheds which is entirely removed from the site.

A further 10.5% of the manure is deposited within the controlled Zone 1 area. The remaining 3.5% of manure deposition on the range area is managed through the retention of ground covers, and appropriate control of stormwater flows. The proposed regime for these zone is documented in Section 2.7 above.

In summary, 86% of the manure will be deposited within the sheds which is entirely removed from the site. A further 10.5% of the manure is deposited within the controlled Zone 1 area. The remaining 3.5% of manure deposition on the range area is managed through the retention of ground covers, and appropriate control of stormwater flows.

The proposed siting, design, management and mitigation strategies employed on the free-range layer site demonstrate that the risk of environmental impact from nutrients generated on the range are low.

In addition, given that the farm is situated on areas which have been historically cropped and grazed, and will no longer be subject to fertilizer use, or deposition of cattle manure, the use is not expected to generate any new or unacceptable soil or water quality impacts.

3.8.3 Stormwater Management

In spite of the low risk to downstream water quality, the following standard management and mitigation measure are proposed to further minimise risks.

During Construction

- Implementation of an Erosion and Sediment Control Plan to limit the risk of discharge of sediment into water courses.
- Overland flows upslope will be diverted around areas of disturbance.
- Minimise clearing of ground covers to construction areas only.
- Construction managers are required to regular inspect and maintain erosion and sediment control will be implemented to ensure the continued integrity of the temporary erosion and sediment control structures.

Shed Design

- The poultry sheds will be constructed on a concrete slab with a poured solid concrete wall to ensure no interaction of external water movement (roof water and stormwater).
- Construction of a 1.5m wide concrete apron around the sheds with a 1.5m wide eave to divert run off from the apron.
- Construction of a compacted gravel area extending ~ 9m from the apron in the high traffic areas to prevent bird scratching, erosion and nutrient run off.
- Construction of contour banks upslope flow from the sheds site to convey flows to downstream areas.
- Stormwater runoff over the sheds is collected and diverted by the contour backs and discharged with scour protected spill ways to slow velocities, disperse water and minimise the risk of erosion at the outlet.

Range Design

- Retention of ground covers, trees and planting within the range area to protect range areas from erosion an absorb nutrients.
- Planting of additional vegetation / pastures within the range areas.
- Farm managers to move external shade structures to allow pasture to recover in highly traffic areas.
- Construction of contour banks with scour protection at discharge points to control overland flows, slow velocities reduce sediments load and minimise the risk of erosion.
- Retention of Vegetated Filter Strips (VFS) along the downstream edges of range area. VFS are small areas of well-maintained, thick ground covers as a secondary control measure (insurance policy) for further filtering of unexpected run-off.

Operation, Monitoring and Maintenance

- There will not be any on-site stockpiling of bedding material, manure or waste materials on site.
- At the end of each cycle, bedding material will be promptly removed from the sheds, loaded trucks and transported off-site in covered trucks for disposal.
- The poultry sheds will be cleaned and sanitised at the end of each production cycle.
- Wash down water is retained within the sheds which are dried by evaporation to ensure no run-off of wash down water from the sheds.

The waste water generated by the staff amenities will be appropriately treated by a standard septic system in accordance with the requirements of Council.

3.9 WASTE MANAGEMENT

Waste management is critical to the operation of an efficient and bio-secure poultry farm. As is the case on similar sites, Pace Farm will adopt measures to ensure that all waste generated from activities on the site are reused and recycled where practical or otherwise managed and disposed of in a manner that will not cause environmental harm.

3.9.1 Non-Recyclable Waste

Day to day general waste (e.g. packaging, used personal bio-security clothing) will be placed into enclosed skip bins and removed from the farm by a licensed contractor on a regular / as needed basis. This type of waste will be transported to and disposed of at a local landfill site.

3.9.2 Recyclable Waste

Provision of collection bins for collection of recycling material such as plastic, paper, cardboard, and waste metal will also be provided and removed from the farm by a licensed contractor on a regular / as needed basis.

3.9.3 Manure Collection

Running along the length of shed are a series of nest boxes and roosting spaces, with manure belts underneath. Manure which is deposited on the concrete floor of the shed is also diverted to the manure belts by motorised scrapers. Once per week (per shed) the manure belts are operated transporting poultry manure to the end of the shed and into a waiting truck. The load is then covered and then taken off site to be sold to farmers as a soil amendment material.

At the end of each cycle, the birds are removed from the sheds and equipment are swept and vacuumed cleaned, before being set up for a new batch. Similar to the manure collection, the floor litter is collected at the end of each cycle and take off-site in covered trucks and sold to farmers as a soil amendment material. The material will be collected from the sheds and loaded directly into trucks for removal from the site. Truck loads will be covered to minimise emissions of odour and particulate matter into the surrounding environment. For bio-security and quarantine control reasons, litter is not stockpiled or disposed of on-site.

Poultry manure and floor litter is commonly used by farmers within the region as an organic fertiliser, soil additives and rehabilitation agent for agricultural lands. The collected material will be taken from the site by an approved contractor and sold directly to regional farmers or provided to a commercial composter for creation of value added products (such as palletised fertiliser or compost).

3.9.4 Mortalities

The proposed layer sheds are regularly inspected, and any mortalities are removed as soon as possible. Collected mortalities (anticipated to be less than 10 per day) will be immediately placed in the compost shed and covered with a small amount of organic material (e.g. straw or woodchips), poultry manure and soil. A small amount of water is added to ensure water content levels remain between 40 - 60% and the material is periodically turned (aerated) which aids in the breakdown of organic matter into compost.

As shown on the proposed site plans, the proposed compost shed is a 12m x 8m and will have a maximum height of 6.1m. The photo of a similar compost shed is included below.

Composting is a widely accepted and well documented method for on-site processing of mortalities in an environmentally sound manner. Composting is a natural, biological process by which organic material is broken down and decomposed into a stable end product. The composting process is carried out by bacteria, fungi and other microorganisms which digest the organic material and reduce it to humus.

The composting process converts dead birds into a useful, inoffensive, stable end product (compost) that can be safely used as a crop fertiliser and/or soil improvement material.

The small scale composting undertaken on the site does not produce offensive odour and will have negligible impacts on air quality and the nearest sensitive receptor, located ~750m away from the compost shed.

Composting will be periodically removed from the site by covered truck and used as a soil amendment material.

Figure 10: Example Composting Shed

3.9.5 Waste water

No liquid wastes are generated from the day to day operations at the farm.

Effluent from the staff amenities and manager residences will be treated and disposed of via a standard on-site septic system. It is proposed that the waste to be treated and irrigated on-site. Signage will be erected advising that the water is reclaimed effluent and not suitable for drinking.

A separate application to install and operate the septic system will be submitted to Council in accordance with the provisions of Section 68 of the *Local Government Act 1993*, prior to the commencement of operations.

3.9.6 Construction Waste

Waste generated during construction may contain materials such as steel, metals, plastics, paper, cardboard, glass and food waste. The waste will be managed through being stored in secure receptacles to mitigate against waste becoming airborne or accessible to other animals. This will be disposed of to a licensed facility via a waste contractor on an as need basis.

3.10 VERMIN CONTROL

Maintaining a pest free environment is of vital importance in maintaining the health and welfare of the flock. The farms will operate in accordance with an EMP, Pace Standard Operating Procedures and various guidelines including the *Egg Standards Australia for Rearing and Layer farms, November 2019* and *Egg Industry Environmental Guidelines 2018*, which all cover pest control. A range of methods are used to minimise and control pests including (but not limited to):

- Good housekeeping practices to maintain the site in a clean state.
- Removal of unnecessary plant and equipment to limit potential harbourage areas.
- Sealed Storage of feed and immediate clean-up of any spills.
- Placement of bait stations around buildings and regular inspection.
- The use of sealed sheds with restricted vermin entry points.
- Bio secure fencing.
- Regular removal of manure from the sheds.
- Maintenance of the composting shed with the correct levels of moisture and organic material to enable efficient break down.
- Daily farm and shed inspections to check for any pest activity.

The implementation and maintenance of the above (and additional) actions will ensure that site is operating in manner which minimise vermin and pest attraction.

3.11 ENVIRONMENTAL MANAGEMENT

A Draft EMP has been prepared and is included as **Appendix 9**. The Draft EMP identifies a range of site environmental and operational considerations, management and mitigation strategies, records keeping procedures and other details to ensure the farm is operated in a responsible manner.

As outlined the farm is required to operate in accordance with all commonwealth and stage legislative requirements, industry guidelines and customer requirements and is subject to regular independent audits and inspections.

The EMP will remain a draft until it has been updated based on any conditions of approval and finalisation of operational procedures for the farm prior to commencement and can be conditioned accordingly.

4 PLANNING ASSESSMENT

The development proposal is assessed below the relevant matters for consideration pursuant to Section 4.15 of the *Environmental Planning & Assessment Act 1979.* Under section 4.5(d) of the *Environmental Planning and Assessment Act 1979*, the Liverpool Plains Shire Council is the Consent Authority for Local Development.

4.1 DESIGNATED DEVELOPMENT (NOT REQUIRED)

Under Schedule 3, Item 21 of the *Environment Planning and Assessment Regulation 2000,* Livestock Intensive Industries are identified as Designated Development (Requiring an EIS) if the following criteria are met.

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

With respect to the above criteria, the proposed laying farm:

- has a maximum capacity of 248,000 birds;
- is not within 100m of natural waterbody or wetland;
- is not within a drinking water catchment;
- is not within 500m of another poultry farm;
- is not within 500m of a residential zone;
- is not within 150m of a dwelling not associated with the development.

With respect to distance to a natural waterbody or wetland, a Waterways Constraints Assessment has been commissioned by the applicant to confirm the status of the watercourses shown in the State's Hydroline Spatial Data mapping on the site. A copy of this report is provided in **Appendix 10**.

While a watercourse was mapped within the site, field verification determined that this watercourse does not meet the definition of a 'river', as there were no defined bed, banks or evidence of geomorphic processes. Accordingly, no part of the layer farm is located within 100m of a natural waterbody.

With consideration of above factors, the proposed poultry laying farm does not constitute designated development.

4.2 INTEGRATED AUTHORITIES

There are no triggers for intergrade development under Clause 4.46 of *Environment Planning and Assessment Act 1979* applicable to this development application.

It is noted that under Schedule 1, Item 22 of the Protection of Environmental Operations Act 1997, Livestock Intensive Industries (bird accommodation) is identified as a Scheduled Premise if they accommodate more than 250,000 birds. As the proposed development will accommodate a maximum of 248,000 birds on the site, the proposal is not a Scheduled Premise and will therefore not require referral to the EPA.

4.3 CONCURRENCE AND REFERRALS

This DA does not trigger a requirement for concurrence or referral under any other Environmental Planning Instrument.

4.4 STATE ENVIRONMENTAL PLANNING POLICIES

An assessment of the proposed development has been undertaken against the relevant State Environmental Planning Policies (SEPPs). Table 4 identifies the applicability and implications of the SEPPs on the project.

Table 4 SEPP Applicability

STATE ENVIRONMENTAL PLANNING POLICY (PLANNING SYSTEMS) 2021	
CHAPTERS	**APPLICABILITY AND ASSESSMENT**
Chapter 2 - State and Regional Development	**N/A.** The project is not State Significant or Regional Development.
Chapter 3 - Aboriginal Land	**N/A.** The site is not located on land owned by a Local Aboriginal Land Council.
Chapter 4 - Concurrences and Consents	**N/A.** There are no concurrences of consents described in Chapter 4 applicable to the site.

STATE ENVIRONMENTAL PLANNING POLICY (BIODIVERSITY AND CONSERVATION) 2021	
CHAPTERS	**APPLICABILITY AND ASSESSMENT**
Chapter 2 - Vegetation in Non-Rural Areas	**N/A.** Chapter 2 does not apply to the Liverpool Plains Shire Council Area.
Chapter 3 - Koala Habitat Protection 2020	**Applicant's Response** - The Koala habitat protection SEPP 2021 and SEPP 2020 contain provisions for retaining Koala habitat. Under the SEPP, if the development site meets the definition of potential Koala habitat and is zoned RU1 it must be assessed under the Core Koala habitat guidelines as detailed in the Koala SEPP 2020. Part 4 of the SEPP 2020 prescribes that "*potential koala habitat means areas of native vegetation where trees of the types listed in Schedule 2 constitute at least 15% of the total number of trees in the upper and lower strata of the tree component*". With reference to Part 7(a) of the SEPP, the Site is within a local government area to which the policy applies (Liverpool Plains) and is not Exempt Land. With reference to Part 8 of the SEPP, there is a requirement to determine if the land is Potential Koala Habitat. Part 4 of the SEPP defines Potential Koala Habitat as "*areas of native vegetation where trees of the types listed in Schedule 2 of the SEPP constitute at least 15% of the total number of trees in the upper and lower strata of the tree component*." The Site does not support species listed in Schedule 2 of the SEPP and is therefore not an area of Potential Koala Habitat as defined by the SEPP. There is no requirement to comply with Clause 9 of the SEPP.
Chapter 4 - Koala Habitat Protection 2021	
Chapter 5 – River Murray Lands	**N/A.** The chapter does not apply to the Liverpool Plains Shire Council Area.
Chapter 6 – Water Catchments	**N/A.** The site is not located within a nominated water catchment.

Chapter 13 – Strategic Conservation Planning	**N/A.** The site is not located on the nominated Land Application maps.

STATE ENVIRONMENTAL PLANNING POLICY (RESILIENCE AND HAZARDS) 2021	
CHAPTERS	**APPLICABILITY AND ASSESSMENT**
Chapter 2 - Coastal Management	**N/A.** The site is not located in the Coastal Zone.
Chapter 3 - Hazardous and Offensive Development	**N/A.** The proposed development is not defined as 'industry' or 'storage establishment' as outlined in the Liverpool Plains LEP 2011 . Therefore, in accordance with s 2.1 of the Applying SEPP 33 Guideline and Clause 3 of the SEPP33, the SEPP does not apply to the proposed development.
Chapter 4 - Remediation of Land	**N/A.** The subject site is currently vacant with previous uses being low-impact agricultural uses (cropping and grazing), which are not expected to have resulted in any significant risk of contamination. As the proposed development involves the construction of a poultry farm which is not a sensitive land use, further assessment of this SEPP is not required.

STATE ENVIRONMENTAL PLANNING POLICY (TRANPORT AND INFRASTRUCTURE) 2021	
CHAPTERS	**APPLICABILITY AND ASSESSMENT**
Chapter 2 - Infrastructure	**Not applicable** – The proposed development is not for transport and infrastructure.
Chapter 3 - Educational Establishments and Childcare Facilities	**N/A.** The project does not involve an Educational Establishment of Childcare Facility.
Chapter 4 - Major Infrastructure Corridors	**N/A.** The site is not within or adjacent to a major infrastructure corridor.
Chapter 5 - Three Ports-Port Botany, Port Kembla and Newcastle	**N/A.** The site is not located on the within the relevant port areas.

STATE ENVIRONMENTAL PLANNING POLICY (INDUSTRY AND EMPLOYMENT) 2021	
CHAPTERS	**APPLICABILITY AND ASSESSMENT**
Chapter 2 - Western Sydney Employment Area	**N/A.** The site is not located on the within Western Sydney Employment Area.
Chapter 3 - Advertising and Signage	**N/A.** No advertising or signage under Chapter 3 is proposed as part of this application.

STATE ENVIRONMENTAL PLANNING POLICY (RESOURCES AND ENERGY) 2021	
CHAPTERS	**APPLICABILITY**
Chapter 2 - Mining, Petroleum Production and Extractive Industries	**N/A.** The project does not involve mining or extractive industry.
Chapter 3 - Extractive Industries	**N/A.** The project does not involve mining or extractive industry.

STATE ENVIRONMENTAL PLANNING POLICY (PRIMARY PRODUCTION) 2021	
CHAPTERS	**APPLICABILITY**

Chapter 2 - Primary Production and Rural Development	**Applicant's Response –** the assessment considerations for intensive livestock agriculture outlined in Schedule 4, Part 3 (4) of the SEPP are replicated within the LEP. An assessment against these provisions is provided in Section 4.5.3 of this SEE. As demonstrated, the proposed development has adequately addressed the relevant consideration and shown the proposed development can proceed without any unacceptable environmental impacts.
Chapter 3 - Central Coast Plateau Areas	**N/A.** The project is not located in the Central Coast Plateau Area.

STATE ENVIRONMENTAL PLANNING POLICY (PRECINCTS – EASTERN HARBOUR CITY) 2021	
CHAPTERS	**APPLICABILITY**
All	**N/A.** The project is not located in a listed State Significant Precinct.

STATE ENVIRONMENTAL PLANNING POLICY (PRECINCTS – CENTRAL RIVER CITY) 2021	
CHAPTERS	**APPLICABILITY**
All	**N/A.** The project is not located in a listed State Significant Precinct.

STATE ENVIRONMENTAL PLANNING POLICY (PRECINCTS – WESTERN PARKLAND CITY) 2021	
CHAPTERS	**APPLICABILITY**
All	**N/A.** The project is not located in a listed State Significant Precinct.

STATE ENVIRONEMENTAL PLANNING POLICY (PRECINCTS - REGIONAL) 2021	
CHAPTERS	**APPLICABILITY**
All	**N/A.** The project is not located in a listed State Significant Precinct.

4.5 LOCAL ENVIRONMENTAL PLAN

4.5.1 Zoning and Permissibility

The site is contained within the Liverpool Plains Local Government Area and as such is subject to the *Liverpool Plains Local Environmental Plan 2011* (LEP). In accordance with the LEP, the subject site is located within the RU1 Primary Production Zone.

The proposed layer farm is defined as **Intensive Livestock Agriculture** and is listed in the RU1 Primary Production Zone land use table as development that is Permitted with Consent.

The objectives of the RU1 Primary Production Zone are as follows:

1 Objectives of zone

- *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.*

The proposed layer farm is a primary industry use which will support ongoing expansion and diversification of the egg industry in the region. The proposed laying farm has a small foot print and will not alienate or fragment important agricultural land and does not preclude rural activities on supporting land holdings. As demonstrated in this SEE, the proposed development has been subject to a rigorous environmental assessment which confirms the project can be undertaken in a manner that will not introduce unacceptable impacts on adjoining zones or nearby sensitive receptors. As such, the proposed poultry laying farm is considered to align with the objectives of the RU1 Primary Production Zone.

4.5.2 Principal Development Standards

There are no principal development standards identified in Part 4 of the LEP applicable to the development.

4.5.3 Other Provisions

The miscellaneous provisions identified in part 5 of the ELP applicable to the development are identified and assessed below.

4.5.3.1 Intensive livestock agriculture

In section 5.18 Intensive livestock agriculture of the LEP, clause (3) states the following:

(3) In determining whether or not to grant development consent under this Plan to development for the purpose of intensive livestock agriculture, the consent authority must take the following into consideration—	
(a) the adequacy of the information provided in the statement of environmental effects or (if the development is designated development) the environmental impact statement accompanying the development application,	**Complies.** A Detailed Statement of Environmental Effects (SEE) has been prepared and submitted with the development application.
(b) the potential for odours to adversely impact on the amenity of residences or other land uses within the vicinity of the site,	**Complies.** An Odour and Dust Impact Assessment (has been prepared by Astute Environmental Consulting to assess the potential impact of the development in terms of odour and dust. The odour modelling has been prepared in accordance with the NSW EPA's Approved Method for the Modelling and Assessment of Air Pollutants in New South Wales. The conservative odour modelling undertaken for the proposed rearing farm shows clear compliance with the NSW EPA odour Impact Assessment Criteria of 5ou and indicates that the operation of the proposed site would not lead to any exceedances of the odour criterion of 5ou at the nearest sensitive receptors. Similarly, with respect to dust, the maximum predicted ground level concentrations of particulate matter (PM10) including maximum background data from Tamworth complies with the air quality impact criteria. The modelling has demonstrated that the risk associated with particulate matter is low as there will not be any exceedances at the receptors.
(c) the potential for the pollution of surface water and ground water,	**Complies.** The proposed poultry sheds are constructed on an elevated pad and concrete slab and surrounded by a waterproof blockwork at the base of the insulated panel wall. As such internal shed areas are entirely separated from interaction with stormwater or roof water. As identified in Section 2.7 above, the ~86% of the manure will be deposited within the sheds which is entirely removed from the site. A further 10.5% of the manure is deposited within the controlled Zone 1 area. The remaining 3.5% of manure deposition on the range area is managed through the retention of ground covers, and appropriate control of stormwater flows. The proposed regime for these zone is documented in Section 2.7 above.

	In summary, 86% of the manure will be deposited within the sheds which is entirely removed from the site. A further 10.5% of the manure is deposited within the controlled Zone 1 area. The remaining 3.5% of manure deposition on the range area is managed through the retention of ground covers, and appropriate control of stormwater flows. The proposed siting, design, management and mitigation strategies employed on the free-range layer site demonstrate that the risk of environmental impact from nutrients generated on the range are low. In addition, given that farm is situated on areas which have been historically cropped and grazed, and will no longer be subject to fertilizer use, or deposition of cattle manure, the use is not expected to generate any new or unacceptable soil or water quality impacts.
(d) the potential for the degradation of soils,	**Complies.** An Erosion and Sediment Control Plan will be adopted during the construction phase of the farm to minimise the risk of sediment. This can be conditioned by Council accordingly. During the operational phase, the proposed siting, design, management and mitigation strategies employed for stormwater will minimise the risks of soil degradation.
(e) the measures proposed to mitigate any potential adverse impacts,	**Complies.** While the development is not expected to result in any unacceptable adverse impact, appropriate management and mitigation actions are proposed and will be adopted by the farm to ensure it performs in the manner as expected.
(f) the suitability of the site in the circumstances,	The proposed development site has been carefully chosen based on consideration of a number of factors including: • The site has been historically cultivated and is free from environmental (significant flora or fauna or threatened ecological communities) and physical constraints (steep gradient, unsuitable geology, flooding and other natural hazards). • The site is appropriately zoned and free from planning constraints which enable a development application to be considered. • The site has suitable road access allowing for the movement of heavy vehicles and staff to and from the site. • The farm is located within a grain growing region to minimise transport costs associated with feed. • The farm is located in proximity to a population centre which can provide employees and accommodation to support the operation. • The farm will have access to adequate and reliable bore water supply. • The site has suitable separation distances to sensitive receptors (the closest house is ~ 750m) to ensure no unacceptable amenity impacts. • The site has suitable separation distances to other poultry farms, intensive livestock operations and other land uses which may introduce a bio-security risk. As demonstrated in this SEE, the subject site exhibits all of these features and is inherently suitable for development of the proposed free range layer farm.
(g) whether the applicant has indicated an intention to comply with relevant industry	**Complies.** The proposed layer farm will be operated in accordance with the Egg Standards of Australia (ESA) for Rearing and Laying Farms. This standard covers the industry practices relating to day old chicks or

codes of practice for the health and welfare of animals,	started pullets to the farm, up to the point of removal of started pullets, spent hens and eggs for human consumption from the farm. The proposed farm will be certified as Level 3 – Comprehensive, which is an advanced level suited to egg farmers with a fully developed compliance system and record keeping procedures, to meet the requirements of major retail customers. In addition to the Egg Standards of Australia for Rearing and Laying farms, the farm will also be operated in accordance with the following documents: • Land Transport of Poultry Standards and Guidelines, September 2011. • Code of Practice for Shell Egg, Production, Grading, Packing and Distribution, August 2010. • Code of Practice for Biosecurity in the Egg Industry Second Edition, January 2015. • Model Code of Practice for the Welfare of Animals Domestic Poultry 4th Edition – SCARM Report 83, 2002. • National Farm Biosecurity Manual Poultry Production, May 2009. • National Water Biosecurity Manual Poultry Production, August 2009. • National Farm Biosecurity Technical Manual for Egg Production, April 2015. • Egg Industry Environmental Guidelines, May 2018. • Development and Extension of Industry Best Practice for On- Farm Euthanasia of Spent Layer Hens May 2015. • Biosecurity (Salmonella Enteritidis) Control 2020. • Any DPI Directives. • Specific Customer Requirements. Farms are subject to regular independent audits and inspections in accordance with the above standards and hence are well run, highly managed, and regularly audited operations.
(h) the consistency of the proposal with, and any reasons for departing from, the environmental planning and assessment aspects of any guidelines for the establishment and operation of relevant types of intensive livestock agriculture published, and made available to the consent authority, by the Department of Primary Industries (within the Department of Industry) and approved by the Planning Secretary.	In addition to the above operational considerations, the farm has been designed and located in accordance with the Australia Egg Industry Environmental Guidelines, May 2018.

4.5.3.2 Earthworks

(3) Before granting development consent for earthworks, the consent authority must consider the following matters—

(a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality,

(b) the effect of the proposed development on the likely future use or redevelopment of the land,

(c) the quality of the fill or the soil to be excavated, or both,

(d) the effect of the proposed development on the existing and likely amenity of adjoining properties,

(e) the source of any fill material and the destination of any excavated material,

(f) the likelihood of disturbing relics,

(g) the proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.

There is some earthworks required for the project (refer to **Figure 11**), including:

- Regrade up-slope side of contour to form drain;
- General earthworks for building pads and manoeuvring area;
- Construction of high banks; and
- Construction of concrete causeways.

Earthworks are required to create level building pad suitable for construction of the proposed laying sheds. The extent of earthworks associated with the project are shown on the concept drainage plans prepared by Hanlons Consulting and included as **Appendix 8**.

As shown on the plans, the extent of earthworks has been minimised by running the sheds along the slope avoiding the need for extensive cut and fill and located within the existing cultivation paddocks to avoid areas of ecological and cultural significance. The design has adopted a balance cut and fill approach which will avoid the need for importing fill from offsite sources. Preliminary investigations have indicated that the soils available on site are fit for purpose.

Earthwork will be undertaken in accordance with all applicable standards and can be conditioned accordingly. As such, the proposed earthworks are not expected to result in any unacceptable are considered to align with the requirements of Clause 7.1 of the LEP.

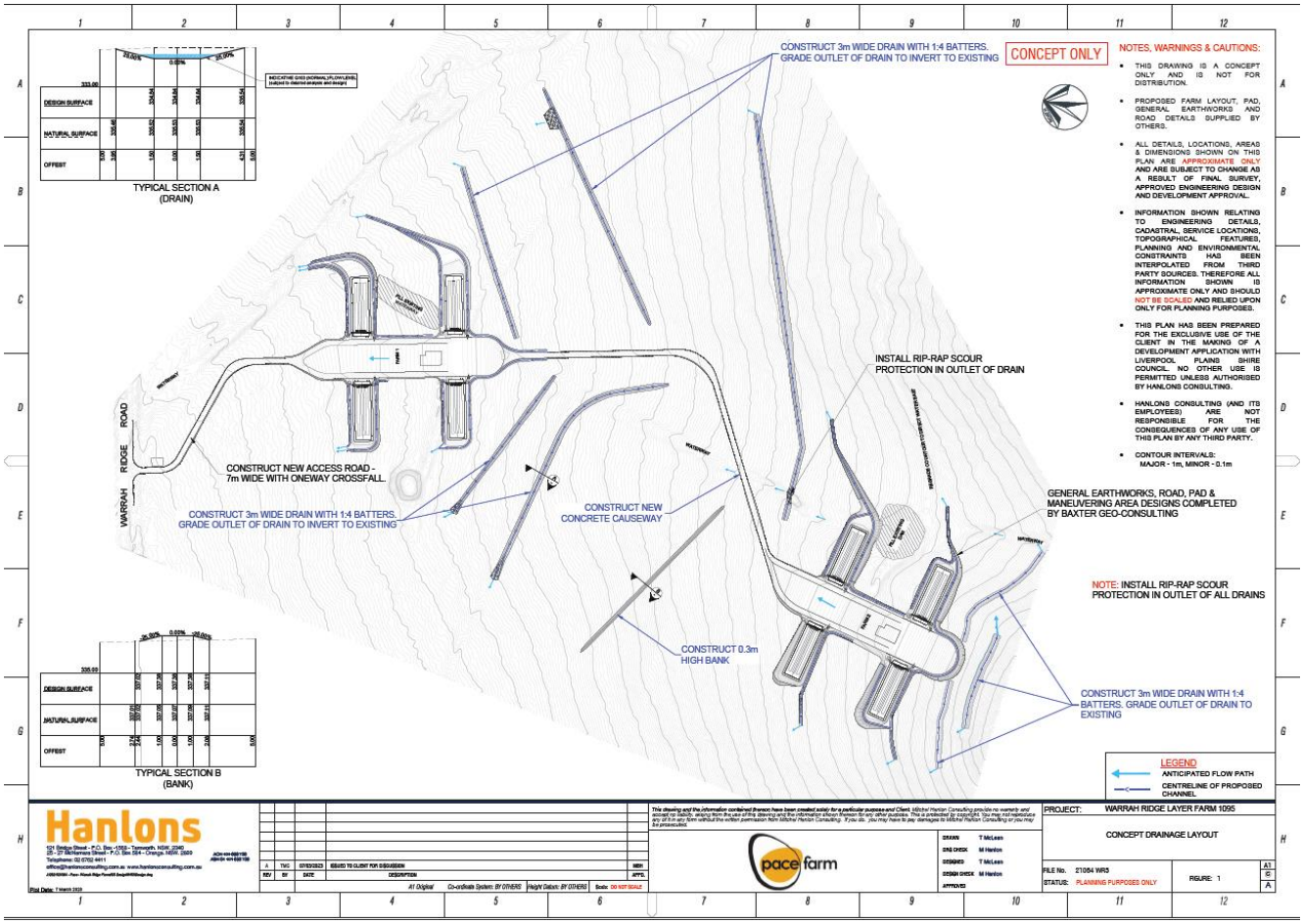

Figure 11: Extent of earthworks (Hanlons, 2023)

4.5.3.3 Flood planning

The subject site is above the level of Council's flood planning level. Accordingly, the proposed works associated with this development will not result in any adverse impact with regard to flood risk, flow conveyance or evacuation of land.

4.5.3.4 Essential services

Clause 7.4 of the LEP requires development to be provided with a suitable level of urban infrastructure, as follows:

> *Development consent must not be granted to development unless the consent authority is satisfied that any of the following services that are essential for the proposed development are available or that adequate arrangements have been made to make them available when required—*
>
> *(a) the supply of water,*
>
> *(b) the supply of electricity,*
>
> *(c) the disposal and management of sewage,*
>
> *(d) stormwater drainage or on-site conservation,*
>
> *(e) suitable road access.*

As outlined below, the proposed layer farm has access to all necessary urban infrastructure and services:

- Water usage for the proposed layer farm will be sourced from an existing bore on site. The applicant holds and will maintain the appropriate licences to use this bore. Water for staff amenities will be provided via on-site rainwater tanks which can be topped up via water tankers if required.
- Power to the site will be provided via connection to Essential Energy overhead network which runs along the western side of Inverkip Road from the Quirindi zone substation. The applicant is currently working with Endeavour Energy to confirm connection requirements.

- The staff amenities and rural worker's dwellings will be serviced by a standard septic system (Envirocycle/Ecosystem or similar). Installation of this system will require separate approval from Council and can be conditioned accordingly.
- Stormwater is collected and diverted in grass swales & discharged via scour protection spillways to the existing natural downstream areas.
- The site has access to Inverkip Road which is suitable for the development traffic and the largest design vehicles (B-Double).
- The proposed access driveway will be constructed in accordance with the recommendations of the Traffic Impact Assessment and the relevant Australian Standards.

4.6 DEVELOPMENT CONTROL PLAN

4.6.1 Liverpool Plains Development Control Plan 2012

LIVERPOOL PLAINS DEVELOPMENT CONTROL PLAN 2012	
Provision	**Response**
3.7 Intensive Agriculture	
The development of any form of intensive agriculture shall have due regard to the applicable NSW Government Department of Primary Industries (DPI) Guidelines with regard to industry-specific farm management practices.	The proposed development follows the DPI animal biosecurity and animal welfare guideline.
4.1 Other Types of Development Controls	
4.1.1 Development on Flood Affected Land	**Not Applicable –** the site is not located on flood affected land.
4.1.2 Outdoor Signage	**Not Applicable –** the development does not involve any outdoor signage.
4.1.3 Outdoor lighting	**Not Applicable –** the development does not involve any outdoor signage.

LIVERPOOL PLAINS DEVELOPMENT CONTROL PLAN 2012	
Provision	**Response**
4.1.4 Parking Where there are no specifies rates listed above, refer to the RTA's Guide for Traffic Generating Developments or demonstrate requirement for parking will be met based on a Traffic Assessment Report, prepared by a suitably qualified consultant. Parking and traffic requirements will be based on consideration of: • Likely peak usage times; • The availability of public transport; • Likely demand for off street parking generated by the development; • Existing traffic volumes on the surrounding street network; and • Efficiency of existing parking provision in the location. • Comply with AS2890.1 Parking Facilities	**Complies -** The Liverpool Plains Shire Council DCP does not require a specific parking rate be met for intensive animal industries. For Intensive Agriculture, the DCP refers to the NSW Government Department of Primary Industries (DPI) Guidelines with regard to industry-specific farm management practices. The DPI Best Practice Management for Meat Chicken Production in NSW requires "adequate provision for the parking of vehicles anticipated to be using the farm". Provision has been made at the site entrance for staff and visitors to safely enter and exit the facility in accordance with bio-security protocols. Swept path analysis has been undertaken which confirms that the largest design vehicle (B-Double) can safely manoeuvre through the site and enter and exit the farm in forward gear. A Traffic Impact Assessment has been prepared and confirms: - The development will not have any significant impacts on the external road network; - There is sufficient sight distance for the site access on Inverkip Road - The site design is sufficient for the necessary design vehicles to manoeuvre throughout the site There is sufficient space on the site for parking and manoeuvring to be provided for all staff and visitors.
4.1.5 Landscaping	Screen planting is provided along Inverkip Road and along the access road (near Inverkip Road).
4.1.6 Heritage	The site is not mapped as containing Local of State Heritage Items. With respect to Aboriginal heritage, a Cultural Heritage Assessment has been undertaken for the project, which included both a desktop assessment and site visit (refer to Section 3.7 of this report). A Niche heritage consultant undertook a visual inspection of the study area on 21 February 2023. The inspection involved walking over the proposed areas of disturbance and inspecting the ground surface for Aboriginal objects and/or features. The site inspection identified the majority of the Activity Area had been subjected to historical vegetation clearing, ploughing and vegetable cropping on the flats, lower and mid slopes. Although, there is one recorded Aboriginal cultural heritage site within the Activity Area, Warrah Ridge Scarred Tree 1 (AHIMS ID#TBC), the proposed works will not impact the Aboriginal cultural heritage site. Warrah Ridge Scar Tree 1 was recorded in the northern portion of the Activity Area approximately 150 m south of Warrah Ridge Road and 530 m east of Inverkip Road.

LIVERPOOL PLAINS DEVELOPMENT CONTROL PLAN 2012	
Provision	**Response**
4.2 Environmental Controls	
4.2.4 On-Site Waste Management Systems	
If on-site sewage management is determined to be the best long-term option for an area certain development standards will apply to relevant applications, including, but not limited to: • Minimum Lot Size • Climate • Soil • Geography • Environmental sensitivity • Potential risks to public health. Reference should be made to the guide On-site Sewage Management for Single Households (Environment & Health Protection Guidelines), for additional guidance with regard on on-site sewage management.	No liquid wastes are generated from the day to day operations at the farm. Effluent from the staff amenities will be treated and disposed of via a standard on-site septic system (e.g. Envirocycle or Ecosystem system). A separate application to install and operate the septic system will be submitted to Council in accordance with the provisions of Section 68 of the *Local Government Act 1993*, prior to the commencement of operations.
4.2.5 Waste Management	
General waste storage and collection arrangements shall be specified.	Details of the waste storage and collection arrangement for the site are detailed in Section 3.9 of this SEE.
4.2.6 Stormwater Management	
Reference should be made to Council's Engineering Guidelines for Subdivision and Development.	A Stormwater Management Plan has been prepared and is provided in **Appendix 8**. Stormwater is collected in drains & discharged via scour protection spillways to the surrounding paddocks.
4.2.7 Noise	
Where relevant, applications are to contain information about likely noise generation and the method of mitigation**.**	The Noise Impact Assessment prepared by Reverb Acoustics was used as a basis to assess potential acoustic impacts associated with the project and is included as **Appendix 3**. It was concluded that no special acoustic modifications are necessary to achieve compliance with the project noise trigger levels for site operations.

4.7 DRAFT ENVIRONMENTAL PLANNING INSTRUMENTS

The proposed development is not subject to any Draft Environmental Planning Instruments.

4.8 PLANNING AGREEMENTS

The proposed development is not subject to any planning agreements.

4.9 THE REGULATIONS

There are no specific provisions of the regulations which are applicable to the project.

5 EVALUATION

This section provides an environmental assessment of the proposal using the relevant heads of consideration under Section 4.15 of the *Environmental Planning and Assessment 1979.*

5.1 LIKELY IMPACTS OF DEVELOPMENT

5.1.1 Bio-Physical Impacts

Based on the assessments undertaken by the relevant technical specialists, it has been demonstrated that the proposed development can be undertaken in a manner consistent with the statutory obligations in relation to:

- Stormwater management and treatment;
- Ecological impacts;
- Acoustic impact;
- Odour impact;
- Cultural heritage impact;
- Waste management; and
- Environmental management.

As such, it is considered that there are no bio-physical considerations which would preclude approval of the proposed development.

5.1.2 Social Considerations

This SEE has considered the impact on the nearby sensitive receptors and has found that the potential impacts within the accepted standards, including for odour, noise and traffic. The proposed development will consist of low scale, rural buildings with a complementary colour scheme, in a remote rural area, that are not expected to be visible from the nearest rural dwellings.

Additional tree planting is also proposed between the farm and Inverkip Road to reduce visible to passing traffic. With respect to social impacts, the findings of the detailed technical assessments undertaken in relation to proposed farm demonstrate that construction is unlikely to have significant, negative social impacts.

5.1.3 Economic Considerations

The development will have a positive economic impact in terms of significant construction works and ongoing employment opportunities for local residents.

The proposed development represents an investment of $17.83 million, a majority of which is associated with construction of the proposed layer farm. In this regards, it is estimated that the project will create around 20 construction jobs to deliver the project, as well as indirect opportunities for local tradespersons to assist with the build (e.g. electricians, plumbers etc).

Once operational, the farm will provide employment for twelve (12) FTE workers. Additional contractors will be engaged separately on an as needed basis for collection and placement of birds, cleanout, and set up of the layer sheds in between batches.

With consideration of these investment and employment opportunities, the project is considered to have a positive economic impact for the region.

5.2 SITE SUITABILITY

The proposed development site has been carefully chosen based on consideration of a number of factors including:

- Be free from environmental (significant flora or fauna or threatened ecological communities) and physical constraints (steep gradient, unsuitable geology, flooding and other natural hazards).
- Be appropriately zoned and free from planning constraints to allow a development application to be considered.

- Have adequate water supply.
- Suitable road access allowing for the movement of heavy vehicles and staff to and from the site.
- Be located within a grain growing region to minimise transport cost associated with feed.
- Have suitable separation distances to other poultry farms, intensive livestock operations and other land uses which may introduce a bio-security risk.
- Located in proximity to a population centre which can provide employees and accommodation to support the operation.
- Have suitable separation distances to surrounding residents to ensure no odour impacts.
- Be available for purchase at a price which makes the operation financially viable.

The subject site exhibits all of these features and is inherently suitable for the proposed layer farm.

In addition, the subject site is contained within the RU1 zone under the Liverpool Plains LEP 2011 and aligns with the zone objectives. As demonstrated in this SEE, the proposed development will not result in an unacceptable amenity or environmental impacts on the surrounding area. As such, the subject site is considered to be highly suitable of the development.

5.3 PUBLIC INTEREST

The proposed development is not considered to result in any unacceptable environmental impacts, or amenity impacts in terms of odour, dust, noise, visual impacts or traffic. The proposed development is consistent with the nature of the rural locality and will be operated in accordance with all relevant standards and environmental safeguards. The development will also result in twelve (12) additional FTE positions and result in significant financial investment in the site. As such, the proposal is therefore considered to be in the public interest.

6 CONCLUSION

PSA Consulting (Australia) Pty Ltd, has been engaged by Pace Farm Pty Ltd to prepare this Statement of Environmental Effects (SEE) to accompany a Development Application seeking Development Consent for the construction of eight (8) layer sheds with free range areas and two (2) packing sheds on land at 1095 Warrah Ridge Road, Warrah Ridge (described as Lot 1 DP576340, Lot 52 DP 1168698, Lot 171 DP751033, Lot 170 DP751033). Plans of the proposed development are provided in **Appendix 1**.

Consistent growth in demand for eggs within the Australian market has resulted in Pace Farm outgrowing current farming facilities. In response, Pace Farm is investing in a new layer farm on the subject site to accommodate 248,000 birds.

This SEE has been prepared in accordance with the requirements of the relevant State and local statutory planning requirements and assesses all relevant impacts of the proposed development. Where impacts have been identified, appropriate management and mitigation measures have been prescribed.

The proposed development is not predicted to result in unacceptable impacts on the receiving environment or local community and represents a significant economic benefit in terms of capital investment and employment. Accordingly, the development is recommended for approval, subject to relevant and reasonable conditions.

APPENDIX 1: DEVELOPMENT PLANS

AP01

APPENDIX 2: ODOUR IMPACT ASSESSMENT

AP02

APPENDIX 3: NOISE IMPACT ASSESSMENT

AP03

APPENDIX 4: TRAFFIC IMPACT ASSESSMENT

AP04

APPENDIX 5: FLORA AND FAUNA ASSESSMENT REPORT

AP05

APPENDIX 6: BUSHFIRE MANAGEMENT PLAN

AP06

APPENDIX 7: ABORIGINAL OBJECTS DUE DILIGENCE ASSESSMENT

AP02

APPENDIX 8: STORMWATER CONCEPT PLAN

AP08

APPENDIX 9: DRAFT ENVIRONMENTAL MANAGEMENT PLAN

AP09

APPENDIX 10: WATERCOURSE CONSTRAINTS ASSESSMENT

AP10

APPENDIX 11: ENCLOSURE PERMIT LETTER

AP11