Environmental Impact Statement for State Significant Development

Goulburn Mixed Use Development

52 Sinclair Street
GOULBURN NSW 2580

Prepared by KDC Pty Ltd | August 2019

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Environmental Impact Statement

Report Job No. 17043 Prepared by KDC Pty Ltd | August 2019

Application Details

Responsible Applicant:	Woodlands Ridge Poultry Pty Ltd 924 Gurrundah Road, Goulburn NSW 2580
Proposed Development:	Poultry Processing Mixed Use Development
Land to be developed:	52 Sinclair Street, Goulburn NSW 2580

EIS Preparation

Prepared by	Steve O'Connor
Title	Partner, KDC Pty Ltd *BTP (Hons), MSc (Hons), RPIA (Fellow)* *Suite 2B, 125 Bull Street, Newcastle West 2302*
Date	01 August 2019
Declaration	I certify that the contents of this Environmental Impact Statement to the best of my knowledge, has been prepared as follows: · In accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000; · Containing all available information that is relevant to the environmental assessment of the proposed development; and · The information contained in this Statement is neither false nor misleading.
Signature	

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Contents

Figures

Tables

Photographs

Appendices

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Glossary and Abbreviations

ACMF	Australian Chicken Meat Federation
AHD	Australian Height Datum
Applicant	Woodlands Ridge Poultry Pty Ltd
AQIA	Air Quality Impact Assessment
BCA	Building Code of Australia
BOM	Bureau of Meteorology
Council	Goulburn Mulwaree Council
CIV	Capital Investment Value
Dangerous Goods Code	Australian Code for Transportation of dangerous Goods by Road and Rail
db	Decibel
^{o}C	Degrees Celsius
DCP	Development Control Plan
DPE	Department of Planning and Environment
DPI	Department of Primary Industry
EEC	Endangered Ecological Community
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act, 1979
EP&A Regs	Environmental Planning and Assessment Regulation, 2000
EPBC Act	Environment Protection and Biodiversity Conservation Act, 1999
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
ERA	Environmental Risk Assessment
ESD	Ecologically Sustainable Development
Food Act	Food Act 2003
FTE	Full Time Equivalent
g	gram
GHG	Greenhouse Gas
ha	Hectare
kg	Kilogram
kL	Kilolitre
km	Kilometre
KDC	KDC Pty Ltd
L	Litre
LGA	Local Government Area
LUCRA	Land Use Conflict Risk Assessment
m	Metres
NSW	New South Wales
NIA	Noise Impact Assessment
NPI	Noise Policy for Industry 2017
NorBE	Neutral or Beneficial Effect
OEH	Office of Environment and Heritage
OU	Odour Unit
PHA	Preliminary Hazard Analysis

PCA	Principle Certifying Authority
POEO Act	Protection of the Environment Operations Act 1997
RMS	Roads and Maritime Services
RNP	Road Noise Policy
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SEPP 33	State Environmental Planning Policy 33 – Hazardous and Offensive Development
SEPP 55	State Environmental Planning Policy 55 – Remediation of Land
SEPP SRD	State Environmental Planning Policy (State and Regional Development) 2011
site	52 Sinclair Street, Goulburn
SSD	State Significant Development
SSDA	State Significant Development Application
TIA	Transport Impact Assessment
t	Tonnes
tpa	Tonnes per annum
WRP	Woodlands Ridge Poultry Pty Ltd
vpd	Vehicles per day
vph	Vehicles per hour

Executive Summary

Introduction

This Environmental Impact Statement (EIS) has been prepared by KDC Pty Ltd (KDC) on behalf of Woodlands Ridge Poultry Pty Ltd (WRP) to accompany an application for State Significant Development (SSD), noted as SSD9143, to the NSW Department of Planning and Environment (DPE). Development consent under Part 4, Division 4.1 of the Environmental Planning and Assessment Act, 1979 (EP&A Act) is being sought for the proposed mixed use development at 52 Sinclair Street, Goulburn, New South Wales (site).

KDC has prepared this EIS pursuant to the requirements of the EP&A Act and the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) and the Secretary's Environmental Assessment Requirements (SEARs) issued on 25th July 2018.

Project Description

The proposed development consists of the construction and use of a range of operations as part of a mixed use development. The project comprises the following components:

- Cold storage and distribution centre;
- Poultry processing plant;
- Childcare centre; and
- Other associated works including earthworks and infrastructure.

The site will ultimately operate 24 hours per day, 7 days per week with the childcare operating from 5:00am to 7:00pm 5 days a week.

With the exception of associated infrastructure, each of these components are considered independent land uses from each other which do not inextricably require the other. However, all uses are proposed under a single development application and are considered to be a mixed use development. The associated infrastructure such as car parking, office buildings and amenities are ancillary to the entire project.

The capital investment value (CIV) for the project is estimated at $83,027,296. The project is projected to employ a total of 264 people across the site. Based on an economic analysis, the construction phase of the project has been calculated to generate 88 direct jobs. The proposed layout of the proposed development is shown in Appendix A.

Construction, Demolition, and Earthworks

Demolition of structures on the site is not required as all the existing improvements to the site are infrastructure related and this infrastructure has been incorporated into the design. Only minor elements will be removed from the site such as some existing fencing and the median strips on the existing internal roads.

The development is to be constructed in two stages and will include the following:

- Poultry Processing Facility;
  - Stage 1 – Area of 5,966m^2 at 107.1m long, 74.1m wide, and 13.2m high;
  - Stage 1 and 2 – Area of 10,338m^2 at 58.6m in length and 80.2m in width, and 13.2m high;
- Cold Storage and Distribution Centre;
  - Stage 1 – Area of 5,864m^2 in area, 96.5m wide, 104m long, and 18.1m high;
  - Stage 1 and 2 – Area of 9,101m^2 at 96.5m wide, 104m long, and 18.1m high;
- Truck Maintenance Facility – Area of 1,050m^2 at 35m long by 30m wide and will stand 9.3m in height;
- By-product Processing Facility – 50m long, 20m wide, and 11.1m high with an area of 1,000m^2;
- Live Bird Shed – 37.1m long by 20m wide and stands 7.1m high with an area of 782m^2;
- Site Office – 34.5m long by 19m wide and 8.4m high with an area of 989m^2;

- Wastewater Treatment Plant – 20m by 20m at 8m high with an area of 382m^2; and
- Childcare Centre – Area of 479.6m^2 at 37m long and 20m wide with a height of 6.9m high.

Stage 1 comprises the construction of the meat processing component of the poultry processing facility, pallet components and four vehicle bays of the cold storage facility, office, and wastewater treatment plant. See Appendix A for the proposed site configuration for Stage 1.

Stage 2 comprises the construction of the bird reception and kill plant for the poultry processing building, the packing and ASRS freezers of the cold storage facility, the by-products processing facility, the live bird shed, truck maintenance facility, and the childcare centre. See Appendix A for the proposed final site configuration (including both Stage 1 and Stage 2 components).

Along with the required and existing infrastructure such as internal roadways, the proposed development will cover an area of approximately 64% of the site with the remaining 36% of the site will consist of the rear bushland area, landscaping area, and wastewater treatment elements.

Each construction stage will be undertaken over a period of approximately 6 months, and will be carried out during the recommended standard hours for construction work as per the *Interim Construction Noise Guideline* (ICNG), being:

- 7:00 am to 6:00 pm between Monday and Friday (or as specified by consent conditions);
- 8:00 am to 1:00 pm on Saturday (or as specified by consent conditions); and
- No work on Sundays or public holidays

Due to the topography of the site, the requirements for the site's infrastructure and the large footprint required for the buildings, the site will require significant earthworks to facilitate the development. The earthworks will reuse soil on the site and will not require any importation of fill material from outside of the site. The net amount of material required to be removed from the site is 13,309m^3. Retaining walls are proposed in a number of locations and have predominantly been utilised around the western portion of the site with the aim to avoid impacts on the tree community in the north western section of the site. Final levels have been provided within both the Architectural Plans provided at Appendix A and the Civil Plans provided in Appendix B.

Operations

The poultry processing facility is proposed to be located in the western portion of the site and is planned to include the processing plant, office, amenities, and truck loading and unloading bay. Poultry, including chickens, turkey, geese and quail, are proposed to be brought to the site from broiler farms for slaughter, processing and packaging.

Stage 1 of the poultry processing facility includes only meat processing and consists of deliveries of slaughtered broilers from off site taken to the delivery bay on the north eastern corner of the facility. Here the slaughtered broilers will be portioned, de-boned, and packaged for temporary refrigerated storage and final dispatch.

Stage 2 of the poultry processing facility will add the abattoir component which will deliver slaughtered broilers to the meat processing plant established during Stage 1. The abattoir is designed for the processing of 12,000 poultry per hour with a single shift processing 500,000 broilers per week. When fully operation and running two shifts per day 1,000,000 broilers per week will be processed. Although the primary product is portioned chickens, turkeys will also be processed, but this will require modification to processing lines

The abattoir is designed for the processing of 12,000 poultry per hour with a single shift processing 500,000 broilers per week. When fully operation and running two shifts per day 1,000,000 broilers per week will be processed. Although the primary product is portioned chickens, turkeys will also be processed, but this will require modification to processing lines.

The abattoir will consist of receiving and holding live birds, a kill process, evisceration, chilling, portioning, packaging, refrigerated storage and distribution. Associated facilities include:

- live bird shed;
- a wastewater treatment plant;
- a rendering (by-products processing) plant;
- pet food preparation and storage;
- services plantroom;
- workshop;
- amenities and production offices; and
- staff carparking.

The abattoir will be linked by an overhead conveyor tunnel which will convey finished goods (in cartons) to the cold storage facility.

The cold storage and distribution centre will support the poultry processing facility and will similarly be staged. Stage 1 components include the construction of four delivery bays, palletising section, pallet freezer and chiller. The Stage 2 works include the addition Automated Storage and Retrieval System (ASRS) freezer and chiller, 2 additional loading bays and packing bays.

The cold storage centre is proposed to have the following capacity:

- Carton chilled storage – 22,000 cartons;
- Carton frozen storage – 22,000 cartons;
- Chilled pallet storage – 1,728 pallets six high; and
- Frozen pallet storage – 1,728 pallets six high.

A childcare centre is proposed in the south east corner of the site. It is intended primarily to accommodate children of staff working at the site, however, will accept children from families not associated with this project. The proposed childcare centre includes an indoor play area capable of accommodating 68 children along with an outdoor playground and is proposed to provide 20 car parking spaces for staff and visitors.

Summary of Environmental Impacts

All environmental assessments which include modelling of impacts, for example noise impact assessment, included mitigation measures to ensure overall compliance with relevant environmental thresholds and levels.

Acoustic Impact

Muller Acoustic Consulting conducted a noise impact assessment (NIA) for the proposed mixed use development. Discussion on the NIA is provided at Section 6.1 with the assessment report provided at Appendix F. The assessment has quantified potential operational noise emissions pertaining to processing, storage of poultry products and associated support facilities at the site.

The results of the NIA demonstrate that operational noise levels comply with the relevant NPI criteria for all assessment periods at all assessed noise sensitive receivers.

Additionally, the NIA shows that the road noise criteria as specified in the RNP will be satisfied at receiver distances of greater than 20 metres (m).

Furthermore, sleep disturbance is not anticipated, as maximum noise levels are predicted to remain below the EPA screening criterion for sleep disturbance.

Results confirm that noise levels from the proposed construction works are anticipated to satisfy the standard hours construction Noise Management Levels at all the nearest receivers for each individual construction phase. Notwithstanding, noise management measures have been provided in Section 6.1 of this EIS.

The noise impact assessment undertaken by MAC (see Appendix F) and mitigation measures proposed therein serve to mitigate against noise impacts on the surrounding environment.

Noise levels generated by the site are managed through the following:

- Maintenance facility will operate during daytime hours only;
- The DAF building and by-products building have a tilt slab construction of minimum 100mm thick concrete or equivalent;
- The poultry product conveyor linking the processing facility and cold storage will be fully enclosed with minimum 0.7mm steel plating or equivalent;
- Construction of an impervious barrier along the southern side of the car park access road. The fence is assumed to be constructed to an RL of 3m above the relative ground level and consist of materials with a surface density of at least 10kg/m2, and not contain any gaps (i.e. lapped and capped timber or equivalent);
- Construction of a 3.5m high impervious barrier along the south/west side of the live bird shed access road and consist of materials similar to those prescribed above;
- Construction of impervious barriers surrounding the condenser units. The barriers are to be constructed to an RL of 3m above the relative level of the units and consist of materials similar to those prescribed above; and
- Childcare centre and corporate office rooftop mechanical plant is to be enclosed by noise barriers that extend 600mm above the top of plant and consist of materials similar to those prescribed above.

Construction noise is to be managed through the below procedures:

- Toolbox and induction of personnel prior to shift to discuss noise control measures that may be implemented to reduce noise emissions to the community;
- Implement any boundary fences/retaining walls as early as possible to maximise their attenuation benefits;
- Where possible use mobile screens or construction hoarding to act as barriers between construction works and receivers;
- All plant should be shut down when not in use. Plant to be parked/started at farthest point from relevant assessment locations;
- Operating plant in a conservative manner (no over-revving);
- Selection of the quietest suitable machinery available for each activity;
- Avoidance of noisy plant/machinery working simultaneously where practicable;
- Minimisation of metallic impact noise;
- All plant is to utilise a broadband reverse alarm in lieu of the traditional hi frequency type reverse alarm; and
- Undertake letter box drops to notify receivers of potential works.

Based on the NIA results, there are no noise related issues which would prevent the approval of the project. Additionally, the results of the assessment show compliance with the relevant operational, road and construction noise policies with the appropriate ameliorative measures in place during each phase of the project.

Air and Odour Impacts

An air quality and odour assessment (AQIA) was undertaken by SLR Consulting, which has been discussed at Section 6.2 and provided at Appendix C. The assessment has considered air quality impacts during the construction and operation of the project as determined by the level of compliance with the air quality criteria set by the EPA as part of its *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (Approved Methods) (EPA, 2016). T

The area surrounding the site includes rural residential lots and other commercial and industrial uses including a sand and soil supplier, café, motel and a resource recovery facility. The nearest residential and commercial receivers are located approximately 60m and 75m from the closest boundary to the site.

The main sources of air pollutants in the area include emissions from local anthropogenic activities such as commercial activities, motor vehicle exhaust and domestic wood heaters. Specific land uses that may contribute to the existing air quality in the locality include the sand and soil facility located to the west of the site and the landfill operation to the east of the site.

It is noted that there a number of odour generating activities occurring in proximity to the site including a resource recovery facility and Council's landfill site.

As the NSW guideline Technical Notes: Assessment and management of odour from stationary sources in NSW (Technical Notes) (DEC, 2006) indicates, only in circumstances where it is likely that two or more facilities with similar odour character will result in cumulative odour impacts, should the combined odours resulting from all nearby facilities be assessed against the odour assessment criteria.

On this basis, it is considered that there would not be cumulative odour impacts, and further assessment is not required.

The two air quality parameters assessed were particulates such as dust and odour.

Particulates – Dust

The typical dust emissions resulting from the proposed development include the following:

- Earthworks;
- Grading;
- Loading and unloading of materials;
- Wheel-generated dust and combustion emissions from construction equipment;
- Wheel-generated dust from trucks travelling on unpaved surfaces; and
- Wind erosion of exposed surfaces.

Each of the abovementioned activities are temporary in nature and are directly related to construction activities. Dust generation during the operational phase is expected to be minimal due to the nature of the proposed operations.

The construction works will result in low to medium risk of dust soiling and human health impacts on the surrounding environment. As such mitigation measures are proposed to be implemented for the works resulting in a negligible to low risk of dust soiling and human health impacts.

Odour

The main emission during the operational phase of the development will be odour associated with minor elements of the proposed mixed use development; these include:

- Odour emissions from the bird reception area within the processing plant; and
- Odour emissions from the by-products processing plant (bio-filter and fugitive).

Based on the average population density taken from the 2016 Census date, the estimated population was determined to be approximately 100 people including the occupants of the proposed childcare centre and as a result the relevant criteria for odour was 4 OU.

The modelled odour experienced at each of the surrounding receptors all fall below the adopted criteria of 4.0 OU with the highest experienced at residential receptor R6 with an odour level of 2.6 OU located to the west in proximity to the site.

Mitigation Measures

The following mitigation measures have been endorsed by SLR Consulting discussed in Section 6.2 with report reproduced at Appendix C. All mitigation measures listed below are to be undertaken to ensure air quality and odour impacts are appropriately managed.

Operations:

- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.

- Make the complaints log available to the local authority when asked.
- Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the logbook.
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Cover, seed or fence stockpiles to prevent wind erosion.
- Ensure all on-road vehicles comply with relevant vehicle emission standards, where applicable.
- Ensure all vehicles switch off engines when stationary - no idling vehicles
- Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/ mitigation, using non-potable water where possible and appropriate.
- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from loading shovels and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Avoid bonfires and burning of waste materials.
- Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
- Ensure effective water suppression is used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.
- Use water-assisted dust sweeper(s) on the access and local roads to remove, as necessary, any material tracked out of the site.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
- Record all inspections of haul routes and any subsequent action in a site logbook.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

Construction

- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable
- Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.
- Only remove the cover in small areas during work and not all at once.
- Avoid scabbling (roughening of concrete surfaces) if possible.
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
- For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.

Monitoring:

- Perform daily on-site and off-site inspections where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100 m of site boundary.
- Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.

Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions

Based on the results of the AQIA, there are no air quality or odour issues which would prevent the approval of the project with all proposed mitigation measures implemented

Hazards

An assessment of the project under the requirements of SEPP33 was undertaken by Hazkem and has been discussed at Section 6.3 with the full report provided at Appendix I.

The site, due to its nature, could be considered to be potentially offensive industry. The proposed development will be subject to stringent licencing under the Protection of the Environment Operations Act 1997 (POEO Act) and as such this site will be required to maintain all licences relevant to this activity and obtain all approvals applicable under the POEO Act. Based on the ability to comply with the provisions of the POEO Act and its licence requirements, it is determined that the proposed activity will not be deemed offensive.

Through the assessment under a Preliminary Hazard Analysis (PHA) pursuant to SEPP33, the societal risk of the proposal was found to be negligible. The level one qualitative Risk Analysis, referred to in Applying SEPP 33 as a PHA, is deemed sufficient for this proposal. All equipment must be installed to manufacturer's recommendations and must comply with all the relevant standards listed within. Specific safety features of the site are to be maintained and reviewed on a regular basis to ensure that they maintain, if not exceed, industry standards.

To ensure the proposed development continues to minimise any societal risk associated with elements of the operation, the following controls will be implemented.

Physical Controls:

- Separation of processes through site/building design;
- Implementation of fire management system;
- Any hazardous components are to be enclosed (e.g.) bunded chemical storage; and
- External chemical storage tanks to implement fire resistant design features and materials in accordance with the BCA.

Procedural Controls:

- routine updating of management plans;
- Implementation of a pollution incident response management plan;
- Adoption of best practice operational procedures;
- Implementation of a maintenance schedule; and
- Routine training and reinforcement of correct handling, pollution incident, and fire management procedures.

Waste

A waste management plan prepared by SLR has been formulated for the proposed development and is discussed at Section 3.8.2, Section 6.4, and reproduced at Appendix M.

The waste management performance of the proposed development aims to contribute to the overall NSW State targets for recycling outlined in NSW Waste Avoidance and Resource Recovery Strategy 2014-21 (WARRS). The targets include increasing waste diverted from landfill to 75% and recycling 70% of commercial, industrial and municipal solid waste.

Waste generated by the poultry processing facility will be directed to the by-product facility for reuse for various alternative products. This effectively reduces waste generated by this process by up to 94% which exceeds the 75% goal of the Waste Avoidance and Resource Recovery Strategy. The remaining waste from

the process will be directed to the wastewater treatment plant for appropriate treatment with the resultant sludge disposed of at an appropriately licenced facility.

Non-process waste will consist of general waste such as office waste, packaging, food waste, general maintenance waste, truck maintenance wastes, and childcare centre waste. The quantities of the abovementioned waste are considered to be minor and will be managed through the sorting of recyclables and non-recyclables prior to sending to appropriately licenced facility.

As discussed within Section 6.4, a range of waste management procedures are implemented by the operation including the following:

- The rooms are to be regularly maintained. The floor is to be graded so that any water used for cleaning is directed to a sewer authority-approved drainage connection located on-site;
- Waste and recycling bins are to be cleaned in an area draining to a sewer authority-approved drainage connection;
- General and recycling waste bins are to be checked frequently. If the bins are reaching capacity, removal and replacement will be arranged;
- Space will be provided at the Development for the storage of large and/or bulky items and hazardous wastes that cannot be disposed of in the general waste or recyclable streams; and
- Empty chemical containers will be returned to the local supply company for reuse, recycling or appropriate disposal.

With the mitigation measures in place, the amount of waste disposed of to landfill is expected to be minimal.

Traffic Impacts

A traffic impact assessment was undertaken by Colston Budd Rogers & Kafes with discussion provided at Section 6.5 and the assessment report provided at Appendix D.

Based on the proposed land uses and building sizes the proposed development would require 265 parking spaces, comprising 233 spaces for the industrial buildings, 25 spaces for the office and seven spaces for the childcare centre, plus space for set down and pick up of children. The proposed parking provision is 341 spaces, which satisfies this requirement and is therefore considered to be appropriate. All parking dimensions are in accordance with AS 2890.1:2004.

The access driveway widths, internal circulation roads and truck manoeuvring areas will be provided in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking and Part 2: Off-street commercial vehicle facilities), AS 2980.1:2004 and AS 2890.2 – 2002, to accommodate cars, 19 metre semi-trailers and 26 metre b-doubles, the largest vehicles which will access the site.

The proposed development would generate 240 vehicles per hour two-way on Common Street during weekday morning and afternoon peak hours. Increases on Sydney Road would be lower at 70 to 170 vehicles per hour two-way.

SIDRA analysis found that the intersection of Common Street with Sydney Road would continue to operate with average delays for all movements of less than 25 seconds per vehicle. This represents level of service B, an acceptable level of service. The intersection of Common Street with Sinclair Street would continue to operate with average delays for all movements of less than 15 seconds per vehicle during peak periods. This represents a good level of service.

To ensure traffic is managed in an appropriate manner throughout both construction and operation, the following management and design features are to be implemented:

- A construction traffic management plan will be prepared and implemented prior to the commencement of work, taking into consideration the conditions of consent.
- Approximately 341 car parks will be provided on site. Car parking areas will have appropriate dimensions to accommodate the required number and size of the vehicles using the carpark.
- All heavy vehicles will need to abide by the proposed heavy vehicle transport path to and from site.

- The site access, internal circulation roads and truck manoeuvring areas will be provided in accordance with the relevant standards, to accommodate cars, 19 metre semi-trailers and 26 metre b-doubles. The design of the development provides for service vehicles to enter and exit the site in a forward direction.

Overall, the proposed development provides appropriate parking, access, and internal layouts which are all compliant with relevant Australian Standards. The proposed development will not generate traffic in excess of the existing road network's capability. The existing road network will therefore be able to cater for the traffic from the proposed development.

Water – Surface and Groundwater

Topographically, the site falls naturally from the northwest to the southeast. Surface runoff from the majority of the site is intercepted by the existing roads. The roads have a conventional subsurface drainage network, which convey runoff to a basin in the southwestern portion of the site.

Standing water level at the closest bore to the site (317m) is 14m with a standing water level of between 4.6m and 100m below ground level. Groundwater is likely to flow towards the Mulwaree River located approximately 850m from the site. The conductivity of the predominant rock type and conditions are generally between 10-7 to 10-2 m/day with a porosity of between 0.1% to 1% resulting in groundwater flow rate between 9 and 90 m/year. The nature of the underground conditions results in low hydraulic movement between the groundwater and surface water bodies such as the Mulwaree River due to the low water movement rate.

To ensure groundwater impacts are effectively minimised, the following management procedures are to be undertaken:

Controls:

- Operations on the site will be undertaken on hardstand providing an effective barrier to contamination reaching the natural ground;
- Use of filters on stormwater drains;
- Washdown heavy vehicles;
- Appropriate storage bins for waste provided;
- Development and routine updating of management plans;
- Routine inspection, maintenance, and cleaning of hardstand area;
- Maintenance and efficiency checks of water management system; and
- Adoption of best practice operational procedures;
- Implementation of a maintenance schedule; and
- Routine training and reinforcement of correct procedures.

Water – Stormwater

This existing system is proposed to be enhanced to cater to the proposed development demand. Rainwater tanks supported with first flush systems are proposed on a number of buildings with a 50kL tank to service the cold storage and office buildings; a 35kl proposed for the childcare centre; and an 800kL tank proposed to service the poultry processing building, live bird shed, and by-product building. Any overflow from these collection systems will be directed to the stormwater drainage network.

The existing basin in the southwestern corner of the site is proposed to be replaced to meet both the on site stormwater detention and water quality requirements for the site. This will include a minimum of 1,000m^2 area of biofiltration media in the basin, a 300mm low flow outlet pipe, and a 1.5m wide weir overflow. Discharge from the basin will meet water quality targets set by Water NSW with peak discharge from the basic totalling less than or equal to the pre-development peak discharge for all storm events including 1 in 100 year ARI events.

Onsite Stormwater Detention (OSD) was designed in accordance with Council's engineering requirements and after consultation with Council. The DRAINs model was prepared using the Bureau of Meteorology data

with the Pre-Development model replicating a greenfield site, and the Post-Development model corresponding with the proposed development. The resulting post-development flows largely align with pre-development flows with the system considered to provide sufficient OSD for the proposed development.

Wastewater

The facility is designed to process 14L/broiler for the provided rate of 96,000 broilers per shift. The wastewater treatment system is designed to treat 1400m^3/day with an average hourly treatment flow rate of 75m^3/hour.

The raw water quality expected primary treated water quality and required (secondary treated) water quality is designed to meet Goulburn Mulwaree Council Liquid Trade Waste Policy requirements. All wastewater discharge from the site will be appropriately managed prior to leaving the site and will be in accordance with Goulburn Mulwaree Council's Liquid Trade Waste Policy. Resultant sludge and solid waste from the wastewater process will be collected and disposed of at an appropriately licenced facility.

WaterNSW, Goulburn Mulwaree Council, and SPEL were consulted to help develop an appropriate WSUD treatment train that would effectively treat the stormwater runoff to levels that have a neutral or beneficial effect on water quality. The system utilises a combination of SPEL Stormsacks installed on all surface inlet pits along with a 1,000m2 biofiltration medium installed in the base of the expanded detention basin in the south western of the site. With these measures in place the proposed development achieves the NorBE requirements. An assessment of the proposed stormwater system included MUSIC modelling and a NorBE test is provided at Section 6.6.6 and the stormwater management plan Appendix B.

The existing stormwater system is proposed to be enhanced to manage new development on the site. The following will be implemented:

- 50kL tank to service the cold storage and office buildings;
- 35kl proposed for the childcare centre;
- 800kL tank proposed to service the poultry processing building;
- Replacement of existing basin with:
  - A minimum 1,000m^2 area of biofiltration media in the base at an RL of 651.70.
  - A low flow outlet pipe with 300mm diameter orifice and inlet at RL651.80.
  - A 1.5m wide weir overflow at RL 652.40.
- Stormwater treatment devices including gross pollutant traps, pit inserts, and storm filters;
- First flush tank to be provided that collects a minimum of the first 1.0mm of the storm event runoff; and
- SPEL Stormsacks (or approved equivalent) be installed in all surface inlet pits.

An operations environmental management plan (OEMP) will be prepared and will detail management procedures, a maintenance and cleaning schedule to ensure system devices are regularly cleaned, and spill management procedures for a range of liquids.

Contamination

The contamination assessment was undertaken by EP Risk with discussion provided at Section 6.7 and the assessment report provided at Appendix E.

Historically the surrounding land primarily comprised residential/rural land with some possible commercial use to the north along Sydney Road. The site has been developed recently for an industrial subdivision and hence contains two internal access roads, however as the subdivision was not registered, the site has remained vacant.

The lithology at the site mostly comprised a thin topsoil layer underlain by a clayey sand subsoil and sandy clay residual soil. The origin of the soil is considered mostly residual with some colluvial soils present at the base of the slopes. The residual soil is a result of the weathering of the natural sedimentary rock.

The results of the soil analytical testing reported the concentrations of contaminants of potential concern were below the assessment criteria in all locations.

Operations on the site will be undertaken on hardstand providing an effective barrier to contamination reaching the natural ground. Wastewater is directed to the site's wastewater treatment plant where water is cleaned and directed to sewer.

To ensure the site's soil remain contaminant free, the following management procedures are to be undertaken:

Controls:

- Use of filters on stormwater drains;
- Washdown heavy vehicles;
- Appropriate storage bins for waste provided;
- Development and routine updating of management plans;
- Routine inspection, maintenance, and cleaning of hardstand area;
- Maintenance and efficiency checks of water management system; and
- Adoption of best practice operational procedures;
- Implementation of a maintenance schedule; and
- Routine training and reinforcement of correct procedures.

Overall, based upon the results of this assessment, and subject to the limitations of this report, EP Risk considers the site presents a low risk of contamination under the proposed mixed-use scenario. EP Risk recommends that an unexpected finds protocol should be implemented during the development works.

Ecology

Anderson Environment and Planning undertook an investigation into the ecology on the site and prepared a both an Ecological Assessment Report and Biodiversity Development Assessment Report (BDAR) Waiver for the proposed development. Discussion of the site's biodiversity values is provided at Section 6.10 and within the report provided at Appendix G.

Characterisation

The presence of GW24 – Tableland Grassy Box-Gum Woodland (EEC White Box Yellow Box Blakely's Gum Woodland) had been mapped as being present off site to the southwest. Ground truthing identified the area mapped as Tableland Hills Grassy Woodland as now containing a near-monoculture of *Pinus radiata* (Radiata Pine). For this reason, only DSF9 - Tableland Low Woodland is considered present on site. To the south of the woodland is a near-monocultural stand of *Pinus radiata*, otherwise containing two specimens of African Boxthorn. The remainder of the site is comprised of grazed paddock land, containing a mixture of native and non-native species.

Fauna surveys to date have identified 20 species within the site and immediate surrounds, being 15 bird, three mammal, one reptile and one amphibian species. The study area includes potential foraging, breeding and nesting habitat for several species, however, given the low numbers of records in the vicinity of the site and the isolated nature of the remnant woodland on site, it is very unlikely that the development will have an adverse effect on threatened species or ecological communities.

Impact

There is a patch of remnant Tablelands Low Woodland in the northwest of the site. The proposed development plans mainly avoid this remnant vegetation by locating the development on mostly on highly disturbed grassland dominated by exotic species. Approximately 0.12ha of degraded edge with no canopy present to be removed maintaining the vegetation integrity of the site.

The existing habitat on the site would cater to highly mobile species due to limited connectivity with other areas of vegetation. While it is possible for highly mobile threatened species to visit the site the use is

expected to be limited due to the quality of the habitat and the presence of a more desirable corridor located 300m east of the site.

Availability of water on the site is low with a single farm dam with little vegetation present surrounding the waterbody reducing its viability.

The absence of direct impact on remnant native vegetation communities and habitat resources that may potentially be important to threatened species, shows that no relevant thresholds under the Biodiversity Conservation Act would be triggered to cause the need for a BDAR to be prepared. As such, a BDAR waiver has been lodged and subsequently supported by OEH and DPIE dated 15 August 2019, see Appendix G for received BDAR waiver determination documents.

Mitigation Measures

The following general recommendations are made for consideration to minimise localised impacts on biodiversity in general as a result of the development of the site:

- Vegetation to be retained should be identified and fenced off prior to any development works taking place in adjacent areas. When protecting trees, preference should be given to large healthy trees with habitat features including hollows;
- Vegetation to be retained should be considered in landscape management to maintain the rural character of the area, particularly in such a way as enhances its amenity and biodiversity values;
- Clearing of any vegetation on site should be undertaken from the roadside towards vegetation retained offsite, to ensure impacts on native fauna are minimised as far as practical. Where trees are removed, preference for retention should be given to habitat trees;
- Site hygiene practices should be implemented during the development phase to avoid the spread of pathogens, including chytrid, Phytophthora and myrtle rust, as well as spread of weed seed; and
- Best practice erosion and sedimentation controls should be put in place to limit offsite movement of materials into the surrounding areas.

In addition to the mitigation measures provided above, it is proposed that supplementary tree planting will be undertaken to the area of remnant woodland in the north western portion of the site using species consistent with the identified vegetation type. In doing so, the quality of the habitat in this area will be improved.

Visual Impact

A visual impact assessment of the proposed development was undertaken by Mara Consulting with discussion provided at Section 6.11 and the assessment provided at Appendix H.

A total of 10 viewpoints were selected on the basis of where the development would appear to be most prominent, either based on degree of exposure or the number of people likely to be affected. Sites were further selected on the basis of significant features, significant viewpoints and significant ridge lines as nominated in the scenic quality guidelines.

From distances of less than 1.5 kilometres (km), the proposed development is likely to have a high visual impact from the adjacent streets. This is especially true of Common Street, Chiswick Street and Long Street as these are the only publicly accessible places with full views of the development. This impact is primarily due to the addition of structures and roof lines where open grassy paddocks existed prior to development.

Beyond the streets surrounding the proposed development, views of the site reduce significantly. Where views exist, they are limited to small portions of the proposed development and individual buildings.

There are few locations where the site is visible 1.5-3km. The only publicly accessible locations are located north of the site with views largely screened by a ridge and trees.

From a distance between 3-6km, the only regional views occur north of the site with roof lines potentially being visible from this distance and largely blended into the existing commercial buildings along Sydney Road.

To alleviate potential visual impacts large canopy trees are to be planted around the site's boundaries and any trees to be removed to be replaced. A landscape plan has been provided which incorporates these recommendations.

The following mitigation measures are to be implemented to mitigate potential visual impacts of development of the site.

Visual Character

- The site and immediate surrounds contain a number of mature trees that provide visual screening. Most of the trees that screen the site are on private lots adjacent to the subject site and therefore will remain in place. The proposed development will necessarily remove some trees from the site. These trees should be replaced with trees that will offer some canopy cover to continue the visual character across the site.
- Trees planted within the site (parking areas and open space) and along the boundaries should be selected for their canopy size and ability to blend into the existing trees.

Built Form, Materials and Colours

- Building height should not overwhelm the tree sizes so that the tree canopy cover remains visible to allow the canopy to soften the appearance of development.
- Building height should be limited to ensure the roof lines do not rise above the adjacent ridge line to dominate the skyline.
- Materials, textures and colour selection are to relate to the natural palette of the surrounding environmental in areas of high visibility and potential for visual impact.
- Bright and contrasting colours should be no more than 10% of the facade of a building.
- Rooftops should utilise non-reflective colours and materials.
- Adopt a "dark sky" approach to private garden lighting by directing the lighting in parking areas and streets toward the ground and limiting light spill.
- Lighting:
  - Lighting treatments are to be sensibly designed to minimise light spill in areas such as street lighting and floodlighting outdoor spaces.
  - Lighting to be directed toward the ground to limit visibility.

Bushfire

A Bushfire Threat Assessment (BTA) has been prepared by Anderson Environment & Planning for the proposed development and is discussed at Section 6.9 with the assessment presented in Appendix J.

Investigations undertaken have revealed that the proposed development will be affected by bushland hazard on the site and off the site to the northwest and west.

To ensure a prompt and coordinated response to this threat of bushfire, a site specific Bushfire Emergency and Evacuation Management Plan (EEMP) is to be prepared for the entire site. The EEMP would include triggers for site evacuation in an emergency, and pre-emptive site evacuation on forecast days of extreme / catastrophic fire weather. Procedures specific to this proposed development that would be incorporated into the EEMP include a co-ordinated evacuation plan for the site. Additionally, details regarding the evacuation procedures would be clearly signposted and placed strategically around the site.

Suitable access and egress to the site will be provided via Common Road, Kelly Street and Guthrie Road, which will allow for adequate access for emergency vehicles needing to gain access to the site. In addition, to meet acceptable access principles for evacuation and firefighting, defendable space would be made available between assets and hazard vegetation. This is achievable as access roads encircle the entire development and pass between the development and hazard vegetation.

The existing reticulated water supply system will service the site, and street hydrant access would be delivered in accordance with AS2419.1 – 2005.

Provided the recommendations are all implemented the proposed development will meet the objectives of the Planning for Bushfire Protection.

Aboriginal Cultural Heritage and Consultation

Navin Officer Heritage Consultants (NOHC) have undertaken an archaeological and Aboriginal Cultural Heritage Assessment of the site with the report reproduced at Appendix Q.

Consultation with the Aboriginal community was undertaken in accordance with the NSW DECCW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 which sets out requirements for 'consulting with those Aboriginal people who can provide information about the significance of Aboriginal Cultural Heritage as part of the heritage assessment process that informs any AHIP application'.

A total of 42 groups responded to the initial notification process with 15 groups registering their interest. A field session took place with all registered groups invited to participate. 13 groups attended the field session providing invaluable input on the Aboriginal cultural heritage significance of the site.

During the field session, three items were noted as having Aboriginal significance by the groups including a scar tree, an isolated find consisting of a quartz flake, and a red silcrete artefact scatter. In addition to the Aboriginal items found, European artefacts were discovered and a potential location for Aboriginal deposits was identified.

A range of mitigation measures are to be implemented to protect areas of Aboriginal cultural heritage and further archaeological test excavations are proposed in two areas located near the southern boundary of the site. Testing is proposed to follow the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (2010). Following completion of the analysis of the recovered artefacts, it is proposed that all Aboriginal objects be repositioned back into the landscape ('returned to country') in accordance with Requirement 26 of the Code of Practice.

The following mitigation measures which include both physical and management measures are to be implemented on the site:

- The location of all Aboriginal sites that lie outside areas of impact should be clearly marked on all relevant maps and plans to be used on-site and in planning, and physical access controls installed where possible during construction to ensure that no inadvertent impacts occur to these sites.
- Information in this report relating to the exact location of Aboriginal sites should not be published or promoted in the public domain.
- Archaeological subsurface testing should be undertaken at Aboriginal site surface artefact scatter area and Potential Archaeological Deposit site, following the Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales (2010). A notification period, to OEH, of 2 weeks prior to commencement of works is a required.
- Approval for an AHIP should be sought and obtained prior to the commencement of the proposed works. The AHIP should cover all areas of ground surface impact, as well as any further surface collection or subsurface excavation required within the project area.
- All artefacts recovered during the archaeological testing program, and any surface collection, would be returned to the study area in accordance with 'return to country' Requirement 26 of the Code of Practice, and would be placed in a suitable location identified in consultation with Aboriginal Representatives.

The protocols for the unanticipated discovery of archaeological material and suspected human remains would be adopted and complied with during construction activities involving ground surface disturbance and excavation.

Earthworks

During earthworks the following erosion and sediment controls are to be utilised:

- Priority shall be given to the prevention, or at least the minimisation, of soil erosion, rather than the trapping of displaced sediment. such a clause shall not reduce the responsibility to apply and maintain, at all times, all necessary esc measures;
- Measures used to control wind erosion shall be appropriate for the location and prevent soil erosion at all times, including working hours, out of hours, weekends, public holidays, and during any other shutdown periods;
- The application of liquid or chemical-based dust suppression measures shall ensure that sediment-laden runoff resulting from such measures does not create a traffic or environmental hazard;
- All cut and fill earth batters less than 3m in elevation shall be topsoiled, and grass seeded/ hydromulched within 10 days of completion of grading in consultation with Council;
- Once cut/fill operations have been finalised in a section, all disturbed areas that are not being worked on shall be stabilised in accordance with timelines in the blue book;
- All reasonable and practicable measures shall be taken to prevent, or at least minimise, the release of sediment from the site;
- Suitable all-weather maintenance access shall be provided to all sediment control devices;
- Sediment control devices, other than sediment basins, shall be de-silted and made fully operational as soon as reasonable and practicable after a sediment-producing event, whether natural or artificial, if the device's sediment retention capacity falls below 75% of its design retention capacity;
- All erosion and sediment control measures, including drainage control measures, shall be maintained in proper working order at all times during their operational lives;
- Washing/flushing of sealed roadways shall only occur where sweeping has failed to remove sufficient sediment and there is a compelling need to remove the remaining sediment (e.g. for safety reasons). In such circumstances, all reasonable and practicable sediment control measures shall be used to prevent, or at least minimise, the release of sediment into receiving waters. Only those measures that will not cause safety and property flooding issues shall be employed. sediment removed from roadways shall be disposed of in a lawful manner that does not cause ongoing soil erosion or environmental harm;
- Sediment removed from sediment traps and places of sediment deposition shall be disposed of in a lawful manner that does not cause ongoing soil erosion or environmental harm; and
- Proposed layout of erosion and sediment control devices such as swales and sediment control fences are provided within the erosion and sediment control plan provided at Appendix B.

Consultation

Government Agency Consultation

To obtain government agency comments on the proposed development, correspondence was forwarded to relevant government agencies including:

- Goulburn Mulwaree Council (Council);
- Environment Protection Authority (EPA);
- Office of Environment and Heritage (OEH);
- Department of Primary Industries (DPI);
- Water NSW;
- Roads and Maritime Services (RMS);
- Southern NSW Local Health District (SNSW LHD);
- Rural Fire Service (RFS);
- Geological Survey of NSW – Division of Resources and Geoscience (GS NSW); and
- Essential Energy.

A phone meeting with RMS was held on 8th February 2019. In addition, a meeting with a number of government agencies was held on 19th February 2019 with Council, EPA, DPI, and the Department of Planning and Environment. Items raised during the consultation process have been addressed throughout this report.

Correspondence from the government agencies generally referred to their SEARs correspondence remaining relevant with the exception of Council which provided a list of items.

Council requested consideration of operational and road noise, heavy vehicle routes and impacts, stormwater quality, sewer and waste management, biosecurity, BCA, and land use conflicts with surrounding area.

Assessments against SEPP33 and SEPP (Education Establishments and Child Care Facilities) with consideration of land use conflict with the proposed childcare centre. Council also requested non-reflective materials be used and appropriate landscaping throughout the site. As a result of the correspondence the heavy vehicle haulage route was adjusted to Council's preferred route, further consideration of biosecurity was included, additional stormwater and discharge details included, and further analysis of land use conflict was included. Items raised in relation to environmental impacts such as noise were addressed within the environmental assessment. Full discussion provided at Section 7.1.1 of this report.

Community Consultation

Mara Consulting was engaged to undertake consultation with the local community. The engagement methods employed and the results of the community consultation process are provided at Appendix K and discussed in in this section.

A range of activities were used to engage the community including:

- letterbox drop and direct mail to 150 residents and businesses in the locality providing information about the proposal and inviting feedback;
- an advertisement was placed in the Goulburn Post promoting the feedback period and community information sessions;
- two community information drop-in sessions at the Goulburn Soldiers Club were held on Monday 4 and Tuesday 5 March 2019 where community members could view the proposal and speak with members of the project team;
- a dedicated project email address was created for community enquiries and submissions; and
- telephone calls were made to local businesses inviting them to view and provide feedback on the proposal.

Meetings were held with key stakeholders specified in the SEARs including Goulburn Mulwaree City Council, NSW Environment and Protection Authority and NSW Office of Environment and Heritage.

During the feedback period twenty-one items were raised by 9 people. The main item raised by the community was traffic and included questions regarding traffic impacts on the Sydney Road/Common Street intersection such as how heavy vehicles will be slowed, compression breaking, intersection capacity, intersection upgrades, heavy vehicle routes and traffic generation. Other items raised included odour, noise, flooding, waste, operation hours, why site was chosen, and job creation. Overall the comments were positive regarding the proposed development. The received questions are fully discussed at Section 7.2.2.

Permissibility

Under Goulburn Mulwaree LEP 2009 the site is zoned B6 Enterprise Corridor, RU6 Transition and E3 Environmental Management and is subject to the land uses permissible within these zones.

The cold storage facility defined as a warehouse and distribution centre under the LEP 2009 is permissible with consent in the B6 Enterprise Corridor zone. The childcare centre is permissible with consent in all three zones; B6 Enterprise Corridor RU6 Transition and E3 Environmental Management. The poultry processing facility defined as a livestock processing facility (a rural industry) is prohibited in all three zones.

Therefore, whilst the proposed childcare centre and cold storage facilities are permissible under the LEP the poultry processing facility is prohibited. As components of the proposed development are considered to be state significant development under the SEPP (State and Regional Development) 2011, development consent may be granted for the whole development despite one or more components not being permissible within its respective zone. In this case, as the cold storage facility and the childcare centres are permissible within the B6 zone, consent may be granted for the poultry processing facility despite it being prohibited in all three zones present on the site.

The aim of the proposed development is to meet existing and future demand for poultry products both regionally and internationally and provide large scale cold storage services supporting logistics operations along the Hume Highway connecting Canberra and Sydney.

The Sydney-Canberra Corridor Regional Strategy 2006-2031 provides direction to strategic and infrastructure development in the regional areas which link Sydney to Canberra with the area considered to be a key State and National.

The main target for the region is population growth and employment. The strategy projects at least 27,800 new jobs being required to support the projected growth in the region. The proposed mixed use development is projected to directly employ 264 employees with an additional 201 jobs created indirectly through supply chain and consumption impacts during operation of the site's land uses.

The proposed development will directly provide employment generating land uses that has been strategically located within currently vacant employment land within the major regional centre of Goulburn City which improves connectivity and minimizes commute time for employees. The inclusion of the cold storage facility will leverage the strengths of the site's proximity to transport links, especially the Hume Highway.

The proposed development is considered to be consistent with the aims of the North East Goulburn Enterprise Corridor Precinct and Goulburn Mulwaree Employment Lands Strategy as it provides appropriate land uses within the Common Street Sub Precinct which will encourage investment and activate development of the underdeveloped precinct.

The proposed land uses are considered to be consistent with the objectives of each of the three zones present over the site under the Goulburn Mulwaree LEP 2009.

B6 Enterprise Corridor

The proposed development will contribute to the mix of business and industrial land uses envisaged which will contribute to the broader employment generating land uses operating within the Common Street enterprise corridor and the broader Goulburn area. The proposed land uses will allow for and encourage further investment in the underperforming corridor through precinct activation and demand for supportive business and industry.

RU6 Transition

The development structure protects and maintains surrounding land by avoiding impacting on the vegetation present in the surrounding E3 Environmental Management zone located within the site and to the west. The buildings are largely buffered by a combination of the western hill line and trees in the E3 zone minimising impacts on the adjoining sites to the west. Land use conflict is avoided where possible through the management and mitigation measures proposed along with the location of minor elements in areas adjoining rural type land uses where possible.

E3 Environmental Management

The structure of the proposed development largely avoids impacting upon the E3 zone with the footprint located in the E3 zone sited to avoid impacting existing native vegetation. Through avoidance of the existing vegetation in the north western corner of the site the cultural and aesthetic values of this vegetation will be retained. Ecological assessment of the vegetation within the E3 zone found no significant or protected ecological community present, however it is proposed to enhance the existing vegetation to maintain aesthetic values in the area and enhance the buffer to adjoining land.

The proposed mixed use development demonstrates consistency with the relevant strategic documentation as further discussed at Section 5 and the objectives of the three zones despite being partially prohibited development. As discussed, the proposed development is declared to be SSD, partially prohibited development is able to be approved under Clause 4.38(3) of the EP&A Act.

Social and Economic Impact

Economic Impact - Construction

Construction includes the buildings processing hall fit out, cold store, external works, connections to service infrastructure, parking and access and provision of the childcare centre. The construction phase impacts are not enduring and are characterised for the period of construction.

Using a value of $80m the direct job creation is projected to be 88 jobs. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the gain of a further 217 jobs. Total employment, including all direct, supply-chain and consumption effects is estimated to increase by up to 385 jobs.

From a direct increase in output of $80 m it is estimated that the demand for intermediate goods and services would rise by $83.8m. A proportion of wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are estimated at $21.6m. Total output, including all direct, supply-chain and consumption effects is estimated to increase by up to $185.5m.

From a direct increase in output of $80m it is estimated that direct wages and salaries would increase by $8.1m. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the gain of a further 217 jobs and a further increase in wages and salaries of $17.3m. Total wages and salaries, including all direct, supply-chain and consumption effects is estimated to increase by up to $30.6m.

Economic Impact - Operation

The proposed processing facility once operating, will employ 264 people working over two shifts of 132 employees per shift. These are nett new positions. The estimate of direct change in output arising from the operating and supply costs of the operation is $30.2m.

Given this direct increase in output, it is estimated that the demand for intermediate goods and services would rise by $8.3m. These supply-chain effects include multiple rounds of flow-on effects, as servicing sectors increase their own output and demand for local goods and services in response to the direct change to the economy. Total output, including all direct, supply-chain and consumption effects is estimated to increase by up to $43.6m.

Similarly, from a direct increase in output, it is estimated that direct wages and salaries would increase by $10.5m. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the gain of a further 116 jobs and a further increase in wages and salaries of $4.9m. Total wages and salaries, including all direct, supply-chain and consumption effects is estimated to increase by up to $18.6m..

Social Impact

Goulburn Mulwaree local government area (LGA) is highly accessible with good quality roads and rail connections. The Hume and Federal Highways pass through the region and constitute the main freight and travel routes between Sydney, Canberra and Melbourne. The Great Southern Rail line passes through Goulburn.

Key employment sectors in the Goulburn Mulwaree LGA area include:

- Health Care and Social Assistance (15%); attributable to Goulburn Hospital and numerous aged care facilities in the LGA.
- Retail Trade (10.7%); the main retail areas is the Goulburn Central Business District.
- Public Administration and Safety (10.9%); due to the NSW Police Force Academy and the Goulburn Correctional Centre.
- Accommodation and Food Services (7.8%); cafes, restaurants, takeaway being the highest.

- Education and Training (7.4%); the TAFE NSW Illawarra (Goulburn Campus) and numerous schools.
- Construction (9.2%) and Manufacturing (5.5%); the main industrial areas are in Goulburn South-West, Goulburn South and Goulburn North-East.

Key positive impacts during construction and operation of the facility include:

- job opportunities through construction. Jobs will be both skilled and non-skilled providing options for local residents;
- the potential for increased local and regional business opportunities supplying the operation of the facility;
- long-term increase in jobs through operation; and
- act as a catalyst for business investment in the area, a key priority of Council in attracting further economic and business opportunities within the precinct.

Key negative impacts during construction and operation of the facility include:

- short-term noise and vibration through construction. This could be managed by appropriate management plans;
- potential for temporary disruptions to traffic and access during construction. This could be managed by appropriate traffic management plans;
- increased traffic accessing Common and Sinclair Streets. Traffic modelling indicates the existing road network is adequate to accommodate any increase in traffic movements; and
- amenity impacts on nearby sensitive receivers.

Management measures will be put in place to reduce and/or eliminate potential impacts as well as capitalising on positive opportunities.

Woodlands Ridge Poultry's approach to employment will adopt the following principles:

- A preference for local employment wherever possible.
- Encourage local contractors to tender for work, both during the construction and operations phases. Selection of suppliers will be based on merit, assessed capability and competitive dynamics.
- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
- Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
- Display the head or regional office contact information.

Strategic Context

NSW Making It Happen

NSW: Making it Happen was released by the Premier for NSW on 14 September 2015 and replaces the State's previous 10-year plan NSW 2021. NSW: Making it Happen outlines 30 key reforms for the State, including personal priorities for the Premier.

The proposed development aligns with the Premier's and State priorities as it will deliver jobs within Goulburn and promote growth in the broader area.

This project will be a catalyst for unlocking development opportunities which will accelerate job creation in regional NSW.

The project will generate direct investment in the Goulburn Mulwaree LGA and help deliver on the Premier's job creation target. While the project will contribute 264 FTE jobs, it will also help unlock 64ha of employment generating land.

In addition to forecast 264 jobs created by the WRP Processing Facility, the net remaining developable area of 112,000m2 @ 1 job for every 200m2, could accommodate a further 560 ongoing jobs. With average annual

wages estimated at $40,000 per employee (which is considered conservative), this equates to additional wages of $22.4 million annually on top of the $6.0 million in salaries from the poultry facility. There would also be direct and flow on impacts from non-wages operational spending.

NSW Trade and Investment Action Plan 2017-2018

The NSW Trade and Investment Action Plan positions NSW to compete globally, attract international investment, grow trade and create jobs. It is a whole of government plan to support a strong NSW economy both in our cities and the regions.

This plan indicates that the NSW government will focus on areas of competitive advantage domestically and internationally. The plan specifically identifies food, fibre and agriculture as a key growth opportunity and State priority in maintaining a competitive advantage. The target is to grow exports of food and fibre from $7.4 billion to $10 billion by 2020 – achieving a sustainable boost in the value of agricultural exports by focussing on high value and specialty products. As part of the growth targets, the plan also places a great emphasis on the Asian market, specifically tapping into extensive Japanese supply chains across Asia.

An industry profile prepared by the Australian Chicken Meat Federation (ACMF) identifies the importance of the chicken meat industry. Australia's chicken meat industry plays an integral role in Australian agriculture and in the broader Australian economy, with the industry conservatively estimating that consumers currently spend $5.6 billion per annum on chicken meat in supermarkets, fast food outlets, speciality shops and restaurants. The global demand for meat is estimated to increase by 44 per cent to over 400 million tonnes by 2030 to support the world's growing population and its increased appetite for meat.

In light of the significant growth of the poultry industry and global demand, and the clear directives outlined in the Trade and Investment Action Plan 2017-2018, it is evident the Woodlands facility is a critical driver in achieving NSW investment targets. The expansion of urban areas into traditional poultry processing lands, has created a greater demand for well-located precincts such as the Common Street Enterprise Corridor sub-precinct.

South East and Tablelands Regional Plan

The South East and Tablelands Regional Plan 2036 (the Regional Plan) was released in July 2017 and provides the future strategic vision for the areas south and south east of Sydney excluding the Illawarra-Shoalhaven area. The proposal is consistent with the relevant goals and directions of the Regional Plan as outlined below.

Direction 1: Leverage access to the global gateway of Canberra Airport – Located approximately 1 hour from Canberra Airport, the site is an appropriate distance away to engage with international markets through the utilisation of the Canberra Airport. Access to the global marketplace provides additional support to the development with increased demand and diversity in product needs. The proposal is considered to support the actions as it is a compatible development in the broader region which will not jeopardise the 24 hour operation of the airport.

Direction 4: Leverage growth opportunities from Western Sydney – The proposed development is located within the Goulburn employment lands area which is stated as providing opportunities for jobs to support the overall growth of Western Sydney. The proposed development is located within employment land within Goulburn which is considered to promote and support the establishment of the larger employment areas within and around Goulburn.

Direction 5: Promote agricultural innovation, sustainability and value-add opportunities – The mixed use development will establish a poultry processing facility and cold storage distribution centre which will both utilise the latest technology to enhance the operation and efficiency. The cold storage distribution centre will not only support the poultry processing facility but will be available to third party operations leveraging a value-added operation in a key agricultural region. This arrangement services to reduce supply chain costs but supports local investment and access to export markets.

Direction 8: Protect important agricultural land – The establishment of the mixed use development will directly support existing poultry farms in the region and support the establishment of further poultry farms which will protect agricultural land in the area.

Goulburn Mulwaree Employment Land Strategy

The Employment Lands Strategy is split between two reports; a background report which includes strategic and legislative evaluation justifying the need for the Employment Lands Strategy, and a recommendation report which provides the opportunities and recommended pathways for improvement specific to each employment land precinct within the LGA.

The background report found that the strategies and plans applicable to the LGA were generally out of date and a new Employment Lands Strategy would be prudent to provide an updated vision.

The Employment Lands Strategy recognises the North East Goulburn Enterprise Corridor Precinct, in which the site is located, as containing the majority of vacant enterprise land in the LGA. The broader precinct has remained largely underdeveloped.

While the strategy provides recommendations to improve the viability of the precinct, none of the recommendations directly impact the site.

The proposed development is considered to be consistent with the aims of the Employment Land Strategy as it provides an appropriate land use which will support development of the Common Street sub-precinct and the larger North East Goulburn Enterprise Corridor Precinct.

Sydney – Canberra Corridor Regional Strategy 2006-2031

The Sydney-Canberra Corridor Regional Strategy 2006-2031 provides direction to strategic and infrastructure development in the regional areas which link Sydney to Canberra with the area considered to be a key State and National corridor for transport, communication, and goods and services. The strategy outlined a number of economic challenges including job creation, increase regional based jobs, and protecting the agricultural sector.

The proposed development meets the challenges outlined within the strategy by providing a regionally based employment generator in a strategic located within the existing vacant employment land within the major regional centre of Goulburn which reduces commuting times. The inclusion of the cold storage facility will leverage the strengths of the site's proximity to transport links especially the Hume Highway. The establishment of the poultry processing facility will serve to incubate the poultry industry in the Goulburn Mulwaree area helping to protect agricultural land in the region.

The proposed development is considered to be consistent with the Corridor centres hierarchy as it provides warehousing and employment within the Goulburn centre meeting the aims of the strategy.

Justification

The aim of the proposed development is to meet existing and future demand for poultry products both regionally and internationally and provide large scale cold storage services supporting logistics operations along the Hume Highway connecting Canberra and Sydney.

Poultry meat consumption in Australia has been gradually increasing and now exceeds beef consumption. This is largely due to the increasing consumer demand for healthy, low fat meat and increasing efficiencies in poultry growth and production. The poultry export market, although not as strong as the domestic market, includes South Africa, Hong Kong and Singapore.

The poultry meat industry is a large, growing and a successful agricultural industry. Nationally the industry has a gross value of $2.7 billion and an estimated retail value of $9 billion. In NSW the industry has a gross value of $875 million and an estimated retail value of $2.9 billion in 2015/16. Its contribution to the State

economy is worth approximately $2.1 billion. It supports 6,000 direct jobs and a further 39,000 jobs downstream.

NSW generates considerable demand for poultry products and with the projected population growth for the state it is estimated that the poultry industry will need to support an additional 70 million birds by 2021. Based on Australian Bureau of Agricultural and Resource Economics data, Australians currently consume approximately 47.7kg per person per year and it is projected it will exceed 50kg per person per year by 2020. Poultry meat is the fourth largest agricultural commodity in NSW and is the most consumed meat product in Australia. The industry is forecast to continue to grow by between 3% and 4% a year in the medium term.

The proposed mixed use development will employ 264 people which are nett new positions. The estimate of direct change in output arising from the operating and supply costs of the operation is $30.170m for the economy. The operation phase impacts are enduring and continue for the life of the business. The impacts will change if circumstances concerning the inputs change (employees or cost of operations). No escalation is assumed in the estimates and they are year on year forecasts.

The proposed cold storage distribution centre will assist in alleviating the impact of the announced closure of the Coles distribution centre located on Ducks Lane in the south of Goulburn slated to occur in the next 5 years. This closure will remove an essential distribution centre location on the Hume Highway and will lead to a loss of 250-300 jobs in Goulburn. By establishing the cold storage centre, the proposed development will take up a portion of the lost jobs and will ensure its long term viability through cross utilisation with the proposed poultry processing facility and third parties.

Projects such as this which include poultry meat production elements, are essential to meet the growth in demand for poultry meat moving into the future. The benefits to employment and the local economy in Goulburn and surrounds are essential to the continued growth of the area and is poised to kick-start the growth of the Common Street Enterprise Corridor which has remained undeveloped despite its existing land zoning and cost effective land values. The proposed poultry processing plant and cold storage and distribution centre located at Goulburn, within one of the poultry growth hubs, is ideally positioned being accessible to existing hatcheries, poultry growing farms, labour and services and easy access to major metropolitan cities of Canberra and Sydney.

Therefore, the proposed development is considered to be a project which provides will boost the local and broader economy and stimulate growth in Goulburn and specifically in this precinct.

Conclusion

The proposed mixed use development located at 52 Sinclair Street, Goulburn represents an exciting opportunity for Goulburn. Amongst the many benefits are the establishment of a broader poultry industry in the Goulburn region, improving outcomes for the Common Street portion of the North East Goulburn Enterprise Corridor, providing employment opportunities for a wide range of skills, and encouraging regional development.

The proposed development aims to assist in meeting the consumption demand for poultry products in NSW, Australia, and internationally. To achieve this, the proposed development has been strategically located in an area which has established poultry growing and hatching operations. The site has excellent connections to both Canberra Airport and the future Western Sydney Airport.

Potential impacts of the proposed development have been carefully considered in the evolution of the design for the site. The proposal endeavours to minimise impacts on the surrounding environment through the implementation of mitigation measures and management procedures.

Given the appropriateness of the site for the proposed development, consistency with relevant government strategies, and the absence of any significant adverse environmental impacts, the proposed development is considered to be in the public interest and worthy of support.

1 Introduction

1.1 Overview

This Environmental Impact Statement (EIS) has been prepared by KDC Pty Ltd (KDC) on behalf of Woodlands Ridge Poultry Pty Ltd (WRP) to accompany an application for State Significant Development (SSD), noted as SSD9143, to the NSW Department of Planning and Environment (DPE). Development consent under Part 4 of the *Environmental Planning and Assessment Act, 1979* (EP&A Act) is being sought for the proposed mixed use development at 52 Sinclair Street, Goulburn, New South Wales (the site).

The Proposed development consists of a:

- Cold storage and distribution centre;
- Poultry processing plant;
- Childcare centre; and
- Other associated infrastructure and works including earthworks.

This EIS has been prepared in accordance with the requirements of the EP&A Act, the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), the Secretary's Environmental Assessment Requirements (SEARs) and requirements of other agencies and stakeholders consulted during the preparation of this EIS.

The purpose of this EIS is to inform the community and government of the proposed development, its projected impacts in terms of potential social, economic and environmental impacts, and any mitigations measures proposed to be implemented. It addresses the requirements outlined in the Secretary's Environmental Assessment Requirements (SEARs) issued by the DPE and input from relevant government agencies and other stakeholders.

1.2 Structure of EIS

The structure of the EIS package includes the main EIS (this document) which provides detail on the state of the current site, proposed development, relevant legislation and strategic documentation, key environmental, economic and social impacts, mitigation measures and justifications. Appending the EIS are a range of specialist studies and other relevant documentation.

1.3 The Applicant

Woodlands Ridge Poultry Pty Ltd (WRP) is a leader in the poultry industry, with a strong focus on sustainable and viable agriculture for the future, WRP is focused on building better farms for chickens which also support the local environment and community.

WRP's existing poultry farm west of Goulburn is an example of cutting edge technology in poultry farm design utilising technologies such as heaters which establish a constant 32 degree environment irrespective of external conditions. It was the first poultry operator to employ state-of-the-art heat exchanges in poultry shed design. This system recycles heated air and incorporates a dehumidifier to decrease moisture inside the sheds thereby minimising odour. This philosophy has been carried into the proposed development through the utilisation of the latest technology to improve efficiency and minimise impacts on the surrounding environment.

WRP is committed to investment in Goulburn and regional Australia and sees its proposed development as able to unlock the growth potential in the region by delivering a keystone development in a currently underutilised area. To this end WRP has worked closely with Goulburn Mulwaree Council (Council) for a number of years to advance the poultry industry in the region.

1.4 Mixed Use Development Overview

The proposed development consists of the construction and use of a range of operations as part of a mixed use development. The project consists of the following components:

- Cold storage and distribution centre;
- Poultry processing plant;
- Childcare centre; and
- Other associated works including earthworks and infrastructure.

With the exception of associated infrastructure, each of these components are considered independent land uses from each other which do not inextricably require the other. However, all uses are proposed under a single development application and are considered to be a mixed use development. The associated infrastructure such as car parking, office buildings and amenities are ancillary to the entire project.

The facility will ultimately operate 24 hours per day, 7 days per week, however initially it will operate at lower production levels until full production is achieved.

1.5 State Significant Development Trigger

Schedule 1 of SEPP SRD contains definitions for both *Agricultural produce industries and food and beverage processing* and *Warehouse and Distribution Centres.* These land uses are defined as follows:

3 Agricultural produce industries and food and beverage processing

Development that has a capital investment value of more than $30 million for any of the following purposes:

> *(a) abattoirs or meat packing, boning or products plants, milk or butter factories, fish packing, processing, canning or marketing facilities, animal or pet feed production, gelatine plants, tanneries, wool scouring or topping or rendering plants,*
>
> *(b) cotton gins, cotton seed mills, sugar mills, sugar refineries, grain mills or silo complexes, edible or essential oils processing, breweries, distilleries, ethanol plants, soft drink manufacture, fruit juice works, canning or bottling works, bakeries, small goods manufacture, cereal processing, margarine manufacturing or wineries,*
>
> *(c) organic fertiliser plants or composting facilities or works.*

12 Warehouses or distribution centres

> *(1) Development that has a capital investment value of more than $50 million for the purpose of warehouses or distribution centres (including container storage facilities) at one location and related to the same operation.*
>
> *(2) This clause does not apply to development for the purposes of warehouses or distribution centres to which clause 18 or 19 applies.*

The poultry processing plant, which includes the poultry processing plant and rendering plant, has a CIV of $30,614,290 exceeding the $30 million threshold and meets the definition for *agricultural produce industries and food and beverage processing*. The components on the provided CIV directly relating to the process facility and the production process are attributed to this component.

The largest part of the project by area and value is the cold storage and distribution centre which has a CIV of $50,755,970 exceeding the $50 million threshold and meets the definition for *warehouses or distribution centres*. The majority of site works are attributed to the cold storage facility including external works and infrastructure due to loads from heavy vehicle movements.

The breakdown of cost for the proposed works is provided within the CIV prepared by Turner & Townsend at Appendix N.

1.6 Project Need and Justification

The aim of the proposed development is to meet existing and future demand for poultry products both regionally and internationally and provide large scale cold storage services supporting logistics operations along the Hume Highway connecting Canberra and Sydney.

Poultry meat consumption in Australia has been gradually increasing and now exceeds beef consumption. This is largely due to the increasing consumer demand for healthy, low fat meat and increasing efficiencies in poultry growth and production. The poultry export market, although not as strong as the domestic market, includes South Africa, Hong Kong and Singapore.

Poultry meat production relies on a supply and production chain comprising breeder farms, hatcheries, poultry growing farms, processing plants, feed mills and storage and warehousing. These are generally located within proximity to each other and form a number of production hubs throughout Australia. NSW has the largest number of these hubs in rural locations such as Goulburn, Tamworth, Casino, Sydney and the Hunter Valley. For the larger poultry producers each operation in the supply and production chain is owned or controlled by the one company, promoting industry productivity and a consistent meat product able to respond to market demand.

The poultry meat industry is a large, growing and a successful agricultural industry. Nationally the industry has a gross value of $2.7 billion and an estimated retail value of $9 billion. In NSW the industry has a gross value of $875 million and an estimated retail value of $2.9 billion in 2015/16. Its contribution to the State economy is worth approximately $2.1 billion. It supports 6,000 direct jobs and a further 39,000 jobs downstream.

NSW generates considerable demand for poultry products and with the projected population growth for the state it is estimated that the poultry industry will need to support an additional 70 million birds by 2021. Based on Australian Bureau of Agricultural and Resource Economics data, Australians currently consume approximately 47.7kg per person per year and it is projected it will exceed 50kg per person per year by 2020. Poultry meat is the fourth largest agricultural commodity in NSW and is the most consumed meat product in Australia. The industry is forecast to continue to grow by between 3% and 4% a year in the medium term.

The proposed mixed use development will employ 264 people which are nett new positions. The estimate of direct change in output arising from the operating and supply costs of the operation is $30.170m for the economy. The operation phase impacts are enduring and continue for the life of the business. The impacts will change if circumstances concerning the inputs change (employees or cost of operations). No escalation is assumed in the estimates and they are year on year forecasts.

The proposed cold storage distribution centre will assist in alleviating the impact of the announced closure of the Coles distribution centre located on Ducks Lane in the south of Goulburn slated to occur in the next 5 years. This closure will remove an essential distribution centre location on the Hume Highway and will lead to a loss of 250-300 jobs in Goulburn. By establishing the cold storage centre, the proposed development will take up a portion of the lost jobs and will ensure its long term viability through cross utilisation with the proposed poultry processing facility and third parties.

In 2017, Council commissioned an Employment Land Strategy to audit the current employment land supply, identify land which will facilitate future economic growth in the region and identify emerging industries and trends. The Strategy identified the Common Street Enterprise Corridor, where the project is proposed to be located, as a key area within the LGA for enterprise land and recommended improving road access and provision of services to unlock the economic potential of this area. To this end Council has submitted an Expression of Interest to the NSW State Government Growing Local Economies Fund for a grant to facilitate road upgrades and installation of support infrastructure (water, sewer) within the precinct to create the necessary pre-conditions for industrial development in the area. Council is of the view that the establishment of a facility of the scale of the WRP proposed development will act as a catalyst for other investment which leverages the growing meat manufacturing and processing industry in the area, and services the needs of businesses relocating from Sydney due to the impact of the Western Sydney Airport on employment land on the city's fringe.

Projects such as this which include poultry meat production elements, are essential to meet the growth in demand for poultry meat moving into the future. The benefits to employment and the local economy in Goulburn and surrounds are essential to the continued growth of the area and is poised to kick-start the growth of the Common Street Enterprise Corridor which has remained undeveloped despite its existing land zoning and cost effective land values. The proposed poultry processing plant and cold storage and distribution centre located at Goulburn, within one of the poultry growth hubs, is ideally positioned being accessible to existing hatcheries, poultry growing farms, labour and services and easy access to major metropolitan cities of Canberra and Sydney.

Therefore, the proposed development is considered to be a project which provides will boost the local and broader economy and stimulate growth in Goulburn and specifically in this precinct.

1.6.1 Consistency with Strategic Planning Documentation

The NSW State Government has adopted a range of initiatives and strategies which aim to provide a framework for the orderly development of the state and improve outcomes for current trends.

These strategies are documented in the following publications:

- NSW Trade and Investment Action Plan;
- South East and Tablelands Regional Plan; and
- Employment Land Strategy – Goulburn Mulwaree.

The NSW Trade and Investment Action Plan provides a range of initiatives which will improve upon NSW already strong economy to meet the needs of the future through leveraging existing competitive advantages.

This plan indicates that the NSW government will focus on areas of competitive advantage domestically and internationally. The plan specifically identifies food, fibre and agriculture as a key growth opportunity and state priority in maintaining a competitive advantage. Australia's chicken meat industry plays an integral role in Australian agriculture and in the broader Australian economy, with the industry conservatively estimating that consumers currently spend $5.6 billion per annum on chicken meat in supermarkets, fast food outlets, speciality shops and restaurants. The global demand for meat is estimated to increase by 44 per cent to over 400 million tonnes by 2030 to support the world's growing population and its increased appetite for meat In light of the significant growth of the poultry industry and global demand, and the clear directives outlined in the Trade and Investment Action Plan 2017-2018, it is evident the proposed WRP facility is a critical driver in achieving NSW investment targets.

The South East and Tablelands Regional Plan 2036 (2017) provides the future strategic vision for the areas south and south east of Sydney excluding the Illawarra-Shoalhaven area. The plan aims to establish a borderless region utilising Canberra as the centrepiece of the broader region.

To achieve this vision, the plan aims to achieve a better connected and prosperous regional economy through a range of direction, relevant of which are listed as follows:

Direction 1: Leverage access to the global gateway of Canberra Airport;
Direction 4: Leverage growth opportunities from Western Sydney;
Direction 5: Promote agricultural innovation, sustainability and value-add opportunities; and
Direction 8: Protect important agricultural land.

The project aims to utilise the Canberra Airport and future Western Sydney Airport (WSA) to leverage access to global markets. The strategically located development provides access to both airports with a projected travel time of approximately one hour from the site to the Canberra Airport and approximately one hour 45 minutes from the future WSA. This proximity also allows for the growing Western Sydney area to interact with the proposed development supporting and protecting the metropolitan rural area of Sydney and providing supporting employment for residents. The proposed development represents a key opportunity to provide a value-add operation to the Goulburn area which will support and protect the rural area and facilitate the development of a thriving poultry industry centred in Goulburn.

1.7 Alternatives to the Proposal

Several alternative options were considered for the proposed development, namely two alternative locations for the proposed development along with a no development option.

1.7.1 Alternate Location Option

The development is proposed to be located in the existing north east enterprise corridor which has been severely underutilised and underdeveloped since the rezoning of the land as noted within the Goulburn Mulwaree Employment Lands Strategy (2016).

An alternative area for a proposed development would be the South Goulburn Enterprise Corridor Precinct. This area has seen substantial growth with a range of employment generating land uses. This option has a number of benefits including proximity to the south Goulburn interchange with the Hume Highway which allows both northbound and southbound travel to and from Goulburn avoiding the vehicle travel through the Goulburn city centre. However, this location is in close proximity to higher densities of residential development north of Ducks Lane and is in close proximity to the Aviagen Poultry operation which could pose a biosecurity risk to both operations.

Another alternative area for the proposed development would be the south Goulburn Interchange with the Hume Highway located to the south of Goulburn city centre. However, the existing Western Meats operation is located in this area which could post biosecurity risks to both operations.

1.7.2 No Development Option

The 'No Development' option consists of no development on the site nor any other site in the vicinity of Goulburn. The 'No Development' option would mean the site would continue to be a vacant site within the existing enterprise corridor precinct.

This option is not consistent with current strategic documentation and land zoning which encourages development in the north east Goulburn area. Even if the approved subdivision of the site were to be finalised and individual allotments were developed over time, given the size of the approved allotments it is likely that only small scale developments would eventually be constructed. The number of new jobs created would be considerably less than that envisaged in association with the proposed development.

The lack of a poultry processor in the Goulburn area means that the expansion of the poultry industry in Goulburn is unlikely to occur. There is currently a gulf between the demand for poultry meat and the capacity of the industry to meet that demand.

As the proposal will provide a range of benefits including the development of the Common Street Enterprise Corridor, provision of a boost to the poultry industry in the Goulburn region, generation of significant new employment opportunities and major spin off benefits to the local and regional economy at the same time as minimising social and environmental impacts, these benefits far outweigh the alternative option of 'No Development'.

1.8 Secretary's Environmental Assessment Requirements

A request for Secretary's Environmental Assessment Requirements (SEARs) was made to DPE on 26th February 2018 with SEARs for the project notated as SSD 9143 provided by DPE on 25th July 2018. A further SEARs amendment was requested on the 6th of March 2019 with the amendment received on the 7th March 2019. The SEARs and corresponding EIS sections where the SEARs have been addressed, are provided in Table 1. A copy of the SEARs is reproduced in Appendix O.

Table 1 – Response to Requirements of SEARs

Key Issues	Details	EIS Section Reference
Community and Stakeholder Engagement	• A detailed community and stakeholder engagement strategy identifying who in the community has been consulted and a justification for the selection, other stakeholders consulted and the form/s of the consultation • A report detailing the issues raised and how they have been addressed including any changes to the proposal • Details of proposed future community and stakeholder engagement activities throughout the construction and operation of the development.	Consultation with the community and various stakeholders has been undertaken and details are provided in Section 7 and Appendix K. Various issues raised and how they have been addressed is documented in Section 7. Future consultation details have also been included in Section 7.
Strategic Context	• Demonstration that the proposal is generally consistent with all relevant planning strategies and environmental planning instruments and justification for any inconsistencies • Details of any proposed consolidation or subdivision of land • A land use conflict assessment including reference to separation distances and best management practices, particularly with respect to amenity impacts (odour, noise) on the proposed Childcare Centre and the proximity of the development to non-associated sensitive receivers, including businesses, residences, aged care facilities and accommodation providers • Description on any current and potential 'important agricultural land' on the site and surrounding locality.	Discussion of how the proposed development is consistent with relevant strategic documentation has been provided in Section 5. Further justification is provided in Section 1.6 and 1.7. Discussion on land use conflict and an LUCRA assessment is provided in Section 6.12, as is a discussion on surrounding land uses and the proposed childcare centre. Details of surrounding land uses including the importance of agricultural land has been discussed in Section 6.12.
Waste Management	• Identification and classification of waste streams that would be generated at the site in accordance with the Waste Classification Guidelines (EPA 2014) • A description of waste handling, transport, identification, storage, processing and disposal measures • A description of proposed management and disposal of wastewater, leachate and effluent • Details on containment and monitoring of wastewater and waste streams • The measures that would be implemented to ensure the proposed development is consistent with the aims, objectives and guidelines outlined	Details of waste generation, handling, and contingencies has been discussed in Section 3.8 and Section 6.4. Assessment of waste impacts and mitigations provided within Section 6.4 with a Waste Management Plan provided at Appendix M. Classification of waste streams in accordance with the Waste Classification Guidelines, Wastewater management, and NSW Waste Avoidance and

Key Issues	Details	EIS Section Reference
	in the NSW Waste Avoidance and Resource Recovery Strategy 2014-21 • A description and appraisal of waste impact mitigation, contingencies and management.	Resource Recovery Strategy 2014-21 is also provided in Section 6.4.
Soil and Water	• An accurate description of operational water demands, a breakdown of water supplies (including any water licensing or approval requirements), a description of measures to minimise water use and evidence of an adequate and secure water supply • A detailed site water balance • Details of erosion, sediment, stormwater and leachate control during construction • A description of surface, groundwater and stormwater management systems, including on site detention, surface water diversions, flood impact mitigation and measures to treat or reuse water during operation • A MUSIC stormwater quality model for pre-and post-development scenarios • An assessment of potential surface water, flooding and groundwater impacts, including impacts on nearby waterbodies, surrounding properties, any licenced water users, landholder rights or groundwater dependent ecosystems • A description and appraisal of impact mitigation, management, maintenance and monitoring measures • Details of how potential water quality risks associated with the transport of livestock and associated waste materials through the Sydney drinking water catchment will be managed • An assessment of whether the proposed development will have a neutral or beneficial effect (NorBE) on water quality during construction and operation, in accordance with the State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011.	The Water Balance Report prepared by DRB Engineering has been provided in Appendix B and is discussed in Section 6.6. The description of the water demands; water balance; details of potential impacts on surface water, flooding, and nearby waterbodies are all included in Section 6.6. The discussion includes an assessment of the proposed development's compliance with NorBE achieving a net beneficial impact on water quality. Details of surface, ground, and stormwater management systems have been provided within the Civil Plans in Appendix B and described in Section 6.6. Sediment and erosion controls have been provided with the Civil Plans in Appendix B. Details on transport of poultry through the Sydney drinking Water Catchment has been discussed in Section 6.6.9.
Traffic and Transport	• A quantitative traffic impact assessment prepared in accordance with the relevant Council, Austroads and Roads and Maritime Services guidelines • Details of all daily and peak traffic and transport movements likely to be generated during construction and operation, including a description of haul routes, vehicle types, vehicle access routes and potential queuing impacts • An assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic and modelling • Detailed plans of the proposed layout of the internal road network and parking on site, in accordance with the relevant Australian Standards	A quantitative traffic impact assessment prepared in accordance with Council, Austroads and RMS guidelines is discussed in Section 6.5 and is provided in Appendix D. Details of haulage roads, peak traffic movements, impact on public transport, and intersection capacities assessed using SIDRA have been provided. Details of the new internal roads have been included within the architectural plans at Appendix A with swept paths also included in both Appendix A and the traffic report in Appendix D.

Key Issues	Details	EIS Section Reference
	• Swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site • Plans for any proposed road upgrades, infrastructure works or new roads required • An assessment of the potential impacts of the development upon surrounding public transport services.	Road upgrades are not necessary to facilitate the proposed development.
Air Quality and Odour	• A quantitative assessment of the potential air quality and odour impacts of the development in accordance with the relevant Environment Protection Authority (EPA) guidelines. This assessment must include: o An identification of existing and potential future sensitive receivers and consideration of approved and/or proposed developments in the vicinity o An investigation and assessment of odour impacts on all identified and potential receivers including, but not limited to, the adjacent rural residences o An assessment of the cumulative air quality and odour impacts of the development o Evidence of appropriate meteorological date for use in air dispersion modelling, using real meteorological data where possible o Inclusion of 'worst case' emission scenarios and sensitivity analyses o A contingency plan to address unpredicted operational odour impacts o A description and appraisal of air quality and odour impact monitoring, emission control techniques and mitigation measures.	An air quality and odour assessment has been undertaken by SLR Consulting which has been discussed at Section 6.2 and provided at Appendix C. All existing and future sensitive receivers in the vicinity of the site has been considered in relation to air and odour impacts with due consideration to cumulative and meteorological conditions. Conservative worst case scenarios were chosen for all modelling with mitigation measures and contingencies designed to meet these modelled events.
Hazards	• The Environmental Impact Statement must include a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33 (Department of Planning, 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development • Should the preliminary risk screening indicate that the development is "potentially hazardous", a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis' (Department of Planning, 2011)	An assessment of the proposal against the provisions of SEPP33 has been provided in Section 6.3 with the assessment report provided in Appendix I. The relevant report has been provided at Appendix I.
Visual	• Details of proposed landscaping works • A description of the visual catchment, an assessment of visual impacts and details of proposed mitigation measures, including lighting impacts on surrounding receivers and public areas • A detailed assessment (including photomontages and perspectives) of the buildings, including	The landscape plan is provided in Appendix L with a discussion included in Section 6.11. Visual impacts generated by the proposed development have been discussed in Section 6.11 with a report by Mara

Key Issues	Details	EIS Section Reference
	height, colour, scale, bulk, building materials and signage	Consulting provided in Appendix H.
Earthworks	• A detailed survey of existing and proposed levels across the site and the volumes of cut and fill required • A description of the methods for excavation, transportation and the spreading of fill across the site and details of any fill to be imported to the site • Details of how potential dust impacts of earthworks during construction will be managed and mitigated	A survey has been provided as part of the architectural plans provided at Appendix A. Details of the proposed earthworks has been discussed in Section 3.3 with final levels provided within the Civil Engineering Plans provided at Appendix B.

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2 Site Features

2.1 The Site

The site is located at 52 Sinclair Street, Goulburn and is legally described as Lot 22 in DP 750050. It is located within the Goulburn Mulwaree local government area (LGA), see Figure 1, Figure 2 and Figure 3. The site is approximately 82,606m^2 in area and is rectangular in shape. The site has a zoning split between three zones namely B6 Enterprise Corridor, E3 Environmental Conservation, and RU6 Transition under the Goulburn Mulwaree Local Environmental Plan 2009 (LEP 2009), see Figure 4.

Figure 1 – Site Location

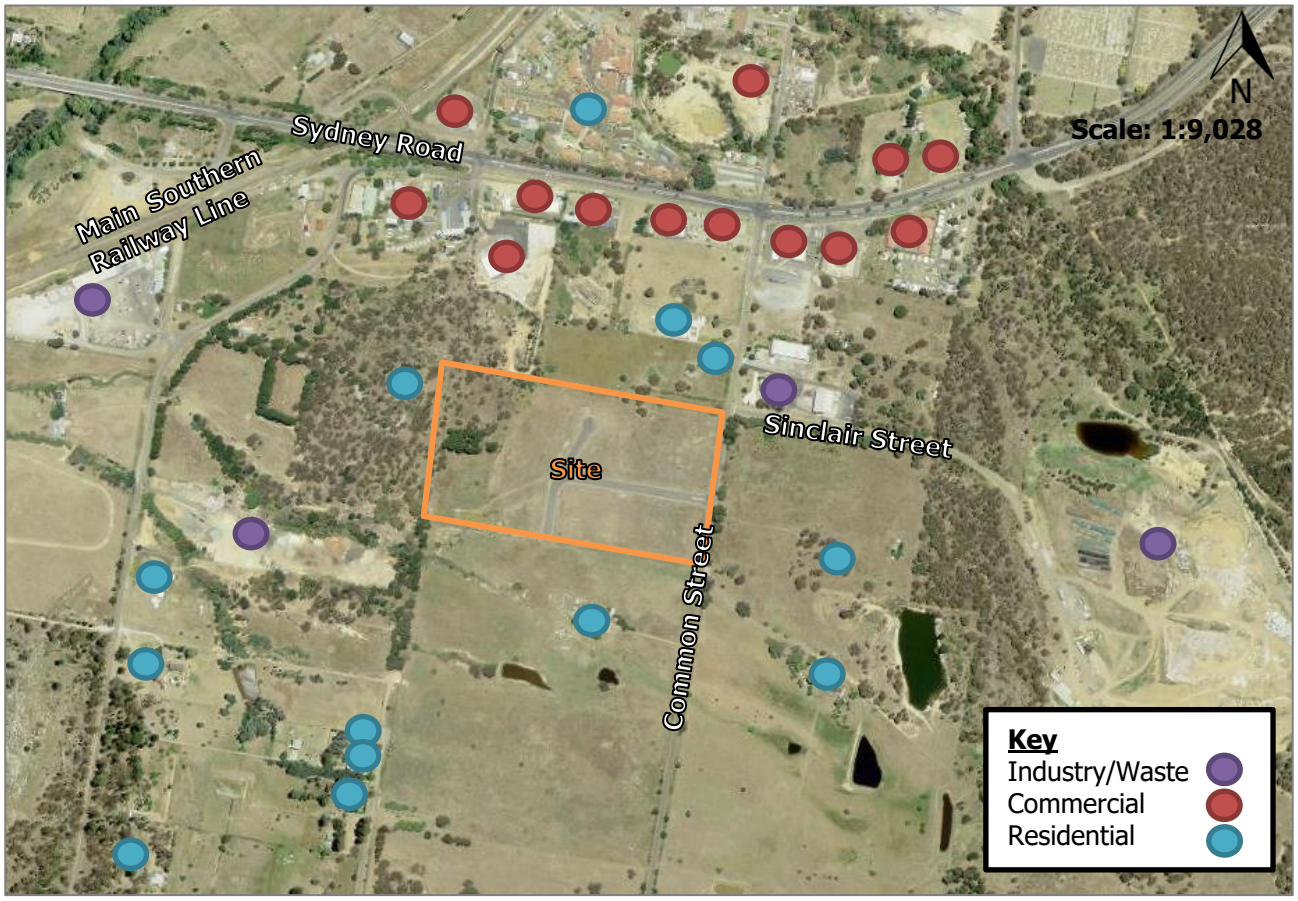
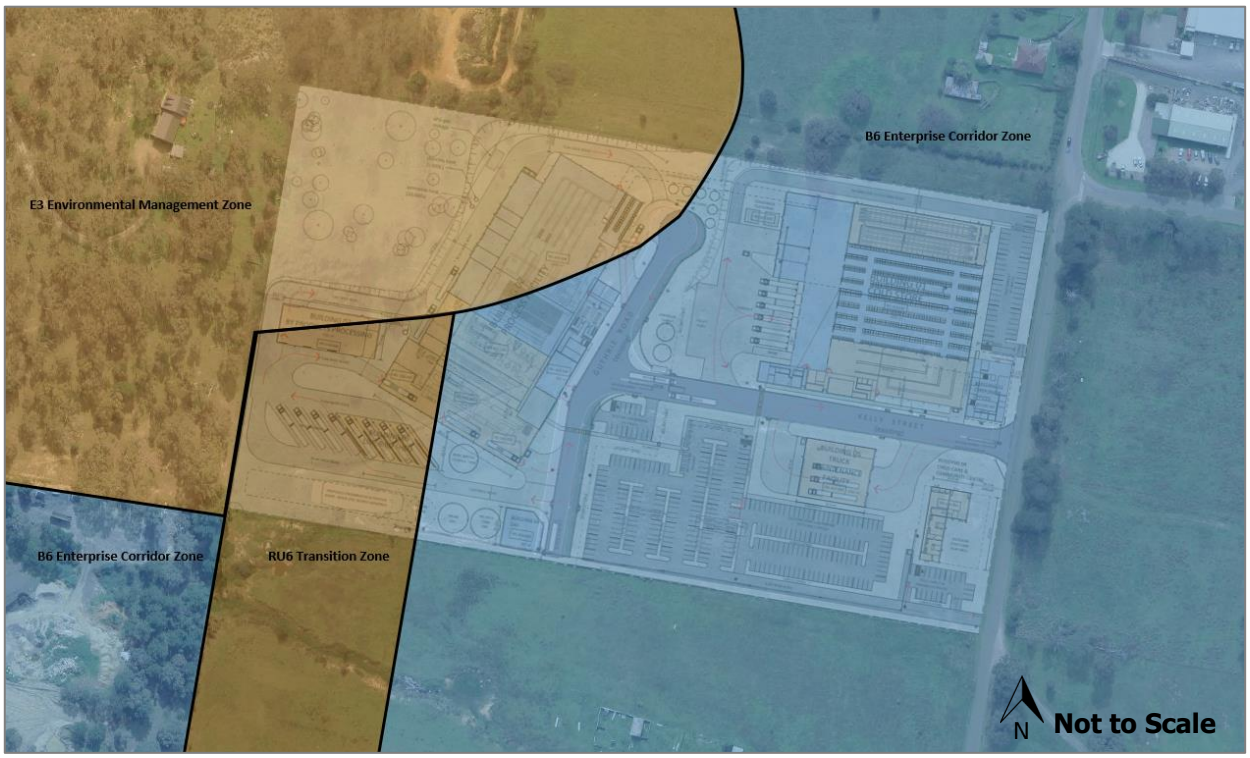


Figure 2 – Site Context

Figure 3 – Cadastral Plan (Source: Sixmaps)

Figure 4 – Proposed Development Overlaid with Land Zoning



The site forms part of an area which is being gradually developed as part of a larger employment Precinct noted as the North East Goulburn Enterprise Corridor. Development consent has been granted for an industrial subdivision on the site. Internal roads have been constructed, stormwater drainage infrastructure installed, services such as electricity and reticulated water have been provided to cater for the 22 approved industrial allotments, however the subdivision has never been registered so none of these industrial allotments have separate titles.

Therefore, the site is provided with internal roads constructed to a high standard and a range of services intended to support the approved subdivision. See Photograph 1 for view of site.

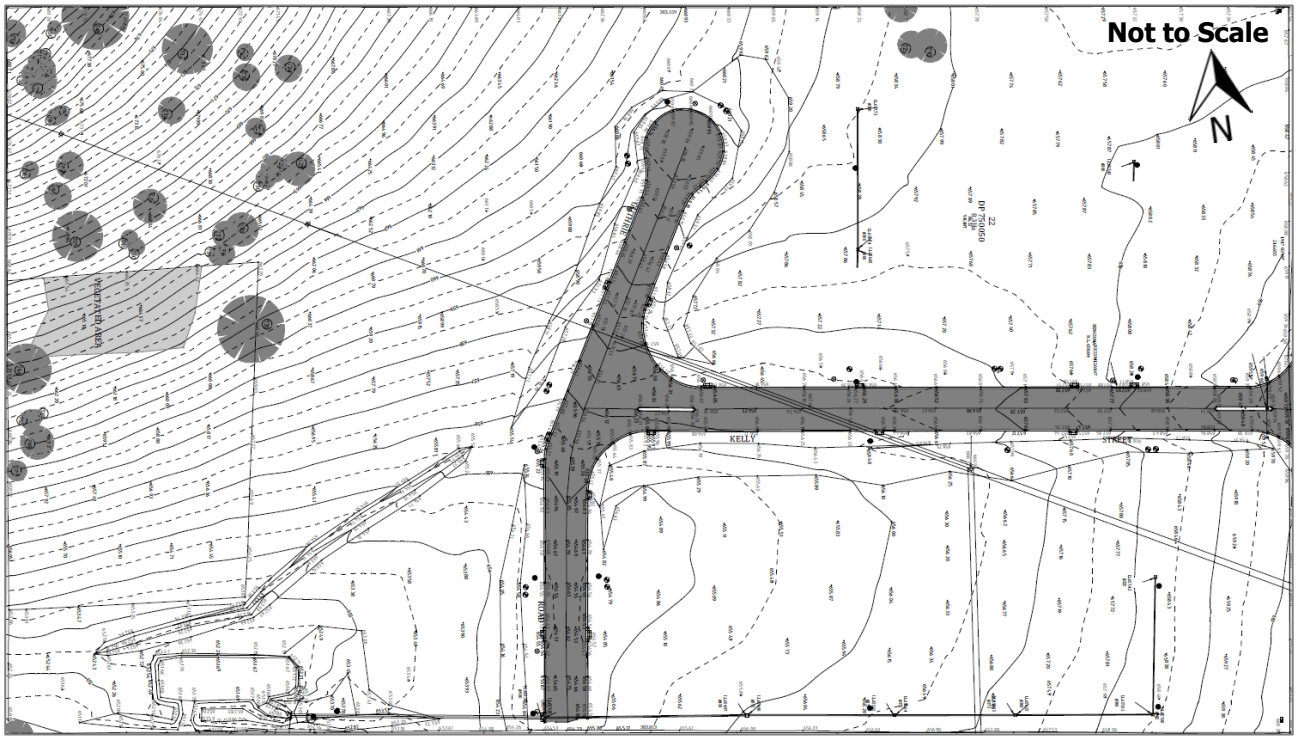
Photograph 1 – View of the site Entrance from Common Street (Source: Google Street View)

2.1.1 Topography

Excavation of the site has occurred in the past during works for the approved, but as yet unregistered subdivision. The site is generally level and has been graded to drain towards the detention basin at the south

western corner of the site. A hill exists in the north western corner of the site which contains vegetation, this portion has not been altered by the previous site works. The elevation at the site ranges from 680m above Australian Height Datum (AHD) in the north western corner to 660m AHD in the south east of the site. See Figure 5 which illustrates the existing site's landform.

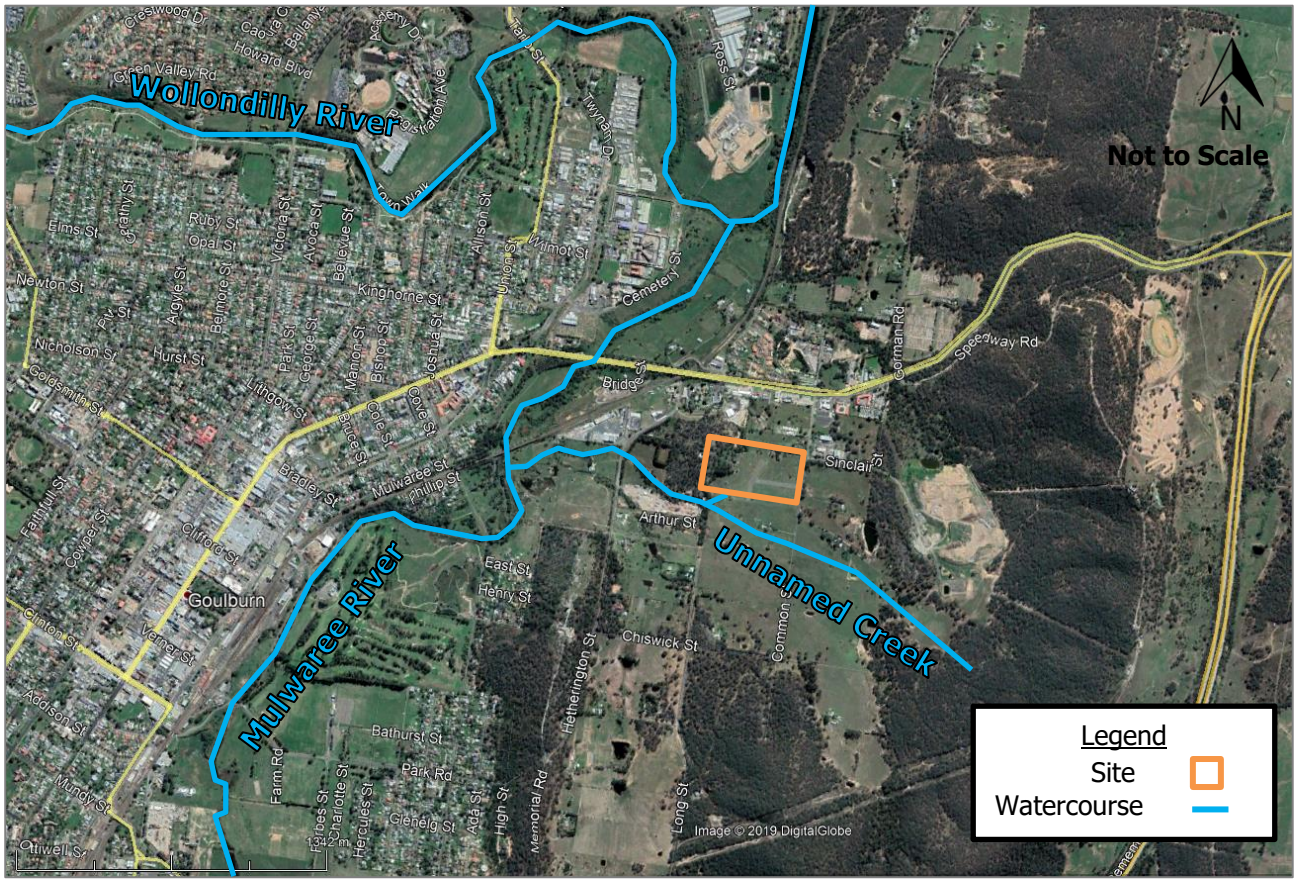
Figure 5 – Existing Site Plan



2.1.2 Watercourses

The site drains towards the detention basin in the south west corner of the site. This basin drains into a water channel connected to an unnamed creek which runs on the adjoining property to the south. This local creek runs into the Mulwaree River located approximately 855m to the west of the site. The Mulwaree River ends at its confluence with the Wollondilly River within the City of Goulburn and forms part of the greater Hawkesbury-Nepean catchment area, see Figure 6.

Figure 6 – Watercourse Map (Source: Google Earth)



2.1.3 Flooding

Based on the Goulburn Mulwaree Local Environmental Plan 2009 and the Goulburn Mulwaree Flood Study 2016 the site is not subject to flooding and not considered to be flood prone land.

2.1.4 Geology and Soil Landscapes

The site has a Palaeozoic aged Cookbundoon sandstone which includes a mix of quartzite, sandstone and conglomerate. The soil landscape is described by Bullamalita Soloths by the NSW OEH Soil Landscapes map. The soil has a low probability of Acid Sulfate Soils in the range of 6-70% based on the CSIRO Atlas of Australian Acid Sulfate Soils.

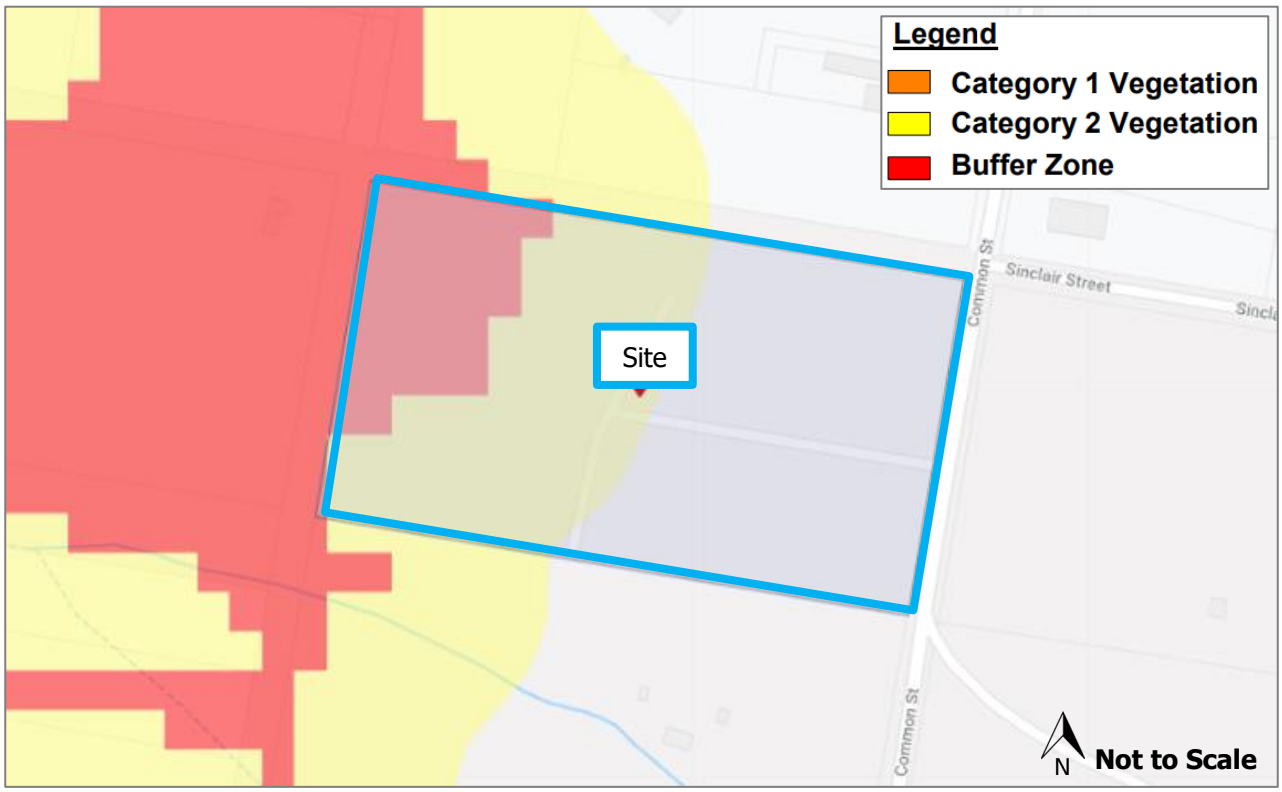
2.1.5 Vegetation

The site is largely cleared of vegetation with the majority of the site consisting native and non-native grass species typical of a grazed paddock. A small community of Tableland Hills Grassy Woodland is located on the hill in the north western corner of the site however this area also contains a number of Radiata Pine. Photograph 1 shows the existing state of the site including the vegetation on the site.

2.1.6 Bushfire

Council Bushfire Prone Land map shows that western portion of the site, particularly around the existing vegetation around the north west corner, is bushfire prone as Category 1 and Buffer Zone which encompasses the proposed poultry processing facility, by-product facility, and live bird shed, as shown on Figure 7.

Figure 7 – Bushfire Prone Land Map Overlay (NSW Planning Portal)



2.1.7 Contamination

The contamination assessment was undertaken by EP Risk with discussion provided at Section 6.7 and the assessment report provided at Appendix E.

Historically the surrounding land primarily comprised residential/rural land with some possible commercial use to the north along Sydney Road. The site has been developed recently for an industrial subdivision and hence contains two internal access roads however the subdivision was not registered and the site has remained vacant.

The results of the soil analytical testing reported the concentrations of contaminants of potential concern were below the assessment criteria in all locations.

Based the findings of the contamination assessment, the site presents a low risk of contamination and is safe to the proposed development.

2.1.8 Heritage

No heritage listed items noted within the Goulburn Mulwaree LEP 2009 at the site. The closest is item 1141 Brick Words, Chimneys, Kilns, Dwelling, "The Potteries" (c 1985) (2-12, 14 Common Street Lot 12 DP 861360 Lot 2 DP 740958), located approximately 300m to the north.

Navin Officer Heritage Consultants (NOHC) undertook an archaeological and Aboriginal Cultural Heritage Assessment of the site with the report reproduced at Appendix Q. No known significant aboriginal places were noted on the site.

During field session with aboriginal representatives, three items were noted as having Aboriginal significance by the groups including a scar tree, an isolated find consisting of a quartz flake, and a red silcrete artefact scatter. In addition to the Aboriginal items found, European artefacts were discovered and a potential location for Aboriginal deposits was identified.

2.2 Site Context and Characteristics

The site is located in the current rural residential area in the north east of Goulburn, see Figure 8.

Immediately adjoining the site to the north is a rural residential lot including a single dwelling followed by a group home. Further north on Sydney Road is a takeaway food and drink premises, hotels, and other commercial operations. Adjoining the site to the south is a large rural lot which includes a single dwelling. Additional rural lots are located further south.

To the east across Common Street is a single dwelling situated on a rural lot along with the Goulburn Resource Recovery Centre to the north east. The Goulburn Mulwaree Council landfill is located further east. Adjoining the site to the west is a dwelling located on a vegetated lot and a landscape material supplies operation to the south west.

Figure 8 – City Context (Source: Google Earth)

2.2.1 Surrounding Receivers

A mix of residential and commercial/industrial type land uses surround the site. Reports have been undertaken assessing the impacts of the proposed development on these surrounding receivers. A total of 8 residential receivers have been assessed and generally consist of rural residential dwellings with the exception of R8 which operates as a group home, see Figure 9. A total of three commercial/industrial type receivers have been assessed and include a resource recovery facility (C1), a landscaping material supplier (C2), and a medical equipment supplier (C3). All receivers have been described in Table 2.

Figure 9 – Surrounding Receivers (Source: Muller Acoustic Consulting)

Table 2 – Surrounding Receiver Detail

Receiver	Land Use	Approximate distance from Site
R1	Single Dwelling	65m
R2	Single Dwelling	195m
R3	Single Dwelling	245m
R4	Single Dwelling	95m
R5	Single Dwelling	325m
R6	Single Dwelling	45m
R7	Single Dwelling	130m
R8	Group Home	100m

C1	Resource Recovery Facility	65m
C2	Landscaping Material Supplies	285m
C3	Commercial/Warehouse	135m

Note: Distances measures from site boundary to nearest habitable/operational building on receiver site.

2.2.2 North East Goulburn Enterprise Corridor

The site located within the North East Goulburn Enterprise Corridor which is situated in the north east of Goulburn. Within the context of the broader enterprise corridor, the site is situated in the South Common Street Sub-Precinct. Figure 10 shows the whole North East Goulburn Enterprise Corridor as defined by HillPDA in the Goulburn Mulwaree Employment Lands Strategy.

Figure 10 – North East Goulburn Enterprise Corridor (Source: HillPDA via Employment Lands Strategy)

In accordance with the strategic structure of the employment lands strategy, the site has a zoning split between three zones namely B6 Enterprise Corridor, E3 Environmental Conservation, and RU6 Transition under the Goulburn Mulwaree Local Environmental Plan 2009 (LEP 2009). The E3 and RU6 zones are not included within the larger corridor.

2.2.3 Existing Development

Local and Regional Poultry Industry

The Goulburn Mulwaree area has an existing poultry industry however has significant room for growth into the future. The suitable dry conditions allow for optimal growing conditions whilst minimising impacts resulting from poultry farms.

Local to the city of Goulburn is the South Goulburn Hatchery which receives 50,000 eggs per day. The hatchery provides new bird stock directly to the region's poultry farms for ongoing growth. Aviagen also operate a poultry farm located south of Goulburn in the suburb of Tirrannaville.

Woodlands Ridge Poultry itself operates a poultry farm west of Goulburn consisting of six poultry sheds with the capacity to grow a range of poultry species. More generally to the Goulburn Mulwaree region contains 13 poultry farms.

The sites strategic location in Goulburn allows access to the large number of poultry farms located in the in south western Sydney and surrounding Picton.

Local and Regional Distribution and Cold storage Centres

Goulburn currently contains a distribution centre operated by Coles however no other large scale cold storage or other distribution centres are located in the region. The nearest cold storage facilities are located within the Sydney region.

Local Childcare Centres

A total of 14 childcare centres are located in Goulburn with only one located in the eastern side of Goulburn. No childcare centres are located within the North East Goulburn Enterprise Corridor.

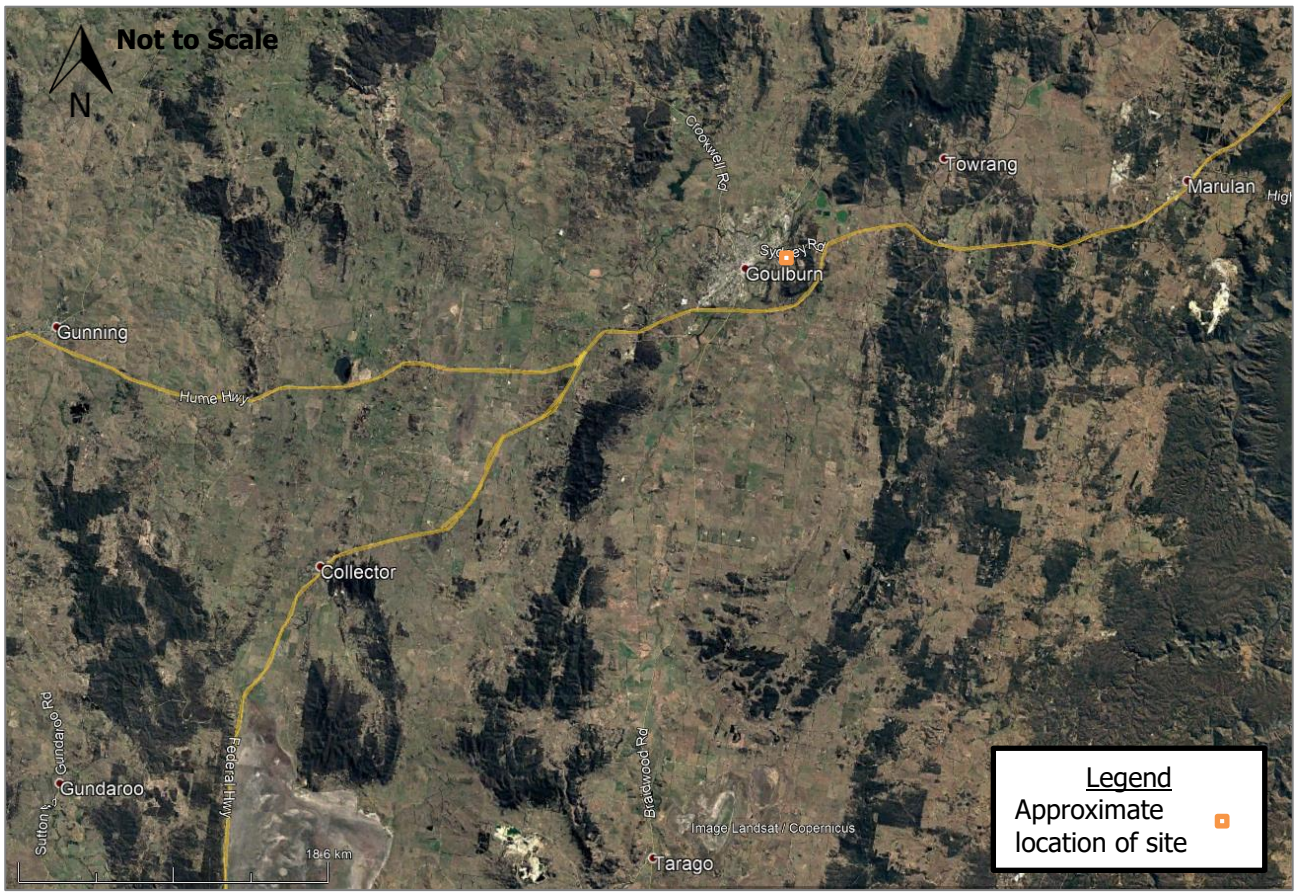
2.3 Regional Context

The site is located in the regional city of Goulburn located within the Southern Tablelands region of New South Wales. Goulburn is situated to the south west of Sydney approximately 125km from Campbelltown. Canberra is located approximately 81km to the south west of Goulburn. A number of regional towns are located surrounding Goulburn with Marulan located approximately 25km to the east, Collector located approximately 31km to the south west, and Gunning located approximately 42km to the west. Figure 11 provides an overview of the townships surrounding Goulburn.

The Hume Highway forms the main road transport route connecting Goulburn and Sydney with the main road transport route to Canberra provided via the Hume Highway followed by the Federal Highway. Goulburn Railway Station is connected to the Main Southern Railway Line and services the Southern Regional and Southern Highlands Lines. Goulburn Airport provides local air services as a general private airport. Canberra Airport provides the nearest major airport connectivity for Goulburn providing both domestic and international flights. Sydney's Kingsford Smith Airport is also situated within the regional context providing both domestic and international flights. Construction of the Western Sydney Airport will add another major international airport within the region.

The site is situated in the Mulwaree River catchment with the confluence of the Wollondilly and Mulwaree Rivers occurring within the City of Goulburn with both rivers forming part of the greater Hawkesbury River catchment.

Figure 11 – Goulburn Region Context

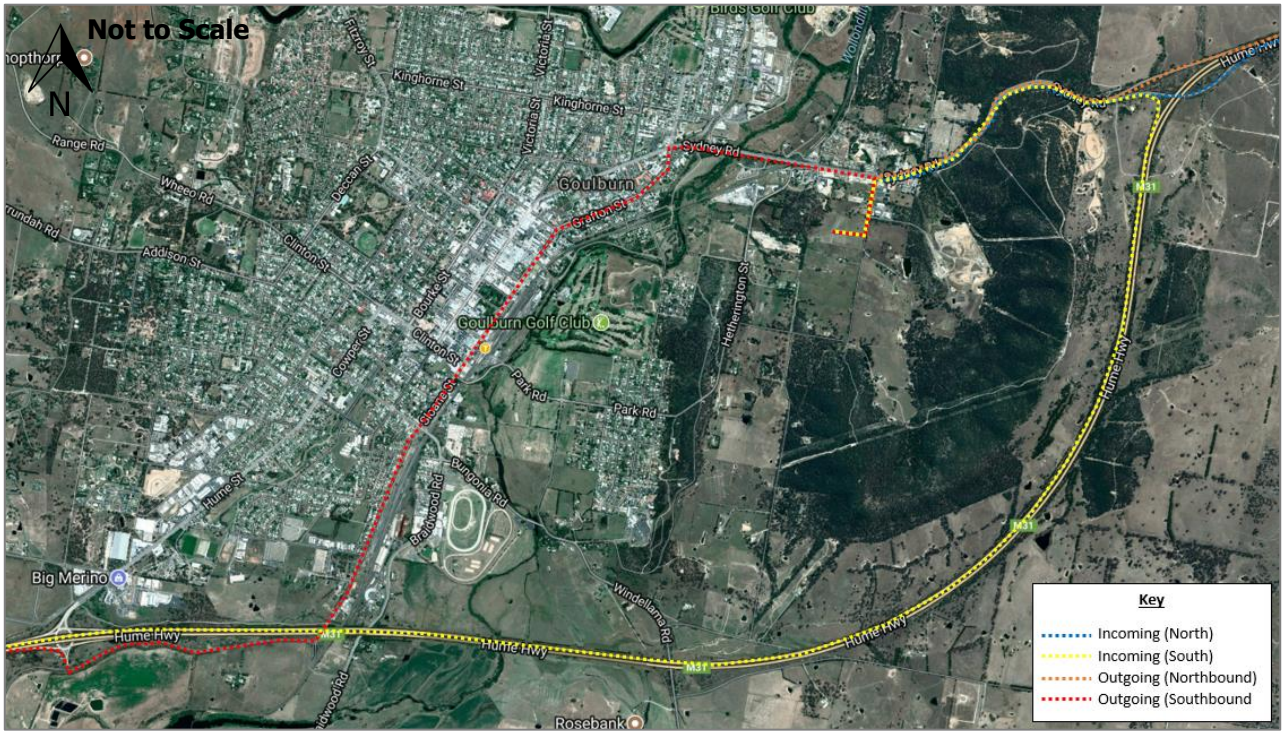


2.4 Surrounding Road Network

Access to the site from the Hume Highway is via Sydney Road which is an approved B-double route. Vehicles from the north of Goulburn destined for the site are likely to travel west along Sydney Road connecting onto Common Street and thence to the site.

Egress from the site to the Hume Highway is varied based on direction of travel. Northbound vehicles will travel from the site along Common Street connecting to Sydney Road and accessing the Hume Highway via the Sydney Road-Hume Highway onramp. Southbound vehicles will travel along Common Street connecting to Sydney road then travel west to connect onto Union Street, Reynolds Street, Grafton Street, Sloane Street, and Garroorigang Road which provides access the Hume Highway Interchange. See Figure 12 for view of the designated heavy vehicle routes.

Figure 12 – Heavy Vehicle Route



2.5 Site History

The title of the site was created in 1839. The site has changed hands 11 times since its creation and is currently owned by Mr Edouard John Wehbe and Mrs Lauren Mardi Wehbe since purchase in 2016. Mr Wehbe is the current director of Woodlands Ridge Poultry, the company which wishes to undertake this project.

An analysis of historical aerial photographs has enabled the documentation of land uses on the site since 1953 (see Table 3).

Table 3 – Historical Aerial Photograph Analysis

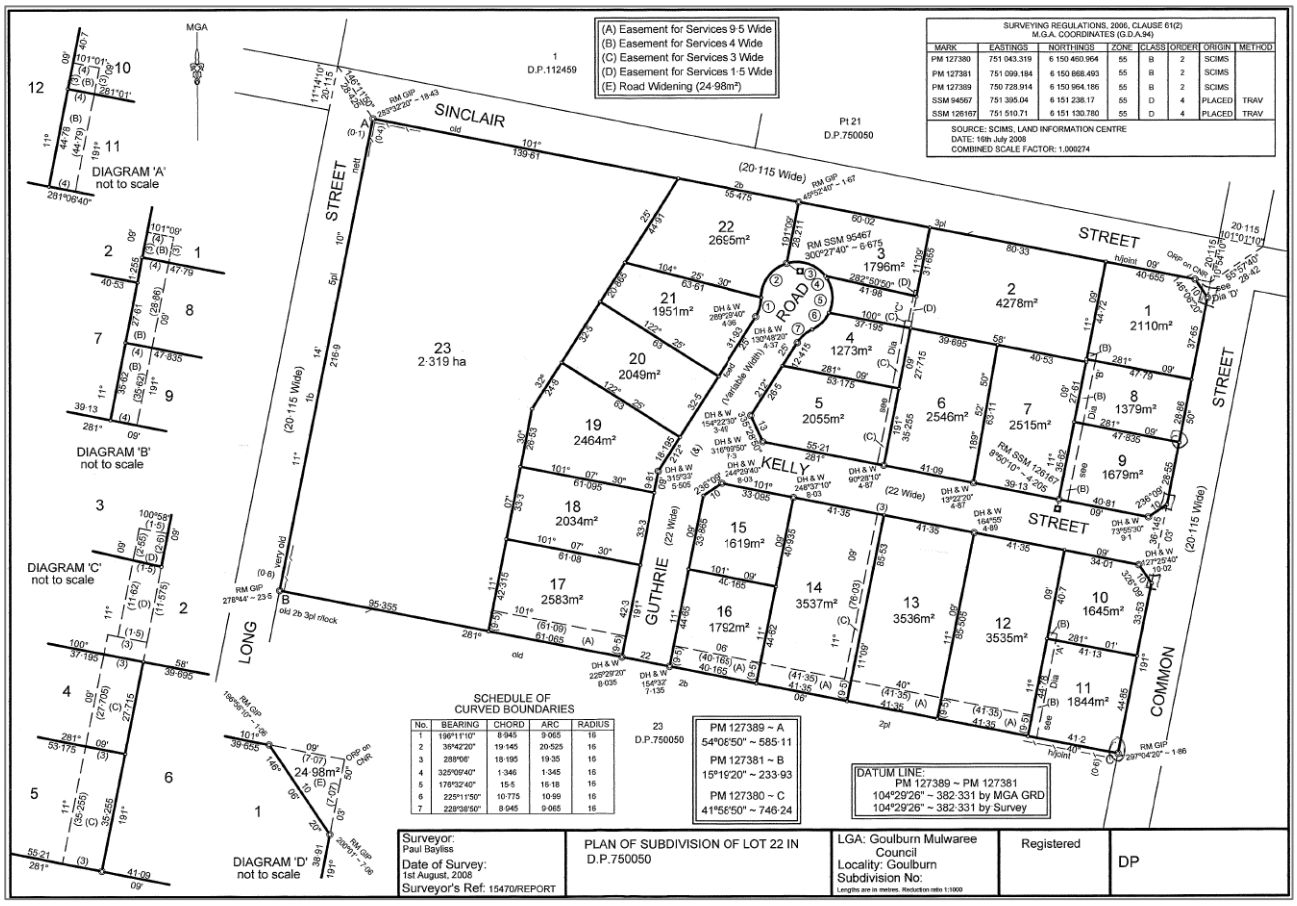
Year	State of the site and Surrounds
1953	**Site:** The site is vacant and mostly clear of trees with the exception of a small dense woodland in the north western portion. **Surrounds:** The surrounding land is predominantly vacant with the exception of two rural dwellings to the south and north and a few residential dwellings further to the north along Sydney Road. The lad to the west is covered with dense woodland.
1967	**Site:** The site remains relatively unchanged. **Surrounds:** Further residential dwellings have been constructed to the north along Sydney Road.
1975	**Site:** The site remains relatively unchanged. **Surrounds:** A residential dwelling is visible in the woodland to the west of the site.
1979	**Site:** The woodland in the north western portion appears to have been thinned. **Surrounds:** No significant change has occurred
1987	**Site:** A small dam has been constructed in the south western portion. **Surrounds:** Further commercial developments to the north along Sydney Road and a property to the south west has been cleared.
1991	**Site:** The dam construction has been completed. **Surrounds:** Further development along Sydney Road to the north of the site, and the woodland to the west of the site appeared to have been thinned. The sand and soil facility to the south west of the site appears to be in operation.
1997	**Site:** The site remains relatively unchanged.

	Surrounds: Further commercial and residential development along Sydney Road has occurred.
2006	**Site:** Site remains relatively unchanged. **Surrounds:** Further commercial and residential development along both sides of Sydney Road has occurred.
2012	**Site:** The site is in its current layout, with the two internal roads constructed and the dam extended. **Surrounds:** No significant change has occurred.
2014	**Site:** The site remains relatively unchanged. **Surrounds:** No significant change has occurred.
2018	**Site:** The site remains relatively unchanged. **Surrounds:** No significant change has occurred.

The site improvements which had occurred by 2012 are a result of an approved subdivision of the site into 23 new lots ranging in size from approximately 1,200m^2 to 4,500m^2 (refer to Figure 13). 22 of the 23 lots were approved for light industrial purposes. Lot 23 located on the western site boundary is the largest lot with an area of 2.27 hectares. The services to support the subdivision were constructed as approved including water, sewer, telecommunications and power. However, the developer never registered the subdivision. No subsequent development applications (DAs) have been lodged in relation to the site.

The development consent for the subdivision is to be surrendered to facilitate the proposed development with the constructed elements to be utilised the existing infrastructure on the site. These constructed elements include the internal roads, electrical infrastructure, reticulated water and sewer, and stormwater infrastructure.

Figure 13 – Approved but not Registered 23 Lot Subdivision of 52 Sinclair Street, Goulburn



2.6 Site Suitability

At a regional scale, Goulburn has been selected by WRP as the preferred location for the poultry processing plant given:

- it is centrally located between Sydney and Canberra with accessible road, rail and airport links;
- a suitable supply chain exists in the region which includes grain (i.e. chicken food) from Griffith and a small number of existing breeder and broiler farms in close proximity to the site;
- the region is not constrained by population growth and is considered appropriate for the establishment of a poultry hub; and
- the climatic conditions are suitable for the production of cold climate birds.

Similarly, the cold storage and distribution centre is ideally positioned at the site given its proximity to Sydney and Canberra and accessible road, rail and airport links. Demand in the region for such a centre is expected to be strong and is likely to create regional opportunities for fresh produce farming.

At a local scale, within the Goulburn local government area, the site has been selected as it provides good access to the Hume Highway, is connected by B-double haul roads, is large enough to accommodate the proposed development and can be serviced by essential public infrastructure. Importantly, the site is located an adequate distance from existing poultry hatcheries and broiler farms so that is does not present a quarantine or biosecurity risk to the industry.

A number of other locations within the region have been investigated including Ducks Lane Precinct, Rosemont Road and the redundant wastewater treatment plant at Kenmore. These alternate sites have been discounted given the proximity to existing hatcheries, incompatible land uses and the absence of essential public infrastructure.

The site layout has been designed to minimise any impacts to the E3 Environmental Management zoned land where possible and minimise impact to any sensitive vegetation on the site. Furthermore, the buffer created in the northwest corner of the site, maximises distance from the Goulburn town centre and more densely populated areas. The childcare centre has been located at the front of the site given the relatively small scale of development which is likely to be less visually obtrusive and it will serve clients who are not associated with the processing and storage operations on site.

3 Proposed Development

3.1 Proposed Mixed Use Development Overview

The proposed development consists of the construction and use of a range of operations as part of a mixed use development. The project comprises the following components:

- Cold storage and distribution centre;
- Poultry processing plant;
- Childcare centre; and
- Other associated works including earthworks and infrastructure.

With the exception of associated infrastructure, each of these components are considered independent land uses from each other which do not inextricably require the other. However, all uses are proposed under a single development application and are considered to be a mixed use development. The associated infrastructure such as car parking, office buildings and amenities are ancillary to the entire project.

The facility will ultimately operate 24 hours per day, 7 days per week, however initially it will operate at lower production levels until full production is achieved.

The capital investment value (CIV) for the project is estimated at $83,027,296 and the project is projected to employ a total of 264 people across the site. Based on an economic analysis the construction phase of the project has been calculated to generate 88 direct jobs. The proposed layout of the proposed development is shown in Figure 10 and Figure 11 along with Appendix A.

The four major components namely, the cold storage and distribution centre, poultry processing plant, childcare centre and other associated infrastructure, are described in the following pages.

3.2 Demolition and Construction

Demolition of structures on the site is not required as all the existing improvements to the site are infrastructure related and all this infrastructure has been incorporated into the design. Only minor elements will be removed from the site such as some existing fencing and the median strips on the existing internal roads.

Construction works include the following:

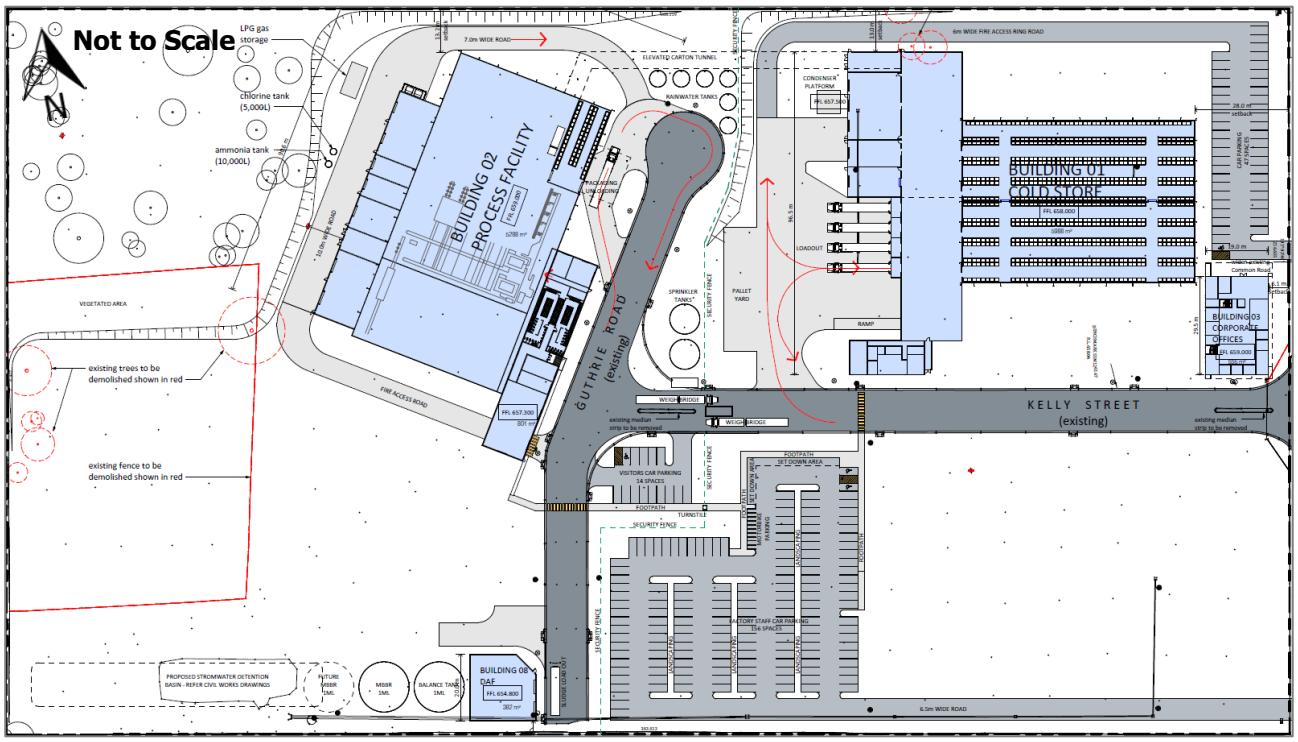
- Poultry Processing Facility;
- Cold Storage and Distribution Centre;
- Truck Maintenance Facility;
- By-product Processing Facility;
- Live Bird Shed;
- Site Office;
- Wastewater Treatment Plant; and
- Childcare Centre.

Infrastructure including roads, car parking areas and weighbridges are shown in the architectural drawings (see Appendix A).

The development is to be constructed in two stages represented in Figure 14 and Figure 15 in blue for Stage 1 and yellow for Stage 2.

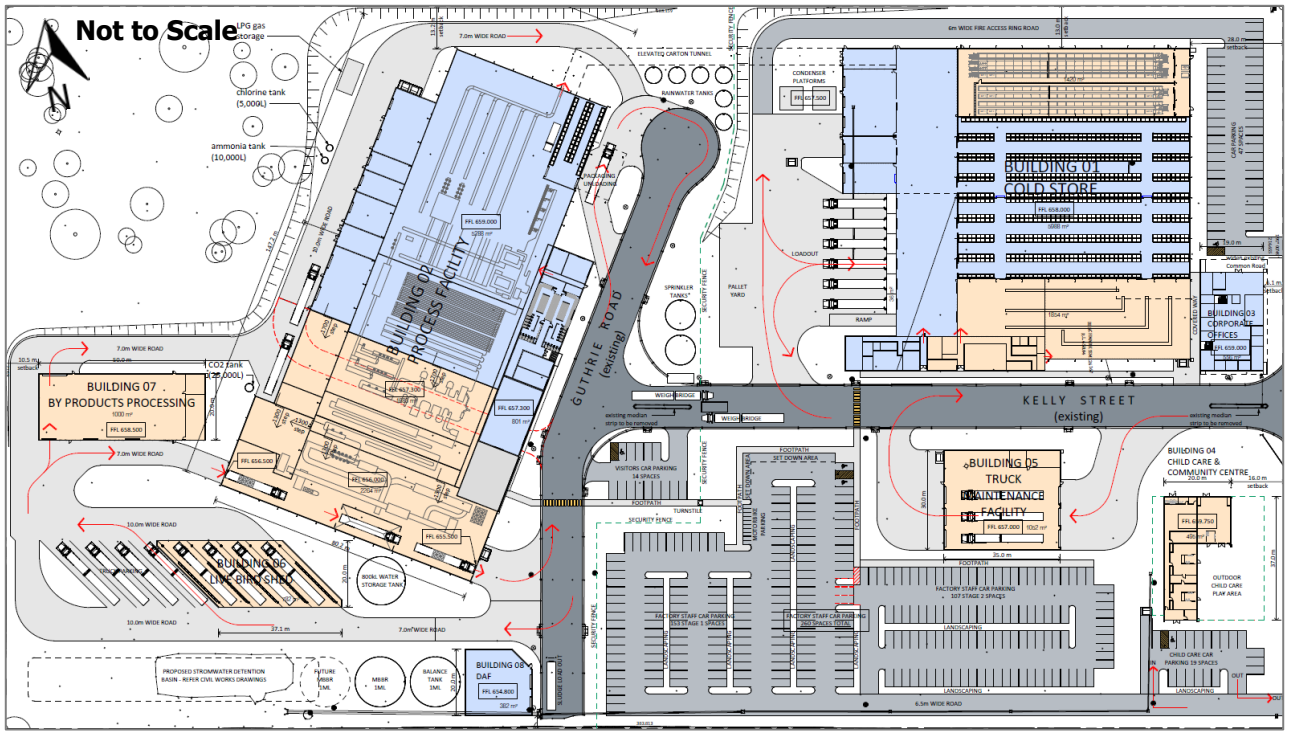
Stage 1 represents the construction of the meat processing component of the poultry processing facility, pallet components and four vehicle bays of the cold storage facility, office, and wastewater treatment plant. See Figure 10 or Appendix A for the proposed site configuration for Stage 1.

Figure 14 – Proposed Stage 1 Site Configuration



Stage 2 will comprise the bird reception and kill plant for the poultry processing building, the packing and ASRS freezers of the cold storage facility, the by-products processing facility, the live bird shed, truck maintenance facility, and the childcare centre. See Figure 15 or Appendix A for the proposed final site configuration including both Stage 1 and Stage 2 components.

Figure 15 – Proposed Site Configuration



Along with the required and existing infrastructure such as internal roadways, the proposed development will cover an area of 53,000m^2 with the remaining portion of the site being existing vegetated areas, landscaping areas, and wastewater treatment elements.

3.2.1 Construction Phases

A number of phases will be required during construction to facilitate the proposed development.

Preliminary Works

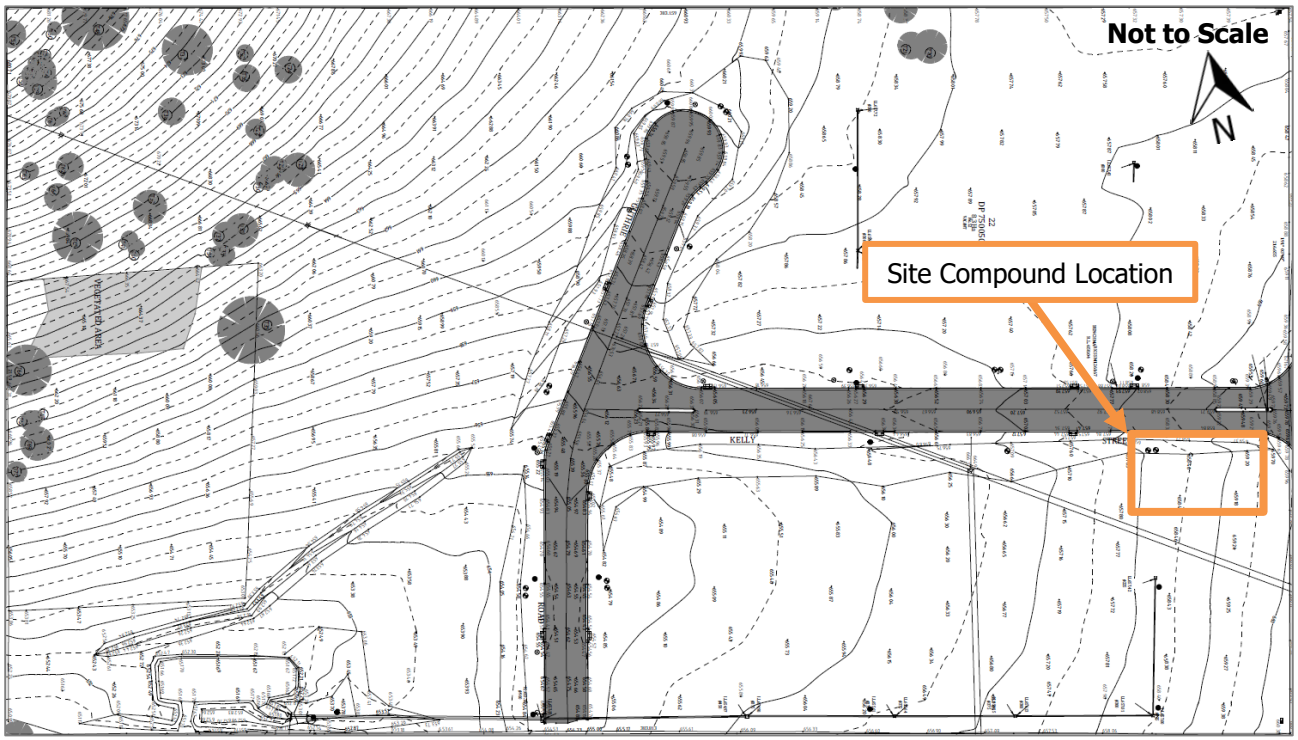
Enabling works

The first phase consists of preparation for the commencement of site works.

The site has existing power, water, telecommunications and sewer connections provided during the initial subdivision works. Controls for sediment outlined within the erosion and sediment control plans at Appendix B will also need to be established preceding any works on the site including crossover grates, sediment fencing, and swales etc.

Erection of site office, worker amenities, safety features such as fencing and signage will occur to establish an operations headquarters to govern the construction works. The construction compound is likely to be located on the southern corner of the intersection with Common Street however confirmation of location will be notated within the construction management plan (see Figure 16). This location is considered to be the most appropriate as no construction works overlap with the area.

Figure 16 – Proposed Site Compound Location



Earthworks

Earthworks will consist of establishing site levels to facilitate construction on the site. This phase is essential for the forming of the development footprint. The earthworks will be undertaken for the whole site in preparation of their construction.

Specifics surrounding the proposed earthworks have been discussed in Section 3.3 and includes details on the extent of the earthworks, vehicles required, and management measures to control impacts. Further details are contained within the civil plans provided at Appendix B.

Stage 1 Works

Internal Road Works, Car Parking, and Stormwater Management

The development will utilise the existing internal roads constructed as part of the previous subdivision works. Further internal roadways will be required to support the movement of vehicles throughout the site. Car parking is another component of the development constructed at this phase. The layout of the proposed internal roads has been provided within the site plans at Appendix A. Throughout these works, the relevant portions of the stormwater management system will be constructed in accordance with the Civil Plans provided at Appendix B.

The first part of this phase involves the formation of the two ring roads which encircle the poultry processing facility and cold storage facility. These roadways will enable vehicles to move around the buildings without the express need to venture onto unsealed areas. The ring road around the poultry processing building along with the heavy vehicle forecourt for the cold storage facility will be formed out of concrete to support heavy vehicle loads. The fire road extension, car park, and light vehicle crossover which form the remainder of the cold storage facility will be bitumen pavement as loads will be far lower.

The second phase will include the formation of three elements; the visitor car park, wastewater treatment building truck turn bay, and factory worker car park with light vehicle crossover. All three parts are clearly separated from the construction of the poultry processing and cold storage buildings and can occur alongside their construction.

Erection of Stage 1 Buildings

With appropriate access to the construction area provided, works on the Stage 1 buildings can commence with the establishment of the buildings concrete slab along with associated drainage and sewer infrastructure. The construction will result in the erection of three buildings including the first stages of the poultry processing building, cold storage building, and the corporate office building.

The newly constructed car parking areas formed in the previous phase will be utilised for equipment and material storage and construction worker parking.

Building Fitout and Equipment Installation

Once the three Stage 1 buildings have been erected the internal works will commence. The internal works for the poultry processing and cold storage buildings will entail equipment installation with fitout mainly to facilitate employee amenities and minor office spaces. The corporate office will only include office and amenity fitout works.

External works associated for this phase includes the installation of chemical storage tanks, external condenser units, installation of weighbridges, erection of security booth, and the construction of the conveyor between the poultry processing and cold storage buildings. Rainwater tanks will be installed external to the Stage 2 buildings.

Post Construction Works

Once the construction works have been completed finishing works will commence. These finishing works will include the proposed landscaping related to Stage 1 works along with line marking, safety signage, pedestrian pathways, and lighting.

Stage 2 Works

The Stage 2 works will include extensions to the poultry processing and cold storage buildings along with the construction of the truck maintenance building and childcare building.

Internal Road Works, Car Parking, and Stormwater Management

The Stage 2 of this phase will utilise the existing internal roads with further additional internal roadways added to support the new components of the development. This includes additional factory worker car park, new childcare parking, road loop connecting to the abattoir to the existing roadways along with integrated hardstand area for the heavy vehicle parking area. The remaining portions of the stormwater network which will support the new roadways and buildings are to be constructed in accordance with the Civil Plans at Appendix B.

Similar to the Stage 1 phase, this Stage 2 phase will form the roadways first followed by the car parks second. No new connections to Common Street are required with all connections being undertaken in Stage 1.

Erection of Stage 2 Buildings

Once the internal roadways, car parks, and stormwater have been formed, the Stage 2 extensions and buildings will commence.

The addition of the abattoir to the poultry processing building will occur with minimal disruption to the operation with works being largely segregated to the southern portion of the building supported with the newly constructed roadways.

The expansion to the cold storage building will similarly cause minimal disruption with the exception of the two new loading bays which may impact heavy vehicle traffic. Works for the two additional loading bays will only involve the dock portions which will has a relatively short construction time. The new packing and chiller extensions are largely segregated to the operational components and will be managed through a construction management plan.

The location of the by-products, truck maintenance, and childcare buildings are largely segregated from the other and will have newly constructed car parking areas dedicated to them during the works for equipment and material storage and construction worker parking.

Building Fitout and Equipment Installation

With all Stage 2 construction works completed, the internal works will commence. Equipment for the abattoir and the cold storage extensions will be installed along with fitout of rooms such as employee amenities. Rainwater tanks will be installed external to the Stage 2 buildings.

Post Construction Works

Once the construction works have been completed finishing works will commence. These finishing works will include the proposed landscaping related to Stage 2 works along with line marking, safety signage, pedestrian pathways, and lighting.

3.2.2 Materials

Presenting to the Common Street frontage the proposed childcare centre and corporate office will utilise a wide range of materials in conjunction with the proposed landscaping to present an attractive presentation to Common Street. The large scale industrial buildings for the poultry processing facility, cold storage centre, and other structures are generally simply designed warehouse type buildings utilising a low range of materials to minimise waste and maximise recycling of materials. Table 4 presents the materials proposed to be utilised for each of the buildings on the site.

Table 4 – Proposed Building Materials

Building Component	Material
Poultry Processing Facility	
Slabs	Concrete slab on ground with applied resin floor finish
External walls	Colorbond 'Wind Spray' to PIR insulated panel walls. Hot dipped galvanised columns and bracing; and Tilt up panel concrete with applied paint finish to amenities block and plant rooms
Internal walls	Colorbond 'Surf Mist' PIR insulated panel walls
Ceilings	Colorbond 'Surf Mist' PIR insulated panel walls
Roof	Zincalume metal roofing – Kliplok or similar
Fascia	Colorbond 'Surf Mist' metal fascia; and Hardies Exotec building façade feature cladding – white
Cold Storage and Distribution Centre	
Slabs	Concrete slab on ground with applied resin floor finish
External walls	Colorbond 'Wind Spray' to PIR insulated panel walls. Hot dipped galvanised columns and bracing; and Tilt up panel concrete with applied paint finish to amenities block and plant rooms
Internal walls	Colorbond 'Surf Mist' PIR insulated panel walls
Ceilings	Colorbond 'Surf Mist' PIR insulated panel walls
Roof	Zincalume metal roofing – Kliplok or similar
Fascia	Colorbond 'Surf Mist' metal fascia; and Hardies Exotec building façade feature cladding – white
Childcare Centre	
Slabs	Concrete slab on ground with office grade tiles and carpet
External walls	Tilt up panel concrete with applied paint finish
Ceilings	Mineral fibre ceiling tiles
Roof	Zincalume metal roofing – Kliplok or similar
Fascia	Hardies Exotec building façade feature cladding – white
Rendering Plant	
Structure	Tilt up concrete wall panels
Truck Maintenance Facility	
Structure	As for processing facility slabs, external walls, roof and facia but Colorbond Spandek 'Wind Spray" wall cladding in lieu of PIR walls
Corporate Office	
Slabs	Concrete slab on ground with office grade tiles and carpet
External walls	Tilt up panel concrete with applied paint finish
Ceilings	Mineral fibre ceiling tiles
Roof	Zincalume metal roofing – Kliplok or similar
Fascia	Hardies Exotec building façade feature cladding – white

3.2.3 Construction Plant and Equipment

A range of plant and equipment will be required to undertake the construction of the site throughout the various phases and stages of the development. The following provides an indicative list of plant and equipment likely to be required for the proposed construction works:

- Backhoe excavator;
- Bulldozer;
- Cherry pickers;
- Concrete agitators (or similar);
- Concrete Pump;
- Concrete saw;
- Excavators;
- Mobile crane;
- Static and vibratory rollers, and high energy impact compaction;
- Scraper open-bowl;
- Water truck; and
- Forklift.

3.2.4 Construction Waste and Consumption

Waste generated during construction has been estimated based on amounts for similar buildings, see Table 5. Due to the nature of the proposed buildings on the site the range of materials is generally limited to materials which minimise waste generated and maximise resource recovery rates.

Table 5 – Estimated Construction Waste Generation

Waste Type	Waste Classification	Estimated Resource Recovery Rate	Reuse (t)	Recycling (t)	Disposal (t)
Concrete	General solid (non-putrescible)	100%	-	<15	-
Timber	General solid (non-putrescible)	100%	-	<2	-
Plasterboard	General solid (non-putrescible)	95%	-	<2	<1
Metal	General solid (non-putrescible)	100%	-	<19	-
Sand/Soil	General solid (non-putrescible)	100%	22,156	9,179	-
Other	Putrescible and Non-Putrescible General Solid Waste	50%	-	<2	<2
Total	-	-	22,156	9,219	3

Note: Figures rounded up to higher round number

Due to the large building footprints proposed and the topography of the site extensive earthworks are required to facilitate the proposed development. As part of the earthworks, much of the soil will be reused on site with the remainder to be delivered to waste management facilities for use on other sites.

All waste unable to be reused on site will be delivered to appropriately licenced waste management facilities for ongoing management.

Electricity use during construction is expected to be minimal as the majority of works will be undertaken through diesel generator or by mobile plant.

3.3 Earthworks

Due to the topography of the site, the requirements for the site's infrastructure and the large footprint required for the buildings, the site will require significant earthworks to facilitate the development. The earthworks will reuse soil on the site and will not require any importation of fill material from outside of the site. As a result, the net amount of material required to be removed from the site is 13,309.58m^3. Retaining walls have predominantly been utilised around the western portion of the site with the aim of avoid impacts on the tree community in the north western section of the site. Final levels have been provided within both the Architectural Plans provided at Appendix A and the Civil Plans provided in Appendix B.

To undertake the works, heavy vehicles will be utilised to shift material on the site to form a level site suitable for the proposed development. The earthworks will be undertaken utilising mobile equipment including excavators, bulldozers, and scrapers. The excess material will be stockpiled in designated areas with appropriate dust, erosion and sediment mitigation measures in place.

All works will be undertaken with appropriate sediment and erosion control measures as required by the sediment and erosion control plan provided with the Civil Plans in Appendix B. The following sediment and erosion control measures will be implemented for the earthworks:

- Priority shall be given to the prevention, or at least the minimisation, of soil erosion, rather than the trapping of displaced sediment. such a clause shall not reduce the responsibility to apply and maintain, at all times, all necessary measures;
- Measures used to control wind erosion shall be appropriate for the location and prevent soil erosion at all times, including working hours, out of hours, weekends, public holidays, and during any other shutdown periods;
- The application of liquid or chemical-based dust suppression measures shall ensure that sediment-laden runoff resulting from such measures does not create a traffic or environmental hazard;
- All cut and fill earth batters less than 3m in elevation shall be topsoiled, and grass seeded/ hydromulched within 10 days of completion of grading in consultation with Council;
- Once cut/fill operations have been finalised in a section, all disturbed areas that are not being worked on shall be stabilised in accordance with timelines in the blue book;
- All reasonable and practicable measures shall be taken to prevent, or at least minimise, the release of sediment from the site;
- Suitable all-weather maintenance access shall be provided to all sediment control devices;
- Sediment control devices, other than sediment basins, shall be de-silted and made fully operational as soon as reasonable and practicable after a sediment-producing event, whether natural or artificial, if the device's sediment retention capacity falls below 75% of its design retention capacity;
- All erosion and sediment control measures, including drainage control measures, shall be maintained in proper working order at all times during their operational lives;
- Washing/flushing of sealed roadways shall only occur where sweeping has failed to remove sufficient sediment and there is a compelling need to remove the remaining sediment (e.g. for safety reasons). In such circumstances, all reasonable and practicable sediment control measures shall be used to prevent, or at least minimise, the release of sediment into receiving waters. only those measures that will not cause safety and property flooding issues shall be employed. sediment removed from roadways shall be disposed of in a lawful manner that does not cause ongoing soil erosion or environmental harm; and
- Sediment removed from sediment traps and places of sediment deposition shall be disposed of in a lawful manner that does not cause ongoing soil erosion or environmental harm.

Further detail including location of entries, sediment control fencing, and swales etc are noted within the sediment and erosion control plan provided with the Civil Plans in Appendix B.

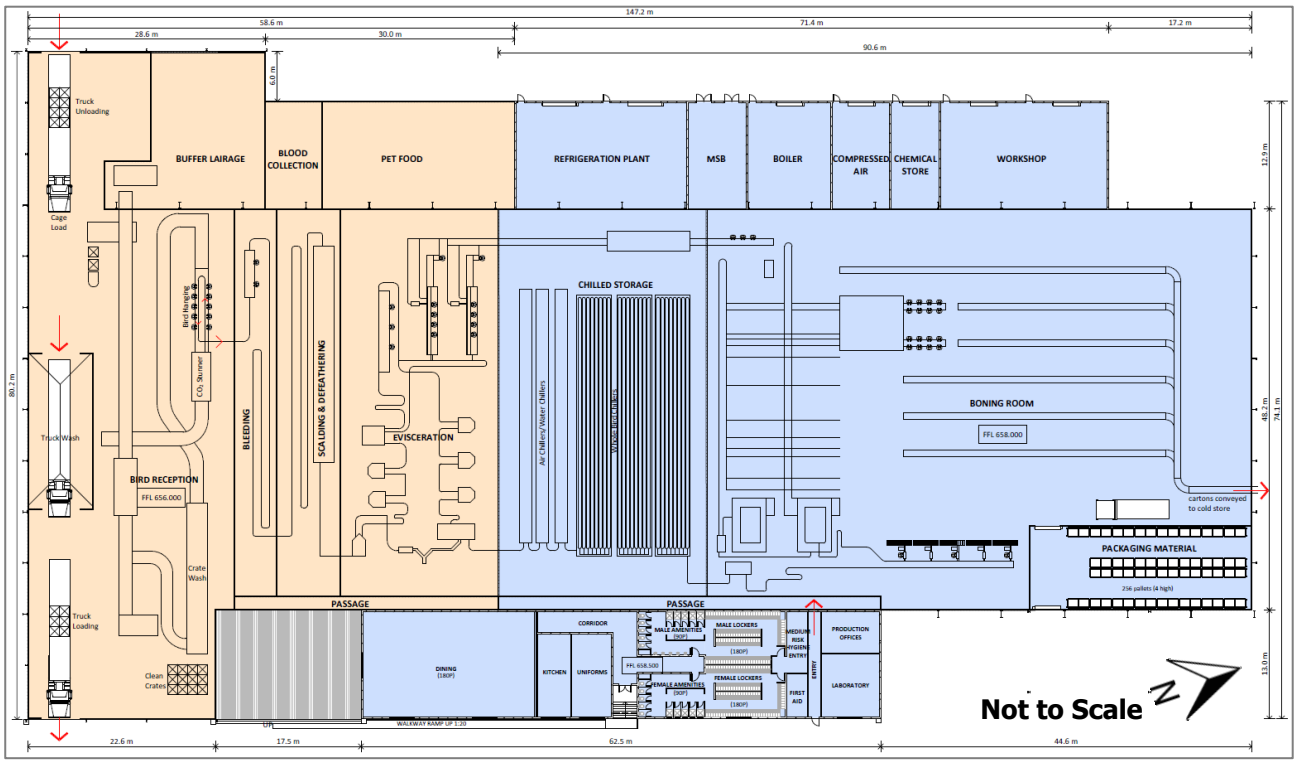
3.4 Poultry Processing Facility

The poultry processing plant is proposed to be located in the western portion of the site and is planned to include the processing plant, office, amenities, and truck loading and unloading bay. Poultry, including chickens, turkey, geese and quail, are proposed to be brought to the site from broiler farms for slaughter, processing and packaging.

The facility has been designed to be constructed in two parts with Stage 1 including only the portioning and deboning operation with ancillary components such as packaging, staff amenities, and workshop. Stage 2 will include the abattoir components such as bird reception and killing plant along with the bleeding, dressing and evisceration plant.

Stage 1 occupies an area of 5,966m^2 at 107.1m long and 74.1m wide. Stage 2 will have an area of 4,372m^2 at 58.6m in length and 80.2m in width. The area of the building will encompass a total of 10,338m^2 and will have a maximum height from the finished floor level of 13.2m. See Figure 17 and Appendix A for detailed plans of the proposed poultry processing facility.

Figure 17 – Proposed Poultry Processing Facility



Stage 1 includes only meat processing and consists of deliveries of slaughtered broilers from offsite taken to the delivery bay on the north eastern corner of the facility. Here the slaughtered broilers will be portioned, de-boned, and packaged for temporary refrigerated storage and final dispatch.

Stage 2 will add the abattoir component which will deliver slaughtered broilers to the meat processing portion established under Stage 1. The abattoir is designed for the processing of 12,000 poultry per hour with a single shift processing 500,000 broilers per week. When fully operation and running two shifts per day 1,000,000 broilers per week will be processed. Although the primary product is portioned chickens, turkeys will also be processed, but will require modification to processing lines. For the purposes of calculating quantum of finished product, by-products and waste, the throughput is based on an average of 2kg live bird weight.

The abattoir will consist of receiving and holding live birds, a kill process, evisceration, chilling, portioning, packaging, refrigerated storage and distribution. Associated facilities include:

- Live bird shed;
- A wastewater treatment plant;
- A rendering (by-products processing) plant;
- Pet food preparation and storage;
- Services plantroom;
- Workshop;
- Amenities and production offices; and
- Staff carparking.

The abattoir will be linked by an overhead conveyor tunnel which will convey finished goods (in cartons) to the cold storage facility.

A process flow diagram with an accompanying overlay have been provided at Figure 18 and Figure 19 illustrates the processing arrangement for the poultry.

Figure 18 – Poultry Process

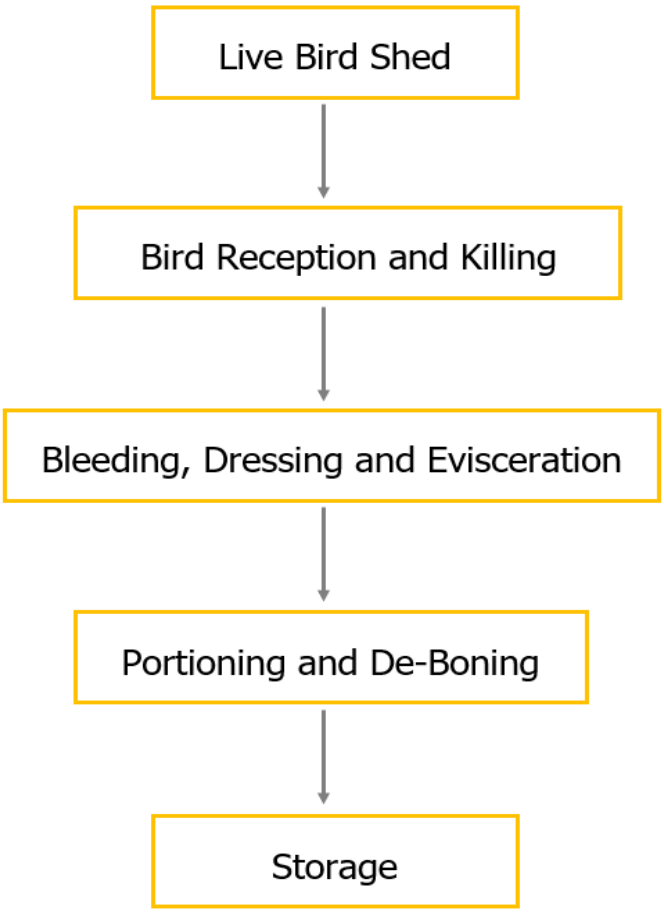
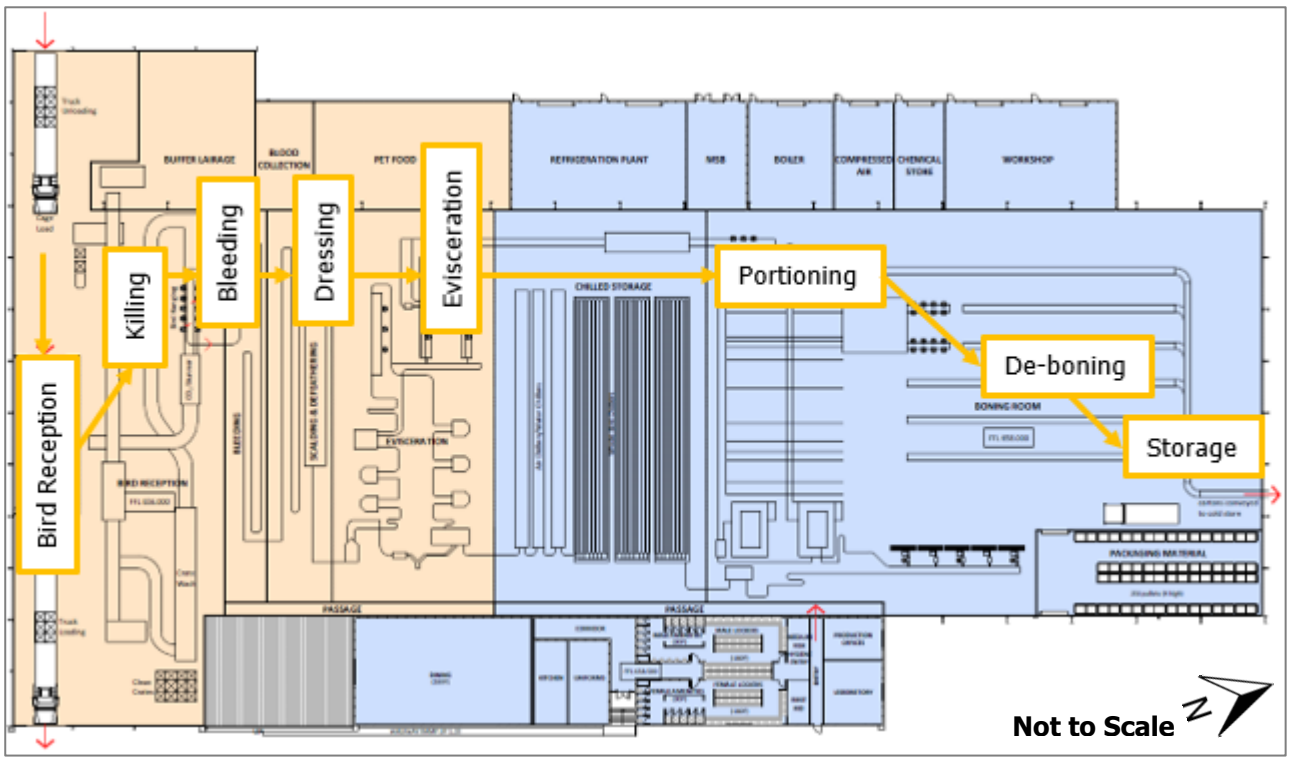


Figure 19 – Poultry Processing Building with Poultry Processing Overlayed



3.4.1 Stage 1 – Meat Processing Operations

Stage 1 will involve the receival of killed poultry from an abattoir for processing into various meat cuts. The received poultry will be sourced from many of the abattoirs located within the Sydney region which do not have meat processing capability. Trucks will arrive on the site and proceed to the unloading bay at the Stage 1 processing building. Once unpacked, the meat proceeds to the portioning and de-boning operations for processing.

Portioning and De-boning

After cleaning, the birds enter a 'clean' zone for secondary processing where either whole birds are prepared for packing, or the birds are portioned into thighs, breasts, legs, wings, etc. The meat is trimmed, weighed and wrapped. The meat is blast chilled or frozen prior to packing into cartons. The cartons are conveyed via an elevated conveyor tunnel to the cold store. Based on 12,000 birds x 1kg, 12 ton of finished product is produced per hour, or 100 tonnes/day. This equates to approximately 6,000 cartons/day or 180 pallets/day of finished product other than recovered offal.

Storage

Adjacent to the packing area, an ambient packaging store and a carton makeup room is proposed. The packaging material is delivered on (side unloaded) semi-trailers. A covered awning is provided for the forklift to unload pallets of packaging material. Truck movements are approximately one per day.

During Stage 1 operations, prior to the construction of the petfood processing room (Stage 2), a refrigerated room is provided for offal that is suitable for pet food. The offal is frozen and packaged for delivery to off-site processing facilities. Pet food accounts for 10% of the whole bird equating to 2.4 tonnes per hour. The pet food is frozen in cartons, and equates to approximately four pallets per hour, or 20 tonnes/day. Pet food offal is collected by medium rigid vehicles at approximately two per day.

3.4.2 Stage 2 – Abattoir Operation

With the construction of the abattoir component, the receival of live birds may commence. Birds will primarily be sourced from farms located in the Western Sydney, Wollondilly area, and from within the Goulburn Mulwaree area. Trucks will proceed to the bird reception area for unloading and cleaning prior to egress from the site. The birds then proceed into the abattoir operation.

Bird Reception and Killing

The birds enter the main facility in crates on the back of trailers. The poultry is removed from the crates and placed on the production line where they are humanely stunned prior to killing. The crates are then cleaned ready for reuse.

Bleeding, dressing and Evisceration

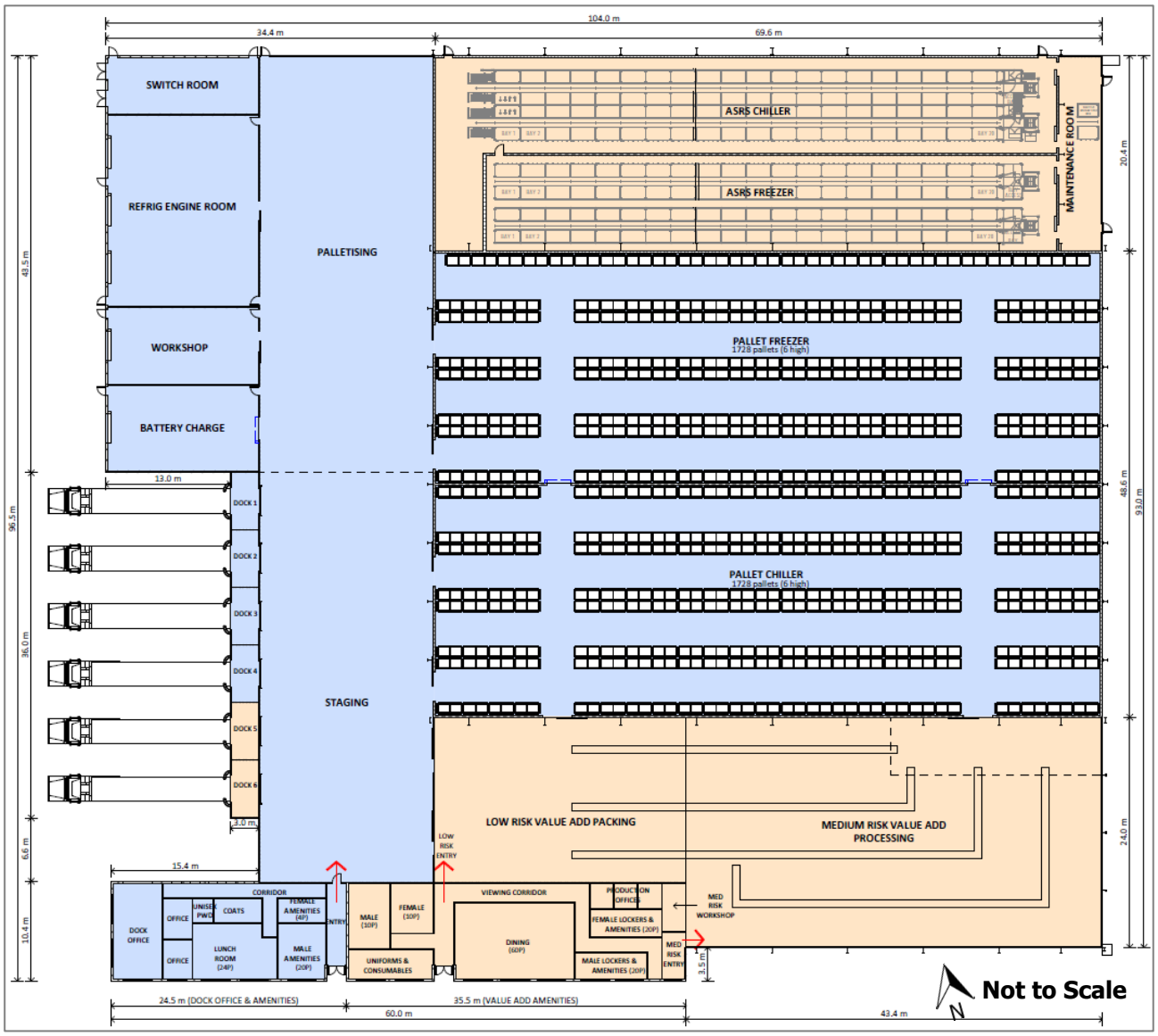
After killing, the birds are bled with blood collected in storage tanks for rendering and off-site processing. The birds go through a scalding process where feathers are removed. The feathers are also stored for processing at the rendering plant. Heads and internal organs are removed and conveyed for further rendering, whilst parts are removed for pet food storage. The birds are then air or water chilled prior to portioning. There is approximately 50% of the bird (or 1kg/bird) not included within meat for human consumption with 10% directed to be pet food and 40% that is either waste or a by-product.

3.5 Cold Storage and Distribution Centre

The cold storage and distribution centre is proposed to be located in the north eastern corner of the site and is planned to include a cold storage area, staff and visitor car parking totaling 47 car park spaces, amenities, and truck loading/unloading bays.

Stage 1 components include the construction of four delivery bays, palletizing section, pallet freezer and chiller, amenities, and supporting enclosed infrastructure and will form a building of 5,864m^2 in area, 96.5m wide, 104m long, and 18.1m high. The building is to be expanded in stage 2 with an additional 3,236m^2 of area. The Stage 2 works will include the addition ASRS freezer, 2 additional loading bays, packing bays, and further amenities. The stage 2 extension will only increase the width of the eastern side of the building from 48.6m to 93m wide which is within the bounds of the stage 1 works. The final building is proposed to be 96.5m wide, 104m long, and 18.1m high for a total building area of 9,101m^2. The proposed cold storage building is demonstrated in Figure 20 with detailed plans provided at Appendix A.

Figure 20 – Proposed Cold Storage and Distribution Centre



The cold storage area is intended to be leased to a number of tenants for the storage of refrigerated goods, including poultry from the poultry processing operation, for distribution to retailers and wholesalers. There will be no retail sales from the cold storage and distribution centre.

The cold storage will refrigerate finished product from the poultry processor and for third party users. The cold store will consist of the following functions:

- Carton conveyor tunnel – 6,000 cartons/day;
- Carton chilled storage – 22,000 cartons;
- Frozen pallet storage – 1,728 pallets six high;
- ASRS freezer and chiller space;

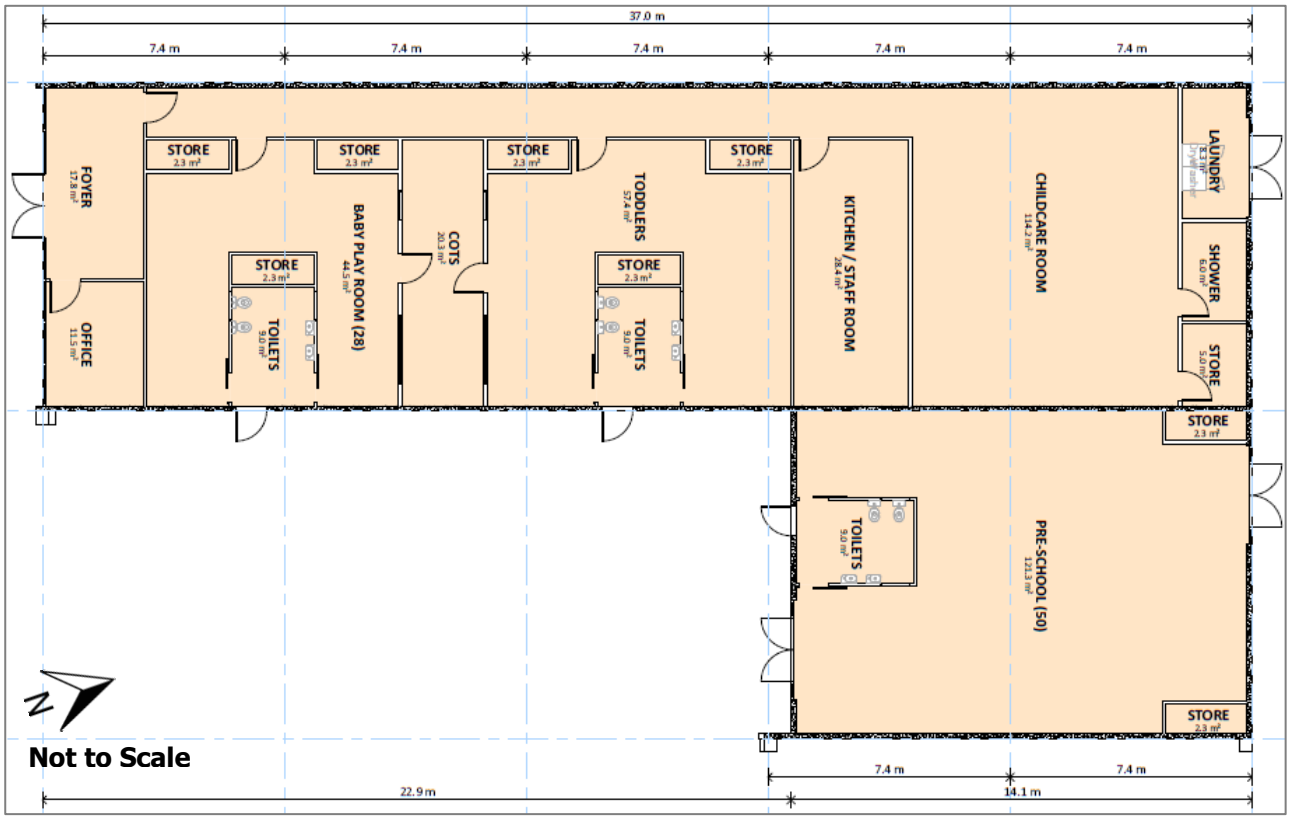
- Carton frozen storage – 22,000 cartons;
- Chilled pallet storage – 1,728 pallets six high;
- Palletising; and
- Value add processing.

The throughput from the process facility will be 180 pallets per day. An allowance of another 180 pallets/day incoming and outgoing for third party users is also estimated.

3.6 Childcare Centre

A childcare centre is proposed in the south east corner of the site and is L shaped being 37m long and 20m wide with a height of 6.9m. It is intended primarily to accommodate children of staff working at the site, however, will accept children from families not associated with this project. The childcare centre is 479.6m^2 and is capable of accommodating 68 children along with an outdoor playground and is proposed to provide 20 car parking spaces for childcare staff and visitors. See Figure 21 or Appendix A for further detail.

Figure 21 – Proposed By-products Processing Building



3.7 Other Ancillary Elements

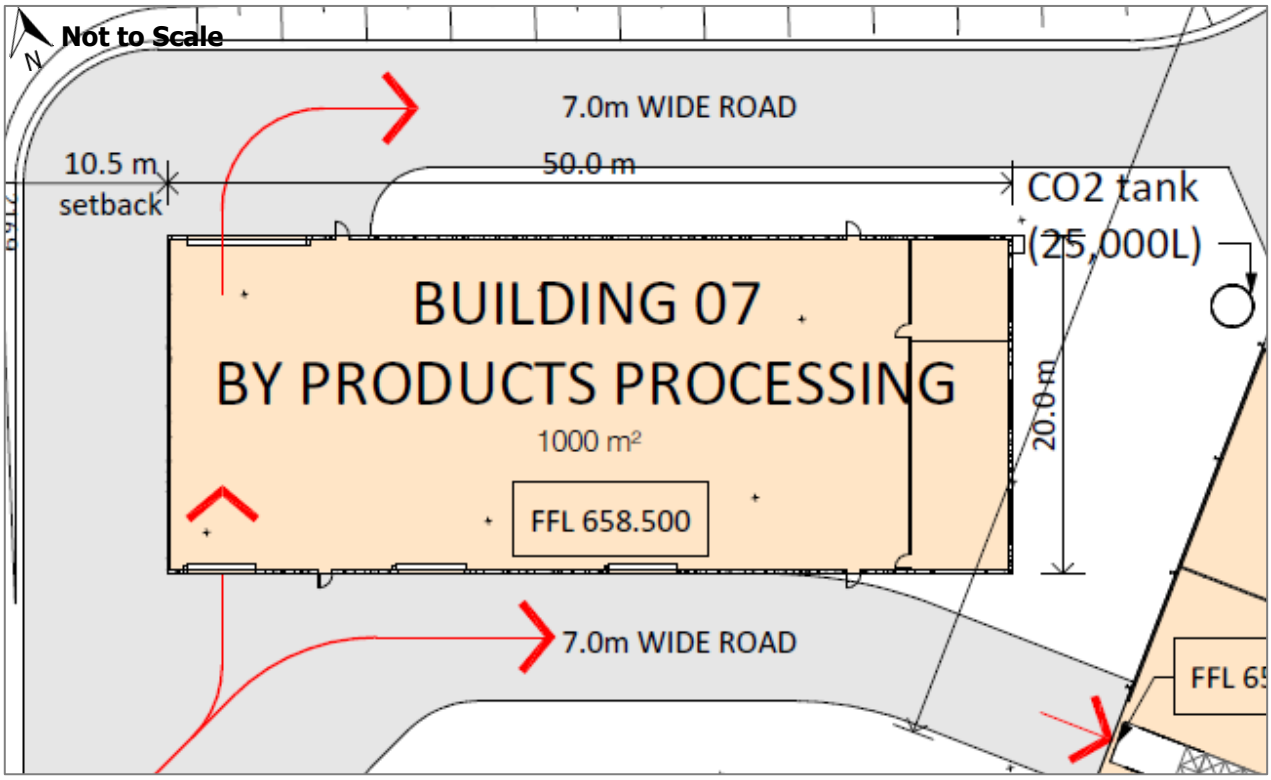
Other infrastructure proposed in association with the proposal include:

- By-product Processing building;
- Live bird Holding Shed including four covered truck trailer parking spaces for temporary holding of broilers;
- Wastewater Treatment building supported by wastewater tanks;
- Visitor and staff car parking (approximately 341 car parking spaces);
- Truck maintenance and workshop area;
- Office buildings and amenities;
- Internal roads and services;
- Walkways and awnings; and
- Two Weighbridges with weighbridge office.

3.7.1 By-product Processing

The purpose of the by-product processing facility is to minimise waste generated by the poultry processing facility through re-use in additional products. The proposed by-product processing facility is 50m long, 20m wide, and 11.1m high with an area of 1,000m^2. Figure 22 illustrates the proposed by-products building with further detail provided within the architectural plans at Appendix A.

Figure 22 – Proposed By-products Processing Building



Broiler waste is to be piped to the by-product facility where the waste will be processed into various products.

Waste streams include:

- Feather processing;
- Carcase processing (bones and meat trimmings); and
- Blood processing.

The material is generally cooked and dried and collected for use as ingredients for fertilisers and animal food.

From an average of 1kg of waste per broiler the by-product processing facility will account for 40% of the total broiler weight or 800g of waste per broiler consisting of the following:

- 6% or 120g of blood;
- 12% or 240g of inedible gut waste;
- 13% or 260g of bone waste;
- 6% or 120g of feathers; and
- 3% or 60g of waste.

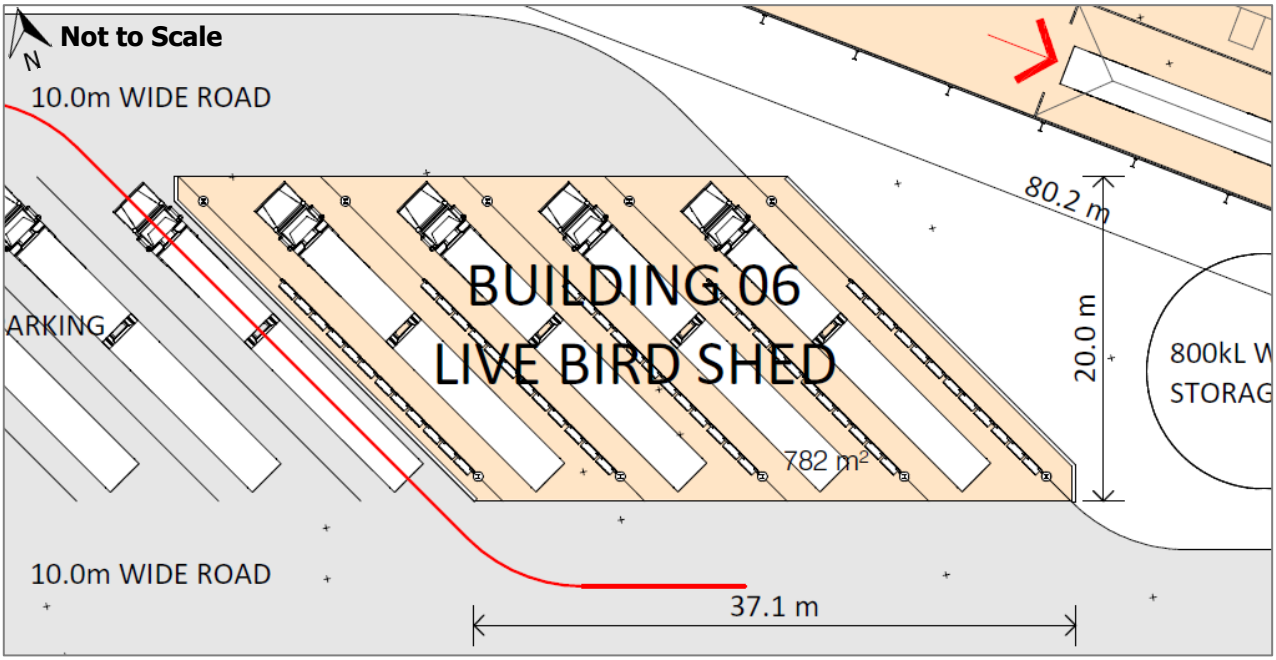
The by-product processing facility is key in minimising waste generated on the site, accounting for a significant reduction in waste per broiler.

3.7.2 Live Bird Shed

The live bird shed forms part of the onsite heavy vehicle parking and consists of an open shed encompassing a total of 4 of the truck parking bays and aims to provide cooling via axial fans for poultry delivery trucks which may park in the space during unforeseen plant stoppages (see Figure 23). The structure is rhomboid in shape and measures 37.1m long by 20m wide and stands 7.1m high with an area of 782m^2.

Poultry is trucked in crates to the site from broiler farms. Under normal operating conditions, the trucks are sent directly to the bird reception area for unloading. Under circumstances where there is a disruption to normal operating conditions, and trucks cannot be received at the 'bird reception', the truck trailers of broilers will be temporarily housed in the live bird shed to await the schedule for unloading. The live bird shed consists of four covered truck trailer bays, providing relief for birds from the hot sun and rain as per animal welfare requirements.

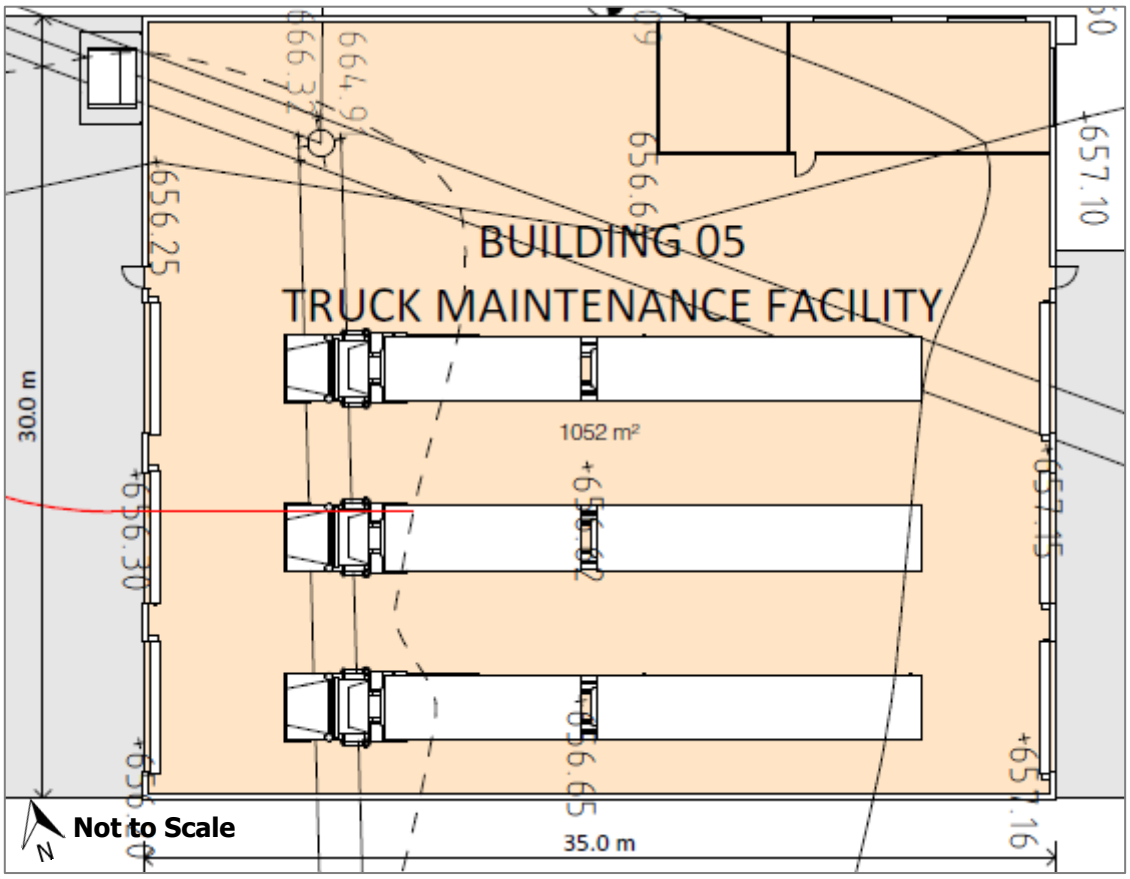
Figure 23 – Proposed Live Bird Shed



3.7.3 Truck Maintenance Facility

The purpose of the truck maintenance facility is to facilitate the safe movement of heavy vehicles on the roads by providing a convenient and efficient service on the vehicles journey. The truck maintenance facility is proposed to be a simple rectangular shed measuring 35m long by 30m wide and will stand 9.3m in height. It will occupy an area of 1,050m^2 and is proposed to accommodate up to three heavy vehicles. It will provide standard servicing and repair services for heavy vehicle. See Figure 24 and Appendix A for detailed plans.

Figure 24 – Proposed Truck Maintenance Facility



3.8 Operational Details

3.8.1 Hours of Operation

The proposed hours of operation for the various elements of the proposal are provided in Table 6.

Table 6 – Hours of Operation

Operation	Hours of Operation
Poultry Processing Facility	24 hours 7 days a week
Cold Storage/Distribution Centre	24 hours 7 days a week
Childcare	5:00 am to 7:00pm 5 days a week
General site activities (maintenance/cleaning/etc)	24 hours 7 days a week

Further discussion regarding predicted noise impact associated with the proposed development and proposed hours of operation can be found at Section 6.1 and the noise impact assessment at Appendix F.

3.8.2 Waste

Waste Management

The proposed operations on the site are expected to generate very little waste with the main waste generator being the Stage 2 components of the poultry processing facility being the bird reception and killing plant along with the bleeding, dressing and evisceration plant.

Waste generated by these Stage 2 components will be processed onsite to minimise waste taken off the site. A portion of the waste is of a quality suitable for petfood and is directed to a petfood processing room within the main process building. The remaining waste is directed to the by-product facility for the manufacture of recycled meat, bone meal and animal fat products. However, components such as blood and feathers can be desired as products in other industries and where possible may be sold directly without processing.

The remaining sludge will be captured within the wastewater treatment plant and removed as sludge. It is the intention of the operation to eliminate all waste generated by the processing resulting in no waste disposal thereby reducing the potential for disease and odour. It also promotes the efficient reuse of poultry waste for other consumer markets.

A breakdown of poultry waste from the poultry processing operation at full capacity is provided at Table 7.

Table 7 – Poultry Process Waste Breakdown at Full Capacity

	Percentage of Bird Weight (%)	Weight (g)	Material (tonne per annum)
Meat (Total Product)	50	1,000	52,000
Blood	6	120	6,240
Inedible Gut Waste	12	240	12,480
Bone Waste	13	260	13,520
Feathers	6	120	6,240
Pet Food	10	200	10,400
Unaccounted (Sludge)	3	60	3,120
Total Waste	40	800	52,000
Total Material	100	2,000	104,000

Contingency Options

In the circumstance where the by-product processing facility is unable to operate or unable to operate at full capacity the excess waste will be directed to an offsite waste facility.

The Goulburn Waste Management Centre is located in proximity to the site at 100 Sinclair Street, Goulburn and currently holds the appropriate approvals and licences to landfill and compost waste. This option is preferred as it will avoid the movement of waste long distances and will be managed in an appropriate manner.

General Waste

General site waste streams include those listed below with a breakdown provided at Table 8:

- General Office waste;
- Packaging Waste - Broken pallets, Plastics, cartons, strapping, labels;
- Used PPE - Gloves, disposable uniforms;
- Food Waste;
- Childcare Waste;
- Truck Maintenance Waste; and
- Wastewater Treatment.

Table 8 – General Site Activities Waste Breakdown

Waste	Process / Activity	Likely Classification	Management/ Mitigation	Estimate Annual Quantity
General Office Waste	Office	General Solid Waste (Non-putrescible)	Stored in waste bins and removed on an as needs basis using a licensed waste contractor.	Minor Quantities (<5t)
Packaging Waste	General Site	General Solid Waste (Non-putrescible)	Stored in waste bins and removed on an as needs basis using a licensed waste contractor.	Minor Quantities (<5t)
Used PPE	General Site	General Solid Waste (Non-putrescible)	Stored in waste bins and removed on an as needs basis using a licensed waste contractor.	Minor Quantities (<5t)
Food Waste	General Site	General Solid Waste (Putrescible)	Stored in waste bins and removed on an as needs basis using a licensed waste contractor.	Minor Quantities (<5t)
Childcare Sanitary Waste	Childcare	General Solid Waste (Putrescible)	Stored in designated sanitary bins in the facility and removed on an as needs basis using a licensed waste contractor.	Minor Quantities (<5t)
Truck Maintenance Waste	Truck Maintenance Facility	General Solid Waste (Non-putrescible)	Stored in waste bins and removed on an as needs basis using a licensed waste contractor. Oil collected and pumped to appropriate vehicle by licenced waste contractor.	Minor Quantities (<5t)
Wastewater Treatment Solids	Wastewater Treatment Building	General Solid Waste (Putrescible)	Stored in designated tank or cake bin and removed on an as needs basis using a licensed waste contractor.	Approx. 3,000 tonnes

3.8.3 Infrastructure Requirements

The site currently has provision for power, water, and sewer as part of the previous works for the approved 23 lot subdivision which would create 22 industrial lots.

With 192,000 birds per day at full capacity the expected daily water draw from the mains system will be 2.688ML/day. Goulburn Mulwaree Council has provided evidence that they have sufficient water supply to accommodate the water demand generated by the proposed development.

With access to sufficient power infrastructure the site will be amply supplied with power to meet its needs. In order to reduce long term operational costs and minimise impact on the environment the proposed development will implement energy efficient options where possible. This will include selection of energy efficient operations plant for the poultry processing facility and energy efficient refrigeration systems for the cold storage facility.

Options for solar power generation atop the large roof surfaces of the proposed buildings will be explored to meet the demands of the facility during detail design and plant purchase to maximise effectiveness and minimise grid power use.

3.8.4 Chemical Storage and Hazardous Materials

Four chemical storage tanks are proposed to be located to the west of the site adjoining the poultry processing building. These four storage tanks will contain LP Gas, Chlorine, Anhydrous Ammonia, and Carbon Dioxide in quantities which, at the proposed quantities, are considered hazardous. Table 9 provides details of the quantities and class of the hazardous materials.

Table 9 – Hazardous Materials Storage

Product	Storage Type	Quantity	Class and PG
LP Gas	Aboveground Tank	24,000L	Class 2.1
Chlorine	Aboveground Tank	5,000L	Class 2.3 Sub Risk 5.1, Sub Risk 8
Anhydrous Ammonia	Aboveground Tank	10,000L	Class 2.3 Sub Risk 8
Carbon Dioxide	Aboveground Tank	25,000L	Class 2.2

An analysis as part of the application of SEPP 33 deems the risk to society generated by the chemical storage tanks to be negligible and that all possible measures should be in place to ensure the low risk is maintained. Further analysis of hazards provided at Section and the Preliminary Hazard Analysis at Appendix I.

3.8.5 Site Maintenance

Once established, the proposed development is to be upkept to a high standard throughout operation. This site maintenance will involve upkeep of both the built environment and the proposed landscaping throughout the site.

Of major importance to the efficiency of the operation is the upkeep and repair of the internal road surfaces. This is imperative to the ongoing operation as it allows for safe vehicle manoeuvring throughout the site and it maintains the sealed work surfaces on the site preventing potential contamination.

Ongoing upkeep of the sites landscaping is essential to establish mature vegetation on the site consistent with the landscape plan and to mitigate visual impacts from the proposed development on the surrounding area. Once established, maintenance of the landscaping will continue to ensure the landscape structure remains.

The live bird shed requires ongoing maintenance in preparation of use when required. This will involve the maintenance of the shed fan system and general cleaning. General cleaning of the area will occur after use however waste from vehicle standing will generally be contained within the vehicle load. The cleaning will involve manual removal of solid wastes followed by a washdown of the area. With appropriate sediment filters placed on all stormwater drains, the washdown water will proceed as standard stormwater to the stormwater basin.

3.9 Vehicle Management

It has been calculated that the proposed development will generate 1,500 vehicle trips per day with 10% or 150 vehicle trips of this figure attributed to heavy vehicles. To ensure safety within the site and the surrounding road network, design features and management procedures are proposed including site access designs and heavy vehicle routes.

3.9.1 Site Access

The site is currently provided access to Common Street via existing internal roadways constructed to support the approved subdivision of the site. Whilst this subdivision approval is to be surrendered, the constructed infrastructure including the internal roads are to be utilised.

It is proposed to segregate light and heavy vehicle access points to ensure road safety and improving vehicle movement. This existing road access was designed to facilitate enterprise and industrial type land uses in the 22 lot subdivision and as such this roadway will form the heavy vehicle access to the site due to its ability to cater to heavy vehicles. Light vehicles arriving to the site are to be provided with two proposed crossovers to Common Street connecting directly to the proposed car park areas.

3.9.2 Heavy Vehicle Management

With 150 heavy vehicle trips per day expected to visit the site, it is essential to manage these vehicles to minimise impacts on the site and the surrounding road network.

Heavy vehicles are to access the site via the existing internal road which connects to an internal road network designed to facilitate the largest vehicle which will access the site being a 26m B-double vehicle. The vehicle swept paths of this vehicle are provided within the Traffic Impact Assessment at Appendix D.

A heavy vehicle route for the proposed development is proposed to maintain safety on the surrounding road network.

Access to the site from the Hume Highway is provided via Sydney Road which is an approved B-double route. Vehicles from the north of Goulburn destined for the site are likely to travel west along Sydney Road connecting onto Common Street and thence to the site.

Egress from the site to the Hume Highway is varied based on direction of travel. Northbound vehicles will travel from the site along Common Street connecting to Sydney Road and accessing the Hume Highway via the Sydney Road-Hume Highway onramp. Southbound vehicles will travel along Common Street connecting to Sydney road then travel west to connect onto Union Street, Reynolds Street, Grafton Street, Sloane Street, and Garroorigang Road which provides access the Hume Highway Interchange. See Figure 25 for view of the designated heavy vehicle routes.

Figure 25 – Heavy Vehicle Route

3.10 Stormwater Management System

The proposed stormwater system will utilise the existing stormwater system on the site constructed to facilitate the subdivision approved on the site. This system comprises a conventional subsurface drainage network which conveys runoff to a basin present on the southwestern portion of the site.

During major storm events, it appeared that the water level in the basin over-topped a weir, where water would be conveyed as above ground channel flow to the watercourse approximately 40m to the south of the site. Runoff from the north western portion of the site was conveyed as sheet flow towards the basin where an upstream berm diverted the flows to the west.

This existing system is proposed to be enhanced to cater to the proposed development demand. Rainwater tanks supported with first flush systems are proposed on a number of buildings with a 50kL tank to service the cold storage and office buildings; a 35kL proposed for the childcare centre; and an 800kL tank proposed to service the poultry processing building, live bird shed, and by-product building. Any overflow from these collection systems will be directed to the stormwater drainage network.

The existing internal roads will continue to utilise their existing systems with all proposed internal roads, driveways, and landscaped areas to utilise a series of pits and grass lined swales and conveyed via subsurface pipe to the end of line above ground basin. All surface inlet pits will be fitted with SPEL Stormsacks.

The existing basin in the southwestern corner of the site is proposed to be upgraded to meet both the onsite stormwater detention and water quality requirements for the site. The area will include a minimum of 1,000m^2 area of biofiltration media in the basin, a 300mm low flow outlet pipe, and a 1.5m wide weir overflow. Discharge from the basin will meet water quality targets set by Water NSW with peak discharge from the basin totalling less than or equal to the pre-development peak discharge for all storm events including 1 in 100 year ARI events.

The external stormwater networked is formed by natural drainage lines connecting to the Mulwaree River to the west. Overflow from the south western basin is directed to an existing drainage channel connecting the basin to a mapped but unnamed watercourse south of the site. This watercourse flows towards the west through a number of sites before its confluence with the Mulwaree River, see Figure 26.

Figure 26 – Existing Stormwater Drainage Network

Further detail and discussion of the proposed stormwater system has been provided at Section 6.6 and within the Civil Engineering Plans along with the Stormwater and Water Balance Report provided at Appendix B.

3.11 Wastewater Treatment

The general treatment process is pre-screening of effluent received from the process facility followed by collection within a balance tank, then treatment by coagulation, flocculation, primary Dissolved Air Flotation, biological treatment in a single stage Moving Bed Biological Reactor, and final clarification in a secondary DAF prior discharge to sewer. Both primary and secondary sludge will be managed by collection in a conical bottom

sludge tank and dewatering using an Inclined Sludge Press. See Figure 27, Figure 28, and Figure 29 for process flow diagram of the proposed system.

Figure 27 – Primary Wastewater Treatment Process (Source: Hydroflux)

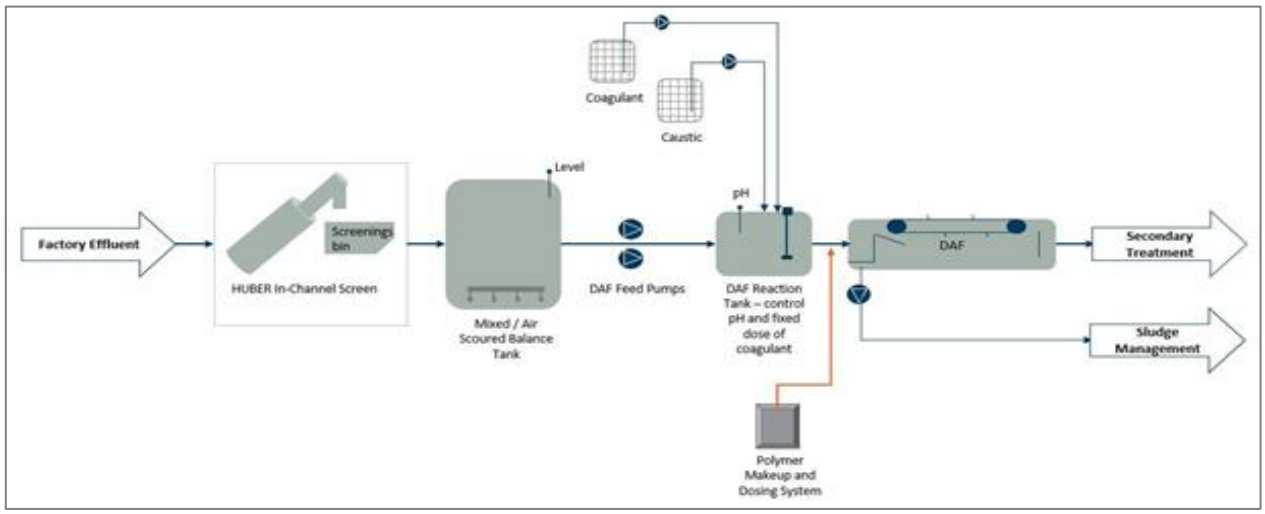


Figure 28 – Secondary Wastewater Treatment Process (Source: Hydroflux)

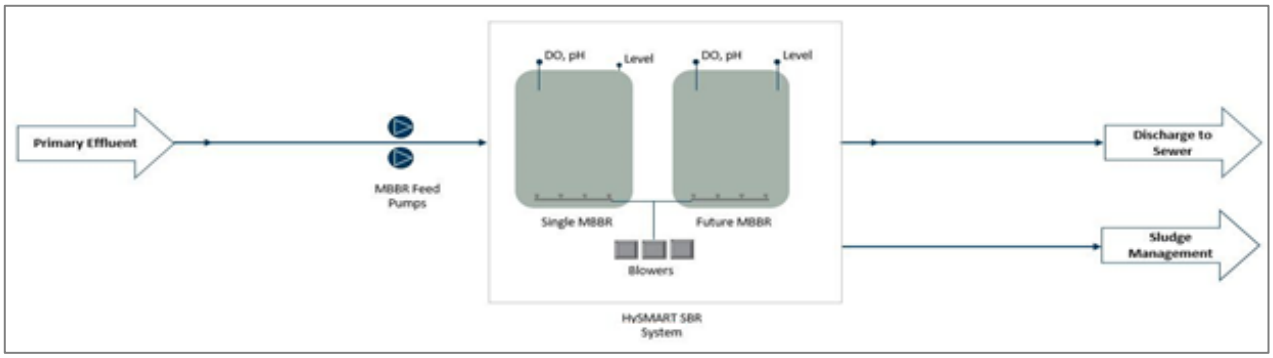
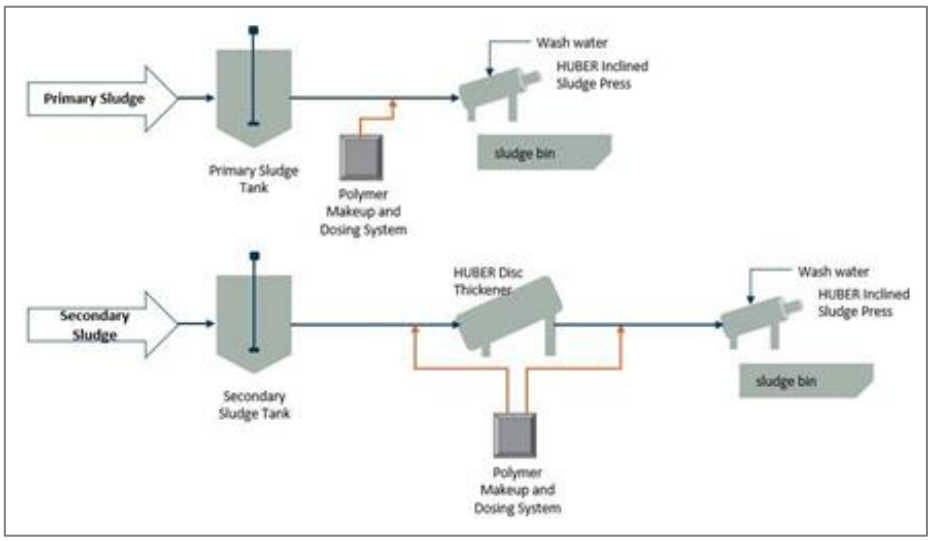


Figure 29 – Sludge Treatment Process (Source: Hydroflux)



3.12 Landscaping

A landscaping plan prepared by Mara Landscape Architects is included in Appendix L. The proposed landscaping scheme includes significant boundary plantings as well as internal planting areas. It has been designed to soften the built form when viewed from the street and surrounding areas, while ensuring the functionality of the site. Up to existing trees are proposed to be removed with all removed trees to be replaced. Six trees located in the south western portion of the site are identified as Radiata Pine whilst the three trees on the northern boundary consist of both Inland Scribbly Gum and Brittle Gum.

The proposed landscape aims to:

- Reduce any visual impacts caused by the scale of the proposed buildings with the use of tall tree species and lower densely foliaged species along boundaries where possible and selected areas identified within the visual impact assessment;
- Provide attractive outdoor areas for staff by providing seating and shade areas in a garden setting;
- Provide shade to car parking;
- Planting that complements the existing character of the surrounding landscape and development;
- Provide low maintenance selections of locally occurring and more broadly native plants;
- Provide exotic deciduous tree planting for winter solar access; and
- Provide plantings around storm water detention basins to help improve water quality.

The planting schedule (excerpt from landscape plan) proposed has been provided at Table 10.

Table 10 – Proposed Planting Schedule

Species Name	Common Name	Species Name	Common Name
Trees		**Shrubs and Grasses**	
Brachychiton populneus	Kurrajong	*Banksia 'Minimarg'*	Dwarf Heath Leaved Banksia
Casuarina cunninghamiana	River She-Oak	*Banksia 'Bulli Baby'*	Dwarf Silver Banksia
Callistemon viminalis	Bottlebrush	*Correa 'Adorabell'*	Native Fushia
Eucalyptus cinerea	Argyle Apple	*Carex appressa*	Tall Sedge
Eucalyptus mannifera	Brittle Gum	*Callistemon 'Better John'*	Better John Dwarf Callistemon
Pyrus 'Capital'	Ornamental Pear	*Callistemon subulatus*	Bottlebrush

Pyrus ussuriensis	Manchurian Pear	*Grevillea 'Border Red'*	Grevillea
Trees - Supplementary Planting to E3 area		*Lomandra 'Katrinus Deluxe'*	Mat Rush
Eucalyptus bridgesiana	Apple Box	*Lomandra 'Tanika'*	Dwarf Matt Rush
Eucalyptus cinerea	Argyle Apple	*Poa 'Eskdale'*	Tussock Grass
Eucalyptus macrorhyncha	Red Stringy Bark	*Poa seiberiana*	Tussock Grass
Eucalyptus mannifera	Brittle Gum	*Westringia 'Grey Box'*	Grey Box Coastal Rosemary
Eucalyptus rossii	Inland Scribbly Gum	*Westringia 'Zena'*	Coastal Rosemary
Hedge		**Groundcovers**	
Photinia 'Red Robin'	Photinia	*Banksia 'Roller Coaster'*	Prostrate Coastal Banksia
Accent Plans		*Grevillea 'Royal Rambler'*	Royal Rambler Grevillea
Cordyline australis cvs	Cabbage Tree	*Grevillea 'Mt Tamboritha'*	Prostrate Grevillea
Doryanthes excelsa	Minmi Lily	*Hardenbergia violacea*	Native Sarsparilla
Phormium tenax cvs	NZ Flax	*Myoporum parvifolium*	Boobialla
Grasses		*Pultanaea pedunculata*	Matted Pea Bush
Carex appressa	Tall Sedge	*Scaevola 'Purple Fusion'*	Purple Fusion Fan Flower
Ficinia nodosa	Tall Sedge	*Banksia 'Roller Coaster'*	Prostrate Coastal Banksia
Juncus continuus	Sand Rush	**Turf**	
Lomandra longifolia	Matt Rush	*Cynodon dactylon*	Couch

Part of ongoing landscape maintenance will be weed management. Weeds will be removed when found to ensure the site remains in a high quality and visual pleasing state. This weed management will cover the whole site including the rear forest area which is to be retained.

4 Statutory Context

The statutory provisions of the following NSW and Commonwealth legislation, regulations and Environmental Planning Instruments (EPIs) are relevant to the proposed development and are therefore addressed in this Section of the EIS. They include;

- *Environmental Protection and Biodiversity Conservation Act 1999;*
- *Environmental Planning and Assessment Act, 1979;*
- *Environmental Planning and Assessment Regulation 2000;*
- *Biodiversity Conservation Act 2016;*
- *Protection of the Environment Operations Act 1997;*
- *Rural Fires Act 1997;*
- *Food Act 2003;*
- *State Environmental Planning Policy (State and Regional Development) 2011;*
- *State Environmental Planning Policy (Infrastructure) 2007*
- *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017*
- *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011;*
- *State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017;*
- *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development;*
- *State Environmental Planning Policy No. 55 – Remediation of Land; and*
- *Goulburn Mulwaree Local Environmental Plan 2009.*

4.1 Environmental Protection and Biodiversity Conservation Act 1999

The provisions of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) have been considered. A desktop investigation and an EPBC Protected Matters Search has been undertaken and found no protected areas; RAMSAR Wetlands; nationally important wetland; Commonwealth, World, or National heritage places, or marine reserves within or near the site. As such, no Commonwealth Environmental Matters applicable to the site or the surrounds were found under Division 1 of Part 3 of the EPBC Act.

4.2 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment (EP&A Act) provides the statutory framework for environmental assessment and planning approval within NSW. Table 11 provides a summary evaluation of the proposed SSD against the objectives of the EP&A Act.

Table 11 – EP&A Objective Evaluation

EP&A Objectives	Response
(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,	The proposed development will contribute to the social and economic welfare of the Goulburn Mulwaree area by providing an employment generating development in the Goulburn City area. With mitigation measures implemented the proposed development complies with all relevant environmental guidelines ensuring environmental impacts are kept to a minimum.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The proposed development complies with the principles of ESD as outlined within Section 10. The proposed development will provide a long term employment generator improving intergenerational social and economic equality. The operation is also not considered to diminish natural resources or cause short or long term environmental degradation.

(c) to promote the orderly and economic use and development of land,	The majority of the site along with the broader Common Street precinct has been zoned as B6 Enterprise Corridor, however this area has long been underdeveloped. The proposed development is consistent with Councils aim for the development of this site and will encourage further development along Common Street.
(d) to promote the delivery and maintenance of affordable housing,	The proposed development will not reduce the housing stock in the Goulburn Mulwaree area.
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	No threatened species or communities were noted on the site (refer to the ecology report at Appendix G. The proposed development includes ongoing maintenance and improvement of the existing bushland in the north western corner of the site leading to improved ecological values of the larger bushland enclave.
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	An Aboriginal Cultural Heritage assessment of the site has been undertaken and is reproduced at Appendix Q. During this process Aboriginal groups were consulted regarding the cultural heritage of the site. Appropriate measures to either protect or investigate areas of actual or potential Aboriginal Cultural Heritage will be employed.
(g) to promote good design and amenity of the built environment,	The proposed buildings have been designed to minimise visual impact through high quality design, colours, and materials accompanied by extensive landscaping to assist integrate the development into the wider area.
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	Maintenance of the site will be ongoing governed by environmental management plans to ensure safety and protection of health of employees and visitors to the site.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	The proposed development is to be assessed by the NSW State government however extensive consultation with Goulburn Mulwaree Council and other government agencies has occurred throughout preparation of the application package.
(j) to provide increased opportunity for community participation in environmental planning and assessment.	Independent community consultation has occurred during the preparation of the application package. This consultation has been discussed at Section 7 and documented at Appendix K.

In summary, he proposed development is considered to be consistent with the objectives of the Act. This will be achieved through the social and economic benefits it will provide the community of Goulburn and the surrounding area by creating a wide range of employment opportunities whilst encouraging the growth of the employment generating precinct in a manner consistent with the goals of ecologically sustainable development. The proposal employs a high quality design along with substantial landscaping which will enhance the visual amenity in the area. Community and Aboriginal consultation have taken place during the preparation of this application and further consultation will occur throughout the assessment processes.

4.3 Designation as State Significant Development

Subject to Part 4, Section 4.36 of the EP&A Act certain development is declared as SSD. Specifically, Section 4.36 states:

4.36 Development that is State significant development

(1) For the purposes of this Act, State significant development is development that is declared under this section to be State significant development.

(2) A State environmental planning policy may declare any development, or any class or description of development, to be State significant development.

The criteria which define development to be declared to be SSD under Section 4.36(2) and described within Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011 (SEPP SRD).

Two components of the mixed use development meet the criteria specific for Agricultural produce industries and food and beverage processing and Warehouses and Distribution Centres. As a result, the proposed development is declared to be SSD under Clause 4.36 of the act. See Section 4.10.2 for further details on how the proposed development is declared to be SSD under the SEPP SRD.

Although the livestock processing facility is a prohibited development the Minister can grant development consent where the development is only partly prohibited pursuant to Section 89E(3) of the EPA Act. Section 89E states:

4.38 Consent for State significant development

…

(2) Development consent may not be granted if the development is wholly prohibited by an environmental planning instrument.

(3) Development consent may be granted despite the development being partly prohibited by an environmental planning instrument.

The proposed mixed use development is considered to be partially prohibited as the proposed poultry processing facility is prohibited in all three zones under the Goulburn Mulwaree LEP 2009. In contrast, the proposed cold storage facility is permissible within the B6 zone in which it is located whilst the proposed childcare centre is permissible within all three zones on the site.

4.3.1 Section 4.15 Assessment

Under Section 4.15 of the EP&A Act, in determining a development application a consent authority is to take into consideration specified matters that are of relevance to the development. Table 12 provides a summary evaluation of the proposed SSD against the relevant Section 4.15 specified matters.

Table 12 – Section 4.15 Matters

EP&A Section 4.15 Matter	Response
(a)(i) the provisions of any Environmental Planning Instrument	The relevant EPIs applying to the development have been addressed in detail in Section 4 of this EIS. The proposed development is consistent with the applicable EPI's.
(a)(ii) the provisions of any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been	The relevant EPIs applying to the development have been addressed in detail in Section 4 of this EIS. The proposed development is consistent with the applicable EPI's.

deferred indefinitely or has not been approved)	
(a)(i) the provisions of any Environmental Planning Instrument	The relevant EPIs applying to the development have been addressed in detail in Section 4 of this EIS. The proposed development is consistent with the applicable EPI's.
(a)(ii) the provisions of any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved)	The site is located within the Sydney Drinking Water Catchment area defined within the SEPP of the same name. This SEPP is proposed to be incorporated within the SEPP Environment currently in draft state.
(a)(iii) the provisions of any development control plan	For SSD, the provisions of a development control plan (DCP) are not applicable as provided by Clause 11 of SEPP (State and Regional Development) 2011.
(a)(iiia) the provisions of any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F	No planning agreements apply to the site or are relevant to the proposed development.
(a)(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph)	The relevant matters within Clause 92(1) of the Regulation are been discussed in Section 4.4.
(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality	The matters relating to impacts on the natural and built environments along with social and economic impacts in the locality are addressed in Sections 6 and 7 of this EIS.
(c) the suitability of the site for the development	The suitability of the site has is discussed throughout this EIS. The proposed development is consistent with the objectives of the B6 Enterprise Corridor zone and is compatible with the permissible land uses within proximity to the site and the locality of Goulburn. The site is acknowledged as being a highly accessible site with excellent access and proximity to services and facilities. It is located within an area designated for employment growth. Detailed site investigations undertaken have identified the suitability of the site for the proposed development, along with mitigation measures and management practices to ensure quality environmental outcomes. Once operational, an operational management plan will guide the management practices on the site ensuring safe and effective operations in an environmentally conscious manner.

	A waste management plan will be implemented to ensure the effective and efficient management of waste generated by the proposed development and a heavy vehicle travel plan will be implemented to minimise vehicle impacts on the surrounding road network. Once the operation has implemented the mitigation measures outlined within Section 9 of this EIS, there should not be any significant environmental constraints and accordingly, the site is considered suitable for the proposed development.
1(d) any submissions made in accordance with this Act or the regulations	Any submissions made will be assessed by the DPE. Consultation has been undertaken during the preparation of this EIS. This involved consultation with the local community, neighbours, Goulburn Mulwaree Council and referral to a range of government agencies relevant to the project to explain the proposed development and the matters being further investigated and assessed during resolution of the final design. As discussed in Section 7, correspondence received from both government agencies and the community has been taken into account into design and operational details.
1(e) the public interest	The proposed mixed use development is considered to be consistent with the objectives of the B6 Enterprise Corridor zone as it provides a range of employment generating land uses in the corridor and is compatible with the desired future structure of the precinct, including some existing land uses along Common Street including the resource recovery facility and landfill. The proposed development aims to meet existing and future demand for poultry products while achieving the goals outlined within the following NSW State Government publications: • NSW Making It Happen; • South East and Tablelands Regional Plan; and • Employment Land Strategy – Goulburn Mulwaree. As discussed throughout this EIS, the likely impact on the environment have been minimised with the adoption of physical and operational mitigation measures whilst providing employment opportunities in a suitable location within Goulburn. The proposal is therefore considered to be in the public interest.

4.4 Environmental Planning and Assessment Regulation 2000

Clause 92 Additional matters that consent authority must consider

Clause 92(1) of the Regulation outlines the additional prescribed matters that a consent authority must consider in determining a development application, details provided in Table 13.

Table 13 – Clause 92 Matters

Clause 92 Matter	Response
'(b) in the case of a development application for the demolition of a building, the provisions of AS 2601…'	the proposal does not involve the demolition of a structure or building.
'(c) in the case of a development application for the carrying out of development on land that is subject to a subdivision order made under Schedule 5 to the Act, the provisions of that order and of any development plan prepared for the land by a relevant authority under that Schedule…'	The site is not subject to a subdivision order.
(d) in the case of the following development, the Dark Sky Planning Guideline: *(i) any development on land within the local government area of Coonamble, City of Dubbo, Gilgandra or Warrumbungle Shire,* *(ii) development of a class or description included in Schedule 4A to the Act, State significant development or designated development on land less than 200 kilometres from the Siding Spring Observatory.'*	The proposed development is not within 200km of the Siding Spring Observatory and is not located within the listed local government areas.
'(e) in the case of a development application for development for the purposes of a manor house or multi dwelling housing (terraces), the Medium Density Design Guide for Development Applications published by the Department of Planning and Environment on 6 July 2018, but only if the consent authority is satisfied that there is not a development control plan that adequately addresses such development '	Development does not include residential development.

The proposed mixed use development is consistent with each of the additional matters provided under the EP&A Regulation 2000.

Clause 4 What is designated development?

Part 1 of Schedule 3 of the Environmental Planning and Assessment Regulation 2000 (Regulation), lists a number of developments declared to be designated development for the purpose of Section 77A of the EP&A Act. The proposed development would trigger designated development under clause 22 of Part 1 Schedule 3 of the EP&A Regulation as it proposes to slaughter and process greater than 3,000kg of live weight per day, produce greater than 5,000 tonnes per year of poultry product, and is located within 5km of a residential zone.

However, as the proposal also triggers state significant development under the SEPP (State and Regional Development) 2011, it is not treated as designated development.

4.5 Biodiversity Conservation Act 2016

The Biodiversity Conservation Act 2016 (BC Act 2016) aims to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development.

To achieve its goals, the BC Act 2016 governs endangered species and communities and provides a framework for a Biodiversity Offset Scheme.

Assessment

An assessment was undertaken by Anderson Environment in accordance with Section 7.3 of the BC Act to determine the significance of potential impacts of the proposed development on any threatened species or communities which are listed within the BC Act.

As part of the assessment against the items within Section 7.3, it was found that there will be minimal impacts on the lifecycle of species in the area. EECs were not present on the site. The proposed development will not impact the habitat of a threatened species, nor will it further fragment habitat areas or areas of biodiversity value on the site.

Biodiversity Offset Scheme

Under the BC Act and associated regulation, the Biodiversity Offset Scheme (BOS) will be triggered if the following occurs:

- Clearing of native vegetation exceeds thresholds set out in clause 7.2 of the BC Regulations;
- Clearing of native vegetation takes place on Biodiversity Values Mapped land; or
- Clearing of native vegetation creates significant impacts as evaluated by the 5-part test.

Table 14 sets out the clearing thresholds.

Table 14 – BOS Clearing Trigger Thresholds

Minimum Lot Size of Land	Draft SEPP and Deemed SEPP Status
Less than 1 hectare	0.25 hectare or more
Less than 40 hectare but not less than 1 hectare	0.5 hectare of more
Less than 1,000 hectares but not less than 40 hectare	1 hectare or more
1,000 hectares of more	2 hectare of more

Under the LEP, the minimum lot size for the site is 100ha. This equates to an area of 1ha or more that must be cleared to trigger the BOS. The proposed development will therefore not trigger the BOS in this regard as only non-native grassland is currently proposed to be cleared for the purposes of this development.

No biodiversity values will be impacted by the proposed development and as such will not trigger the BOS.

4.6 Protection of the Environment Operations Act 1997

The Protection of the Environment Operations Act 1997 (POEO Act) provides a legislative framework to ensure potentially environmentally damaging activities act to ensure the environment is protected during operation. Schedule 1 of the POEO Act lists a range of Scheduled Activities which require licencing under the Act.

Below provides an overview of the relevant scheduled activities under the POEO Act:

23 Livestock processing activities

(1) This clause applies to the following activities:

***general animal products production**, meaning the manufacture of products derived from the slaughter of animals occurring in plants producing products such as hides, adhesives, pet food, gelatine, fertiliser or meat products.*

***greasy wool or fleece processing**, meaning the scouring, topping or carbonising of greasy wool or fleeces.*

***rendering or fat extraction**, meaning the manufacture of products derived from the slaughter of animals occurring in rendering or fat extraction plants.*

***slaughtering or processing animals**, meaning the slaughtering or processing of animals (including poultry and fish).*

***tanneries or fellmongeries**, meaning the manufacture of products derived from the slaughter of animals occurring in tanneries or fellmongeries (that is, operations that process animal skins or other animal products to produce leather or other similar products).*

(2) Each activity referred to in Column 1 of the Table to this clause is declared to be a scheduled activity if it meets the criteria set out in Column 2 of that Table.

Table

Column 1	*Column 2*
Activity	*Criteria*
general animal products production	*capacity to produce more than 5,000 tonnes of animal products per year*
greasy wool or fleece processing	*capacity to process more than 200 tonnes of wool or fleece per year*
rendering or fat extraction	*capacity to produce more than 200 tonnes of tallow, fat or their derivatives or proteinaceous matter per year*
slaughtering or processing animals	*capacity to slaughter or process more than 750 tonnes live weight per year*
tanneries or fellmongeries	*capacity to process more than 2 tonnes of skins or hides per year*

The proposed development will process greater than the scheduled activities threshold of 750 tonnes of live weight per year. In addition, the meat processing portion of the development alone will process greater than 5,000 tonnes of animal product per year threshold scheduled for general animal product production.

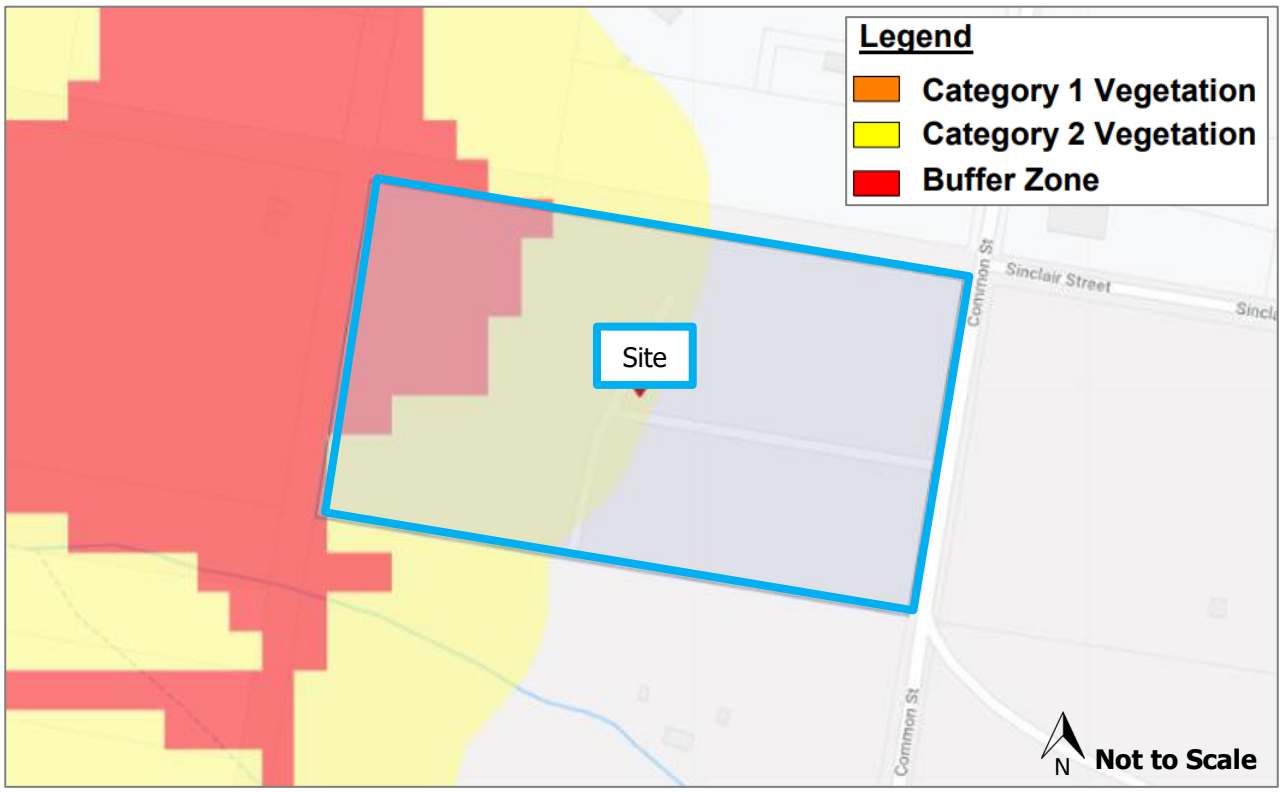
As a result, the operation will be required under Section 48 of the POEO Act to obtain an Environmental Protection Licence (EPL) from the NSW EPA. This licence will provide conditions under which the operation must comply related to materials, monitoring requirements and reporting requirements.

4.7 Rural Fires Act 1997

The NSW Rural Fires Act 1997 aims to mitigate and suppress bush and other fires, coordinate bushfire control, prevent death or injury from fires, and protect a range of establishments and developments.

Council Bushfire Prone Land map shows that western portion of the site, particularly around the existing vegetation around the north west corner, is bushfire prone as Category 1 and Buffer which encompasses the proposed poultry processing facility, by-product facility, and live bird shed, as shown on Figure 30.

Figure 30 – Bushfire Prone Land Map Overlay (NSW Planning Portal)



The proposed development includes a childcare centre which is a listed Special Fire Protection Purposes development defined under Clause 100B and as a result requires to obtain a bushfire safety authority under the Act. A Bushfire Threat Assessment has been undertaken by Anderson Environment which is discussed at Section 6.9 and provided in Appendix J. The assessment found that the south east location of the childcare centre affords the building appropriate setback from the bushfire prone land and as a result comply with the requirements of the Rural Fires Act 1997.

4.8 Food Act 2003

The Food Act 2003 aims to ensure food available for sale is safe and suitable for consumption and avoid misleading conduct within the industry with the implementation of a Food Standards Code.

As the proposed development includes an abattoir, a meat processing plant, and a rendering plant as described within Clause 79 of the Food Regulation 2015, the operation will be required to obtain a food licence from the NSW Food Authority under Section 104 of the Food Act 2003.

The proposed operations will be required to adhere to the operational standards relevant to that operation as described within Part 9 Division 2 of the Food Act 2003.

4.9 State Environmental Planning Policies (SEPPs)

The proposal is consistent with all applicable SEPPs, as outlined in the Table 15 and Deemed SEPPs.

Table 15 – Outline of SEPP and Deemed SEPP applicability

No.	Title	SEPP Applicability
26	Littoral Rainforests	Not applicable.
33	Hazardous and Offensive Development	Due to the nature of the proposal, this SEPP has been addressed at Section 4.9.6.
44	Koala Habitat Protection	Not applicable.
55	Remediation of Land	The relevant issues raised in SEPP 55 has been addressed at Section 4.9.7.
64	Advertising and Signage	Not applicable.
	Concurrences 2018	Relevant to any concurrences which are required for the application.
	Educational Establishments and Child Care Facilities 2017	As the proposal includes a childcare centre the provisions of the SEPP have been addressed at Section 4.9.3.
	Exempt and Complying Development Codes 2008	Not applicable.
	Infrastructure 2007	The relevant provisions of the infrastructure SEPP have been addressed at Section 4.9.2.
	Miscellaneous Consent Provisions 2007	Not applicable.
	Primary Production and Rural Development 2019	Not applicable.
	State and Regional Development 2011	As the proposal triggers state significant development, the relevant provisions of this SEPP have been addressed at Section 4.9.1.
	State Significant Precincts 2005	Not applicable.
	Sydney Drinking Water Catchment 2011	As the site is located within the Sydney Drinking Water Catchment area the provisions of the SEPP have been addressed at Section 4.9.4.
	Vegetation in Non-Rural Areas 2017	Vegetation is proposed to be removed within an E3 Environmental Conservation zone and as a result the SEPP applies to the proposal. Further discussion provided at Section 4.9.5.

4.9.1 SEPP (State and Regional Development) 2011

The SEPP SRD allows for the identification of SSD and provides a range of provisions applicable to SSD. The proposed poultry processing facility and the proposed cold storage facility are both defined within Schedule 1 as *Agricultural produce industries and food and beverage processing* and *Warehouse and Distribution Centres* respectively. These land uses are defined as follows:

3 Agricultural produce industries and food and beverage processing

Development that has a capital investment value of more than $30 million for any of the following purposes:

> *(a) abattoirs or meat packing, boning or products plants, milk or butter factories, fish packing, processing, canning or marketing facilities, animal or pet feed production, gelatine plants, tanneries, wool scouring or topping or rendering plants,*

(b) cotton gins, cotton seed mills, sugar mills, sugar refineries, grain mills or silo complexes, edible or essential oils processing, breweries, distilleries, ethanol plants, soft drink manufacture, fruit juice works, canning or bottling works, bakeries, small goods manufacture, cereal processing, margarine manufacturing or wineries,

(c) organic fertiliser plants or composting facilities or works.

12 Warehouses or distribution centres

(1) Development that has a capital investment value of more than $50 million for the purpose of warehouses or distribution centres (including container storage facilities) at one location and related to the same operation.

(2) This clause does not apply to development for the purposes of warehouses or distribution centres to which clause 18 or 19 applies.

The poultry processing plant, which includes the poultry processing plant and rendering plant, has a CIV of $30,614,290, exceeding the $30 million threshold and meets the definition for *agricultural produce industries and food and beverage processing*. The components on the provided CIV directly relating to the process facility and the production process are attributed to this component.

The largest part of the project by area and value is the cold storage and distribution centre which has a CIV of $50,755,970, exceeding the $50 million threshold and meets the definition for *warehouses or distribution centres*. The majority of site works are attributed to the cold storage facility including external works and infrastructure due to loads from heavy vehicle movements.

The breakdown of cost for the proposed works is provided within the CIV prepared by Turner & Townsend at Appendix N.

Due to the CIV value for the two components, the proposed mixed use development is declared to be state significant development under the SEPP.

4.9.2 SEPP (Infrastructure) 2007

Due to the nature of the proposed development and its location, Clause 45 and Clause 104 are applicable to the proposed development.

Clause 45 Determination of development applications – other development

The relevance of Clause 45 is the potential of the proposal to affect exposed overhead electricity power lines as works may occur within 5m of the powerlines on Common Street. In this regard, written notice will be given to the electricity supply authority inviting comments about potential safety risks. Any response must be taken into consideration by the consent authority.

Clause 104 Traffic-generating development

Under Clause 104 of the Infrastructure SEPP 2007, the proposed development will be referred to NSW RMS as the Distribution Centre exceeds 8,000m^2 in floor area and the operation exceeds 200 vehicles per hour as listed under Schedule 3 of the SEPP. As such, this development will be required to be referred to the RMS.

4.9.3 SEPP (Educational Establishments and Child Care Facilities) 2017

The State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 (Education and Childcare SEPP 2017) has provisions that will make it easier for childcare providers, schools, TAFEs and universities to build new facilities and improve existing ones by streamlining approval processes to save time and money while delivering greater consistency across NSW. The SEPP balances the need to deliver additional educational infrastructure with a focus on good design.

The proposed childcare centre is defined under this SEPP as "centre-based child care". For consistency between environmental planning instruments, this definition has also been inserted to the Standard LEP Instrument.

Part 3 Early Education and Care Facilities - Specific Development Controls

The following clauses are of relevance to the proposed centre-based child care on the site:

> ***Clause 22 Centre-based child care—concurrence of Regulatory Authority required for certain development***
>
> *(1) This clause applies to development for the purpose of a centre-based Childcare Centre if:*
>
> *(a) the floor area of the building or place does not comply with regulation 107 (indoor unencumbered space requirements) of the Education and Care Services National Regulations, or*
>
> *(b) the outdoor space requirements for the building or place do not comply with regulation 108 (outdoor unencumbered space requirements) of those Regulations.*
>
> *…*

The proposal satisfies the regulations 107 and 108 of the Education and Care Services National Regulations in terms of meeting the minimum unencumbered indoor and outdoor space, therefore this clause is not applicable.

The elements and requirements of the Education and Care Services National Regulations are addressed in the following pages.

> ***Clause 23 Centre-based child care—matters for consideration by consent authorities***
>
> *Before determining a development application for development for the purpose of a centre-based Childcare Centre, the consent authority must take into consideration any applicable provisions of the Child Care Planning Guideline, in relation to the proposed development.*

The proposed childcare centre is consistent with the considerations of the Child Care Planning guidelines with an assessment of the proposal against the design criteria of the Child Care Planning Guideline are addressed in Section 4.9.3 of this document.

> ***Clause 25 Centre-based child care—non-discretionary development standards***
>
> *(1) The object of this clause is to identify development standards for particular matters relating to a centre-based Childcare Centre that, if complied with, prevent the consent authority from requiring more onerous standards for those matters.*
>
> *(2) The following are non-discretionary development standards for or the purposes of section 4.15 (2) and (3) of the Act in relation to the carrying out of development for the purposes of a centre-based Childcare Centre:*
>
> *(a)* ***location****—the development may be located at any distance from an existing or proposed early education and care facility,*
>
> *(b)* ***indoor or outdoor space***
>
> *(i) for development to which regulation 107 (indoor unencumbered space requirements) or 108 (outdoor unencumbered space requirements) of the Education and Care Services* National Regulations *applies—the unencumbered area of indoor space and the unencumbered area of outdoor space for the development complies with the requirements of those regulations, or*

(ii) for development to which clause 28 (unencumbered indoor space and useable outdoor play space) of the Children (Education and Care Services) Supplementary Provisions Regulation 2012 *applies—the development complies with the indoor space requirements or the useable outdoor play space requirements in that clause,*

(c) ***site area and site dimensions****—the development may be located on a site of any size and have any length of street frontage or any allotment depth,*

(d) ***colour of building materials or shade structures****—the development may be of any colour or colour scheme unless it is a State or local heritage item or in a heritage conservation area.*

(3) To remove doubt, this clause does not prevent a consent authority from:

(a) refusing a development application in relation to a matter not specified in subclause (2), or

(b) granting development consent even though any standard specified in subclause (2) is not complied with.

The proposed childcare centre is located sufficient distance from other childcare centres in the area and provides sufficient operational area to meet both indoor and outdoor space requirements compliant with Regulation 107 and 108 of the National Regulations. These non-discretionary standards are therefore satisfied.

The Education and Childcare SEPP 2017 is supported by the Children (Education and Services) Supplementary Provisions Regulation 2012 and the Child Care Planning Guideline and provide requirements and guidance on how new childcare facilities should be designed to ensure optimal outcomes for children, staff, and the community.

Children (Education and Services) Supplementary Provisions Regulation 2012

A service approval under this Regulation shall be required for the operation of the proposed childcare centre. The proposed design of the childcare centre has been assessed against the design requirements of this Regulation to ensure consistency between the proposed development by a consent authority and the requirements for a Service Approval under this legislation.

Part 3: Facilities and Equipment stipulates various requirements for centre-based childcare facilities. Where relevant, such requirements are demonstrated on the proposed plans at Appendix A.

The proposal satisfies all of the Part 3 requirements in the design. Additional requirements under other Parts of the Regulation, including record keeping, staffing and operational matters are required to be met by the service provider once operational.

Child Care Planning Guideline

<u>The Planning Guideline objectives include:</u>

- *promote high quality planning and design of child care facilities in accordance with the physical requirements of the National Regulations*
- *ensure that child care facilities are compatible with the existing streetscape, context and neighbouring land uses*
- *minimise any adverse impacts of development on adjoining properties and the neighbourhood, including the natural and built environment*

The proposal will uphold these objectives.

Part 3 – Matters for Consideration

The proposed childcare centre has been suitably designed to achieve high levels of amenity for the occupants of the building, and to provide a safe and functional childcare centre layout. The design is consistent with the

objectives of the design criteria contained within Part 2 of the Planning Guideline and Part 3 matters for consideration as outlined below:

Site selection and location – The site is appropriately zoned for the proposed childcare centre and suitably located within the Goulburn area to support the larger site operations and broader Goulburn community. The potential impacts from traffic, air and odour, noise, and bushfire on health, safety and wellbeing of children, staff and visitors at the centre are considered low with further details provided within Section 6 of this EIS.

Local character, streetscape and the public domain interface – The proposed amended childcare centre has been designed to provide and architecturally appealing building with appropriate landscaping to integrate with the Common Street frontage.

Building orientation, envelope and design – The proposed building has been located separate from the other operations on the site with its own dedicated entrance to enhance safety and amenity for the operation. The design and proposed landscaping provide a visually appealing design on the Common Street frontage.

Landscaping – An appropriate landscape design for the site has been devised by a qualified and experienced Landscape Architect, softening the visual impact of the built form and genuinely contributing to an enhanced natural environment within the site (see Appendix L).

Visual and acoustic privacy – A suitably qualified acoustic consultant, Muller Acoustic Consultants, assessed the noise impact of the poultry processing facility, cold storage and other elements of the proposal on the childcare centre and found the operation was compliant with the AAAC child care centre guideline criteria for both external and internal areas of the childcare centre. See Section 6.1 and Appendix F for further discussion on noise impacts.

Noise and air pollution – As stated above, noise levels on the facility are within acceptable levels compliant with the AAAC childcare centre guidelines. In terms of air pollution, the building is setback a substantial distance from the live bird shed and by-product facility providing appropriate separation distances between the childcare and the odour source. Air and noise impacts have been discussed at Section 6.1 and Section 6.2 respectively.

Hours of operation – the proposed hours of operation for the childcare centre of between 5am-7pm are consistent with the guide and will not adversely impact the amenity of surrounding properties.

Traffic, parking and pedestrian circulation – The proposed parking area achieves a safe pedestrian environment with a large number of parks readily available in proximity to the building.

Part 4 – Applying the National Regulations to development proposals

4.1 Indoor space requirements

Every child being educated and cared for within a facility must have a minimum of 3.25m² of unencumbered indoor space.

It is recommended that a Childcare Centre provide: a minimum of 0.3m3 per child of external storage space and a minimum of 0.2m3 per child of internal storage space.

The indoor space and storage requirements of the national regulations are met in the proposal as displayed on the architectural plans provided at Appendix A.

4.2 Laundry and hygiene facilities

There must be laundry facilities or access to laundry facilities; or other arrangements for dealing with soiled clothing, nappies and linen, including hygienic facilities for storage prior to their disposal or laundering. The laundry and hygienic facilities must be located and maintained in a way that does not pose a risk to children.

A specific laundry room is provided within the building satisfying Regulation 106.

4.3 Toilet and hygiene facilities

A service must ensure that adequate, developmentally and age appropriate toilet, washing and drying facilities are provided for use by children being educated and cared for by the service; and the location and design of the toilet, washing and drying facilities enable safe use and convenient access by the children.

Age appropriate toilets are provided for each room in accordance with Regulation 109 and as shown on the plans in Appendix A.

4.4 Ventilation and natural light

Services must be well ventilated, have adequate natural light, and be maintained at a temperature that ensures the safety and wellbeing of children.

Good ventilation will be achieved through a mixture of natural cross ventilation and air conditioning. The proposal will comply with the light and ventilation and minimum ceiling height requirements of the National Construction Code.

4.5 Administrative space

A service must provide adequate area or areas for the purposes of conducting the administrative functions of the service, consulting with parents of children and conducting private conversations.

An office is included within the proposed childcare centre meeting the requirements of Regulation 111, see Appendix A.

4.6 Nappy change facilities

Child care facilities must provide for children who wear nappies, including appropriate hygienic facilities for nappy changing and bathing. All nappy changing facilities should be designed and located in an area that prevents unsupervised access by children.

Nappy change facilities are provided for the 0-2 year old and 2-3 year old rooms. Children must be toilet trained before they can progress to the older rooms.

4.7 Premises designed to facilitate supervision

A centre-based service must ensure that the rooms and facilities within the premises (including toilets, nappy change facilities, indoor and outdoor activity rooms and play spaces) are designed to facilitate supervision of children at all times, having regard to the need to maintain their rights and dignity.

Surveillance from all rooms has been optimised through the use of glass windows and doors and suitable layout in accordance with Regulation 115.

4.8 Emergency and evacuation procedures

Regulation 168 sets out the list of procedures that a care service must have, including procedures for emergency and evacuation.

Regulation 97 sets out the detail for what those procedures must cover including: …

An Evacuation Plan consistent with the requirements of Regulation 97 and 168 is to be prepared prior to the commencement of operation of the childcare centre.

4.9 Outdoor space requirements

An education and care service premises must provide for every child being educated and cared for within the facility to have a minimum of 7.0m^2 of unencumbered outdoor space.

599m² of unencumbered outdoor space is provided exceeding 476m² required under Regulation 108.

4.10 Natural environment

The approved provider of a centre-based service must ensure that the outdoor spaces allow children to explore and experience the natural environment.

The outdoor play area will implement native vegetation to encourage and facilitate exploration and experience of natural environments.

4.11 Shade

The approved provider of a centre-based service must ensure that outdoor spaces include adequate shaded areas to protect children from overexposure to ultraviolet radiation from the sun.

Sunshades within the outdoor play area will be implemented to provide protection from overexposure to the sun.

4.12 Fencing

Any outdoor space used by children must be enclosed by a fence or barrier that is of a height and design that children preschool age or under cannot go through, over or under it.

Appropriately high fencing is proposed to enclose the outdoor space. All access gates are to be fitted with childproof locks.

4.13 Soil assessment

Subclause (d) of regulation 25 requires an assessment of soil at a proposed site, and in some cases, sites already in use for such purposes as part of an application for service approval.

A soil assessment has been undertaken by EP Risk provided at Appendix E which found the soil on the site to be uncontaminated and suitable for future childcare centre use.

4.9.4 SEPP (Sydney Drinking Water Catchment) 2011

The SEPP (Sydney Drinking Water Catchment) 2011 aims to provide healthy water catchments, ensure new development have neutral or beneficial effect on water, and support water quality objectives for the catchment.

Clause 10 of the SEPP (Sydney Drinking Water Catchment) 2011 requires consent authorities to be satisfied proposed developments will not introduce negative impacts on water quality within the catchment.

The proposed development implements an extensive stormwater system to manage surface water flows on the site. This system includes stormwater detention, first flush systems, and rainwater harvesting. In addition, water used within onsite operations such as the poultry processing facility are treated through a wastewater treatment process before discharge to sewer. These systems ensure water received on the site is appropriately managed and will have a beneficial impact on the water quality within the catchment which meets the requirements and aims of the SEPP (Sydney Drinking Water Catchment) 2011.

4.9.5 State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017

The site is deemed to be a non-rural area as it contains land zoned B6 Enterprise Corridor and E3 Environmental Conservation. A small number of trees and vegetation are proposed to be removed in the north western pocket of existing trees contained within the E3 Environmental Conservation zone. Any trees proposed to be removed require authorisation from Council under Clause 7 of the Vegetation SEPP. It is also proposed to undertake enhancement of this area to compensate for any vegetation loss and improve the quality of the vegetation in that area which aims to protect the biodiversity value of the E3 zoned land and preserve the

amenity for the surrounding area. Further discussion on the landscaping provided at Section 3.12 and Appendix L.

4.9.6 SEPP 33 – Hazardous and Offensive Development

SEPP 33 aims to ensure that in considering any application to carry out potentially hazardous or offensive development, the consent authority has sufficient information to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimise any adverse impact.

Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines provides guidance to on whether SEPP 33 applies to the development as either a potentially hazardous or offensive industry or a potentially hazardous or offensive storage facility.

In accordance with SEPP 33, a Risk Screening Report has been prepared by Hazkem Pty Ltd in accordance with the current circulars and guidelines. This report classifies material to be found on the site and provides an assessment of the risk associated with the material. See full discussion at Section 6.3 and report provided at Appendix I.

This report determines that none of the materials which are proposed to be brought to the site are dangerous goods under the Australian Code for Transportation of dangerous Goods by Road and Rail (Dangerous Goods Code). The report concludes that the development would not be classified as "potentially hazardous" hence the requirements of SEPP 33 have been addressed.

A site can be deemed not to be an offensive industry if it falls within a licensable activity of the Department of Environment Climate Change and Water (DECCW). This proposal falls within a Schedule 1 Activity classification of the POEO Act under "Livestock processing". This site, due to its nature will be subject to stringent Licences under the POEO Act and as such the site will be required to maintain all licences relevant to this activity and obtain all approvals applicable under the POEO Act. Based on the ability to comply with the POEO Act and its licence requirements, it is determined that the proposed activity will not be deemed to be offensive industry.

4.9.7 SEPP 55 - Remediation of Land

State Environmental Planning Policy (SEPP) No 55 – Remediation of Land contains guidelines and prescriptive measures with regard to site contamination and remediation requirements for all land-based development across NSW. In considering a development application for new development, the consent authority is to have regard for the prescriptive requirements of Clause 7 of the SEPP.

A Stage 2 Environmental Investigation has been undertaken by EP Risk (refer to Appendix E), to determine the current contamination status of the site and identify appropriate management practices in relation to the proposed SSD.

Based on a review of documentation the site was previously vacant with only the construction of services for the approved subdivision occurring. A search of the NSW EPA Contaminated Land Management record of notices found no notices have been issued in respect of the site nor were any noted in the surrounding area. A search of the POEO public register for licenced and delicensed operations found a licence held on a site 22m west of the site identified A.J & B.M Wybrow Pty Ltd operating as Rocky Hill Sand & Soil landscape material supplies operation. Due to the topography of the area this operation is considered to not have impacted the site.

The soil sampling program comprised the collection of samples from 30 test pits, five of which were located within the footprint of the proposed childcare centre. The results of the soil analytical testing reported the potential contaminant concentrations were below the adopted assessment criteria in all locations.

As a result of the assessment and consideration of the land use, the site has been deemed to be suitable for the proposed land uses and does not require any remediation works. It is therefore considered the site is compliant with SEPP 55.

Further discussion on the site contamination investigation provided at Section 6.7 and report provided at Appendix E.

4.10 Goulburn Mulwaree Local Environmental Plan 2009

All land mapped within the Goulburn Mulwaree LGA is subject to the provisions of the Goulburn Mulwaree LEP 2009 (LEP 2009). Table 16 provides a summary evaluation of the proposed development against the aims of LEP 2009.

Table 16 – LEP 2009 Aims

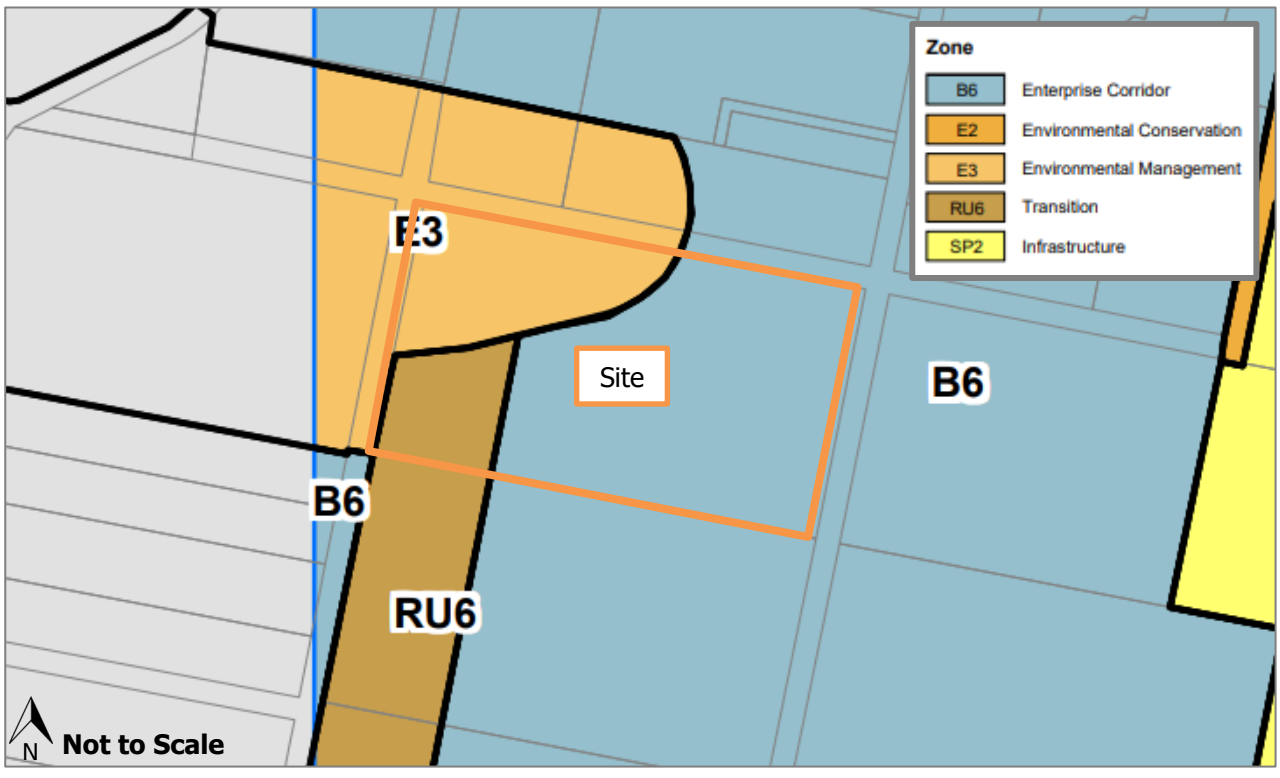
LEP Aims of Plan	Response
(a) to promote and co-ordinate the orderly and economic use and development of land in the area,	The majority of the site along with the broader Common Street precinct has been zoned as B6 Enterprise Corridor, however this area has long been underdeveloped. The proposed development is considered consistent with Council's aim for the development of this site and will encourage further development along Common Street.
(b) to provide a framework for the Council to carry out its responsibility for environmental planning provisions and facilitate the achievement of the objectives of this Plan,	N/A, this proposal is assessed as state significant development and assessed by the DPE. Ongoing consultation with Council has occurred and their comment on the proposal will be obtained during the assessment process.
(c) to encourage the sustainable management, development and conservation of natural resources,	The proposed development is to be constructed on a cleared site. The proposal will not degrade natural resources and will have minimal impact on the environment given that all proposed mitigation measures will be implemented.
(d) to promote the use of rural resources for agriculture and primary production and related processing service and value adding industries,	The proposal includes agricultural processing service and value adding industry and is supported by Council.
(e) to protect and conserve the environmental and cultural heritage of Goulburn Mulwaree,	The proposed development incorporates a range of mitigation measures which will minimise environmental impacts generated by construction and operation. The Aboriginal cultural heritage of the site has been assessed in Section 7 and the report is reproduced in Appendix Q. The site has not been listed as containing any European cultural heritage under LEP 2009.
(f) to enhance and provide a range of housing opportunities in, and the residential and service functions of, the main towns and villages in Goulburn Mulwaree,	The proposal does not include any housing. The establishment of the operations on the site will contribute to the continued economic and social success of the Goulburn area.
(g) to establish a framework for the timing and staging of development on certain land in Goulburn and Marulan,	The proposed development will contribute to the attractiveness of the enterprise corridor.
(h) to provide a range of housing opportunities, including large lot	The proposal does not include any housing.

residential development in the vicinity of the villages,	
(i) to allow development only if it occurs in a manner that minimises risks due to environmental hazards, and minimises risks to important elements of the physical environment, including water quality,	The proposed development incorporates a range of mitigation measures which will minimise environmental impacts during construction and operation.
(j) to provide direction and guidance as to the manner in which growth and change are to be managed in Goulburn Mulwaree,	The proposed development is consistent with the objectives of the B6 zone and provides a range of land uses desirable in the location.
(k) to protect and enhance watercourses, riparian habitats, wetlands and water quality within the Goulburn Mulwaree and Sydney drinking water catchments so as to enable the achievement of the water quality objectives.	The proposed development meets Council's stormwater and engineering requirements along with those for the Sydney drinking water catchment. Assessment of water impacts and stormwater plans are provided in the report in Appendix B and discussed in Section 6.

4.10.1 Land Zoning

Under LEP 2009 the site is zoned B6 Enterprise Corridor, RU6 Transition and E3 Environmental Management and is subject to the land uses permissible within the zones. See Figure 31 for LEP 2009 land zoning map extract.

Figure 31 – Land Zoning Map from Goulburn Mulwaree Local Environmental Plan 2009 (LZN 001G)



Zone B6 Enterprise Corridor

1 Objectives of zone

- *To promote businesses along main roads and to encourage a mix of compatible uses.*
- *To provide a range of employment uses (including business, office, retail and light industrial uses).*
- *To maintain the economic strength of centres by limiting the retailing activity.*

2 Permitted without consent

Roads

3 Permitted with consent

Agricultural produce industries; Business premises; Commercial premises; Community facilities; Garden centres; Hardware and building supplies; Hotel or motel accommodation; Landscaping material supplies; Light industries; Passenger transport facilities; Plant nurseries; ***Warehouse or distribution centres****; Any other development not specified in item 2 or 4*

4 Prohibited

Agriculture; Air transport facilities; Airstrips; Animal boarding or training establishments; Biosolids treatment facilities; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cellar door premises; Cemeteries; Charter and tourism boating facilities; Correctional centres; Crematoria; Electricity generating works; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Heavy industrial storage establishments; Helipads; Home-based child care; Home businesses; Home occupations (sex services); Industries; Jetties; Marinas; Mooring pens; Moorings; Open cut mining; Recreation facilities (major); Residential accommodation; Rural industries; Sewage treatment plants; Sex services premises; Waste or resources management facilities; Water recreation structures; Water recycling facilities; Water supply systems; Wharf or boating facilities

Zone RU6 Transition

1 Objectives of zone

• To protect and maintain land that provides a transition between rural and other land uses of varying intensities or environmental sensitivities.
• To minimise conflict between land uses within this zone and land uses within adjoining zones.

2 Permitted without consent

Environmental facilities; Environmental protection works; Extensive agriculture; Home occupations; Roads

3 Permitted with consent

Backpackers' accommodation; Bed and breakfast accommodation; Cellar door premises; Dwelling houses; Farm stay accommodation; Home industries; Kiosks; Landscaping material supplies; Markets; Plant nurseries; Roadside stalls; Rural supplies; Timber yards; Any other development not specified in item 2 or 4

4 Prohibited

Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Attached dwellings; Boat building and repair facilities; Business premises; Camping grounds; Caravan parks; Crematoria; Dual occupancies; Electricity generating works; Exhibition homes; Exhibition villages; Group homes; Heavy industrial storage establishments; Heavy industries; Helipads; Highway service centres; Home occupations (sex services); Industrial retail outlets; Industrial training facilities; Industries; Intensive livestock agriculture; Intensive plant agriculture; Livestock processing industries; Marinas; Mooring pens; Mortuaries; Multi dwelling housing; Passenger transport facilities; Recreation facilities (major); Registered clubs; Residential flat buildings; Restricted premises; Retail premises; Rural workers' dwellings; Sawmill or log processing works; Semi-detached dwellings; Seniors housing; Service stations; Sex services premises; Shop top housing; Storage premises; Tourist and visitor accommodation; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres; Waste or resource management facilities; Water recreation structures; Wharf or boating facilities; Wholesale supplies

Zone E3 Environmental Management

1 Objectives of zone

• To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.
• To provide for a limited range of development that does not have an adverse effect on those values.
• To facilitate the management of water catchment areas, environmentally sensitive land and areas of high conservation value.

2 Permitted without consent

Environmental protection works; Extensive agriculture; Home occupations

3 Permitted with consent

Agriculture; Air strips; Animal boarding or training establishments; Camping grounds; Caravan parks; Cemeteries; ***Centre-based child care facilities****; Community facilities; Depots; Dwelling houses; Eco-tourist facilities; Emergency services facilities; Entertainment facilities; Environmental facilities; Farm buildings; Forestry; Home-based child care; Home businesses; Home industries; Information and education facilities; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Research stations; Roads; Rural workers' dwellings; Secondary dwellings; Signage; Stock and sale yards; Tourist and visitor accommodation; Water recycling facilities*

4 Prohibited

Industries; Intensive livestock agriculture; Multi dwelling housing; Residential flat buildings; Retail premises; Rural industries; Seniors housing; Service stations; Serviced apartments; Warehouse or distribution centres; Any other development not specified in item 2 or 3

The applicable land use definitions are provided below:

warehouse or distribution centre *means a building or place used mainly or exclusively for storing or handling items (whether goods or materials) pending their sale, but from which no retail sales are made.*

livestock processing industry *means a building or place used for the commercial production of products derived from the slaughter of animals (including poultry) or the processing of skins or wool of animals and includes abattoirs, knackeries, tanneries, wool scours and rendering plants. Note - Livestock processing industries are a type of rural industry.*

centre-based child care facility *means:*

(a) a building or place used for the education and care of children that provides any one or more of the following:
(i) long day care,
(ii) occasional child care,
(iii) out-of-school-hours care (including vacation care),
(iv) preschool care, or
(b) an approved family day care venue (within the meaning of the Children (Education and Care Services) National Law (NSW)),

Note. *An approved family day care venue is a place, other than a residence, where an approved family day care service (within the meaning of the Children (Education and Care Services) National Law (NSW)) is provided.*

but does not include:

(c) a building or place used for home-based child care or school-based child care, or
(d) an office of a family day care service (within the meanings of the Children (Education and Care Services) National Law (NSW)), or
(e) a babysitting, playgroup or child-minding service that is organised informally by the parents of the children concerned, or
(f) a child-minding service that is provided in connection with a recreational or commercial facility (such as a gymnasium) to care for children while the children's parents are using the facility, or

(g) a service that is concerned primarily with providing lessons or coaching in, or providing for participation in, a cultural, recreational, religious or sporting activity, or providing private tutoring, or
(h) a child-minding service that is provided by or in a health services facility, but only if the service is established, registered or licensed as part of the institution operating in the facility

4.10.2 Permissibility

To establish the permissibility of the whole mixed use development we must consider the provisions of the SRD SEPP in regards to the status of non-SSD components and partially prohibited development.

Under Clause 8(2) of the SRD SEPP, all components of an SSD application are to be included and assessed as SSD regardless of their size or status. This relation to this proposed development, both the poultry processing facility and cold storage facility are deemed to be SSD under Schedule 1 of the SRD SEPP and as a result the proposed childcare centre and all ancillary elements are to be similarly declared to be SSD under the SEPP.

Noting the proposed poultry processing facility is prohibited in all three zones in which it is located, the proposed development is therefore defined as partially prohibited development under the EP&A Act. Section 4.38(3) *Consent for State Significant Development* of the EP&A Act allows consent to be granted despite elements of the proposed development being partially prohibited by an EPI.

However, the proposed development may not be considered partially prohibited if all proposed components are simply ancillary components to the prohibited land use and as such their status as either ancillary or independent must be established, see Table 17.

Table 17 – Land Use Independence Assessment

Proposed Land Use	Status
Poultry Processing Facility	The poultry processing facility is an independent land use which does not require the other land uses on the site for its operation. It is not the sole or dominant purpose of the proposed development. The majority of processed poultry will be transported immediately off site with only a small portion being either stored within the poultry facility's own short term storage or directed to the cold storage facility for temporary storage.
Cold Storage and Distribution Centre	While provision for storage of product from the poultry processing facility has been made, the capacity of the cold storage and distribution centre far exceeds the requirements for storage from the poultry processing facility with its main intention to service third party operators handling a wide range of goods in a convenient location within the Sydney to Canberra transport corridor. The independence of the cold storage and distribution centre ensures it is not the dominant land use on the site.
Childcare Centre	While it is expected that employees on the site will utillise this service due to the convenience of it being on the site, the childcare centre is to be independently operated from other operations on the site with its services will be offered to and available to the broader community. The childcare centre aims to provide sufficient capacity to support the local community and the expected growth in the Common Street enterprise corridor.
Truck Maintenance Facility	With a large portion of trucks visiting the site every day, it is expected that servicing of some of these vehicles will be undertaken on the site. The proposed truck maintenance facility aims to provide maintenance services to these vehicles where required. The scale of the operation is small and has been sized to meet the needs of the site only. As such, the proposed truck maintenance facility is considered to be an ancillary component of the other uses on the site.
By-product Processing Facility	The by-product processing facility is proposed to directly service the needs of the poultry processing facility and is therefore considered to be an ancillary component of that land use.
Live Bird Shed	The live bird shed and outdoor truck parking area is for emergency truck parking only and is directly associated with a number of the other operations on the site.

	It is therefore considered to be an ancillary component of the proposed development.
Site Office	The site office provides office space for the cold storage facility and poultry processing facility. Further office space is provided for other operations on the site. It is therefore considered an ancillary land use.
Wastewater Treatment Plant	The wastewater treatment plant processes wastewater from the site and is therefore considered to be an ancillary component of the proposed development

It has been demonstrated that a development which includes one of more independent uses which are prohibited may be approved as partially prohibited development if the proposal is for SSD and if one or more of the other independent uses is permitted.

The childcare centre and cold storage and distribution centre are characterised as independent land uses with the cold storage facility and childcare centre both being permissible with consent within their respective zones. As the proposal is for SSD, permissibility is extended to the poultry processing facility as partially prohibited development.

Therefore, there is a clear pathway for permissibility for the whole project which can be approved under the provisions of Clause 4.38 of the EP&A Act.

Justification

The aim of the proposed development is to meet existing and future demand for poultry products both regionally and internationally and provide large scale cold storage services supporting logistics operations along the Hume Highway connecting Canberra and Sydney.

The Sydney-Canberra Corridor Regional Strategy 2006-2031 provides direction to strategic and infrastructure development in the regional areas which link Sydney to Canberra with the area considered to be a key State and National.

The main target for the region is population growth and employment. The strategy projects at least 27,800 new jobs being required to support the projected growth in the region. The proposed mixed use development is projected to directly employ 264 employees with an additional 201 jobs created indirectly through supply chain and consumption impacts during operation of the sites land uses.

The proposed development will directly provide employment generating land uses that has been strategically located within currently vacant employment land within the major regional centre of Goulburn City which improves connectivity and minimizes commute time for employees. The inclusion of the cold storage facility will leverage the strengths of the site's proximity to transport links especially the Hume Highway. The establishment of the poultry processing facility will serve to incubate the poultry industry in the Goulburn Mulwaree area helping to protect agricultural land in the region.

The proposed development is considered to be consistent with the aims of the North East Goulburn Enterprise Corridor Precinct and Goulburn Mulwaree Employment Lands Strategy as it provides appropriate land uses within the Common Street Sub Precinct which will encourage investment and activate development of the underdeveloped precinct.

The proposed land uses are considered to be consistent with the objectives of each of the three zones present over the site under the Goulburn Mulwaree LEP 2009. The structure of the proposed development has been designed to avoid impacts on the existing bushland within the E3 Environmental Management zone and the placement of mainly ancillary components within the RU6 Transitional zone area.

The consistency of the proposed uses with the zones of the site is provided in Table 18.

Table 18 – Land Zone Objective Consistency

Land Zone Objective	Response
Zone B6 Enterprise Corridor	
To promote businesses along main roads and to encourage a mix of compatible uses.	Poultry Processing Facility – will contribute to the mix of business and industrial land uses envisaged within the Common Street enterprise corridor. While the use is defined as a rural industry, the structure and design of the proposed development aims to enhance compatibility with the enterprise corridor through modern design and limitation on livestock type whilst minimising impacts on other surrounding zones. The use will allow for and encourage further investment in the underperforming corridor through precinct activation and demand for supportive business and industry. Cold Storage Facility – will provide a cold storage use within Goulburn to support the Hume Highway transit corridor whilst also providing a new use within the enterprise corridor contributing to the mix of land uses along Common Street. Childcare Centre – aims to support the growth of the north east enterprise corridor by providing childcare services for future workers in the area. There is currently a lack of childcare options within eastern Goulburn and the use will directly contribute to the mix of compatible uses in the area.
To provide a range of employment uses (including business, office, retail and light industrial uses).	Poultry Processing Facility – will provide significant employment opportunities to the Goulburn area in a highly accessible and desirable location. The types of opportunities range in training, education, and skill levels suiting a wide range of demographics. Cold Storage Facility – provides ongoing employment opportunities with an aim of enhancing and supporting logistics along the Hume Highway. This will contribute to the continued success of local and broader logistics operations. Childcare Centre – Contributes to the range of employment opportunities desired for the enterprise corridor whilst providing an essential support to employees within the enterprise corridor as it grows.
To maintain the economic strength of centres by limiting the retailing activity.	Poultry Processing Facility – is not a retailing land use and will strengthen the economic success of the precinct with the establishment of a key employment generator and activation of the enterprise corridor. Cold Storage Facility – is not a retailing use, will support the economic growth of the enterprise corridor and will not contribute to retailing activity. Childcare Centre – is not a retailing use and will support future land uses within the enterprise corridor ensuring economic success.
Zone RU6 Transition	
To protect and maintain land that provides a transition between rural and other land uses of varying intensities or environmental sensitivities.	Poultry Processing Facility – provides a rural industry compatible with the enterprise corridor and transition zones in a site that adjoins no other rural zone. The development structure largely avoids impacting on the vegetation present in the E3 Environmental Management zone to the west. The building is largely buffered by a combination of the western hill line and trees in the E3 zone minimising impacts on the adjoining site. Cold Storage Facility – has been situated at the front of the site wholly within the enterprise corridor zone avoiding the transition zone. This structure allows for the rural industry use to be partially located within the transition zone.

	Childcare Centre – has low impacts on surrounding development and is compatible with existing and potential future land uses for surrounding sites.
To minimise conflict between land uses within this zone and land uses within adjoining zones.	Poultry Processing Facility – with all mitigation measures proposed in place the main impact on the surrounding area is visual in nature. This visual impact however is generally either to the immediate surrounds along Common Street and long views from afar. The impact on the adjoining E3 zone will largely be mitigation by the existing hill and existing vegetation with further vegetation enhancement proposed. The structure of the site positions smaller elements consisting of the truck parking and live bird shed, byproduct building, and a corner portion of the facility which minimises footprint in the transition zone. Cold Storage Facility – is situated outside of the transition zone to minimise impacts on surrounding zones. This enhances the proposed developments compatibility with surrounding sites. Childcare Centre – generates little impact on the surrounding sites and is fully compatible with the surrounding land uses.
E3 Environmental Management	
To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.	Poultry Processing Facility – The structure of the proposed development largely avoids impacting upon the E3 zone with footprint located in the E3 zone sited to avoid impacting existing vegetation. Through avoidance of the existing bush in the north western corner of the site the cultural and aesthetic values have been avoided. Ecological assessment of vegetation within the E3 zone found no significant or protected ecological community present however it is proposed to enhance the existing bushland to maintain aesthetic values in the area and enhance compatibility with this area. Cold Storage Facility – avoids the E3 zone minimising impact on the ecological, cultural and aesthetic value of the development ensuring compatibility. Childcare Centre – located wholly within the enterprise zone and contributes minimal impact on the significance of the E3 zone.
To provide for a limited range of development that does not have an adverse effect on those values.	Poultry Processing Facility – largely avoids impacting on the significance of the existing vegetation in the E3 zone and as a result will not have an adverse impact on the value of the existing vegetation. Cold Storage Facility – avoids impacting on the value of the E3 zone through its location within the adjoining enterprise corridor zone. Childcare Centre – is a compatible land use with the E3 zone however is located within the enterprise corridor further minimising any potential impact generated by the childcare centre.
To facilitate the management of water catchment areas, environmentally sensitive land and areas of high conservation value.	Poultry Processing Facility – largely avoids the existing vegetation within the E3 zone. An ecological assessment of this bushland found no significance or high conservation value in the vegetation however it is still proposed to actively manage and enhance the existing vegetation to provide greater aesthetic value for the surrounding area. Cold Storage Facility – has been located away from the E3 zone to avoid impacts on the area. Childcare Centre – located on the Common Street frontage to avoid impacts on the E3 zone.

The proposed mixed use development has demonstrated consistency with the relevant strategic documentation as further discussed at Section 5 and the objectives of the three zones despite being partially prohibited development. As discussed, the proposed development is declared to be SSD, partially prohibited development is able to be approved under Clause 4.38(3) of the EP&A Act.

The proposed development is therefore considered to be appropriate for the site is worthy of support.

4.10.3 Applicable Local Environmental Plan Clauses

Relevant provisions from LEP 2009 are summarised in Table 19.

Table 19 – Relevant LEP 2009 Provisions

LEP Clause	Comment
LEP Clause 4.4 Floor Space Ration	The site is subject to a floor space ratio of 0.8:1. The floor space ratio of the proposed development will easily meet this requirement. With a site area of 82,606m^2 and a built area of 24,070m^2 the FSR for the proposed development is 0.29:1 which is compliant with Clause 4.4.
LEP Clause 5.10 Heritage Conservation	There are no LEP heritage listed items at the site. The closest is item 1141 Brick Words, Chimneys, Kilns, Dwelling, "The Potteries" (c 1985) (2-12, 14 Common Street Lot 12 DP 861360 Lot 2 DP 740958), located approximately 300m to the north.
LEP Clause 7.1 Flood Planning	The site is outside the mapped flood planning area.
LEP Clause 7.2 Terrestrial Biodiversity	The site is outside the mapped terrestrial biodiversity area.

4.11 Goulburn Mulwaree Development Control Plan 2009

For SSD, the provisions of a development control plan (DCP) are not applicable as provided by Clause 11 of SEPP (State and Regional Development) 2011. However, Goulburn Mulwaree Council has requested consideration of Section 7.2.3 of the DCP 2009 as part of the agency consultation process. Council's correspondence is discussed in Section 7.1.1 and reproduced within Appendix P.

7.2.3 Heavy vehicle haulage development routes

Controls

Route selection for heavy vehicle haulage developments Principal haulage routes needs to be nominated when submitting a development application for a heavy vehicle haulage development.

The applicant needs to justify selection of the haulage route based upon traffic engineering grounds, amenity considerations and availability of alternative options (i.e. rail). If the existing road network is unsatisfactory then upgrades will be required.

The following matters should be addressed in a development application:

1) Impact on the road network:

- *Existing traffic movements along the haulage route.*
- *Estimated increase in traffic movements resulting from the proposed development. This includes detail of any staging proposal, truck / car ratio and the life of the project / development.*
- *Foreseeable increases in traffic movements resulting from other known development (i.e. subdivision of land etc).*
- *Heavy vehicle type and volume (i.e. rigid or articulated, covered or uncovered).*
- *Anticipated tonnage of material to be transported.*
- *Type of material transported.*
- *Hours of operation and frequency of movements.*

2) Impact on amenity and the environment – Rural, Village Zones and generally:

- *Proximity of haulage route to residence, community land etc.*
- *Community expectation including ambience and enjoyment of life.*
- *Community assets including accessibility to parks by residents and visitors.*
- *Noise generation.*
- *Vibration generation.*
- *Visual impact.*
- *Pedestrian safety and safety of other road uses.*
- *Impact on roadside habitat resulting from road upgrade works.*
- *Consistency with the objectives of all zones that the haulage route passes through.*

An applicant may also wish to include details of voluntary measures that are proposed to be undertaken during the operational phase of the development to address any of the considerations outlined in this section. This could include a heavy vehicle code of practice whereby drivers of heavy vehicles agree not to exceed a particular speed limit on a haulage route for safety reasons. Selection of such measures can be informed through discussion with Council staff and/or the responses generated from any consultation undertaken by the applicant prior to submitting an application.

The proposed development is located within an enterprise corridor with vehicles to be transported through Goulburn City. Discussion of traffic impacts has been provided in Section 6.5 with the report provided in Appendix D. A response to the matters to be addressed within the control provided within Table 20.

Table 20 – Section 7.2.3 Matters for Response

Matter	Response
Existing traffic movements along the haulage route.	Consideration of the existing traffic along Sydney Road has been considered as part of the TIA with the existing road capacity able to cater to the proposed development.
Estimated increase in traffic movements resulting from the proposed development. This includes detail of any staging proposal, truck / car ratio and the life of the project / development.	Based on RMS generic traffic generation rates for warehouses and factories, the estimated daily traffic generation of the proposed development would be some 1,500 vehicles two (sum of arrivals plus departures) with approximately 10% or 150 truck movements mixed between the proposed operations.
Foreseeable increases in traffic movements resulting from other known development (i.e. subdivision of land etc).	The enterprise is currently underdeveloped with no proposed subdivisions etc.
Heavy vehicle type and volume (i.e. rigid or articulated, covered or uncovered).	The proposed development has been designed to accommodate 19 metre semi-trailers and 26 metre B-doubles.
Anticipated tonnage of material to be transported.	Each heavy vehicle transporting poultry carries approximately 6,500 broilers with an average weight of approximately 2kg each. Without consideration of cage weight, the birds will total 13,000kg or 13t per truck. Third party haulage for the distribution centre is unknown as a wide variety of goods may be stored within the operation. As such, tonnage is unknown.
Type of material transported.	Poultry is the main transported good transported onto the site. Third party haulage for the distribution centre is

	unknown as a wide variety of goods may be stored within the operation.
Hours of operation and frequency of movements.	24 hours 7 days a week. Movement of poultry is strictly managed to minimise waiting times and ensure animal welfare is being maintained. This results in vehicle movements for the poultry operation spread evenly throughout operation. The distribution centre will be dependent on the needs of third party clients utilising the service.

5 Strategic Context

The relevant provisions, goals and strategic planning objectives of the following strategic documents are addressed in this Section of the EIS:

- NSW Making It Happen;
- NSW Trade and Investment Action Plan;
- South East and Tablelands Regional Plan;
- Employment Land Strategy – Goulburn Mulwaree;
- Guide to Traffic Generating Developments (2002);
- Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development;
- Noise Policy for Industry (2017); and
- Goulburn Mulwaree Section 94 Development Contributions Plan 2009.

5.1 NSW Making It Happen

NSW: Making it Happen was released by the Premier for NSW on 14 September 2015 and replaces the State's previous 10-year plan NSW 2021. *NSW: Making it Happen* outlines 30 key reforms for the State, including personal priorities for the Premier.

The Premier's priorities include:

- Creating jobs
- Driving public sector diversity
- Improving government services
- Keeping our environment clean
- Protecting our kids
- Reducing youth homelessness
- Delivering infrastructure
- Improving education results
- Improving service levels in hospitals
- Making housing more affordable
- Reducing domestic violence reoffending
- Tackling childhood obesity

The State Priorities include:

- Making it easier to start a business
- Boosting apprenticeships
- Increasing housing supply
- Delivering strong budgets
- Transitioning to the National Disability Insurance Scheme
- Cutting waiting times for planned surgeries
- Ensure on-time running for public transport
- Improving road travel reliability
- Reducing adult re-offending
- Encouraging business investment
- Accelerating major project assessment
- Protecting our credit rating
- Improving Aboriginal education outcomes
- Better government digital services
- Increasing cultural participation
- Creating sustainable social housing
- Reducing violent crime
- Reducing road fatalities

The proposed development aligns with the Premier's and State priorities as it will deliver jobs within Goulburn and promote growth in the broader area.

This project will be a catalyst for unlocking development opportunities which will accelerate job creation in regional NSW.

The project will generate direct investment in the Goulburn Mulwaree LGA and help deliver on the Premier's job creation target. While the project will contribute 264 FTE jobs, it will also help unlock 64ha of employment generating land.

In addition to forecast 264 jobs created by the WRP Processing Facility, the net remaining developable area of 112,000m^2 @ 1 job for every 200m^2, could accommodate a further 560 ongoing jobs. With average annual

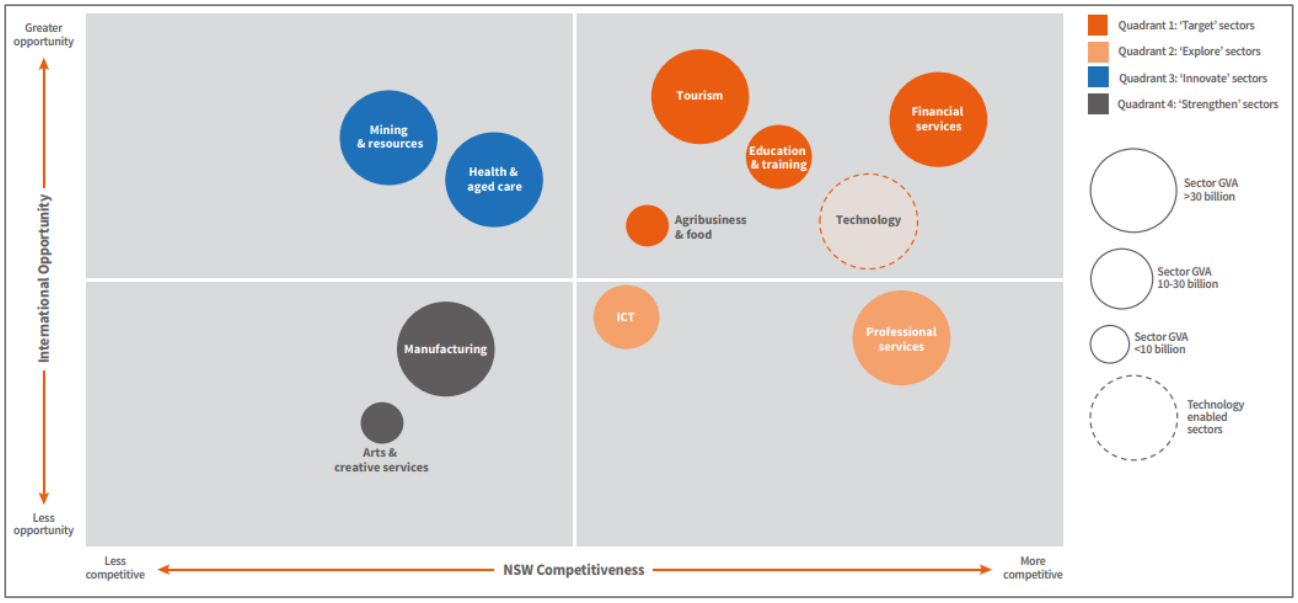
wages estimated at $40,000 per employee (which is considered conservative), this equates to additional wages of $22.4 million annually on top of the $6.0 million in salaries from the poultry factory. There would also be direct and flow on impacts from non-wages operational spending.

5.2 NSW Trade and Investment Action Plan 2017-2018

The NSW Trade and Investment Action Plan positions NSW to compete globally, attract international investment, grow trade and create jobs. It is a whole of government plan to support a strong NSW economy both in our cities and the regions.

This plan indicates that the NSW government will focus on areas of competitive advantage domestically and internationally. The plan specifically identifies food, fibre and agriculture as a key growth opportunity and State priority in maintaining a competitive advantage as shown in Figure 32.

Figure 32 – NSW priority sectors (Source: NSW State Government)



The target is to grow exports of food and fibre from $7.4 billion to $10 billion by 2020 – achieving a sustainable boost in the value of agricultural exports by focussing on high value and specialty products. As part of the growth targets, the plan also places a great emphasis on the Asian market, specifically tapping into extensive Japanese supply chains across Asia.

This project will deliver critical infrastructure services to the WRP poultry processing facility, the precinct's catalyst operation. The project will also augment the opportunity to establish a food processing cluster within the region, as the Common Street Enterprise Corridor sub-precinct will be attractive to cognate operations, contributing to the competitiveness of the NSW economy.

An industry profile prepared by the Australian Chicken Meat Federation (ACMF) identifies the importance of the chicken meat industry. Australia's chicken meat industry plays an integral role in Australian agriculture and in the broader Australian economy, with the industry conservatively estimating that consumers currently spend $5.6 billion per annum on chicken meat in supermarkets, fast food outlets, speciality shops and restaurants. The global demand for meat is estimated to increase by 44 per cent to over 400 million tonnes by 2030 to support the world's growing population and its increased appetite for meat. Poultry's growth rate is expected to be the highest at 60 per cent, with poultry forecast to make up 39 per cent of worldwide meat demand by 2030 and become the most consumed meat globally.

In light of the significant growth of the poultry industry and global demand, and the clear directives outlined in the Trade and Investment Action Plan 2017-2018, it is evident the Woodlands facility is a critical driver in achieving NSW investment targets. The expansion of urban areas into traditional poultry processing lands, has

created a greater demand for well-located precincts such as the Common Street Enterprise Corridor sub-precinct.

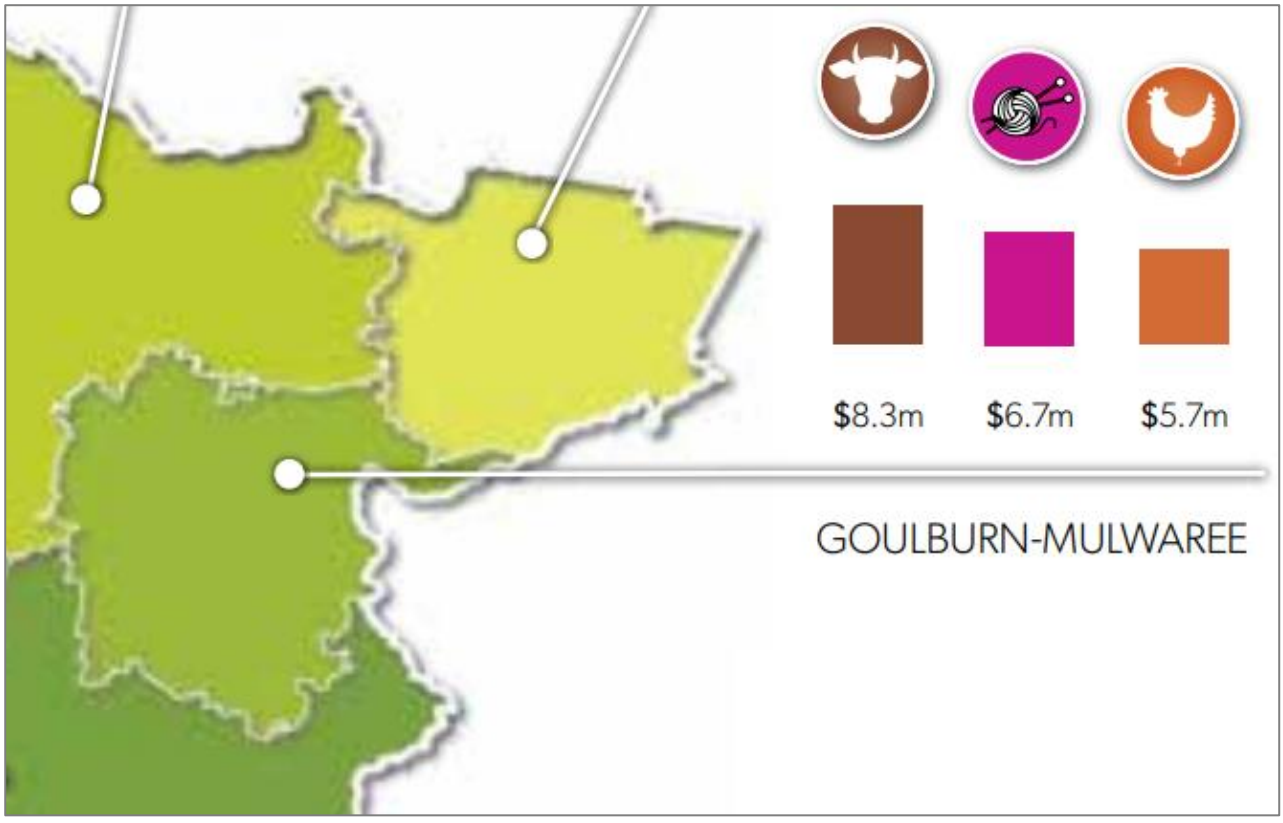
The proposed development also presents as an opportunity to attract investment from other states. The closure of an Ipswich chicken meat processing facility in early 2018 will cost south-east Queensland farmers an estimated $150 million and the loss of 250 jobs. With a clear demand in the poultry processing sector, developments such as the Woodlands facility can cannibalise jobs and investment from other states. Conversely, not supporting these operations through the provision of fundamental industrial infrastructure can direct investment to other areas. For example, in 2016 INGHAM Australia announced a dramatic expansion of its chicken business in South Australia incorporating a $275 million investment and 850 new jobs.

5.3 South East and Tablelands Regional Plan

The South East and Tablelands Regional Plan 2036 (the Regional Plan) was released in July 2017 and provides the future strategic vision for the areas south and south east of Sydney excluding the Illawarra-Shoalhaven area.

The Regional Plan identifies poultry within the top three contributors to Agriculture in the Goulburn Mulwaree region (shown Figure 33) contributing $5.7 million dollars to the economy.

Figure 33 – Contributors to Agricultural Production – Goulburn Mulwaree



Vision

"A borderless region in Australia's most geographically diverse natural environment with the nation's capital at its heart."

The proposed development accords with the overall vision for the region by leveraging the accessibility of Goulburn to both Canberra and Sydney to produce desired product within the two regions.

Goals, directions and actions

The proposal is consistent with the relevant goals and directions of the Regional Plan, as outlined in the Table 21.

Table 21 – Consistency with the South West and Tablelands Regional Plan

Goal	Direction	How the Proposal Relates to Relevant Actions
A connected and prosperous economy	Direction 1: Leverage access to the global gateway of Canberra Airport	Located approximately 1 hour from Canberra Airport, the site is an appropriate distance away to engage with international markets through the utilisation of the Canberra Airport. Access to the global marketplace provides additional support to the development with increased demand and diversity in product needs. The proposal is considered to support the actions as it is a compatible development in the broader region which will not jeopardise the 24 hour operation of the airport.
	Direction 4: Leverage growth opportunities from Western Sydney	The proposed development is located within the Goulburn employment lands area which is stated as providing opportunities for jobs to support the overall growth of Western Sydney. The proposed development is located within employment land within Goulburn which is considered to promote and support the establishment of the larger employment areas within and around Goulburn.
	Direction 5: Promote agricultural innovation, sustainability and value-add opportunities	The mixed use development will establish a poultry processing facility and cold storage distribution centre which will both utilise the latest technology to enhance the operation and efficiency. The cold storage distribution centre will not only support the poultry processing facility but will be available to third party operations leveraging a value-added operation in a key agricultural region. This arrangement services to reduce supply chain costs but supports local investment and access to export markets.
	Direction 8: Protect important agricultural land	The establishment of the mixed use development will directly support existing poultry farms in the region and support the establishment of further poultry farms which will protect agricultural land in the area.

5.4 Goulburn Mulwaree Employment Land Strategy

The Employment Lands Strategy recognises the North East Goulburn Enterprise Corridor Precinct, in which the site is located, as containing the majority of vacant enterprise land in the LGA.

The site has been zoned B6 Enterprise Corridor from the commencement of the Goulburn LEP 2009 in association with the North East Goulburn Enterprise Corridor, see Figure 34. Throughout this time, the site, along with the broader precinct, have remained largely underdeveloped with the report noting that the precinct accommodates the majority of vacant enterprise land across the LGA.

Figure 34 – North East Goulburn Enterprise Corridor (Source: HillPDA via Employment Lands Strategy)

Evaluation of employment land within the LGA has been undertaken including analysis of the Common Street sub-precinct has been undertaken within the Goulburn Mulwaree Employment Lands Strategy with an aim to establish opportunities and methods to enhance viability of employment lands for future development.

The Employment Lands Strategy is split between two reports; a background report which includes strategic and legislative evaluation justifying the need for the Employment Lands Strategy, and a recommendation report which provides the opportunities and recommended pathways for improvement specific to each employment land precinct within the LGA.

The background report found that the strategies and plans applicable to the LGA were generally out of date and a new Employment Lands Strategy would be prudent to provide an updated vision.

The strategy recommended further support for the larger precinct through a number of initiatives. No recommendations specific to the Common Street sub-precinct directly impact the site however short term and short-medium term period recommendations were made which provide flow on support for the proposed development.

In the short term it was recommended to rezone land on the eastern side of Common Street between Sinclair Street and Chiswick Street to IN1 General Industrial. It was noted that a previous attempt to establish a concrete batching operation in this area was proposed however due to the B6 Enterprise zoning the operation was not permissible in the zone and the project was not progressed. The IN1 zoning would allow for industrial land uses mixed with land uses permitted by the enterprise corridor leading to a supportive mix of development in the future. At current this area has remained the current B6 Enterprise Corridor zone.

For the short to medium term, investigation into improved access and connectivity within the precinct was recommended to support existing and future industry. This has resulted in Council committing to upgrading the Sydney Road to Common Street intersection with associated road upgrades further down Common Street.

The proposed development is considered to be consistent with the aims of the Employment Land Strategy as it provides an appropriate land use which will support development of the Common Street sub-precinct and the larger North East Goulburn Enterprise Corridor Precinct.

5.5 Sydney - Canberra Corridor Regional Strategy 2006–2031

The Sydney-Canberra Corridor Regional Strategy 2006-2031 provides direction to strategic and infrastructure development in the regional areas which link Sydney to Canberra with the area considered to be a key State and National corridor for transport, communication, and goods and services.

The main target for the region is population growth and employment. The strategy projects at least 27,800 new jobs being required to support the projected growth in the region. If importance to meeting these demands is the amount of industrial land within the region and the location of industrial zones.

Identified as strengths for the region, the supply of affordable land and accessibility to major transport links. The Goulburn is noted as having 150 hectares of vacant employment land and has major transport links with access to the Hume Highway and the rail network. Highlighting the significant vacant employment land within Goulburn, the area only requires an additional 50 hectares to meet its contribution to the 295 hectares projected for the larger region.

The strategy recognises the key economic challenges are to:

- provide regionally based employment opportunities (at least 27,800 new jobs) through the identification and protection of major employment lands;
- reduce the proportion of commuting/journey to work out of the Region by providing regionally based employment and housing opportunities. This should aim to reduce the proportion of the workforce commuting out of the Region from 26 percent to 20 percent;
- build on regional strengths in employment including distribution/logistic clusters along the Hume Highway, and the proximity to Sydney and Canberra markets;
- build the vitality and capability of centres within the corridor so they can provide employment opportunities for necessary service industries, as well as enabling the incubation of new industries and businesses; and
- protect the agricultural sector of the Region by measures including limiting uncontrolled fragmentation of rural lands through subdivision and controlling the extent and location of non-compatible land uses such as rural residential development.

The proposed development meets these challenges by providing a regionally based employment generator in a strategic located within the existing vacant employment land within the major regional centre of Goulburn which reduces commuting times. The inclusion of the cold storage facility will leverage the strengths of the site's proximity to transport links especially the Hume Highway. The establishment of the poultry processing facility will serve to incubate the poultry industry in the Goulburn Mulwaree area helping to protect agricultural land in the region.

The proposed development is considered to be consistent with the Corridor centres hierarchy as it provides warehousing and employment within the Goulburn centre meeting the aims of the strategy.

5.6 Guide to Traffic Generating Developments (2002)

The Traffic Impact Assessment undertaken by Colston Budd Rogers & Kafes Pty Ltd (CBRK) has considered this Guide and concluded that the proposal is satisfactory having regard to the traffic generation rates within the Guide. It also confirms that it meets the recommended minimum parking rates for the proposed land uses. A copy of the Traffic Impact Assessment Report is provided in Appendix D.

5.7 Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development

The Traffic Impact Assessment undertaken by CBRK has been prepared taking into account this Guide and concluded that the proposal is satisfactory. Discussion of traffic impacts provided at Section 6.5 with a copy of the Traffic Impact Assessment is provided in Appendix D.

5.8 Noise Policy for Industry (2017)

The Noise Impact Assessment undertaken by Muller Acoustic Consulting has considered these Guidelines and concludes that the proposal is satisfactory in terms of noise impact.

Further discussion of noise impacts and assessment provided in Section 6.1 with a copy of the Noise Impact Assessment Report reproduced in Appendix F.

5.9 Goulburn Mulwaree Section 94 Development Contributions Plan 2009

The site is situated within the land application area of the Goulburn Mulwaree Section 94 Contribution Plan (2009). The following formula will be used to calculate the contribution rates for developments within Common Street area:

Contribution per estimated vehicle trips per day = $160

Based on a figure of 1,500 vehicle trips per day the total amount of contributions for the proposed development is $240,000.

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6 Environmental Assessment

Section 6 provides an assessment of the potential environmental impacts associated with the proposed development. The assessment has been conducted against the matters for consideration of Section 4.15 of the EP&A Act; Clauses 6 and 7 of Schedule 2 of the EP&A Regulation; the items outlined within the received SEARs dated 27 September 2018; SEARs amendment dated 7 March 2019; and relevant policies, guidelines and plans.

It must be noted that modelled assessment of environmental impacts, including but not limited to noise impact assessment and air quality impact assessment, have been undertaken inclusive of the mitigation measures as listed in Section 9. The proposed mitigation measures are necessary to ensure compliance with the relevant environmental thresholds and limits.

6.1 Noise Impact

A Noise Impact Assessment (NIA) has been undertaken by Muller Acoustic Consulting and is summarised in this section of the EIS. The full report is presented in Appendix F.

6.1.1 Existing Noise Environment

The project is located on a greenfield site on the north east of Goulburn. The site is partially zoned B6 and forms part of an area which is being gradually developed as part of a larger employment Precinct noted as the North East Goulburn Enterprise Corridor.

At present, the site is surrounded by rural residential receivers and several commercial premises. A total of 8 residential receivers have been assessed and generally consist of rural residential dwellings, with the exception of R8, which is a group home. The nearest residential receivers are located approximately 60m to the north east of the site, and approximately 100m to the south and the west of the site. A total of three commercial/industrial type receivers have been assessed and include a resource recovery facility (C1), a landscaping material supplier (C2), and a medical equipment supplier (C3). The nearest sensitive receivers to the project are presented in Table 22. Figure 35 provides a locality plan identifying the position of these receivers in relation to the project.

Table 22 – Sensitive Receivers

Receiver	Category	Coordinates (MGA56)	
		Easting	Northing
R1	Residential	202304	6149920
R2	Residential	202481	6149652
R3	Residential	202480	6149501
R4	Residential	202142	6149571
R5	Residential	201845	6149380
R6	Residential	201885	6149871
R7	Residential	202127	6150007
R8	Residential	202241	6149975
C1	Commercial	202359	6149885
C2	Commercial	201647	6149712
C3	Commercial	202008	6150036

Figure 35 – Assessed Sensitive Receiver Locations – Noise Impact Assessment

The locations of the assessed receivers were selected to represent the noise levels for two noise catchment areas primarily controlled by ambient traffic noise, non-site related commercial noise and ambient sources. Noise monitoring was undertaken between 30 January 2019 and 7 February 2019 to quantify the existing ambient acoustic environment, with measurements taken at Location 1, representative of receivers R1 and R6 to R8, and Location 2, representative of receivers R2 to R5. The monitoring locations are displayed in Figure 35.

To assess existing background noise levels, statistical noise data was continuously recorded over 15-minute integration periods by noise loggers within each of the catchment areas. Calibration of all instrumentation was checked before and after each measurement and was found to be compliant. Data affected by adverse meteorological conditions was excluded from the results and the rating background levels (RBL) were calculated for each monitoring position in accordance with the NPI.

The rating background level (RBL) and overall $L_{Aeq\ (period)}$ for the time periods of day, evening and night for the two representative monitoring locations is presented in Table 23.

Table 23 – Background Noise Monitoring Summary

Catchment and Representative Residential Receivers	Period[1]	Measured dB L_{A90} (RBL)	Measured dB $L_{Aeq\ (period)}$
L1 – Northern Boundary (R1, R6-R8)	Day	39	49
	Evening	34	47
	Night	30 (28)	41

	Morning Shoulder	30	44
L2 – Southern Boundary (R2-R5)	Day	37	46
	Evening	32	44
	Night	30 (27)	40
	Morning Shoulder	30 (29)	41

Note 1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.
Note 2: Bracketed value is measured RBL, although as per the NPI the RBL for evening can't be higher than day.
Note 3: Excludes periods of wind or rain affected data, meteorological data obtained from the Bureau of Meteorology Goulburn Airport (34.81°S 149.73°E 640m AMSL)

6.1.2 Noise Criteria

The NIA assessed the proposed expansion against the relevant noise guidelines which establish noise compliance levels for new development. The relevant noise guidelines include the following:

- Environment Protection Authority (EPA) 2017, *NSW Noise Policy for Industry* (NPI);
- Department of Environment and Climate Change (DECC) 2009, *Interim Construction Noise Guideline* (ICNG); and
- Department of Environment, Climate Change and Water NSW (DECCW), *Road Noise Policy* (RNP), 2011.

Operational Noise

The NPI sets out the procedure to determine the Project Noise Trigger Levels (PNTLs) relevant to an industrial development. The NPI requires the consideration of both the intrusiveness noise criteria and the amenity noise criteria, with the more stringent value representing the project specific criteria.

The purpose of the intrusiveness criteria is to limit the degree of change a new noise source introduces to an existing environment by limiting the $L_{Aeq\ (15\ minute)}$ of the new noise source RBL plus 5 dB. The intrusiveness criteria only apply to residential receivers and are presented in Table 24.

Table 24 – Intrusiveness Noise Criteria

Catchment and Representative Residential Receivers	Intrusiveness Criteria $L_{Aeq\ (15\ minute)}$			
	Day	Evening	Night	Morning Shoulder
Residential (R1, R6-R8)	44	39	35	35
Residential (R2-R5)	42	37	35	35

The purpose of the amenity noise criteria is to set reasonable cumulative industrial noise levels for an area based on the receiver land use. The NPI suggests that to enable industrial noise levels (existing plus new) to remain within the recommended amenity noise levels for an area, a project amenity noise level applies for each new source of industrial noise, where the project amenity level is 5 dB less than the recommended amenity noise level. To convert the amenity period level to a 15-minute assessment period, a plus 3 dB adjustment is applied as per Table 2.2 of the NPI. The recommended amenity noise levels and project amenity noise levels (dB $L_{Aeq\ (15\ minute)}$) are provided in Table 25.

Table 25 – Amenity Noise Criteria

Receiver Type	Amenity Category	Period	Recommended Amenity Noise Level dB $L_{Aeq\ (period)}$	Project Amenity Noise Level dB $L_{Aeq\ (15\ minute)}$
Residential	Rural	Day	50	48

(R1, R6-R8)		Evening	45	43
		Night	40	38
		Morning Shoulder	N/A	N/A
Residential (R2-R5)	Rural	Day	50	48
		Evening	45	43
		Night	40	38
		Morning Shoulder	N/A	N/A
Commercial	All	When in use	65	63

The Project noise goal at each receiver location is derived from the lower (more stringent) of the amenity and intrusiveness criteria. The project specific criteria are presented in Table 26.

Table 26 – Project Noise Trigger Levels

Receiver Type	Period	Intrusiveness Noise Level, dB $L_{Aeq\ (15\ minute)}$	Project Amenity Noise Level, dB $L_{Aeq\ (15\ minute)}$	PNTL, dB $L_{Aeq\ (15\ minute)}$
Residential (R1, R6-R8)	Day	44	48	44
	Evening	39	43	39
	Night	35	38	35
	Morning Shoulder	35	N/A	35
Residential (R2-R5)	Day	42	48	42
	Evening	37	43	37
	Night	35	38	35
	Morning Shoulder	35	N/A	35
Commercial (C1-C3)	When in use	N/A	63	63

Road Traffic Noise

The road traffic noise criteria are provided in the Department of Environment, Climate Change and Water NSW (DECCW), Road Noise Policy (RNP), 2011.

The 'Local Road' category, as specified in the RNP, has been adopted for Common Street for this assessment. Table 27 reproduces the road traffic noise assessment criteria for residential land uses are reproduced from the RNP relevant for this road type.

Table 27 – Road Traffic Noise Assessment Criteria for Residential Land Uses

Road Category	Type of Development	Assessment Criteria	
		Day (7am to 10pm)	Night (10pm to 7am)
Local Roads	Existing residences affected by additional traffic on existing local roads generated by land use developments	55 dB, $LA_{eq\ (1\ hour)}$	50 dB, $LA_{eq\ (1\ hour)}$

In addition to the criteria identified in Table 22, the RNP application notes state that where the existing road noise level exceeds or is within 2 dB of the relevant noise criterion, the total road noise after the development should be limited to an increase of 2 dB.

Maximum Noise Level Assessment Criteria

The potential for sleep disturbance impacts from a development/premises during the night-time period is assessed in accordance with the maximum noise level assessment criteria prescribed in the NPI. The NPI states that where the subject development/premises night-time noise levels at a residential location exceeds:

- $L_{Aeq,\ 15\ minute}$ 40 dB(A) or the prevailing RBL plus 5 dB(A), whichever is greater; and/or,
- L_{AFmax} 52 dB(A) or the prevailing RBL plus 15 dB, whichever is greater,

A detailed maximum noise level event assessment should be undertaken. The sleep disturbance screening criteria for the nearest residential receivers is presented in Table 28.

Table 28 – Maximum Noise Level Assessment Screening Criterion

Receiver	$L_{Aeq\ (15\ minute)}$ 40 dB $L_{Aeq\ (15\ minute)}$ or RBL + 5 dB		L_{AFmax} 52 dB L_{AFmax} or RBL = 15 dB	
Residential Receivers R1 and R6-R8	Trigger	40	Trigger	52
	RBL + 5 dB	40	RBL + 5 dB	50
	Highest	**40**	**Highest**	**52**
Residential Receivers R2-R5	Trigger	40	Trigger	52
	RBL + 5 dB	40	RBL + 5 dB	50
	Highest	**40**	**Highest**	**52**

Noise Intrusion Criteria to Child Care Centres

The AAAC child care centre guideline also provides recommendations for external noise impact upon children in child care centres (CCC). The relevant criteria for noise intrusion to the CCC is reproduced as follows:

- The $L_{Aeq(1hr)}$ intrusive noise level from road, rail or industry at any location within an outdoor play area should not exceed 55 dBA; and
- The $L_{Aeq(1hr)}$ intrusive noise level from road, rail or industry within the indoor play or sleeping areas should not exceed 40 dBA.

Construction Noise

The Interim Construction Noise Guideline (ICNG) (DECC, 2009) establishes construction noise management levels (NMLs) for two levels of magnitude. The *Noise Affected* NML, represented as the RBL plus 10 dB (day-period), is considered to be the noise level above which there may be some community reaction to the noise. The *Highly Noise Affected* NML, represented by the set level of 75 dB, is considered to be the noise level above which communities may react strongly to the noise.

The construction noise management levels (criteria), established in accordance with the ICNG are presented in Table 29.

Table 29 – Construction Noise Management Levels

Receiver Type	Period	Rating Background Level RBL, dB L_{A90}	Noise Management Level RBL, dB $L_{Aeq\ (15\ minute)}$
Residential receivers (R1, R6-R8)	Day	39	49
Residential Receivers (R2-R5)	Day	37	47
Commercial Receivers (C1-C3)	Day	N/A	70

All construction activities will be undertaken during standard construction hours.

6.1.3 Noise Assessment Methodology

Noise impacts during construction and operational stages were determined using DGMR (iNoise, Version 2018.01) noise modelling software. The calculation method used to predict noise levels was in accordance with the ISO 9613-1 and ISO 96130-2 algorithms, with consideration of noise enhancing meteorological conditions to account for the worst case operational conditions.

The model incorporated three-dimensional digitised ground contours for the fixed plant and surrounding site, as derived from proposed site plans, current and proposed building locations, export product storage locations and the surrounding land base topography, superimposed on each other. The noise model predicts L_{Aeq} noise levels, although it should be noted that this assessment has assumed that all plant and equipment operate simultaneously. In practice, such an operating scenario would be unlikely to occur and the results should therefore be considered conservatively high.

The model was calibrated against attended noise measurement data for various operational modes of the plant. Where relevant, modifying factors in accordance with Fact Sheet A of the NPI have been applied to calculations.

Noise emissions from an activity can be significantly influenced by prevailing weather conditions, including source to receiver winds and temperature inversion conditions. To account for the potential for enhancements, the NPI specifies that source to receiver wind component speeds up to 3m/s for 30% or more of the time in any seasonal period are significant meteorological features and must be incorporated into predictions.

The prevailing meteorological conditions were determined for the project using weather data obtained from the nearest Bureau of Meteorology's (BOM) weather station at Goulburn Airport AWS located approximately 6km south of the site, for the period between December 2015 to December 2018. The data was analysed using the EPA's Noise Enhancement Wind Analysis (NEWA) program to determine the frequency of occurrence of winds speeds up to 3m/s in each seasonal period. The findings of the analysis indicate that wind speeds up to 3m/s do not exceed the threshold frequency of 30%, therefore prevailing winds are not adopted for the assessment. The relevant meteorological conditions adopted for the noise modelling assessment are summarised in Table 30.

Table 30 – Modelled Site Specific Meteorological Parameters

Period	Assessment Condition	Temperature	Wind Speed / Direction	Relative Humidity	Stability Class
Day	Calm	20°C	n/a	60%	n/a
Evening	Calm	15°C	n/a	60%	n/a
Night/MS[1]	Calm	10°C	n/a	60%	n/a
Night/MS[1]	Inversion	10°C	n/a	60%	F-Class

Note 1: MS is morning shoulder

6.1.4 Operational Noise Assessment

Fixed and mobile plant noise emission data used in modelling for this assessment were measured on the site or obtained from the MAC noise database for relevant noise sources that are proposed to be used for the project. The noise emission levels used in modelling are summarised in Table 31.

Table 31 – Equipment Sound Power Levels and Operational Periods

Plant/Equipment	No of	Sound Power Level (LW), dBA	Day	Evening	Night	Morning Shoulder
Childcare Centre						
10 Children at Play	5	87	✓	✓		✓
Rooftop Mechanical	2	71	✓	✓		✓
Corporate Office						
Rooftop Mechanical	2	71	✓	✓		
Car Park						
Car	110	68	✓	✓	✓	✓
Truck Maintenance Facility						
Truck Start Up	1	82	✓			
Light Hand Tools	2	97	✓			
Air Compressor	1	93	✓			
Hammering	1	105	✓			
Wastewater Treatment Plant						
DAF Building	1	100	✓	✓	✓	✓
Circulation Pump	2	84	✓	✓	✓	✓
Live Bird Shed						
Ventilation Fans	8	95	✓	✓	✓	✓
Vehicle Movements	-	102	✓	✓	✓	✓
Condenser Units						
Condenser Units	2	95	✓	✓	✓	✓
Cold Storage Plant						
Workshop Tools	2	97	✓	✓	✓	✓
Air Compressor	1	93	✓	✓	✓	✓
Refrigeration Plant	1	96	✓	✓	✓	✓
Vehicle Movements	-	102	✓	✓	✓	✓
Forklift Operations	4	87	✓	✓	✓	✓
By Products Facility						
Air Compressor	2	93	✓	✓	✓	✓
Hot Water System	2	79	✓	✓	✓	✓
Refrigeration Plant	1	96	✓	✓	✓	✓
Vehicle Movements	-	102	✓	✓		
Processing Facility – Bird Reception						
Truck Idling	3	82	✓	✓	✓	✓
Forklift Operations	2	87	✓	✓	✓	✓
Crate Wash	1	83	✓	✓	✓	✓
Conveyor System	120m	67/m	✓	✓	✓	✓

Processing Facility – Main Processing						
Conveyor System	500m	67/m	✓	✓	✓	✓
Pneumatic Hand Tools	15	97	✓	✓	✓	✓
Processing Facility – Plant Rooms						
Workshop Hand Tools	2	97	✓	✓	✓	✓
Air Compressor	1	93	✓	✓	✓	✓
Hot Water System	4	79	✓	✓	✓	✓
Refrigeration Plant	1	96	✓	✓	✓	✓

Note 1: Internal sources
Note 2: Assumes 50% reduction in operation of fans during evening, morning shoulder and night periods.

The modelled scenarios assumed that all plant and equipment operate simultaneously. In practice, such an operating scenario would be unlikely to occur, and the results should therefore be considered to be highly conservative.

A summary of the operational noise results for each of the modelled scenarios is presented in Table 32. The full suite of modelling results is provided in Appendix F.

Table 32 – Summary of Operational Noise Results

Receiver Type	Period	Highest Predicted Noise Level, dB $L_{Aeq\ (15\ minute)}$		PNTL, dB $L_{Aeq\ (15\ minute)}$		Compliant
		Calm	Inversion	Calm	Inversion	
R1	Day	<35	-	44	-	✓
	Evening	<35	-	39	-	✓
	Night	<35	<35	35	35	✓
	Morning Shoulder	<35	<35	35	35	✓
R2	Day	<35	-	42	-	✓
	Evening	<35	-	37	-	✓
	Night	<35	<35	35	35	✓
	Morning Shoulder	<35	<35	35	35	✓
R3	Day	<35	-	42	-	✓
	Evening	<35	-	37	-	✓
	Night	<35	<35	35	35	✓
	Morning Shoulder	<35	<35	35	35	✓
R4	Day	37	-	42	-	✓
	Evening	35	-	37	-	✓
	Night	<35	35	35	35	✓
	Morning Shoulder	<35	35	35	35	✓
R5	Day	<35	-	42	-	✓
	Evening	<35	-	37	-	✓
	Night	<35	35	35	35	✓
	Morning Shoulder	<35	35	35	35	✓

R6	Day	<35	-	44	-	✓
	Evening	<35	-	39	-	✓
	Night	<35	<35	35	35	✓
	Morning Shoulder	<35	<35	35	35	✓
R7	Day	<35	-	44	-	✓
	Evening	<35	-	39	-	✓
	Night	<35	<35	35	35	✓
	Morning Shoulder	<35	<35	35	35	✓
R8	Day	35	-	44	-	✓
	Evening	35	-	39	-	✓
	Night	<35	35	35	35	✓
	Morning Shoulder	<35	35	35	35	✓

Other Receiver Types				
Receiver	**Period**	**Predicted Noise Level, $L_{Aeq\ (15\ minute)}$**	**Project Noise Trigger Level, $L_{Aeq\ (15\ minute)}$**	**Compliant**
Commercial (C1–C3)	When In Use	<35	63	✓

Note: Morning Shoulder – the period from 5am to 7am, Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays.

The results of the operational noise modelling, as demonstrated in Table 27, show that the noise emissions from the project comply with the PNTLs at all assessment periods, at all assessed receiver locations. The assessment considered both calm meteorological conditions, and inversion conditions. The highest noise levels were predicted for receiver location R4 during the day period (37 dB(A)), 5 dB lower than the applicable PNTL. During the night and morning shoulder periods, noise levels were predicted to approach the PNTL during inversion conditions at receiver locations R4, R5 and R8. The noise levels at the commercial receiver locations (C1 to C3) were predicted to be significantly lower than the applicable PNTL. The representative noise contours are shown in Figure 36, Figure 37 and Figure 38.

Figure 36 – Noise Contour – Daytime Operations – Calm Conditions

Figure 37 – Noise Contour – Night-time Operations – Calm Conditions

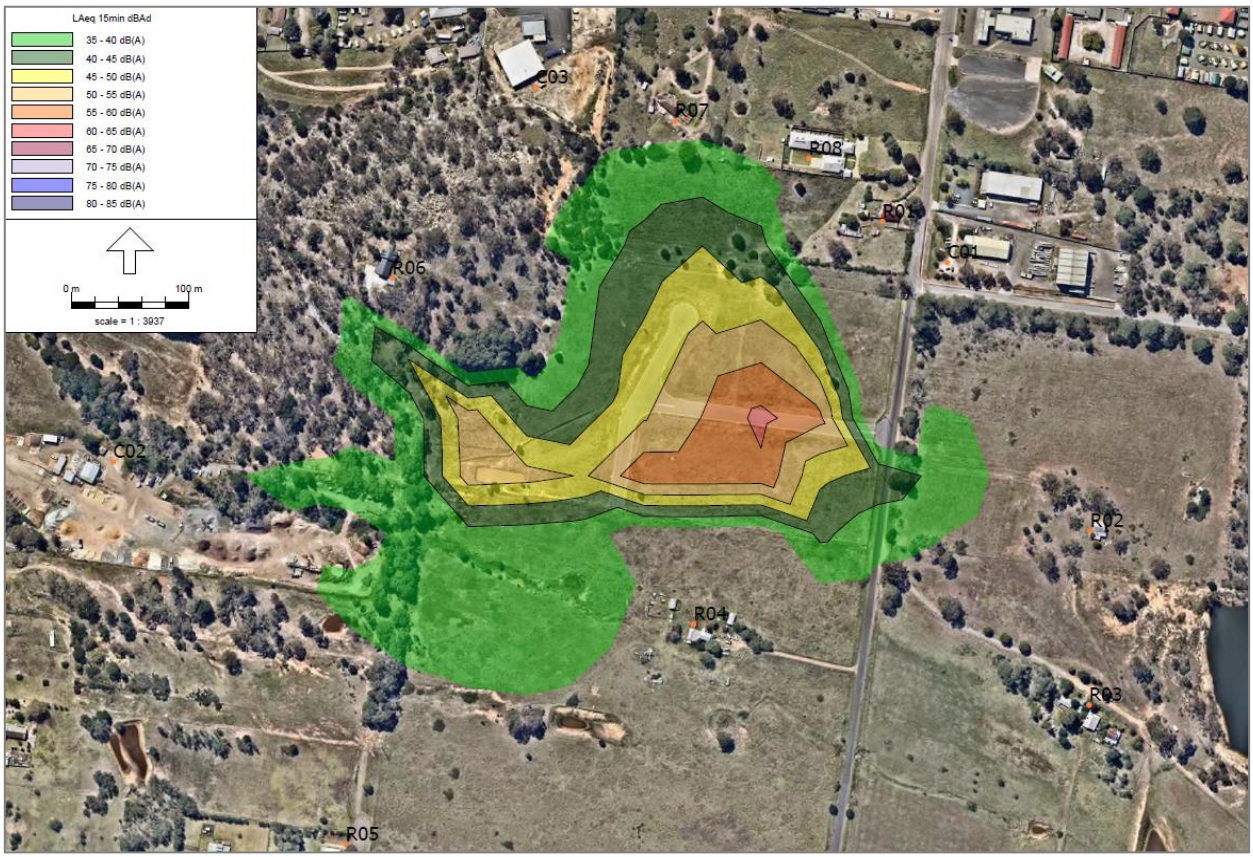
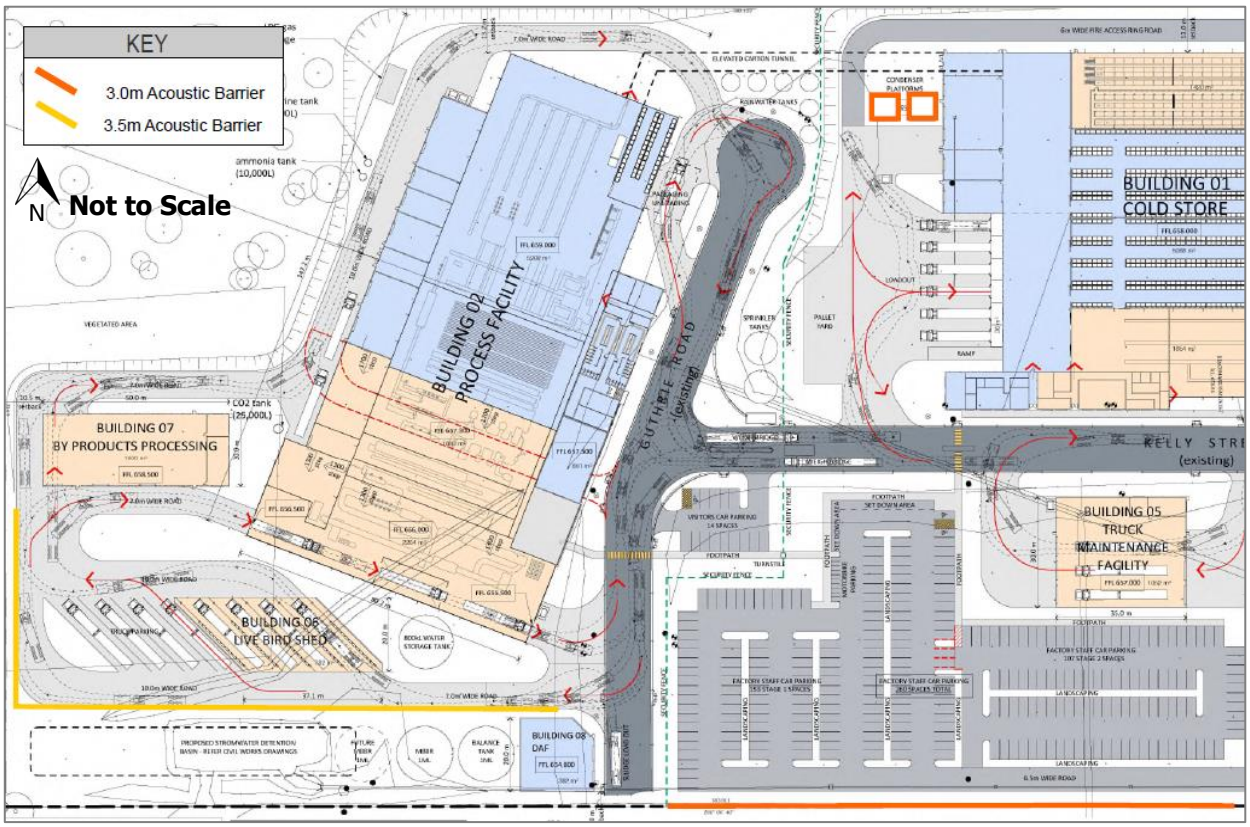


Figure 38 – Noise Contour – Night-time Operations – Inverse Conditions

These results are inclusive of the proposed controls and mitigation measures provided at Section 9 and provided below:

- Maintenance facility will operate during daytime hours only;
- The DAF Building and Rendering plant have a tilt slab construction of minimum 100mm thick concrete or equivalent;
- The poultry product conveyor linking the processing facility and cold storage will be fully enclosed with minimum 0.7mm steel plating or equivalent;
- Construction of an impervious barrier along the southern side of the car park access road (see Figure 39). The fence is assumed to be constructed to an RL of 3m above the relative ground level and consist of materials with a surface density of at least 10kg/m2, and not contain any gaps (i.e. lapped and capped timber or equivalent);
- Construction of a 3.5m high impervious barrier along the south/west side of the live bird shed access road (see Figure 39) and consist of materials similar to those prescribed above;
- Construction of impervious barriers surrounding the condenser units (see Figure 39). The barriers are to be constructed to an RL of 3m above the relative level of the units and consist of materials similar to those prescribed above; and
- Child Care Centre and Corporate Office rooftop mechanical plant is to be enclosed by noise barriers that extend 600mm above the top of plant and consist of materials similar to those prescribed above.

Figure 39 – Proposed Noise Wall – Noise Impact Assessment



6.1.5 Road Traffic Noise Assessment

The proposed development is anticipated to accommodate a total of up to 150 heavy vehicle movements per day to and from the site with an average of 10 truck movements per hour during the daytime period. It has been assumed that all vehicle movements would travel along Common Street and turn into the site. Road noise was calculated at a 20m offset distance from the centre line of Common Street. This represents the offset distance for the closest residential receivers adjacent to Common Street from the centre of the roadway. Therefore, results should be considered worst case. Night-time (10pm – 7am) truck movements are proposed as part of the project with an average of 10 truck movements per hour.

The assessment also included a worst case 1 hour of 300 cars per hour during shift change.

The results of the traffic noise calculations are presented in Table 33 and demonstrate the noise levels from project vehicle movements would remain below the relevant day criteria.

Table 33 – Operational Road Traffic Noise Levels – Day $L_{Aeq\ (1\ hour)}$, dB

Period	Distance to Nearest Receiver (m)	Assessment Criteria	Future Project Traffic Noise	Compliant
Day	20	55	49.9	✓
Night		50	49.9	✓

6.1.6 Childcare Centre Noise Intrusion Results

The presence of a childcare centre as part of the overall proposal requires separate consideration regarding the impact of other operations on children. Table 34 presents the predicted noise intrusion from the surrounding industrial sources, including those proposed with the TAFP portion of the project and includes

noise intrusion from passing traffic and the predicted cumulative noise level impacting on the CCC external play spaces. The predicted results show compliance with the AAAC child care centre guideline criteria.

Table 34 – Childcare Centre Noise Results

Receptor	Cumulative Predicted Noise Level, dB $L_{Aeq\ (15\ minute)}$	PNTL, dB $L_{Aeq\ (15\ minute)}$	Compliant
External Spaces			
Outdoor Play Area 1	45	55	✓
Outdoor Play Area 2	45	55	✓
Outdoor Play Area 3	47	55	✓
Internal Spaces			
Eastern Façade	<35	40	✓
Southern Façade	<35	40	✓
Western Façade	<35	40	✓
Northern Façade	<35	40	✓

6.1.7 Maximum Noise Level Assessment

In assessing sleep disturbance, typical L_{AFmax} noise levels from transient events were assessed to the nearest residential receivers. The use of the L_{AFmax} noise level provides a worst-case prediction since the $L_{A1\ (1\ minute)}$ noise level of a noise event is likely to be less than the L_{AFmax}. For the sleep disturbance assessment, a sound power level of 102 dBA for impact noise emissions are adopted for this assessment with the night-time operational scenario adopted for the awakenings assessment.

Predicted noise levels from $L_{Aeq\ (15\ minute)}$ and L_{AFmax} events for assessed receivers are summarised in Table 35. The results of the analysis indicate that the sleep disturbance screening criterion will be satisfied for all assessed receivers. It is therefore considered that a detailed maximum noise level event assessment is not warranted for the proposal.

Table 35 – Summary of Maximum Noise Levels Assessment (Night)

Receiver	Predicted Noise Level		Screening Criterion		Compliant
	dB $L_{Aeq\ (15\ minute)}$	dB L_{AFmax}	dB $L_{Aeq\ (15\ minute)}$	dB L_{AFmax}	
R1	<35	40	52	40	✓
R2	<35	<35	52	40	✓
R3	<35	<35	52	40	✓
R4	<35	<35	52	40	✓
R5	<35	35	52	40	✓
R6	<35	<35	52	40	✓
R7	<35	<35	52	40	✓
R8	<35	43	52	40	✓

6.1.8 Construction Noise Assessment

Construction of the site will be undertaken in two stages. Stage 1 will involve the construction of the meat processing component of the poultry processing facility, pallet components and four vehicle bays of the cold storage facility, office and wastewater treatment plant. The facility carpark and internal roads, save for Guthrie Road and Kelly Street, will be constructed during Stage 1. Stage 2 will involve the construction of the bird

reception and kill plant for the poultry processing building, the packing and ASRS freezers of the cold storage facility, the by-products processing facility, the live bird shed, truck maintenance, and the childcare centre.

As the construction schedule is yet to be determined, the assessment of potential construction noise impacts considered each of the construction activities both separately and cumulatively. The construction scenario adopted a generic construction fleet representative of plant used in building construction (Table 36). Plant items for this assessment were situated in and around each of the proposed buildings to provide an indicative worst-case representation of noise emissions during construction. The construction modelling assessment adopted methodologies consistent with the operational assessment for calm meteorological conditions.

Each construction stage will be undertaken over a period of approximately 6 months, and will be carried out during the recommended standard hours for construction work as per the *Interim Construction Noise Guideline* (ICNG), being:

- 7:00 am to 6:00 pm between Monday and Friday (or as specified by consent conditions);
- 8:00 am to 1:00 pm on Saturday (or as specified by consent conditions); and
- No work on Sundays or public holidays.

Table 36 – Construction Equipment Sound Power Levels, re dB(A) 10-12W

Construction Equipment /Activity	Sound Power Levels dB(A) 10^{-12}W
Road Trucks	103
Excavator/Backhoe/Concrete Truck	106
Hand Tools (Power Tools)	97
Combined Fleet Construction Noise Level	106

The results of the construction noise assessment are presented in Table 37. The cumulative $L_{Aeq\ (15\ minute)}$ noise levels for construction activities are predicted to be above the relevant construction noise management levels (NML) at several receivers, with the highest predicted impact level of 58 dB(A) at R4. It is noted that although exceedances of the NML are predicted, all noise levels are anticipated to be significantly lower the *highly noise affected* NML of 75 dB(A), which represents the level above which the community may react strongly to the noise. Notwithstanding, the project will adopt reasonable and feasible noise management initiatives to reduce construction noise impacts to the surrounding community.

Table 37 – Construction Noise Assessment Results – Predicted Exceedances (Day)

Receiver	Predicted Cumulative Noise Level dB	NML dB $L_{Aeq\ (15\ minute)}$	Compliance
R1	53	52	
R2	37	52	✓
R3	48	52	✓
R4	58	52	
R5	46	52	✓
R6	39	52	✓
R7	50	52	✓
R8	53	52	
C1	57	52	
C2	43	75	✓
C3	31	75	✓

To reduce the construction noise impacts on the community, the following mitigation measures will be implemented during the construction phase of the proposal:

- Toolbox and induction of personnel prior to shift to discuss noise control measures that may be implemented to reduce noise emissions to the community;
- Implement any boundary fences/retaining walls as early as possible to maximise their attenuation benefits;
- Where possible use mobile screens or construction hoarding to act as barriers between construction works and receivers;
- All plant should be shut down when not in use. Plant to be parked/started at farthest point from relevant assessment locations;
- Operating plant in a conservative manner (no over-revving);
- Selection of the quietest suitable machinery available for each activity;
- Avoidance of noisy plant/machinery working simultaneously where practicable;
- Minimisation of metallic impact noise;
- All plant are to utilise a broadband reverse alarm in lieu of the traditional hi frequency type reverse alarm; and
- Undertake letter box drops to notify receivers of potential works.

Furthermore, working hours on site during construction are proposed to be restricted to:

- 7:00 am to 6:00 pm between Monday and Friday (or as specified by consent conditions).
- 8:00 am to 1:00 pm on Saturday (or as specified by consent conditions).

Work shall not be undertaken on Sundays or public holidays.

6.2 Air Quality and Odour

An Air Quality Impact Assessment (AQIA) has been prepared for the Project by SLR and is summarised in this section of the EIS. The full report is reproduced in Appendix C.

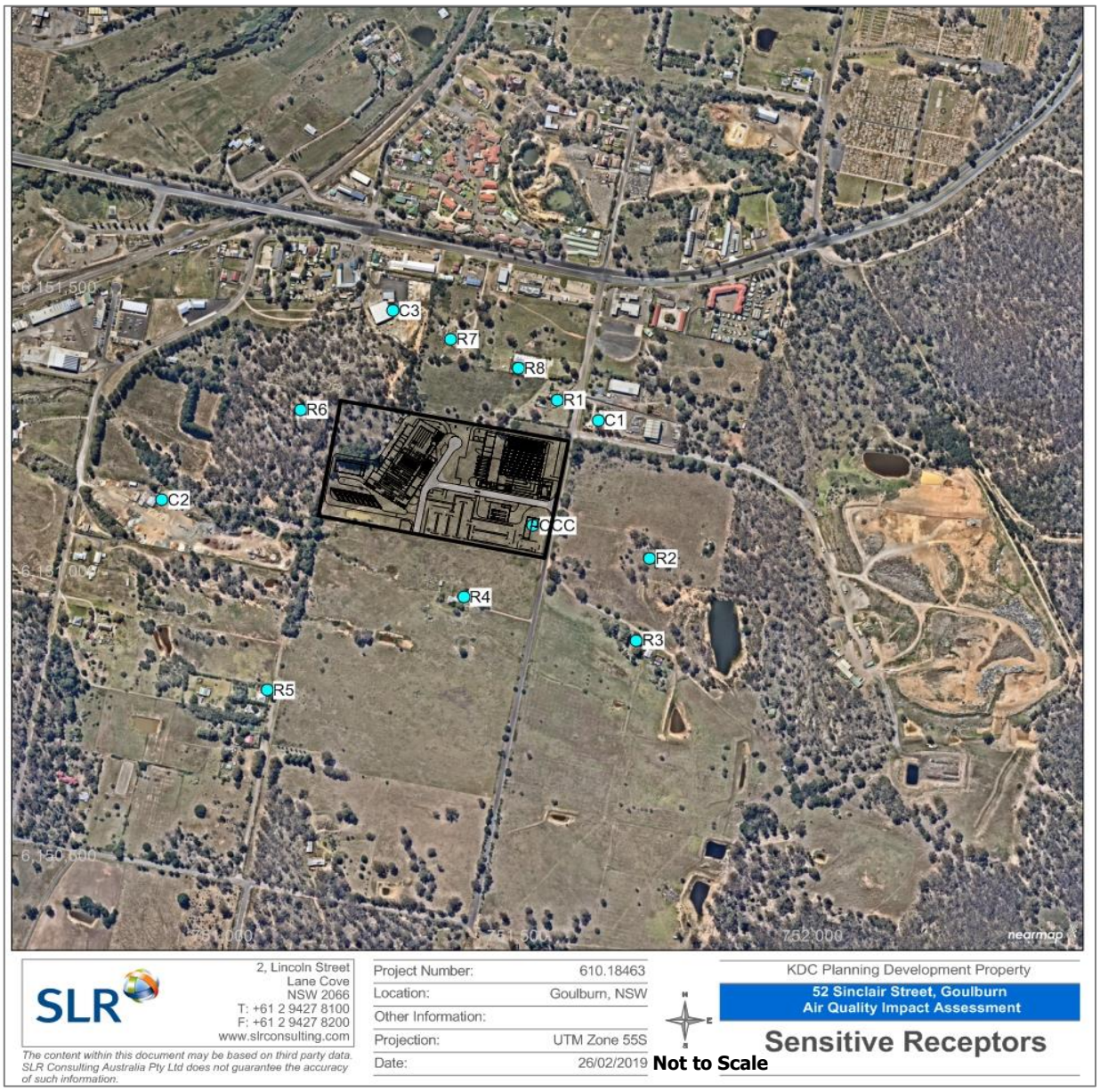
The AQIA assessed the proposed development against the relevant guidelines including the following:

- *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (NSW EPA, 2017); and*
- *Technical Framework Assessment and Management of Odour from Stationary Sources in NSW (NSW DEC, 2006).*

6.2.1 Existing Air Quality Conditions

The area surrounding the site includes rural residential lots and other commercial and industrial uses including a sand and soil supplier, café, motel and a resource recovery facility. The nearest residential and commercial receivers are located approximately 60m and 75m from the closest boundary to the site. The locations of the identified closest sensitive receivers are shown in Figure 40.

Figure 40 – Assessed Sensitive Receptor Locations – Air Quality Impact Assessment



The main sources of air pollutants in the area include emissions from local anthropogenic activities such as commercial activities, motor vehicle exhaust and domestic wood heaters. Specific land uses that may contribute to the existing air quality in the locality include the sand and soil facility located to the west of the site and the landfill operation to the east of the site.

Ambient air quality monitoring data from the site are not available. The NSW OEH regional Air Quality Monitoring Station (AQMS) located in Bathurst is taken as being generally representative of the background levels in the vicinity of the site, based on its inland location and similar regional industries and human population. Summary of the Bathurst AQMS Data provided at Table 38.

Table 38 - Summary of the Bathurst AQMS Data

Pollutant	Average Period	Criteria	Year	Bathurst AQMS		Units
				Maximum Concentration	Number of Exceedances	
PM_{10}	24-hour	50 µg/m^3	2013	145.0	3	µg/m^3
			2014	42.8	0	µg/m^3

			2015	94.6	2	µg/m^3
			2016	34.1	0	µg/m^3
			2017	49.9	0	µg/m^3
	Annual	25 µg/m^3	2013	15.1	0	µg/m^3
			2014	14.6	0	µg/m^3
			2015	13.4	0	µg/m^3
			2016	13.3	0	µg/m^3
			2017	14.1	0	µg/m^3

Exceedances of the 24-hour average PM_{10} criteria were recorded by the Bathurst AQMS over the previous five years in 2013 and 2015. A review of the exceedances recorded during 2013 and 2015 indicate that they were associated with natural events such as bushfires (or hazard reduction burns) or dust storms.

As noted above, existing odour generating facilities are located within the vicinity of the site, including a sand and soil supplier, café, and a resource recovery facility. While there are multiple facilities that are likely to contribute to background odour levels, it is noted that the odour characteristics of these facilities are different from one another, and do not combine in an additive manner.

The odour that is detectable by the nose can be a combination of many different compounds. The odour strength of these compounds do not combine in an additive manner but when mixed, may result in reduced odour due to dilution of the strongest smelling compounds. Although the surrounding facilities contain odour generating activities and contribute to the odour levels of the locality, the characteristics of the odours are different to those of the other facilities.

6.2.2 Site Meteorology

Site meteorological conditions were established utilising data from the Bureau of Meteorology surface station located at Goulburn Airport AWS. Modelling using the CALMET program which utilised this date in combination with local topography to establish a 3D model of meteorological conditions at the site to assess air quality impacts. The following figures document the experienced meteorological conditions between 2013 to 2017 utilised within the model. For this 5 year period the historic monthly averages for temperature, humidity, evaporation, and rainfall are illustrated in Figure 41, Figure 42, Figure 43, and Figure 44 respectively.

Figure 41 – 5 Year Historic Temperature (Source: BoM Goulburn Airport AWS)

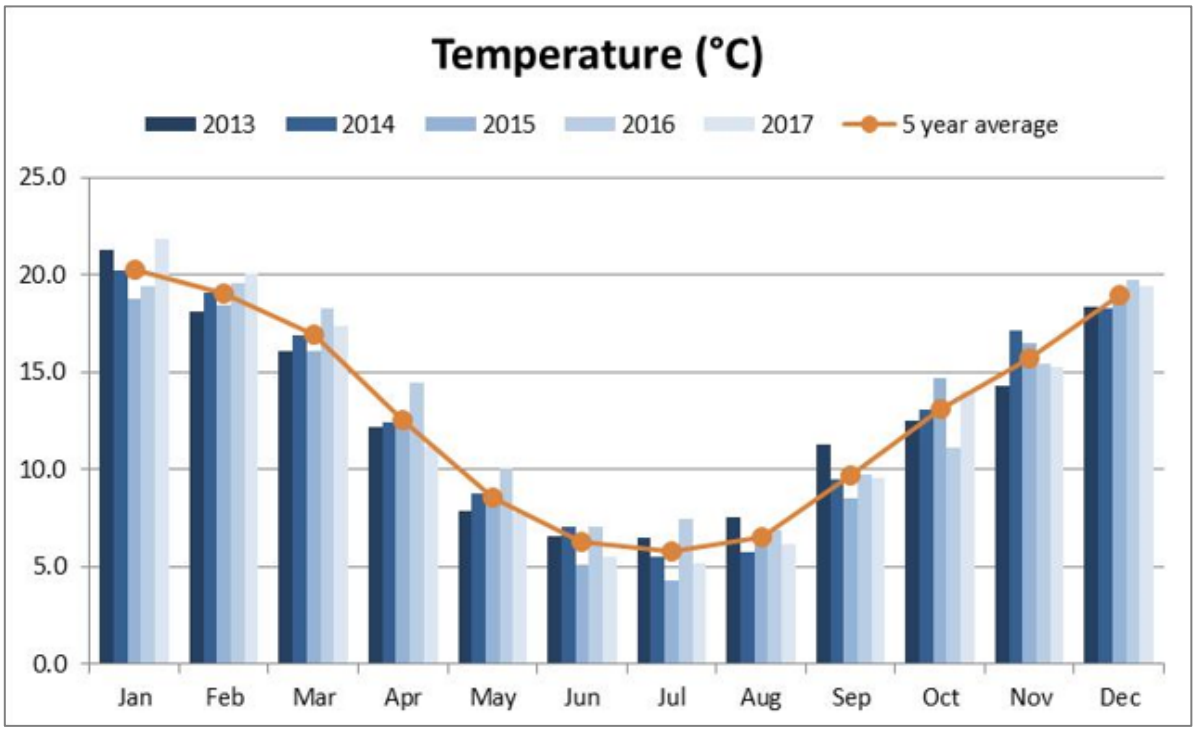


Figure 42 – 5 Year Historic Relative Humidity (Source: BoM Goulburn Airport AWS)

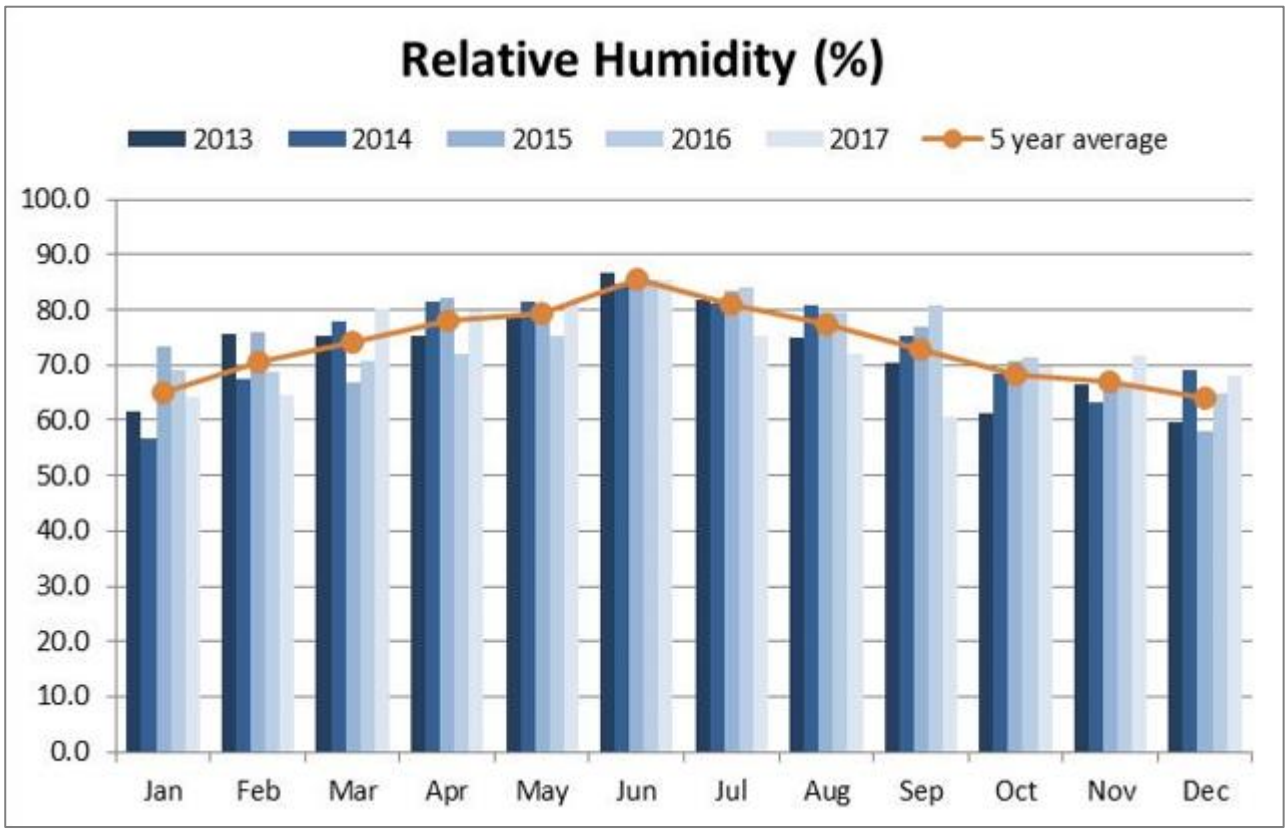


Figure 43 – 5 Year Historic Mean Rainfall (Source: BoM Goulburn Airport AWS)

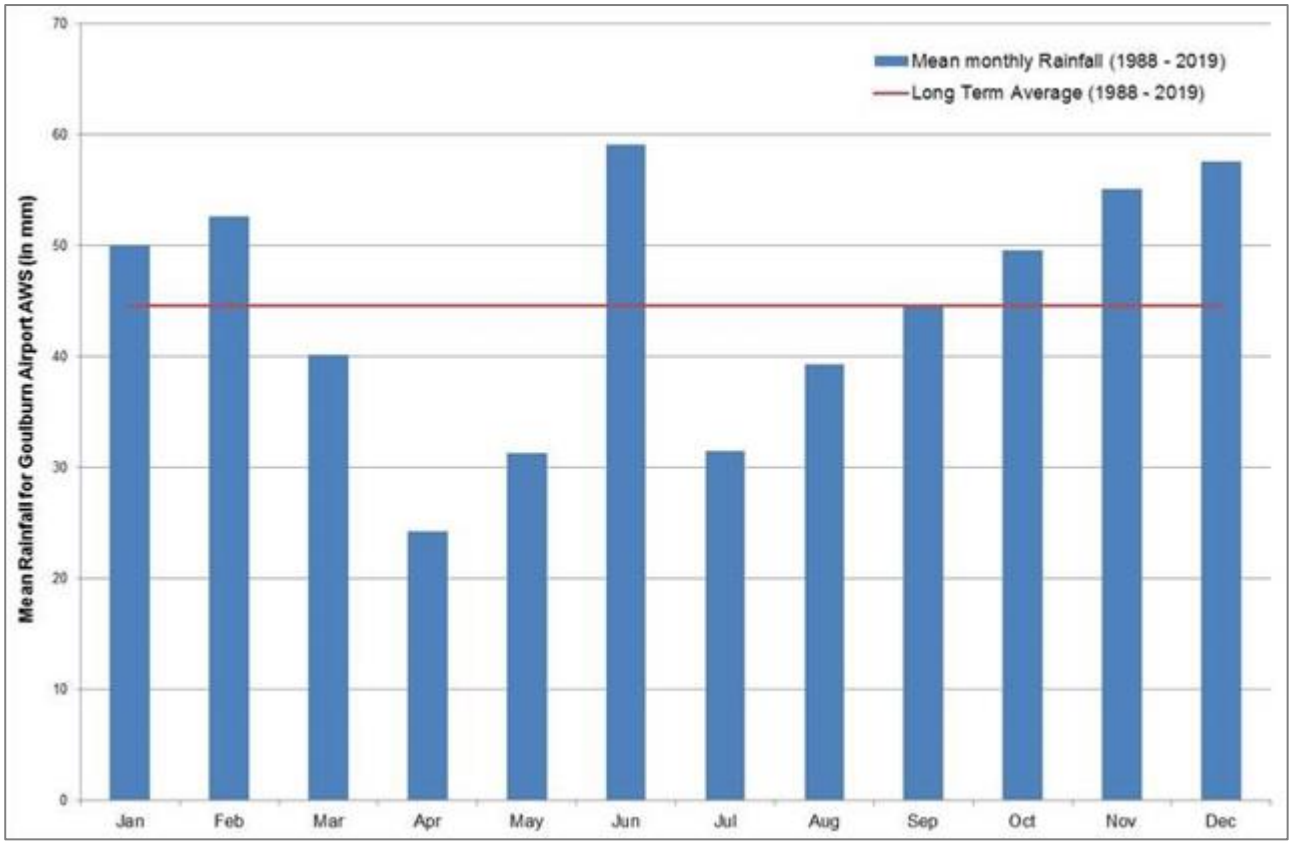
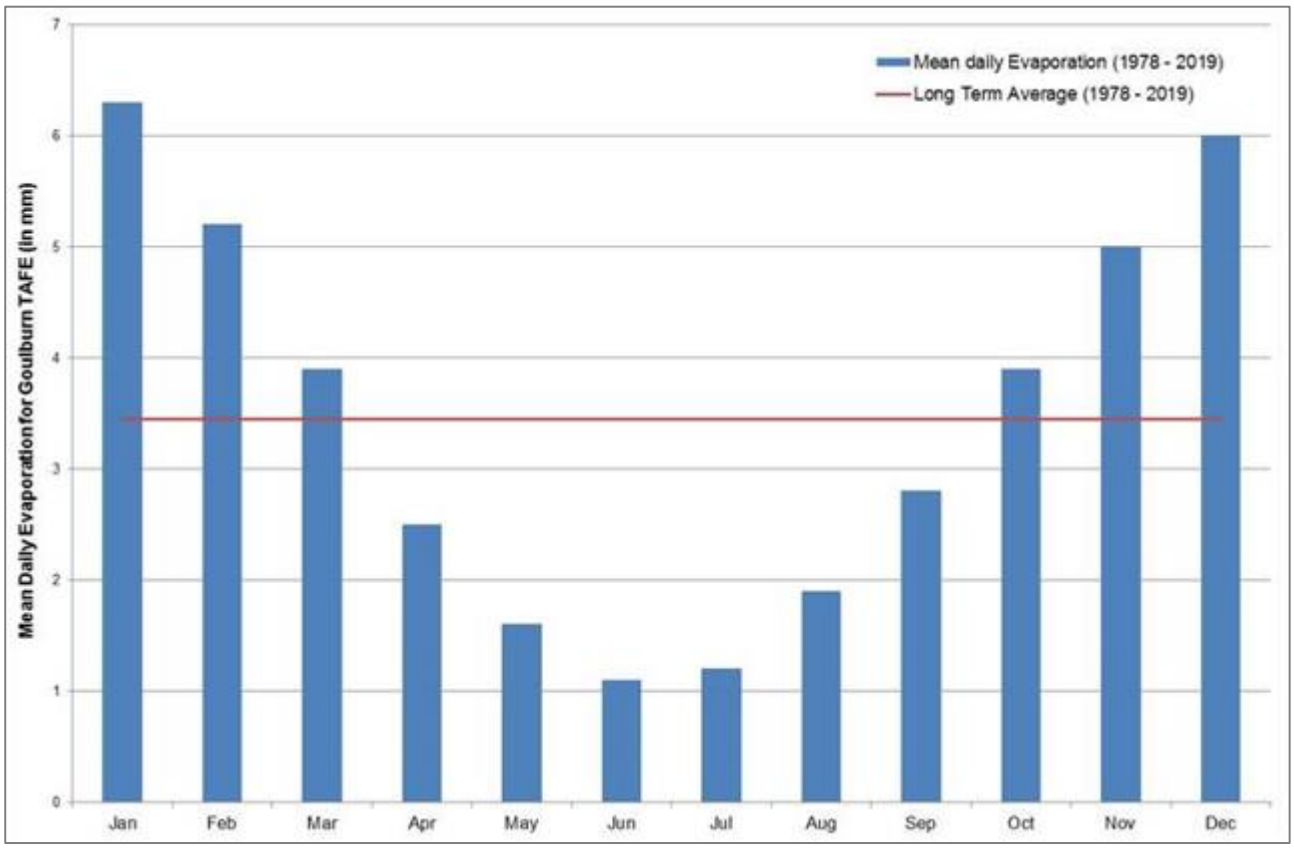


Figure 44 – 5 Year Historic Mean Evaporation (Source: BoM Goulburn TAFE)



Wind Speed and Direction

An analysis of annual wind behaviour was undertaken to predict the meteorological conditions at the site. The results of the analysis indicate that the wind conditions at the site are predominantly of a gentle breeze to moderate strength (between 3m/s to 8m/s). Calm wind conditions occur for approximately 4.5% of the time. It is noted that moderate winds and low percentage of calm wind conditions will assist in pollution dispersion, resulting in lower odour concentrations at the surrounding receivers. Figure 45 provides the historic 5 year mean wind speed whilst Figure 46 provides the site wind roses.

An analysis of seasonal wind conditions was also undertaken, with the seasonal wind roses indicated that typically:

- In summer, winds predominantly blow from between the east-northeast and southeast with very low frequency of winds from the northern and southern quadrants. On average, calm winds are experienced 2.3% of the time during the summer;
- In autumn, winds predominantly blow from the west and west-northwest, with very low frequency of winds from the northern and south-southwest directions. On average, calm winds are experienced 4.9% of the time during autumn;
- In winter, winds predominantly blow from the west and west-northwest, with very low frequency of winds from the northern directions. On average, calm winds are experienced 6.4% of the time during winter; and
- In spring, winds predominantly blow from between the west and west-northwest, and between the east-northeast and east directions. On average, calm wind are experienced 4.3% of the time during spring.

Figure 45 – Historic Wind Speed (Source: BoM Goulburn Airport AWS)

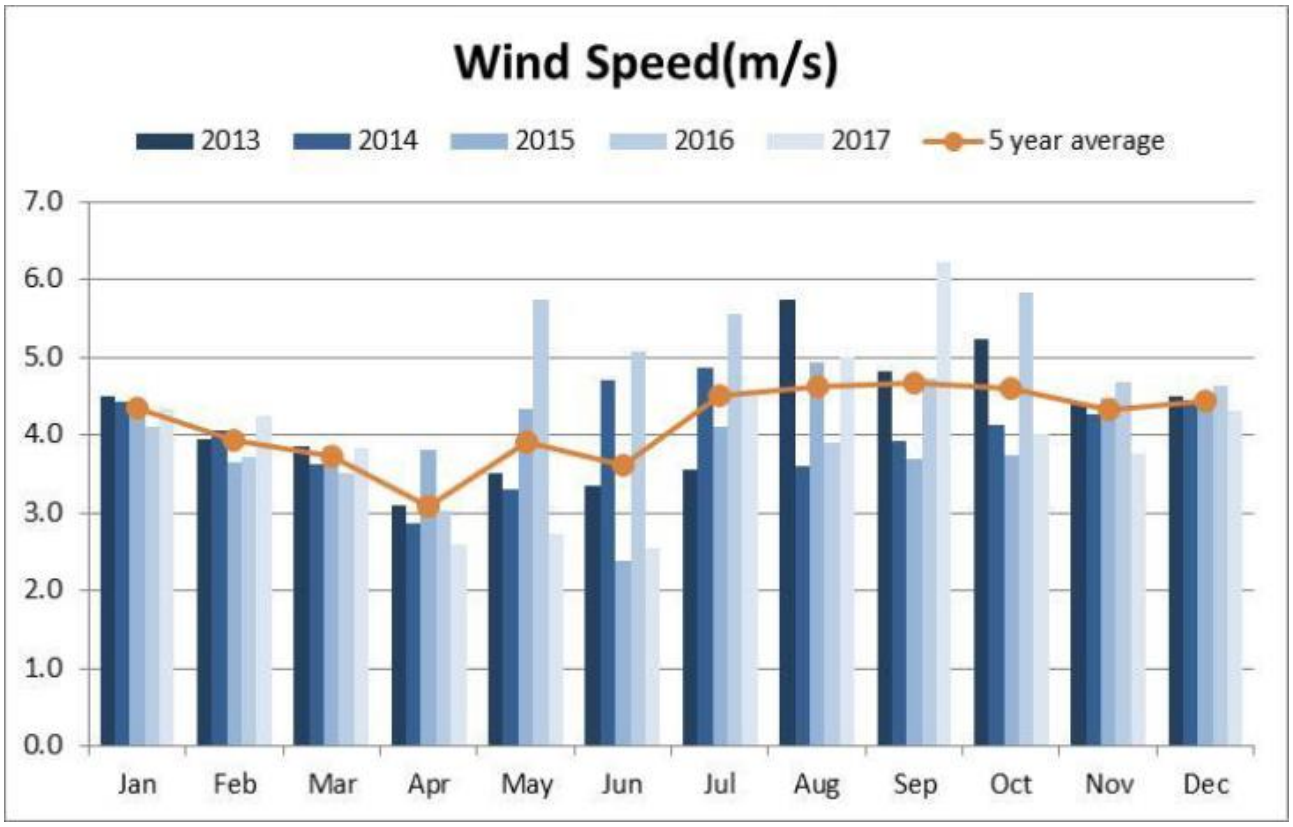
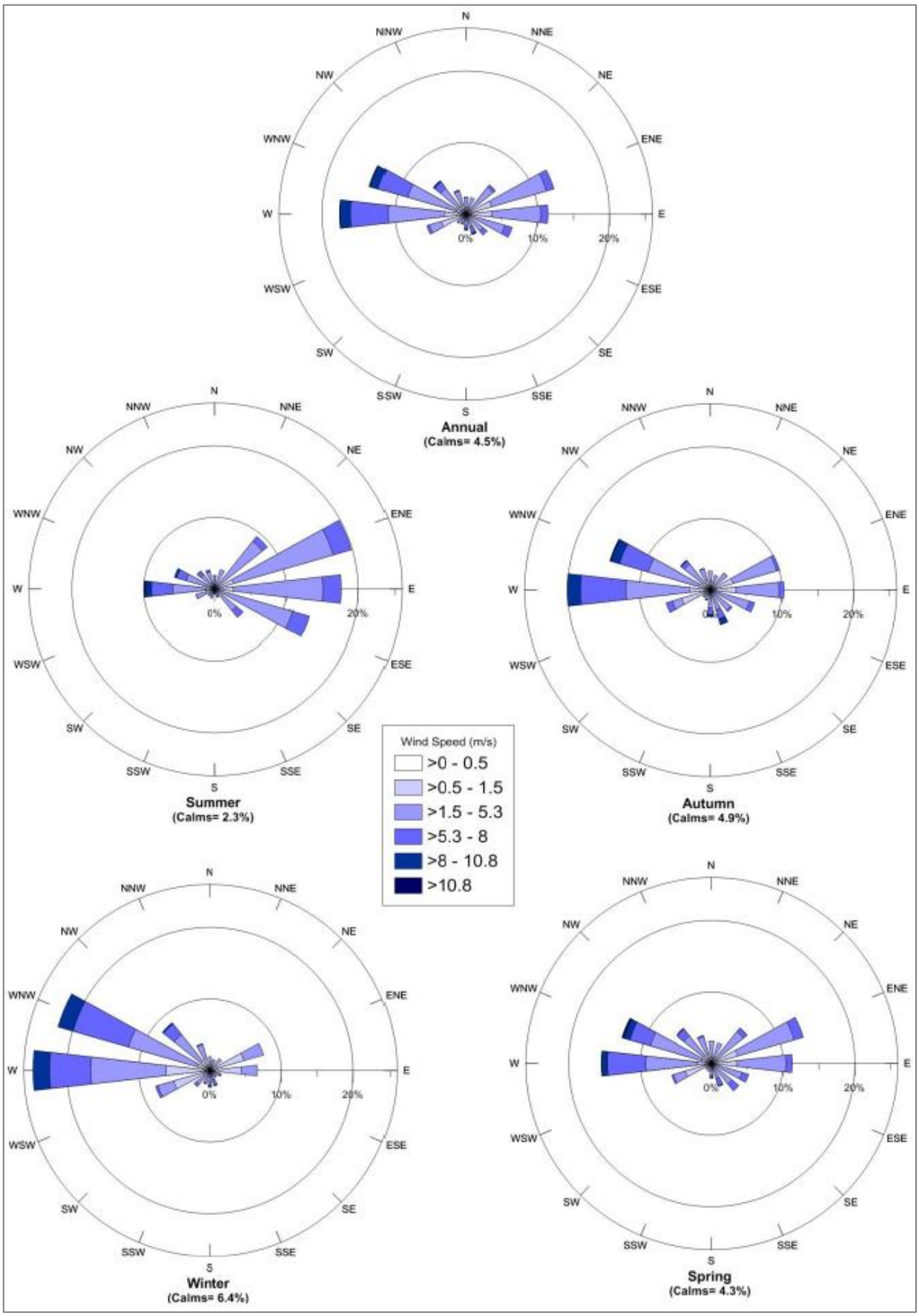


Figure 46 – Site Wind Roses (Source: SLR)



Atmospheric Stability

Atmospheric stability is an important factor in air pollution meteorology and plume behaviour. During stable atmospheric conditions, vertical motion is inhibited, which leaves pollutants trapped near the ground. During unstable conditions, turbulence and vertical mixing allows the pollutants to be more diluted, resulting in lower concentrations at the receiver locations.

The Pasquill-Gifford-Turner (PGT) assignment scheme is used to classify atmospheric stability and identifies six stability classes, ranged A (extreme unstable) to F (moderately stable). The analysis indicates a high frequency of conditions typical to Stability Class D (28.6%) and F (30.2%). Stability Class D is indicative of neutral conditions, conducive to a moderate level of pollutant dispersion due to mechanical mixing. Stability Class F is indicative of night time conditions, conducive to a low level of pollutant dispersion resulting in higher downwind concentrations.

Mixing Height

Mixing height is the depth of the atmospheric mixing layer beneath an elevated temperature inversion. The mixing height is an important parameter in plume dispersion as mixing of the plume is generally limited by the height of the mixing layer.

An analysis of the mixing heights of the site indicates that there in an increase in mixing depth during the morning, arising dur to the onset of vertical mixing following sunrise. Maximum mixing heights occur in the mid to late afternoon due to the dissipation of ground-based temperature inversions and the growth of the convective mixing layer.

6.2.3 Air Quality – Dust and Particulates

The potential for air quality impacts from the project are determined by the level of compliance with the air quality criteria set by the EPA as part of its *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (Approved Methods) (EPA, 2016). These criteria apply to existing sensitive receptors (refer to Figure 40) including residences in the vicinity of the project.

The typical dust emissions resulting from the proposed development include the following:

- Earthworks;
- Grading;
- Loading and unloading of materials;
- Wheel-generated dust and combustion emissions from construction equipment;
- Wheel-generated dust from trucks travelling on unpaved surfaces; and
- Wind erosion of exposed surfaces.

Each of the abovementioned activities are temporary in nature and are directly related to construction activities. Dust generation during the operational phase is expected to be minimal due to the nature of the proposed operations.

The assessment criteria for air quality parameters relate to the total concentration of pollutant in the air rather than only the contribution from project-specific sources. The relevant dust assessment criteria for the proposed development are presented in Table 39.

Table 39 - NSW EPA Air Quality Impact Assessment Criteria

Pollutant	Averaging Period	Impact	Criterion
PM_{10}	Annual	Cumulative	25$\mu g/m^3$
	24 hour	Cumulative	50$\mu g/m^3$

Methodology

For the assessment of construction phase impacts, the *IAQM Guidance on the Assessment of Dust from Demolition and Construction* developed in the United Kingdom by the Institute of Air Quality Management (Holman *et al* 2014) has been used to provide a qualitative assessment method (see Air Quality Impact Assessment in Appendix C for full methodology). The IAQM method uses a four-step process for assessing dust impacts from construction activities:

- Step 1: Screening based on distance to the nearest sensitive receptor; whereby the sensitivity to dust deposition and human health impacts of the identified sensitive receptors is determined.
- Step 2: Assess risk of dust effects from activities based on:
  - the scale and nature of the works, which determines the potential dust emission magnitude; and
  - the sensitivity of the area surrounding dust-generating activities.
- Step 3: Determine site-specific mitigation for remaining activities with greater than negligible effects.
- Step 4: Assess significance of remaining activities after management measures have been considered.

The dust emission magnitudes for each phase of the construction works have been categorised as presented in Table 40.

Table 40 – Categorisation of Dust Emission Magnitude

Activity	Dust Emission Magnitude	Basis
Earthworks	Large	Total site area greater than 10,000 m^2, potentially dusty soil type (e.g. clay, which will be prone to suspension when dry due to small particle size), more than 10 heavy earth moving vehicles active at any one time, formation of bunds greater than 8 m in height, total material moved more than 100,000 t. *Total area where the earthworks will be undertaken at the Development Site is estimated to be approximately 82,000 m^2.*
Construction	Large	Total building volume greater than 100,000 m^3, piling, on site concrete batching; sandblasting. *The total volume of new buildings is estimated to be approximately 280,150 m^3, including:* *~123,480 m^3 for the 'Process Facility' building (147m x 75m x 11.2m);* *~4,220 m^3 for the 'Live Bird Shed' building (27m x22mx7.1m):* *~9,800 m^3 for the 'Rendering' building (44m x20m x11.1m):* *~124,800 m^3 for the 'Cold Storage' building (104m x 93m x 12.9m)* *~5,950 m^3 for the 'Childcare' building (70m x 10m x 6.9m) + (16.2m x 10m x 6.9)* *~11,900 m^3 for the 'Truck Maintenance' building (38m x33m x9.5m)*
Track out	Medium	Between 10 and 50 heavy vehicle movements per day, surface materials with a moderate potential for dust generation, between 50 m and 100 m of unpaved road length.

Impact Assessment Results

The sensitive receptors have been assessed as having a high sensitivity to both human health impacts and dust soiling due to the presence of residential land uses which may be reasonably expected to be continuously present on their property.

However, the sensitivity of the general area has been classified as 'medium' for dust soiling and 'low' for health effects due to the annual mean background concentration and factoring the sensitivity of surrounding receptors along with the number of receptors present in the area.

The results indicate that there is a *medium* risk of adverse dust soiling and human health impacts occurring at the off-site sensitive receptor locations if no mitigation measures were to be applied to control emissions during the earthworks and construction phases of the works. The track out phase has a *low* risk of impacts. See Table 41 for preliminary risk assessment for dust impacts.

Table 41 – Preliminary Risk of Air Quality Impacts from Construction Activities (Uncontrolled)

Impact	Sensitivity of Area	Dust Emission Magnitude			Preliminary Risk		
		Earthworks	Construction	track out	Earthworks	Construction	track out
Dust Soiling	Medium	Large	Large	Medium	Medium Risk	Medium Risk	Low Risk
Human Health	Low				Medium Risk	Medium Risk	Low Risk

A reappraisal of the predicted unmitigated air quality impacts on sensitive receptors has been performed to demonstrate the opportunity for minimising risks associated with the use of mitigation strategies as detailed in Table 46 of Section 6.2.5. These are termed 'residual impacts.' The results of the reappraisal are presented in Table 42.

Table 42 – Residual Risk of Air Quality Impacts from Construction

Impact	Sensitivity of Area	Residual Risk		
		Earthworks	Construction	track out
Dust Soiling	High	Low Risk	Low Risk	Negligible Risk
Human Health	High	Low Risk	Low Risk	Negligible Risk

With the proposed mitigation measures, as outlined in Section 6.2.5 and Appendix 9, in place the resultant dust soiling and impacts to human health are minimised with earthworks and construction activities contributing low risks whilst tracking out affords negligible risk. As the assessed activities are related to the construction phase of the project the impacts will be temporary in nature and will cease in once the proposed development is at full operation. Due to the low impacts of the activities, mitigation measures proposed, and temporary nature of the dust generating activities the proposed development will pose a low risk to the surrounding environment.

6.2.4 Air Quality – Odour Impacts

The potential for air quality impacts from the project are determined by the level of compliance with the air quality criteria set by the EPA as part of its *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (Approved Methods) (EPA, 2016). These criteria apply to existing sensitive receptors (refer to Figure 40) including residences in the vicinity of the project. The assessment criteria for air quality parameters relate to the total concentration of pollutant in the air rather than only the contribution from project-specific sources.
The main emission during the operational phase of the development will be odour associated with minor elements of the proposed mixed use development; these include:

- Odour emissions from the bird reception area within the processing plant; and
- Odour emissions from the by-products processing plant (bio-filter and fugitive).

Odour associated with construction works is expected to be minimal due to the nature of the proposed works.

Odour Criteria

The relevant odour criterion is based on the 99th percentile of dispersion model predictions, calculated as 1-second averages (nose-response time). Following determination of the size of the affected population, the relevant criterion is reproduced as Table 43.

Table 43 - OEH Impact Assessment Criteria for Complex Mixtures of Odorous Air Pollutants

Population of affected community	Assessment Criteria (ou)
Urban Area (≥2000)	2.0
~300	3.0
~125	4.0
~30	5.0
~10	6.0
Single Residence (≤2)	7.0

Based on the average population density taken from the 2016 Census date, the estimated population was determined to be approximately 100 people including the occupants of the proposed childcare centre and as a result the relevant criteria for odour was 4 OU.

Methodology

Odour emissions from the proposed poultry processing plant have been modelled in accordance with the EPA (2016) Approved Methods, using a combination of the CALPUFF Modelling System and The Air Pollution Model (TAPM), with consideration of site representative meteorological data. CALPUFF is an advanced 'puff' air dispersion model capable of representing the effects of complex local terrain on the dispersion meteorology over the entire modelling domain in a three-dimensional, hourly varying time step.

Modelled meteorological data for the site was generated by applying the TAPM model to measured weather data. The 2015 calendar year was selected as the meteorological year for the dispersion modelling based on analysis of long-term data trends in meteorological data recorded for the area.

Local land use and detailed topographical information was included in the simulation to produce realistic fine scale flow fields (such as terrain forced flows) in surrounding areas.

The potential odour sources associated with operations on site were identified to arise from the bird reception area within the processing plant, and the by-product rendering plant. The source parameters for the odour sources are provided in Table 44.

Table 44 – Source Parameters

Source	Easting (km)	Northing (km)	Elevation (m)	Height (m)	Diameter (m)	Exit Temperature (°C)	Exit Velocity (m)	OER (ou.m^3/s)
Point Sources								
By-product processing plant (Bio-filter)	751.239	6151.209	676	2.5	27.0	40	0.014	1,917
Volume Sources								
Bird reception area	751.240	6151.160	675	5	NA	NA	NA	5,233

Source	Easting (km)	Northing (km)	Elevation (m)	Height (m)	Diameter (m)	Exit Temperature (°C)	Exit Velocity (m)	OER (ou.m^3/s)
By-product processing plant (Fugitive)	751.239	6151.178	675	11	NA	NA	NA	5,290

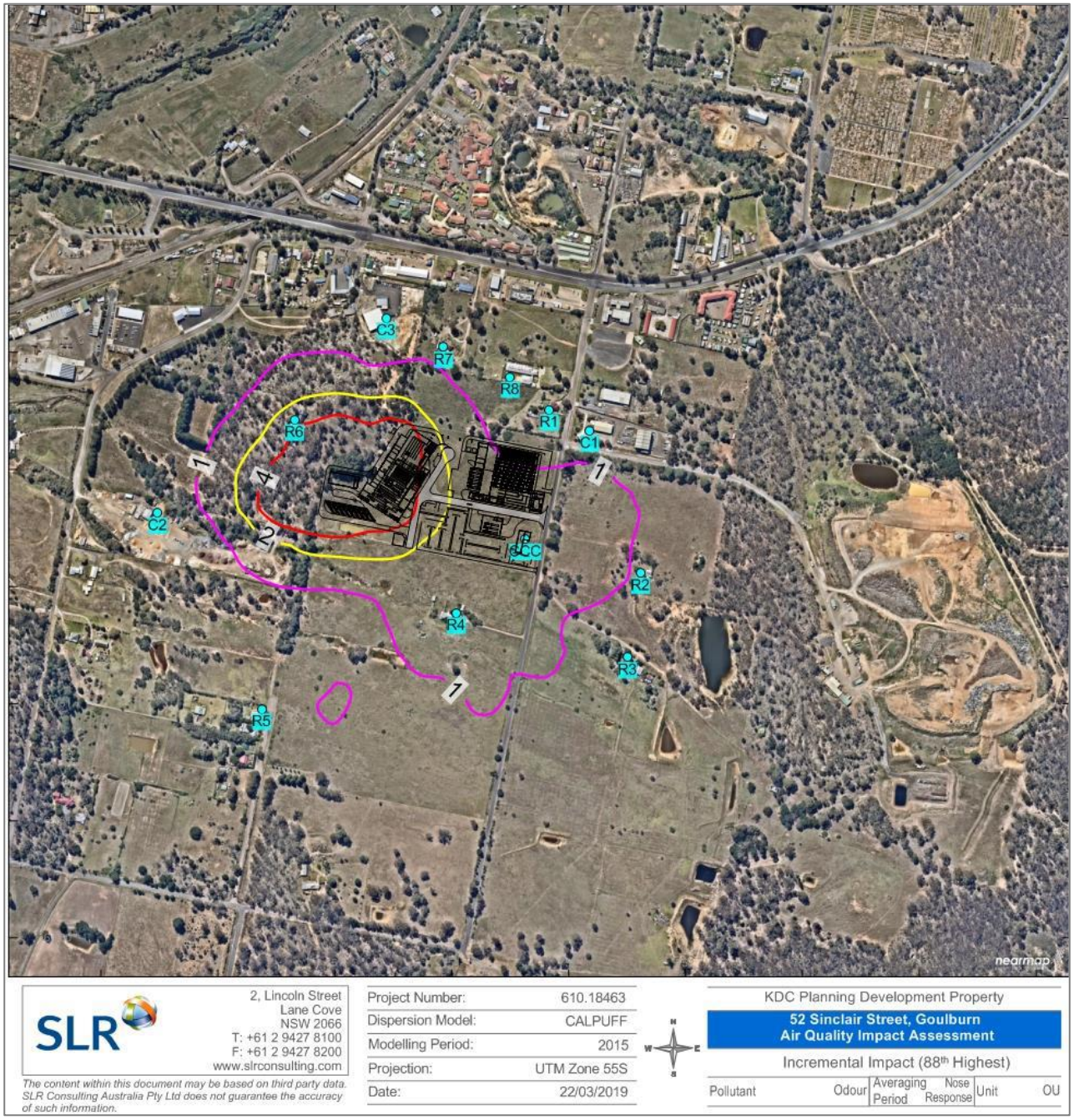
Impact Assessment Results

The 99th percentile 1-hour average odour concentrations predicted for the operations of the proposed poultry processing plant are presented in Table 45 with a visual representation provided at Figure 47. The results show that the predicted 99th percentile odour concentrations at the nearest lots are below the relevant criterion at all assessed sensitive receptor locations.

Table 45 – 99th Percentile Nose-Response Average Ground Level Odour Concentrations

Receptor ID	Coordinates (UTM, m)		Predicted 99th Percentile) Nose-Response Average Ground Level Odour Concentration (ou)
	X	Y	
R1	751,567	6,151,302	0.7
R2	751,723	6,151,023	1.0
R3	751,701	6,150,879	0.6
R4	751,408	6,150,955	1.1
R5	751,075	6,150,791	0.7
R6	751,131	6,151,285	2.9
R7	751,386	6,151,409	0.8
R8	751,500	6,151,358	0.7
C1	751,636	6,151,266	0.7
C2	750,897	6,151,126	0.6
C3	751,288	6,151,459	0.7
CCC	751,526	6,151,081	1.2
Adopted Criterion (ou)			**4.0**

Figure 47 – Affected Area for Modelled Scenarios



The modelled odour experienced at each of the surrounding receptors all fall below the adopted criteria of 4.0 OU with the highest experienced at residential receptor R6 with an odour level of 2.6 OU located to the west in proximity to the site. This result demonstrates the design of the proposed development meets the relevant criteria with the engineering solutions implemented.

Cumulative Odour Impacts

It is noted that there a number of odour generating activities occurring in proximity to the site including a resource recovery facility and Council's landfill site.

As the NSW guideline *Technical Notes: Assessment and management of odour from stationary sources in NSW* (Technical Notes) (DEC, 2006) indicates, only in circumstances where it is likely that two or more facilities with

similar odour character will result in cumulative odour impacts, should the combined odours resulting from all nearby facilities be assessed against the odour assessment criteria.

On this basis, it is considered that there would not be cumulative odour impacts, and further assessment is not required.

6.2.5 Air Quality Mitigation and Management

The project will apply a range of appropriate air quality management measures to ensure it minimises the potential occurrence of excessive air and odour emissions from the site.

Mitigation of odour impacts is to be achieved via the use of a 590m^2 biofilter with a throughput of 150 tonnes per day installed to manage the by-products processing facility. Ongoing maintenance of the biofilter is required to ensure emissions standards and odour criteria are maintained.

Table 46 provides the proposed mitigation measures for air quality impacts.

Table 46 – Site-Specific Management Measures for Air Quality Impacts

Mitigation Measures
Develop and implement a Dust Management Plan (DMP), detailing measures to control emissions, complaints handling and stakeholder communication.
Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary.
Plan site layout so that machinery and dust causing activities are located away from receivers, as far as is possible.
Only remove the cover in small areas during work and not all at once.
Ensure an adequate water supply on the site for effective dust/particulate matter suppression/ mitigation, using non-potable water where possible and appropriate.
Keep site fencing, barriers and scaffolding clean using wet methods.
Cover, seed or fence stockpiles to prevent wind erosion.
Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.
Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).
Ensure all vehicles switch off engines when stationary - no idling vehicles.
Revegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
Use hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.
Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.
Avoid scabbling (roughening of concrete surfaces) if possible.
Use enclosed chutes and conveyors and covered skips.

Mitigation Measures
Use water-assisted dust sweeper(s) on the access and local roads to remove, as necessary, any material tracked out of the site.
Avoid dry sweeping of large areas.
Perform daily on-site and off-site inspections where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100 m of site boundary.
Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
Make the complaints log available to the local authority when requested.
Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the logbook.

6.3 Hazards

In accordance with SEPP 33, a Risk Screening Report has been prepared by Hazkem Pty Ltd in accordance with the current circulars and guidelines (see Appendix I).

6.3.1 Offensive Industry

Due to the nature of the development, which includes a component which receives, slaughters, and processes poultry with associated waste handling and processing on the site, the development may be classified as a potentially offensive development under SEPP33.

The proposal meets the thresholds of a "Livestock processing activity" under Schedule 1 of the POEO Act and will therefore be required to obtain an environmental protection licence from the NSW EPA. This site will be required to maintain all licences relevant to this activity and obtain all approvals applicable under the POEO Act.

Based on the ability to comply with the POEO Act and its licence requirements, it is determined that the proposed activity will not be deemed offensive.

6.3.2 Risk Screening

The screening method set out in Applying SEPP 33 (Department of Planning, 2011) provides the first step in the analysis. The screening method is based on broad estimates of the possible off-site effects or consequences from hazardous materials present on site, taking into account locational characteristics.

If the quantity and distance is less than the screening threshold, then no further analysis is necessary. The safety management regime in this case, relies on observance of the requirements of engineering codes and standards. If the quantities/distances exceed the screening threshold, further analysis is necessary.

Table 47 provides a list of materials which are likely to be stored on the site deemed to be hazardous along with their Class and Quantity.

Table 47 – Hazardous Materials List

Product	Storage Type	Quantity	UN	Class and PG	Assessment Method
LP Gas	Aboveground Tank	24,000L	1075	Class 2.1	Table 3
Chlorine	Aboveground Tank	5,000L	1017	Class 2.3 Sub Risk 5.1, Sub Risk 8	Table 3
Anhydrous Ammonia	Aboveground Tank	10,000L	1005	Class 2.3 Sub Risk 8	Table 3
Carbon Dioxide	Aboveground Tank	25,000L	1013	Class 2.2	Table 3

The assessment of the materials has been carried out in accordance with Table 3 of the Applying SEPP 33 guideline which has been summarised in Table 48.

Table 48 – Summary of Table 3 Assessment Method

Class	Screening Threshold	Description
LPG (Aboveground)	10t or 16/m^3	If stored aboveground
2.3	5t	Anhydrous Ammonia, kept in same manner as for liquified flammable gases and not kept for sale
	1t	Chlorine and sulfur dioxide stored as liquified gas in containers <100kg
	2.5t	Chlorine and sulfur dioxide stored as liquified gas in containers >100kg
	100kg	Liquified gas kept in or on premises
	100kg	other poisonous gases
5.1	5t	any other class 5.1
8	PG II	25t
	PG III	50t

It should be noted that Class 2.2 is excluded from the risk screening process and not covered by this assessment.

The assessment under Table 3 of the Applying SEPP33 Guideline has been provided at Table 49.

Table 49 – Table 3 Assessment

Product	Class	Screening Threshold (Description)	Quantity	Outcome
LP Gas	Class 2.1	10 tonne or 16m3 (If stored aboveground)	24,000L	Threshold Exceeded
Chlorine	Class 2.3	2.5 tonne (Chlorine and sulfur dioxide stored as liquified gas in containers >100kg)	5,000L	Threshold Exceeded
	Sub Risk 5.1	5 tonne	5,000L	Threshold Exceeded
	Sub Risk 8	50 tonne (Packaging Group III)	5,000L	Threshold Exceeded
Anhydrous Ammonia	Class 2.3	5 tonne (Anhydrous Ammonia, kept in same manner as for liquified flammable gases and not kept for sale)	10,000L	Threshold Exceeded
	Sub Risk 8	50 tonne (Packaging Group III)	10,000L	Threshold Exceeded

Transport Screening

SEPP 33 screening also requires a study of the transport frequencies to and from the site as outlined Table 50. It is envisaged that deliveries to site, for the varying classes of dangerous goods will be well within the allowable thresholds as itemised in this table.

Table 50 – Transport Screening Thresholds

Product	Class	Annual Screening Threshold (trips)	Peak Weekly Screening Threshold (trips)
LP Gas	Class 2.1	>500	>30
Chlorine	Class 2.3	>100	>6
	Sub Risk 5.1	>500	>30
	Sub Risk 8	>500	>30
Anhydrous Ammonia	Class 2.3	>100	>6
	Sub Risk 8	>500	>30

It is not anticipated that any of the above transport thresholds will be exceeded for any class of storage. It is envisaged that there may be approximately 1 or 2 total transport movements a month (12 to 24 movements a year) for each of the LP Gas and Chlorine installations. A system such as Ammonia is not envisaged to require any regular product delivers once it is commissioned with generally the need for product deliveries required during significant system maintenance.

In this case, as the numbers of expected deliveries for the varying classes of storage being well below the thresholds, there are no requirement to do further analysis in the form of a PHA based on the transport screening thresholds.

Screening Conclusion

Through the assessment against the provisions of SEPP33, the proposed development has been deemed to be potentially hazardous. The screening process has determined that all transport screening thresholds are complied with and in relation to the transport of dangerous goods there is no further assessment required. The storage thresholds associated with the LP Gas, Chlorine and Ammonia storages exceed the allowable thresholds and as such require further analysis through a Preliminary Hazard Analysis (PHA).

6.3.3 Preliminary Hazard Analysis

SEPP 33 screening has deemed this proposal to be "Potentially Hazardous or Offensive" and hence a PHA is required to determine if this proposed development is acceptable for this site.

This PHA covers the following subsections in accordance with established procedures and HIPAP No. 6:

- Hazard Identification
- Possible outcomes
- Estimation of likelihood of hazardous events/consequences*
- Control measures

This identification process has been examined and each possible event versus possible consequences and proposed safeguards to prevent or minimise these events.

A risk assessment has also been prepared as per NSW Department of Planning "Multi Level Risk Assessment" May 2011.

Hazard Identification

The LP Gas, Chlorine, and Anhydrous Ammonia systems at the site has been designed with the intention of minimising all unnecessary risks associated with the storage and handling for this type of dangerous goods,

being a flammable gas. The LP Gas system will be designed in full compliance with AS/NZS 1596-2014 'The storage and handling of LP Gas. The Chlorine and Anhydrous Ammonia systems will each be designed in full compliance with the relevant Australian Standards being AS/NZS 2022-2003 and AS/NZS 1677.2-1998.

Summary of Risks and control measures associated with the systems provided in Table 51.

Table 51 – Summary of Risks and Control Measures

Event	Risk	Possible Outcome	Rank	Control
LP Gas				
Overfill of tank	Yes	Leak	D4	The tank installation will be located outdoors in a well-ventilated area. The tank will be remote filled with the fixed liquid level gauge readily accessible at the fill point. The contents gauge will be visible by inspection through two access covers over the tanks. Firefighting equipment will be within close proximity to the delivery driver whilst filling the tanks.
Hose Trip Hazard	Yes	Leak	D5	As a remote filled tank, the tanker will park adjacent to the fill point in a nominated tanker parking area. The hose used will be a small diameter pressure hose and is generally able to lie flat on the ground. The tanker driver is to use warning signage during deliveries.
Fire at fill point	Yes	Fire	D4	At least a single powder type extinguisher is to be available near the fill points during product delivery (normally carried by the tanker) and at least one hose reel in the vicinity of the tank storage area. The fill points will be fitted with a manual shutoff valve and a back check fill valve to stop any outward flow. The tanker will be fitted with an emergency stop system in order to cease pumping quickly. The driver is to be in attendance at all times.
Fire on site	Yes	Fire	D3	As a site storing flammable gas, fire protection in the form of a hose reel and fire extinguishers are to be located on site in strategic places in full compliance with AS/NZS 1596. An emergency shut down system is to be installed on site to enable the LP Gas installations to be shut down in an emergency.
Leak/rupture in pipework	Yes	Leak	D4	As an aboveground installation some pipework will be required to be located aboveground however it will be designed to be the shortest length possible and located behind Armco guardrail to be protected from accidental impact. Regular pressure tests are to be performed to ensure tightness. Stock reconciliation is to be carried out regularly and would highlight any leaks. The pipework run through the site is to be a continuous copper or polypropylene line.
Ruptured Fill hose	Yes	Leak	E4	Extremely unlikely event. The tank hoses are to be pressure tested and/or replaced regularly. The tanker will be fitted with an emergency stop system.
Equipment wear and tear	Yes	Leak	D3	Regular maintenance checks are to be carried out on the tank and its equipment to maintain that everything is in a safe and working condition. This is to occur at least annually. Delivery drivers are to report anything that requires rectification.
Vandalism of equipment	Yes	Leak	E3	As an aboveground installation, all fitting and valves will be secured against tampering. The aboveground tank

				will be located on a private property in an area for authorised personnel only.
Fire on adjoining property	Yes	Fire	D3	Should a fire on an adjoining property impact the site the LPG system will be shut down ensuring the all product remain in the tank.
Use of non-rated electrics in hazardous zone	Yes	Fire	D3	Only rated electrics are to be permitted within the hazardous zones associated with the installation. Staff are to be trained in the safe storage and handling procedures associated with LP Gas.
Use of mobile phone/transmitting devices	Yes	Fire	D3	The site is to be fitted with warning signs advising staff of the risk of mobile phone and transmitting devices. Staff are to be trained in the safe storage and handling procedures associated with LP Gas.
Spill of product onto staff	Yes	Injury	D3	Staff will be aware of the minimum PPE and safe handling procedures associated with the LP Gas. The staff will be trained in how to administer first aid should an injury by coming into contact with any flammable gas occur on this site.
Staff misuse of equipment	Yes	Injury/ Leak/Fire	D3	Staff will undergo training in the storage and handling of LP Gas if they are involved with the system. The site will be fitted with instructions indicating procedures for safe use of the equipment.
Leaking valve	Yes	Minor Leak	D4	Experience shows that this is a rare occurrence. Any leaking valve will be capable of being shut down manually.
Collision between vehicle and tank	Yes	Leak/Fire	D4	The tank system will be designed so it is protected behind Armco and bollards from vehicle impact. The position of the tank will be determined to be in an area away from significant traffic movements to minimise the risk.
Chlorine				
Overfill of tank	Yes	Leak	D4	The tank installation will be located outdoors in a well ventilated area. The tank will be designed with a remote fill and a fixed liquid level gauge readily accessible at the fill point. A contents gauge will be visible by inspection through access covers over the tank.
Hose trip hazard	Yes	Leak	D4	As a remote filled tank, the tanker is to be parked adjacent to the fill point in a nominated tanker parking area. The hose used will be a small diameter pressure hose and generally able to lie flat on the ground. The tanker driver is to use warning signage during deliveries.
Leak/rupture in pipework	Yes	Leak	D4	All pipework will be located in such a way and are protected from vehicular impact. Regular pressure tests will be performed to ensure tightness. Leak detectors are to be installed as required with this system.
Leak in tank	Yes	Leak	E3	Extremely unlikely event. The tank will be maintained by the supplier and tested regularly. The tank will be located outdoors in an area allowing natural ventilation.
Equipment wear and tear	Yes	Leak	D4	Regular maintenance checks will be carried out on the chlorine equipment to ensure that everything is in a safe and working condition. This will occur at least monthly.
Vandalism of equipment	Yes	Leak	E3	As aboveground installation all fitting and valves will be secured against tampering. The aboveground tank will be located on a private property in an area for authorised personnel only.

Fire on adjoining property	Yes	Leak	D3	Should a fire on an adjoining property impact the site the chlorine system will be designed so it can be shut down ensuring the safety of all personnel and others.
Fire on site	Yes	Leak	D3	Should a fire on the property impact the chlorine system, it will be designed so it can be shut down ensuring the safety of all personnel and others. The chlorine storage will be located outdoors and provided with fire protection in accordance with the relevant standards. Staff will be trained in the use of the onsite fire protection.
Tampering of equipment	Yes	Leak	E4	The site will be fitted with warning signs advising persons of the risk of chlorine.
Spill of product onto staff	Yes	Injury/Leak	D4	Staff will be aware of the minimum PPE and safe handling procedures associated with the Chlorine system. The staff will be trained in how to administer first aid should an injury by coming into contact with any product on this site.
Staff misuse of equipment	Yes	Injury/Leak	D4	Staff are to undergo training in the storage and handling of Chlorine if they are involved with the system. The site will be further fitted with instructions indicating procedures for safe use of the equipment.
Collision between vehicle and tank	Yes	Leak	D3	The tank system will be designed so it is protected behind Armco and bollards from vehicle impact. The position of the tank will also been determined to be in an area away from significant traffic movements to minimise the risk.
Anhydrous Ammonia				
Leak in primary refrigeration system	Yes	Leak	D4	Toxic gas under pressure. All equipment within building is to be designed to be protected by leak alarm system. All equipment will be located on the roof and in the open air. The refrigeration system will be designed and installed to the correct standards and current best practice.
Leak in secondary refrigeration system	Yes	Leak	D4	The secondary refrigeration system is reticulated throughout the site and is a non-toxic and non-hazardous liquid.
Overpressure of primary refrigeration system	Yes	Leak	D4	Toxic gas under pressure. All equipment within building is to be designed to be protected by leak alarm system. All equipment will be located on the roof and in the open air. The refrigeration system will be designed and installed to the correct standards and current best practice.
Over pressure of secondary refrigeration system	Yes	Leak	D4	The secondary refrigeration system is reticulated throughout the site and is a non-toxic and non-hazardous liquid.
Fire in buildings	Yes	Leak	D3	An emergency shut down system is to be incorporated in the design as required by AS/NZS 2022 and AS/NZS 1677.2. Fire protection in accordance with AS/NZS 2022 and AS/NZS 1677.2 is to be provided as applicable.
Fire adjacent to buildings	Yes	Leak	D3	An emergency shut down system is to be incorporated in the design as required by AS/NZS 2022 and AS/NZS 1677.2. Fire protection in accordance with AS/NZS 2022 and AS/NZS 1677.2 is to be provided as applicable.

Based on the assessment of the risks associated with the development, there is no elements which would be deemed unacceptable for the site.

6.3.4 Multi-level Risk Assessment

The method for the multi-level risk assessment is based on the Manual for the classification and prioritisation of risks due to major accidents in the process and related industries (IAEA, 1996). The technique used classifies risks of major accidents in process and related industries of fixed installations.

The method uses a number of simplifying assumptions, the most important being:

- Only the most important variables are used in assessing risk (such as population density, frequency of loading/unloading operations)
- Estimates of probability and consequences are rounded to the nearest order of magnitude.
- The entire inventory is initially assumed to be involved in any incident.
- For physical and toxic effects, 100 percent fatality is assumed within an area where 50-100 percent lethality would be expected; outside this range, no fatalities are assumed.
- No explosion overpressure or heat radiation calculations are carried out – the lethal radius is assumed to be the distance to the lower flammable limit (LFL) in the case of explosion and the actual fire area in the case of flammables.
- Only one weather pattern is used.
- Basic probabilities are generic but are modified later.

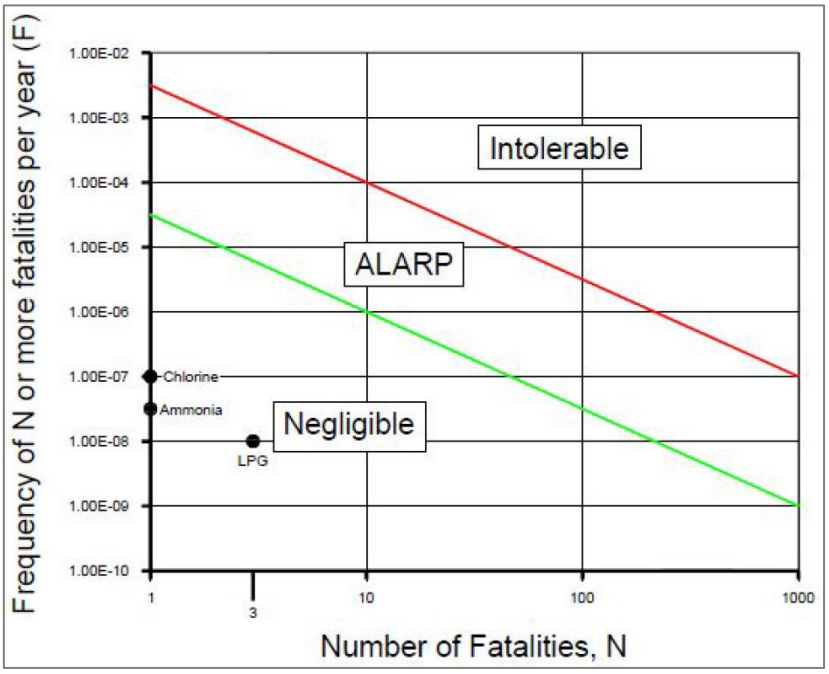
The site is of sufficient size to encompass the consequence distance of the worst credible accident. The site layout is in sufficient detail to allow the locations of all storage and processing areas to be identified to a precision that will allow consequence distances to be clearly represented. Calculated estimates for the multi-level risk assessment provided in Table 52.

Table 52 – Multi-Level Risk Assessment Estimates

System	Possible Number of Fatalities	Estimated Probability of Major Accident	Frequency
LP Gas	3	8	1×10^{-8}
Chlorine	1 (0.1)	7	1×10^{-7}
Anhydrous Ammonia	1 (0.1)	7.5	3×10^{-8}

This result can be plotted on the following graph provided at Figure 48.

Figure 48 – Frequency and Number of Fatalities Graph



By intersecting the frequency with the consequences in the graph above, for each of the storages, it is clear that the risk to society from the proposed development falls within the negligible area below the green line. All possible measures should still be taken to ensure that the level of risk is kept as low as possible going forward.

6.3.5 Conclusion

The risk associated with the storage of LPG, ammonia, and chlorine has been demonstrated to be within the negligible range under the PHA. With all equipment installed and operated in accordance with manufacturers requirements, the risk generated by the proposed development is considered to be low. Specific safety features of the site will be maintained and reviewed on a regular basis to ensure that they maintain, if not exceed industry standards.

6.4 Waste Management

Woodland Ridge Poultry is committed as part of its Operational Waste Management Plan (OWMP) to the management of waste streams in accordance with the principles of the waste management hierarchy, as per the objectives of the *Waste Avoidance and Resource Recovery Act 2001* and the *NSW Waste Avoidance and Recovery Strategy 2014-2021* (EPA, 2014). The OWMP has been provided in Appendix M.

The waste management hierarchy comprises the following principles, from most to least preferable:

- **Avoidance** – prevention or reduction of waste generation. Achievable through better design and purchasing choices;
- **Reuse** – reuse without substantially changing the form of the waste;
- **Recycling** – treatment of waste that is no longer usable in its current form to produce new products;
- **Recovery** – processing of residual waste materials to recover energy;
- **Treatment** – reduce potential environmental, health and safety risks; and
- **Disposal** – in a manner that causes the least harm to the natural environment.

6.4.1 Targets for Resource Recovery

The waste management performance of each new development should contribute to the overall NSW State targets for recycling outlined in *NSW Waste Avoidance and Resource Recovery Strategy 2014-21* (EPA, 2014). The targets include increasing waste diverted from landfill to 75% and recycling 70% of commercial, industrial and municipal solid waste. It is anticipated that the waste minimisation measures in the following sections will assist in ensuring that the project meets this target.

6.4.2 Waste Streams and Classification

The anticipated waste streams generated from each of the proposed operations include:

- General waste;
- Paper and cardboard;
- Recyclable containers;
- Food and organic waste;
- Bulk packaging waste;
- E-waste; and
- Bulky waste items, such as furniture.

Where possible, these waste streams will be sent off-site to an appropriately licenced facility for reuse or recycling. Where reuse or recycling is not achievable, disposal at a licenced facility will be required.

Other waste streams specific to each facility within the proposed development are also anticipated. These are shown, along with their associated waste classifications and management methods, in Table 53.

Table 53 - Anticipated Waste Streams

Process / Activity	Waste Streams	Classification	Proposed Reuse / Recycling / Disposal Method
Bird Reception area	Bird manure/feathers	General solid (putrescible) waste	On-site treatment in the by-products rendering facility
	Dead birds		Washed down and sent to on-site wastewater treatment plan
Processing and cold storage facilities	Blood	General solid (putrescible) waste	On-site treatment in the by-products rendering facility
	Inedible gut waste		
	Bone waste		
	Feathers		
	Used PPE such as gloves and disposable uniforms	General solid (non-putrescible) waste	Disposal at landfill
	Packaging material such as plastics and cartons	General solid (non-putrescible) waste	Off-site reuse or disposal at licensed facility
	Broken Pallets	General solid (non-putrescible) waste	
Childcare and community centre	Nappies	General solid (putrescible) waste	Disposal at landfill
	Food		Compost on or offsite or dispose to landfill with general garbage
	Food Packaging		Off-site recycling or disposal at licensed facility
Truck maintenance facility	Used PPE such as gloves and disposable uniforms	General solid (non-putrescible) waste	Disposal at landfill
	Tyres	Special waste	Off-site recycling or disposal at licensed facility
	Air and oil filters	General solid (non-putrescible) waste	
	Rags	General solid (non-putrescible) waste	
	Oil	Liquid waste	
	Brake Pads	General solid (non-putrescible) waste	
	Metals and mechanical parts	General solid (non-putrescible) waste	
	Batteries	Hazardous waste	Off-site recycling. Contact the Australian Battery Recycling Initiative for more information
By-products processing facility	Used PPE such as gloves and disposable uniforms	General solid (non-putrescible) waste	Disposal at landfill
	Sludge	General solid (putrescible) waste	Directed to wastewater treatment
Wastewater treatment plant	Wastewater	Liquid waste	Dedicated wastewater treatment facility to manage contaminants in water prior to discharge
	Sludge	General solid (putrescible) waste	Disposal at landfill

6.4.3 Operational Waste Quantities and Handling

The proposed development will be constructed and operated in two stages. Stage 1 of the operation will comprise the processing facility, cold store, corporate office and wastewater treatment plant. Stage 2 of the operation will comprise the live bird shed, bird reception area, by-products processing facility, truck maintenance facility and childcare centre. Due to the staging of the development, the operational waste quantities and handling has been considered with respect to Stage 1 in isolation, and Stage 1 and Stage 2 together.

Stage 1 Operations

Processing and Cold Storage Facilities

The proposed operations on the site are expected to generate very little waste with the main waste generator being the Stage 2 components of the poultry processing facility. Operations during Stage 1 will primarily involve the import of poultry meat for portioning, de-boning and packaging. Waste during this process would be in the form of bones and miscellaneous sludge. Based on an average weight of 1.32kg per cleaned bird the Table 54 provides anticipated waste quantities.

Table 54 - Estimated Poultry Processing Waste (Stage 1)

Bird Component	Percent Component of Received Meat	Weight per Bird (kg)	Weight Per Day (t)
Bones	20	0.26	52
Unaccounted Sludge	4.5	0.06	12
Total	**24.5**	**0.32**	**64**

The miscellaneous sludge generated during Stage 1 operations would be directed to the wastewater treatment plant. The bone waste would be preferentially sent to an off-site by-product processing facility for the manufacture of bone meal products or disposed of at a licensed facility.

Stage 1 and 2 Operations

General Waste and Recycling

General waste and recycling are expected to be produced from the majority of the facilities at the site. The estimated quantities of operational and general waste and recycling are shown in Table 55.

Table 55 – Estimated General Waste and Recycling Waste Generation

Location	Area (m^2)	L/Day		
		General Waste	Paper & Carboard Recycling	Other Recycling
Processing Plant	4,879	1,465	440	295
By Products Processing	986	300	90	60
Wastewater Treatment Plant	590	180	55	40
Truck Maintenance Facility	863	260	80	55
Childcare Centre	652	265	160	105
Corporate Office	551	85	85	60
Cold Storage Building	9,101	95	55	40
Total	**17,622**	**2,650**	**965**	**655**

Disposal of general waste will be via the use of $3m^3$ and 240L bins (weekly storage) or a $10m^3$ compactor (fortnightly storage). Disposal of recycling will be via 240L bins.

In addition to the estimated quantities of waste and recycling listed in Table 49, the site is anticipated to produce minimal quantities of garden organics, less than 50L per week. This waste will be taken by a landscaping contractor who will dispose of it at an off-site licenced facility.

Bird Reception Area

Waste from the bird reception area would be in the form of dead birds and bird waste (droppings and feathers). Assuming a worst scenario of 0.05% deaths for incoming live birds, the number of birds would be 500 per week, or 100 per day.

Bird mortalities are dealt with by being sent to the rendering plant for processing. Residual waste from the rendering plant process is sent to the wastewater treatment plant. With 100 bird mortalities per day and assuming that each bird weighs 2 kg, this equates 200 kg of dead birds sent to the rendering plant per day.

Bird waste is washed down with water and directed to the wastewater treatment plant.

Processing and Cold Storage Facilities

For the purposes of calculating quantum of finished product, by-products and waste, the throughput is based on an average of 2kg live bird weight. The breakdown of the residual waste is shown in Table 56.

Table 56 – Estimated Poultry Processing Waste (Stage 1 and 2 Combined)

Bird Component	Percent Component of Whole Bird	Weight per Bird (kg)	Weight Per Day (t)
Blood	6	0.12	24
Inedible Gut Waste	12	0.24	48
Bones	13	0.26	52
Feathers	6	0.12	24
Pet Food	10	0.2	40
Unaccounted Sludge	3	0.06	12
Total	**50**	**1**	**200**

The unaccounted sludge will be transferred to the on-site wastewater treatment plant. The rest of the residual waste from the processing facility is to be transferred to the by-product rendering plant to be reprocessed as pet food and fertiliser product for sale. This accounts to 188t of bird waste per day.

In addition to the estimated quantities of poultry waste listed in Table 50, the processing and cold storage facilities are anticipated to produce packaging material waste such as plastics, broken pallets and used PPE, such as gloves. The quantities of these waste streams are anticipated to be small.

Used packaging material that is soiled with meat waste will be sent to the compactor located in the processing facility. The compacted soiled packaging waste is to be collected as part of the general waste collection service. Packaging waste that has not been soiled with meat waste is to be recycled. Clean plastics and cartons can be collected in separate bins in the industrial bin enclosure (IBE) located at the processing facility. To minimise packaging waste produced, packing waste can be returned to the suppliers where possible.

Standard pallets will be returned to their owners. Non-standard and broken pallets are to be stockpiled and collected as required by a private waste contractor.

Office Building

Waste and recycling generated from the office building will generally comprise clean office paper, cardboard, recyclable containers, food waste, batteries and e-waste, stationary, printer tones and ink cartridges and furniture. Most of this waste and recycling will be disposed of with the general waste and recycling.

If other collection services are required, such as secured documents or organics, these will be organised with a private waste contractor who will provide additional bins and take collected waste to an off-site licenced facility.

Childcare Centre

Waste from the childcare centre will consist mainly of food, food containers and nappies. Food waste and containers will be disposed and collected along with general waste and recycling.

A 50L bin will be stored on-site for the daily collection of nappies. These will be relocated to the IBEs by the cleaners at the end of each working day.

Truck Maintenance Facility

The major waste streams of the truck maintenance facility, as noted in Table 47, will include tyres, air and oil filters, rags, brake pads, metals, engines, batteries and pads. These are not considered to be regularly generated waste streams and include damaged heavy vehicle parts that become unsuitable for reuse by the site's heavy vehicles.

Tyres that cannot be reused will be stockpiled off-site. The tyres will be collected from the truck maintenance facility by a private waste contractor who will transport them to a licenced recycling facility where they will be stored until they are recycled.

A $7m^3$ skip bin will be stored on-site and used for the collection of metals. A private waste contractor will be engaged for collections that can occur on an as need basis. The metals will be transported to a licenced metal recycling facility.

All heavy vehicle parts that are unsuitable for reuse or recycling will be stockpiled and collected by a private waste contractor for disposal at a licenced recycling facility or licenced landfill site.

The frequency of the waste removal will, in most cases, be dictated by the quantities of material being deposited into each of the dedicated skips. Bulk bins will be checked as required by the site Manager to ensure that no overflow occurs. If skip bins are reaching capacity, removal and replacement will be arranged. All bulk bins leaving the site will be covered with a suitable tarpaulin to ensure no spillage of waste during transport.

By-products Rendering Facility

The by-products rendering facility accepts waste streams from the live bird shed and the processing facility for the purpose of rendering into pet food and fertiliser. These products are then transported off-site for resale. The amount of poultry waste that the by-products rendering facility is expected to accept is shown in Table 56.

All incoming poultry waste is expected to be processed and reused by the rendering facility. Any poultry waste that will not be reused will be send as sludge to the wastewater treatment plant.

Wastewater Treatment Plant

As per Table 56, approximately three per cent of all processed poultry is considered unaccounted sludge and not suitable for poultry meat sale or for reprocessing. Hence it is expected that 12,000kg of unaccounted sludge will be sent to the wastewater treatment plant per day. Approximately three per cent of each dead bird (6kg per day) is also considered unaccounted sludge and sent to the wastewater treatment plant.

The remaining product from the processes undergone at wastewater treatment plant is collected and taken off-site for disposal at a licenced facility.

Contingency Operation for Mass Bird Deaths

In case of mass bird deaths, the rendering facility and wastewater treatment plant are expected to be able to accept significant quantities and process the waste for off-site reuse or disposal. Where birds cannot be treated on-site, a private waste contractor is to collect the birds and dispose of them at a licenced facility in accordance with Council's DCP and Better Practice Guidelines for Waste Management.

In the event that mass bird deaths occur as a result of disease, bird disposal will be in accordance with the Australian Veterinary Emergency Plan (AUSVETPLAN).

6.4.4 Mitigation and Management Measures

Waste streams will be managed in accordance with the principals of the waste management hierarchy, with an emphasis on reduce, reuse or recycle over disposal of wastes. Waste storage areas will be maintained as per the below requirements in accordance with the Better Practice Guidelines for Waste Management:

- The rooms are to be regularly maintained. The floor is to be graded so that any water used for cleaning is directed to a sewer authority-approved drainage connection located on-site
- Waste and recycling bins are to be cleaned in an area draining to a sewer authority-approved drainage connection, and
- General and recycling waste bins are to be checked frequently. If the bins are reaching capacity, removal and replacement will be arranged.

Sufficient space will be provided at the Development for the storage of large and/or bulky items and hazardous wastes that cannot be disposed of in the general waste or recyclable streams.

Site operators may consider organising a separate occasional collection as required to remove bulky waste items or engaging a contractor to collect and transport these items for reuse, recycling or disposal.

Empty chemical containers will be returned to the local supply company for reuse, recycling or appropriate disposal. Alternatively, a licensed contractor will be engaged to provide a chemical container pickup service for recycling, reuse or appropriate disposal.

6.5 Access, Traffic, and Parking

A Traffic Impact Assessment (TIA) has been prepared by Colston Budd Rodgers & Kafes for the proposed development and is summarised in this section of the EIS. The full report is presented in Appendix D.

6.5.1 Assessment Methodology

The Traffic Impact Assessment was undertaken to investigate the range of traffic and transport aspects of the Project site and its surrounds with specific reference to the requirements of the *Guide to Traffic Generating Developments* (RTA, 2002) and *Australia Standard – AS2890 Parking Facilities* Parts 1 and 2. The specific tasks undertaken included:

- Consideration of the existing form and features of the road system surrounding the site;
- Traffic counts during weekday morning and afternoon peak periods at the intersections along the approach route from the site to the main road network, at:
  - Common Street / Sydney Road; and
  - Common Street / Sinclair Street;
- Simulation of traffic flows through the intersections using the SIDRA program to determine the levels of service (LOS); and
- Consideration of the implications of the proposed development on the following:
  - Public transport;
  - Parking provisions;
  - Access, servicing and internal layout;
  - Traffic generation; and
  - Construction traffic management.

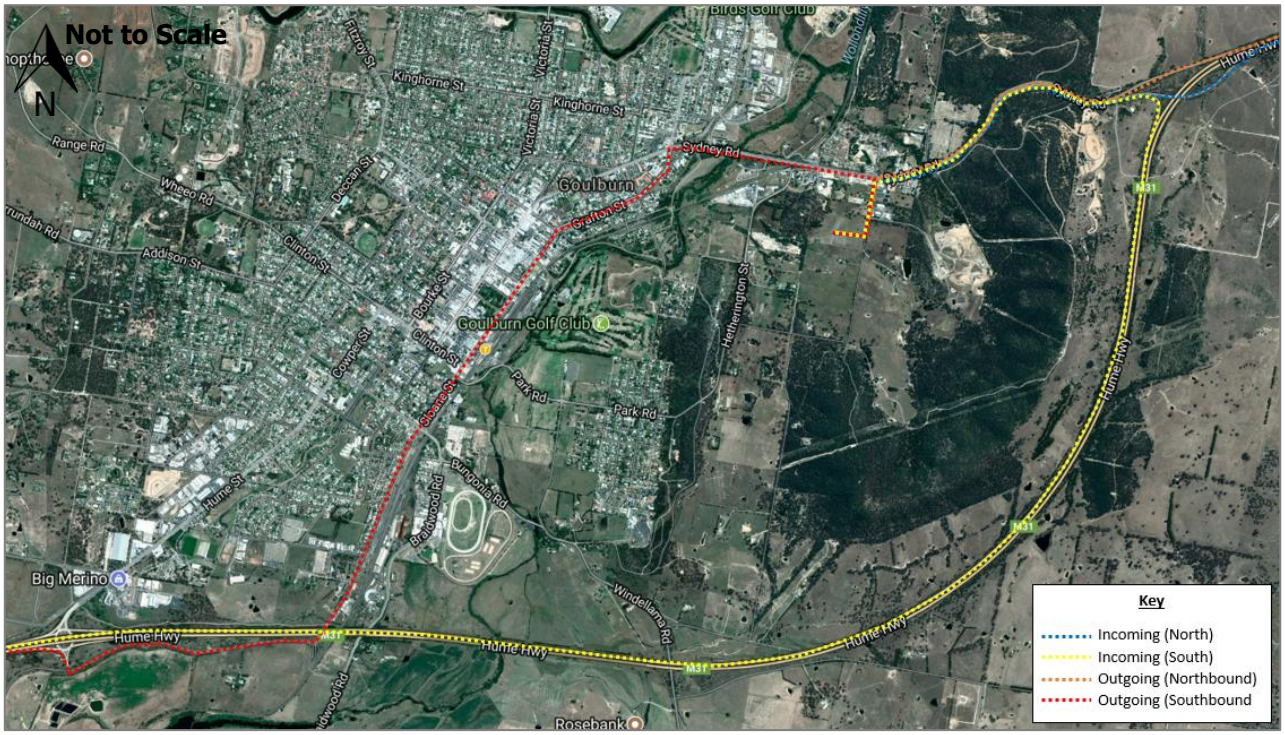
6.5.2 Road Network

The site access is on the western side of Common Street. North of the site, Common Street intersects with Sydney Road, which provides access to the Hume Highway to the east and the Goulburn CBD to the west. The proposed travel routes are provided in Figure 49.

Roads used to access the main road network include:

- For incoming traffic from Hume Highway (north and south):
  - Sydney Road
  - Common Street
- For outgoing traffic to Hume Highway (north):
  - Common Street
  - Sydney Road
- For outgoing traffic to Hume Highway (south):
  - Common Street
  - Sydney Road
  - Union Street
  - Reynolds Street
  - Grafton Street
  - Sloane Street
  - Garroorigang Road

Figure 49 – Proposed Travel Routes



Common Street is a two lane two-way rural road with unsealed shoulders and a 50 kilometre per hour speed limit. It provides access to rural and industrial developments. South of Sinclair Street, Common Street has a five tonne load limit. It is a dead end south of the site.

North of the site, Common Street intersects Sydney Road at an unsignalised intersection controlled by give way signs. North of Sydney Road, Common Street is a dead end. There are left and right turn bays in Sydney Road for turns into Common Street. There are good sight lines for vehicles turning from Common Street onto Sydney Road.

Sydney Road provides for two traffic lanes in each direction with a central median and an 80 kilometre per hour speed limit. It provides access to commercial and industrial properties, and to the Hume Highway to the east and the Goulburn CBD to the west.

6.5.3 Existing Traffic Flows

Traffic generated by the proposed development will have its greatest effects during weekday morning and afternoon peak periods when it combines with other traffic on the surrounding road network. In order to gauge traffic conditions, counts were undertaken at these times at the following intersections:

- Common Street/Sydney Road; and
- Common Street/Sinclair Street.

The results of the surveys are shown in Table 57. Sydney Road carried some 345 to 560 vehicles per hour two-way during the weekday morning and afternoon peak periods. Flows on Common Street and Sinclair Street were lower at less than 200 vehicles per hour two-way.

Table 57 – Existing Two-Way (Sum of Both Directions) Peak Hour Traffic Flows

Road	Location	AM Peak Hour	PM Peak Hour
Sydney Road	East of Common Street	345	465
	West of Common Street	440	560
Common Street	North of Sydney Road	1	12
	South of Sydney Road	195	225
	South of Sinclair Street	50	40
Sinclair Street	East of Common Street	45	25

6.5.4 Public Transport

Bus services in Goulburn are provided by PBC Goulburn. A number of services connect Goulburn with surrounding areas. Routes 821a and 821b connect Goulburn to North Goulburn. Route 823 connects Goulburn to West Goulburn and route 824 connects Goulburn to Ifield and St Aubyn Road. Route 825 connects Goulburn with Eastgrove.

While the site currently has limited access to public transport, it is expected that with further enterprise and industrial development along Common Street demand for public transport would increase and the possibility of future servicing of the area by bus should be considered by the bus provider.

6.5.5 Intersection Operations

The capacity of the road network is largely determined by the capacity of its intersections to cater for peak period traffic flows. The surveyed intersections have been analysed using the SIDRA program, which simulates the operations of intersections to provide performance measures including average delay per vehicle expressed in seconds per vehicle.

The intersection of Sydney Road and Common Street is currently operating unsignalized intersection with turn lanes. The SIDRA analysis found average delays of less than 25 seconds per vehicle in all directions during weekday morning and afternoon peak periods. Delays between 15 and 28 seconds is considered to be an acceptable level of service with spare capacity.

The Common Street and Sinclair Street intersection is currently operating with delays for all directions of less than 15 seconds per vehicle during peak periods which represents a good level of service with a large amount of capacity to spare.

6.5.6 Traffic Generation and Road Network Capacity

The following traffic generation rates for the proposed development have been used in accordance with the RTA (2002) *Guide to Traffic Generating Development*:

- 0.5 vehicles per hour per 100m^2 for distribution facilities (cold store);
- One vehicle per hour per 100m^2 for factory facilities (processing facility);
- 0.84 and 0.6 vehicles per hour per 100m^2 for offices; and
- 0.7 to 0.8 vehicles per hour per child for childcare centres.

Using the above rates, the proposed development would have a generate approximately 230 to 240 vehicles per hour two-way during weekday morning and afternoon peak hours. Existing peak hour traffic flows plus the additional development traffic are shown in Table 58.

Table 58 - Existing Two-Way Peak Hour Traffic Flows Plus Development Traffic

Road	Location	AM Peak Hour		PM Peak Hour	
		Existing	Plus Development	Existing	Plus Development
Sydney Road	East of Common Street	345	+70	465	+70
	West of Common Street	440	+170	560	+170
Common Street	North of Sydney Road	1	-	12	-
	South of Sydney Road	195	+240	225	+240
	South of Sinclair Street	50	+240	40	+240
Sinclair Street	East of Common Street	45	-	25	-

Analysis of the intersection of Common Street with Sydney Road with the additional traffic generated by the proposed development found the intersection would continue to operate with delays of less than 25 second per vehicle in all directions and would continue to provide an acceptable level of service.

Similarly, the intersection of Common Street with Sinclair Street would continue to operate with average delays for all movements of less than 15 seconds per vehicle during peak periods a good level of service with a large amount of capacity to spare.

The proposed site access points of the site connecting to Common Street would operate with average delays for all movements of less than 15 seconds per vehicle during peak periods providing a good level of service with a large amount of capacity to spare. It should be noted another two site entries are proposed which would further reduce load on the existing site access to Common Street.

It is therefore considered that the road network will be able to cater for the traffic from the proposed development.

6.5.7 Vehicular Access

The access driveway widths, internal circulation roads and truck manoeuvring areas will be provided in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking and Part 2: Off-street commercial vehicle facilities), AS 2980.1:2004 and AS 2890.2:2002, to accommodate cars, 19 metre semi-trailers and 26 metre b-doubles, the largest vehicles which will access the site.

The design of the development provides for service vehicles to enter and exit the site in a forward direction. Service vehicle swept paths have been prepared in accordance with Austroads guidelines.

6.5.8 Parking

The proposed development include provision of 341 car parking spaces to meet the needs of all proposed uses on the site. Section 3.5.2 of the Goulburn Mulwaree Development Control Plan 2009 (DCP) includes the following parking requirements:

- Industrial buildings: one space per 100m^2 GFA, plus one space per 40m^2 office GFA, plus one space per 37m^2 retail GFA; and
- Childcare centres: one space per two employees, plus set down/drop off area.

Based on the parking requirements and the site layout, the proposed development would require 265 parking spaces, comprising 233 spaces for the industrial buildings, 25 spaces for the office and seven spaces for the childcare centre, plus space for set down and pick up of children. A total of 341 car parks are proposed across the proposed development complying with the prescribed rate from the DCP.

All parking spaces will be provided with minimum dimensions of 5.4m long by 2.5m wide (generally) or 2.6 m wide (in the childcare centre car park). Spaces with adjacent obstructions will be 0.3 m wider to appropriately provide for doors to open. Disabled spaces will be 2.4 m wide, with a 2.4 m wide adjacent area for wheelchairs. These dimensions are considered appropriate, being in accordance with AS 2890.1:2004.

6.5.9 Construction Traffic

The number of vehicles generated during the various stages of construction is likely to be up to some 100 vehicles per hour two-way at peak times. The effects of construction vehicle activity on the surrounding road network will therefore be less than the operational effects. Large construction vehicles will use major roads in the area, including Sydney Road and Common Street.

On-site parking will be made available for construction employees. As various parts of the new car parks are completed, their use will be available for construction activities and parking. As the internal roads are constructed, good access and parking will be available for construction employees. Construction compounds will be located on the parts of the site subject to construction activities at that time.

A construction traffic management plan will be prepared prior to the commencement of work, taking into consideration the conditions of consent. The plan will include the consideration of the following:

1. Vehicle access to the site during construction;
2. Construction vehicle routes;
3. Traffic and parking effects;
4. Measures to manage and protect pedestrian movements;
5. On-street works zones; and
6. Measures to manage and control construction traffic on the site.

6.6 Water

DRB Consulting Engineers undertook an assessment of the water impacts of the proposed development on water including:

- Stormwater drainage and overland flow paths;
- Stormwater detention and water quality;
- Water reuse and mains water demand; and
- Flood levels and conveyance.

The abovementioned water management plan has been provided at Appendix B alongside the civil engineering plans which detail the stormwater management system. Groundwater has been described below and within the Contamination Assessment undertaken by EP Risk and provided at Appendix E.

6.6.1 Overland Flow Paths

Topographically, the site falls naturally from the northwest to the southeast. During the inspection it was identified that runoff from the majority of the site was intercepted by the existing roads. The roads had a conventional subsurface drainage network, which conveyed runoff to a basin in the southwestern portion of the site.

During major storm events, it appeared as though the water level in the basin over-topped a weir, where water would be conveyed as above ground channel flow to the watercourse approximately 40m to the south of the site.

Runoff from the north western portion of the site was conveyed as sheet flow towards basin where an upstream berm diverted the flows to the west.

6.6.2 Groundwater

Within a 2km radius of the site are a total of 47 registered groundwater bores with the closest being 317m to the north east of the site which is installed to a depth of 72m below ground level. Standing water level at this bore is 14m with a standing water level of between 4.6m and 100m below ground level. This bore currently provides water at a rate of 1.1 litres per second and is reported to have salinity within the 'good' range.

Based on the available information groundwater, is likely to flow towards the Mulwaree River located approximately 850m from the site. However, underground conditions such as fractured rock aquifers can be influenced by underground conditions such as bedding planes and fractures. Low to moderate productivity aquifers are present at the site with low permeability with fractured igneous and metamorphic rock aquifers in the surrounding area. The conductivity of the predominant rock type and conditions are generally between 10^{-7} to 10^{-2} m/day with a porosity of between 0.1% to 1% resulting in groundwater flow rate between 9 and 90 m/year. The nature of the underground conditions results in low hydraulic movement between the groundwater and surface water bodies such as the Mulwaree River due to the low water movement rate.

Ecosystems dependent on groundwater conditions have been considered with a summary of ecosystems in proximity to the site provided in Table 59.

Table 59 – Summary of Groundwater Dependent Ecosystems

Type	GDE Potential	Geomorphology	Ecosystem Type	Distance from Site
Terrestrial	Moderate potential GDE	Upland Plains with separating strike-aligned hills, closed lake basins	Vegetation	405m east
Aquatic	High Potential GDE	Upland Plains with separating strike-aligned hills, closed lake basins	River (Mulwaree River)	607m west and north west
Terrestrial	Low Potential GDE	Upland Plains with separating strike-aligned hills, closed lake basins	Vegetation	910m south west

The inferred groundwater flow from the site has been estimated to be westerly towards the Mulwaree River and as such will flow towards the high potential aquatic ground water dependent ecosystem.

Impacts

The proposed operations on the site will occur all on sealed surfaces which will divert all surface water to the upgraded stormwater basin in the south west corner of the site. As a result, the only opportunity for infiltration of material to groundwater will be via the stormwater basin.

To manage water quality of water managed through the stormwater system the following systems are proposed:

- SPEL Stormsacks will be installed in all surface inlet pits; and

- Biofiltration media with a surface area of 1000m2 will be installed in the base of the proposed Onsite Detention Basin.

The resultant water which may infiltrate into the ground water will meet the water quality standards required to achieve Neutral or Beneficial Effects on pre-development water quality. A MUSIC model assessing the pre- and post-development water quality which may infiltrate to groundwater is provided Table 60.

Table 60 - MUSIC Model Results

Item	Annual Pollution Loading (kg/yr)			
	TSS	TP	TN	GP
Pre-Development	1440	4.03	29.3	144
Post Development	265	2.77	25.3	0
Reduction	1175	1.26	4	144
Improvement	81.6%	31.3%	13.7%	100%
NorBE	Yes	Yes	Yes	Yes

Based on the MUSIC modelling the quality of water leaving the site via the stormwater outlet will see significant reductions in water quality parameters and as a result the water which would leave the site can be considered to achieve a beneficial effect consistent with Water NSW's requirements. Full MUSIC model is provided in stormwater management report at Appendix B.

To manage potential groundwater impacts the following mitigation measures are proposed:

- Stormwater treatment devices including gross pollutant traps, pit inserts, and storm filters are to be implemented and replaced as needed;
- SPEL Stormsacks (or approved equivalent) be installed in all surface inlet pits and are to be replaced as needed; and
- Prompt upkeep of sealed operational surfaces, stormwater systems, and biofiltration basin as required.

6.6.3 Stormwater Drainage

This existing system is proposed to be enhanced to cater to the proposed development demand. Rainwater tanks supported with first flush systems is proposed on a number of buildings with a 50kL tank to service the cold storage and office buildings; a 35kl proposed for the childcare centre; and an 800kL tank proposed to service the poultry processing building, live bird shed, and by-product building. Any overflow from these collection systems will be directed to the stormwater drainage network.

The existing internal roads will continue to utilise their existing systems with all proposed internal roads, driveways, and landscaped areas to utilise series of pits and grass lined swales and conveyed via subsurface pipe to the end of line above ground basin. All surface inlet pits will be fitted with SPEL Stormsacks.

The existing basin in the southwestern corner of the site is proposed to be replaced to meet both the onsite stormwater detention and water quality requirements for the site. The area will include a minimum of 1,000m^2 area of biofiltration media in the basin, a 300mm low flow outlet pipe, and a 1.5m wide weir overflow. Discharge from the basin will meet water quality targets set by Water NSW with peak discharge from the basic totalling less than or equal to the pre-development peak discharge for all storm events including 1 in 100 year ARI events.

6.6.4 Water Demand

The water demand for the proposed development has been calculated to demonstrate water demand on the mains system and water reuse. The water balance was prepared using approximately 50 years of daily rainfall data obtained from the Bureau of Meteorology (BOM) from the weather station at Goulburn TAFE.

Water use within the poultry processing operation cannot be recycled therefore must be drawn down from mains supply. The poultry processing operations are expected to draw approximately 14L/bird including all

ancillary requirements such as cleaning. With 192,000 birds per day at full capacity the expected daily water draw from the mains system will be 2.688ML.

Outside of the mains water draw include the following areas for water reuse:

- Internally within toilets and laundries.
- Externally for landscape irrigation.
- Externally for truck wash down.

The water demand calculations were split into three distinct areas:

- Area 1 - Building 01 Coldstore and building 03 corporate offices
- Area 2 - Building 04 Childcare centre
- Area 3 - Building 02 Process facility, building 06 live bird shed and building 07 by-products processing

The assumptions and parameters used in each of the calculations can be seen in Table 61.

Table 61 - Water Reuse Assumptions and Parameters

	Area 1	Area 2	Area 3
Contributing Roof Area	10,534m^2	1,549m^2	12,822m^2
Daily Water Usage - Internally	50L/person/day	40L/person/day	50L/person/day
No. of People	53 People	64 People	211 People
First Flush	1mm	1mm	1mm
Irrigation Rate for Landscaping	2L/m^2/day	2L/m^2/day	2L/m^2/day
Landscaping Area	0m^2	0m^2	10,000m^2

Note: The assumptions are based on 20% of 264 Staff working 7 days per week; 80% of 264 Staff working 7 days per week; and 90 people 5 days per week.

To meet the day-to-day requirements for each reuse area, an assessment of volume requirements has been compared against tank efficiency and cost. A 100% efficient tank requires no drawn down on mains supply however this can result in an unreasonably large tank unreasonably increasing costs. Tanks were chosen to provide the best solution for both efficiency and volume.

Area 1 requires a 50kL tank with a 90.8% efficient tank whilst Area 2 requires a 35kL tank at 60% efficiency to service the childcare centre. Area 3 requires an 800kL tank at 63.1% efficiency for service.

6.6.5 Stormwater Detention

Goulburn Mulwaree Council were consulted, and their engineering guidelines reviewed in order to understand the requirements for the proposed development. The following was noted with regard to Onsite Stormwater Detention (OSD):

OSD must be provided for the proposed development with Post-Development flows being limited to Pre-Development flows for all storm events up to and including the 1 in 100 year Average Recurrence Interval (ARI) event. Due to the size of the site, a runoff routing program should be adopted for calculations.

The runoff routing program DRAINS by Watercom was used for the OSD calculations. The DRAINs model was prepared using the BOM 2016 data with the Pre-Development model replicating a greenfield site, and the Post-Development model corresponding with the proposed development.

The results of the DRAINS model can be seen in Table 62.

Table 62 - DRAINS Model results for OSD system

Storm Event	Peak Discharge (m3/s)	
	Pre-Development	Post-Development
5 Year ARI	0.200	0.190
10 Year ARI	0.425	0.368
20 Year ARI	0.667	0.625
50 Year ARI	1.010	0.848
100 Year ARI	1.280	1.081

6.6.6 Water Sensitive Urban Design

The following extract from Council's engineering guidelines was noted with regard to Water Quality (WQ):

Water Sensitive Urban Design (WSUD) must be undertaken using MUSIC and consultation with Water NSW is required to determine requirements.

James Caddey, Water NSW's Catchment Assessment Officer, was consulted and he noted that the site is in the Sydney Drinking Water Catchment and any development has to meet the requirements of the SEPP 2011, which are:

- Meeting the requirements of WNSW current recommended practices.
- All development must have a neutral or beneficial effect on water quality.

SPEL were consulted to help develop an appropriate WSUD treatment train that would effectively treat the stormwater runoff to levels that have a neutral or beneficial effect on water quality. The system utilises a combination of SPEL Stormsacks installed on all surface inlet pits along with a 1,000m^2 biofiltration medium installed in the base of the expanded detention basin in the south western of the site.

An assessment of the proposed stormwater system included MUSIC modelling and a NorBE test. The results of the MUSIC model and NorBE test can be seen in Table 63.

Table 63 - MUSIC Model Results

Item	Annual Pollution Loading (kg/yr)			
	TSS	TP	TN	GP
Pre Development	1440	4.03	29.3	144
Post Development	265	2.77	25.3	0
Reduction	1175	1.26	4	144
Improvement	81.6%	31.3%	13.7%	100%
NorBE	Yes	Yes	Yes	Yes

Based on the MUSIC modelling the quality of water leaving the site via the stormwater outlet see significant reductions in water quality parameters and as a result can be considered to achieve a beneficial effect consistent with Water NSW's requirements. Full MUSIC model provided in stormwater management report at Appendix B.

6.6.7 Wastewater

The facility is designed to process 14L/broiler for the provided rate of 96,000 broilers per shift. The wastewater treatment system is designed to treat wastewater as set out at Table 64. It is expected that the daily and average treated flows will double when operating two shifts per day.

Table 64 – Wastewater Flow Breakdown

Item	Value
Daily	1400 m^3/day
Maximum instantaneous flow	40 L/s
Average (Design) hourly treated flow	75 m^3/ hr

The raw water quality expected primary treated water quality and required (secondary treated) water quality has been defined within Table 65 and is designed to meet Goulburn Mulwaree Council Liquid Trade Waste Policy requirements.

Table 65 – Wastewater Quality Parameters

Parameter	Raw Untreated	Primary Treated	Secondary Treated
Biological Oxygen Demand (BOD)	<3000mg/L	1000mg/L	<600mg/L
Chemical Oxygen Demand (COD)	<5000mg/L	2000mg/L	<1800mg/L
Total Oil and Grease (TOG)	<1000mg/L	50mg/L	<50mg/L
TKN	<150mg/L	50mg/L	<100mg/L
Total P	<25mg/L	5mg/L	<20mg/L
Suspended Solids (SS)	<2000mg/L	<60mg/L	<600mg/L
pH	6-10	7-9	7-9

Resultant sludge and solid waste from the wastewater process will be collected and disposed of at an appropriately licenced facility. Table 66 provides a calculated breakdown of the resultant wastes.

Table 66 – Wastewater Sludge and Solid Breakdown

Sludge and Solids	Value
Volume of Sludge Per Day	46.143kL
Volume of Dewatered Cake Per Day	10.8t

All wastewater discharge from the site will be appropriately managed prior to leaving the site and will be in accordance with Goulburn Mulwaree Council's Liquid Trade Waste Policy.

6.6.8 Flood Impact Assessment

A Section 10.7 Certificate was obtained from Goulburn Mulwaree Council to confirm the sites flood prone status. Section 7A of the certificate states the site is not subject to flood related development controls and as such the site is not impacted by flooding.

6.6.9 Poultry Transport Impacts on Water Catchment Area

The transport of livestock including poultry produces the potential for animal waste to escape into the environment producing a number of impacts and as a result there is concern that this fugitive animal waste may impact on water quality within the catchment contributing to the degradation of the catchment as a whole.

With the sites location within the Sydney drinking water catchment and the majority of surrounding poultry farms located thin the catchment, it is expected that the majority of poultry transport will occur wholly within the Sydney drinking water catchment.

The nature of poultry transport is largely different from other livestock types due to their size and method of transportation. Birds are transported in poultry crates rather than a single enclosed area within the vehicle payload area. The crates contain a number of adult birds stacked to fill the vehicle payload area enabling high numbers of birds to be transported at a time while providing all birds suitable floor space to be transported with low risk to the birds.

During transport, no bedding material is afforded to the birds with only the crate floor provided which means that the only waste which may escape to the environment would be animal waste, namely bird faeces. However, due to their size the volume of this animal waste is considerably lower than other livestock species

Due to the structure of poultry crates, the animal waste produced would be largely contained within the crate with minimal to negligible waste able to escape from the crate itself. The majority of waste which does move beyond the crate itself falls downward towards the floor of the vehicle rather than to the external environment.

Transport times for poultry is reduced in comparison to other livestock species. Poultry are highly sensitive to the elements and to manage animal welfare, reduced travel times are dictated for poultry minimising distance travelled within the catchment area. This limit on transport time directly minimises the impact on the Sydney drinking water catchment.

Waste which does escape from the vehicle will largely by collected on the roadway with the majority of travel time spent on the Hume Highway. This waste will therefore be directed to stormwater ensuring that the waste will be diluted within the managed impervious surface area prior to entering to any unmanaged watercourse.

With the low amount of waste produced during transport, the negligible amount of fugitive waste which may escape into the environment, the limited travel times for poultry, and the collection of waste on the roadway rather than direct to the unmanaged environment the impact generated by the transport of poultry through the Sydney drinking water catchment is expected to be minimal.

All waste collected during transport will be cleaned out within the poultry processing building ensuring the waste is managed onsite and processed through the wastewater treatment system.

Emergencies and Spills

Due to the nature of the payload, the only potential emergency situation would be a loss of the poultry payload potentially in the event of a vehicle crash or payload coming loose. In such situations, the waste will largely stay with the crates and manual clean up of the crates will be possible. The crates will be transported to the site for clean up with the waste directed to the site's wastewater treatment system.

The impact on the catchment resulting from such an emergency situation is expected to be negligible due to the minimal nature of the waste and ease of clean up.

6.7 Contamination

A Contamination Assessment has been prepared by EP Risk for the proposed development and is summarised in this section of the EIS. The full report is reproduced in Appendix E.

6.7.1 Assessment Methodology

The contamination assessment was undertaken to determine the suitability of the site for the proposed land use in accordance with State Environmental Planning Policy No 55 – Remediation of Land (SEPP 55). The spatial extent of the assessment comprised Lot 22 in DP 750050. A summary of the specific tasks undertaken in the assessment included:

- Conducting a site visit to observe onsite and offsite conditions.
- Development of a conceptual site model identifying contaminant sources, pathways and receptors.
- Undertaking a desktop review of publicly available historical information.
- Undertaking a grid-based and targeted soil sampling program and analysis of identified chemicals of potential concern (COPC) at a NATA accredited laboratory.

The contamination assessment was prepared in accordance with the NSW Office of Environment and Heritage ('OEH') (2011) *Contaminated Sites, Guidelines for Consultants reporting on Contaminated Sites* and the National Environment Protection Council (2013), *National Environment Protection (Assessment of Site Contamination) Measure 1999* as amended April 2013 ('ASC NEPM 2013').

6.7.2 Database Searches

A summary of the relevant regulatory searches is provided in Table 67.

Table 67 – Summary of Regulatory Searches

Search	Result
Site Condition	
Natural Occurring Asbestos Potential	A search of the NSW Department of Industry, Resources & Energy identified no naturally occurring asbestos potential within 1 km of the site.
Acid Sulfate Soils	A search of the CSIRO Atlas of Australian Acid Sulfate Soils identified the site to be located within an area of low probability occurrence (6-70%) of acid sulfate soils.
Mining Subsidence	There are no Mining Subsidence Districts within 1 km of the site.
Regulatory Searches	
Contaminated Sites Notified to the NSW EPA	The site nor any surrounding properties were on the NSW EPA database for Contaminated Sites notified to the NSW EPA in accordance with the Contaminated Land Management Act 1997.
Contaminated Land: Record of Notice	No contaminated land records of notices have been identified at or within 1 km of the site.
Former Gasworks	No former gasworks have been identified within 1 km of the site.
NSW EPA PFAS Investigation Program	No records of the NSW EPA PFAS Investigation Program were identified within 1 km of the site.
Waste Management Facilities	The Goulburn Waste Management Facility was identified to be approximately 304 m south east of the site. Based on review of current aerial photography and inspection of the site and surrounding areas, the active landfill cells are located approximately 500m east of the site and are considered unlikely to significantly impact the site.
Underground petroleum storage system Sensitive Zones	The western portion of the site is located within an UPSS regulated sensitive zone.

A summary of the NSW EPA licensed activities under the *Protection of the Environment Operations Act 1997* ('POEO Act') being undertaken within 1 km of the site is provided in Table 68.

Table 68 – Summary of Licenced Activities under the POEO Act

EPL	Organisation	Activity	Distance and Direction from Site
Licenced Activities under the POEO Act			
20724	A.J & B.M Wybrow Pty Ltd	Non-thermal treatment of general waste	22m west
		Recovery of general waste	
		Waste storage – other types of waste	
6780	Goulburn Mulwaree Council	Waste disposal by application to land	304m south east
13421	John Holland Rail Pty Ltd	Railway systems activities	353m north west
3142	Australian Rail Track Corporation Limited	Railway systems activities	353m north west
1742	Goulburn Mulwaree Council	Sewage treatment processing by small plants	998m north

Former Licenced Activities under the POEO Act – Now Surrendered			
4653	Lurhmann Environment Management Pty Ltd	Other activities/non-scheduled activity – application of herbicides	43m
4838	Robert Orchard		
6630	Sydney Weed and Pest Management Pty Ltd Christopher James Everson		
20036		Recovery of general waste	312m north
		Waste storage – other types of waste	
12018	Goulburn Recycling (Aust) Pty Ltd	Inert waste landfilling	352m north

Due to distance from the site and the nature of the operations it is unlikely that any of the licenced activities would have impacted the site. A.J & B.M Wybrow Pty Ltd operating as Rocky Hill Sand & Soil located in Hetherington Street, Goulburn and provides soil, mulch, compost, rocks/aggregates and landscaping supplies. Based on the nature of this activity and the properties location down-gradient of the western hill it is considered unlikely to significantly impact on the site.

Similarly, it is considered unlikely any of the former licensed activities undertaken at surrounding properties would have impacted the site, based upon the separation distance or the nature of these activities.

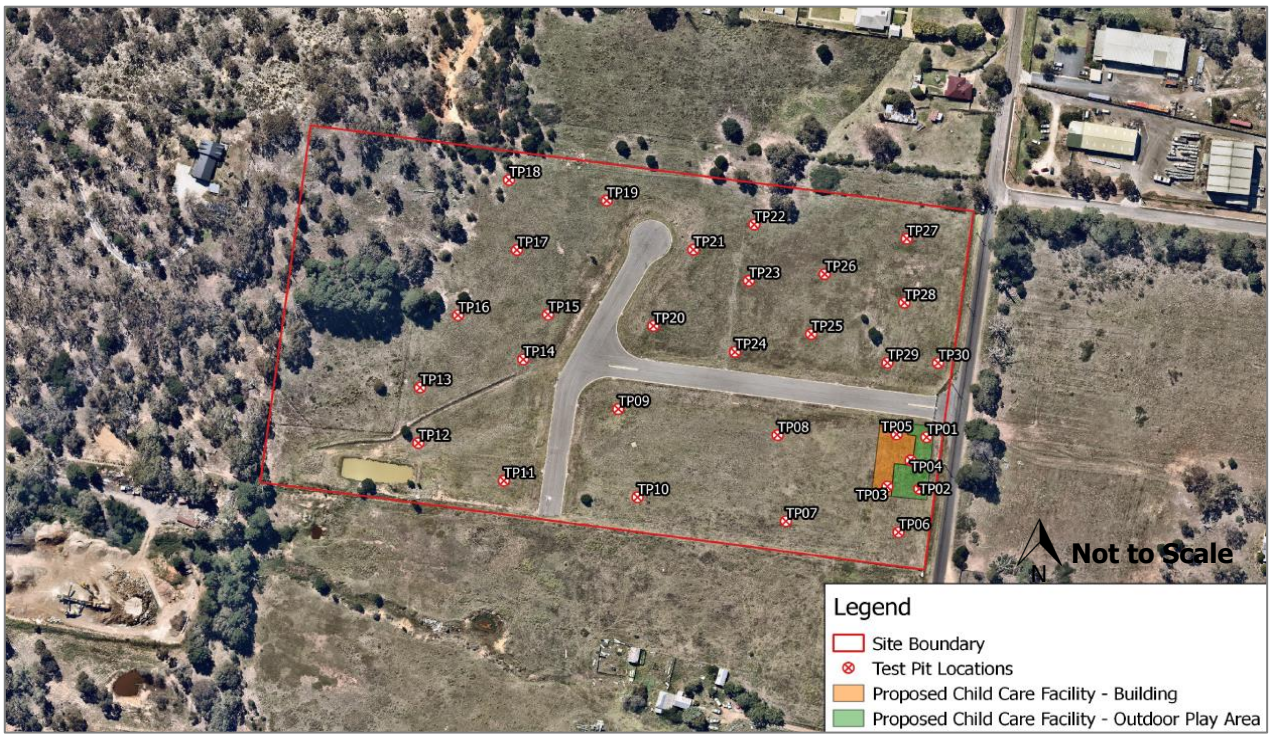
6.7.3 Sampling Method and Analysis

Based on the site inspection and review of historical records, the following activities have occurred at the site which may have resulted in the potential for contamination:

- The potential use of pesticides and herbicides at the site.
- The potential importation of contaminated fill material for road and dam construction.
- Migration of offsite contamination from the Goulburn Waste Management Facility

Given that the historical land uses of the site are primarily greenfield/agricultural, a reduced sampling density of 30 locations was considered appropriate in assessing the contamination status of the site. Five of the test pits were placed within the footprint of the proposed childcare centre in the south eastern corner of the site, which meets the minimum sampling density for land in size up to 0.05 ha, in accordance with NSW EPA (1995) *Sampling Design Guidelines*. The locations of the test pits are shown in Figure 50.

Figure 50 – Location of Test Pits



Soil sampling was conducted as follows:

- Soil samples were collected from 30 test pit locations across the site advanced using a 5-tonne excavator to a maximum depth of 2.5 m BGL.
- Soil samples were generally collected from 0.1, 0.5, 1.0 and 2.0 mBGL and from all soil horizons (where present).
- Soil was logged for type, colour, texture, other characteristics and indications of contamination.
- All sampling equipment was decontaminated with phosphate free detergent and a dedicated pair of nitrile gloves was used for each sample to prevent cross contamination.
- All samples were screened with a photoionisation detector ('PID') for the presence of volatile organic compounds ('VOC') and recorded on the bore logs.
- Sufficient samples were collected and placed into laboratory prepared sampling containers with a unique sample ID added to the label on each container.
- The sample containers were preserved on ice immediately after sampling and during shipment to the laboratories. The laboratory chain of custody documentation was completed and accompanied the samples during shipment.
- The laboratory analysis was undertaken in accordance with Table 69.

Table 69 – Analytical Testing of Primary Samples

Media	Sampling Locations	Number of Analysis
Soil	30	• 8 Heavy Metals/OPP/OCP – 45 • TRH/BTEXN/PAH/Phenols/PCB – 15 • Asbestos w/w % - 5 • NEPM Screen for soil classification (iron, total organic carbon, cation exchange capacity, % clay and pH) - 3 •
Quality Assurance / Quality Control		
Rinsate		• 8 Heavy Metals/OPP/OCP/TRH/BTEXN/PAH/Phenols – 2
Trip blank and trip spike		• TRH C_6-C_{10}/BETXN – 1
Duplicates and triplicates		• 8 Heavy Metals/OPP/OCP/TRH/BTEXN/PAH/Phenols – 6

The expected future land use at the site is commercial/industrial therefore on the basis of the future land use, the health and ecological-based criteria for a commercial/industrial land use setting under ASC NEPM 2013 was adopted for the site. However, since a childcare centre is proposed for the south eastern corner of the site, the low-density residential health and ecological-based criteria was adopted for this portion of the site.

6.7.4 Results

Soil Lithology

The site comprises a silty sandy topsoil layer with two layers of a naturally formed residuals and a rock layer in the eastern portion of the site. A summary of the soil layers present on the site is provided in Table 70.

Table 70 – Summary of General Soil Lithology

Soil Type	Depth	Description
Topsoil - Silty Sand	Between 0.0-0.1 m BGL	Dark grey, dry, loose, fine sand, organic matter (rootlets).
Natural (Residual) - Clayey SAND	Between 0.1-0.6 m BGL	Grey-light grey, dry, loose, fine sand.
Natural (Residual) – Sandy Clay	Between 0.6-2.0 m BGL	Light grey mottled orange and red, dry, low plasticity, stiff to very stiff, fine sand.
Natural (Rock) - Sandstone	Ranging from 1.4 to 1.7 m BGL in eastern portion of site	Light grey-brown, dry, fine sand.

As part of the soil sampling process, a visual inspection of the site occurred. Colluvial clayey sandy gravels were observed at the food of the north western hill slope. Some minor fill consisting of surface gravel were observed in the eastern portion of the site adjacent to the formed road which are likely associated with the road construction. Trace amounts of waste including wood, plastics, and aluminium were observed however no other anthropogenic waste such as asbestos was observed. No visual or odorous evidence of contamination was observed at the site.

Soil Vapour Screening

No signs of visual staining or odours were observed during sample collection at the site. Testing of each sample location reported <1 parts per million (‘ppm‘).

Soil Analysis

The results of the soil testing regime are summarised in Table 71.

Table 71 – Summary of Soil Analysis

Parameter	Childcare Centre		Commercial/Industrial	
	Minimum Applicable Criteria (mg/kg)	Maximum Observed (mg/kg)	Minimum Applicable Criteria (mg/kg)	Maximum Observed (mg/kg)
Metals				
Arsenic	100	8	160	<5

Cadmium	20	<1	900	<1
Chromium (III+VI)	340	14	570	12
Copper	50	7	65	<5
Lead	300	7	1,500	19
Mercury	40	<0.1	730	<0.1
Nickel	8	<2	10	9
Zinc	120	8	150	15
Organochlorine Pesticides				
Aldrin + Dieldrin	6	<0.05	45	<0.05
chlordane	50	<0.05	530	<0.05
DDT	180	<0.2	640	<0.2
DDT+DDE+DDD	240	<0.05	3,600	<0.05
Endosulfan	270	<0.05	2,00	<0.05
Endrin	10	<0.05	100	<0.05
Heptachlor	6	<0.05	50	<0.05
Methoxychlor	300	<0.2	2,500	<0.2
Organophosphorous Pesticides				
Chlorpyrifos	160	<0.05	2,000	<0.05
BTEX				
Benzene	0.5	<0.2	3	<0.2
Toluene	85	<0.5	135	<0.5
Ethylbenzene	55	<0.5	165	<0.5
Xylene Total	40	<0.5	230	<0.5
Phenols				
Pentachlorophenol	100	<2	660	<2
Phenol	3,000	<0.5	240,000	<0.5
TRH				
C6-C10	700	<10	700	<10

C6-C10 (F1 minus BTEX)	45	<10	260	<10
C10-C16	1,000	<50	1,000	<50
C10-C16 (F2 minus Naphthalene)	110	<50	170	<50
C16-C34	300	<100	1,700	<100
C34-C40	2,800	<100	3,300	<100
Halogenated Benzenes				
Hexachlorobenzene	10	<0.05	80	<0.05
PAH				
Benzo(a) pyrene	0.7	<0.5	1.4	<0.5
Naphthalene	3	<0.5	370	<0.5
PAHs (Sum of total)	300	<0.5	4,000	<0.5
PCBs				
PCBs (Sum of total)	1	<0.1	7	<0.1
Asbestos				
Asbestos Fibres	-	None detected	-	None detected

Note: Results noted as less than (<) are below detectable limits with limit threshold noted.

The results of soil analytical testing indicated that all heavy metal, OCP, OPP, TRH, BTEXN, PAH, PCB and phenol concentrations were reported below the laboratory reporting limit and/or the adopted assessment criteria. Asbestos was not detected in any of the soil samples analysed.

The site inspection indicated that the site was generally clear of anthropogenic material, with the exception of trace amounts of materials such as wood, plastic, aluminium cans. Fill was not encountered at the site apart from the constructed road and some minor amounts of gravel inclusions remaining from the construction of the road. There was no visual or olfactory evidence of hydrocarbon or other contamination. PID readings reported <1 parts per million at all sampling locations.

As no applicable criteria for contamination have been exceeded, no visual or odour signs of contamination noted, and the sites history revealed no concerning activities on the site it is considered the site has a low risk of contamination in the soil of the site. As a result, no further action in the form of a detailed site investigation or remediation works are required.

With the site being low risk for contamination, an unexpected finds protocol is to be implemented during the construction works.

6.7.5 Conceptual Site Model

Based on information gathered throughout the assessment, a conceptual site model has been generated to ascertain areas for potential contaminating activities, potential impacted media, potential human and ecological receptors, and potential exposure pathways.

Potentially Contaminating Activities include:

- Possible use of pesticides and herbicides at the site;
- Imported fill material for road construction; and
- Nearby Waste Management Facility.

Due to conditions on the site the above activities may potentially impact the soil.

Any contamination would impact surrounding residential properties along with:

- Terrestrial flora and fauna at the Site and surrounding residential properties.
- Ecosystems dependent upon Mulwaree River.
- Future commercial and industrial workers at the Site.
- Future childcare facility visitors.
- Future construction workers, sub-surface maintenance workers.

The potential exposure pathways have been described in Table 72.

Table 72 – Potential Exposure Pathways

Sources	Media	Release Mechanism	Pathway	Residents of Surrounding residential properties	Terrestrial Flora and Fauna at the Site and surrounding residential properties	residential properties. Ecosystems dependent on Mulwaree River	Future commercial industrial workers at the Site.	Future Child Care Facility visitors	Future construction workers, sub-surface maintenance workers at the Site.
TRH, BTEXN, PAH, PCB, Phenols, OCP, OPP	Soil	Fugitive Dust	Air-Ingestion/ Inhalation	No	No	No	No	No	No
		Direct Contact	Dermal Contact	No	No	No	No	No	No
			Ingestion	No	No	No	No	No	No
		Bioaccumulation	Uptake by terrestrial flora and fauna	No	No	No	No	No	No

6.8 Animal Welfare, Biosecurity, and Disease Management

6.8.1 Animal Welfare

Owners and operators of poultry operations have a responsibility to ensure that bird handling and transport is done so in a way to avoid causing injury or undue suffering, and destruction of poultry is carried out in a humane fashion. WRP will meet all standards of care and management for animal health and welfare as required by the relevant standards and guidelines.

The conditions under which poultry livestock will be managed during their transportation, holding and destruction will be in accordance with the *Australian Animal Welfare Standards and Guidelines Land Transport*

of Livestock (DAFF, 2012), and in conjunction with other relevant government and industry endorsed codes of practice designed to safeguard animal health and welfare, including:

- Australian Poultry CRC, 2008. *National Animal Welfare Standards for the Chicken Meat Industry: The Standards*. Australian Poultry CRC Pty Ltd. Australian Poultry Cooperative Research Centre Pty Ltd.
- Primary Industries Standing Committee, 2006. *Model Code of Practice for the Welfare of Animals – Land Transport of Poultry*. 2nd Edition PISC Report 91. CSIRO Publishing.

To ensure the regulatory requirements are met, and good practice in terms of animal care and welfare is achieved, WRP will implement standard operating procedures with consideration to the following general aims:

- All personnel responsible for the management and operation of facilities and equipment, care and handling of birds will be competent and trained.
- Handling and transportation of poultry will be undertaken in a way that minimises risk to their welfare.
- Facilities and equipment will be designed, maintained and operated to ensure minimal interference or stress to birds.
- Protection from weather will be provided to birds in transit and awaiting slaughter.
- Birds held in containers in holding for slaughter will be slaughtered as soon as possible, with maximum holding periods adhered to.
- Sick or injured birds unloaded from containers will be destroyed immediately.
- Birds are handled and destroyed in a manner that minimises risk to their welfare, and delivery and processing are planned to minimise time birds are held in containers before slaughter.

6.8.2 Biosecurity

As well as affecting animal health and welfare, disease can significantly reduce production efficiency and product quality. WRP has a significant economic incentive to ensure that poultry are kept disease free and will therefore place a high importance on maintaining health through operational hygiene and biosecurity measures.

The location of the site has been carefully selected to meet the minimum recommended separation distance of at least one km from possible sources of contamination, such as live bird facilities. Consideration has also been given to transport of broilers to and from the operation. The vehicle route is designed to avoid nearby poultry operations to minimise any potential spread of disease. For this reason, the designated vehicle route avoids the Aviagen Goulburn hatchery located on Tait Crescent and its connecting road Finlay Street. This is deemed acceptable as the heavy vehicles exiting Goulburn via the southern interchange with the Hume Highway will have no load, have been cleaned down, and be a minimum 600m from the hatchery as they travel along Garroorigang Road, Goulburn.

The poultry meat processing plant will be designed, constructed and operated to meet the requirements of the Australian Standard *AS 4465 - 2006: Construction of Premises and Hygienic Production of Poultry Meat for Human Consumption*. The Plant design will ensure that areas containing live birds, which have a greater potential for the production of disease, will be physically separated from areas used for subsequent processing. A decontamination process will be undertaken include the washing and sanitation of plant and equipment, including trucks and crates/modules before they leave the facility. Crates/modules that are damaged or cannot be effectively cleaned and sanitised will be discarded.

In the unlikely event of a major disease outbreak, the NSW Environment Protection Authority (EPA) and the NSW Department of Primary Industries (DPI) would be contacted as soon as the breakout is suspected. Immediate quarantine control measures would be implemented, including the suspension of all transport of birds into or out of the site to prevent the spread of disease.

Upon confirmation that the cause of the deaths is an Emergency Animal Disease (EAD), the NSW Department of Agriculture will be notified, and the disease strategy or response will be undertaken in accordance with relevant AUSVETPLAN manual procedures.

Where immediate destruction of the birds is necessary, slaughter will be managed by the DPI in co-ordination with the EPA and WPR. The birds will be euthanised humanely within the facility prior to rendering on site or at a licenced facility, under supervision of the DPI.

6.9 Bushfire Threat

A Bushfire Threat Assessment (BTA) has been prepared by Anderson Environment & Planning for the proposed development and is summarised in this section of the EIS. The full report is reproduced in Appendix J.

The BTA identifies the bushfire threat across a site based on the likely response of fire to fuel loads, slope and aspect. This involves assessing the vegetation formations and the slope of the land to determine the appropriate Asset Protection Zones (APZs) for the project as required in accordance with the methods prescribed in Planning for Bush fire Protection 2006 (PBP 2006). The construction requirements of the proposed development have been considered in accordance with the provisions of the Building Code of Australia – Volume 2, Edition 2010 and Australian Standard 3959-2009 (AS 3959) – Construction of buildings in bushfire-prone areas.

The project is classified as containing Class 5, Class 8 and Class 9 buildings (BCA). For this reason, parts of the development are exempt from AS 3959 building requirements if the aim and objectives of the PBP can be met. The aim and objectives are; relevant for the following reasons;

> *The BCA does not provide for any bush fire specific performance requirements and as such AS 3959 does not apply as a set of 'deemed to satisfy' provisions. The general fire safety construction provisions are taken as acceptable solutions, but the aim and objectives of PBP apply in relation to other matters such as access, water and services, emergency planning and landscaping/vegetation management.*

Other parts of the proposed development, specifically the Class 9 building, will require the application of AS 3959.

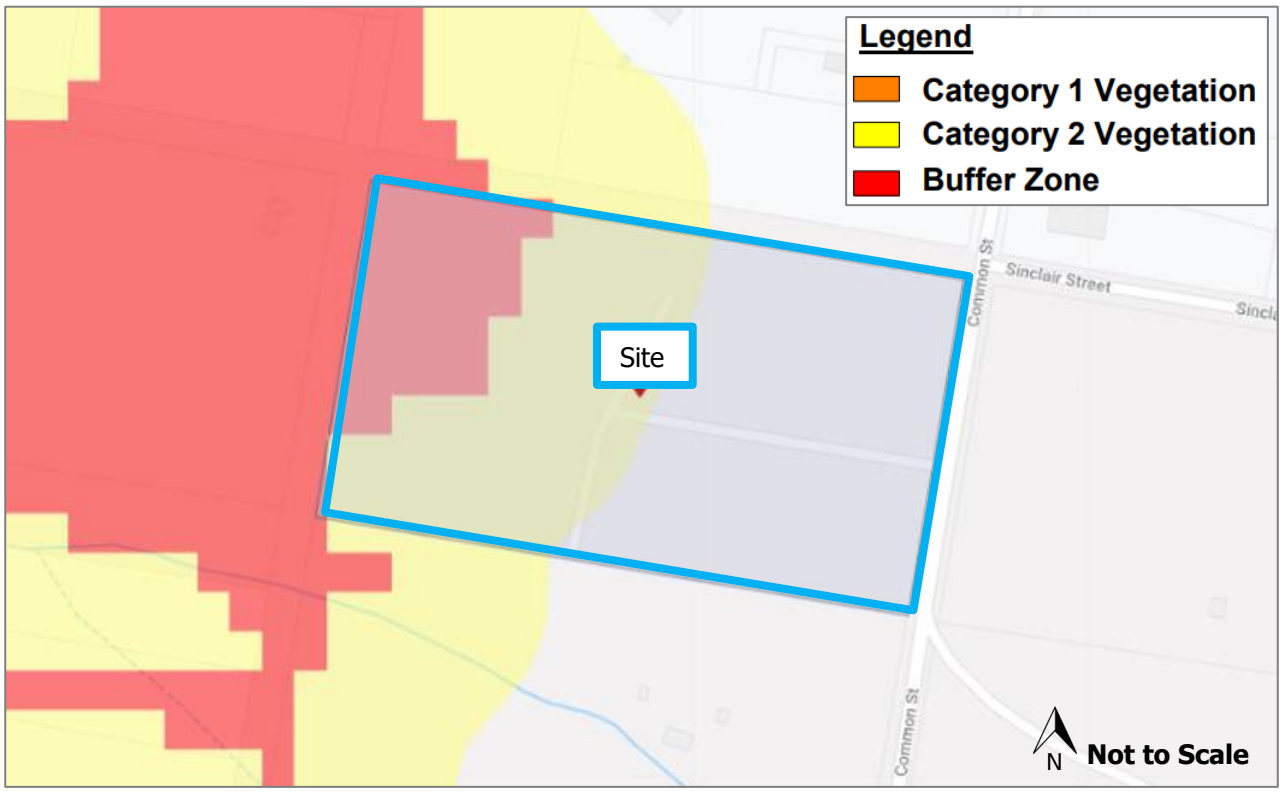
The proposed development does not involve subdivision; therefore, it is a "Non-Integrated Development" assessed under Section 4.14 of the Environmental Planning and Assessment Act 1979 (EP&A Act). When such development can be shown to comply with the deemed-to-satisfy provisions of the Building Code of Australia (BCA), then the certifying authority can determine compliance and issue the relevant construction certificate without referral to the RFS. The BTA addresses the required heads of consideration relevant to obtaining approval.

6.9.1 Bushfire Hazard Assessment

Bushfire Prone Land Mapping

Portions of the site have been classified as Vegetation Buffer and Vegetation Category 1, see Figure 51. This designation has triggered the need for this Bushfire Threat Assessment.

Figure 51 – Bushfire Prone Land (Planning Portal 2019)



Vegetation Analysis

The site along with the surrounding area have been classified within the Southern Ranges region, with the existing vegetation classified with a Fire Danger Index (FDI) of 100 as per Appendix 2 of the PBP 2006.

As vegetation is proposed to be retained on the site, therefore both on and off-site vegetation is considered within this BTA. Nearby hazard vegetation is considered to constitute "Woodland" under the PBP and consists of areas in the northwest of the site and to the west offsite.

Slope Analysis

The site slopes down from the northwest. Vegetation in the northwest is upslope/flat. Examination of slope class to relevant hazard areas reveals:

- **Northwest** – Upslope / flat towards Woodland Vegetation; and
- **West** - >0-5 degrees downslope towards Woodland Vegetation.

6.9.2 Bushfire Hazard Mitigation

Applicable Asset Protection Zones

The proposed development contains several classes of building and bushfire protection status. While uses such as offices and production do not require formal Asset Protection Zones (APZs) as other methods can be utilised to meet the objectives of the PBP 2006, the creation of defendable space will be required. Hazard vegetation is located to the west of the proposed development and as such a defendable space will be provided including suitable emergency vehicle access.

The proposed development includes a childcare centre, which under PBP 2006 is a Special Fire Protection Purposes development (SFPP) and does require APZs. For an SFPP in an FDI 100 area:

- >0 – 5 degrees downslope from hazard woodland, an APZ of 50m is required; and
- Upslope / flat from hazard woodland, an APZ of 40m is required.

Construction Standards

SFPP developments require that radiant heat levels of >10kW/m^2 must not be experienced by emergency services. Given the positioning of the childcare centre in relation to the hazard vegetation, the proposed development will achieve this requirement.

The BCA does not provide for any bushfire specific performance requirements for buildings of Classes 5 and 8 within which this proposed development falls. General fire safety construction provisions are an acceptable solution.

Emergency and Evacuation Planning

To manage the site in the event of a fire, a site-specific Bushfire Emergency and Evacuation Management Plan (EEMP) will be produced. The EEMP should include triggers for site evacuation in an emergency, and pre-emptive site evacuation on forecast days of extreme/catastrophic fire weather. Procedures specific to this development that will be incorporated into the EEMP include a co-ordinated evacuation plan for the entire site. Details regarding the evacuation procedures are to be clearly signposted and placed strategically around the various buildings and industrial units.

Access and Egress

The proposed development will have three access points from Common Street, the internal road running east to west through the site, and the internal road running north to south through the site. Access roads into the development have already been constructed and meet access road requirements under section 4 of the PBP 2006.

Internal roads would also comply with section 4 of the PBP 2006 as they will be capable of accommodating heavy vehicles utilising the site. Emergency response times would be expected to be rapid with Goulburn Mulwaree Remote Area Fire Brigade located approximately 4km away with an expected response time of approximately 3 minutes.

Water Supply

The water supply to the site currently meets the objectives of Section 4.1.3 of the PBP 2006 with further works to expand the system to cater to the larger site. The completed system proposed will extend the water supply to all buildings and developed areas on the site. The system will meet the following requirements:

- Development incorporates a ring main system for all internal roads;
- Fire hydrant spacing, sizing and pressures comply with AS 2419.1:2005; and
- Section 4.1.3 of *Planning for Bushfire Protection* in relation to parking are met.

The proposed development will be serviced by a reticulated water supply system extended from the existing developments in the area. The reticulated water supply and street hydrant access will be delivered in accordance with AS 2419.1:2005. The water supply to the development will comply with all necessary requirements outlined within the PBP 2006.

External Chemical Storage Tanks

A number of chemical storage tanks are located to the west adjoining the poultry processing building which is situated in a bushfire prone area. To ensure the chemical storage tanks will not be impacted by bushfire events, each tank will be constructed of bushfire resistant materials in accordance with the BCA. This will ensure the location of the tanks will not impact safety on the site.

6.10 Ecology

An Ecological Assessment (EA) has been prepared by Anderson Environmental & Planning for the proposed development and is summarised in this section of the EIS. The full report is reproduced in Appendix G.
Due to the nature of the site and the absence of direct impact on remnant native vegetation communities and habitat resources that may potentially be important to threatened species, it is considered that no relevant thresholds under the Biodiversity Conservation Act would be triggered to cause the need for a Biodiversity Development Assessment Report (BDAR) to be prepared. A BDAR Waiver has been issued by OEH and DPIE dated 15 August 2019. The BDAR Waiver Request Letter and subsequent determination are provided at Appendix G.

6.10.1 Methods

The assessment approach was tailored to undertake sufficient works to ensure that legislative requirements were met relating to threatened species and native species in general for the proposed development. The impact assessment was undertaken with due reference to the *Threatened Species Assessment Guidelines* (DECC 2007).

Specifically, the scope of this study was to:

- Identify vascular plant species occurring within the study area, including any threatened species listed under the BC Act or EPBC Act;
- Identify and map the extent of vegetation communities within the study area, including any Endangered Ecological Communities (EECs) listed under the BC Act or EPBC Act;
- Identify any fauna species, including threatened and migratory species, and populations or their habitats, which occur within the study area and are known to occur in the wider locality;
- Assess the potential of the proposed development to have a significant impact on any threatened species or ecological communities (or their habitats) identified from the study area; and
- Describe measures to be implemented to avoid, minimise, manage or monitor potential impacts of the project.

In addition to the survey work conducted within the site and its immediate surrounds, consideration was afforded to the wider locality within 10km of the site and via appreciation of habitat areas that may be linked ecologically to the site.

Investigations were carried out in the study area and via literature / database searches to gather information required to adequately address Section 7.3 of the *Biodiversity Conservation Act 2016* (known as the "5-part test") and the clearing thresholds under the *Biodiversity Conservation Regulation 2017*.

The main information sources reviewed included:

- Aerial Photograph Interpretation (API) of the site and surrounding locality;
- *Native Vegetation Map Report Series No. 4.* (DIPNR 2004);
- State survey guidelines (DEC 2004; DECC 2009; OEH 2016); and
- OEH Threatened Species, Populations and Ecological Communities website (http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/).

In addition, the following database searches were carried out:

- Review of flora and fauna records held by the NSW Office of Environment & Heritage (OEH) Atlas of NSW Wildlife within a 10km radius of the site (January 2019); and
- Review of flora and fauna records held by the Commonwealth Department of Energy and Environment (January 2019).

Vegetation was surveyed utilising a variety of methods, as in the following documents:

- Review of *Native Vegetation Map Report Series No. 4.* (DIPNR 2004);

- Aerial Photo Interpretation (API) to identify any notable variations within the site;
- Consultation of 1:25,000 topographic map series for the area;
- Study area inspection to ground truth unit(s) identified by API; and
- Identification of the vegetation map units occurred via identification of required dominant species in community structural layers.

The field surveys for the site were prepared and performed with due recognition of the *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities Working Draft* (DEC 2004), and also more contemporary standards relating to Amphibians (DECC 2009) and Threatened Plants (OEH 2016).

To ensure a robust impact assessment approach, where any potential doubt remained over species impact, presence within the study area was assumed to ensure a conservative approach was employed.

6.10.2 Results

Database Searches

Databases were searched for records listed within a 10km radius of the site as per OEH (BC Act listings) and Department of Environment and Energy (EPBC Act listings). Records which appeared erroneous, historic only, or have no relevance to the site were omitted from listing.

From the searches, a total of 10 species were found with one plant species, six bird species, and three mammal species list. This is due to either being recorded on site, potentially likely to forage and/or roost on the site, or the site potentially forms an important part of a local home range for resident species and some potential habitat will be removed. From the database searches, the following species (Table 73) are considered as the key subject species / indicator species for this site.

Table 73 – Subject Species

Scientific Name	Common Name	BC Act	EPBC Act
Plants			
Diuris aequalis (2)	Buttercup Doubletail	E	V
Birds			
Hieraaetus morphnoides (2)	Little Eagle	V	
Callocephalon fimbriatum (1)	Gang-gang Cockatoo	V	
Daphoenositta chrysoptera (3)	Varied Sittella	V	
Anthochaera phrygia (1)	Regent Honeyeater	E	CE
Artamus cyanopterus (2)	Dusky Woodswallow	V	
Petroica boodang (1)	Scarlet Robin	V	
Mammals			
Saccolaimus flaviventris (1)	Yellow-bellied Sheathtail-bat	V	
Falsistrellus tasmaniensis (2)	Eastern False Pipistrelle	V	
Miniopterus schreibersii oceanensis (4)	Eastern Bentwing-bat	V	

Table Key - Status (BC Act & EPBC Act): CE: Critically Endangered, E: Endangered, V: Vulnerable; (#) – Indicates number of records

EPBC Act Assessment

A search was conducted on 10 January 2019 of Matters of National Environmental Significance (MNES) as relevant to the *Environment Protection & Biodiversity Conservation Act 1999* (EPBC Act). Consideration of the EPBC Act revealed that impacts on Matters of National Environmental Significance are considered unlikely to occur.

Vegetation Communities

Fieldwork was conducted to ground-truth vegetation mapping produced by DIPNR (2004). The site was mapped as containing two ecological communities within the development site including:

- DSF9 – Tableland Low Woodland, and
- GW23 – Tableland Hills Grassy Woodland.

The presence of GW24 – Tableland Grassy Box-Gum Woodland (EEC White Box Yellow Box Blakely's Gum Woodland) had been mapped as being present off site to the southwest. Ground truthing identified the area mapped as Tableland Hills Grassy Woodland as now containing a near-monoculture of *Pinus radiata* (Radiata Pine). For this reason, only DSF9 - Tableland Low Woodland is considered present on site.

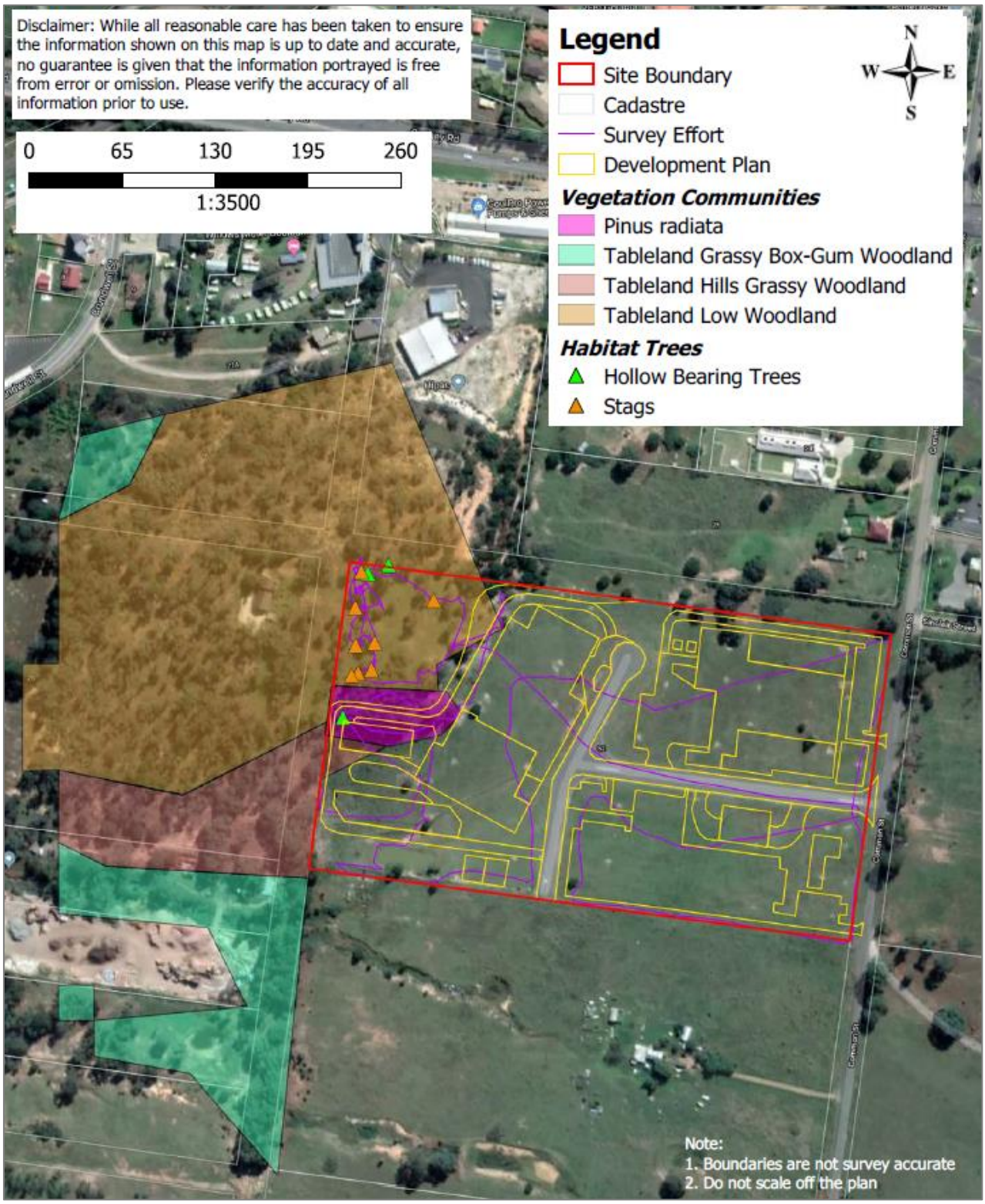
Tableland Low Woodland is characterised on site by *Eucalyptus rossii* (Inland Scribbly Gum), *Eucalyptus mannifera* (Brittle Gum) and *Eucalyptus macrorhyncha* (Red Stringybark). The shrubs present on site are space and are made up of mostly exotic species including *Lycium ferocissimum* (African Boxthorn) and *Rubus fruticosis agg.* (Blackberry). To the south of the woodland is a near-monocultural stand of *Pinus radiata*, otherwise containing two specimens of African Boxthorn.

The remainder of the site is comprised of grazed paddock land, containing a mixture of native and non-native species. The majority of the area is dominated by *Pennisetum clandestinum* (Kikuyu) and *Dactylon cynodon* (Couch). Other species present include *Paspalum dilatatum*, *Echium plantagineum* (Patterson's Curse), *Plantago varia* (Variable Plantain), and *Poa sieberiana* (Tussock Grass).

A dam in the south of the site features *Juncus continuus* and *Einadia nutans* (Creeping Saltbush).

No endangered ecological communities are present on the site. The vegetation communities for the study area are shown in Figure 52.

Figure 52 – Vegetation and Survey Effort



Habitat

The site provides some features which form habitat for native fauna. The site which is approximately 8.22ha includes approximately 1.14ha of vegetation other than cleared grassland. Excluding the area of pine monoculture, approximately 0.8ha is considered native vegetation located to the north west of the site. This native vegetation forms part of a larger 10ha native vegetation patch spread across a number of adjoining

properties. This larger patch is isolated and has limited connectivity to surrounding vegetation including a riparian corridor to the west and a vegetation patch to the south.

Several large native trees are present in the development area with three noted as hollow-bearing. In addition, there are multiple stag trees present. The existing site dam contains some surrounding vegetation comprising largely graminoids and provides habitat for species such as dragonflies and frogs which were observed in the area.

The areas of native vegetation within the study area would provide suitable habitat opportunities and resources for a range of species suited to the habitat type.

Flora

The flora survey resulted in the identification of 45 species within the study area with approximately 51% of these species considered exotics, principally invasive weed species associated with areas of previous disturbance and cleared grassland. No threatened flora species were recorded within the study area.

Fauna

Fauna surveys to date have identified 20 species within the site and immediate surrounds, being 15 bird, three mammal, one reptile and one amphibian species. The study area includes potential foraging, breeding and nesting habitat for several species. Other notable species, including some more mobile (flying) threatened species, are also considered to potentially utilise the site on an intermittent basis as part of a larger home range.

5-Part Test Assessment

The proposed development will be situated on highly disturbed land. Direct impacts on a species are generally unlikely to occur. The consideration of key species is provided in Table 74.

Table 74 - Findings of 5-Part Test Assessment

Species	Findings of Assessment
Buttercup Doubletail	Not recorded in surveys. Only two records in 10km search. Populations tend to contain few, scattered individuals; only about 200 plants in total, from 20 populations are known. Unlikely to be present on site due to grazing impacts and presence of competitive herbaceous species.
Gang-gang Cockatoo	A single record of this species in 2004 over 5km from the development site. It is considered very unlikely that any local population of these species is dependent on the resources within the subject site. Given the lack of records and small area of suitable foraging habitat to be removed, it is very unlikely that the development will have a significant impact upon this species.
Woodland Birds	Potential foraging and roosting habitat are available on the subject site. Varied Sitella was recorded approximately 2km from the development site in 2016. Dusky Woodswallow, on the other hand, has not been recorded within 5km of the subject site or within the area in the last four years. It is considered very unlikely that any local population of these species is dependent on the resources within the subject site. Regent Honeyeater could use the site as part of a larger range. The remnant vegetation contains flower-bearing species that could provide seasonal foraging habitat but is highly unlikely to be the species' only reliable food source. As such, it is considered unlikely that the development as proposed will significantly impact on the local population of any of these species.
Scarlet Robin	This species has not been recorded within 5km of the subject site nor within the last five years. Only a single 2013 record exists over 7km to the northeast of the site. It is unlikely that this species is utilising the site.
Microbats	For both cave-dwelling species, the subject site is foraging habitat only. There is potential foraging habitat for all microbat species, with the presence of a dam and

	trees. Treed areas will not be significantly impacted by the development and the dam will remain in situ.

Given the low numbers of records in the vicinity and the isolated nature of the remnant woodland on site, it is very unlikely that the development will have an adverse effect on threatened species or ecological communities.

Biodiversity Offsets Scheme Thresholds

The Biodiversity Offset Scheme (BOS) under the BC Act is triggered if it is proposed to clear vegetation on biodiversity value mapped land, deemed to create significant impacts under the 5-part-test, or exceeds the BOS Clearing Threshold under the BC Regulations. Table 75 provides the BOS Clearing Thresholds outlined within the BC Regulation.

Table 75 – BOS Clearing Thresholds

Minimum Lot Size of Land	Area of Clearing
Less than 1 hectare	0.25 hectare or more
Less than 40 hectares but not less than 1 hectare	0.5 hectare or more
Less than 1,000 hectares but not less than 40 hectares	1 hectare or more
1,000 hectares or more	2 hectares or more

Under LEP 2009, the minimum lot size for the site is 100ha. This equates to an area of 1ha or more that must be cleared to trigger the BOS. The proposed development will therefore not trigger the BOS in this regard as only non-native grassland is currently proposed to be cleared for the purposes of the proposed development.

According to the Biodiversity Values Map, no biodiversity values will be impacted by the proposed development. The proposed development will not trigger the BOS in this regard. The 5-part-test undertaken for the development found the proposal would not create significant impact under the assessment criteria and would therefore not trigger the BOS.

6.10.3 Introduced Flora and Weed Management

The undertaken flora survey identified a total of 45 species within the survey area and found appropriately 51% are introduced with the majority being classified as invasive weed species present in the cleared grass area. A list of introduced species is provided in Table 76.

Table 76 – Introduced Species List

Species Name	Common Name
*Asparagus officinalis**	Asparagus
*Hypochaeris radicata**	Flatweed
*Lactuca sp.**	Wild Lettuce
*Onopordum acanthium subsp. acanthium**	Scotch Thistle
*Taraxacum officinale**	Dandelion
*Echium plantagineum**	Paterson's Curse
*Hypericum perforatum**	St Johns Wort
*Centaurium tenuiflorum**	Branched Centaury, Slender centaury
*Crataegus monogyna**	Hawthorn
*Pyracantha sp.**	-
*Modiola caroliniana**	Red-flowered Mallow
*Pinus radiata**	Radiata or Monterey Pine
*Avena barbata**	Bearded Oats
*Hordeum leporineum**	Barley Grass
*Paspalum dilatatum**	Paspalum

*Pennisetum clandestinum**	Kikuyu
*Setaria pumila**	Pale Pigeon Grass
*Acetosella vulgaris**	Sheep Sorrel
Prunus sp. (Cultivar)*	-
*Rosa sp. (cultivar)**	Rose
*Rubus fruticosus sp. agg.**	Blackberry complex
*Lycium ferocissimum**	African Boxthorn
*Solanum nigrum**	Black Nightshade

During the construction phase of the project he majority of weeds on the site will be removed through excavation and building works. Weed management will occur as part of landscape maintenance during the operational phase.

6.10.4 Impacts

The project may impact on a small portion of the existing woodland edge on the site totalling 0.29ha however this is largely the non-native Radiata Pine with approximately 0.12ha of sparsely populated native woodland. The total number of native trees to be removed is low with three trees to be removed along the northern boundary to facilitate the cold storage facility. A further 3-5 native trees in the rear woodland edge may be impacted by earthworks and may require removal. The native trees to be removed are Inland Scribbly Gum (*Eucalyptus rossii*) or Brittle Gum (*Eucalyptus mannifera*). All native trees removed will be replaced as part of the management of the rear woodland. All non-native Radiata Pine's (*Pinus radiata*) are proposed to be removed.

The vegetation to be removed largely comprises introduced species and provides marginal fauna habitat. As such, the project would not result in any substantial indirect impacts on the biodiversity values of surrounding lands such as connectivity, corridors or habitat fragmentation.

There is the potential for some minor indirect impacts associated with noise, dust and weeds during the construction and operation of the project, however, these will be managed through mitigation and management measures applied for both construction and operational phases.

6.10.5 Mitigation and Management Measures

The following mitigation and management measures are to be implemented to minimise localised impacts on biodiversity in general as a result of the development of the site:

- Vegetation to be retained should be identified and fenced off prior to any development works taking place in adjacent areas. When protecting trees, preference should be given to large healthy trees with habitat features including hollows;
- Vegetation to be retained should be considered in landscape management to maintain the rural character of the area, particularly in such a way as enhances its amenity and biodiversity values;
- Clearing of any vegetation on site should be undertaken from the roadside towards vegetation retained offsite, to ensure impacts on native fauna are minimised as far as practical. Where trees are removed, preference for retention should be given to habitat trees;
- Site hygiene practices should be implemented during the development phase to avoid the spread of pathogens, including chytrid, Phytophthora and myrtle rust, as well as spread of weed seed; and
- Best practice erosion and sedimentation controls should be put in place to limit offsite movement of materials into the surrounding areas.

In addition to the mitigation measures provided above, it is proposed that supplementary tree planting will be undertaken to the area of remnant woodland in the north western portion of the site using species consistent with the identified vegetation type. In doing so, the quality of the habitat in this area will be improved.

6.11 Visual Impact

A Visual Impact Assessment (VIA) has been prepared by Mara Consulting for the proposed development and is described in this section of the EIS with report reproduced in Appendix H.

6.11.1 Methodology

The methodology used in assessment of visual impacts has been adapted from the Roads and Maritime Services Environmental Impact Assessment Guidance Note (2013): *Guidelines for landscape character and visual impact assessment*. This methodology has been used as a guide to align with the features and requirements of this proposal.

The methodology for assessing the visual impact includes the following key processes:

- Identification of the existing visual environment, the significant landscape features of the site and the visibility of the site from the significant vantage points;
- Derivation of assessment criteria that describes site visibility and visual absorption capacity;
- Identification of viewing zones from which the site could be visible from various distances within the immediate vicinity, local area and regional context;
- Assesses the potential visual impact from a variety of viewing locations; and
- Recommendation of mitigation measures.

The potential visual impact of a proposed development would result from the combination of two factors:

- Visibility of the development – a measure of the extent to which a particular activity / component of a proposal may be visible from surrounding areas, the relative number of views, the period of view, viewing distance and context of the view; and
- Visual absorption capacity – an estimation of the capacity of the landscape to absorb the development without creating a significant change.

To assess the potential visual impacts of the proposed development, viewing zones based on the distance from the proposal site were defined as follows:

- Immediate vicinity (< 1.5km)
- Local area (1.5km – 3km)
- Regional area (3km – 6km).

Representative view locations were selected from each zone and the visual impact of the proposed development has been assessed from each location.

6.11.2 Existing Visual Environment

The site and surrounding area are characterised by grassy paddocks with occasional single dwelling buildings.

Areas of natural landscape with retained vegetation exist on a hilltop at the north western corner of the site. Other natural vegetated areas are located east of the site along the upper slopes and ridges.

6.11.3 Viewpoint Analysis

The viewpoints, as shown on Figure 53, were selected on the basis of where the development would appear to be most prominent either based on degree of exposure or the number of people likely to be affected. Sites were further selected on the basis of significant features, significant viewpoints and significant ridge lines as nominated in the scenic quality guidelines.

Figure 53 – Viewing Locations

Viewpoint 1

Photograph 2 – Viewpoint 1

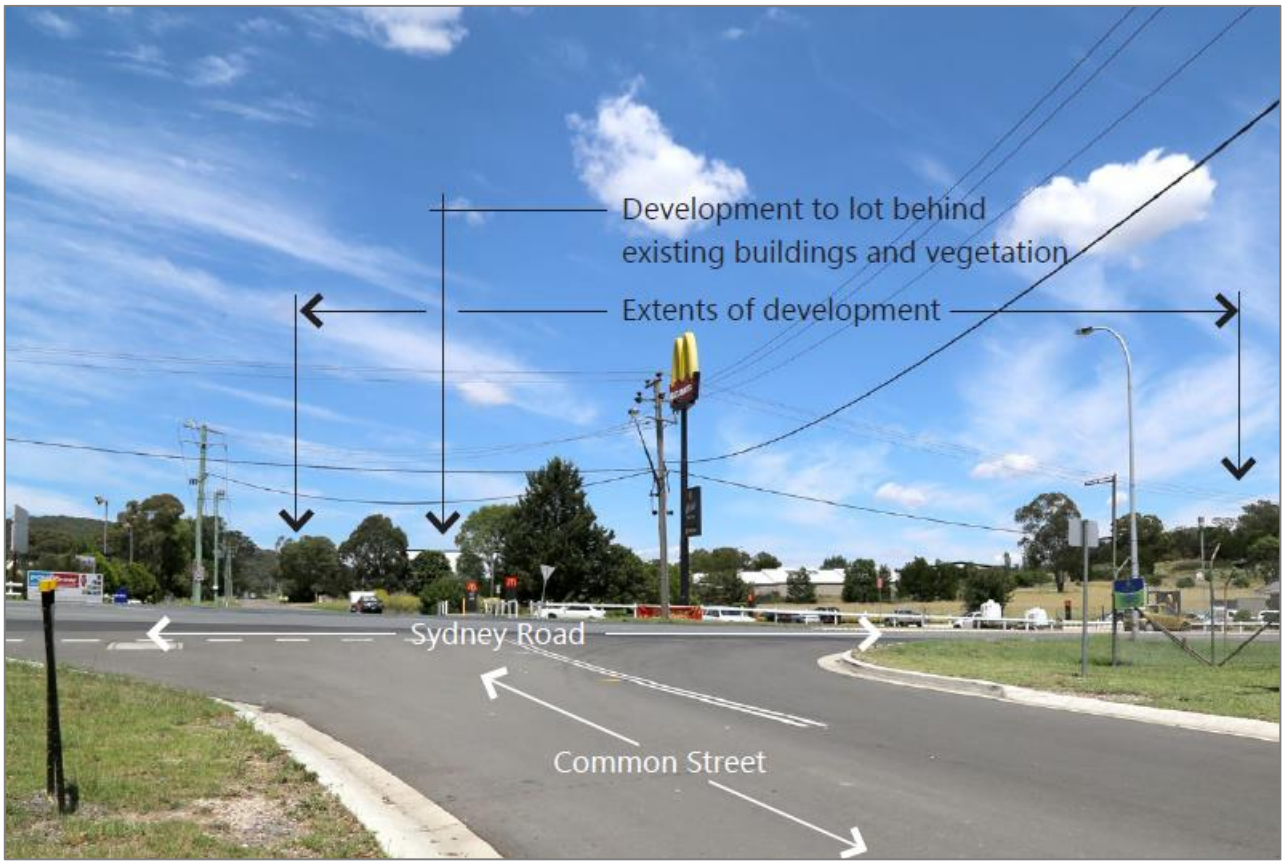


Table 77 – Visual Impact of Viewpoint 1

Viewpoint 1	
Viewing situation	Sydney Road, looking up toward the site
Category of view	Immediate vicinity
Context of view	Main road into Goulburn
Relative number of viewers	High
Distance of view	280m
Likely period of view	Low
Visibility	Moderate
Visual absorption capacity	High
Visual impact rating	Low

View from the intersection of Sydney Road and Common Street looking upward to the site, which is situated over a slight ridge. Commercial and retail establishments line the road and dominate views.

The views from this location and along Sydney Road are dominated by the commercial and retail structures along the road. Glimpses of the proposed development are available between the existing structures and over the ridge. Only the upper walls are visible over the hill.

Viewpoint 2

Photograph 3 – Viewpoint 2

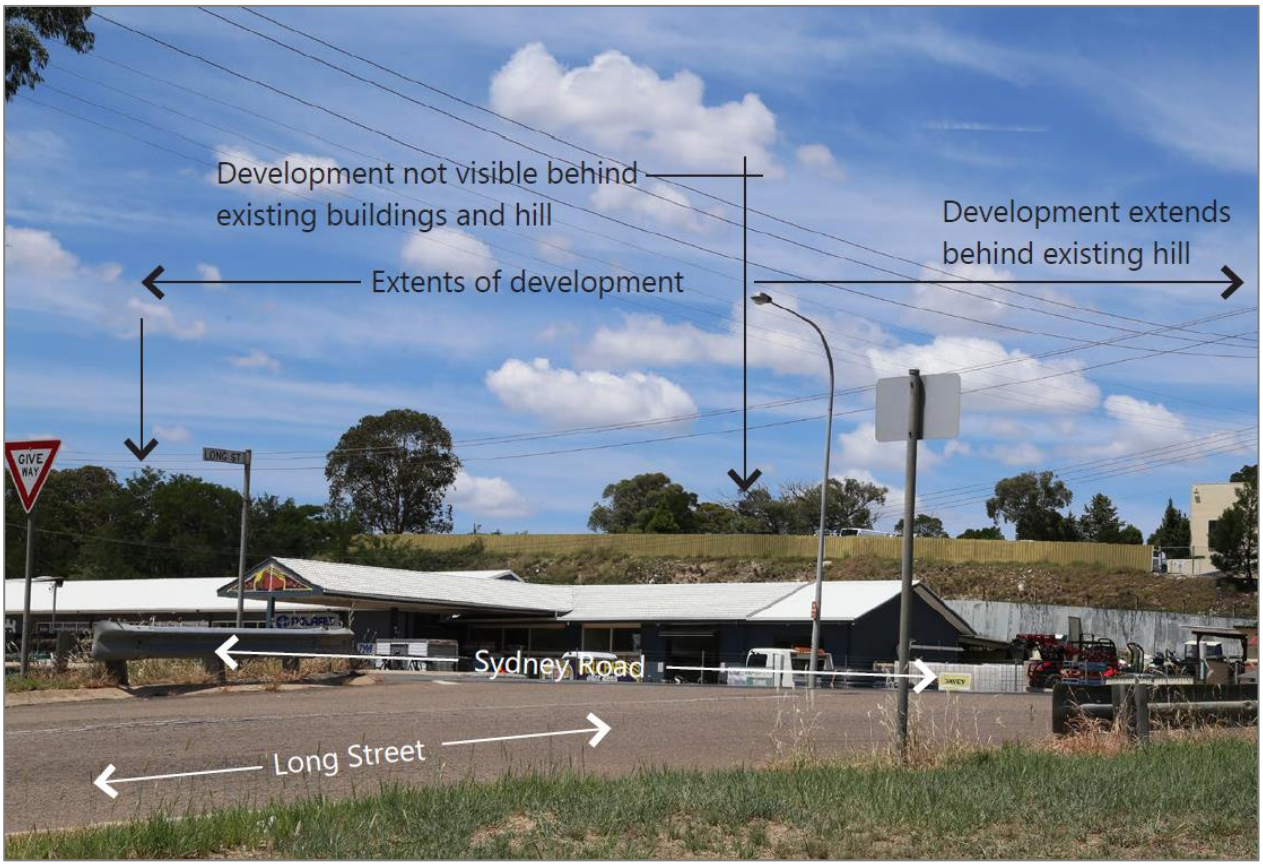


Table 78 – Visual Impact of Viewpoint 2

Viewpoint 2	
Viewing situation	Long Street looking up to the ridge that lies in front of the site
Category of view	Immediate vicinity
Context of view	Local residents and their visitors
Relative number of viewers	Low
Distance of view	325m
Likely period of view	Low
Visibility	Low
Visual absorption capacity	High
Visual impact rating	Low

View from Long Street (at Sydney Road). Viewer is below the site looking up at the existing commercial buildings along Sydney Road and the hillside beyond.

At this location, the ridge between the site and Sydney Road, blocks views of the site entirely.

Viewpoint 3

Photograph 4 – Viewpoint 3

Table 79 – Visual Impact of Viewpoint 3

Viewpoint 3	
Viewing situation	On Common Street looking into site from the south
Category of view	Immediate vicinity
Context of view	Local residents and their visitors
Relative number of viewers	Moderate
Distance of view	300m
Likely period of view	Short
Visibility	Moderate
Visual absorption capacity	Low
Visual impact rating	High

View from Common Street (at 48 Common Street). The viewer is at the same level as the development with open paddocks between the viewer and the site. There are very few residences from this vantage point with most viewers seeing the site from moving vehicles. The traffic speed at adjacent to the site is 50kph and offers very little time to view the site.

The views from this location are of open paddocks with tree lined hills surrounding. There are residential structures along the valley floor with clumps of trees.

Viewpoint 4

Photograph 5 – Viewpoint 4

Table 80 – Visual Impact of Viewpoint 4

Viewpoint 4	
Viewing situation	Long Street looking north towards the site
Category of view	Immediate vicinity
Context of view	Local residents and their visitors
Relative number of viewers	Low
Distance of view	340m
Likely period of view	Long (from residences)
Visibility	Moderate
Visual absorption capacity	Low
Visual impact rating	High

View from Long Street. Viewer is above the site looking down between the existing residences into the site. The viewer is at the same level as the development with open paddocks between the viewer and the site. There are residences from this vantage point but most have hedges and shrubs along their boundaries. The road is not a through street at this location, so viewers are limited to only residences.

The views from this location are open to most of the proposed development. Due to the proximity to the development, this is one of few places with open views. Note that the Rocky Hill Sand and Soil workings are also visible from this location.

Viewpoint 5

Photograph 6 – Viewpoint 5

Table 81 – Visual Impact of Viewpoint 5

Viewpoint 5	
Viewing situation	Intersection of Chiswick Street and Common Street looing down across the valley to site
Category of view	Immediate vicinity
Context of view	Local residents and their visitors
Relative number of viewers	Low
Distance of view	660m
Likely period of view	Short
Visibility	Moderate
Visual absorption capacity	Low
Visual impact rating	High

View from the intersection of Common Street and Chiswick Street. The viewer is higher than the development with open paddocks between the viewer and the site. Clumps of tree plantings obscure the development at this distance. The traffic speed at adjacent to the site is 50kph and offers very little time to view the site.

The views from this location are of open paddocks with tree lined hills surrounding. There are residential structures along the valley floor with clumps of trees. Views of the development are scattered and obstructed from the roadways. There are very few residences from this vantage point with most viewers seeing the site from moving vehicles.

Viewpoint 6

Photograph 7 – Viewpoint 6

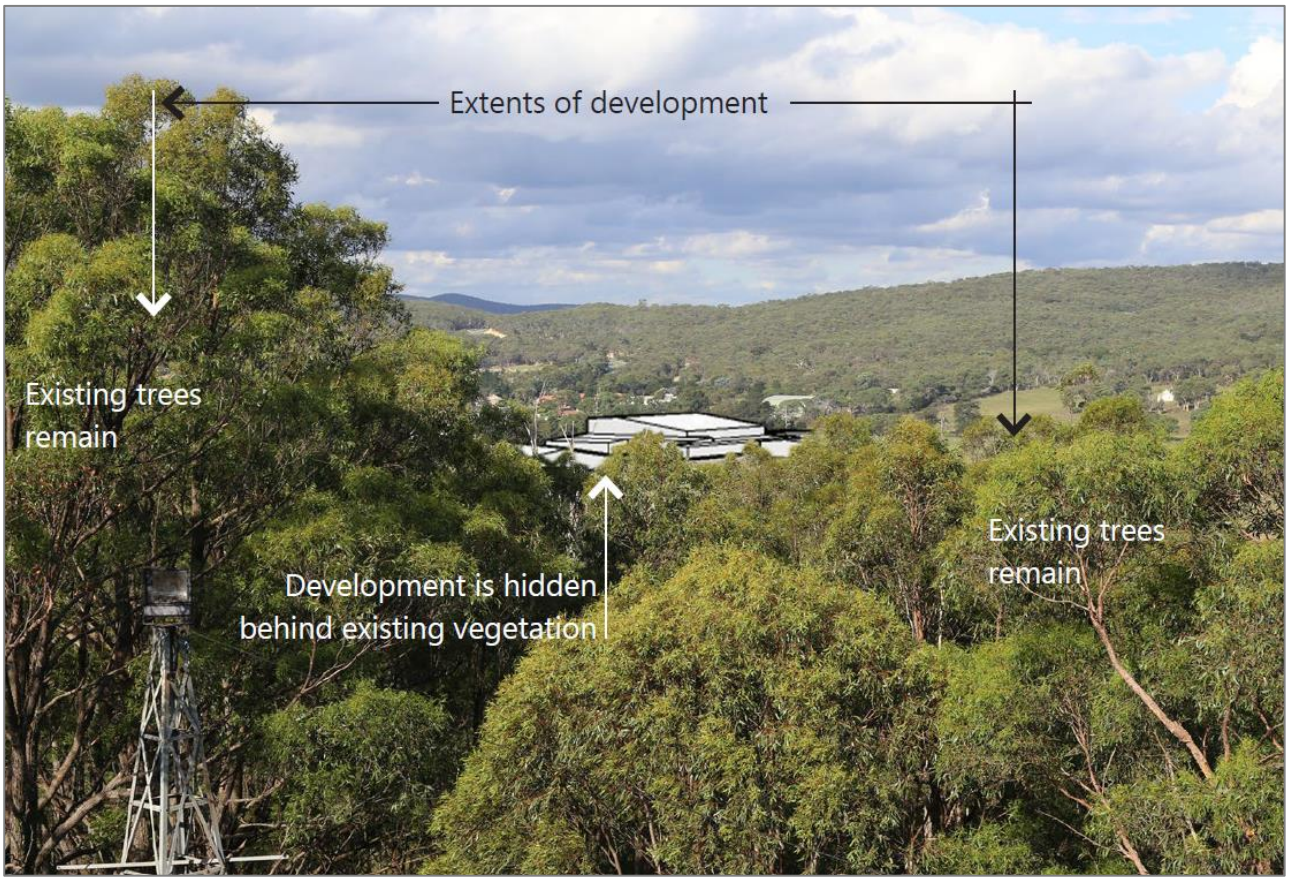


Table 82 – Visual Impact of Viewpoint 6

Viewpoint 6	
Viewing situation	Rocky Hill War Memorial and Museum, atop a hill looking
Category of view	Immediate vicinity
Context of view	Local residents and their visitors
Relative number of viewers	Low
Distance of view	800m
Likely period of view	Short
Visibility	Moderate
Visual absorption capacity	Medium
Visual impact rating	Moderate

View from ground level at the War Memorial and Museum looking down at the site.

This is an isolated view due to the bushland planting surrounding the memorial, which limit views out of this location.

Viewpoint 7

Photograph 8 – Viewpoint 7

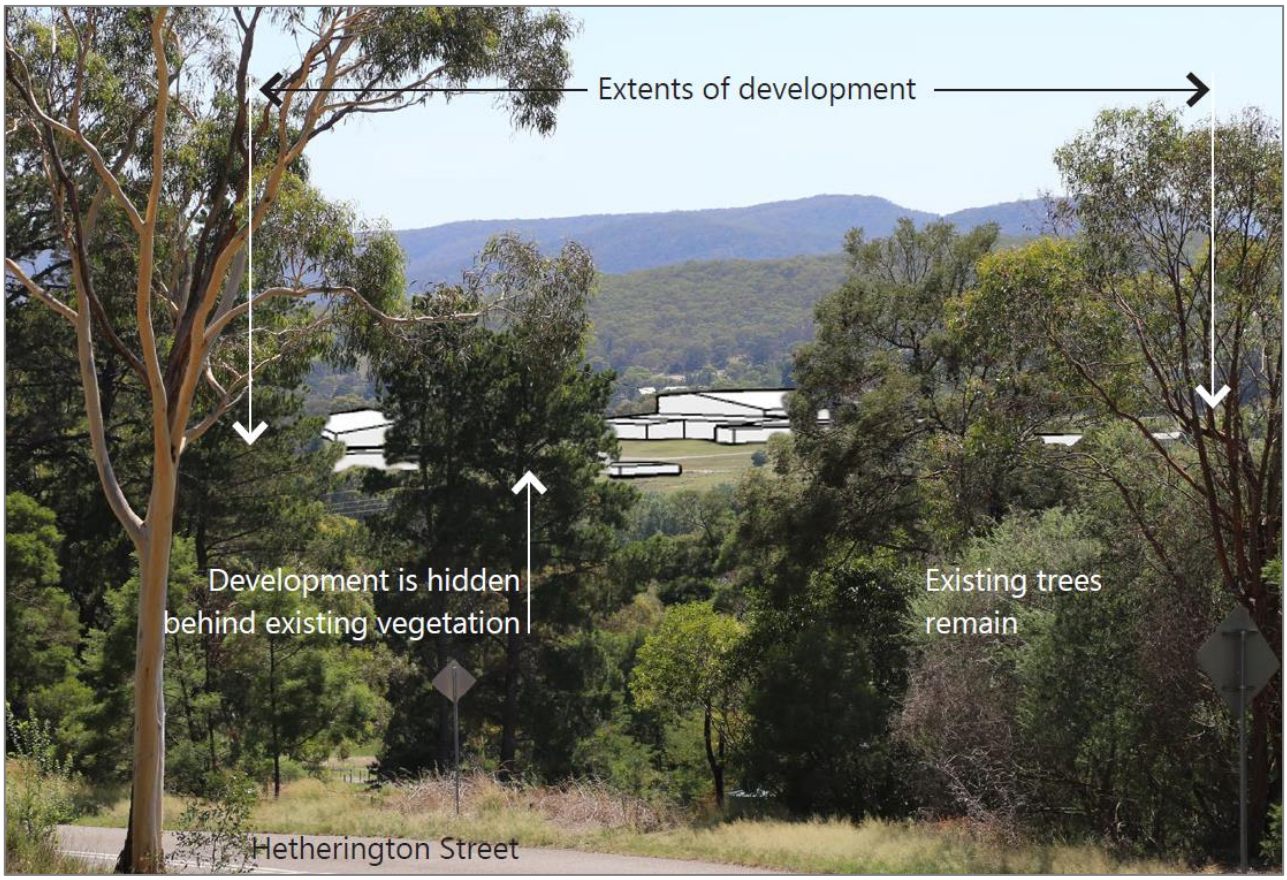


Table 83 – Visual Impact of Viewpoint 7

Viewpoint 7	
Viewing situation	Hetherington Street looking down and across the valley
Category of view	Immediate vicinity
Context of view	Local residents and motorists along Hetherington Street
Relative number of viewers	Moderate
Distance of view	1.3km
Likely period of view	Short
Visibility	Low
Visual absorption capacity	Medium
Visual impact rating	Low

View from Hetherington Street looking down across the valley toward the proposed development.

This vantage point is the only place from which the development will be visible along Hetherington Street without substantial screening from trees. The view is only available for approximately 30m when travelling northward along the road.

Viewpoint 8

Photograph 9 – Viewpoint 8

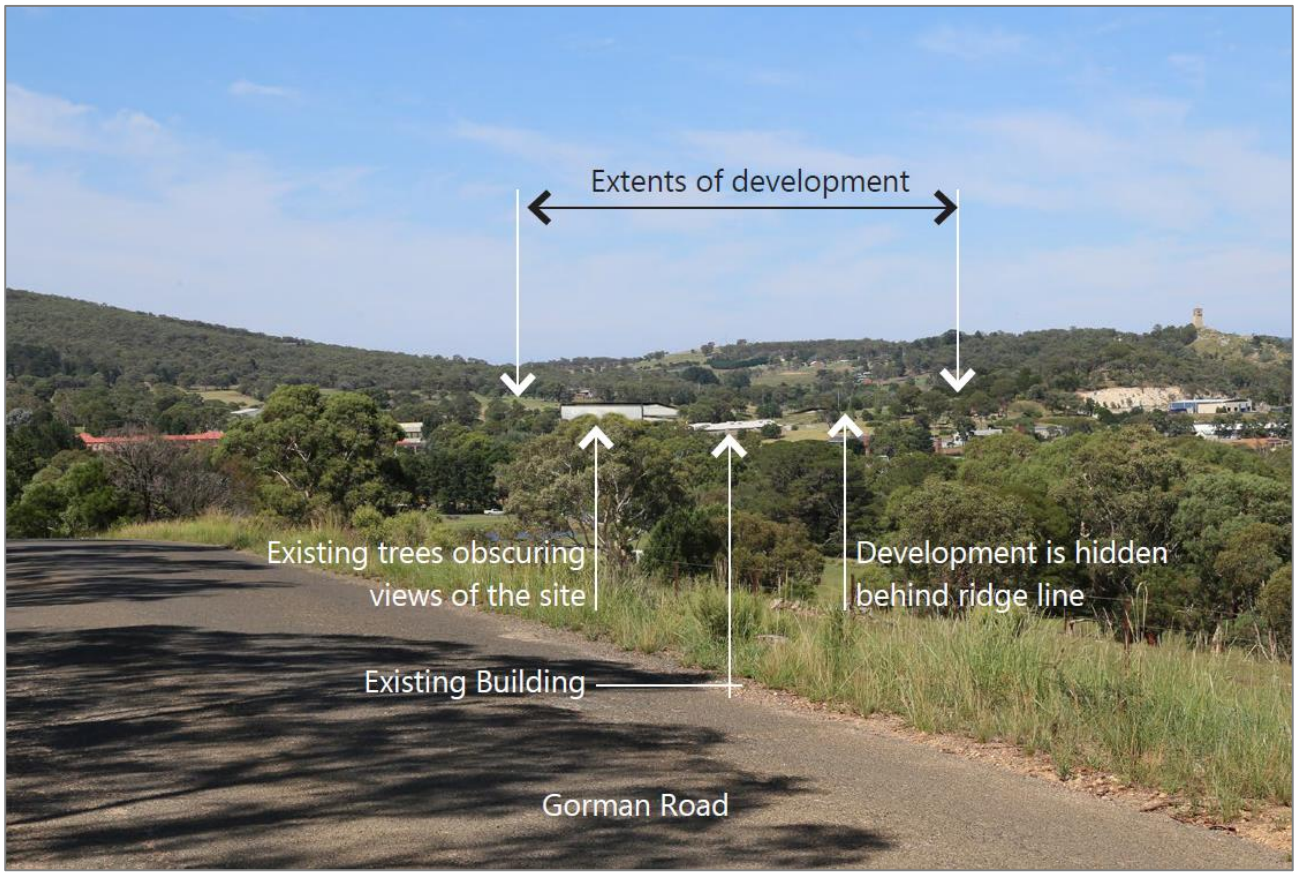


Table 84 – Visual Impact of Viewpoint 8

Viewpoint 8	
Viewing situation	Gorman Road looking across Sydney Road to the site
Category of view	Local Area
Context of view	Local residents and their visitors
Relative number of viewers	Low
Distance of view	1.5km
Likely period of view	Short
Visibility	Low
Visual absorption capacity	Medium
Visual impact rating	Low

View from Gorman Road looking across the valley toward the proposed development. Only partial views will be available from this vantage point.

This view represents the furthest point from which the site can be seen along this valley. It is located on a rise with the valley falling away behind it. A substantial amount of screening from trees and buildings obscures the site.

Viewpoint 9

Photograph 10 – Viewpoint 9

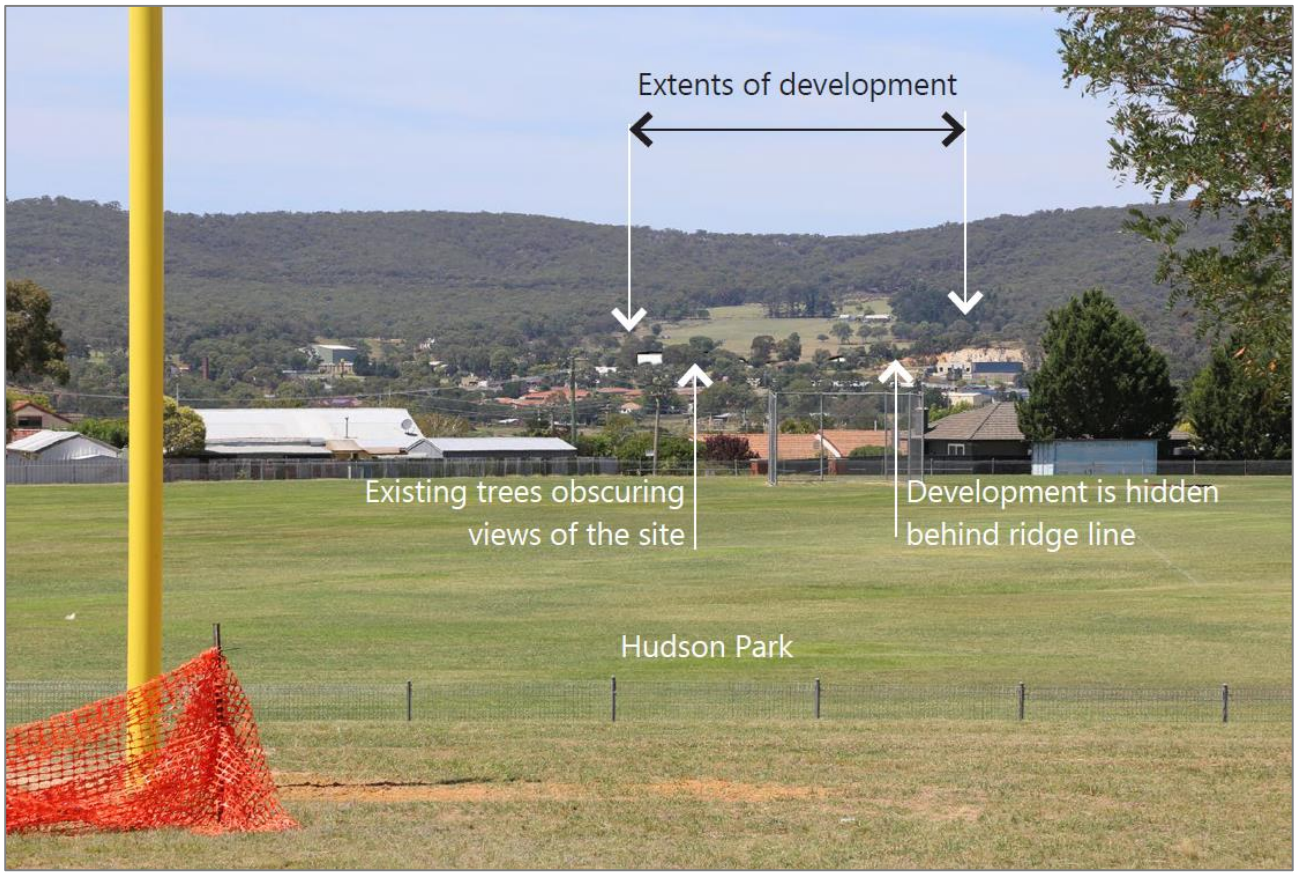


Table 85 – Visual Impact of Viewpoint 9

Viewpoint 9	
Viewing situation	Hudson Park looking across the valley
Category of view	Local Area
Context of view	Local residents and motorists along nearby roads
Relative number of viewers	High
Distance of view	2.7km
Likely period of view	Short
Visibility	Low
Visual absorption capacity	High
Visual impact rating	Low

View from Hudson Park near Reign Street. Viewer is looking across the valley toward the proposed development.

A large number of buildings exist between the viewer and the site. A substantial number of trees also exist to screen the view. This vantage point represents one of the furthest places from which the development can be discernible in the distance.

Viewpoint 10

Photograph 11 – Viewpoint 10

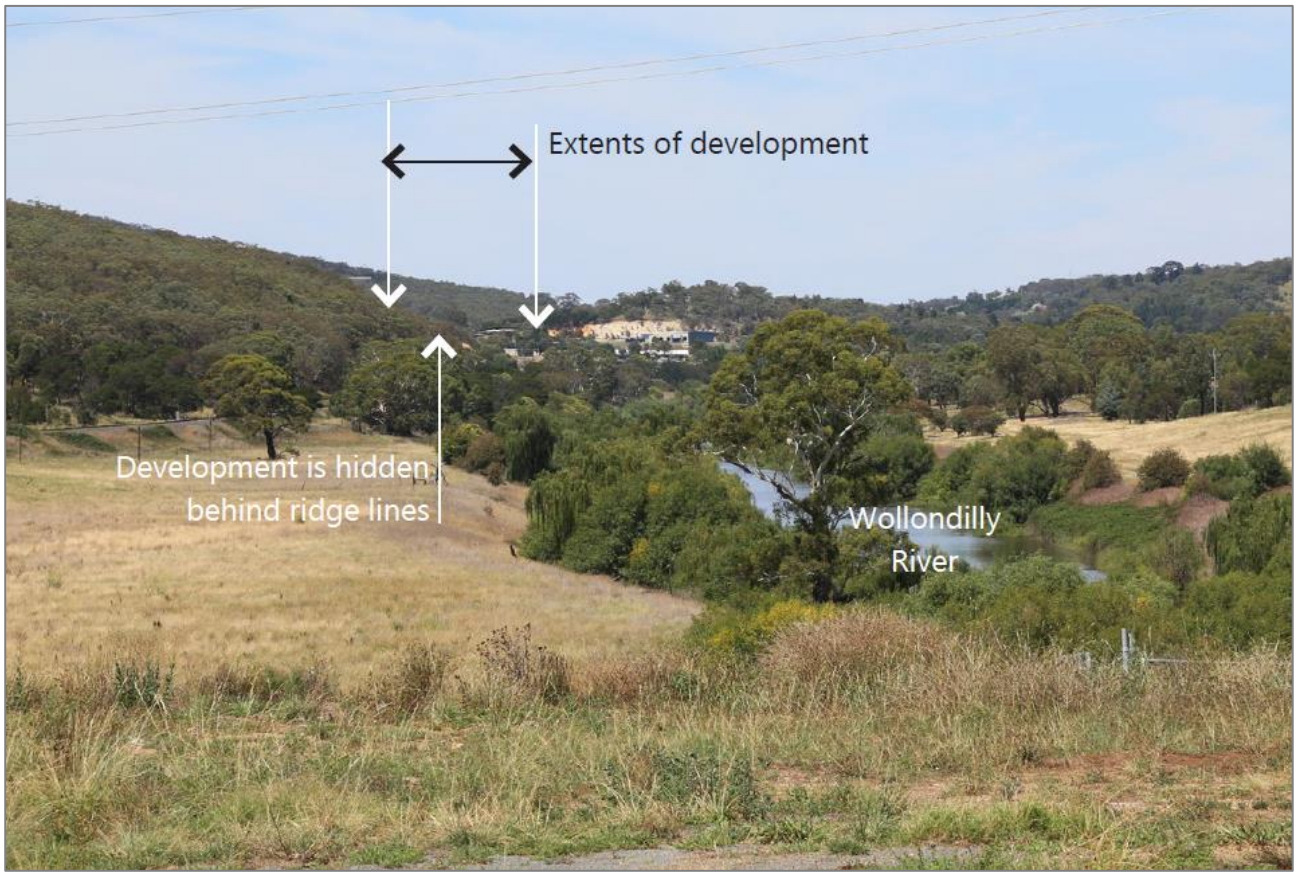


Table 86 – Visual Impact of Viewpoint 10

Viewpoint 10	
Viewing situation	Wollondilly Avenue looking across the valley toward site
Category of view	Regional
Context of view	Local residents and motorists along nearby roads
Relative number of viewers	Moderate
Distance of view	3.1km
Likely period of view	Short
Visibility	Low
Visual absorption capacity	High
Visual impact rating	Low

View from Wollondilly Avenue looking toward the proposed development. Only partial views will be available from this vantage point.

This view represents one of the furthest point from which the site is visible. A substantial amount of screening from the landform, trees and buildings obscures the site. At this distance the development will blend in with the surrounding buildings. This is especially true as the proposed trees mature and provide canopy cover.

6.11.4 Assessment of Visual Impacts

The visual impact has been assessed from a range of distances from the site including:

- Views from the Immediate Vicinity (< 1.5km);
- Local Views (1.5 – 3km); and
- Regional Views (3 – 6km).

When viewed from the immediate surrounds of the site, the proposed development is likely to have a high visual impact from the adjacent streets. This is especially true of Common Street, Chiswick Street and Long Street as these are the only publicly accessible places with full views of the proposed development. This impact is primarily due to the addition of structures and roof lines where open grassy paddocks existed prior to development.

Beyond the streets surrounding the proposed development, views of the site reduce significantly. Where views exist, they are limited to small portions of the proposed development and individual buildings.

The visual impact can be mitigated by introducing new trees for canopy cover within the site and screen planting along boundaries.

Between 1.5km and 3km, there are few locations where the site is visible from this distance. The only publicly accessible locations are located north of the site. As illustrated in the photographs, any viewpoint north of the site is screened by a ridge and trees. Thus, only two roof lines are visible from these locations when not screened by trees.

Any views from the south at this distance are located on private property. As noted above, these views can be mitigated significantly by the use of trees and boundary screening.

From distances of between 3km to 6km, the only regional views occur north of the site. As with the local views, only roof lines may be visible from this distance. However, the proposed structures blend into the existing commercial buildings along Sydney Road.

Using roof colours that are non-reflective will help reduce the visibility of the buildings.

6.11.5 Mitigation and Management Measures

The following mitigation measures are proposed to be implemented in order to mitigate potential visual impacts of development of the site.

Visual Character

- The site and immediate surrounds contain a number of mature trees that provide visual screening. Most of the trees that screen the site are on private lots adjacent to the subject site and therefore will remain in place. The proposed development will necessarily remove some trees from the site These trees should be replaced with trees that will offer some canopy cover to continue the visual character across the site.
- Trees planted within the site (parking areas and open space) and along the boundaries should be selected for their canopy size and ability to blend into the existing trees.

Built Form, Materials and Colours

- Building height should not overwhelm the tree sizes so that the tree canopy cover remains visible to allow the canopy to soften the appearance of development.
- Building height should be limited to ensure the roof lines do not rise above the adjacent ridge line to dominate the skyline.
- Materials, textures and colour selection are to relate to the natural palette of the surrounding environmental in areas of high visibility and potential for visual impact.
- Bright and contrasting colours should be no more than 10% of the facade of a building.

- Rooftops should utilise non-reflective colours and materials.
- Lighting:
  - Lighting treatments are to be sensibly designed to minimise light spill in areas such as street lighting and floodlighting outdoor spaces.
  - Lighting to be directed toward the ground to limit visibility.
  - Adopt a "dark sky" approach to private garden lighting by directing the lighting in parking areas and streets toward the ground and limiting light spill.

6.12 Land Use Conflict

The potential for land use conflict with the existing surrounding land uses and internal land uses proposed as part of this application has been assessed against the Land Use Conflict Risk Assessment (LUCRA) released by DPI Resource Planning and Development Unit.

The land surrounding the site comprises a mix of rural residential, commercial, industrial type developments, see Figure 54. This wide mix is compounded with the current zoning of the area as B6 Enterprise Corridor along Common Street, Hetherington Street, and Sydney Road. This will result in no additional residential land uses being established in the area with all future land uses being commercial or industrial in nature.

A number of dwellings exist in proximity to the site which has raised questions as to land use compatibility. These land uses however are currently impacted by surrounding industrial type developments including a landscaping material supplies operation to the south west, a resource recovery facility to the north east, and a landfill to the east.

No surrounding land is considered to be undertaking intensive agriculture and consist of large lot rural residential lots with some elements of small scale hobby farm operation which may be in sporadic use. As such no important agricultural land surrounds the site.

Figure 54 – Land Use Locations and Distances to Sensitive Receivers

Based on the undertaken assessments all relevant criteria for impacts on sensitive receivers have been met including noise and odour. The proposed childcare has been given consideration as a separate sensitive receiver in all relevant assessments Where required mitigation measures are to be implemented as described in Section 9.

The activities which may cause land use conflicts to have been recorded within the Environmental Risk Assessment in Section 8 and includes relevant risk rankings. Through the LUCRA assessment the following impacts were found to hold a risk rank of above 10, see Table 87.

Table 87 – LUCRA Assessment Table

Activity/Identified Potential Conflict	Risk Ranking	Mitigation/ Management Strategy	Revised Risk Ranking	Performance Target
Visual Impact – Local visual amenity is significantly impacted	15	• Replaced with trees that will offer some canopy cover • Trees planted as part of onsite landscaping to be selected for canopy size • Building height should not overwhelm the tree sizes • Materials, textures and colour selection are to relate to the natural palette • Bright and contrasting colours should be no more than 10% of the facade of a building • Rooftops should utilise non-reflective colours and materials	10	Confirmation of landscape plan implementation.

As all relevant environmental impacts generated by the proposed development are projected to meet the relevant criteria and guidelines at all sensitive receivers along with the existing and future commercial and industrial land uses in the enterprise corridor it is project that the proposed development will not introduce undue land use conflict to the area.

6.13 Aboriginal Cultural Heritage and Consultation

Navin Officer Heritage Consultants (NOHC) have undertaken an archaeological and Aboriginal Cultural Heritage Assessment of the site with the report reproduced at Appendix Q.

6.13.1 Consultation Process

Consultation with the Aboriginal community were undertaken in accordance with the NSW DECCW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 which sets out requirements for 'consulting with those Aboriginal people who can provide information about the significance of Aboriginal Cultural Heritage as part of the heritage assessment process that informs any AHIP application'.

The requirements specify four stages of consultation:

Stage 1 - notification of project proposal and registration of interest;
Stage 2 - presentation of information about the proposed project;
Stage 3 – gathering information about cultural significance; and
Stage 4 – review of draft cultural heritage assessment report.

As part of Stage 1, Notification of the project included the following:

- An advertisement was place in the Goulburn Post on the 14th December 2018;
- Letters sent to the following groups and agencies:

- Pejar Local Aboriginal Land Council;
- Goulburn Mulwaree Council;
- South East Local Land Services – Goulburn;
- NSW OEH;
- Native Title Services Corporation Ltd; and
- Office of the Registrar Aboriginal Land Rights Act 1983.

- Search of National Native Title Tribunal on 12th December 2018.

Based on received correspondence further correspondence was sent to the following groups with a return date dated 16th January 2019.

- Ngunnawal Elders Corporation
- Pejar Local Aboriginal Land Council
- Buru Ngunawal Aboriginal Corporation
- Ngunnawal Elder
- Gundungurra Aboriginal Heritage Association Inc.
- Ngunawal Heritage Aboriginal Corporation
- Konanggo Aboriginal Cultural Heritage Services
- Yurwang Gundana Consultancy Cultural Heritage Services
- King Brown Tribal Group
- Gunjeewong Cultural Heritage Aboriginal Corporation
- Yukkumbruk
- Koomurri Ngunawal Aboriginal Corporation (KNAC)
- Corroboree Aboriginal Corporation
- Murri Bidgee Mullangari Aboriginal Corporation
- Nundagurri Aboriginal Corporation
- Walbunja
- Goobah Development Pty Ltd.
- Gunyuu
- Wullung
- Badu
- Yerramurra
- Jerringong
- Merrigarn Indigenous Corporation
- Wingikara
- Bilinga
- Munyunga
- Pemulwuy
- Karrial
- Didge Ngunawal clan
- Ginninderra Aboriginal Corporation
- Muragadi Heritage Indigenous Corporation
- Gundungurra Tribal Council Aboriginal Corporation
- Gundungurra Aboriginal Heritage Association Inc.
- THAUAIRAWALGALU
- Gadhu Dreaming
- Thunderstone Aboriginal Cultural and Land Management Services Aboriginal Corporation
- Duncan Falk Consultancy
- Thoorga Nura
- Janine Thompson
- Ngurambang
- Clarine Lyons
- Ngunawal Consultancy

The following groups provided Registrations of Interests:

- Pejar Local Aboriginal Land Council
- Buru Ngunawal Aboriginal Corporation
- Ngunawal Heritage Aboriginal Corporation (NHAC)
- King Brown Tribal Group
- Gunjeewong Cultural Heritage Aboriginal Corporation
- Koomurri Ngunawal Aboriginal Corporation (KNAC)
- Corroboree Aboriginal Corporation (CAC)
- Murri Bidgee Mullangari Aboriginal Corporation
- Merrigarn Indigenous Corporation
- Didge Ngunawal Clan (DNC)
- Muragadi Heritage Indigenous Corporation
- Thunderstone Aboriginal Cultural and Land Management Services Aboriginal Corporation
- Ngurambang
- Janine Thompson
- Karlari Ngunnawal Pajong Wallabalooa Descendants (R. Ingram)

As part of Stages 2 and 3, methodology and cultural information request was sent to the registered groups listed on 17th January 2019 with responses provided in Table 88.

Table 88 – Methodology and Cultural Information Responses

Date	Type of Contact	Group/ Individual	Comment	Response
18/1/19	Email	DNC		Agrees with the methodology
22/1/19	Email	Merrigan		Agrees with the methodology
17/1/19	Email	Koomarri	Mens business (not to be passed on)	
27/1/19	Email	Muragadi		Agrees with the methodology
27/1/19	Email	Murra Bidgee		Agrees with the methodology
6/2/19	Email	NHAC		Agrees with the methodology

A field participation session was undertaken on 27th February 2019. Representatives from Pejar LALC, Ginninderra Aboriginal Corporation, Ngunawal Heritage Aboriginal Corporation, Thunderstone Aboriginal Cultural and Land Management Services Aboriginal Corporation, Buru Ngunawal Aboriginal Corporation, Ngurambang, KNAC/GNHAC, Murra, Murgadi Heritage Indigenous Corporation, Didge Ngunawal Clan, Merrigarn Indigenous Corporation, Corroboree Aboriginal Corporation, and Gunjeewong Cultural Heritage Aboriginal Corporation were in attendance.

6.13.2 Field Results

During the field participation session, the following sites were identified during the survey:

- One culturally significant scarred tree;
- One isolated surface artefact;
- One surface artefact scatter with subsurface archaeological potential;
- One Potential Archaeological Deposit; and
- One historic artefact scatter – European.

Culturally Significant Tree

This tree was identified as a culturally significant modified tree by RAP representatives Karen Denny (BNAC) and Glenn Freeman (KNAC).

The tree is a Eucalypt (probably E. blakelyi) and is situated on the moderate gradient upper slopes of the hill in the northwest corner of the study area. The tree has main trunk bifurcates into two co-dominant branches 1.2 m from ground level. There are many scars on the tree. One of the scars is located in the fork of the tree where the branches bifurcate. This feature was identified by Karen and Glenn as a diagnostic feature of a 'storage tree'. In addition, a number of other scars were identified as 'climbing marks' or 'foot/hand holds' from the base of the tree to about 5 m in height. Figure 55 provides images and descriptions of the identified tree.

Figure 55 – Culturally Significant Tree Images

Example of scar thought to be 'climbing mark' used as 'foot/hand hold' by some RAPs	Occluded scars in top right of photo suggested to also be 'climbing marks' by some RAPs
	
Scar in fork of tree suggested by some RAPs to be for storage.	Branches immediately downslope of the tree, evidencing multiple limb loss episodes, that are likely the origin of a number of the scars.

From a scientific perspective, the scars on this tree are unlikely to be of Aboriginal origin. The tree is unlikely to be greater than 100 years of age, and therefore the scars are unlikely to be the result of Aboriginal cultural practices. The shape of many of the scars, as well as the clear evidence of branch fall (see Figure 40), and relative fresh bark tear scars, suggest that there are many environmental factors contributing to the scars on this tree.

Isolated Find

This site consists of an isolated quartz flake measuring 4 x 3 x 1 mm. This item was located on steep gradient mid-slopes within ground exposures adjacent to the western fence-line of the study area. Given the steep gradient of the slopes, it is likely that this item has migrated down slope from its original depositional location, via slope wash/sheet erosion.

Ground disturbances in the vicinity of the artefact, include sheet erosion, stock activity along the fence-line, as well as historic clearance of native primary bushland and resultant loss of topsoil from these slopes. Soils are estimated to be shallow (approx.15cm) given outcropping bedrock no more than 10-15 m upslope of the site.

Given the paucity of other artefacts in the area, steep gradient of the landform, sheet erosion, and shallow soil depth, this site is assessed to have low potential for in-situ archaeological deposits of low scientific significance.

Artefact Scatter

This site consists of a scatter of three red silcrete artefacts located on a swale berm. The site is located in low gradient basal slopes. The broader landscape context of the site is immediately below moderate to steep gradient mid-slopes and immediately above valley floor flats.

This site consists of a scatter of three red silcrete artefacts located on a swale berm. The site is located in low gradient basal slopes. The broader landscape context of the site is immediately below moderate to steep gradient mid-slopes and immediately above valley floor flats.

The three artefacts are described as follows:

1. Red silcrete core with at least six negative scars 34 x 34 x 10 mm;
2. Red silcrete flake measuring 19 x 18 x 6 mm; and
3. Red silcrete flake measuring 17 x 12 x 3 mm.

The presence of artefacts of the same material type may be the result of a single flaking event. The swale berm on which this artefact scatter was located has clearly been built up by the excavation of soil from the downslope edge of the berm (see Figure 56). While heavy earthworks have occurred to the southwest of this

location (dam), there is little evidence of landscaping earthworks other than the swale berm itself, which has been constructed to slow down surface water wash, and direct drainage from the hill slopes towards the dam. The downslope side of the swale berm has also been used as a vehicle access track in the past. There is a high assessed probability of further subsurface artefacts in the general vicinity of this site.

Figure 56 – Images of Artefact Scatter

	
Artefact Scatter	Detailed view of red silcrete core

Ground exposure was approximately 70%, with visibility averaging 80% within these exposures. Ground disturbances in the vicinity of the artefact, scatter include the earthworks (swale ditch and berm), sheet erosion, stock activity, as well as historic clearance of native primary bushland. Soils are estimated to be of moderate depth, approximately 40-50 cm on the basal slopes, and possibly deeper on the adjacent valley flats.

Given the presence artefacts of the same material type, the localised presence of remnant natural landscape surfaces that have been unaffected by earthworks, estimated moderate soil depth, the low gradient/locally elevated nature of the landform, valley floor context of the site, and close proximity to water, this site is assessed to have moderate to high potential for in-situ archaeological deposits of moderate local scientific significance.

Potential Archaeological Deposit

This area is designated as a Potential Archaeological Deposit (PAD) It consists of a broad flat to low gradient locally elevated microtopographic landform in a valley floor context and stretches along the southern boundary of the study area.

This PAD location is well aligned with a number of landscape features represented in the predictive site location model, including:

- Locally elevated;
- Valley floor/alluvial flats location; and
- Close proximity to water.

The predictive model suggests that landforms such as this would have been a focus of Aboriginal occupation.

No surface artefacts were identified during the archaeological survey of this location. Two sites have previously been identified on this same landform and are located approximately 65 m and 100 metres outside the study area.

Given the localised presence of remnant natural landscape surfaces that have been unaffected by earthworks, estimated moderate or greater depth of soil deposits, the low gradient/locally elevated nature of the landform, valley floor context of the site, and close proximity to water, this site is assessed to have moderate to high potential for in-situ archaeological deposits of moderate local scientific significance.

Historic artefact scatter - European

This site is a small concentration of glass and ceramic sherds, see Figure 57. These items were located on moderate to low gradient mid-slopes and basal slopes, within ground exposures on the south west fence-line of the study area.

Four glass colours were present including two brown sherds along with single sherds of light green and clear. The clear sherd was had evidence of having been subject to fire. The thickness of the glass sherds suggests an early twentieth century date for these items. The single ceramic sherd was white, with dark green floral/triangle design, with its thickness and form suggestive of domestic tableware. There is a concentration of large non-native trees, suggestive of an old building/farmhouse location, to the west of the fence-line (outside the study area). It may be the case that these items are associated with the adjacent block.

Figure 57 – Images of Artefact Scatter

Broken Glass

Ceramic Shard

Given that age of the items, significant levels of ground disturbance, and indicative European plantings in the adjacent block that is outside the study area, this site is assessed to have a very low potential for in-situ historic archaeological deposits of low scientific significance.

6.13.3 Impact Assessment

To determine whether the identified objects and sites would be impacted and the extent of the impact created by the proposed development, an impact assessment has been undertaken in Table 89.

Table 89 – Impact Assessment

Site	Type of Harm	Degree of Harm	Consequence	Mitigation
Culturally significant scarred tree	None	None	None	No mitigation required. Site is over 80m from construction
Isolated surface artefact	Low possibility of indirect/inadvertent	None anticipated	Destruction of surface material (inadvertent)	No further work required. Site to be protected by fences during construction
Surface artefact scatter with subsurface archaeological potential	Direct	Whole	Destruction of surface material and possible sub-surface material	Collection of surface artefacts and archaeological subsurface testing to assess subsurface deposits
Potential Archaeological Deposit	Direct	Partial	Destruction of possible sub-surface material	Archaeological subsurface testing to assess subsurface deposits
Historic artefact scatter - European	Direct	Whole	-	Site does not meet significance thresholds. No mitigation required

6.13.4 Mitigation Measures

The following mitigation measures which include both physical and management measures are to be implemented on the site:

- The location of all Aboriginal sites that lie outside areas of impact should be clearly marked on all relevant maps and plans to be used on-site and in planning, and physical access controls installed where possible during construction to ensure that no inadvertent impacts occur to these sites;
- Information in this report relating to the exact location of Aboriginal sites should not be published or promoted in the public domain;
- Archaeological subsurface testing should be undertaken at Aboriginal site surface artefact scatter area and Potential Archaeological Deposit site, following the Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales (2010). A notification period, to OEH, of 2 weeks prior to commencement of works is a required;
- Approval for an AHIP should be sought and obtained prior to the commencement of the proposed works. The AHIP should cover all areas of ground surface impact, as well as any further surface collection or subsurface excavation required within the project area;
- All artefacts recovered during the archaeological testing program, and any surface collection, would be returned to the study area in accordance with 'return to country' Requirement 26 of the Code of Practice, and would be placed in a suitable location identified in consultation with Aboriginal Representatives;
- The protocols for the unanticipated discovery of archaeological material and suspected human remains would be adopted and complied with during construction activities involving ground surface disturbance and excavation;
- The culturally significant scarred tree will not be impacted and should be clearly marked on all maps;
- The isolated surface artefact will not be impacted. This site should be clearly marked on all maps and fenced prior to construction to avoid inadvertent impacts during the construction phase;
- Subsurface archaeological testing following the Code of Practice (2010) should be conducted at investigation sites prior to any impact. This salvage would be completed as per the methodology outlined in Appendix Q;
- Approval for an AHIP should be sought and obtained prior to the commencement of the proposed works. The AHIP should cover all areas of ground surface impact, as well as any further surface collection or subsurface excavation required within the project area; and
- All artefacts recovered during the testing and salvage programs would be returned to the study area and would be placed in a conservation area at a location chosen by the Aboriginal Representatives and according to the 'return to country' protocols outlined in Requirement 26 of the Code of Practice.

6.13.5 Archaeological Test Excavation

Subsurface archaeological testing has been recommended to occur as a result of the consultation process to date. The aim of the archaeological subsurface testing is to test for the presence of archaeological deposits within the areas of identified that will be directly impacted by the project.

The archaeological subsurface testing is proposed to occur and will follow the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (2010). This does not require an AHIP and will be a by-hand excavation program.

Two sites with subsurface archaeological potential have been identified and noted as GMUPA-PAD1 and GMUPA-3, see Figure 58.

Figure 58 – Subsurface testing locations

Testing will be undertaken along transects within areas of direct disturbance to GMUPA-PAD1 and areas of subsurface potential associated with artefact scatter GMUPA-3 as shown in Figure 43. Test pits will be placed at 10 m intervals along the transects. A total of 18 pits will be excavated in the GMUPA-PAD1 area while 12 will be undertaken in the GMUPA-3 area.

If artefacts are found with one or more of the following characteristics:

- Diverse range of artefacts/materials;
- Evidence of in situ knapping;
- Low levels of disturbance;
- Stratified deposits; and
- Other features indicative of substantial archaeological deposits.

Additional pits may be excavated around excavation points, to extend a test transect or to fill in a transect to a 5-metre spacing.

Up to 10 additional 50 x 50 cm Code of Practice test pits may be excavated in addition to the above across the two excavation areas.

Following an on-site review, the indicative test pit locations may be varied slightly in order to avoid the following:

- large stone cobbles or tors (with maximum linear dimensions greater than 300 mm);

- outcropping bedrock;
- highly disturbed or eroded ground; and/or
- substantial vegetation (with stem diameter of 100 mm or greater).

Disposition and storage of collected stone artefact assemblages during this test excavation would be dealt with in accordance with the Code of Practice (Part 6 National Parks and Wildlife Act 1974) under Requirement 26.

After examination and measurement, all recovered artefacts would be stored individually in standard resealable plastic bags or bagged in appropriate and identifiable units. The bags would be labelled using a permanent black pen with the item's unique identification number (where generated and appropriate), and/or details of its provenance within the excavation (as appropriate).

Following completion of the analysis of the recovered artefacts, it is proposed that all Aboriginal objects be repositioned back into the landscape ('returned to country') in accordance with Requirement 26 of the Code of Practice.

7 Community and Socio-Economic Impacts

7.1 Government Agency Consultation

To obtain government agency comments on the proposed development, correspondence dated the 5th and 6th of February 2019 was provided to relevant government agencies including:

- Goulburn Mulwaree Council (Council);
- Environment Protection Authority (EPA);
- Office of Environment and Heritage (OEH);
- Department of Primary Industries (DPI);
- Water NSW;
- Roads and Maritime Services (RMS);
- Southern NSW Local Health District (SNSW LHD);
- Rural Fire Service (RFS);
- Geological Survey of NSW – Division of Resources and Geoscience (GS NSW); and
- Essential Energy.

A phone meeting with RMS was held on the 8th of February 2019.

In addition, with the correspondence, a meeting with a number of government agencies was held on the 19th of February 2019 with Council, EPA, DPI, and the Department of Planning and Environment.

Table 90 provides a summary of the correspondence received. Copies of the correspondence is provided in Appendix P.

Table 90 – Agency Consultation

Agency	Issues Raised	Issue Addressed
Council	Attended meeting, provided correspondence. See Section 7.1.1 for further detail.	See Section 7.1.1.
EPA	Attended meeting, provided correspondence. No additional comment to those issued during SEARs process.	N/A
DPI	Attended meeting, no correspondence received.	N/A
WaterNSW	No correspondence received.	N/A
RMS	Phone meeting, correspondence received. No additional comment to those issued during SEARs process.	N/A
SNSW LHD	No correspondence received.	N/A
RFS	No correspondence received.	N/A
GS NSW	No correspondence received.	N/A
Essential Energy	Correspondence received. Directed to connection application.	To be undertaken at an appropriate time.

In addition to the formal consultation undertaken during the preparation of the EIS, regular liaison has been maintained with Council in relation to the project. Council's input has been invaluable.

7.1.1 Council Correspondence

Correspondence from Council's Director of Planning and Environment, Scott Martin, was received on 20th February 2019. This included a number of questions and clarifications which is discussed in Table 91.

Table 91 – Council Correspondence and Response

Correspondence Item	Response
Noise • Will the use of the axial fans to cool birds in the live bird shed lead to a potential increase to background noise levels? • How will noise of refrigeration equipment be attenuated? • On-site heavy vehicle movements, particularly stop-start, acceleration and low speed movements? • Truck turning circles are tight; will there be an issue with tyre squeal/screech? • Is a full acoustic assessment of each activity and the cumulative impacts when assessed against current noise level readings required? • Is there potential for noise impacts to arise simply from the general 24/7 operational nature of the proposal?	Yes, noise impact of fans has been assessed as part of the NIA discussed at Section 6.1 and Appendix F. External Condensers to be encompassed by 3m sound wall. Vehicle movements have been included within the NIA discussed at Section 6.1 and Appendix F. Pavement areas for heavy vehicles have been adjusted to safely facilitate vehicle turning minimising impacts. Yes, an NIA has included each activity and cumulative impacts, discussed at Section 6.1 and Appendix F. The proposed operations are compliant with the strict night time noise criteria applicable to the site.
Odour & Air Quality • State Environmental Planning Policy No. 33 – Hazardous and Offensive Development; this will need to be addressed as the proposal meets the definitions of both potentially hazardous and potentially offensive industry.	An assessment against the provisions of SEPP33 has been discussed at Section 6.3 and provided at Appendix C.
Materials • Proposed materials and colours should be non-reflective and passive to blend with the landscape in the immediate vicinity and viewpoints into the site from afar, particularly as the Rocky Hill monument and lookout are in close proximity.	Materials and colours are to be non-reflective and are to be accompanied with professionally designed landscaping to minimise visual impacts with an emphasis on views from Rocky Hill monument and lookout.
Traffic • Has there been any consideration for an alternative haulage route that would potentially avoid heavy vehicle traffic through the City? • Has there been a Traffic Impact Analysis undertaken that focusses on the impact of heavy vehicle movements to the south? • Can the proposed haulage route through to the southern interchange be demonstrated? Is it viable to avoid Finlay Road and Hume Street and enter the Highway via Garroorigang Road?	All vehicle route options have been explored however due to constraints on heavy vehicles and biosecurity the chosen routes are deemed to be most appropriate. Due to the nature of the southbound route only a small portion of heavy vehicles would travel through Goulburn to the southern Hume interchange. As such, the TIA has focused on the impact on the Common Street Sydney Road intersection. The heavy vehicle route has been adjusted to travel along Sloan Road connecting on Garroorigang Road.

• Clause 7.2.3 of the DCP – Heavy Vehicle Development Route should be addressed.	Discussed at Section 4.11.
Community consultation & impact on adjoining properties • Local residential developments nearby and further afield that would be affected by the proposal going ahead. • Consideration on the effects of prevailing winds in relation to noise and odour matters.	Local residents and commercial developments have been included in all community consultation efforts undertaken by Independent Consultant Mara Consulting. Metrological modelling has been included in both odour and noise assessments.
Childcare Centre • How are land use conflicts to be addressed to ensure the internal and external amenity of the Childcare Centre is not affected or reduced by the use and operation of the principal function of the site. • The childcare centre needs to comply with State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the NSW DPE Child Care Planning Guidelines 2017. In particular the site selection criteria in the Guideline.	Consideration of the proposed Childcare Centre has been given in both the design of the operation and environmental assessments to ensure impacts on the component has been minimised. The SEPP Educational Establishments and Child Care Facilities has been addressed at Section 4.9.3 and found to comply with the relevant sections of the SEPP and guidelines.
Biosecurity • How will biosecurity be managed, particularly through incoming and outgoing vehicles? • Will the natural movement of wild animals (including birds, predators and vermin) cause a biosecurity issue? Will this be exacerbated by the presence of nearby Goulburn Wetlands, Mulwaree Ponds and the Wollondilly River?	Biosecurity has been discussed in Section 6.8.2 and will follow best practice procedures recommended within relevant guidelines. Movement of wild animals can pose a biosecurity risk however measures are to be implemented to minimise impacts and ensure a biosecurity is maintained. The presence of the nearby wetlands and river are not expected to pose a threat to the operation due to distance and topography.
Landscaping • Expected to be used to mitigate the impacts of bulk, scale and visual amenity. • Should be used to provide separation from Childcare Centre. • Should be used to provide a buffer to adjoining land uses. • Complement the EEC contained within the site (within E3 portion of the site) • Shade trees within carpark • Actively pursue the acquisition of the road corridor to the north to provide a definitive visual landscaped buffer of mixed height and densities.	The proposed landscaping has been designed to minimise impact of bulk and scale on the visual amenity in the area. Landscaping has been provided to separate the childcare from the other operations on the site. Site boundaries are to be lined with vegetation. No EEC is present on the site. The E3 portion of the site is to be enhanced with locally occurring native vegetation. Shade trees provided within carpark. The Sinclair Street road corridor is to be acquired by the Applicant.

Stormwater Management • Concurrence with WaterNSW • Compliance with the SEPP • Demonstrate that post stormwater flows equal pre-development flows based on 30 year ARI • Demonstrate how stormwater generated on site will proceed to the existing creek/drainage line to the south of the development. Will this require a need for an easement on the lot to the south? Will works be required on the adjoining land? If so, has owners consent been obtained? • If discharging to the creek downstream, have there been considerations in relation to the current or required infrastructure and the required capacity.	Noted. Compliance with the SEPP has been achieved as discussed at Section 4.9.4. Stormwater flows have been discussed at Section 6.6 and provided at Appendix B. Stormwater from the development utilises the existing stormwater network utilised by the approved subdivision where water flows from the detention basin into a channel that directs water to the creek to the south of the site. No change to this system is proposed. Onsite infrastructure has been designed to facilitate pre-development flows utilising the existing stormwater network. Details of stormwater arrangement has been discussed in Section 6.6 and provided at Appendix B.
BCA • Preliminary Report from an A1 or C10 BPB Accredited Building Certifier on how compliance with the BCA will be achieved, with particular consideration to the provisions of Section C – (fire separation, large isolated buildings provisions), Section D and Section E (fire services, emergency and essential services)	The structures will be fully certified to comply with BCA requirements from an appropriately accredited building certifier.
Sewer, Water & Waste Management • A s305 application must be submitted to Council in accordance with the Water Management Act 2000. • It is the expectation of Council that all existing inter allotment services initially provided as part of the previously approved subdivision will become the responsibility of the facility, and all easements be extinguished. • Figures for water usage and sewer discharge will be required to determine s64 contributions. • Further details are sought on how the reduction in waste by 99.4% will be achieved. • Discharge quantities and pre-treatment details will be required to determine liquid trade waste requirements.	Noted, an application will be submitted at an appropriate time during the development process. Noted, the subdivision is not to proceed with no easements to be registered. Responsibility is to be for the infrastructure is to be on the operation. A water balance has been discussed at Section 6.6 and provided at Appendix B. Waste management discussed at Section 6.4. Noted, water balance includes relevant data.
Land Use Conflict • Measures to protect the amenity of the neighbourhood to be incorporated in the design including landscaping, buffers, noise and odour mitigation methods.	The development has been designed to minimise impacts on the surrounding land uses and will incorporate mitigation measures to ensure compliance with relevant guidelines and standards. See Section 8 for environmental assessments and

	Section 9 for list of mitigation and monitoring measures.
Land constraints • Demonstrate compliance with the Biodiversity Conservation Act 2016. • Heritage impact – within visual setting of War Memorial. • Visual impact – in proximity of Heritage Item's in Long Street (unlisted slab hut). • Currently mapped as bushfire prone land and will increase once new mapping is endorsed by the NSW RFS. This will trigger integrated development with the NSW RFS	Compliance with BC Act 2016 has been discussed at Section 4.5 and Appendix G. The War Memorial and Long Street Slab Hut views have been considered in the VIA discussed at Section 6.11 and provided at Appendix H. Noted, a bushfire threat assessment has been discussed at Section 6.9 and provided at Appendix J.

7.2 Community Consultation

Mara Consulting was engaged to undertake consultation with the local community. The engagement methods employed and the results of the community consultation process are provided at Appendix K and discussed in in this section.

Community and stakeholder feedback was invited on the proposed development between 7 January and 30 March 2019. A range of activities were used to engage the community including:

- letterbox drop and direct mail to 150 residents and businesses in the locality providing information about the proposal and inviting feedback;
- an advertisement was placed in the Goulburn Post promoting the feedback period and community information sessions;
- two community information drop-in sessions at the Goulburn Soldiers Club were held on Monday 4 and Tuesday 5 March 2019 where community members could view the proposal and speak with members of the project team;
- a dedicated project email address was created for community enquiries and submissions;
- telephone calls were made to local businesses inviting them to view and provide feedback on the proposal; and
- meetings with key stakeholders specified in the SEARs including Goulburn Mulwaree City Council, NSW Environment and Protection Authority and NSW Office of Environment and Heritage. Meetings were held at Goulburn Mulwaree Council on 9 February 2018 and 20 February 2019.

Examples of documents utilised in community consultation are reproduced within the Community Consultation Report at Appendix K.

7.2.1 Community Information Sessions

Two drop-in sessions were held at the Goulburn Soldiers Club on Monday 4 March and Tuesday 5 March 2019. The stakeholders who attended the drop-in sessions are provided in Table 92.

Table 92 – Stakeholder Attendance

Stakeholder	Stakeholder Type
Kel Fitzpatrick - Heritage Motor Inn	Business
Jamie Hinton - Safety Glass Solutions Bus	Business, local resident
Karen Lyne - BIG4 Governor's Hill Carapark	Business
Peter Lyne - BIG4 Governor's Hill Carapark	Business
John Charles	Local resident
Daimon Poole - McDonalds Goulburn	Business

Jeremy Gilchrist	Adjoining property owner
Miriam Gilchrist	Adjoining property owner
Ian James	Local resident

The workshop was also attended by Eddie Wehbe (Woodlands Ridge Poultry), Dale Redwood (KDC Planning), Kelly Lofberg (Mara Consulting), Ali Minogue (Mara Consulting) and Vanessa Swilks (Mara Consulting).

The drop-in session was structured to generate conversation to gain an understanding of what stakeholders feel about the proposed facility. It was important that everyone who attended had the ability to have their opinion heard and included in the discussion.

All attendees at the drop-in sessions were asked to share their thoughts about the proposed facility. The majority of stakeholders and community members gave positive feedback about the proposed facility.

7.2.2 Community Feedback

During the feedback period twenty-one items were raised by 9 people. Table 93 provides a list of the issues received and a response. There were no submissions received during the public consultation period.

Table 93 – Community Feedback

Subject	Item	Response
Traffic	How will traffic be slowed before the intersection of Sydney Road and Common Street?	Turn lanes from Sydney Road turning into Common Street are approximately 75m long which is sufficient for vehicles to slow down to an appropriate speed. Note: stakeholders raised specific concerns about exiting traffic issues not related to this project. These will be forward to Council for consideration.
	What will the traffic be at peak times?	During peak operation, there will be approximately 230 to 240 vehicles per hour (two-way) during weekday morning and afternoon peak hours. The existing road network is considered to be adequate to accommodate the increase in traffic movements. Refer Section 6.5 of the EIS.
	How will compression braking be managed on Sydney Road.	New drivers will be inducted which includes approved vehicle routes and procedures if they are delivering to the site. This will include procedures to reduce noise including limiting noisy breaking at night. Note: stakeholder raised specific concerns about exiting traffic issues not related to this project, requiring changes to speed limits. These will be forward to Council for consideration.
	Will there be a traffic management plan?	Yes. A traffic management plan will be implemented prior to the commencement of operation of the facility.
	Will the intersection be able to manage the increase in traffic?	Traffic Impact Assessment has indicated that the existing Sydney Road and

		Common Street will be able to manage the increase in traffic. Refer Section 6.5 of the EIS.
	Will there be an upgrade to the intersection of Sydney Road and Common Street?	This is outside the scope of this project. Comments will be forwarded to Goulburn Mulwaree Council for consideration.
	The bypass was introduced to reduce the number of large trucks going through the town of Goulburn. How many trucks will be going through town?	Only trucks which are to travel southbound on the Hume Highway from the site. This will be approximately 37-38 truck movements along the heavy vehicle rated route through town. Southbound traffic will travel via Common Street, Sydney Road, Union Street, Reynolds Street, Grafton Street, Sloane Street, and Garroorigang Road. The Traffic Impact Assessment has indicated the existing network will accommodate the vehicle movements.
	How much will traffic increase?	Traffic modelling indicates that at peak operation, approximately 1500 two-way vehicle trips per day will be generated by the site with heavy vehicles accounting for approximately 10 per cent. This will result in approximately 230 to 240 vehicles per hour two-way during weekday morning and afternoon peak hours. The existing road network is considered to be adequate to accommodate the increase in traffic movements. See Traffic Assessment EIS Section 6.5.
Odour	Will there be any odour?	The facility has been designed to mitigate potential odour impact on the surrounding community. The facility is designed with most of the operation contained within heavily engineered buildings to reduce potential odour. The proposed development will comply with all relevant standards and guidelines and be subject to strict environmental standards.
Noise	How much noise will there be during operation?	Predicted noise generated by the proposed development has been modelled and found to comply with relevant standards. Additionally, the facility has been designed to ensure noise generating operations are enclosed within buildings to effectively manage of noise. Noise is likely to be generated from vehicles movements. To manage this, noise walls are proposed to be installed along the car park and truck parking areas.

		According to the noise assessment (see Section 6.1 of the EIS), one property may be impacted by noise. Mitigation methods can be addressed with the individual property owner.
	As the basin becomes an amphitheatre. How will noise be monitored?	Predicted noise generated by the proposed development has been modelled and found to comply with relevant standards. Noise monitoring will likely be a condition of approval. The facility will need to comply with all conditions of approval. Noise impacts are projected to be below the relevant criteria. Businesses along Sydney Road are not expected to be impacted by noise.
Water	Where do you get water from?	As the facility is a food processing plant, all water used in the process must be obtained from the mains water system. Rainwater will be collected and stored in a series of tanks for watering landscaping. A detention basin will be created to treat water prior to discharge from the site.
	What will happen to water next to the property in flood times?	Council records note the site is not located on flood prone land. Stormwater is discharged to channels directing to the adjoining creek line. This is consistent with existing arrangement for the subdivision.
Waste	What do you do with waste?	94 per cent of waste is to be used as product. Wherever possible, waste is minimised, reused or recycled. Due to the high quality of the waste from processing, a proportion may be used as pet food. All other waste will be directed to the by-product processing facility where it can be turned into fertiliser or meal. Some components such as feathers may be purchased directly.
Operation	Will the facility run 24/7?	At peak operation the facility will operate 24 hours and seven days per week.
Location	Why was this site chosen for the facility?	The area is a priority area for Council identified in a number of strategies to encourage investment and jobs growth. The land is part of an Enterprise Corridor as part of the North East Goulburn Enterprise Corridor Precinct.

		The aim is to attract employment generating development compatible with the adjacent recycling and the landfill facilities. Geographically, Goulburn is close to major transport routes (road, rail and air), existing breeders (poultry farms) and suppliers. Goulbourn Mulwaree Council has identified the site as a priority area in their employment land strategy, to encourage business investment and job creation.
Economy	How many jobs will be created by the facility?	Approximately 264 jobs will be directly created from the facility.
Other	Will the property next door be used to extend the facility?	The are no plans to incorporate surrounding land to extend the development. Existing roads on the site were a result of a previous subdivision by another party, which was not completed. It is not part of the scope of this project.
	Can a neighbouring property have assistance to rezone their property?	Comment noted. Rezoning is a matter to be taken up with Council Strategic Planning staff.
	Will the facility devalue the neighbouring properties?	Given the B6 Enterprise Corridor zoning it is not expected that land values will be impacted, rather it is considered it will enable enterprise development in the area which may draw further investment in the area.
	Are there opportunities for businesses to be preferred suppliers?	Business arrangements such as preferred suppliers have not been considered at this early stage. However, businesses are encouraged to participate in any opportunities that may come from the development. Note: the Applicant made an undertaking to keep in contact with local businesses.
Support for project	Stakeholders attending the drop in sessions indicated they supported the facility, particularly the business opportunities and jobs for the region.	Noted

7.3 Economic Impact

The proposal consists of:

- A cold storage and distribution centre for the poultry production and wider food produce market;
- A poultry processing plant, for chickens, turkeys, ducks, quail transported and slaughtered before processing on site (up to 1,000,000 birds per week at optimal capacity);
- A childcare centre for children of staff on site and the wider community; and

- Other associated infrastructure and facilities including truck and vehicle delivery roads, turning areas and loading facilities, offices and amenities, landscaping and parking.

The project:

- Has a building area in the order of 25,000m^2;
- Will employ 132 persons per shift on a two shift a day roster (264 FTE);
- Has an estimated construction and service infrastructure cost of $80m;
- Will generate an estimated annual output is $30m; and
- Will have an optimum capacity to process 1,000,000 birds per week.

7.3.1 Construction Phase Impacts

Construction includes the buildings processing hall fit out, cold store, external works, connections to service infrastructure, parking and access and provision of the childcare centre. Using the value of $80m as the direct change in output it is possible to estimate a range of employment, operational (wage and salary) and multipliers effects that follow using REMPLAN software, see Table 94.

The construction phase impacts are not enduring and are characterised for the period of construction. This is detailed and discussed in the following sections.

Table 94 – Impact Scenario Assumptions

Industry Sector	Direct Change Jobs	Direct Change Output ($M)
Non-Residential Building Construction	88	$80.000

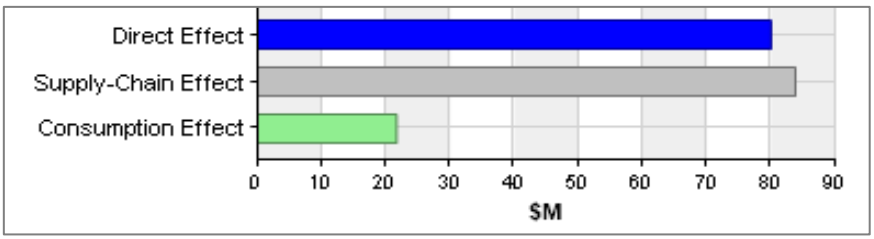
Impact on Output

From a direct increase in output of $80.000 million it is estimated that the demand for intermediate goods and services would rise by $83.834 million. This represents a Type 1 Output multiplier of 2.048. These supply-chain effects include multiple rounds of flow-on effects, as servicing sectors increase their own output and demand for local goods and services in response to the direct change to the economy.

The increases in direct and indirect output would typically correspond to the creation of jobs in the economy. Corresponding to this change in employment would be an increase in the total of wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are estimated at $21.669 million.

Total output, including all direct, supply-chain and consumption effects is estimated to increase by up to $185.502 million, see Figure 59. This represents a Type 2 Output multiplier of 2.319.

Figure 59 – Impact Output Total



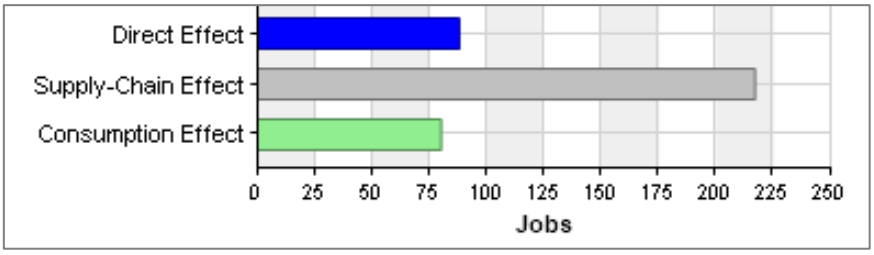
7.3.2 Impact on Employment

From a direct increase in output of $80.000 million the corresponding creation of direct jobs is estimated at 88 jobs. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the gain of a further 217 jobs. This represents a Type 1 Employment multiplier of 3.466.

The increase in direct and indirect output and the corresponding creation of jobs in the economy are expected to result in an increase in the wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are estimated to further boost employment by 80 jobs.

Total employment, including all direct, supply-chain and consumption effects is estimated to increase by up to 385 jobs (see Figure 60). This represents a Type 2 Employment multiplier of 4.375.

Figure 60 – Impact Employment Total



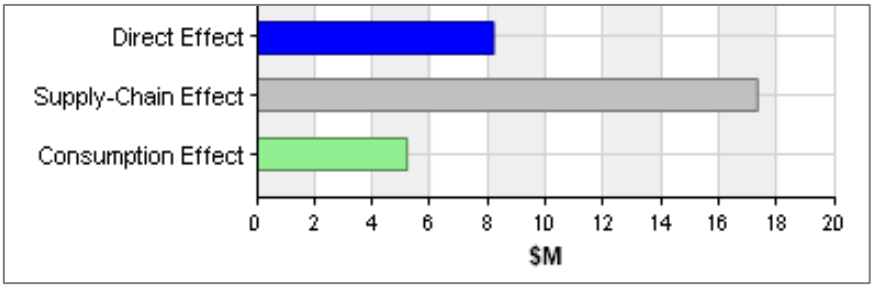
Impact on Wages and Salaries

From a direct increase in output of $80.000 million it is estimated that direct wages and salaries would increase by $8.172 million. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the gain of a further 217 jobs and a further increase in wages and salaries of $17.317 million. This represents a Type 1 Wages and Salaries multiplier of 3.119.

The increase in direct and indirect output and the corresponding creation of jobs in the economy are expected to result in an increase in the wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are expected to further boost employment in sectors such as retail therefore further increasing wages and salaries by $5.177 million.

Total wages and salaries, including all direct, supply-chain and consumption effects is estimated to increase by up to $30.665 million (see Figure 61). This represents a Type 2 Wages and Salaries multiplier of 3.753.

Figure 61 – Impact Wages and Salaries Total



Impact on Value-Added

From a direct increase in output of $80.000 million the corresponding increase in direct value-added is estimated at $17.178 million. From this direct expansion in the economy, flow-on supply-chain effects in terms

of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in a further increase to value-added of $30.002 million. This represents a Type 1 Value-added multiplier of 2.747.

The increase in direct and indirect output and the corresponding boost to jobs in the economy are expected to result in an increase in the wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are expected to further boost value-added by $12.072 million.

Total value-added, including all direct, supply-chain and consumption effects is estimated to increase by up to $59.252 million (see Figure 62 and Table 95). This represents a Type 2 Value-added multiplier of 3.449.

Figure 62 – Impact Value Added

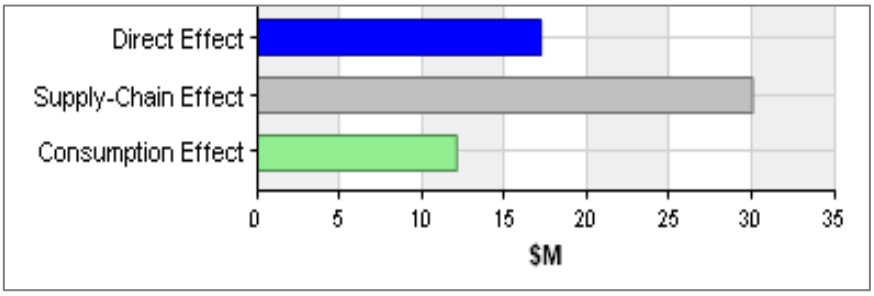


Table 95 – Construction Phase Impact Summary

Impact Summary	Direct Effect	Supply-Chain Effect	Consumption Effect	Total Effect
Output ($M)	$80.000	$83.834	$21.669	**$185.502**
Employment	88	217	80	**385**
Wages and Salaries ($M)	$8.172	$17.317	$5.177	**$30.665**
Value-added ($M)	$17.178	$30.002	$12.072	**$59.252**

Source: REMPLAN

7.3.3 Operational Phase Impacts of the Facility

The proposed processing facility once operating, will employ 264 people working over two shifts of 132 employees per shift. These are nett new positions.

The estimate of direct change in output arising from the operating and supply costs of the operation is $30.170m, see Table 96.

The operation phase impacts are enduring and continue for the life of the business. The impacts will change if circumstances concerning the inputs change (employees or cost of operations). No escalation is assumed in the estimates and they are year on year forecasts.

Table 96 – Impact Scenario

Industry Sector	Direct Change Jobs	Direct Change Output ($M)
Food Product Manufacturing	264	$30.170m

Impact on Output

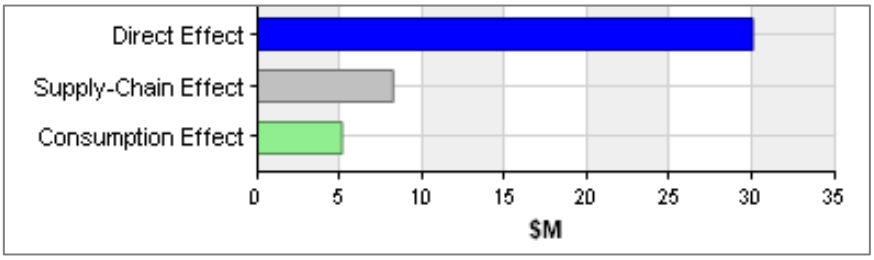
From a direct increase in output of $30.170 million it is estimated that the demand for intermediate goods and services would rise by $8.259 million. This represents a Type 1 Output multiplier of 1.274. These supply-chain

effects include multiple rounds of flow-on effects, as servicing sectors increase their own output and demand for local goods and services in response to the direct change to the economy.

The increases in direct and indirect output would typically correspond to the creation of jobs in the economy. Corresponding to this change in employment would be an increase in the total of wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are estimated at $5.151 million.

Total output, including all direct, supply-chain and consumption effects is estimated to increase by up to $43.565 million (see Figure 63). This represents a Type 2 Output multiplier of 1.444.

Figure 63 – Impact Output Total



Impact on Employment

From a direct increase in output of $30.170 million the corresponding creation of direct jobs is estimated at 264 jobs. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the gain of a further 115 jobs. This represents a Type 1 Employment multiplier of 1.439.

The increase in direct and indirect output and the corresponding creation of jobs in the economy are expected to result in an increase in the wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are estimated to further boost employment by 86 jobs.

Total employment, including all direct, supply-chain and consumption effects is estimated to increase by up to 465 jobs. This represents a Type 2 Employment multiplier of 1.765.

Impact on Wages and Salaries

From a direct increase in output of $30.171 million it is estimated that direct wages and salaries would increase by $10.560 million. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the gain of a further 116 jobs and a further increase in wages and salaries of $4.921 million. This represents a Type 1 Wages and Salaries multiplier of 1.466.

The increase in direct and indirect output and the corresponding creation of jobs in the economy are expected to result in an increase in the wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are expected to further boost employment in sectors such as retail therefore further increasing wages and salaries by $3.118 million.

Total wages and salaries, including all direct, supply-chain and consumption effects is estimated to increase by up to $18.599 million. This represents a Type 2 Wages and Salaries multiplier of 1.761.

Impact on Value-Added

From a direct increase in output of $30.171 million the corresponding increase in direct value-added is estimated at $5.529 million. From this direct expansion in the economy, flow-on supply-chain effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in a further increase to value-added of $3.582 million. This represents a Type 1 Value-added multiplier of 1.648.

The increase in direct and indirect output and the corresponding boost to jobs in the economy are expected to result in an increase in the wages and salaries paid to employees. A proportion of these wages and salaries are typically spent on consumption and a proportion of this expenditure is captured in the local economy. The consumption effects under this scenario are expected to further boost value-added by $2.870 million.

Total value-added, including all direct, supply-chain and consumption effects is estimated to increase by up to $11.981 million (see Figure 64 and Table 97). This represents a Type 2 Value-added multiplier of 2.167.

Figure 64 – Impact Value – Added Total

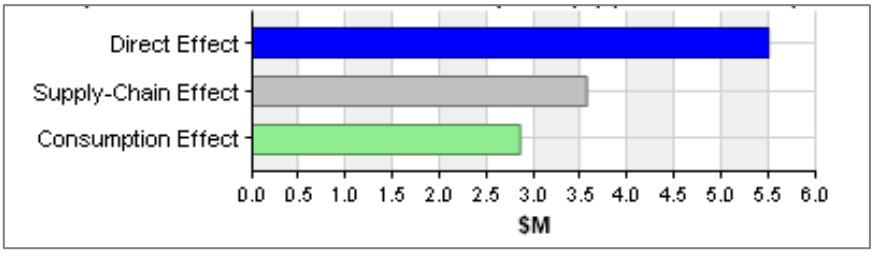


Table 97 – Operation Phase Impact Summary

Impact Summary	Direct Effect	Supply-Chain Effect	Consumption Effect	Total Effect
Output ($M)	$30.170	$8.259	$5.151	**$43.565**
Employment	264	115	86	**465**
Wages and Salaries ($M)	$18.707	$8.722	$5.526	**$32.955**
Value-added ($M)	$5.529	$3.582	$2.870	**$11.981**

Source: REMPLAN; Castlecrest; KDC.

7.3.4 Qualitative Impacts

The benefits to the Goulburn Mulwaree community will be qualitative as well as quantitative. Table 98 summaries the benefits of the project in the context of the Social economic character of the are the issue the community faces.

Table 98 – Socio Economic Impact Summary Table

Demographic Characteristic	Issue	Project Benefit
Goulburn Mulwaree has a significantly higher representation of its community that identify as	With 4% of the total population identifying as Aboriginal or Torres Strait Islander there is an elevated	The project will offer a wide range of low and semi-skilled jobs which would benefit all the

Aboriginal or Torres Strait Islander than NSW and Australia as a whole.	need to grow jobs attractive to this demographic of the community.	community as well as the indigenous community.
The percentage of the population in the age cohorts 15 to 19 years and 20 to 24 years the LGA are less and the percentages of these cohorts at the New South Wales national level.	This underrepresentation of youth reflects the fact that many people in these age cohorts leave the area employment or education.	The Project provides significant direct and flow on employment opportunities which will help stem the out migration from the region and in particular young workers.
Moreover, the age cohorts covering employment years 15 up to 50 years of age are underrepresented when compared to the state and national average.	This is again reflective of the lack of employment opportunities in the LGA.	The Project will provide direct and indirect employment opportunities across the workforce.
There is a statistically higher representation percentage of the population in the cohorts over 50 years of age as compared State and national average.	The lack of workforce aged population (15 to 55) statistically creates an imbalance towards older ages groups and generates a disproportionate demand on health and support services.	The availability of employment will help retain workforce aged people and attract a measure of in migration.
At the time of the 2016 census unemployment the LGA is on par with New South Wales at 6.3% and below the national average.	This is considered to be more a reflection of the fact that people have left the area or not come to the area because of a lack of jobs, rather than because the supply of employment meets demand for jobs.	The Project will generate a significant number on both construction and operational phase direct and indirect jobs.
In 2016 there were 12,360 people employed and 2,360 businesses.	This suggests on average each business employed 5.2 people This means there is a lack of large catalytic businesses to drive jobs and investment, a reliance on small enterprises and family-based business, a dominance of enterprises that do not have workplace progression, training and social networks.	The project will act as a catalyst and attract other food processing facilities do develop a cluster of related business as well as vertically and horizontally integrated businesses. These will provide the critical mass to sustain a higher level of training, staff development and offer networks and progression paths for employees.
More than 29% of the population live in single person households as compared with 24.4% nationally.	This places financial stress on households that are reliant on one income, particularly in an environment of low investment and slow jobs growth.	The Project will strengthen the employment/job platform and over time attract other businesses providing a more robust economic and social climate.
The 2016 census indicated 25% of the community of the community earn less than	These figures suggest a relatively "poorer" community al be it one with less income/class differentiation.	Larger national employers such as the Project will help lift wage levels on par with national

$650 per week as compared with 20% Australia. And that only 10.2% earn over $3000 per week as compared to 18.7% in New South Wales. In Goulburn Mulwaree personal, family and household weekly incomes are all below the state and national medians. Median household income is $1,196 as compared to $1,486 in NSW. Median household Income is 24% less than NSW.	However, the community's lower income earning capacity makes it difficult for members of that community who wish to travel, purchase or study outside the LGA, using income earnt within the LGA are disadvantaged. This embeds intergenerational inequalities and often lower levels of education.	standards and reduce regional inequalities.
The LGA has 82.6% of its population born in Australia as compared national figure of 66.7%.	This reflects the lack of cultural diversity in the LGA and the strong dominance of an Australian born population. While not an issue of itself it reduces the area's ability to attract a diverse community, international visitors and investment and minimises the business and cultural advantages of diversity.	The project may go toward attracting immigrates to the community and contribute to cultural and business diversity.
The percentage of employed people in occupations as technicians, trades workers (14.5%) or labourers (11.8%) is higher than State or national averages. The total of these two categories represents 26.3% of the workforce in Goulburn Mulwaree as compared to 21.5% NSW.	These figures reflect the strong rural and agricultural nature of the area but also reflect the skills base workforce. The demand for employment is in these occupations is therefore proportionately higher.	The project will have a strong construction phase demand for technicians, trades workers and labourers. Employment in these occupations will expand as the project begins to attract other similar new construction investment.
Workforce's travel to work indicating that was 18% of the population that lived in the area work outside the LGA. .	The data show that these people commute as far away as Sydney and a large number to the ACT. Many commutes are over and hour and represent a safety and health risk, lost time and reduced quality of life.	The project will deliver more in LGA jobs in both the construction and operating phases helping to reduce the number of people commuting outside the LGA for work.
SEIFA Index of Disadvantage for Goulburn Mulwaree Council area in 2016 was 960.	This places the LGA in a middle to low range with a relative higher level of disadvantage than the LGA to its north and south.	By increasing the level of employment and wages by reducing travel to work and by helping reduce the out migration of young people the Project will help shift the community level of social disadvantage.

7.3.5 Conclusion

The Project has a nett economic and social benefit. The proposed development is consistent with community and key stakeholder expectations and government policy and strategy settings. The project has the potential to unlock market interest in the locality, attract autonomous investment and attract other related business thereby having the potential to create a food processing and distribution hub and change the jobs trajectory of the area and contribute to the State's economic strength and diversification.

7.4 Social Impact

This section provides a methodology for the SIA and has been adapted from Social Impact Assessment (SIA) guideline for State Significant mining, petroleum production and extractive industry development (DPE 2017), SIA standards established by the International Association for Impact Assessment and Mara's risk-based approach to measure and assess social impacts. This SIA has been undertaken by Mara Consulting and is reproduced at Appendix K.

7.4.1 Social and Cultural Setting

The Goulburn Mulwaree local government area (LGA) covers an area of 3,223 square kilometres (km^2) making it approximately 1.5 times the size of the Australian Capital Territory (ACT). The LGA shares its borders with Upper Lachlan, Queanbeyan Palerang, Wingecarribee and Shoalhaven LGAs.

Geographically, the LGA forms part of the Southern Tablelands Region. The Wollondilly River and Mulwaree Chain of Ponds wind through the LGA forming part of the Hawkesbury-Nepean and Shoalhaven Catchments.

Goulburn Mulwaree LGA has been separated into smaller profile areas. Within this context the proposed development is situated within Goulburn South East area. The Goulburn South East area encompasses the south eastern fringes of the City and is characterised by rural residential lots and considerably lower population densities (1.09 persons per hectare) compared to Goulburn.

The region's economic base has historically been comprised of agriculture, grazing and commerce. Over more recent decades, the economy has transitioned to a broader base and the top three sectors by employment are Health Care & Social Assistance (15%), Retail Trade (10.9%) and Public Administration & Safety (10.7%).

The main industries include farming, education, transport and distribution (being goods), community services, hospitality, local and state governments and the Goulburn Correctional centre. Unlike other areas in regional NSW, this region is not known for its tourism visitation, though it does receive a high number of short-term visitors for special events and those travelling through to other destinations.

Goulburn Mulwaree LGA is highly accessible with good quality roads and rail connections. The Hume and Federal Highways pass through the region and is the main freight and travel routes between Sydney, Canberra and Melbourne. Highway interchanges are located at the southern entrance to Goulburn. The Great Southern Rail line passes through Goulburn. The Goulburn railway station is located on the eastern border of the CBD and provides daily passenger services to and from Canberra, and daily services to and from Sydney. Goulburn has an airfield approximately 7km south-east of the city, which is available for both recreational and commercial purposes

7.4.2 Population and Demographics

The Goulburn Mulwaree LGA population is 29,609. With a land area of 3,223 hectares the LGA has a population density of 0.09 persons per hectare. The Goulburn South East community is a small industrial/residential community with approximately 3,227 people, with a land area of 2.910 hectares and a population density of 1.09 persons per hectare.

The LGA has a steady average annual growth rate of approximately 1%. The region increased by 2,147 people over five years and Goulburn South East had an increase of 235 people.

Goulburn Mulwaree LGA is expected to experience an annual growth rate of 0.9% to the year 2036, with the population reaching around 36,000 people. This growth rate is small when compared to the projected 10

million people expected to be living in NSW by the year 2036 (which assimes an annual growth rate of 1.5%).

Gandangara and Ngunnawal peoples are recognised as the traditional owners of Goulburn Mulwaree LGA. The proportion of the population within the region who identifies as Aboriginal or Torres Strait Islander population is 4.0%. This figure is 4.7% in Goulburn South East.

The proportion of males and females was reasonably even at 50.6% for males to 49.4% females.

In terms of the proposed development the analysis of Goulburn South East gender distribution, the main difference is there is slightly higher proportion of males in younger to middle age cohorts in 20 to 54 years when compared males living in the Goulburn Mulwaree LGA as a whole as shown in Table 78.

Although fewer than 3% of the population speak a language other than English at home in Goulburn LGA, the most commonly spoken non-English languages are Greek, Italian and Filipino/Tagalog.

Community profile – Goulburn Mulwaree LGA

The median age for the Goulburn Mulwaree LGA was 42.

Goulburn Mulwaree LGA and Goulburn South East have a similar proportion of young people 0 – 17 years (21.9% and 16.8%) and people age 60+ (25.9% and 22.1%), compared to 22.1% and 27.2% respectively for Regional NSW. Goulburn South East has a larger proportion of young workforce 25- 34 years (14.9%) and parents and homebuilders 35-49 years (23%) compared to 12% and 18.6% for Goulburn Mulwaree LGA.

Goulburn Mulwaree LGA recorded a higher proportion of young people who had left school at an early age (45.7%) compared to Regional NSW (44.8%). Overall, 44.0% of the population aged 15 and over held educational qualifications, and 41.5% had no qualifications, compared with 46.2% and 41.7% respectively for Regional NSW.

In 2016, 76.9%, of residents in Goulburn Mulwaree LGA, travel to work by car, either as a driver or a passenger, while 0.9% of employed people used public transport.

The crime profile figures from NSW Bureau of Crime statistics and Research (BOCSAR) illustrate that total offences Goulburn Mulwaree LGA between 2008 and 2018 have remained reasonably remaining stable or trending down. There was a spike in 2017-2018, primarily attributable to a significant increase in 'fraud' and 'stealing from retail store' (171 and 153 compared 153 and 110 in the previous year).

Table 99 provides the key demographics and characteristics of South-East Goulburn, the larger Goulburn Mulwaree LGA and compares against NSW figures.

Table 99 – Demographics and Characteristics

Characteristics	Goulburn South-East	Goulburn Mulwaree LGA	NSW
Population and Demographics			
Populations	3,227	29,609	80,134,300
Persona per hectare	1.11%	0.09%	0.09%
Indigenous Populations	7.4%	4%	2.9%
Average household size	2.38	2.39	2.61
Age Breakdown			
0-4 years	4.9%	5.9%	6.2%
5-9 years	5.2%	6.3%	6.4%
10-14 years	4.0%	6.0%	5.9%
15-19 years	5.9%	5.9%	6.0%
20-24 years	6.9%	5.6%	6.5%
25-29 years	7.8%	6.0%	7.0%
30-34 years	7.5%	6.1%	7.2%
35-39years	7.7%	5.6%	6.7%
40-44 years	7.4%	6.3%	6.7%
45-49 years	7.7%	6.7%	6.6%
50-54 years	7.3%	7.0%	6.5%
55-59 years	6.3%	6.8%	6.3%
60-64 years	6.3%	6.5%	5.6%
65-69 years	5.4%	6.1%	5.1%
70-74 years	3.1%	4.9%	3.9%
75-79 years	2.3%	3.5%	2.9%
80-84 years	1.9%	2.4%	2.1%
85 years and older	2.6%	2.5%	2.2%
Qualification Level			
Bachelor or higher degree	6.8%	11.5%	23.4%
Advanced diploma or diploma	5.3%	8.5%	8.9%
Year 12	24.2%	35.1%	52.1%
No qualification	36.2%	41.5%	39.1%
Household Structure			
Couples with children	25.3%	39.0%	45.7%
Couples without children	26.4%	41.3%	36.6%
One parent families	11.5%	18.2%	16.0%
Lone person	31.2%	27.6%	22.2%
Other family		1.4%	1.7%
Group Households	2.3%	2.5%	4.2%
Employment Status			
Worked full-time	57.2%	59.2%	59.2%
Worked part-time	33.2%	32.7%	32.7%
Unemployed	7.6%	6.3%	6.3%
Occupation			
Managers	11.0%	11.5%	13.5%
Professionals	10.5%	14.5%	23.6%
Technicians and trades workers	15.0%	14.5%	12.7%

Community & Personal Service Workers	13.9%	15.3%	10.4%
Clerical and Administrative workers	11.2%	12.3%	13.8%
Sales workers	10.6%	9.9%	9.2%
Machinery operations and drivers	10.2%	8.5%	6.1%
Labourers	16.3%	11.8%	8.8%
Industry of Employment (Top Responses)			
Hospitals (except Psychiatric)		4.2%	3.5%
Aged Care Residential Services		2.9%	2.0%
Supermarket and Grocery Stores		2.8%	2.2%
Other Social Assistance Services		2.6%	1.6%
Takeaway Food Services		2.6%	1.7%
Methods of Travel to Work			
Car, as driver	72.0%	70.0%	57.8%
Worked at home	3.6%	4.3%	4.8%
Car, as passenger	5.7%	6.2%	4.3%
Walked only	2.7%	3.2%	3.9%
Truck	1.4%	1.5%	1.0%
People who travelled by public transport	0.3%	0.9%	16.0%
Cultural Diversity			
Anglican	22.6%	25.6%	15.5%
No religion	16.7%	21.1%	25.1%
Catholic	22.1%	27.9%	27.4%

7.4.3 Existing Land Uses

The Goulburn Mulwaree LGA is predominantly rural, with land is used largely for agriculture, particularly sheep grazing and with some cattle grazing.

Key employment sectors in the Goulburn Mulwaree LGA area include:

- Health Care and Social Assistance (15%); attributable to Goulburn Hospital and numerous aged care facilities in the LGA.
- Retail Trade (10.7%); the main retail areas are the Goulburn Central Business District, Goulburn Square Shopping Centre and Goulburn Marketplace, with a smaller centre at Bradfordville Shopping Centre.
- Public Administration and Safety (10.9%); due to the NSW Police Force Academy and the Goulburn Correctional Centre.
- Accommodation and Food Services (7.8%); cafes, restaurants, takeaway being the highest.
- Education and Training (7.4%); the TAFE NSW Illawarra (Goulburn Campus) and numerous schools.
- Construction (9.2%) and Manufacturing (5.5%); the main industrial areas are in Goulburn South-West, Goulburn South and Goulburn North-East.

Businesses

In 2016 there were 12,722 people employed and 2,264 businesses within the Goulburn Mulwaree LGA. ABS statistics indicate that the number of businesses within the LGA have been generally stable, or marginally

declining (from 237 to 227), over the period 2014-2017. The decline was attributable to a reduction in the number of smaller sized businesses employing 1-4 people.

There was a total of 430, 4 and 5-year-old children enrolled in a preschool program in Goulburn Mulwaree LGA. There are 15 local childcare centres within the LGA.

7.4.4 Housing and Rental

The existing housing and rental statistics for South-East Goulburn and the larger Goulburn Mulwaree LGA have been compared against NSW in Table 100.

Table 100 – Housing and Rental Statistics

Characteristics	Goulburn South-East	Goulburn Mulwaree LGA	NSW
Dwelling Type			
Occupied private dwellings	89.3%	85.0%	90.1%
Unoccupied private dwellings	9.8%	15.0%	9.9%
Separate house	81.2%	87.2%	66.4%
Semi-detached, town house etc.	-	7.9%	12.2%
Flat or apartment	-	3.3%	19.9%
Other	-	1.1%	0.9%
Dwelling Tenure			
Owned outright	31.5%	35.3%	32.2%
Owned with a mortgage	31.9%	32.3%	32.3%
Rented	20.6%	28.6%	31.8%
Median Weekly Rent	$225 p/wk.	$260 p/wk.	$380 p/wk.
Median monthly mortgage repayments	$1,482 p/month.	$1,157 p/month.	$1,986 p/month.
Median Weekly Income			
Personal	-	$625 p/wk.	$664 p/wk.
Family	-	$1,505 p/wk.	$1,780 p/wk.
Household	$1,063 p/wk.	$1,196 p/wk.	$1,486 p/wk.

A desktop review of long-term rental housing available in Goulburn and surrounding areas was undertaken using various websites.

At the time of the investigation, there were 61 properties for rent in Goulburn and surrounding areas with Domain real estate including 55 apartments, units, houses, rural properties, townhouses, villas and duplexes and a total of 66 listings on the realesate.com.au website.

Based on this review, it appears there may be potential rental properties available during construction. Given that the construction period is estimated to take approximately 24 months, it has been assumed that some of the workers are likely to relocate to the area. It is assumed that if workers relocate, there will be households available to rent. Additionally, local businesses could be used to provide temporary accommodation in the initial construction phase of the project. Construction workers could be sourced locally or from outside the region.

The median rent for Goulburn Mulwaree South-East was $225/week, $40 less than the median rent for Goulburn Mulwaree LGA at $265/week.

The dominant household/family types in Goulburn South-East was the lone person household group (31.2%) compared to (25.1%) of couple families and (10.2%) one-parent families.

SEIFA results indicate the Goulburn Mulwaree LGA is generally disadvantaged, with Goulburn South East residing in the lowest 25% of disadvantaged NSW areas.

7.4.5 Social Infrastructure

Increased activity and population growth will generally impact on infrastructure provision. Demand will increase for social infrastructure such as health, education, emergency services and community and recreation facilities. Existing social infrastructure within the Goulburn Mulwaree LGA includes:

- community facilities (e.g. Goulburn Community Hub brings together services and communities; Family and Community Services; TAFE – Goulburn campus and Goulburn Community College; Country Women's Association Goulburn Branch; Arts facilities, galleries and museums; Aboriginal Elders Social Group and Aboriginal Home Care Packages; Goulburn Mulwaree Library; Aged Care facilities; and Disability Support Groups (under the National Disability Insurance Scheme);
- open spaces (e.g. Morton National Park: Rocky Hill War Memorial Museum; Belmore Park Goulburn; Wollondilly Walking Track; Goulburn Aquatic and Leisure Centre; Adventure playground; Governors Hill Carpark; and Goulburn South Caravan Park;);
- a variety of retail stores and services (e.g. bank branches, employment services); and
- sports facilities and social infrastructure (e.g. a range of different sporting organisations, local clubs, and cafes, hotels and motels).

7.4.6 Transport Infrastructure

Airport

Goulburn Airport is general aviation airport located seven kilometres south east from the city centre. It offers a range of activities including flight training; and sky diving course and ongoing training. The airport retains a prime focus as a regional transport hub and is capable of expanding its facilities and services to meet the needs of the growing economic sector in the region.

The closest airport to Goulburn is Canberra Airport which is within a one-hour drive of from Goulburn. Canberra Airport is equipped for international and domestic air operations and has a freight sector and access to the global market. There are a variety of options available to passengers arriving at or departing from Canberra Airport to transfer to Goulburn including train, rental cars, and bus services. Hire car providers include AVIS, Hertz, Thrifty, Avis, Redspot and Budget.

Road Network

The Hume Highway extends north/south through the Goulburn Mulwaree LGA. The location of the Goulburn Mulwaree LGA between Sydney and Canberra and the surrounding road network connecting Victoria, NSW

and the ACT, ensures that the LGA is well positioned to capitalise on the transport, freight and logistics industries.

The project's potential impacts on the local and regional road network have been considered as part of the TIA (refer Section 6.5 – Access, Traffic and Park and Appendix D of the EIS).

Train and Coach Network

The local area is serviced by Goulburn Railway Station which connects the regional network. Train services each morning and evening travel to and from Sydney, Campbelltown and Moss Vale and long distance services to Canberra, Griffith and Melbourne.

NSW TrainLink and Murrays coaches provide several routes that connect Goulburn Mulwaree LGA to either Canberra, Wollongong, Melbourne and the south coast daily.

7.4.7 Local Area Concerns and Issues

Cardno were engaged by Goulburn Mulwaree Council to undertake community consultation for the Southern Tablelands Regional Community Strategic Plan. Specifically, Cardno were commissioned to peer review Council's Community Strategic Plans, the preparation of a Regional Community Strategic Plan, the preparation of a community engagement strategy and the facilitation of community engagement workshops in three LGAs (Goulburn Mulwaree Council, Upper Lachlan Shire Council, and Yass Valley Council).

The following concerns, issues, and challenges were discussed for the LGA of Goulburn Mulwaree relevant to the proposed development:

- inappropriate planning and development decisions;
- Council needs to support development to some extent while protecting or prioritising the rural lifestyle;
- there was too much of an anti-progress or anti-development sentiment that was holding the LGA back from growing;
- need for, and lack of, appropriate economic development, while what is deemed appropriate varied somewhat, with a key concern relating to the availability and range of employment opportunities into the future;
- concerns about retaining youth in the area; and
- concerns about the ageing population and related needs.

The alignment of the proposed development with the community's aspirations for the region will depend on the perceived balance of positive and negative impacts for the community.

Regional Context

The key regional context for the area is '*to build and maintain sustainable communities while retaining the region's natural beauty*'. One of the focus areas of the Southern Tablelands Regional Community Strategic Plan specifically relates to the economy as a priority for the region. This includes the following main ideas:

- capitalise on the region's close proximity to Canberra and its position as a convenient hub to South East Australia to attract industry and investment;
- jointly develop appropriate tourism opportunities and promote the region as a destination;
- foster and develop a diverse, adaptive, and innovative agricultural industry; and
- encourage collaboration between businesses, government, and training providers to develop employment and training opportunities for young people in the region.

There is specific reference to attracting industries and ensuring adequate and appropriate land is zoned for business and industrial purposes. This is consistent with the proposed development.

Growth and economic development in the Goulburn Mulwaree LGA are key policy matters for Council. The Employment Land Strategy - Goulburn Mulwaree (the Strategy) provides a strategic planning approach for Employment Lands (lands zoned for industrial or similar purposes) in the LGA. The proposed development site

is located in the North East Goulburn Enterprise Corridor Precinct. This corridor has been identified within the Strategy, as an attractive place to invest. In order to support the growth of the precinct, the Strategy recommends rezoning the following:

- the area bounded by Sinclair, Chiswick and Common Streets and the waste management facility to the east should be rezoned to IN1 General Industrial;
- the area bounded by Hetherington, Chiswick and Long Streets and the B6 Enterprise Corridor zone to the north should be rezoned to RU2 Rural Landscape; and
- the area bounded by Long Street, Sydney Road and the B6 Enterprise Corridor to the east should be rezoned to R1 General Residential.

The project is located on Common Street and is therefore within the area proposed for rezoning.

State Context

The South East and Tablelands Regional Plan 2036, is a key document, prepared by the NSW Government in 2017 which provides a 20-year blueprint to guide planning and land use decisions for the nine local government areas in the region, Goulburn-Mulwaree LGA being one of them.

The NSW Government's vision for the South East and Tablelands is a borderless region in Australia's most geographically diverse natural environment with the nation's capital at its heart. Creating a borderless region will allow residents from both NSW and the ACT better access to important services and infrastructure. The NSW Government has identified Goulburn Enterprise Corridors offer well located opportunities. To achieve this vision, the economy and employment are a key focus.

Once operational, the project has the potential to unlock market interest in the locality, attract autonomous investment and other related business thereby having the potential to create business and employment opportunities, thus helping the NSW Government to meet its policy objectives.

7.4.8 Social Impact Assessment

The impacts are grouped into three areas: construction, operational and opportunity. This model focuses on who is responsible for the impact and helps clarify how each impact should be managed.

Construction – direct impacts during construction include dust and noise. These are the responsibility of the developer or applicant.

Operational – these are more complex, indirect impacts of the proposal that relate to a range of stakeholders including neighbours (directly impacted) and the broader community. The service provider of the facility manages operational impacts.

Opportunity – opportunities are positive, for example creating jobs for local people or social investment in the community through sponsorship of local sporting groups. While not a 'must-do', they are recommended because they deliver benefits for the community and contribute to a Social Licence to Operate.

Opportunities are designed so that they can be monitored and implemented effectively. Further, the affected communities can be involved in the delivery of positive social impacts.

Each potential positive and negative impact is assessed in terms of the following:

- when the potential social impact is expected to occur (during construction or operation);
- the potential level of risk of the potential social impact considering consequence and the likelihood;
- who may be affected (groups, communities);
- potential mitigation measures to minimise or limit the impact; and
- opportunities to deliver additional benefits to the community.

The social impact has been measured and assessed by using a risk-based approach based on the extent, duration, severity, and probability of the impact occurring (see Table 101). This allows the overall significance of low, medium, high or very high to be attributed to the impact.

Impact Assessment Matrix

Consequence = Extent + Duration + Severity
Overall Significance = Consequence x Probability

Table 101 – Impact Assessment Matrix

Extent		**Duration**	
5	International scale	5	Permanent / irreversible
4	National scale	4	Long-term – decommissioning (25-50 years)
3	Regional scale (outside LGA)	3	Medium-term – through operations (5-25 years)
2	Areas adjacent to project	2	Short-medium term – construction and operations (1-5 years)
1	Site-specific	1	Short term – construction (less than 1 year)
Severity			
5	- Irreparable damage to/destruction of highly valued items of great social significance or catastrophic + Positive and enduring impact on community, cultural or social environment		
4	- Serious social issues or loss of function + High/significant improvement to quality of life or in community, cultural or social environment		
3	- Moderate social issues or altered social environment but continues to function + Moderate improvement to quality of life or community, cultural or social environment		
2	- Minor changes to social environment that can be changed over time + Minor improvement to quality of life or community, cultural or social environment		
1	- Minor nuisance or negligible impacts on community + Minor or negligible improvement to quality of life or community, cultural or social environment		
Probability			
5	Almost certain (> 90 %)		
4	Probably (50 – 90 %)		
3	Possible (10 – 50 %)		
2	Unlikely (<10 %)		
1	Impossible		

Overall Significance	**Positive**	**Negative**
76 +	Very high (+)	Very high (-)
51 - 75	High (+)	High (-)
26 - 50	Medium (+)	Medium (-)
0 -25	Low (+)	Low (-)

Using this methodology, the list of potential impacts can be evaluated and prioritise the mitigation and enhancement measures. The approach has looked at potential impacts during construction, operational and decommissioning stages. The evaluation has also considered:

- affected stakeholder / group,
- type of impact (positive, neutral, negative),
- consequence,
- probability, and
- mitigation and engagement activities.

The impact assessment is presented in Table 102.

Table 102 – Impact Assessment

Stage	Impact	Extent	Duration	Severity	Consequence	Probability	Overall Significance
Construction	Noise and vibration	2	1	2	5	4	20 (-)
Construction	Air quality, odour and dust	2	1	1	4	4	16 (-)
Construction	Transport and road traffic	2	1	3	6	4	24 (-)
Construction	Land use - biodiversity	1	2	2	5	3	15 (-)
Construction	Aboriginal and cultural heritage	1	2	3	6	3	18 (-)
Construction	Local supply and business opportunities	3	4	1	8	4	32 (+)
Construction	Water infrastructure	1	1	1	3	3	9 (-)
Operation	Visual	2	4	2	8	4	32 (-)
Operation	Transport and road traffic	3	4	3	10	4	40 (-)
Operation	Noise	2	4	2	8	4	32 (-)
Operation	Employment opportunities	3	4	4	11	5	55 (+)
Operation	Biosecurity/ livestock welfare	4	4	4	12	3	36 (-)
Operation	Waste and wastewater management	2	4	2	8	3	24 (-)
Operation	Water flows/usage	3	4	3	10	3	30 (-)
Operation	Decreased property value	2	2	3	7	2	14 (-)

7.4.9 Conclusion

This social assessment has identified that both positive and negative impacts could result from the construction and operation of the project, with eight low impacts (negative), six medium impacts (5 negative, 1 positive) and one high positive impact.

Potential positive impacts

Key positive impacts during construction and operation of the facility include:

- job opportunities through construction. Jobs will be both skilled and non-skilled providing options for local residents;
- the potential for increased local and regional business opportunities supplying the operation of the facility;
- long-term increase in jobs through operation; and
- act as a catalyst for business investment in the area, a key priority of Council in attracting further economic and business opportunities within the precinct.

Potential negative impacts

Key negative impacts during construction and operation of the facility include:

- short-term noise and vibration through construction. This could be managed by appropriate management plans;
- potential for temporary disruptions to traffic and access during construction. This could be managed by appropriate traffic management plans;
- increased traffic accessing Common and Sinclair Streets. Traffic modelling indicates the existing road network is adequate to accommodate any increase in traffic movements; and
- amenity impacts on nearby sensitive receivers.

Management of potential impacts

Management measures will be put in place to reduce and/or eliminate potential impacts as well as capitalising on positive opportunities. An outline of all proposed mitigation measures has been discussed in Section 9 of this EIS and discussed in the Social Impact Assessment provided at Appendix K. Further consultation maybe conducted through the detailed design of the project.

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8 Environmental Risk Assessment

8.1 Methodology

To evaluate the risk to the environment created by the proposed expansion, an Environmental Risk Assessment (ERA) has been conducted assessing the risks identified throughout the Environmental Assessment (see Table 21). Mitigation measures currently implemented or proposed to be implemented to control risks will be considered with residual risks assessed. Table 103 provides the risk rating matrix.

The ERA has been conducted in accordance with the methodology outlined in Standards Australia's HB 203:2006 Environmental Risk Management – Principles and Process, Australian Standard AS/NZ 4360:2004 Risk Management, and AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines.

In addition, LUCRA Risk Ranking numbers have been included to their corresponding risk level.

Table 103 – Risk Rating Matrix

	Consequence				
Probability	**A – Not Significant**	**B - Minor**	**C- Moderate**	**D - Major**	**E - Severe**
5 – Almost Certain	**Medium (15)**	**19**	**22**	**24**	**High (25)**
4 – Likely	**10**	**14**	**18**	**21**	**23**
3 – Possible	**6**	**9**	**13**	**17**	**20**
2 – Improbable	**3**	**5**	**8**	**12**	**16**
1 - Rare	**Low (1)**	**2**	**4**	**7**	**11**

8.2 Assessed Environmental Risk

Table 104 provides an assessment of the risks associated with the proposed expansion with a rating and discussion on predicted impacts.

Table 104 – Environmental Risk Assessment

Risk Description	Consequence	Probability	Risk Rating	Predicted Impacts
Surface Water				
Construction impacts flows and/or quality of ground and surface water.	B	3	Low (9)	Impacts on water flows will be controlled during construction with the implementation of appropriate mitigation measures and construction management plan.
Operation impacts flows and/or quality of ground and surface water.	B	3	Low (9)	The development will implement water controls which effectively reduce sediment and reduces excessive stormwater flows. The water management system has been described in Section 6.6.

Air Quality				
Dust levels exceed criteria at sensitive receptors	C	1	Low (4)	Due to the nature of the site a low amount of particulate matter will be generated by the operation. Cleaning of trucks is to occur within the Bird Reception area and no activities generate dust.
Odour is detected at sensitive receptors	A	2	Low (3)	Odour emissions are managed through sealed systems and internal processing. Emissions are predicted to be below the relevant criteria as discussed at Section 6.2 and demonstrated by the Air and Odour Report at Appendix C.
Significant GHG emissions generated	A	3	Low (6)	The operational GHG emissions are considered to be low.
Noise				
Noise level exceeds noise criteria at sensitive receptor	B	3	Low (9)	The noise impact assessment discussed at Section 6.1 and at Appendix F demonstrates that operational noise will be below relevant criteria at sensitive receivers.
Noise levels from road transport exceeds noise criterial at sensitive receptor	B	3	Low (9)	The noise impact assessment discussed at Section 6.1 and at Appendix F demonstrates that transport noise will be below relevant criteria at sensitive receivers.
Ecology				
Direct impacts such as loss of native vegetation and fauna habitat	A	1	Low (1)	The existing vegetation in the north west corner of the site is proposed to be protected. Non-native trees are proposed to be removed and enhancement of the vegetation section proposed.
Heritage				
Disturbance of areas or sites of Aboriginal cultural heritage significance.	C	1	Low (4)	The site has previously been disturbed through clearing of vegetation and development for the previous subdivision works.
Potential to disturb areas of historic (non-Aboriginal) significance	C	1	Low (4)	No listed heritage items are located in the vicinity of the site.
Traffic and Transport				
Traffic volumes exceed the capacity of local roads and intersections.	B	2	Low (5)	As demonstrated within the traffic impact assessment at Appendix D and discussed at Section 6.5 the traffic generated is not predicted to exceed the capacity of the existing

				intersections leading to and from the proposed development.
Traffic volumes exceed the capacity of regional roads and intersections.	A	1	Low (1)	Vehicle movements generated by the proposal are not predicted to impact the capacity on regional roads and intersections.
Visual Amenity				
Local visual amenity is significantly impacted	A	5	Medium (15)	Views from Common Street, Chiswick Street, and Long Street have a high visual impact when looking towards the site. View from the Rocky Hill War Memorial is considered to have a moderate impact. Further discussion on visual impact and mitigation measures provided at Section 9 and Appendix H.
Soils and Contamination				
Disturbance of existing contamination	C	1	Low (4)	As discussed at Section 6.7 and provided within the contamination report at Appendix E the site is not considered to be contamination in its predevelopment state.
Contamination of soil	C	2	Low (8)	The operation is proposed to be located on a hardstand area effectively preventing contamination of the soil. The proposed development achieves a beneficial impact on stormwater leaving the site.
Waste Management				
Inappropriate storage and/or disposal of waste Materials generated by the operation	B	2	Low (5)	Waste will be managed in an appropriate manner with a large portion of process waste directed to a dedicated rendering operation and general waste directed to appropriate waste areas.
Chemicals				
Inappropriate storage and use of chemicals, or inappropriate management and disposal of chemical containers	D	1	Low (7)	Dedicated storage vessels are to be installed for bulk quantities of chemicals. All small quantities are to be stored in dedicated bunded areas for safe use.

Animal Welfare and Biosecurity				
Biosecurity compromised leading to spread of disease	D	1	Low (7)	All vehicle routes to and from the site avoid proximity to other poultry industry establishments. Operational procedures to ensure biosecurity is maintained provided at Section 6.8.2.
Welfare for animals compromised	B	2	Low (5)	The bird shed implements axial fans to assist in the maintenance of bird wellbeing. Operational procedures to ensure animal welfare is maintained described in Section 6.8.1.
Community				
Disruption to the community during construction	B	3	Low (9)	The proposed construction works are minor in nature and are unlikely to impact the community during the works with appropriate procedures in place.
Disruption to the community during operation.	C	2	Low (8)	Odour and noise impacts generated by the development are projected to be within relevant guideline limits.

9 Management and Mitigation Measures

In accordance with the requirements of Section 7 of Schedule 2 of the Regulation 2000 this section of the EIS addresses the likely impacts of the proposed development on the environment and the measures proposed to mitigate any adverse impacts.

As detailed in this EIS various mitigation measures have been incorporated in the design of the project. These mitigation measures have been included in the assessment of environmental impacts and are required to comply with relevant environmental standards. Table 105 provides a list of mitigation measures which will be implemented on the site whilst Table 105 provides proposed monitoring measures to be implemented.

Table 105 – Mitigation Measures

Key Issue	Mitigation Measure

Water Management	The existing stormwater system is proposed to be enhanced to manage new development on the site. The following is to be implemented:
	
	• 50kL tank to service the cold storage and office buildings;
	• 35kl proposed for the childcare centre;
	• 800kL tank proposed to service the poultry processing building;
	• Replacement of existing basin with:
	  ○ A minimum 1,000m^2 area of biofiltration media in the base at an RL of 651.70.
	  ○ A low flow outlet pipe with 300mm diameter orifice and inlet at RL651.80.
	  ○ A 1.5m wide weir overflow at RL 652.40.
	• Stormwater treatment devices including gross pollutant traps, pit inserts, and storm filters;
	• first flush tank be provided that collects a minimum of the first 1.0mm of the storm event runoff;
	• SPEL Stormsacks (or approved equivalent) be installed in all surface inlet pits;
	• Prompt upkeep of sealed operational surfaces, stormwater systems, and biofiltration basin as required.
	
	An OEMP will be developed and will detail management procedures, a maintenance and cleaning schedule to ensure system devices are regularly cleaned, and spill management procedures for a range of liquids.

Air Quality	The following mitigation measures have been endorsed by SLR Consulting discussed in Section 6.2 with report reproduced at Appendix C. All mitigation measures listed below are to be undertaken to ensure air quality and odour impacts are appropriately managed. Engineered Solutions: • Installation of minimum 590m^2 biofilter with a throughput of 150 tonnes per day installed to the byproducts processing facility; and • Ongoing maintenance of the biofilter is required to ensure emissions standards and odour criteria are maintained. Operations: • Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.

	• Make the complaints log available to the local authority when asked. • Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the logbook. • Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible. • Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period. • Keep site fencing, barriers and scaffolding clean using wet methods. • Cover, seed or fence stockpiles to prevent wind erosion • Ensure all on-road vehicles comply with relevant vehicle emission standards, where applicable • Ensure all vehicles switch off engines when stationary - no idling vehicles • Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable • Ensure an adequate water supply on the site for effective dust/particulate matter suppression/ mitigation, using non-potable water where possible and appropriate • Use enclosed chutes and conveyors and covered skips • Minimise drop heights from loading shovels and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate • Avoid bonfires and burning of waste materials. • Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust). • Ensure effective water suppression is used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground. • Use water-assisted dust sweeper(s) on the access and local roads to remove, as necessary, any material tracked out of the site. • Avoid dry sweeping of large areas. • Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport. • Record all inspections of haul routes and any subsequent action in a site logbook. • Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable). Construction • Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable • Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable • Only remove the cover in small areas during work and not all at once • Avoid scabbling (roughening of concrete surfaces) if possible • Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place. • Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.

	• For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust Monitoring: • Perform daily on-site and off-site inspections where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary. • Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked. • Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
Noise	The noise impact assessment undertaken by MAC (see Appendix F) and mitigation measures proposed therein serve to mitigate against noise impacts on the surrounding environment. Noise levels generated by the site are managed through the following: • Maintenance facility will operate during daytime hours only; • The DAF building and by-products building have a tilt slab construction of minimum 100mm thick concrete or equivalent; • The poultry product conveyor linking the processing facility and cold storage will be fully enclosed with minimum 0.7mm steel plating or equivalent; • Construction of an impervious barrier along the southern side of the car park access road. The fence is assumed to be constructed to an RL of 3m above the relative ground level and consist of materials with a surface density of at least 10kg/m^2, and not contain any gaps (i.e. lapped and capped timber or equivalent); • Construction of a 3.5m high impervious barrier along the south/west side of the live bird shed access road and consist of materials similar to those prescribed above; • Construction of impervious barriers surrounding the condenser units. The barriers are to be constructed to an RL of 3m above the relative level of the units and consist of materials similar to those prescribed above; and • Childcare centre and corporate office rooftop mechanical plant is to be enclosed by noise barriers that extend 600mm above the top of plant and consist of materials similar to those prescribed above. Construction noise is to be managed through the below procedures: • Toolbox and induction of personnel prior to shift to discuss noise control measures that may be implemented to reduce noise emissions to the community; • Implement any boundary fences/retaining walls as early as possible to maximise their attenuation benefits; • Where possible use mobile screens or construction hoarding to act as barriers between construction works and receivers; • All plant should be shut down when not in use. Plant to be parked/started at farthest point from relevant assessment locations; • Operating plant in a conservative manner (no over-revving); • Selection of the quietest suitable machinery available for each activity;

	• Avoidance of noisy plant/machinery working simultaneously where practicable; • Minimisation of metallic impact noise; • All plant is to utilise a broadband reverse alarm in lieu of the traditional hi frequency type reverse alarm; and • Undertake letter box drops to notify receivers of potential works.
Traffic and Transport	A construction traffic management plan will be prepared and implemented prior to the commencement of work, taking into consideration the conditions of consent. Approximately 341 car parks will be provided on site. Car parking areas will have appropriate dimensions to accommodate the required number and size of the vehicles using the carpark. The site access, internal circulation roads and truck manoeuvring areas will be provided in accordance with the relevant standards, to accommodate cars, 19 metre semi-trailers and 26 metre b-doubles. The design of the development provides for service vehicles to enter and exit the site in a forward direction.
Ecology	The following general recommendations are made for consideration to minimise localised impacts on biodiversity in general as a result of the development of the site: • Vegetation to be retained should be identified and fenced off prior to any development works taking place in adjacent areas. When protecting trees, preference should be given to large healthy trees with habitat features including hollows; • Vegetation to be retained should be considered in landscape management to maintain the rural character of the area, particularly in such a way as enhances its amenity and biodiversity values; • Clearing of any vegetation on site should be undertaken from the roadside towards vegetation retained offsite, to ensure impacts on native fauna are minimised as far as practical. Where trees are removed, preference for retention should be given to habitat trees; • Site hygiene practices should be implemented during the development phase to avoid the spread of pathogens, including chytrid, Phytophthora and myrtle rust, as well as spread of weed seed; and • Best practice erosion and sedimentation controls should be put in place to limit offsite movement of materials into the surrounding areas. In addition to the mitigation measures provided above, it is proposed that supplementary tree planting will be undertaken to the area of remnant woodland in the north western portion of the site using species consistent with the identified vegetation type. In doing so, the quality of the habitat in this area will be improved.
Visual Amenity	The following mitigation measures are to be implemented to mitigate potential visual impacts of development of the site. **Visual Character** • The site and immediate surrounds contain a number of mature trees that provide visual screening. Most of the trees that screen the site are on private lots adjacent to the subject site and therefore will remain in place. The proposed development will necessarily remove some trees from the

	site. These trees should be replaced with trees that will offer some canopy cover to continue the visual character across the site. • Trees planted within the site (parking areas and open space) and along the boundaries should be selected for their canopy size and ability to blend into the existing trees. **Built Form, Materials and Colours** • Building height should not overwhelm the tree sizes so that the tree canopy cover remains visible to allow the canopy to soften the appearance of development. • Building height should be limited to ensure the roof lines do not rise above the adjacent ridge line to dominate the skyline. • Materials, textures and colour selection are to relate to the natural palette of the surrounding environmental in areas of high visibility and potential for visual impact. • Bright and contrasting colours should be no more than 10% of the facade of a building. • Rooftops should utilise non-reflective colours and materials. • Lighting: – Lighting treatments are to be sensibly designed to minimise light spill in areas such as street lighting and floodlighting outdoor spaces. – Lighting to be directed toward the ground to limit visibility. – Adopt a "dark sky" approach to private garden lighting by directing the lighting in parking areas and streets toward the ground and limiting light spill.
Waste Management	As discussed within Section 6.4, a range of waste management procedures are implemented by the operation including the following: • The rooms are to be regularly maintained. The floor is to be graded so that any water used for cleaning is directed to a sewer authority-approved drainage connection located on-site; • Waste and recycling bins are to be cleaned in an area draining to a sewer authority-approved drainage connection; • General and recycling waste bins are to be checked frequently. If the bins are reaching capacity, removal and replacement will be arranged; • Space will be provided at the Development for the storage of large and/or bulky items and hazardous wastes that cannot be disposed of in the general waste or recyclable streams; and • Empty chemical containers will be returned to the local supply company for reuse, recycling or appropriate disposal.
Soils and Contamination	During construction works, an unexpected finds protocol is to be implemented. Operations on the site will be undertaken on hardstand providing an effective barrier to contamination reaching the natural ground. Wastewater is directed to the site's wastewater treatment plant where water is cleaned and directed to sewer. To ensure the site's soil remain contaminant free, the following management procedures are to be undertaken: Controls: • Use of filters on stormwater drains; • Washdown heavy vehicles;

	• Appropriate storage bins for waste provided; • Development and routine updating of management plans; • Routine inspection, maintenance, and cleaning of hardstand area; • Maintenance and efficiency checks of water management system; and • Adoption of best practice operational procedures; • Implementation of a maintenance schedule; and • Routine training and reinforcement of correct procedures.
Hazard Management	The following hazard management measures are to be implemented on the site: Physical Controls: • Separation of processes through site/building design; • Implementation of fire management system; • Any hazardous components are to be enclosed (e.g.) bunded chemical storage; • External chemical storage tanks to implement fire resistant design features and materials in accordance with the BCA. Procedural Controls: • routine updating of management plans; • Implementation of a pollution incident response management plan; • Adoption of best practice operational procedures; • Implementation of a maintenance schedule; and • Routine training and reinforcement of correct handling, pollution incident, and fire management procedures.
Socio-economic	Woodlands Ridge Poultry's approach to employment will adopt the following principles: • A preference for local employment wherever possible; and • Encourage local contractors to tender for work, both during the construction and operations phases. Selection of suppliers will be based on merit, assessed capability and competitive dynamics.
Community	Develop and implement a stakeholder communications plan that includes community engagement before work commences on site. Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager. Display the head or regional office contact information.
Aboriginal Heritage	The following mitigation measures which include both physical and management measures are to be implemented on the site: • The location of all Aboriginal sites that lie outside areas of impact should be clearly marked on all relevant maps and plans to be used on-site and in planning, and physical access controls installed where possible during construction to ensure that no inadvertent impacts occur to these sites. • Information in this report relating to the exact location of Aboriginal sites should not be published or promoted in the public domain. • Archaeological subsurface testing should be undertaken at Aboriginal site surface artefact scatter area and Potential Archaeological Deposit site, following the Code of practice for Archaeological Investigation of Aboriginal

	Objects in New South Wales (2010). A notification period, to OEH, of 2 weeks prior to commencement of works is a required. • Approval for an AHIP should be sought and obtained prior to the commencement of the proposed works. The AHIP should cover all areas of ground surface impact, as well as any further surface collection or subsurface excavation required within the project area. • All artefacts recovered during the archaeological testing program, and any surface collection, would be returned to the study area in accordance with 'return to country' Requirement 26 of the Code of Practice, and would be placed in a suitable location identified in consultation with Aboriginal Representatives. The protocols for the unanticipated discovery of archaeological material and suspected human remains would be adopted and complied with during construction activities involving ground surface disturbance and excavation
Earthworks	During earthworks the following erosion and sediment controls are to be utilised: • Priority shall be given to the prevention, or at least the minimisation, of soil erosion, rather than the trapping of displaced sediment. such a clause shall not reduce the responsibility to apply and maintain, at all times, all necessary esc measures; • Measures used to control wind erosion shall be appropriate for the location and prevent soil erosion at all times, including working hours, out of hours, weekends, public holidays, and during any other shutdown periods; • The application of liquid or chemical-based dust suppression measures shall ensure that sediment-laden runoff resulting from such measures does not create a traffic or environmental hazard; • All cut and fill earth batters less than 3m in elevation shall be topsoiled, and grass seeded/ hydromulched within 10 days of completion of grading in consultation with Council; • Once cut/fill operations have been finalised in a section, all disturbed areas that are not being worked on shall be stabilised in accordance with timelines in the blue book; • All reasonable and practicable measures shall be taken to prevent, or at least minimise, the release of sediment from the site; • Suitable all-weather maintenance access shall be provided to all sediment control devices; • Sediment control devices, other than sediment basins, shall be de-silted and made fully operational as soon as reasonable and practicable after a sediment-producing event, whether natural or artificial, if the device's sediment retention capacity falls below 75% of its design retention capacity; • All erosion and sediment control measures, including drainage control measures, shall be maintained in proper working order at all times during their operational lives; • Washing/flushing of sealed roadways shall only occur where sweeping has failed to remove sufficient sediment and there is a compelling need to remove the remaining sediment (e.g. for safety reasons). In such circumstances, all reasonable and practicable sediment control measures shall be used to prevent, or at least minimise, the release of sediment into receiving waters. only those measures that will not cause safety and property flooding issues shall be employed. Sediment removed from roadways shall be disposed of in a lawful manner that does not cause ongoing soil erosion or environmental harm; and • Sediment removed from sediment traps and places of sediment deposition shall be disposed of in a lawful manner that does not cause ongoing soil erosion or environmental harm.

	Proposed layout of erosion and sediment control devices such as swales and sediment control fences are provided within the erosion and sediment control plan provided at Appendix B.

To ensure the proposed operation and mitigation measures continue to be effective in controlling potential impacts, a regime of monitoring is required. Table 106 provides a list of monitoring measures which will be implemented on the site.

Table 106 – Monitoring Measures

Key Issue	Monitoring
Soil and Water	**Soil** Monitoring of environmental practices would be undertaken across the site through regular site inspections. **Stormwater** Routine monitoring of various effluent parameters, including DO, TSS, ammonia, nitrate/nitrite. Monitoring is to ensure that stormwater detained in the stormwater basin would be of sufficient quality in accordance with the stormwater management plan.
Waste and Wastewater	**Wastewater** Online monitoring would be carried out of various effluent parameters, including (but not limited to) DO, TSS, ORP, ammonia, nitrate/nitrite analysers. Real time monitoring of these parameters at key process units would ensure that all wastewater discharged to sewer would be of sufficient quality in accordance with Council trade waste requirements. If wastewater does not meet criteria, the water is to be recirculated to ensure quality prior to discharge. **Waste** Waste generated by the poultry processing facility and associated wastewater is to be classified in accordance with EPA guidelines prior to dispatch to licenced waste management facility.
Air Quality	**Odour** An effective complaints logging system would be maintained to monitor complaints, to effectively manage any requests for information or respond to any public concerns in relation to the Project throughout the construction phase, and to ensure identified incidents are dealt with through investigation and implementation of corrective treatments. **Dust – Construction Phase** • Perform daily on-site and off-site inspections where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary.

	• Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked. • Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
Noise	Noise and/or vibration monitoring would be undertaken in response to community complaints in accordance with procedures outlined in the NSW Industrial Noise Policy and Industrial Noise Policy Application Notes. Complaints would be investigated and recorded in the site complaints/incidents register, along with any actions taken in response to the investigation.

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10 Ecologically Sustainable Development

The proposed expansion is compliant with the principles of Ecologically Sustainable Development (ESD) defined within Schedule 2 Clause 7(4) of the EP&A Regulation 2000. The principles of ecologically sustainable development include:

(1) The principles of ecologically sustainable development are as follows:
- *(a) the precautionary principle, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*
  - *(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
  - *(ii) an assessment of the risk-weighted consequences of various options,*
- *(b) inter-generational equity, namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,*
- *(c) conservation of biological diversity and ecological integrity, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,*
- *(d) improved valuation, pricing and incentive mechanisms, namely, that environmental factors should be included in the valuation of assets and services, such as:*
  - *(i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
  - *(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
  - *(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.*

10.1 Precautionary Principle

In order to prevent serious and irreversible environmental damage, the precautionary principle requires applicants to undertake an environmental assessment to demonstrate the proposal has been designed to avoid serious and irreversible environmental damage. To ensure compliance with the principle, this EIS is supported by a number of specialist studies which provide accurate modelling and information which allow for full and effective evaluation of the proposal. Furthermore, an ERA has been conducted utilising the findings of all specialist studies, see Section 8. This risk assessment found the proposal to effectively minimise risk successfully avoiding serious and irreversible environmental damage.

If any uncertainty was encountered, specialists were advised to utilise the worst case scenario in their modelling and assessments. In addition to the existing mitigation measures implemented on the site, all mitigation measures recommended within the specialist studies will be implemented.

With the implementation of the mitigation measures, the ERA found that there would not be serious or irreversible environmental damage.

10.2 Inter-Generational Equity

The proposed operation aims to provide a range of land uses on a single site. This diversity will allow for a range of employment opportunities for a range of people including differing education levels. The increase in demand for poultry products builds in a level of resilience against risk for the poultry processing facility ensuring long term employment opportunities are available along with long term employment generation. While the cold storage distribution centre will assist with the poultry processing facility, it is structured to support third party operations which improves viability of not only the site but for these third party businesses. The childcare centre serves to support employees on the site and the broader Goulburn community by providing greater child care opportunities within Goulburn which conveniently located. The childcare centre also enhances the

diversity of employment opportunities generated by the site and with its location will generally have long term support by the larger poultry processing facility and cold storage distribution centre.

By leveraging the multiuse nature of the proposed development to strengthen the long term viability of the operations on the site ensures inter-generational access to a range of employment opportunities and professions on the site.

10.3 Conservation of Biological Diversity and Ecological Integrity

The site has previously been developed with minimal landscaping on the site with a small area of trees located to the north west corner of the site. The design of the proposed development avoids this area to preserve the existing landscape. In addition, as part of the landscape plan provided at Appendix L it is proposed to rehabilitate the area to ensure long term viability of the trees. Based on ecological surveys the site has minimal ecological significance with no noted threatened species or communities identified.

As a result, biological diversity and ecological integrity will not be impacted by the proposed expansion.

10.4 Improved Valuation, Pricing, and Incentive Mechanisms

While this principle is targeted towards policy which establishes ESD mechanisms, the proposed development will contribute to those policies implemented by NSW Stage Government agencies such as the NSW EPA and DPE.

As discussed within Section 1.6 and 1.7 WRP aims to provide land uses which meet the needs of the community by providing a high quality and modern poultry processing facility with a cold storage distribution centre in a location which is highly accessible to employees and provides a childcare centre which ensures adequate availability of child care options. This connection reduces travel distances which in turn reduces impact on roadways and GHG emissions.

In doing so, WRP will contribute to the success of these policies by improving employment opportunities and reduced transportation cost.

By supporting state policy, the proposed expansion is considered to be consistent with the principle for improved valuation, pricing, and incentive mechanisms.

11 Conclusion

The proposed development represents an exciting opportunity for Goulburn as it will deliver a range of benefits including the establishment of a broader poultry industry in the Goulburn region, improving outcomes for the Common Street portion of the North East Goulburn Enterprise Corridor, providing employment opportunities for a wide range of skills, and encouraging regional development.

The proposed development aims to meet the consumption demand for poultry products in NSW, Australia, and internationally. To achieve this, the proposed development has been strategically located in an area of that has a level of established poultry growing and hatching operations and also has good connections to both the Canberra Airport and the future Western Sydney Airport.

Potential impacts of the proposed development have been carefully considered in the evolution of the design for the site, which presents no significant adverse environmental impacts. The operation seeks to minimise impacts on the surrounding environment through the implementation of mitigation measures and management procedures. As a result, all the specialist investigations have demonstrated that the proposed development is consistent with relevant guidelines and criteria. The proposed development is generally compliant with applicable planning controls and instruments as demonstrated throughout this EIS.

The proposed development is consistent with the desired character and outcomes for the enterprise corridor and the Tablelands region. It aims to produce high quality and cost effective produce for the domestic and international markets.

Given the appropriateness of the site for the proposed development, its consistency with relevant government strategies, and the absence of any significant adverse environmental impacts, the proposed development is considered to be in the public interest and worthy of support.

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Appendix A – Architectural Drawings

Wiley

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Appendix B – Civil Engineering Plans and Stormwater Report

DRB Consulting Engineers

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Appendix C – Air Quality Impact Assessment

SLR Consulting

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Appendix D – Traffic Impact Assessment

Colston Budd Rogers & Kafes Pty Ltd

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Appendix E – Contamination Assessment

EP Risk

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Appendix F – Noise Impact Assessment

Muller Acoustic Consulting

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Appendix G – Ecological Assessment Report

Anderson Environment and Planning

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Appendix H – Visual Impact Assessment

Mara Consulting

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Appendix I – SEPP 33 Risk Screening Document

Hazkem Pty Ltd

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Appendix J – Bushfire Threat Assessment

Anderson Environment and Planning

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Appendix K – Community Consultation and Social Impact

Mara Consulting

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Appendix L – Landscaping Plans

Mara Consulting

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Appendix M – Waste Management Plan

SLR Consulting

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Appendix N – Capital Investment Value Report

Turner & Townsend

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Appendix R – Permissibility Letter

KDC Pty Ltd

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