

**Town of Gawler
Council Assessment Panel**

ATTACHMENTS UNDER SEPARATE COVER

Monday 26 March 2018

Item		Page No
5.2	Development Application: 490/381/2017	85
	Applicant: PSA CONSULTING (AUSTRALIA) PTY LTD	
	Address: Section 1, Lot 2 Adam Street, Willaston	
	Nature of Development: Extension to existing chicken hatchery (intensive animal keeping), associated earthworks, internal alterations to existing building, construction of plant room, construction of loading bay, construction of retaining walls (2.2m max.), associated landscaping and relocation of shed and workshop (Non-complying).	
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Development Application Form

Gawler

Completing this application

- All sections must be completed. Failure to complete all sections may result in delays or the inability to process your application.
- If hand written please print clearly using BLOCK LETTERS and place a TICK in appropriate boxes

Section 1 – Correspondence Method (Planning and Building)

By selecting "I Accept" below, you agree (as the Applicant, the Owner, and/or the Authorised Agent) to be legally bound by the terms and conditions of this service and that you consent all correspondence relevant to this application or which is otherwise required to be provided to you under the Development Act 1993 and including Decision Notification Forms, stamped plans and relevant documents being provided to you in **Electronic Format Only**. Please tick **only** one of the following boxes.

 I Accept

OR If you **do not** wish to correspond electronically, 3 complete sets of hardcopy documents will be required

 I choose only to receive general assessment correspondence via email but to receive stamped Plans and Decision Notification Forms by hardcopy mail.

Send to the following e-mail address

Section 2 – Consent Sought

Select **one** type of consent you wish to apply for:

 Development Plan Consent
(Planning Only)

 Building Rules Consent
(Building Only)

 Development Approval
(Planning & Building)

i If unsure of what type of consent is needed telephone Customer Service on 8522 9211

Section 3 – Location of Proposed Development

(This section must be completed)

<input type="text"/>	OR	<input type="text" value="2/DP50460"/>	<input type="text" value="CT5602"/>	/	<input type="text" value="273"/>
<small>HOUSE NUMBER</small>		<small>LOT NUMBER</small>	<small>CT VOLUME</small>		<small>CT FOLIO</small>
<input type="text" value="Adams Street"/>		<input type="text" value="Willaston"/>			<input type="text" value="5118"/>
<small>STREET</small>		<small>SUBURB</small>			<small>POSTCODE</small>

Section 4 – Applicant Details

i Please note all correspondence will be sent to the Applicant (This section must be completed)

Name	<input type="text" value="BPL Livestock Pty Ltd"/>		
	<small>GIVEN NAMES, SURNAME</small>		
Postal Address	<input type="text" value="c/o - PSA Consulting, PO Box 10824, Adelaide St Brisbane, QLD, 4000"/>		
	<small>No., STREET, SUBURB, STATE, POSTCODE</small>		
Email	<input type="text" value="[REDACTED]"/>	Phone	<input type="text" value="[REDACTED]"/>

Section 5 – Owners Details of the Subject Land

i If same as Applicant, leave blank and move to Section 6.

Name	<input type="text" value="BPL Livestock Pty Ltd"/>		
	<small>GIVEN NAMES, SURNAME</small>		
Postal Address	<input type="text" value="PO Box 21, Pendle Hill, NSW, 2145"/>		
	<small>No., STREET, SUBURB, STATE, POSTCODE</small>		
Email	<input type="text" value="[REDACTED]"/>	Phone	<input type="text" value="[REDACTED]"/>

Section 6 – Contact for Further Information

i Please note this section is to be **completed** if contact person is not the Applicant

Name	<input type="text" value="David Ireland"/>		
	<small>GIVEN NAMES, SURNAME</small>		
Email	<input type="text" value="[REDACTED]"/>	Phone	<input type="text" value="[REDACTED]"/>

Section 7 – Builders Details

① This Section **must be completed** by the Applicant if applying for Building and Development Approval

Owner Builder

OR

Builders Name

Phone

Postal Address

No., STREET, SUBURB, STATE, POSTCODE

Email

Lic. No.

Section 8 – Description of Development & Associated Detail

Description of Development (for example single storey detached dwelling, domestic garage, warehouse with office, tree removal)

Extension to Poultry Hatchery

Existing site use (If Known)

Poultry Hatchery

Does the proposal affect a regulated or significant tree?

Yes No

Note: A regulated or significant tree may be on the adjoining land that may be affected (including damage to tree roots) by the proposed development.

① If unsure what a regulated or significant tree is refer *Fact Sheet "Removal/Pruning a Tree on My property"* - this can be accessed via Councils' website: www.gawler.sa.gov.au/planning-information-sheets

Is there a brush fence within 3 metres of the proposed building work?

Yes No

Are there any easements on the Land?

Yes No

Is the site connected to Sewer (SA Water)?

Yes No Septic System

Section 9 – Costing and Floor Area

① Council may require written justification to verify costs (This section must be completed)

Estimated total cost of Proposal: \$2,000,000

Estimated floor area of work: 1979

m²

① Development Cost does not include fit out cost

Please note that works valued over \$15,000 require CITB Levy to be paid and the receipt must be presented to Council.

Section 10 – Declaration

Powerline Clearance

I, being the applicant for the development described herein, declare that the proposed development will involve the construction of a building which would, if constructed in accordance with the plans submitted, not be contrary to the regulations prescribed for the purposes of Section 86 of the *Electricity Act 1996*. I make this declaration under clause 2A (1) of Schedule 5 of the *Development Regulations 2008*.

Yes, I acknowledge to comply with the relevant sections of the Act

A *Building Safely Near Powerlines* brochure has been prepared by the Technical Regulator to assist applicants and other interested persons. Hard copies are available from Council and the Office of the Technical Regulator. The brochure and other relevant information can also be found at www.technicalregulator.sa.gov.au.

Submission of Documents

I acknowledge that Council **will not accept my application** unless the following has been supplied:

Application Fees Paid (or credit card details provided) Site Plan Floor Plan Elevation Details (if a structure is proposed)

Technical Drawings (if Building Rules Consent sought) Certificate of Title (less than 12 months old) or Title Search Fee Paid

Display of Documentation

I declare the information that I have provided on this application form is correct to the best of my knowledge and that I have the authority of any copyright holder for the public display and copying of any material lodged. I acknowledge that copies of this application and supporting documentation may be provided to interested persons in accordance with the *Development Regulations 2008* and may be made available on Council's website for public comment and as an attachment to a report item in the Agenda of Council's Development Assessment Panel.

If you have any concerns over the confidentiality or security content of such documents or information, you should discuss these with a member of Council's planning staff prior to lodging. If another person claims copyright in any material you lodge, you must obtain and provide to Council the express authority of that person for the display and copying of that material.

SIGNATURE:

DATE: 27.06.17

Applicant

Owner

Authorised Agent



12 July 2017

Gawler Town Council
PO Box 130
Gawler SA 5118

Attention: Ebony Cetinich

Dear Ebony,

RE: STATEMENT OF SUPPORT AND STATEMENT OF EFFECTS FOR PROPOSED NON-COMPLYING DEVELOPMENT FOR THE PROPOSED EXTENSION OF THE EXISTING GAWLER POULTRY HATCHERY LOCATED ON LAND AT LOT 2 ADAM STREET, WILLASTON (DESCRIBED AS LOT 2 ON DP50460).

On behalf of the Applicant, BPL Livestock Pty Limited, please find attached a Statement of Support and Statement of Effects seeking Development Plan Consent for the for the proposed extension to the existing poultry hatchery located at Adam Street, Willaston.

This Development Application includes the following documentation:

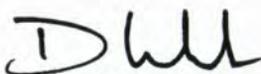
- Completed Application for Development Forms;
- A cheque in the amount of \$5,352.00 made payable to Gawler Town Council being the required Development Application Fee (confirmed with Shannon Quick at Council dated 23 June 2017);
- 3 Copies of the Statement of Support and Statement of Effects prepared by PSA Consulting including:
 - Certificate of Title.
 - Development Plans.
 - Flood Management Report.
- 1 digital copy (CD) of the Statement of Support and Statement of Effects and related Development Plans.

If you have any further questions or queries regarding this Development Application, please do not hesitate to contact David Ireland at PSA Consulting on:

Phone: (07) 3220 0288
Fax: (07) 3220 0388
Email: David@psaconsult.com.au
Post: PSA Consulting
PO Box 10824
Adelaide Street
Brisbane QLD 4000

Should you have any questions in relation to the attached information please contact David Ireland on (07) 3220 0288 to discuss.

Yours Sincerely,
PSA Consulting



David Ireland
Director - Planning

12 July 2017

Gawler Town Council
PO Box 130
Gawler, SA 5118

Dear Sir / Madam,

RE: STATEMENT OF SUPPORT FOR PROPOSED NON-COMPLYING DEVELOPMENT FOR THE PROPOSED EXTENSION OF THE EXISTING GAWLER POULTRY HATCHERY LOCATED ON LAND AT LOT 2 ADAM STREET, WILLASTON (DESCRIBED AS LOT 2 ON DP50460).

PSA Consulting (Australia) has been engaged by BPL Livestock Pty Ltd to prepare this Statement of Support to accompany a Development Application seeking Development Plan Consent for the proposed extension to the existing poultry hatchery located at Adam Street, Willaston.

The Baiada hatchery at Willaston is an important part of the company's South Australian operations, and currently has a hatching capacity of approximately 920,000 chicks a week. Specifically, this Development Application seeks approval for an increase in the hatching capacity at the site to a maximum 1,550,000 chicks a week. This increase is proposed to be accommodated by the construction of an extension to the existing building to accommodate additional incubators, hatchers, cool room, plant room and other supporting infrastructure.

The poultry hatchery is not specifically defined under the *Gawler Development Plan 2016*, however Council have advised that the use "best fits" under the Intensive Animal Keeping definition. The subject site is contained within the General Industry (GI) Zone of the *Gawler Development Plan 2016* and subject to the *Gawler River Flood Prone Area* and as such Intensive Animal Keeping development within the Flood Prone Area is identified as 'Non-Conforming Development.'

In this regard, it is important to that day old chicks are typically removed from site within 24 hours of hatching and no "keeping" or rearing occurs on-site. As such the nature and impact of the operation is consistent with a modern industrial facility, as opposed to intensive animal husbandry.

In accordance with Section 17 of the *Development Regulations 2008* we are writing to provide Council with a Statement of Support for the proposed development and request that Council resolve to assess the proposed non-complying development.

As demonstrated in this report, the proposed extension is considered to be significant economic importance, consistent with the objectives of the General Industry Zone and relevant principles of development control. In addition, the current uses and proposed development are considered to be consistent with the scale and character of the surrounding area and will not introduce any unacceptable impacts. Accordingly, it is recommended that the Council support this request and proceed with assessment of the Development Application.

1. POULTRY INDUSTRY CONTEXT

Total chicken meat consumption in Australia has increased by an average of 4% per annum over the past 10 years. Accordingly, chicken meat production is forecast to increase 4% in 2016/17 to reach 1.20 million tonnes and over the medium term, production is projected to increase by around 3% per annum to 1.36 million tonnes in 2020/21. Growth in chicken meat consumption is primarily in response to retail prices remaining well below those of beef, lamb and pork and ongoing population growth.

According to the Department of Primary Industries and Regions South Australia (PIRSA), the poultry industry represents the largest livestock sector within the state with 86 million birds being processed in 2012. In 2016 it is predicted that this will exceed 100 million.

The Australian Chicken Meat Industry: An Industry in Profile report, published by the Australian Chicken Meat Federation (ACMF) in 2011 identified that South Australia produces approximately 13% of total volume of

chicken meat in Australia, approximately 2.6 million tonnes / week (see Figure 1). In 2016 it is estimated that this has increased to approximately 16%. Specifically, Adelaide is also identified as the major poultry production centre in the State (see Figure 2).

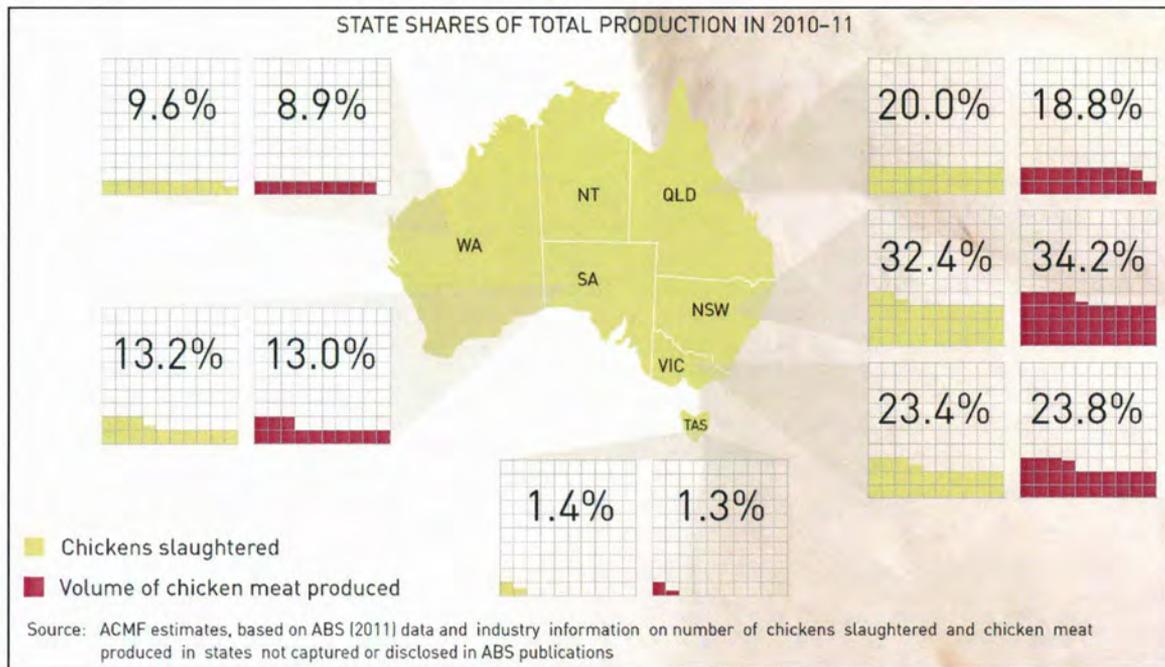


Figure 1: State shares of total poultry meat production 2010/2011 (ACMF, 2011)

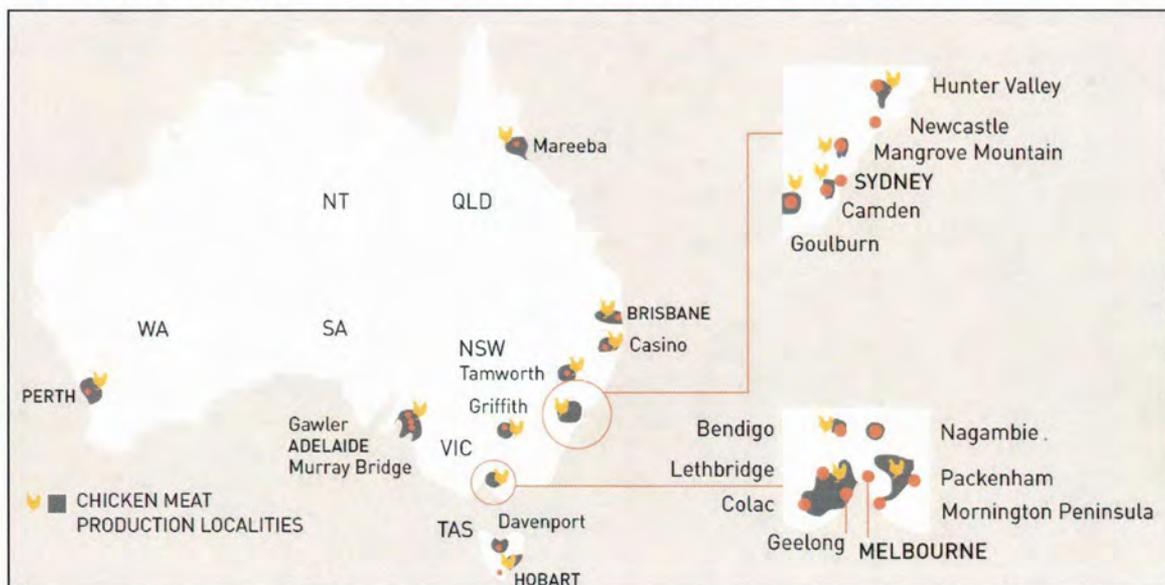


Figure 2: Distribution of Poultry Meat Production - Australia (ACMF, 2011)

Baiada’s broader poultry operations within South Australia are significant and include breeder and broiler farms, hatchery, processing plant, administration and logistics in both urban and rural localities. Baiada employs approximately 955 people in South Australia. Poultry clusters, such as this are estimated as having a conservative multiplier effect of 20% (NPI 2013). As such, it is estimated that Baiada’s South Australian operations also support approximately an additional 191 workers in related industries.

The Adelaide Poultry Processing Plant located in Wingfield, Port Adelaide is responsible for over 50% of the State’s poultry meat production, highlighting its critical importance to the Local, State and National poultry industry. The Gawler hatchery is the primary source for all birds processed by Baiada within South Australia.

The Gawler hatchery is an integral component of BPL Adelaide’s entire South Australian operation. Limiting projects which enhance efficiencies would restrict any further growth in Baiada’s South Australian operations and result in a greater level of production being undertaken in either New South Wales or Victoria, restricting employment and economic growth in the South Australian agricultural and food manufacturing sectors.

Since 2002, the manufacturing sector in South Australia has reduced by approximately 28,000 jobs due to the closure of several large processing and manufacturing businesses (ABC, 2013) which has led to growth in unemployment rates, particularly in youth, low skilled and unskilled worker groups.

As the poultry industry, and more broadly the South Australian food and agricultural sectors grow, and provide a range of employment opportunities, it is critical that increases in the capacity of supporting infrastructure (such as the Gawler hatchery) are facilitated by all levels of government to ensure growth in this sector is not stifled.

In the Economic Statement 2013, the State Government acknowledges the importance of food manufacturing stating that: *“The future success of manufacturing relies on supplying higher value solutions in new industry sectors, in order to compete on the basis of value rather than cost. Our manufacturing sector needs to be more focused on high end parts of the value chain like the design and engineering of products as well as focus on sectors like defence, mining, food and fibre, automotive and bioscience.”*

2. PROPOSED DEVELOPMENT

This development application seeks Development Plan Consent for the proposed extension and increase in production capacity at the site. The extent of works is identified in Figure 3 below. Specifically, this Development includes the following components:

- 1,783m² extension to the main hatchery building;
- 196m² of new plant room;
- Relocation of an existing workshop and storage shed;
- Additional loading bay and vehicle manoeuvring areas; and
- An increase in capacity at the site from 920,000 to 1,550,000 day-old chicks per week.

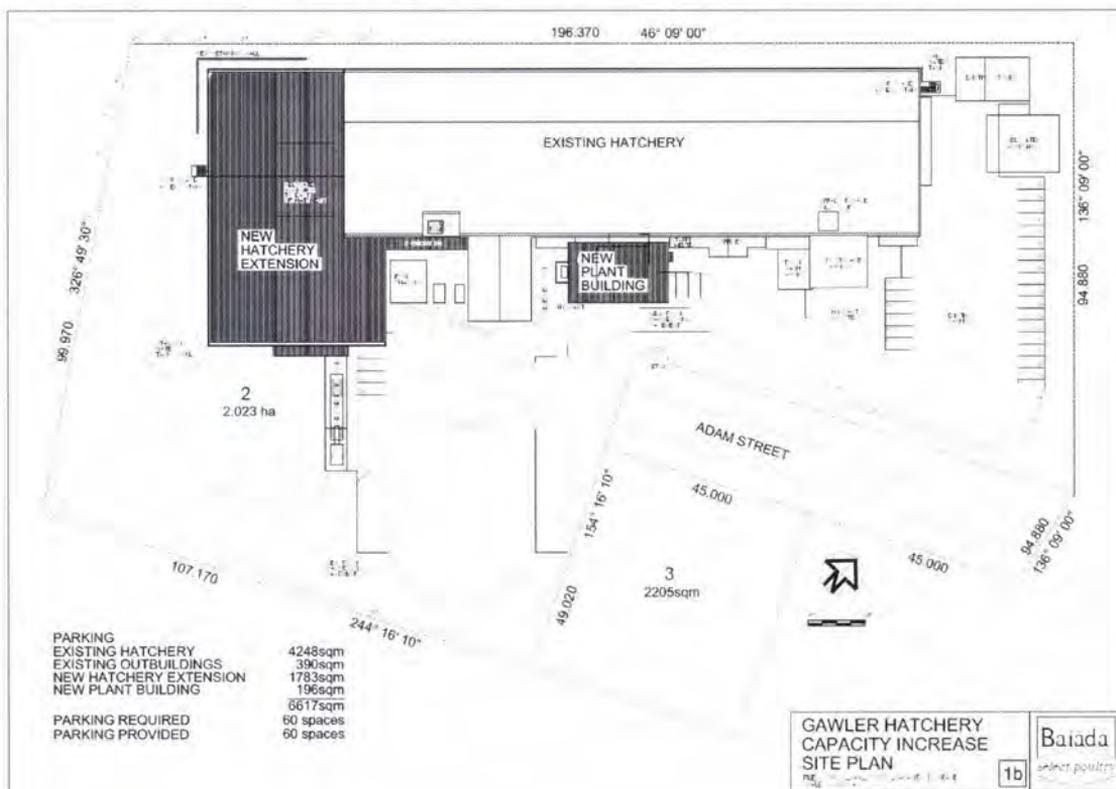


Figure 3: Extent of Proposed Development

3. OVERVIEW OF POTENTIAL IMPACTS

An overview of the alteration to the existing development is provided in *Table 1* below. Outlined below is a summary of potential impacts associated with the proposed increase in production. Overall the proposal will result in limited change to the nature of current operations.

Table 1: Social & Economical Impact Assessment

POTENTIAL IMPACTS	ASSESSMENT
Employment	<ul style="list-style-type: none"> The existing and proposed operation will provides employment for approximately 40 staff. The hatchery is a key component of Baiada’s South Australian operations directly employing 800 people in South Australia. The poultry cluster has an estimated employment multiplier effect of around 20%. The increase in hatching at the site is required to maintain the efficiency and viability of the Gawler operation in the longer term.
Economic	<ul style="list-style-type: none"> Baiada has already committed to significant funding for upgrades to other poultry operations within South Australia that rely upon chickens hatched at the Gawler hatchery to ensure financial viability. The expansion will also ensure the viability of the site to continue to operate in the longer term providing important local employment opportunities. This project will involve \$2 Million in direct capital investment in building works providing opportunities for local builders and trades.
Poultry Industry	<ul style="list-style-type: none"> Poultry is currently the Australian consumers’ most preferred meat and continues to grow. Baiada is the largest poultry meat company in Australia. Baiada is a critically important component of South Australia’s poultry meat supply chain. Without ongoing upgrades and improvements to the hatchery facility and other poultry operations in the region, further expansion of Baiada’s South Australia operations cannot take place. In the event that operations cannot grow, future expansion will move interstate.
Stormwater & Flooding	<ul style="list-style-type: none"> For operational reasons, the proposed extension must have the same floor level as the existing hatchery facility. While this floor level does not achieve the minimum height prescribed by the Gawler Development Plan 2016, the applicant will implement a range of flood proofing measures to ensure an appropriate level of flood protection is achieved and the unreasonable endangerment of people or property during flood events is avoided. Modelling indicates that the proposed development will have negligible impact on stormwater flows or flood behaviour. Due to significant investment in the site and the expense of developing on an alternative site, it is considered that the risk of flooding over the site is manageable.
Traffic	<ul style="list-style-type: none"> The proposal will result in a 9.8% increase in the total number of vehicles trips per week and an expected increase results in 5 trucks per day when chicks are being dispatched. As a result, of the small change in vehicles trips, the industrial nature of the site and surrounding area and the ease of access to the highway, the proposed development is not considered to impact on the safe operation of the existing road network.

POTENTIAL IMPACTS	ASSESSMENT
Odour	<ul style="list-style-type: none"> The hatchery expansion will not affect the air quality or produce any odour impacts within the locality. Most of the air emissions from the hatchery consist of water vapour and carbon dioxide that are sourced from the incubators and hatchers which are not odorous emissions. Potential odour sources on site including egg and hatching waste will be collected within the building via a vacuum pump and held within a sealed container for daily collection and transfer to the rendering plant. This material is collected, held and stored in a manner which does not emit odours. The site is located a suitable distance from any sensitive receptors and is surrounded by industrial uses. Accordingly, offsite odour impacts are not predicted or anticipated.
Noise	<ul style="list-style-type: none"> The hatchery produces minimum noise emissions beyond what is common and expected for an industrial building. The proposed expansion is not expected to introduce any new noise sources, with the proposed incubators and coolroom emitting low level noise which will be contained within the building. The nearest sensitive receptor is located approximately 60m away and is separated by a railway line. As such it is considered that there is limited potential for the facility to impact on the surrounding residents in terms of adverse noise impacts.
Wastewater	<ul style="list-style-type: none"> The site currently has a Trade Waste Agreement with SA Water which allows for the discharge of 402,000L to 455,000L per week. To date the site has not exceeded 67% of the approved discharged volume and the proposed expansion is not expected to require any variation to the current agreement.

4. STATE AGENCY MATTERS

As per previous the original hatchery development application, the existing use on the site has been considered to be an Activity of Environmental Significance under Schedule 21:4(3) of the *Development Regulations 2008* which is subject to referral to the Environmental Protection Authority (EPA) at Council's discretion under schedule 8: 10(b) of the Development Regulations.

5. SUMMARY

PSA Consulting (Australia) has been engaged by BPL Livestock Pty Ltd to prepare this Statement of Effect to accompany a Development Application seeking Development Plan Consent for the proposed extension to the existing poultry hatchery located at Adam Street, Willaston.

The Baiada hatchery at Willaston is an important part of the company's South Australian operations, and currently has a hatching capacity of approximately 920,000 chicks a week. Specifically, this Development Application seeks approval for an increase in the hatching capacity at the site to a maximum 1,550,000 chicks a week. This increase is proposed to be accommodated by the construction of an extension to the existing building to accommodate additional incubators, hatchers, cool room, plant room and other supporting infrastructure.

The poultry hatchery is not specifically defined under the *Gawler Development Plan 2016*, however Council have advised that the use "best fits" under the Intensive Animal Keeping definition. The subject site is contained within the General Industry (GIn) Zone of the *Gawler Development Plan 2016* and subject to the *Gawler River Flood Prone Area* and as such Intensive Animal Keeping development within the Flood Prone Area is identified as 'Non-Conforming Development.'

In this regard, it is important to that day old chicks are typically removed from site within 24 hours of hatching and no "keeping" or rearing occurs on-site. As such the nature and impact of the operation is consistent with a modern industrial facility, as opposed to intensive animal husbandry.

The proposal is not expected to create unacceptable impacts on the surrounding area but will maximise production potential at the site to support growth of the wider South Australian Poultry Industry. The construction of a new hatchery facility in South Australia is not viable and as such, limiting the production capacity, below the site's capabilities would limit any further growth in Baiada's South Australian operations and result in a greater level of poultry meat products being imported from interstate, restricting the opportunity for employment and economic growth in the agricultural and food manufacturing sectors.

As demonstrated in this report, the proposed extension is considered to be significant economic importance, consistent with the objectives of the General Industry Zone and relevant principles of development control. In addition, the current uses and proposed development are considered to be consistent with the scale and character of the surrounding area and will not introduce any unacceptable impacts. Accordingly, it is recommended that the Council support this request and proceed with assessment of the Development Application.

If you have any questions or require anything further in relation to this application, please contact the undersigned on (07) 3220 0288 to discuss.

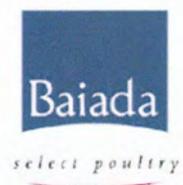
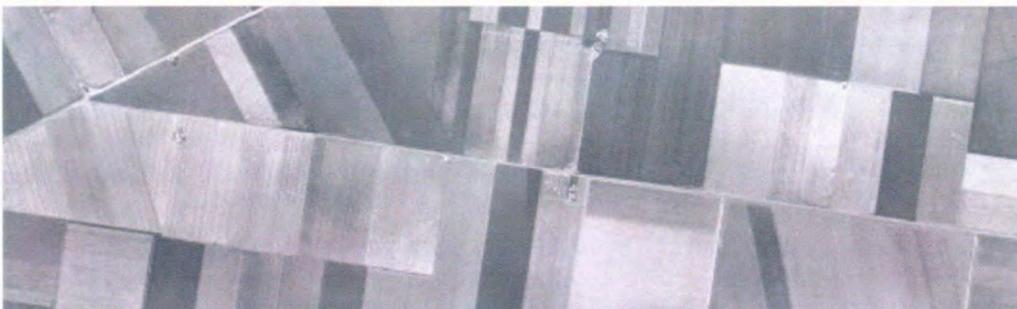
Kind regards,
PSA Consulting (Australia) Pty Ltd

A handwritten signature in black ink, appearing to read 'D Ireland'.

David Ireland
Director – Planning

Statement of Effects & Statement of Support

Extension to Poultry Hatchery
Adam Street, Willaston



12 July 2017

Document Control

Document: Extension to Hatchery at Adam Street, Willaston
0476
Statement of Effects

This document has been prepared for:



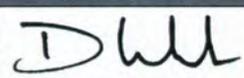
Contact: Geoff Dunlop
Project Coordinator
Baiada Poultry Pty Ltd
PO Box 21, Pendle Hill NSW 2145
Geoff_Dunlop@baiada.com.au

This document has been prepared by:



Contact: David Ireland
PSA Consulting (Australia) Pty Ltd
PO Box 10824, Adelaide Street, Brisbane QLD 4000
Telephone +61 7 3220 0288
david@psaconsult.com.au
www.psaconsult.com.au

Revision History

VERSION	DATE	DETAILS	AUTHOR	AUTHORISATION
V3	12 July 2017	FINAL	Nicole Boulton	 David Ireland

General Disclaimer

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LIST OF ACRONYMS

GDP	Gawler Development Plan
Gln	General Industry Zone

1 INTRODUCTION

PSA Consulting (Australia) has been engaged by BPL Livestock Pty Ltd to prepare this Statement of Effects to accompany a Development Application seeking Development Plan Consent for the proposed extension to the existing poultry hatchery located at Adam Street, Willaston.

The Statement of Effect described the site and surrounds in Section 2, details the extent of the proposed development in Section 3, and addresses the relevant environment, planning, and legislative controls in Section 4. Conclusions and recommendations are set out in Section 5.

The Baiada hatchery at Willaston is an important part of the company's South Australian operations, and currently has a hatching capacity of approximately 920,000 chicks a week. 40 staff (including management) are currently employed at the site, and the typical hours of operation are 5am to 10pm Monday to Friday, 5am to 6pm Saturdays, and 6am to 5pm Sundays and Public Holidays.

Specifically, this Development Application seeks approval for an increase in the hatching capacity at the site to a maximum 1,550,000 chicks a week. This increase is proposed to be accommodated by the construction of an extension to the existing building to accommodate additional incubators, hatchers, cool room, plant room and other supporting infrastructure.

The poultry hatchery is not specifically defined under the Gawler Development Plan 2016, however Council have advised that the use "best fits" under the intensive animal keeping definition. Accordingly, the proposed development is identified as non-complying as the site is within the Gawler River flood prone area. These matters are addressed in detail as part of this development application.

As demonstrated in this report, the proposed extension is considered to be consistent with the objectives of the General Industry Zone and applicable principles of development control. In addition, the current uses and proposed development are considered to be consistent with the scale and character of the surrounding area and will not introduce any unacceptable impacts. Accordingly, it is recommended that the Development Application be approved subject to relevant and reasonable conditions.

1.1 SITE DETAILS

Address	Lot 2 Adam Street, Willaston SA
Property Description	Lot 2 DP50460
Registered Owners	BPL Livestock Pty Ltd
Applicant	BPL Livestock Pty Ltd
Local Authority	Town of Gawler
Total Site Area	2.023ha
Existing Use	Poultry Hatchery
Proposed Use	Extension to Poultry Hatchery
Zoning	General Industry (Gln)

1.2 PROPONENT

The Applicant, BPL Livestock Pty Ltd is part of the Baiada Group of Companies which includes the Steggles business. Baiada is a privately owned Australian company providing premium quality poultry products throughout Australia. Baiada is the largest poultry meat company in Australia and is seeking to grow its operations in response to the projected demand for their products.

Baiada is a fully integrated poultry operation encompassing Broiler & Breeder Farms, Hatcheries, Processing Plants, Feed Milling and Protein Recovery. Baiada's products include the sale of live poultry (including breeding stock), poultry feed, fertile eggs, day old chickens, primary processed chicken (raw), processed chicken products and pet food.

The company has its head office at Pendle Hill, 30km west of Sydney CBD, with major operating centres located across Australia, including the Adelaide region and throughout South Australia. Baiada have a current employee base of approximately 6,000 people and remains privately owned by the Baiada family.

2 SITE AND SURROUNDS

2.1 SITE LOCATION

The Gawler Hatchery is located at Adam Street, Willaston within the Gawler Local Government Area and is described as Lot 2 on DP50460. The site is accessed via Adam Street and is located within an established industrial area. A railway line runs along the rear south-western boundary of the site. The subject site is identified in *Figure 1* below.



Figure 1: Site Aerial (Nearmap, 2016)

2.2 SURROUNDING DEVELOPMENT

The site is surrounded by a range of industrial buildings and warehouses, similarly included in the General Industry (GI) Zone. Uses in immediate proximity to the site include landscaping supplies, warehousing, motor vehicle workshops, metal casting, carpentry, timber supplies and rail transport. The nearest residential dwellings are located approximately 60m to the West of the outermost projection of the existing hatchery facility.

The location of the subject site provides close access to the Gawler Bypass Road which connects to the Horrocks, Thiele, and Sturt Highways to the north, and Main North Road and the Northern Expressway to the south (see *Figure 2* and *Figure 3*).



Figure 2: Surrounding Development (Nearmap, 2016)

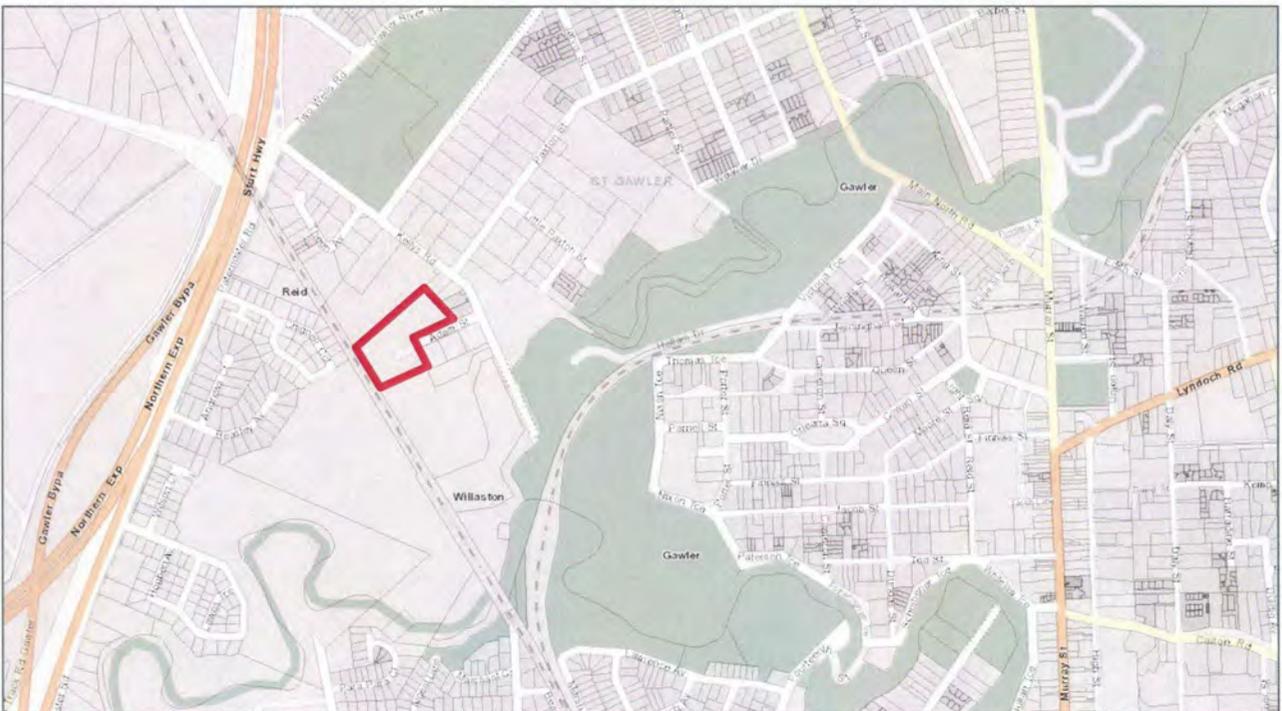


Figure 3: Surrounding Development (SA Property Browser, 2013)

2.3 SITE HISTORY

The Gawler Hatchery was established on the site in 1999. The basic operation includes the receipt of fertilised eggs at the site from Baiada’s breeder farms which are stored, incubated and hatched before being transported as day old chicks to various broiler, layer, and breeding farms in the region. The facility is an important component of Baiada’s South Australian operations with an approved hatching capacity of 920,000 chicks per week and employing 40 staff. As shown in *Table 1*, since establishment, the site has been the subject of several Development Plan Consents to facilitate upgrades and operational changes.

Table 1: Previous Approvals

DA NUMBER	DATE	DEVELOPMENT
490/073/97	14 October 1997	Approval: Development of a day-old chicken hatchery
490/464/1999	15 December 1999	Approval: Extension to Existing Hatchery
490/328/2001	6 December 2001	Approval: Extension to Existing Hatchery
490/314/2002	23 September 2002	Approval: Extension to Existing Hatchery
490/314/2005	4 August 2005	Approval: Development of a Storage Shed
490/242/2006	19 June 2006	Approval: Canopy Addition / Workshop
490/630/2007	21 December 2007	Approval: Variation to Hours Of Operation
490/120/2008	13 March 2008	Approval: Development of an Ancillary Storage Shed
490/496/2013	6 November 2014	Approval: Extension to Existing Hatchery

2.4 CURRENT OPERATION

The existing hatchery (including ancillary buildings) has a Gross Floor Area (GFA) of 4,638 m². The facility consists of the existing hatchery building located along the north western boundary of the site fronting Adam Street, ancillary shed, water tanks, staff car parking, loading and unloading areas. The site has two (2) vehicle access points to Adam Street.

The hatchery currently produces a maximum output of 920,000 chicks per week. An overview of the existing hatchery operations on site are outlined below.

Fertile eggs are received from the local breeder farms in vehicles that have controlled environment capabilities to retain the egg temperature at optimum levels. This facilitates fewer vehicle movements to and from the site. The fertile eggs are held on trolleys each containing 3,520 eggs. The trolleys are wheeled off the tailgate of the truck, fumigated to kill pests and bacteria and finally placed into a holding area where they are stored at between 12°C and 18°C with provision of optimum levels of relative humidity. This control of temperature suspends embryo development allowing the eggs to be held in this condition for a period of up to 12 days, with minimal reduction in the hatching potential of the eggs.

From this storage area, the eggs are loaded into trays and placed in incubator trolleys (setting), each capable of holding 84,480 eggs. The trolleys are then wheeled into the incubators and held at a temperature of 37.2°C and a wet bulb humidity of 30°C. These control parameters are fitted with alarms on each incubator that will activate if the levels rise or fall away from defined points.

The eggs are held in this environment for a period of 17 days. During this time, the eggs are routinely turned by mechanical means to ensure the developing embryo remains in the centre of the egg and that it does not become adhered to the shell. At 17 days, the eggs are removed from the incubators and the trays holding them. The embryos may be vaccinated at this stage with specialised equipment which allows the embryo to be vaccinated when still in the egg, as is presently the case at some of Baiada's other hatcheries.

The eggs are then placed into special trays (called baskets) and these are placed into the hatchers which are also finely controlled with temperature and relative humidity, but do not require turning. After 3 days, the chicks hatch into these hatcher baskets (each holding 42,240 eggs).

The chicks are then graded and counted, and in some instances, feather-sexed. They are then finally placed into boxes, each containing 100 one day old chicks that are spray vaccinated and held ready for dispatch to the farms. The day old chicks are loaded into special controlled environment trucks on trolleys of 1,000 chickens, ready for delivery to the farms. Chicks are generally dispatched between the hours 10 am – 6pm.

Movements of eggs onto and chicks off the site can occur any time over a twenty-four (24) hour period and on any day of the week, but primarily occur Monday to Friday.

Hygiene and cleanliness within the hatchery is of paramount importance. To ensure that the embryos and chicks are not subject to risk of infection, a rigorous program of cleaning, disinfection and sanitation of buildings and equipment are maintained and backed up with a monitoring schedule to verify the program's effectiveness. All staff and visitors are required to declare their quarantine status and to shower and change into clothing provided on site prior to entering the hatchery.

The primary concern at all times is that all equipment is cleaned and sanitised to prevent potential cross-contamination between the batch just hatched, and the next batch to be hatched. Waste water from the facility (generally limited to wash down water) is currently collected via internal drains which discharge into a settling pit before entering the Trade Waste System. Screens are attached to all drains to remove solid waste (e.g. fluff and egg shell) prior to disposal. These solids are collected on site along with other wastes products from the hatching process and transported to a rendering plant located off site for processing.

Hard waste produced from the hatchery including egg shell, egg waste, fluff and mortalities is collected via a vacuum pump and held in a sealed waste bin for transfer to the rendering plant (approximately 1 truck load per day).

2.5 HOURS OF OPERATION

The typical hours of operation of the existing facility are 5am to 10pm Monday to Friday, 5am to 6pm Saturdays, and 6am to 5pm Sundays and Public Holidays. It is important to note that while these are the typical hours of activity at the site, many processes continue 24/7 and flexibility is required to operate at any time.

2.6 EMPLOYEE NUMBERS

40 staff (including management) are currently employed on site, as a result of the proposed introduction of a high level of automation within the hatchery, no increase in current staffing levels are required to enable the increase in capacity.

2.7 SERVICE PROVISION

The existing facility has connections to electricity, water, reticulated sewerage and telecommunications services.

3 PROPOSED DEVELOPMENT

3.1 DEVELOPMENT OVERVIEW

This development application seeks Development Plan Consent for the proposed extension and increase in production capacity at the site. Specifically, this Development includes the following components:

- 1,783m² extension to the main hatchery building;
- 196m² of new plant room;
- Relocation of an existing workshop and storage shed;
- Additional loading bay and vehicle manoeuvring areas; and
- An increase in capacity at the site from 920,000 to 1,550,000 day-old chicks per week.

The extent of works is identified in Figure 4 and on the plans attached as Appendix 1.

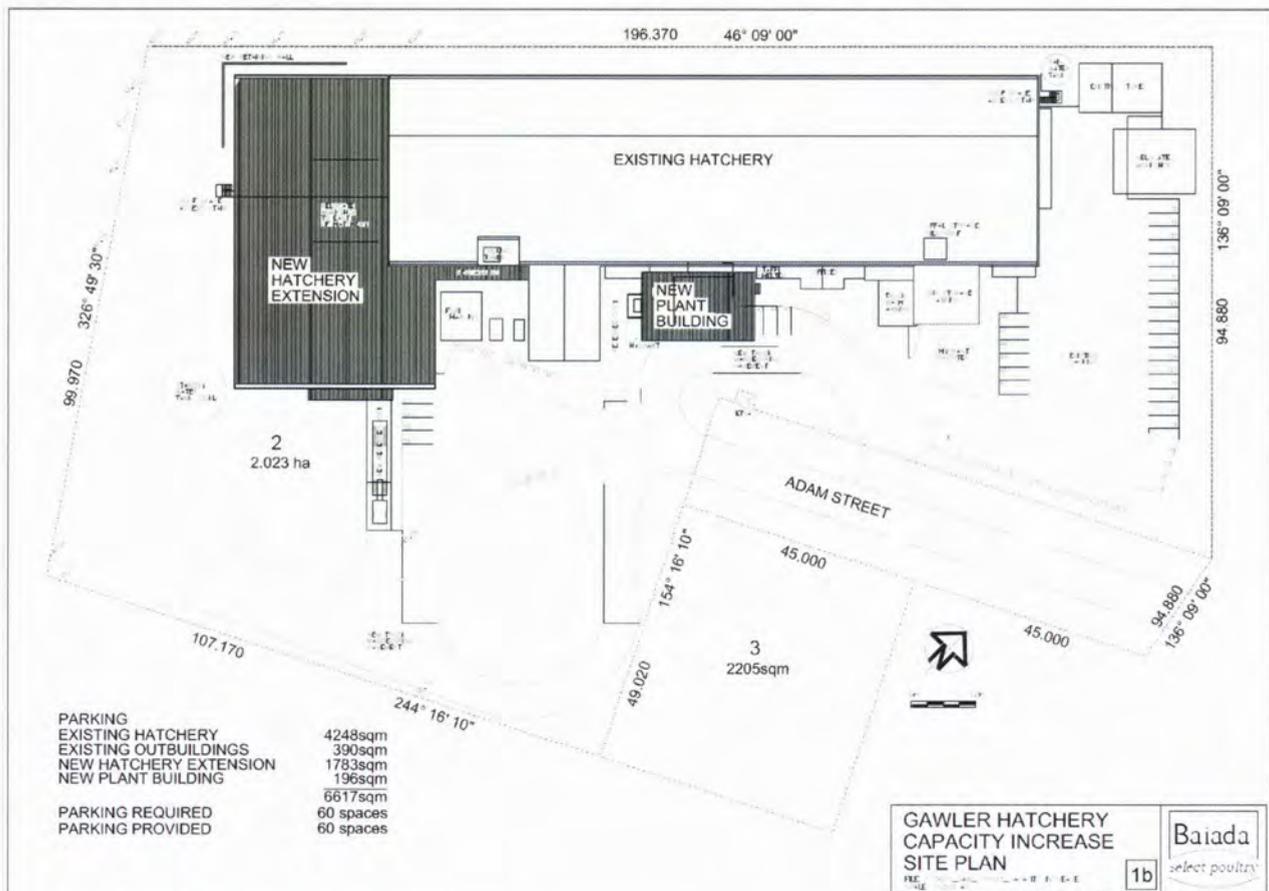


Figure 4: Extent of Proposed Development

3.2 PROPOSED BUILDING EXTENSION

The proposed 1,783m² extension to the existing hatchery facility will accommodate a setter room and chiller, as well as a new loading dock (see Figure 5). The extension has been specifically designed to integrate seamlessly with the existing facility. As a result of egg trolleys required to be carefully moved between the chiller, setters and hatchery it is imperative that the floor level of the proposed extension matches the existing facility. Similarly, the loading dock has also been recessed to enable easy transfer of fertile eggs from the climate controlled trucks into the hatchery receiving area.

The proposed hatchery extension will be constructed with a portal steel frame, colorbond roof and fascia, and metal skinned insulated panel walls and ceiling which is reflective of the existing building materials used in the existing facility.

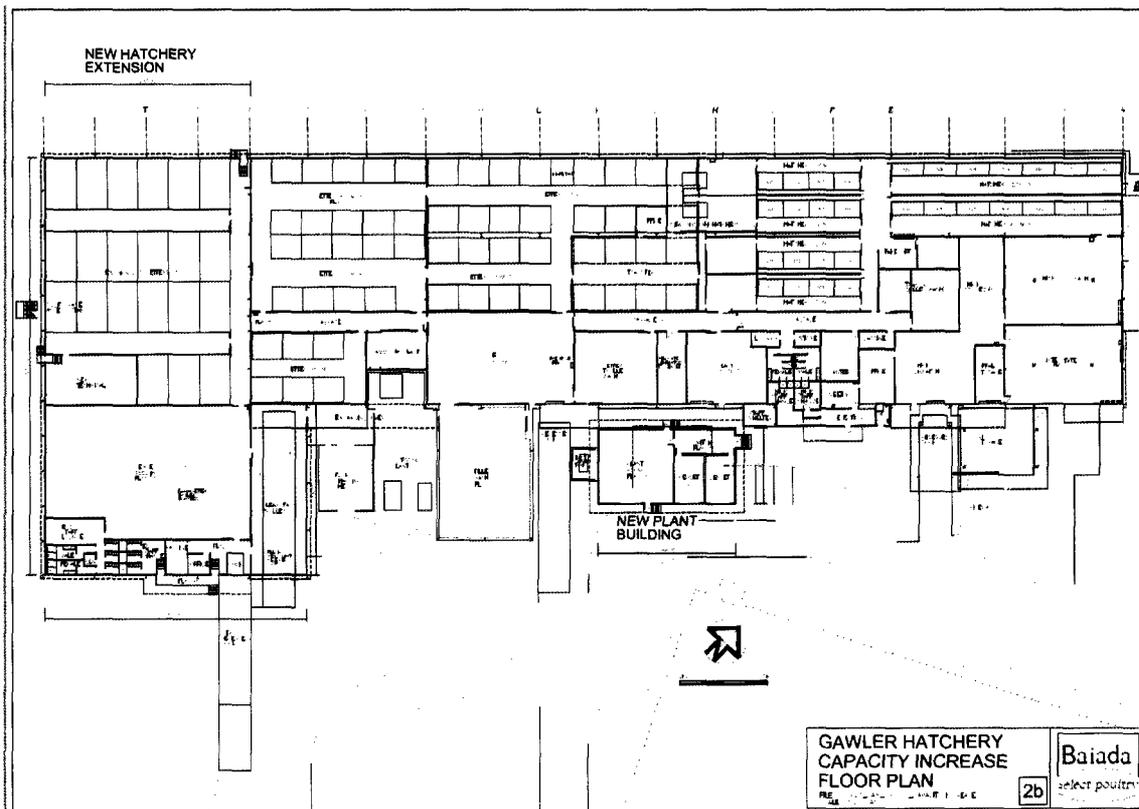


Figure 5: Hatchery Building Extension and Proposed Plant Room

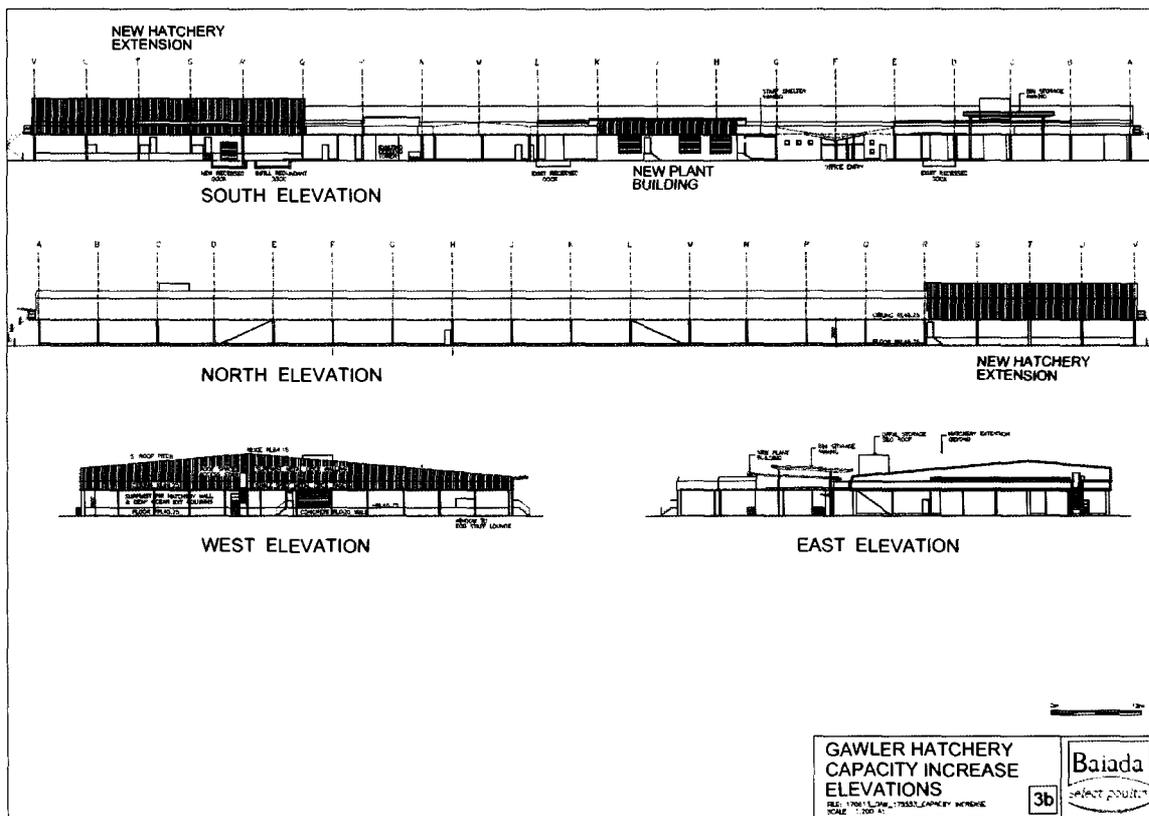


Figure 6: Hatchery Extension Elevations

3.3 PROPOSED PLANT ROOM

In order to facilitate the proposed extension, a new 196m² of plant room is required. The new plant room will be located adjacent to the existing plant room, which will be converted into a new work area and store room (see *Figure 6: Hatchery Extension Elevations* below). The proposed plant room will be located abutting the existing hatchery facility, however will be separated by a fire rated concrete wall.

3.4 RELOCATION OF EXISTING SHED

In order to accommodate the hatchery extension, the existing maintenance shed, located at the south western end of the building is proposed to be relocated further south to the north east corner of the site and accessed via the existing car parking area.

4 ASSESSMENT OF IMPACTS

4.1 TRAFFIC IMPACTS

Delivery of eggs onto and transport of chicks off the site can occur any time over a twenty-four (24) hour period and on any day of the week, but will typically occur Monday to Friday. Due to processing efficiencies, no changes to staff numbers and the spare capacity within existing trucks, day to day traffic operations are not expected to change significantly and only a small number of additional heavy vehicles associated with chick dispatch and waste collection are forecast.

Due to the increased mechanisation of some components of the operation, no additional staff are required. As per the current operation, approximately 40 staff vehicles, services and deliveries are expected to enter and exit the site 4 days per week when the hatchery is at full production. The number of vehicles associated with the existing and proposed development is shown in *Table 2* and *Table 3* below.

Table 2: Existing and Proposed Vehicle Movement

Movement	Vehicle Type	Existing Vehicles (920,000 chicks/week)	Proposed Vehicles (1,550,000 chicks/week)
Delivery of Eggs	Truck	2 per day (Mon, Tues, Wed, Thurs, Fri)	2 per day (Mon, Tues, Wed, Thurs, Fri)
Chick Dispatch	Truck	5 per day (Mon, Tues, Thurs, Fri)	10 per day (4 days/week)
Waste Collection (Offal - Egg Shell, Fluff etc)	Truck	1 per day (Mon, Thurs)	1 per day (Mon, Tues, Thurs, Fri)
Waste Collection (General Waste)	Truck	1 per day (Tues, Fri)	1 per day (Tues, Fri)
Staff Vehicles	Car	40 per day (Mon, Tues, Thurs, Fri)	40 per day (Mon, Tues, Thurs, Fri)
		15 per day (Wed, Sat)	15 per day (Wed, Sat)

N.B.

HatchCare achieves 75% the transport efficiency of standard hatching, thus 9.3 rounded to 10 truck movements per day

Waste estimates for transfer (5,245kgs/day), hatching (2,480kgs/day) and combined activities (7,905kgs/day), the transport tanks have a volume of 11,500ltrs and a capacity of 9,200ltrs, thus, one collection per day is likely.

Table 3: Vehicles Trips per Week

VEHICLE TYPE	EXISTING TRIPS PER WEEK	PROPOSED TRIPS PER WEEK
HEAVY VEHICLES	68 *	112
LIGHT VEHICLES	380	380
ALL VEHICLES	448	492

*Note: A trip includes either an incoming or outgoing truck.

As outlined above, the proposed development a 9.8% increase in the total number of vehicles trips per week and expected increase results in 5 trucks per day when chicks are being dispatched. As a result, of the small change in vehicles trips, the industrial nature of the site and surrounding area and the ease of access to the highway, the proposed development is not considered to impact on the safe operation of the existing road network.

4.2 CAR PARKING

The site currently provides 47 parking spaces. As a result of the proposed development, car parking areas will be redesigned and upgraded to provide parking for up to 60 cars. This provision meets the council requirement for an industrial facility of this size and is sufficient for staff parking, shift changes and visitors.

4.3 WATER USE

Water to the facility is currently supplied from Council's reticulated water network. Demand for the existing hatchery operations at 920,000 chicks per week is approximately 395,000 litres per week. The expected increase in existing water usage rates for the increase in processing capacity, which includes increased workloads in key areas, equipment washing and miscellaneous use is between 70,000 and 75,000 litres per week. This results in an expected 19% increase in overall water demand for the site totalling between 600,000 and 680,000 litres per week. It should be noted that as the hatchery expansion will be purpose built and installed with modern hatching, sanitation and wash down equipment, there will be a significant reduction in water usage per egg compared to the current operation. Therefore, a proposed 70% increase in processing capacity is expected to result in only a 19% increase in water supply demand.

4.4 WASTE WATER MANAGEMENT

No liquid wastes is generated from the actual hatching process however, waste water is generated as a result of sanitation and wash down procedures carried out to maintain hygiene standards. As per the current situation, waste water will be collected via internal drains which discharge into settling pits before final discharged into the Council's reticulated sewerage system.

Screens will be attached to all drains to remove solid waste (e.g. fluff and egg shell) prior to disposal. Screens are cleaned on a daily basis with collected solids, along with other offal wastes products from the hatching process and transported to a rendering plant located off site for processing.

The site has two 2,000L settling pits which further reduce solids prior to final discharge. The final collection point for the liquid wastes will also be equipped with a basket sieve prior to release. This approach will enable as much of the solid and particulate matter to be removed as possible from the waste water stream.

Flow rates are not expected to increase as a result of the proposed development. However, periods of higher flow will be extended to longer periods of time as a result of the increase in waste water loads.

The site currently has a Trade Waste Agreement with SA Water which allows for the discharge of 402,000L to 455,000 per week. To date the site has not exceeded 67% of the approved discharged volume and the proposed expansion is not expected to require any variation to the current agreement.

4.5 FLOODING

The subject site was recently included within the High Risk Flood Prone Area of the Gawler Rivers Floodplain Area within the *Gawler Development Plan 2016*. Prior to the most recent amendment, the hatchery was outside of the flood prone area and the existing hatchery was considered as approved and appropriate.

The provisions within the *Gawler Development Plan 2016* require that development is to have a minimum finished floor level of 46.61 AHD. However, as outlined above, as a result of egg trolleys and other equipment requiring careful movement between the chiller, setters and hatchery it is imperative that the floor level of the proposed extension matches the existing facility (45.75 AHD).

The adoption of different floor levels for the site will result in operational complications which would deem the proposed development unviable and require a new hatchery to be built in an alternate location.

As there is no requirement for the proposed plant room to be at grade with the hatchery, this building will be constructed with a finished floor level of 46.75m.

4.5.1 Flood Protection Measures

A range of flood protection measures at the site are proposed to be implemented to ensure an appropriate level of flood immunity for the new building. These measures include:

- The extension will be constructed with a flood proof concrete perimeter wall up to a height of 46.75m with insulated panel above;
- Where required, access to the extension will be achieved via flood proof doors and / or “up and over” stairs;
- Existing doorways and openings to the current hatchery will be fitted with temporary flood barriers which can be installed in the event of a flood to protect flood waters intruding into the building (see Appendix 3);
- Any plumbing connections from the outside into the proposed extension require a one-way valve to prevent water backing up through the system;
- A flood emergency plan which may include details on key actions such as securing flood proof doors and evacuation procedures will be prepared for the site; and

In order to appropriately assess the suitability of the proposed extension within the Gawler Rivers Floodplain Area, the proposed development has been considered as part of a Flood Management Assessment, prepared by Australian Water Environments (see Appendix 3). This assessment takes into consideration recent changes to the flood plain including filling on surrounding allotments.

As noted in the assessment, the subject property is bounded by the fill above the 1% AEP flood level on allotments to the north, south and the railway to the west. As a consequence the flow velocities within the Hatchery site are expected to be very low (less than 0.15 m/s). This area of the floodplain can be considered to be an ineffective flow area and does not actively contribute to the flood conveyance of the North Para.

4.6 STORMWATER MANAGEMENT

As outlined within the Flood Management Assessment prepared by AWE (Appendix 3), the existing hatchery operation has a stormwater management system which collects and conveys all stormwater from the site. The current system is well formalised and includes a swale system which is likely to provide some water quality improvements during smaller more frequent runoff events through sedimentation and infiltration. The current system has an isolating valve which can be shut to isolate the stormwater management system from the Council network should an emergency spill of liquid wastes or contaminants occur. The wastewater streams from within the hatchery are captured and disposed of in a system separate from the stormwater capture and conveyance system on site.

The building extension and internal roadway would increase the total site impervious fraction by 1979m². It is intended that this runoff would be managed using the same process that controls and cleanses the existing roof runoff. A basic DRAINS model was established to calculate the peak flow rates from the current site and the site with the proposed extension. The results are presented in Table 4 below.

Table 4: Peak Flow Rates

	1 in 2 ARI	1 in 100 ARI
Peak flow for existing hatchery facility (m ³ /s)	0.13	0.41
Peak flow for extended hatchery facility (m ³ /s)	0.16	0.45
Increase in peak flow (m ³ /s)	0.03	0.04
Increase in peak flow (%)	19	9

The peak flows for the site are based on the 25 minute design storm event which is the critical duration event. The volume for this storm event is very low in comparison to the volumes that may be encountered during a Gawler River flood event. There is a low point in the site at the main access from Adams Street with two double side entry pits at this location. In situations where the drainage system downstream exceeds capacity, this will be a relief point that allows short term surface ponding that would recede quickly once the hydraulic grade line in the system begins to drop.

The changes to the flow regime associated with the extension would result in very minor increases to the peak flow and volume. It is expected that the informal detention provided within the site at the low point at Adams Street would be sufficient to negate any impacts associated with these minor changes to flow.

Reviewing the drainage system downstream, it appears that the main outlet from the site discharges to the drainage system in Adam Street which subsequently runs approximately 100m south along Kelly Road and discharges to the North

Para River. Any changes to the flow rates in the external system are expected to be very minor and there is little infrastructure at increased risk in this areas.

Water quality from the extension area will generally be of good quality due to the majority of increased impervious area being roof. Increased trafficable surfaces may be a higher risk runoff surface from the perspective of hydrocarbons and fine sediment. It would be proposed to incorporate a suitable gross pollutant trap on the stormwater system prior to discharge to the Council drainage network to address these key contaminants.

4.7 ODOUR IMPACTS

The hatchery expansion will not affect the air quality or produce any odour impacts within the locality. Most of the air emissions from the hatchery consist of water vapour and carbon dioxide that are sourced from the incubators and hatcher which are not odorous emissions.

Once the day old chicks have hatched, a small amount of fluff (down) is generated. At the rear of the hatcher are “fluff chambers”, which have a water mist operating in them which serves to trap the fluff and this is collected in floor drain basket sieves that are manually cleaned, rather than being emitted through air vents.

Potential odour sources on site including egg waste and mortalities will be collected within the building via a vacuum pump and held within a sealed container for daily collection and transfer to the rendering plant. This material is collected, held and stored in a manner which does not emit odours.

The site is located a suitable distance from any sensitive receptors and is surrounded by industrial uses. Accordingly, offsite odour impacts are not predicted or anticipated.

4.8 NOISE IMPACTS

The hatchery produces minimum noise emissions beyond what is common and expected for an industrial building. The proposed expansion is not expected to introduce any new noise sources, with the proposed incubators and coolroom emitting low level noise which will be contained within the building. The nearest sensitive receptor is located approximately 60m away and is separated by a railway line.

As such it is considered that there is limited potential for the facility to impact on the surrounding residents in terms of adverse noise impacts.

5 STATEMENT OF SUPPORT

5.1 ECONOMIC IMPACT ASSESSMENT

5.1.1 South Australian Poultry Industry

Total chicken meat consumption in Australia has increased by an average of 4% per annum over the past 10 years. Accordingly, chicken meat production is forecast to increase 4% in 2016/17 to reach 1.20 million tonnes and over the medium term, production is projected to increase by around 3% per annum to 1.36 million tonnes in 2020/21. Growth in chicken meat consumption is primarily in response to retail prices remaining well below those of beef, lamb and pork and ongoing population growth.

According to the Department of Primary Industries and Regions South Australia (PIRSA), the poultry industry represents the largest livestock sector within the state with 86 million birds being processed in 2012. In 2016 it is predicted that this will exceed 100 million.

The Australian Chicken Meat Industry: An Industry in Profile report, published by the Australian Chicken Meat Federation (ACMF) in 2011 identified that South Australia produces approximately 13% of total volume of chicken meat in Australia, approximately 2.6 million tonnes / week (see Figure 7). In 2016 it is estimated that this has increased to approximately 16%. Specifically, Adelaide is also identified as the major poultry production centre in the State (see Figure 8).

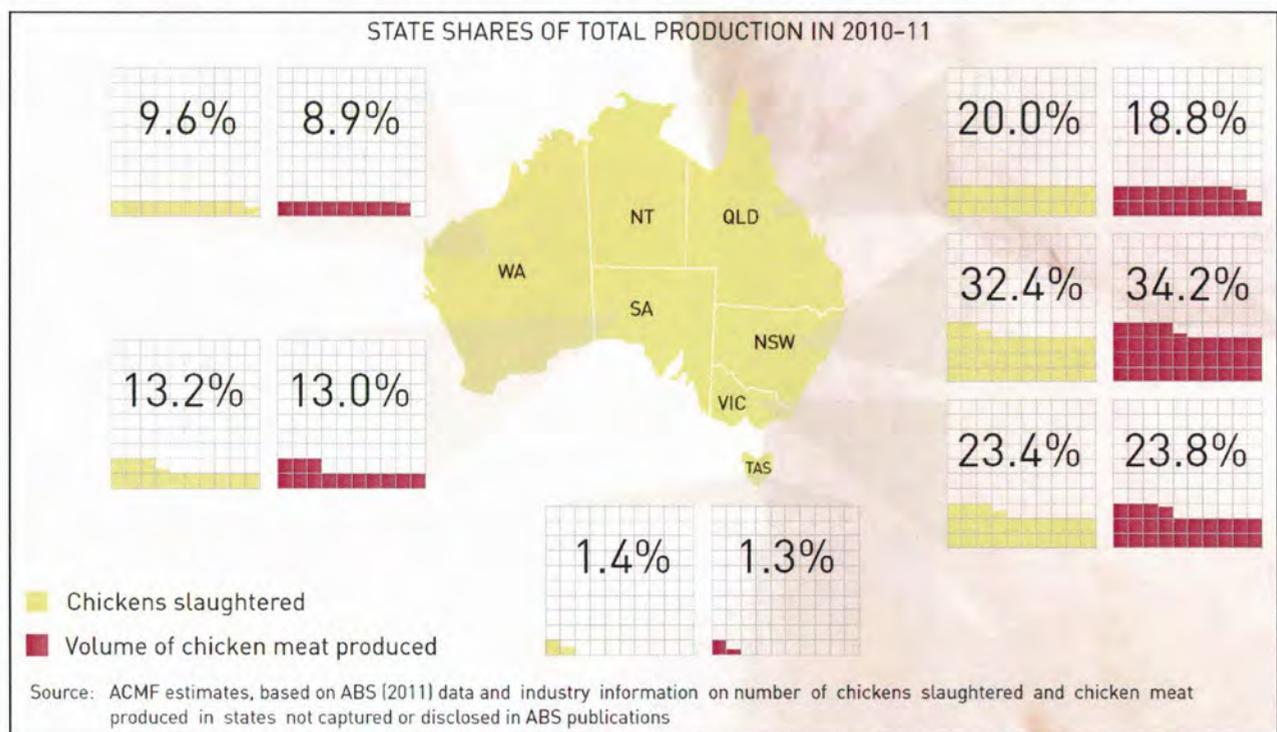


Figure 7: State shares of total poultry meat production 2010/2011 (ACMF, 2011)

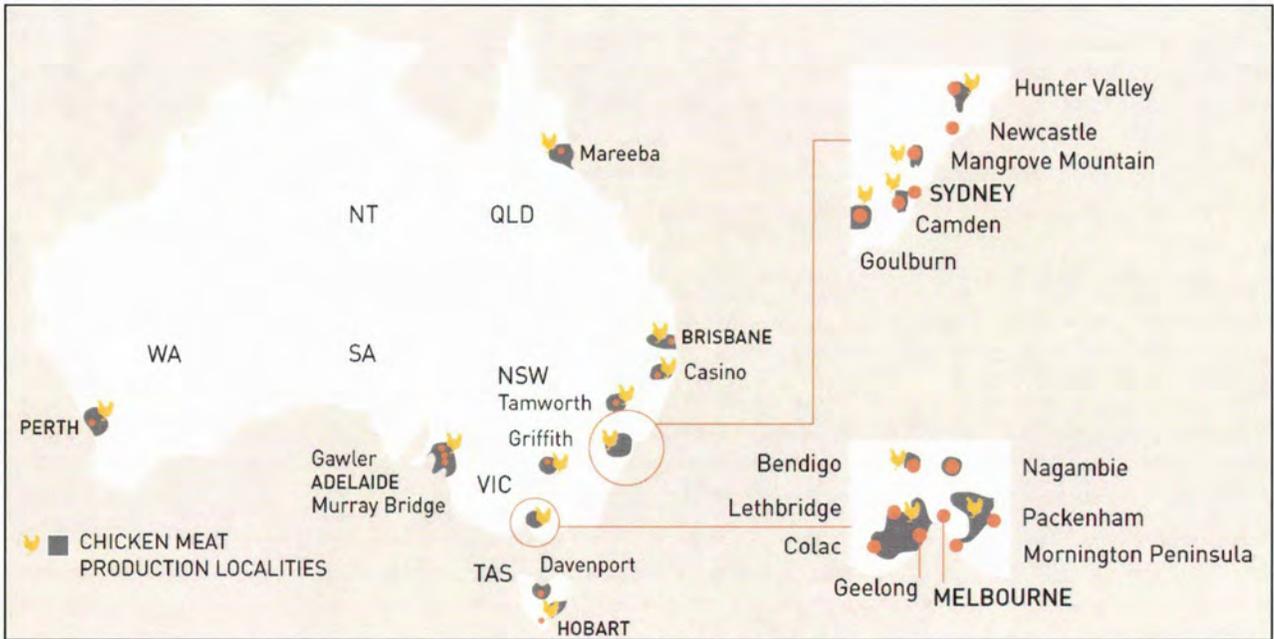


Figure 8: Distribution of Poultry Meat Production - Australia (ACMF, 2011)

The Applicant, BPL Livestock Pty Limited is part of the Baiada Group of Companies which includes the Steggles business. Baiada is a privately owned Australian company providing premium quality poultry products throughout Australia. Baiada is the largest poultry meat company in Australia and is seeking to grow its operations in response to the projected growth in consumption. *Figure 9* illustrates Baiada’s market share of poultry meat production in Australia compared to other producers. As shown, Baiada is a critically important component of South Australia’s poultry meat supply chain.

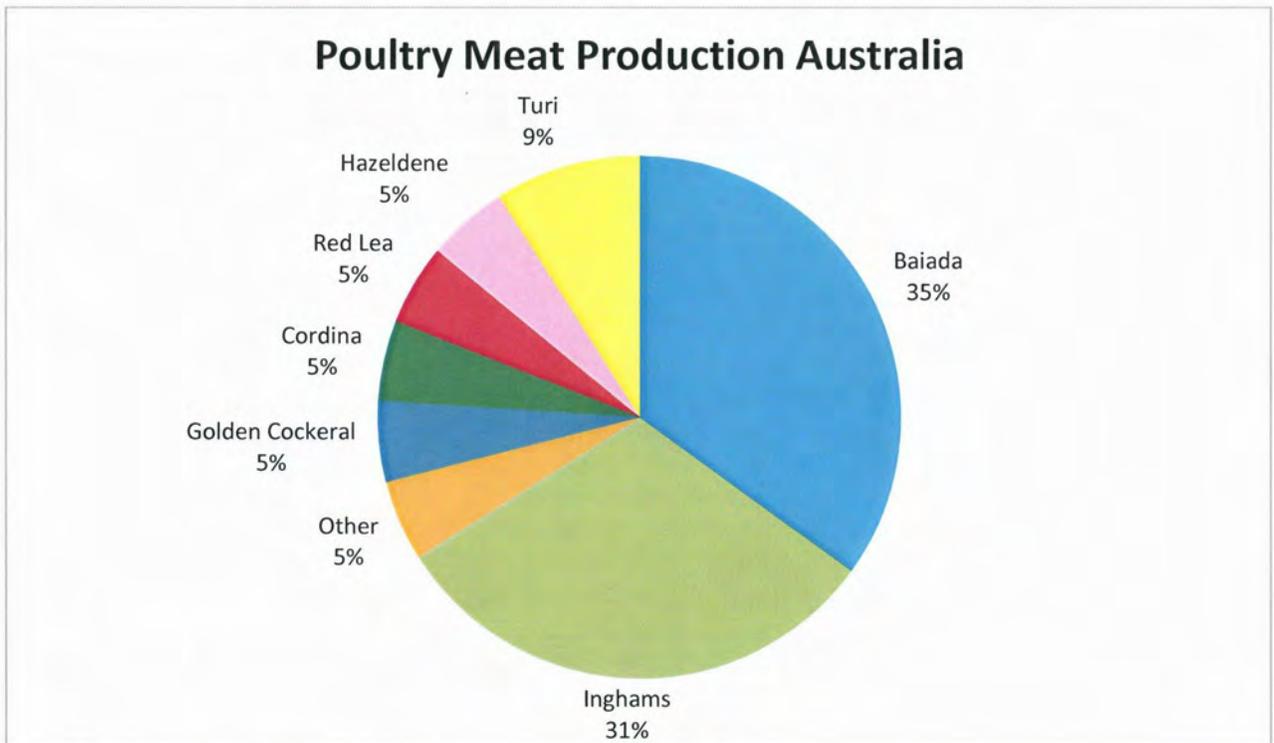


Figure 9: Poultry Meat Production by Birds Processed Per Week – Australia

Baiada's broader poultry operations within South Australia are significant and include breeder and broiler farms, hatchery, processing plant, administration and logistics in both urban and rural localities. Baiada employs approximately 955 people in South Australia. Poultry clusters, such as this are estimated as having a conservative multiplier effect of 20% (NPI 2013). As such, it is estimated that Baiada's South Australian operations also support approximately an additional 191 workers in related industries.

The Adelaide Poultry Processing Plant located in Wingfield, Port Adelaide is responsible for over 50% of the State's poultry meat production, highlighting its critical importance to the Local, State and National poultry industry. The Gawler hatchery is the primary source for all birds processed by Baiada within South Australia.

The Gawler hatchery is an integral component of BPL Adelaide's entire South Australian operation. Limiting projects which enhance efficiencies would restrict any further growth in Baiada's South Australian operations and result in a greater level of production being undertaken in either New South Wales or Victoria, restricting employment and economic growth in the South Australian agricultural and food manufacturing sectors.

Since 2002, the manufacturing sector in South Australia has reduced by approximately 28,000 jobs due to the closure of several large processing and manufacturing businesses (ABC, 2013) which has led to growth in unemployment rates, particularly in youth, low skilled and unskilled worker groups.

As the poultry industry, and more broadly the South Australian food and agricultural sectors grow, and provide a range of employment opportunities, it is critical that increases in the capacity of supporting infrastructure (such as the Gawler hatchery) are facilitated by all levels of government to ensure growth in this sector is not stifled.

In the Economic Statement 2013, the State Government acknowledges the importance of food manufacturing stating that: *"The future success of manufacturing relies on supplying higher value solutions in new industry sectors, in order to compete on the basis of value rather than cost. Our manufacturing sector needs to be more focused on high end parts of the value chain like the design and engineering of products as well as focus on sectors like defence, mining, food and fibre, automotive and bioscience."*

5.1.2 Local Economic Impact

As detailed in Section 2, the Gawler hatchery was established in 1999. The basic operation includes the receipt of fertilised eggs at the site which are stored, incubated, hatched, and nurtured for 1 day before being transported as day old chicks to various broiler, layer, and breeding farms in the region. The facility is an important component of Baiada's South Australian operations with an approved hatching capacity of 920,000 chicks per week and employing 40 staff.

Since acquisition of the site, Baiada have financially invested in improving the facilities and processes on site to provide better working conditions, reduce environmental impacts on surrounding areas, and to increase productivity. Some of the main improvements and modifications that have been undertaken on the site include:

- Various extension to existing facility;
- Installation of storage shed and canopy;
- New crate wash area; and
- Variation to hours of operation.

These improvements demonstrate the significant investment that Baiada has made to the existing operations on site and the serious commitment to continue production in South Australia and at the site. Specifically, this project will involve \$2 Million in direct capital investment in building works providing opportunities for local builders and trades. The expansion will also ensure the viability of the site to continue to operate in the longer term providing important local employment opportunities.

5.2 POTENTIAL SOCIAL IMPACTS

The potential social impacts of the proposed development to human populations within the vicinity of the subject site have been identified through a preliminary social impact analysis. The proposed development is expected to have the potential to affect the following groups of people:

- Employees of the hatchery;
- Employees of surrounding businesses and industry;
- Owners and employers of the hatchery;

- Land owners, employers, and business owners in the surrounding area;
- Residents living in the surrounding area; and
- Land owners in the surrounding area.

It is considered that the social impacts of the proposed development for the groups identified above generally relate to the potential economic impacts identified and discussed within this report.

The potential environmental impacts of the proposed development, as assessed within this report, will result in negligible overall environmental impacts compared to the current operations.

The economic impacts of the proposed development have been assessed and identified within Section 5.1 of this report and have demonstrated the significant economic impact and influence of the current hatchery facility on site in a national, state, and local context.

The proposed development is not expected to result in any additional negative impacts compared to the current operations on site, but will result in securing existing financial investment that has positive economic impacts. Taking into consideration the social expectations of the above identified stakeholders, the proposed development is expected to meet social expectations and responsibilities.

5.3 SOCIAL AND ECONOMIC IMPACT ASSESSMENT SUMMARY

Table 5 provides a summary of the main social and economic impacts identified in Sections 5.1 and 5.2 of this report for the proposed development. The table illustrates that the findings of the social and economic impact assessment of the proposed development are positive, and that potential impacts and risks can be mitigated, and/or managed reasonably through the identified measures within the Environmental Impact Assessment section of this report (Section 4).

Table 5: Social & Economical Impact Assessment

POTENTIAL IMPACTS	ASSESSMENT
Employment	<ul style="list-style-type: none"> • The existing and proposed operation will provide employment for approximately 40 staff. • The hatchery is a key component of Baiada’s South Australian operations directly employing 800 people in South Australia. • The poultry cluster has an estimated employment multiplier effect of around 20%. • The increase in hatching at the site is required to maintain the efficiency and viability of the Galwer operation in the longer term.
Financial	<ul style="list-style-type: none"> • Baiada has already committed to significant funding for upgrades to other poultry operations within South Australia that rely upon chickens hatched at the Gawler hatchery to ensure financial viability. • The expansion will also ensure the viability of the site to continue to operate in the longer term providing important local employment opportunities. • This project will involve \$2 Million in direct capital investment in building works providing opportunities for local builders and trades.
Poultry Industry	<ul style="list-style-type: none"> • Poultry is currently the Australian consumers’ most preferred meat and continues to grow. • Baiada is the largest poultry meat company in Australia. • Baiada is a critically important component of South Australia’s poultry meat supply chain. • Without ongoing upgrades and improvements to the hatchery facility and other poultry operations in the region, further expansion of Baiada’s South Australia operations cannot take place. • In the event that operations cannot grow, future expansion will move interstate.
Hazards	<ul style="list-style-type: none"> • For operational reasons, the proposed extension must have the same floor level as the existing hatchery facility. • While this floor level does not achieve the minimum height prescribed by the Gawler Development Plan 2016, the applicant will implement a range of flood proofing measures to ensure an appropriate level of flood protection is achieved and the unreasonable endangerment of people or property during flood events is avoided. • Flood modelling indicates that the proposed development will have negligible impact on flood

POTENTIAL IMPACTS	ASSESSMENT
	<p>behaviour and will not adversely impact upstream or downstream properties.</p> <ul style="list-style-type: none"> • Due to significant investment in the site and the expense of developing on an alternative site, it is considered that the risk of flooding over the site is manageable.

5.4 ALTERNATIVES TO THE PROPOSAL

Potential alternatives to the proposed development are identified and discussed in *Table 6*.

Table 6: Proposal Alternatives

PROPOSAL ALTERNATIVE	DISCUSSION
<p>1. NO IMPROVEMENTS TO EXISTING FACILITY OR OPERATIONS</p>	<ul style="list-style-type: none"> • The demand for day old chicks will not be able to be effectively provided within South Australia. • Improvements and investments in improving existing poultry processes will be focussed on NSW and Victoria. • No further growth of the Baiada business will occur within South Australia. • Long term the site may become financially unviable.
<p>2. CONSTRUCT A NEW HATCHERY FACILITY IN AN ALTERNATE LOCATION</p>	<ul style="list-style-type: none"> • To contemplate the construction of a hatchery facility, a feasible location would need to be identified that takes into consideration factors including: <ul style="list-style-type: none"> ○ Appropriate zoning and land use controls; ○ Potential impacts on sensitive land uses and amenity; ○ Proximity to an appropriate employee base; ○ Separation distances to uses that pose potential bio-security risks; ○ Transportation routes and minimum distances to broiler farms to ensure animal welfare; ○ Proximity to distribution networks and customers; and ○ Land acquisition costs. • There is a scarcity of alternate sites available which would meet these criteria. • The development of a new hatchery would cost in the order of \$30-40 Million which is currently financially unviable for the Company.

As outlined in *Table 6* above, there are not considered to be any viable alternatives to the proposed development that would support the required improvements to Baiada's Gawler Hatchery. If the proposed extension to the existing facility is not supported, it is likely that future growth of the Baiada business would be directed to either Victoria or NSW, ultimately, day old chicks would likely be imported from other states with the site likely to become unviable to continue operating to its current form.

6 PLANNING ASSESSMENT

6.1 INTRODUCTION

The proposed extension of the hatchery best fits within the definition of *Intensive Animal Keeping* under the *Development Regulations 2008*. The subject site is contained within the General Industry (GIn) Zone of the Gawler Development Plan 2016 and subject to the Gawler River Flood Prone Area and as such Intensive Animal Keeping development within the Flood Prone Area is identified as 'Non-Conforming Development.' In this regard, it is important that day old chicks are typically removed from site within 24 hours of hatching and no "keeping" or rearing occurs on-site. As such the nature and impact of the operation is consistent with a modern industrial facility, as opposed to intensive animal husbandry.

As the proposed development is non-complying, and not of a minor nature, the proposed development is considered to fall within Public Notification Category 3 as per Schedule 9 of the *Development Regulations 2008*.

6.2 GAWLER DEVELOPMENT PLAN 2016

The subject site is zoned General Industry (GIn) under the Gawler Development Plan 2016 as illustrated in *Figure 10*.



Figure 10: Zoning of Subject Site (GDP)

The proposed development is an extension to an existing use within the General Industry Zone and Industrial area within the Gawler (CT) Structure Plan. In addition, it is noted that the site is also identified as being within the Gawler Rivers Floodplain Area as outlined within the GDP and as illustrated in *Figure 11*.

The proposed extension of the hatchery best fits within the definition of *Intensive Animal Keeping* under the *Development Regulations 2008*. The proposed extension of existing *Intensive Animal Keeping* use within the General Industry (GIn) Zone, where also subject to the Gawler Rivers Floodplain Area is identified as Non-Complying development under Section 10 of the Principles of Development Control for the General Industry Zone in the GDP 2012.



Figure 11: Subject Site within Gawler Rivers Floodplain Area

6.2.1 Referral

As per previous the original hatchery development application, the existing use on the site has been considered to be an Activity of Environmental Significance under Schedule 21:4(3) of the *Development Regulations 2008* which is subject to referral to the Environmental Protection Authority (EPA) at Council's discretion under schedule 8: 10(b) of the Development Regulations.

4—Animal Husbandry, Aquaculture and Other Activities

(3) Poultry: the keeping of poultry involving an enclosed shed area exceeding 1 000 square metres.

While the physical size of the expansion (1,783m²) is not considered minor in nature, it is important to note that the nature of the use, day to day operations and the potential impacts of the development are not expected to change significantly.

Further, as the hatched birds are kept on site for less than 24 hours before being transported to farms, the site is not considered to be a typical animal husbandry operation and does not involve the range of potential impacts usually associated with such activities. Accordingly, referral to the EPA in this case is not considered necessary.

6.2.2 General Industry Zone

Table 7 provides an assessment of the proposed development against the relevant Principles of Development Control of the General Industry Zone. As demonstrated, the proposed development is considered to comply with the Principles of Development Control for the zone, and therefore an appropriate development within the General Industry (GIn) zone.

Table 7: General Industry (GIn) Zone Assessment

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
Form of Development	
<p>1. Development should not be undertaken within the zone unless it is consistent with the Desired Character and Desired Use of land for the zone.</p>	<p>Complies. The desired character and intent of the zone is “to accommodate a wide range of uses including service and manufacturing industry, wholesaling, warehousing and storage”. The proposed development involves an expansion of an existing industrial use which operates in a complimentary manner to the site and surrounding area.</p>
<p>2. Development undertaken in the General Industry Zone should be, primarily, industrial development other than special or extractive industrial development.</p>	<p>Complies. The proposed development is an extension of existing hatchery on site.</p>
Hazards	
<p>6. New buildings (in excess of 40 square metres floor area) should :</p> <p>(a) have a finished floor level equal to or greater than 300 millimetres above the predicted level of a 1 in 100 ARI flood event level applicable to the hazard flood risk area; and</p> <p>(b) ensure there is no permanent storage of chemicals, goods or equipment below 300 millimetres above the predicted 1 in 100 ARI flood event level for the applicable hazard flood risk area.</p> <p>7. Ground floor additions to buildings should :</p> <p>(a) not exceed a 40 square metre increase on the existing floor area; and</p> <p>(b) be at the same or higher finished floor level as the existing building.</p> <p>8. Ground floor additions to buildings in excess of a 40 square metre increase in the existing floor area should:</p> <p>(a) have a finished floor level equal to or greater than 300 millimetres above the predicted level of a 1 in 100 ARI flood event level applicable to the hazard flood risk area; and</p> <p>(b) ensure there is no permanent storage of goods or equipment below 300 millimetres above the predicted level of a 1 in 100 ARI flood event level for the applicable hazard flood risk area.</p>	<p>Complies (Performance Based Solution)</p> <p>The provisions within the Gawler Development Plan 2016 require that development is to have a minimum finished floor level of 46.75 AHD. However, as a result of egg trolleys and other equipment requiring careful movement between the chiller, setters and hatchery it is imperative that the floor level of the proposed extension matches the existing facility (45.75 AHD).</p> <p>The adoption of different floor levels for the site will result in operational complications which would deem the proposed development unviable and require a new hatchery to be built in an alternate location.</p> <p>As there is no requirement for the proposed plant room to be at grade with the hatchery, this building will be constructed with a finished floor level of 46.75m.</p> <p>A range of flood protection measures at the site are proposed to be implemented to ensure an appropriate level of flood immunity for the new building. These measures include:</p> <ul style="list-style-type: none"> • The extension will be constructed with a flood proof concrete perimeter wall up to a height of 46.75m with insulated panel above; • Where required, access to the extension will be achieved via flood proof doors and / or “up and over” stairs; • Existing doorways and openings to the current hatchery will be fitted with temporary flood barriers which can be installed in the event of a flood to protect flood waters intruding into the building; • Any plumbing connections from the outside into the proposed extension require a one-way valve to

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
Form of Development	
	<p>prevent water backing up through the system; and</p> <ul style="list-style-type: none"> • A flood emergency plan which may include details on key actions such as securing flood proof doors and evacuation procedures will be prepared for the site. <p>It is considered that this response to the flood risk provides an appropriate balance of risk management and mitigation while enable the use to continue to operate on site in the long term.</p>

6.3 GENERAL PRINCIPLES OF DEVELOPMENT CONTROL

General principles of development control (PDC), as outlined in the Gawler Development Plan, that are considered relevant to the proposed development include:

- Appearance of Land, Buildings, and the Public Environment
- Energy Efficiency
- Form of Development
- Industrial Development
- Infrastructure
- Interface between land uses
- Transportation
- Waste

Table 8 provides an assessment of the proposed development against the relevant General Principles of Development Control. As demonstrated, the proposed development is consistent with the relevant and applicable General Principles of Development Control, and is therefore considered to be consistent with the *Gawler Development Plan 2016*.

Table 8: Principles of Development Control

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
Appearance of Land, Buildings, and the Public Environment	
1. The appearance of land, buildings, and objects should not impair the amenity of the locality in which they are situated.	<p>Complies.</p> <p>The proposed extension to the existing hatchery is located within an existing industrial zoned area. The bulk and scale of the proposed extension will be commensurate with the existing building in terms of height and form, and will not visually impact on the amenity of the locality.</p>
3. No development should impair: <ul style="list-style-type: none"> a) the natural character of the face; or b) the skyline, of the Mount Lofty Ranges as seen from that part of metropolitan Adelaide located on the plains.	<p>Complies.</p> <p>The proposed development is not of a size and bulk to impair the natural character of the face or the skyline of the Mount Lofty Ranges.</p>
4. Development with frontage to the One Tree Hill Scenic Road shown on Map Ga/1 (Overlay 1) Enlargements Part A and Part B should enhance the function of the scenic road as a gateway to Gawler through the following siting and design techniques: <ul style="list-style-type: none"> a) buildings are designed to follow the contour of 	<p>N/A</p> <p>Development is not located with frontage to the One Tree Hill Scenic Road.</p>

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
<p>the land and to minimise disturbance to the natural landform;</p> <p>b) landscaping is provided to form a distinctive landscape character along the road corridor;</p> <p>c) avoidance of solid fencing or where solid fencing is necessary ensuring a highly articulated finish.</p>	
<p>5. Development should enhance public spaces in its locality, and reflect the character sought to be achieved in the relevant zone or policy area.</p>	<p>N/A</p> <p>The proposed development is a bio secure facility that is not accessible to the public. The proposed hatchery extension will be commensurate with the existing building in terms of height and form, and is considered to reflect the character of the existing on site and surrounding industrial area.</p>
<p>6. The apparent bulk, height and scale of any large buildings which may be required for specific functional reasons should be minimised by the careful articulation and composition of building forms and facades.</p>	<p>Complies.</p> <p>The proposed hatchery extension will be commensurate with the existing building in terms of height and form and is not considered to be of a significantly large bulk, height and scale.</p>
<p>7. Services, mechanical plant and equipment should be located, and where necessary screened, so as not to be visible from adjacent streets and public places nor be detrimental to the character of items or areas of historic significance.</p>	<p>Complies.</p> <p>The proposed extension is located entirely on the site.</p>
<p>8. Development should be design to avoid undesirable microclimatic and solar access effects on other land or buildings, including effects of patterns of wind, temperature, daylight, sunlight, light overspill, glare and overshadow.</p>	<p>Complies.</p> <p>The proposed extension is not expected to result in undesirable microclimate or solar access effects.</p>
<p>9. Development should be designed so as to not unduly affect levels of privacy of adjacent residential premises.</p>	<p>Complies.</p> <p>The proposed development will not have windows, and is not expected to result in any decrease in the level of privacy of adjoining premises.</p>
<p>10. Development should not result in noise emission which would detrimentally affect the amenity of adjacent properties.</p>	<p>Complies.</p> <p>The hatchery produces minimum noise emissions beyond what is common and expected for an industrial building. The proposed expansion is not expected to introduce any new noise sources, with the proposed incubators and cool room emitting low level noise which will be contained within the building.</p> <p>As such it is considered that there is limited potential for the facility to impact on the surrounding residents in terms of adverse noise impacts.</p>
<p>11. Development should not result in emission of atmospheric, liquid or other pollutants which would prejudice the amenity of adjacent properties.</p>	<p>Complies.</p> <p>The hatchery expansion will not affect the air quality or produce any odour impacts within the locality. Most of the air emissions from the hatchery consist of water vapour and carbon dioxide that are sourced from the incubators and hatcher which are not odorous emissions.</p>

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
Energy Efficiency	
42. Development should provide for efficient solar access to buildings and open space all year around.	Complies. The proposed hatchery extension is not located adjacent to any other buildings, and is not expected to result in changes to solar access to any nearby buildings or open space.
43. Buildings should be sited and designed: a) to ensure adequate natural light and winter sunlight is available to the main activity areas of adjacent buildings; b) so that open spaces associated with the main activity areas face north for exposure to winter sun.	Complies. The proposed hatchery extension is not located adjacent to any other buildings, and is not expected to result in changes to solar access to any nearby buildings or open space. The nearest residence is located 60 meters away and is separated by a raised rail line.
44. Development should facilitate the efficient use of photovoltaic cells and solar hot water systems by: a) taking into account overshadowing from neighbouring buildings; b) designing roof orientation and pitches to maximise exposure to direct sunlight.	N/A The activities on site are industrial in nature, and do not require the use of photovoltaic cells for solar hot water system use.
45. Public infrastructure and lighting should be designed to generate and use renewable energy.	N/A No public infrastructure or lighting is proposed.
Form of Development	
46. Extensions of built-up areas should not be in the form of ribbon development along arterial roads unless indicated in zone policies or structure plans.	N/A Development does not contribute to ribbon development along arterial roads.
47. Development in localities having a bad or unsatisfactory layout, or unhealthy or obsolete development, should improve or rectify those conditions.	N/A Development is for an extension of an existing industrial use in an industrial zoned area.
48. Urban development should be confined to areas within the urban boundary of Metropolitan Adelaide and be based on principles of ecologically sustainable development (ESD) that includes water sensitive urban design (WSUD), energy efficiency, biodiversity protection and enhancement, natural resource protection, waste, minimisation, indoor and outdoor environmental quality and sustainable selection and use of materials.	Complies. The proposed hatchery extension is an expansion of an existing use on site and is considered to comply with the intent of this provision.
49. Development adjacent to the rural/urban interface, as indicated on Map Ga/1 (Overlay 1) Enlargements Part A and Part B should incorporate suitable buffers to minimise the effect of potential impacts.	N/A
50. Development should minimise the potential for personal and property damage arising from natural hazards including landslip, bushfires and flooding.	Complies. The proposed development is not located in an area prone to landslip or bushfire. The proposed extension is identified as being within the Gawler River Flood Plain within the GDP. To ensure that the

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
	potential for personal and property damage arising from flooding is mitigated and managed on site, a Flood Management Assessment has been prepared by AWE which outlined a number of flood proofing measures that will be incorporated into the building design to ensure that flood impacts on the proposed development are minimised.
<p>51. Septic tanks should:</p> <p>a) not be installed where the effluent is likely to lead to the pollution of surface or underground water; and</p> <p>b) (b) be installed on allotments large enough to allow the disposal of the effluent within the allotment boundaries.</p>	N/A
<p>52. Development should not create conditions which are likely to exceed the capacity of existing roads, public utilities, and other community services and facilities.</p>	<p>Complies.</p> <p>The proposed extension, and increase in processing capacity is expected to result in less than 1 additional truck movement to and from the site each day. As a result, no changes in the current capacity of roads, service or facilities are expected as a result of the proposed development.</p>
<p>53. Development should be supplied with adequate energy, water, waste disposal and drainage facilities to serve the needs of users.</p>	<p>Complies.</p> <p>The site and existing facility is already connected to all required services.</p>
Hazards	
<p>54. Development should be excluded from areas that are vulnerable to, and cannot be adequately and effectively protected from, flooding.</p>	<p>Complies.</p> <p>The Flood Management Assessment, prepared by AWE (Appendix 3), identifies a number of flood proofing measures that can be incorporated into the building design in order to ensure that any areas within the proposed expansion that are vulnerable to flooding, are protected.</p>
<p>55. There should not be any significant interference with natural processes in order to reduce the exposure of development to the risk of natural hazards.</p>	<p>Complies.</p> <p>The proposed expansion is expected to result in a small loss of floodplain storage. As peak velocities in this area are very low (<0.15m/s), loss of storage would be the major contributor to any increase in peak water level. The expected loss in floodplain storage as a result of the proposed expansion is negligible compared to the extent of recent filling that has been undertaken on adjacent properties. Any increase in flood depth, which is expected to be very minor, associated with the loss in storage from the proposed development, is expected to be limited to the Hatchery site.</p>
<p>56. Development should not occur on land where the risk of flooding is likely to be harmful to safety or damage property.</p>	<p>Complies.</p> <p>The Flood Management Assessment, prepared by AWE (Appendix 3), identifies a number of flood proofing measures that can be incorporated into the building design in order to ensure that any areas within the proposed expansion that are vulnerable to flooding, are protected.</p>

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
<p>57. Development should not be undertaken in areas liable to inundation by tidal, drainage or flood waters unless the development can achieve all of the following:</p> <ul style="list-style-type: none"> a) it is developed in an area having a public stormwater system capable of catering for a 1 in 100 year average return interval flood event; and b) buildings and structures for human habitation or for the keeping of animals have a finished floor level and gully traps at least 300mm above the Australian Height Datum level of a 1 in 100 year average return interval flood event. 	<p>Complies.</p> <p>The Flood Management Assessment, prepared by AWE (Appendix 3), identifies a number of flood proofing measures that can be incorporated into the building design in order to ensure that any areas within the proposed expansion that are vulnerable to flooding, are protected.</p>
<p>58. Development, including earthworks associated with development, should not:</p> <ul style="list-style-type: none"> a) impede the flow of floodwaters through the land or other surrounding land; or b) increase the potential hazard risk to public safety of persons during a flood event; or c) aggravate the potential for erosion or siltation or lead to the destruction of vegetation during a flood; or d) cause any adverse effect on the floodway function; or e) increase the risk of flooding of other land; or f) obstruct a watercourse. 	<p>Complies.</p> <p>There is no filling is proposed on site as a result of the proposed development. Regardless, the proposed expansion is expected to result in a small loss of floodplain storage.</p> <p>As noted in the assessment, the subject property is bounded by the fill above the 1% AEP flood level on allotments to the north, south and the railway to the west. As a consequence the flow velocities within the Hatchery site are expected to be very low (less than 0.15 m/s). This area of the floodplain can be considered to be an ineffective flow area and does not actively contribute to the flood conveyance of the North Para.</p> <p>Accordingly, the changes to the flow regime associated with the extension would result in very minor increases to the peak flow and volume. It is expected that the informal detention provided within the site at the low point at Adams Street would be sufficient to negate any impacts associated with these minor changes to flow.</p>
<p>59. Development of buildings, structures, farming and horticultural activities should maintain the natural landform in areas subject to flooding by:</p> <ul style="list-style-type: none"> a) locating and designing driveways, access tracks and parking areas to follow the natural contours of the land; and b) minimising the amount of excavation and limiting the level of fill for driveways, access tracks and parking areas to no more than 300mm above natural or existing surface level; and c) minimising the area of fill required to accommodate buildings above the Australian Height Datum level of a 1 in 100 year average return interval flood event; and d) avoiding the use of levees or channels for the irrigation or protection of crops. 	<p>Complies.</p> <ul style="list-style-type: none"> a) No changes to existing driveway locations or parking areas are proposed. b) No excavation and fill for driveways, access tracks and parking areas resulting in a level of fill 300mm above natural or existing surface level is proposed. c) a number of flood proofing measures will be incorporated into the building design in order to ensure that any areas within the proposed expansion that are vulnerable to flooding, are protected, as opposed to filling the area where the proposed expansion is to be located. d) N/A
<p>60. Construction and placement of structures, including roads, in a watercourse, a floodplain of a watercourse, a lake, a wetland, or an area subject to inundation should:</p>	<p>Complies.</p> <ul style="list-style-type: none"> a) Implementing the identified flood proofing recommendations is expected to result in a small

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
<p>a) not result in flooding either upstream or downstream; and</p> <p>b) be constructed in a manner that prevents the structure, or any debris collected by the structure, increasing the risk of damage to property or the risk to safety of persons.</p>	<p>loss of floodplain storage. As peak velocities in this area are very low (<0.15m/s), loss of storage would be the major contributor to any increase in peak water level. The expected loss in floodplain storage as a result of the proposed expansion is negligible compared to the extent of recent filling that has been undertaken on adjacent properties. Any increase in flood depth, which is expected to be very minor, associated with the loss in storage from the proposed development, is expected to be limited to the Hatchery site.</p> <p>b) The Flood Management Assessment, prepared by AWE (Appendix 3), identifies a number of flood proofing measures that can be incorporated into the building design in order to ensure that any areas within the proposed expansion that are vulnerable to flooding, are protected.</p>
<p>61. Development should avoid the discharge or deposit of waste, wastewater and waste treatment systems (including processes such as seepage, infiltration or carriage by wind, rain, stormwater or by the rising of the water table) onto land or into any waters that are subject to inundation by a 1 in 100 year average return interval flood event.</p>	<p>Complies.</p> <p>As outlined within the Flood Management Report prepared by AWE (Appendix 3), the existing hatchery operation has a stormwater management system which conveys all stormwater from the site. The current system is well formalised and includes a swale system which is likely to provide some water quality improvements during smaller more frequent runoff events through sedimentation and infiltration. The current system has an isolating valve which can be shut to isolate the stormwater management system from the Council network should an emergency spill of liquid wastes or contaminants occur. The wastewater streams for the Hatchery are captured and disposed of in a system separate from the stormwater capture and conveyance system on site.</p>
<p>62. Development should not occur where essential services cannot be economically provided and maintained having regard to flood risk or where emergency vehicle access would be prevented by a 1 in 100 year average return interval flood event.</p>	<p>N/A</p> <p>Proposed development is not considered to constitute an essential service.</p>
<p>63. Emergency service facilities such as hospitals, fire stations, police stations and other similar types of facilities should be located above the predicted level for a 1 in 1000 year ARI flood event.</p>	<p>N/A</p> <p>Proposed development is not considered to constitute an emergency service.</p>
<p>Gawler Rivers Floodplain Area</p>	
<p>64. Development should not occur unless it is sited, designed and undertaken with appropriate precautions being taken against the relevant hazard flood risk.</p>	<p>Complies.</p> <p>The Flood Management Assessment, prepared by AWE (Appendix 3), identifies a number of flood proofing measures that can be incorporated into the building design in order to ensure that any areas within the proposed expansion that are vulnerable to flooding, are protected.</p>
<p>65. Intensive animal keeping should not be established.</p>	<p>Complies (Performance Solution).</p> <p>The hatchery activities see chicks removed from the site within 24 hours after hatching and animals are not "kept" or raised on site. As such, the typically risks associated with</p>

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
	<p>intensive animal keeping in flood prone areas (e.g. potential stock losses and water quality impacts) are not present.</p> <p>The proposed expansion will also include a number of flood proofing measures that will be incorporated into the building design in order to ensure that any areas within the proposed expansion that are vulnerable to flooding, are protected.</p>
<p>66. Land should not be divided unless:</p> <ul style="list-style-type: none"> a) it does not result in an increase in the number of allotments (except where it is for the purpose of creating a separate allotment for an existing dwelling and all resulting allotments will contain at least one existing dwelling); or b) it provides for public access to the banks of the river in the form of a reserve or easements necessary for the provision of public utility services; or c) it facilitates the construction of flood mitigation works; or d) it involves works designed and certified by a suitably qualified engineer to minimise the impact of a 1 in 100 ARI flood event on the subject land and any other land in the area, and where such works would not cause a material adverse impact on other people or property. 	<p>N/A</p> <p>Land is not proposed to be divided.</p>
<p>67. Land division in the form of boundary realignment should only occur if:</p> <ul style="list-style-type: none"> a) the land does not contain environmental features or significant site constraints; and b) sufficient space can be provided in appropriate locations outside of the Gawler Rivers Floodplain Area for the siting of buildings, structures and associated services and infrastructure necessary for the intended land use; and c) it is for the purpose of creating a separate allotment for an existing dwelling and all resulting allotments will contain at least one existing dwelling; and d) evacuation routes to land and roads outside of flood risk areas are available without the need to pass through medium or high hazard flood risk areas shown on Figures FI/1 to FI/8. 	<p>N/A</p> <p>Land is not proposed to be divided.</p>
<p>68. Development should be provided with all weather vehicular access for the purpose of evacuation in a flood to an area located outside of the medium and high hazard flood risk areas identified in Figures FI/1 to FI/8. No part of an evacuation route should pass through land that is identified within a medium or high hazard flood risk area.</p>	<p>N/A.</p> <p>The site has access to the existing road network and no changes are proposed. A Flood Emergency Plan will be developed to ensure safe movement off site prior to flood peaks.</p>

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
69. Additions to dwellings should minimise the impact on the flow of floodwaters, by minimising the extent of total ground floor area of the dwelling.	N/A No changes to access of vehicle manoeuvring on site are proposed. Current access arrangements were approved as part of previous development applications.
70. Filling of land required to raise the finished floor level of a building should not extend more than 7 metres beyond the external walls of that building and be of good quality composition and compaction providing suitable ground stability in the event of flooding.	N/A There is no filling proposed on site as a result of the proposed development.
71. Where fencing is required to provide safety to residents or security to stock, goods or machinery, it should be designed to withstand the flow of floodwater.	N/A
72. Solid fencing for State and Local heritage listed places is appropriate provided that the level of flood risk in the vicinity is not significantly altered.	N/A
73. Solid fencing should be limited to the private open space areas required by the zone or policy area and generally be located to the side and rear of dwellings.	N/A
74. Land uses associated with activities which produce strong organic, chemical or other intractable wastes, or the storage of bio-chemicals or chemical agents should not be established.	N/A The proposed development will not result in the generation of strong organic, chemical or other intractable wastes that will be stored on the site.
75. Development should not result in stockpiles or similar obstructions.	Complies. No stockpiling is part of the current processes on site, and no new stockpiling processes are proposed.
76. Levees or floodwalls that do not form part of a public flood mitigation scheme should not be established as a flood protection measure unless it can be demonstrated that the levees or floodwalls do not increase the extent or hazard flood risk of land either upstream or downstream.	N/A
77. Any on-site wastewater treatment system/reuse system or effluent drainage fields should not be located in the Gawler Rivers Floodplain Area.	Complies The existing waste water treatment processes on the site will be retained in their current form. No re-use or irrigation of treated waste water occurs on the site.
Industrial Development	
78. Industrial development should be located in business or industrial areas.	Complies. The proposal includes an extension of an existing industrial activity in an existing industrial area.
79. No dwellings other than caretakers' quarters should be erected in industrial areas.	N/A No caretaker's quarters are proposed.
80. Industrial development should be of a high architectural standard.	Complies. The proposed expansion has been design to reflect the existing building scale, and design, and is of a high standard.
81. The width of roads in an industrial area should be adequate for the type and volume of traffic expected.	N/A No new roads are proposed. New on site manoeuvring

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
	areas have been designed to allow sufficient turning area for proposed heavy vehicle servicing.
82. Where industrial areas abut residential areas light industrial development should be located near the residential area to minimise the nuisance to householders.	<p>Complies.</p> <p>The nearest residential dwelling is located 60m to the west. These areas are separated from the site by a rail line. While the proposed development includes the increase in hatchings on site, and a larger building footprint, the current operations will be largely retained, and no new potential amenity or environmental nuisances are expected to be generated as a result of the proposed development.</p>
Infrastructure	
<p>83. Development should not occur without the provision of adequate utilities and services, including:</p> <ul style="list-style-type: none"> a) electricity supply; b) water supply; c) drainage and stormwater systems; d) waste disposal; e) effluent disposal systems; f) formed all-weather public roads; g) telecommunications services; h) social infrastructure, community services and facilities; i) gas services. 	<p>Complies.</p> <p>The site is already connected to all required services.</p>
84. Development should only occur only where it provides, or has access to, relevant easements for the supply of infrastructure.	<p>Complies.</p> <p>The site is already connected to all required services.</p>
85. Development should incorporate provision for the supply of infrastructure services to be located within common service trenches where practicable.	<p>Complies.</p> <p>The site is already connected to all required services.</p>
86. Development should not take place until adequate and coordinated drainage of the land is assured.	<p>Complies.</p> <p>As noted in the Flood Management Assessment, the subject property is bounded by the fill above the 1% AEP flood level on allotments to the north, south and the railway to the west. As a consequence the flow velocities within the Hatchery site are expected to be very low (less than 0.15 m/s). This area of the floodplain can be considered to be an ineffective flow area and does not actively contribute to the flood conveyance of the North Para.</p> <p>Accordingly, the changes to the flow regime associated with the extension would result in very minor increases to the peak flow and volume. It is expected that the informal detention provided within the site at the low point at Adams Street would be sufficient to negate any impacts associated with these minor changes to flow.</p>
87. Development in urban areas should not occur without provision of an adequate reticulated domestic quality mains water supply and an appropriate waste	<p>Complies.</p> <p>The site is already connected to all required services.</p>

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
treatment system.	
88. In areas where no reticulated water supply is available, buildings whose usage is reliant on a water supply should be equipped with an adequate and reliable on-site water storage system.	N/A
89. Urban development should not be dependent on an indirect water supply.	N/A
90. Electricity infrastructure should be designed and located to minimise its visual and environmental impacts.	Complies. The site is already connected to all required services.
91. In urban areas, electricity supply serving new development should be installed underground (excluding lines having a capacity greater than or equal to 33kv).	N/A
92. Utilities and services, including access roads and tracks, should be sited on areas already cleared of native vegetation. If this is not possible, their siting should cause minimal interference or disturbance to existing native vegetation and biodiversity.	N/A
93. Utility buildings and structures should be grouped with non-residential development where possible.	N/A
94. Development in proximity to infrastructure facilities should be sited and be of a scale to ensure adequate separation to protect people and property.	N/A
95. Existing transmission lines should not be encroached upon by incompatible uses.	Complies. No transmission lines will be encroached as part of the proposed hatchery expansion.
96. Provision should be made for new distribution substations and overhead major electricity line corridors (having a capacity greater than or equal to 33kv) in optimum locations with adequate access.	N/A
Interface Between Land Uses	
<p>97. Development should not detrimentally affect the amenity of the locality or cause unreasonable interference through any of the following:</p> <ul style="list-style-type: none"> a) the emission of effluent, odour, smoke, fumes, dust or other airborne pollutants; b) noise; c) vibration; d) electrical interference; e) light spill; f) glare; g) hours of operation; h) traffic impacts. 	<p>Complies.</p> <p>This statement of effects addresses the potential impacts of the proposed hatchery expansion development on the amenity of the locality.</p> <ul style="list-style-type: none"> a) The hatchery expansion will not affect the air quality or produce any odour impacts within the locality. Most of the air emissions from the hatchery consist of water vapour and carbon dioxide that are sourced from the incubators and hatchers which are not odorous emissions. b) The hatchery produces minimum noise emissions beyond what is common and expected for an industrial building. The proposed expansion is not expected to introduce any new noise sources, with the proposed incubators and coolroom emitting

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
	<p>low level noise which will be contained within the building.</p> <p>c) Due to the nature of the proposed development, no vibration impacts are expected as a result of the hatchery expansion.</p> <p>d) Due to the nature of the proposed development, no electrical interference impacts are expected as a result of the hatchery expansion.</p> <p>e) No additional external lighting is currently proposed. As such, no light spill impacts are expected as a result of the proposed development.</p> <p>f) Due to the nature, design and building materials proposed for the development, no glare impacts are expected as a result of the hatchery expansion.</p> <p>g) No changes to the existing hours of operation are proposed.</p> <p>h) An average of 16 heavy vehicles will be generated following the proposed increase in capacity. The additional vehicle movements are not expected to negatively impact the surrounding road network or existing manoeuvring arrangements on the site. No upgrade to the surrounding road network is required to facilitate the development.</p>
<p>98. Development should be sited and designed to minimise negative impact on existing and potential future land uses considered appropriate in the locality.</p>	<p>Complies.</p> <p>The proposed hatchery expansion will result in the existing building being extended further into the rear of the lot, towards the rail line, and will be of a scale and appearance in line with the existing building. Considering the proposed development is for an extension to an existing industrial use building within the General Industry area, the proposed development is considered to minimise negative impact on existing or potential future land uses within the locality.</p>
<p>99. Development adjacent to a Residential Zone or residential area within a Township Zone should be designed to minimise overlooking and overshadowing of nearby residential properties.</p>	<p>Complies.</p> <p>The nearest residential dwelling is located 60m to the west. These areas are separated from the site by a rail line. While the proposed development includes the increase in hatchings on site, and a larger building footprint, the current operations will be largely retained, and no new potential amenity or environmental nuisances are expected to be generated as a result of the proposed development.</p>
<p>100. Residential development adjacent to non-residential zones and land uses should be located, designed and/or sited to protect residents from potential adverse impacts from non-residential activities.</p>	<p>N/A</p> <p>Development is not residential in nature.</p>
<p>101. Sensitive uses likely to conflict with the continuation of lawfully existing developments and land uses considered appropriate for the zone should not be developed or should be designed to minimise negative impacts.</p>	<p>N/A</p> <p>Proposed development is not for a sensitive use.</p>

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
102. Development should be sited, designed and constructed to minimise negative impacts of noise and to avoid unreasonable interference.	Complies. The hatchery produces minimum noise emissions beyond what is common and expected for an industrial building. The proposed expansion is not expected to introduce any new noise sources, with the proposed incubators and cool room emitting low level noise which will be contained within the building.
103. Development should be consistent with the relevant provisions in the current Environment Protection (Noise) Policy.	Complies. The hatchery produces minimum noise emissions beyond what is common and expected for an industrial building. The proposed expansion is not expected to introduce any new noise sources, with the proposed incubators and cool room emitting low level noise which will be contained within the building.
Transportation (Movement of People and Goods)	
359. Development and associated points of access and egress should not create conditions that cause interference with the free flow of traffic on adjoining roads.	Complies. The proposed development a 9.8% increase in the total number of vehicles trips per week and expected increase results in 5 trucks per day when chicks are being dispatched. As a result, of the small change in vehicles trips, the industrial nature of the site and surrounding area and the ease of access to the highway, the proposed development is not considered to impact on the safe operation of the existing road network.
360. Access to arterial roads should be designed to cater for the simultaneous two-way movements of the largest vehicles expected to enter and exit the site.	N/A No access points onto arterial roads are proposed.
361. Access points to arterial roads should be limited in number, be in safe locations where there is adequate sight distance, and be restricted to side roads/service roads wherever possible.	N/A No access points onto arterial roads are proposed.
362. A Traffic Impact Study should be undertaken to determine the potential impact of developments on the surrounding arterial road network. The 'User Pays' principle should apply for any works that are required as a direct result of providing safe and efficient access to any proposed development.	Complies. As a result, of the small change in vehicles trips, the industrial nature of the site and surrounding area and the ease of access to the highway, the proposed development is not considered to impact on the safe operation of the existing road network. As a result, a Traffic Impact Assessment is not considered to be required.
363. Development should include appropriate provision on the site to enable the parking, loading, unloading, turning and fuelling of vehicles.	Complies. Existing manoeuvring areas will not be altered. Additional manoeuvring areas have been designed to allow for the largest design vehicle expected to service the site, to be able to enter, load, unload, and exit the site in forward gear effectively and safely.
364. Car parking areas should be located and designed to: a) meet the foreseeable demands of employees and customers, in accordance with Table Ga/2;	Complies. The site currently provides 47 parking spaces. As a result of the proposed development, car parking areas will be redesigned and upgraded to provide parking for up to 60 cars. This provision meets the council requirement for an

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
<ul style="list-style-type: none"> b) promote safe and convenient traffic circulation, and which minimises the use of public roads for movement between individual parking areas; c) minimise interference with traffic on adjoining roads from vehicles by providing adequate space for vehicles to queue or manoeuvre into parking spaces clear of the road; d) provide for safe and convenient pedestrian access to and from vehicles; e) make adequate provision for convenient manoeuvring into and out of parking spaces; and f) incorporate shade trees and other appropriate features and facilities to provide shelter for parked cars and assist to break up the open paved expanse of parking areas. 	<p>industrial facility of this size and is sufficient for staff parking, shift changes and visitors.</p>
<p>365. Car parks should, where possible, be integrated with adjoining car parks to share usage and reduce access points.</p>	<p>Complies. New car parking and manoeuvring areas are integrated with the existing. No new access points are proposed.</p>
<p>366. Roads should be designed in accordance with the following hierarchy of roads:</p> <ul style="list-style-type: none"> a) arterial and major collector roads bounding residential neighbourhoods to which no property access is generally provided; b) local crossing roads serving to collect local residential traffic and as a convenient bus route, and on which centre, school and key neighbourhood facilities are located; and c) local streets and access places serving principally a property access function. 	<p>N/A No new roads are proposed.</p>
<p>367. Road design should:</p> <ul style="list-style-type: none"> a) economically provide for the anticipated traffic levels and assigned access function; b) provide adequately for service and emergency vehicle access and turning; c) provide an appropriate level of on-street parking. 	<p>N/A No new roads are proposed.</p>
<p>368. The movement of pedestrians and cyclists should be safely and conveniently provided for within linear open space corridors connecting with residential streets, and within separate rights-of-way along major traffic thoroughfares.</p>	<p>N/A Due to the nature of the site as a restricted access site, not accessible to pedestrians and cyclists, open space linear corridors have not been provided.</p>
<p>369. Development should cater for the safety and convenience of the users of land by providing, where appropriate, pedestrian pathways, ramps and car parking spaces located and designed for ease of movement by aged or disabled persons, and persons accompanied by children.</p>	<p>Complies. All car parking spaces on the site are situated either up against the existing building, or at the eastern end of the site, away from the majority of heavy vehicle movements, and adjacent to the main site entrance to ensure the safety and convenience of users.</p>

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
370. Development should provide off-street vehicle parking and specifically marked disabled car parking places to meet anticipated demand in accordance with Table Ga/2 Car Parking Requirements.	Complies. New parking spaces will be designed in accordance with the relevant standards.
371. Development should be consistent with Australian Standard AS2890 Parking Facilities.	Complies. New parking spaces will be designed in accordance with the relevant standards.
Waste	
372. Development should be sited and designed to prevent or minimise the generation of waste (including wastewater) by applying the following waste management hierarchy in the order of priority as shown below: <ul style="list-style-type: none"> a) avoiding the production of waste; b) minimising waste production; c) reusing waste; d) recycling waste; e) recovering part of the waste for re-use; f) treating waste to reduce the potentially degrading impacts; g) disposing of waste in an environmentally sound manner. 	Complies. The existing waste management practices will be continued on site. The proposed expansion is limited to an increase of the scale of existing operations on the site. No additional waste management practices are therefore considered required.
373. The storage, treatment and disposal of waste materials from any development should be achieved without risk to health or impairment of the environment.	Complies. The existing waste management practices will be continued on site. The proposed expansion is limited to an increase of the scale of existing operations on the site. No additional waste management practices are therefore considered required.
374. Development should avoid the discharge or deposit of waste (including wastewater) onto land or into any waters (including processes such as seepage, infiltration or carriage by wind, rain, sea spray, stormwater or by the rising of the water table).	Complies. The proposed development will not result in the discharge or deposit of waste onto land or waters.
375. Untreated waste should not be discharged to the environment, and in particular to any water body.	Complies. No untreated waste will be discharged from the site, into the environment.
376. Development should include appropriately sized area to facilitate the storage of receptacles that will enable the efficient recycling of waste.	Complies. The existing waste management practices will be continued on site. The proposed expansion is limited to an increase of the scale of existing operations on the site. No additional waste management practices are therefore considered required. Existing receptacles will be increased in size, or emptied more regularly, if required to accommodate the expansion.
377. Development that involves the production and/or collection of waste and/or recyclable material should include designated collection and storage area(s) that	N/A

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
<p>are:</p> <ul style="list-style-type: none"> (a) screened and separated from adjoining areas; (b) located to avoid impacting on adjoining sensitive environments or land uses; (c) designed to ensure that wastes do not contaminate stormwater or enter the stormwater collection system; (d) located on an impervious sealed area graded to a collection point in order to minimise the movement of any solids or contamination of water; (e) protected from wind and stormwater and sealed to prevent leakage and minimise the emission of odours; (f) stored in such a manner that ensures that all waste is contained within the boundaries of the site until disposed of in an appropriate manner. 	
<p>378. The disposal of wastewater to land should only occur where methods of wastewater reduction and reuse are unable to remove the need for its disposal, and where its application to the land is environmentally sustainable.</p>	<p>N/A No wastewater disposal to land is proposed.</p>
<p>379. Wastewater lagoons should not be sited in any of the following areas:</p> <ul style="list-style-type: none"> a) within land subject to a 1-in-100 year average return interval flood event; b) within 50 metres of the top of the bank of a watercourse; c) where the base of the lagoon would be below any seasonal water table. 	<p>N/A No wastewater lagoons are proposed.</p>
<p>380. Artificial wetland system for the storage of treated wastewater, such as wastewater lagoons, should be:</p> <ul style="list-style-type: none"> a) sufficiently separated from adjoining sensitive uses to minimise potential adverse odour impacts; b) sited and designed to minimise potential public health risks arising from the breeding of mosquitoes. 	<p>N/A No artificial wetland systems are proposed.</p>
<p>381. Development that produces any sewage or effluent should be connected to a waste treatment system that complies with (or can comply with) the relevant public and environmental health legislation applying to that type of system.</p>	<p>Complies.</p> <p>The existing waste management practices will be continued on site. No liquid wastes will generated from the actual hatching process however, waste water is generated as a result of sanitation and wash down procedures carried out to maintain hygiene standards. As per the current situation, waste water will be collected via internal drains which discharge into a settling pit before entering the Trade Waste System.</p> <p>The existing system on site is considered appropriate to manage expected loads. Flow rates are not expected to</p>

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
	<p>increase as a result of the proposed development. However, periods of higher flow will be extended to longer periods of time as a result of the expected increase in waste water loads.</p> <p>The site currently has a Trade Waste Agreement with SA Water which allows for the discharge of 326,000L per week. To date the site has not exceeded 67% of the approved discharged volume and the proposed expansion is not expected to require any variation to the current agreement.</p>
<p>382. The methods for, and siting of, effluent and waste storage, treatment and disposal systems should minimise the potential for environmental harm and adverse impacts on:</p> <ul style="list-style-type: none"> a) the quality of surface and groundwater resources; b) public health; c) the amenity of a locality; d) sensitive land uses. 	<p>Complies.</p> <p>The existing waste management practices will be continued on site. No liquid wastes will generated from the actual hatching process however, waste water is generated as a result of sanitation and wash down procedures carried out to maintain hygiene standards. As per the current situation, waste water will be collected via internal drains which discharge into a settling pit before entering the Trade Waste System. Screens will be attached to all drains to remove solid waste (e.g. fluff and egg shell) prior to disposal.</p>
<p>383. Waste treatment should only occur where the capacity of the treatment facility is sufficient to accommodate likely maximum daily demands including a contingency for unexpected high flows and breakdowns.</p>	<p>Complies.</p> <p>The existing waste management practices will be continued on site. No liquid wastes will generated from the actual hatching process however, waste water is generated as a result of sanitation and wash down procedures carried out to maintain hygiene standards. As per the current situation, waste water will be collected via internal drains which discharge into a settling pit before entering the Trade Waste System.</p> <p>The existing system on site is considered appropriate to manage expected loads. Flow rates are not expected to increase as a result of the proposed development. However, periods of higher flow will be extended to longer periods of time as a result of the expected increase in waste water loads.</p>
<p>384. Any on-site wastewater treatment system/ re-use system or effluent drainage field should be located within the allotment of the development that it will service.</p>	<p>Complies.</p> <p>The existing waste water treatment system on site is contained wholly within the site.</p>
<p>385. A dedicated on-site effluent disposal area should not include any areas to be used for, or could be reasonably foreseen to be used for, private outdoor open space, driveways, car parking or outbuildings.</p>	<p>Complies.</p>
<p>386. The spreading or discharging of treated liquid or solid waste onto the ground should only occur where the disposal area consists of soil and vegetation that has the capacity to store and use the waste without contaminating soil or surface or ground water resources or damaging crops.</p>	<p>N/A</p> <p>Discharging or spreading of treated wastewater or any other liquid onto the ground is currently not done as part of existing processes and is not proposed as part of the proposed hatchery expansion.</p>

PRINCIPLES OF DEVELOPMENT CONTROL	APPLICANT'S RESPONSE
<p>387. Stock slaughter works, poultry processors, saleyards, piggeries, cattle feedlots, milking sheds, milk processing works, fish processing works, wineries, distilleries, tanneries and fellmongeries, composting works and concrete batching works should have a wastewater management system that is designed so as not to discharge wastes generated by the premises:</p> <ul style="list-style-type: none"> a) into any waters; b) onto land in a place where it is reasonably likely to enter any waters by processes such as: <ul style="list-style-type: none"> i. seepage; ii. infiltration; iii. carriage by wind, rain, sea spray, or stormwater; iv. the rising of the watertable. 	<p>Complies.</p> <p>No liquid wastes will generated from the actual hatching process however, waste water is generated as a result of sanitation and wash down procedures carried out to maintain hygiene standards. As per the current situation, waste water will be collected via internal drains which discharge into a settling pit before entering the Trade Waste System. Screens will be attached to all drains to remove solid waste (e.g. fluff and egg shell) prior to disposal.</p> <p>The existing system does not discharge wastes into any waters or onto land in a place where it is reasonably likely to enter any waters by processes.</p>
<p>388. Winery waste management systems should be designed to ensure:</p> <ul style="list-style-type: none"> a) surface runoff does not occur from the wastewater irrigation area at any time; b) wastewater is not irrigated onto waterlogged areas, land within 50 metres of a creek, or swamp or domestic or stock water bore, or land subject to flooding, steeply sloping land, or rocky or highly permeable soil overlaying an unconfined aquifer; c) wastewater is not irrigated over an area which is within 50 metres of any residence on neighbouring land or 10 metres of any type of publicly owned land; d) wastewater is released using low trajectory low pressure sprinklers, drip irrigators or agricultural pipe, and is not sprayed more than 1.5 metres into the air or in fine droplets if there is a potential for the spread of diseases from the wastewater; e) stormwater run-off from areas which are contaminated with grape or grape products is drained to winery waste management systems during vintage periods; f) stormwater from roofs and clean hard paved surfaces is diverted away from winery waste management systems and disposed of in an environmentally sound manner or used for productive purposes. 	<p>N/A</p>

7 CONCLUSION

PSA Consulting has been engaged by BPL Livestock Pty Ltd to prepare this Statement of Effects to accompany a Development Application seeking Development Plan Consent for the proposed extension to the existing poultry hatchery located at Adam Street, Willaston.

BPL Livestock is part of the Baiada Group of Companies which includes the Steggles business. Baiada is a privately owned Australian company providing premium quality poultry products throughout Australia. Baiada is the largest poultry meat company in Australia and is seeking to grow its operations in response to the projected demand for their products.

The hatchery at Willaston is an important part of the company's South Australian operations, and currently has a hatching capacity of approximately 920,000 chicks a week. Specifically, this Development Application seeks approval for an increase in the production capacity at the site to a maximum 1,550,000 chicks a week. This increase is proposed to be accommodated by the construction of an extension of the existing building to contain additional incubators, hatching rooms, cool room, plant room and other supporting infrastructure.

The proposed development is identified as Development Requiring Consent in the Gln (General Industry) zone under the *Gawler Development Plan 2016*. The proposal is considered to be consistent with the objectives of the General Industry Zone and applicable and relevant general principles of development control as demonstrated in Sections 6.2 and 6.3 of this report. In addition, the current uses and proposed development are considered to be consistent with the scale and character of the surrounding area and will not introduce any unacceptable impacts. Accordingly, it is recommended that the Development Application be approved subject to relevant and reasonable conditions.

8 APPENDICES

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 5602 Folio 273

Parent Title(s) CT 5246/555
Creating Dealing(s) RTU 8523760
Title Issued 01/12/1998 Edition 4 Edition Issued 07/09/2009

Estate Type

FEE SIMPLE

Registered Proprietor

BPL LIVESTOCK PTY. LTD. (ACN: 000 852 611)
OF 642 GREAT WESTERN HIGHWAY GIRRAWEEEN NSW 2145

Description of Land

ALLOTMENT 2 DEPOSITED PLAN 50460
IN THE AREA NAMED WILLASTON
HUNDRED OF MUDLA WIRRA

Easements

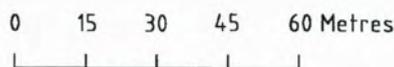
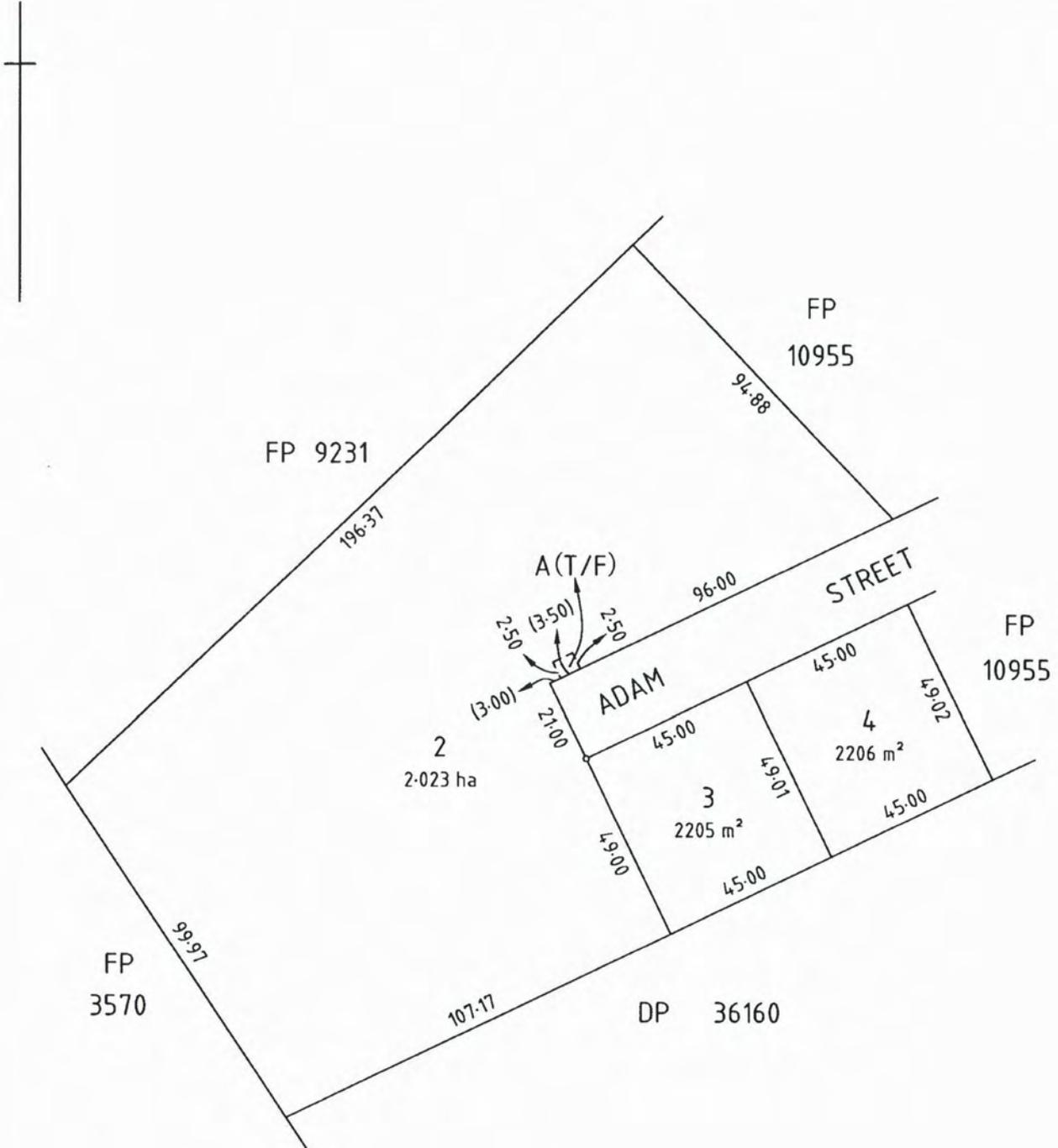
SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED A(T/F) FOR ELECTRICITY SUPPLY PURPOSES TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (223LG RPA)

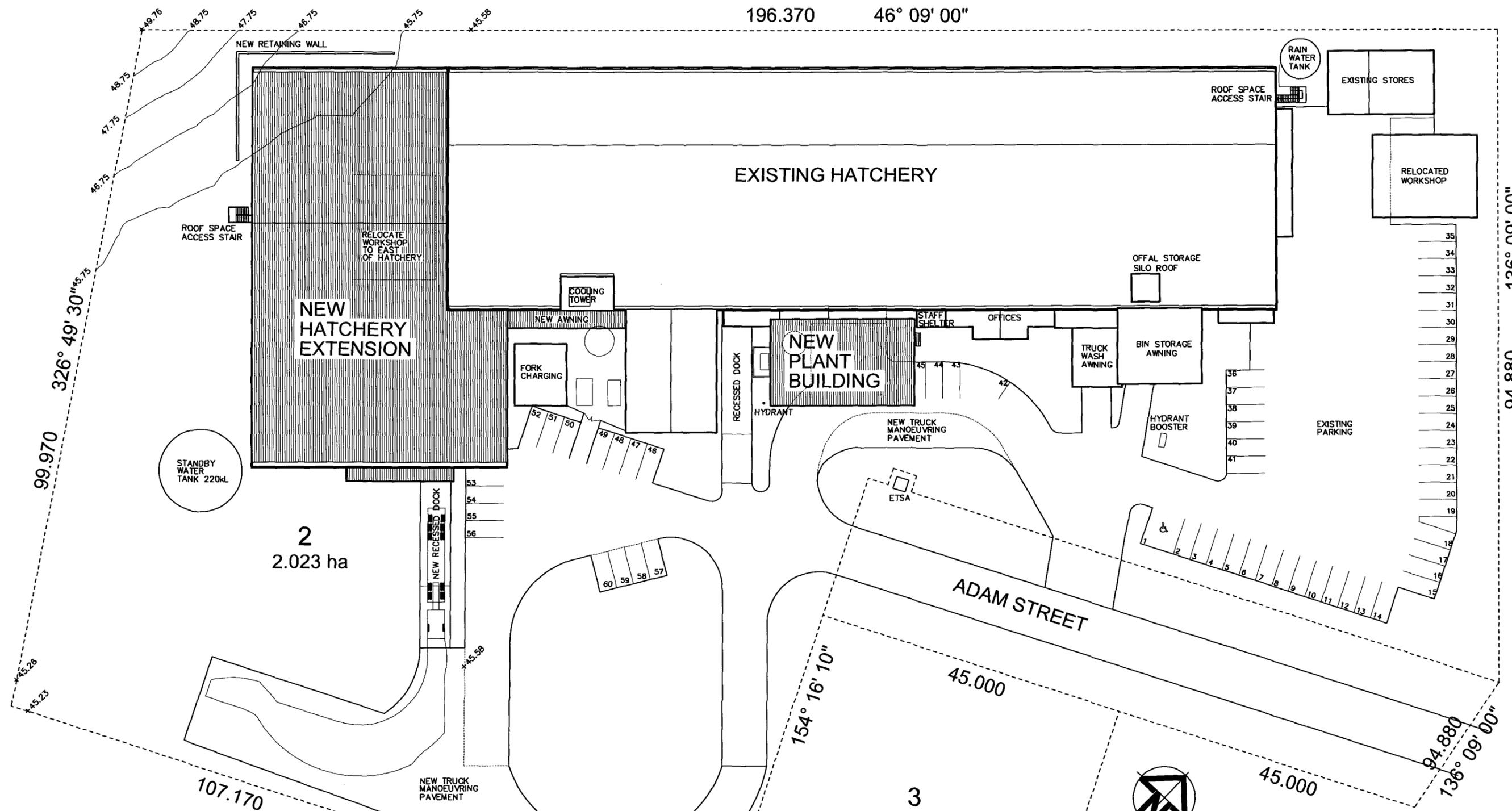
Schedule of Dealings

Dealing Number	Description
11231251	MORTGAGE TO WESTPAC BANKING CORPORATION

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

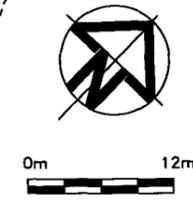




2
2.023 ha

3
2205sqm

PARKING	
EXISTING HATCHERY	4248sqm
EXISTING OUTBUILDINGS	390sqm
NEW HATCHERY EXTENSION	1783sqm
NEW PLANT BUILDING	196sqm
	<hr/>
PARKING REQUIRED	60 spaces
PARKING PROVIDED	60 spaces



SUPERSEDED

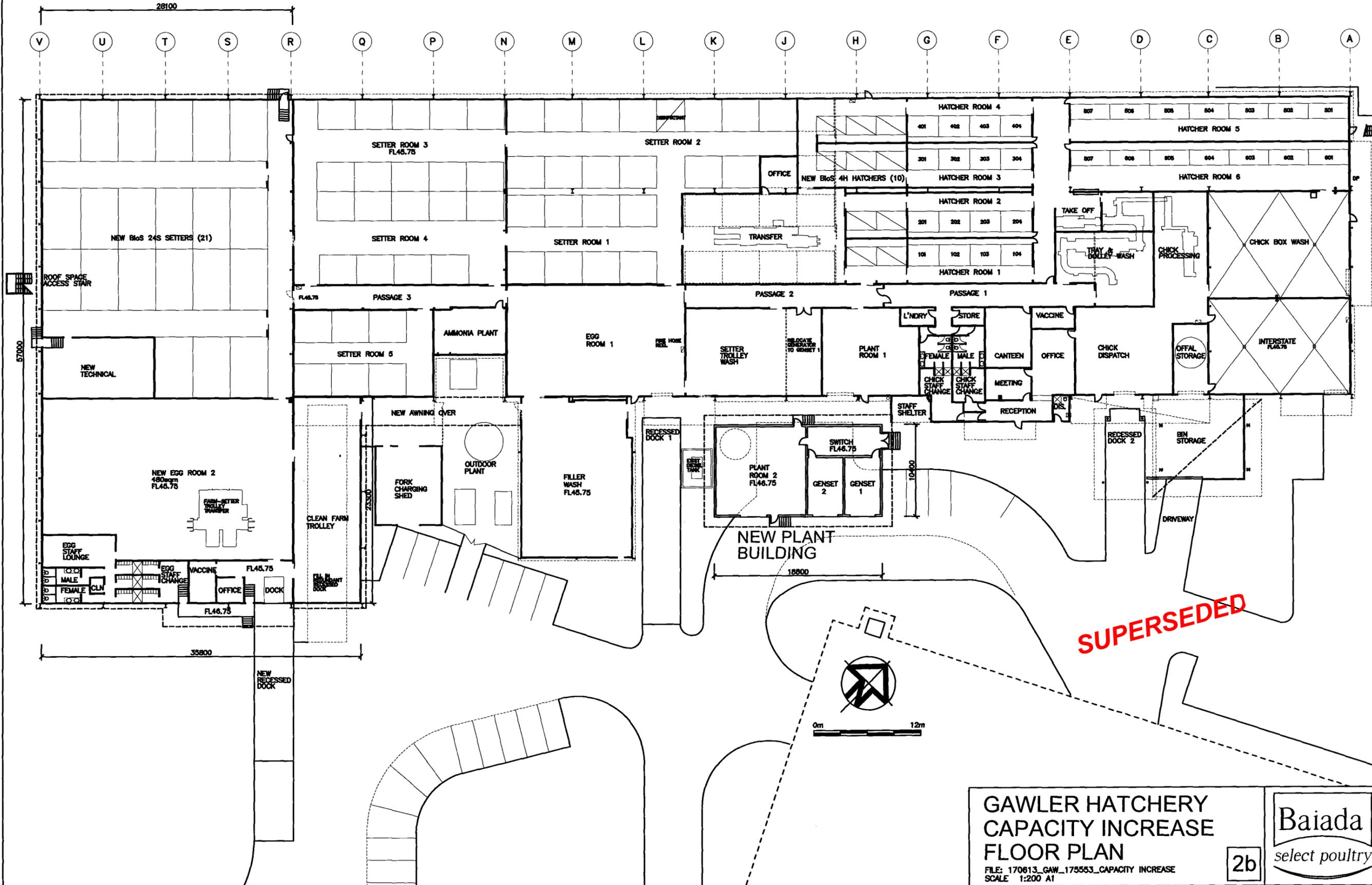
**GAWLER HATCHERY
CAPACITY INCREASE
SITE PLAN**

FILE: 170627_GAW_175553_CAPACITY INCREASE
SCALE 1:300 A1



1b

NEW HATCHERY EXTENSION

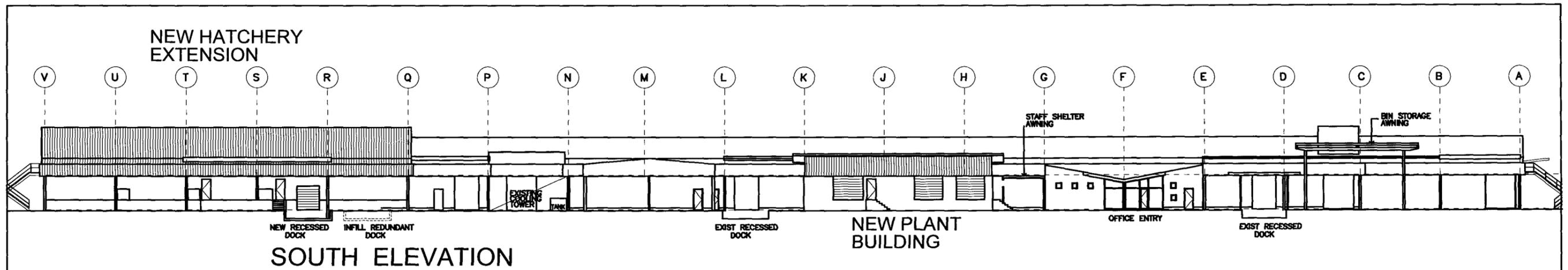


**GAWLER HATCHERY
CAPACITY INCREASE
FLOOR PLAN**

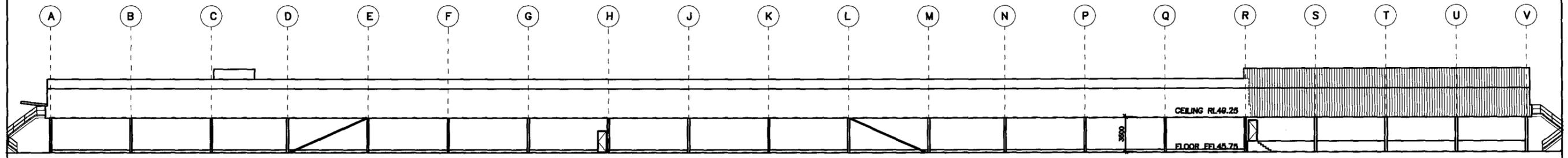
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SCALE: 1:200 A1

Baiada
select poultry

2b

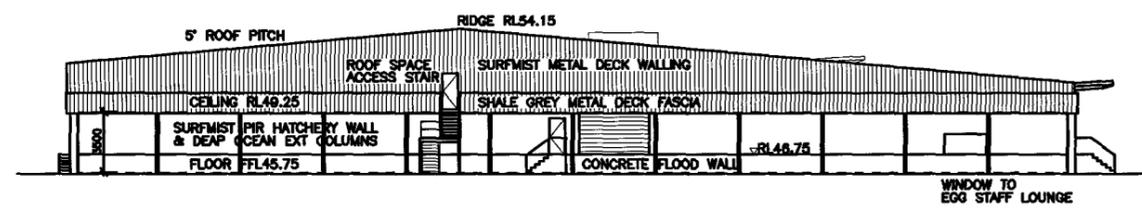


SOUTH ELEVATION

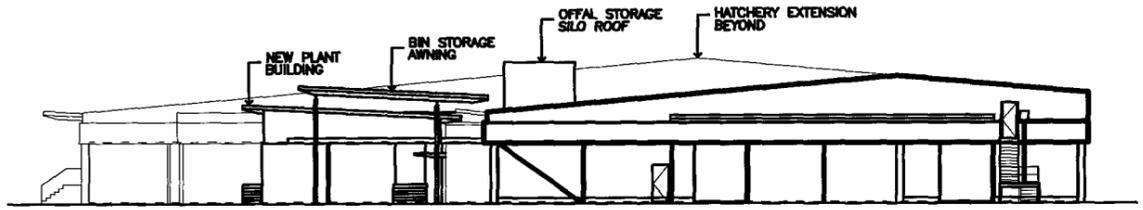


NORTH ELEVATION

NEW HATCHERY EXTENSION



WEST ELEVATION



EAST ELEVATION

SUPERSEDED



<p>GAWLER HATCHERY CAPACITY INCREASE ELEVATIONS</p> <p>FILE: 170813_GAW_175553_CAPACITY INCREASE SCALE 1:200 A1</p>		<p>Baiada select poultry</p>
<p>3b</p>		

APPENDIX 3: FLOOD MANAGEMENT ASSESSMENT

AP03

Our Ref: 15112

Friday, 7 July 2017

Mr David Ireland
Town Planner
PSA Consulting Australia

Dear David,

Re: Gawler Hatchery Facility Flood Management

Thank you for the opportunity to provide advice on flood and hydrological impacts associated with the proposed extension of the existing Hatchery facility (the Hatchery). The following sections outline our review of the proposed methods for managing the flood risk to the proposed extension to the facility and approach to stormwater management onsite.

Flood Risk Management

The existing facility is located within the extent of the 1% AEP flood for the Gawler River. The inundation area extent, depth of flood and flow vectors are illustrated in Figure 1 below.

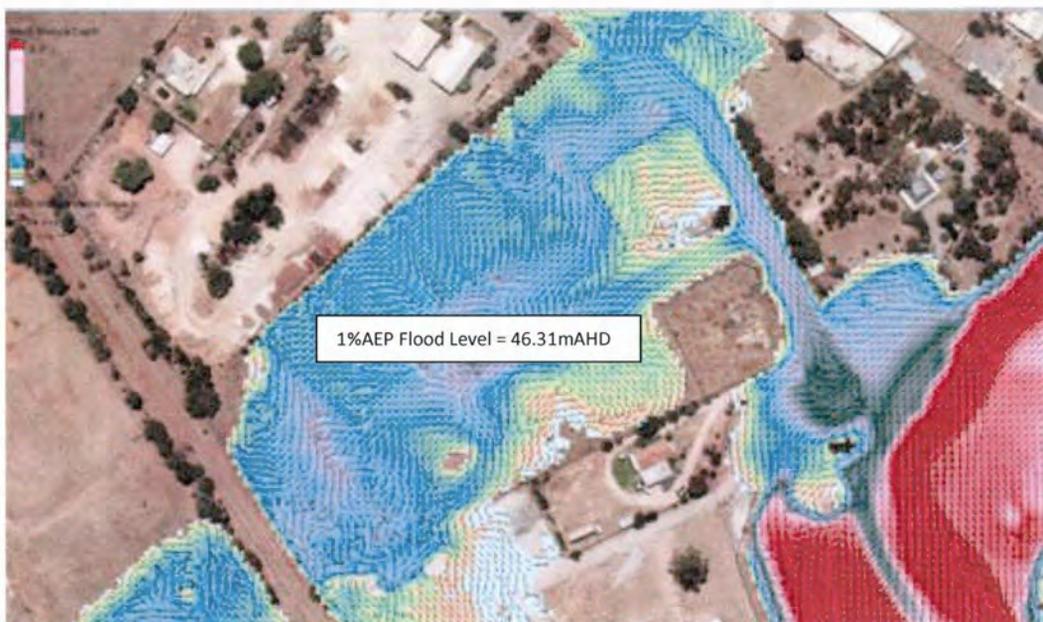


Figure 1 : Flood inundation extent and depths 1%AEP flood.

The expected flood characteristics for the 1% AEP Gawler River flood event were modelled using the 2D hydraulic modelling program TUFLOW. A higher resolution model of the area near the Hatchery was developed to better represent local flood characteristics (the base model). This model was calibrated to the water surface elevations in the regional 2015 flood model for the Gawler River.

Inspection of the floodplain mapping flow direction data indicates that the primary flow path affecting the Hatchery site is via flow from the North Para River up Kelly Road (for the 1 % AEP event).

The subject property is bounded by the fill above the 1% AEP flood level on allotments to the north, south and the railway to the west. As a consequence the flow velocities within the Hatchery site are expected to be very low (less than 0.15 m/s). This area of the floodplain can be considered to be an ineffective flow area and does not actively contribute to the flood conveyance of the North Para.

The proposed extension to the hatchery can be protected from flood inundation and damage by implementing a series of onsite dry flood proofing measures within the building structure of the proposed extension as well as retro fitting dry flood proofing measures to the existing building.

Typically these measures include filling of land to raise buildings above flood levels. However, this is not the only effective approach and in this case such an alternative approach is proposed. The proposed approach involves incorporating an impermeable perimeter wall around the new extension area as well as for the new plant building.

This provides protection from inundation for the new extension whilst enabling the floor level to be retained at a similar level to the existing building. Protection from flooding will be afforded to the existing building by the erection of demountable flood barriers (an example of a proprietary product is attached). Given the very low flow velocities on this area of the floodplain, the forces that will be applied to the perimeter wall and the demountable barriers will be limited primarily to hydrostatic pressures alone and hence the perimeter wall and demountable barriers can be readily configured to be able to withstand these forces.

The proposed structural approach is consistent with the Building Codes Board publication "Construction of Buildings in Flood Hazard Areas" (2012), as well as other similar documents such as "Floodproofing Non-Residential Buildings", published by the US Department of Homeland Security. A list of relevant useful reference material is provided at the end of this report.

The proposed approach requires the facility to respond to a flood emergency by inserting the demountable flood barriers. It is anticipated that this can be ensured given that the facility is operated 24 hours, seven days per week. An appropriate flood response plan for the site will be developed and incorporated with the sites emergency response procedures. Formalised flood warnings are provided for the Gawler River by the Bureau of Meteorology, these will assist the facility in activating its response plan. The facility operators should also consider monitoring the publically accessible readings from rainfall and river recording equipment that report conditions upstream so as not to rely solely on the Bureau's warning alerts.

The proposed perimeter wall and demountable barriers would extend up to elevation 46.75mAHD. This should provide 440 mm of freeboard which is considered a sufficient freeboard allowance.

Any plumbing connections from the outside into the proposed extension, as well as those connecting into the existing building will require a one-way valve to prevent water backing up through the system and flooding the extension or the existing building.

Site Stormwater Management

The existing hatchery operation has a stormwater management system which conveys all stormwater from the site. The current system is well formalised and includes a swale system which is likely to provide some water quality improvements during smaller more frequent runoff events through sedimentation and infiltration. The

current system has an isolating valve which can be shut to isolate the stormwater management system from the Council network should an emergency spill of liquid wastes or contaminants occur. The wastewater streams for the Hatchery are captured and disposed of in a system separate from the stormwater capture and conveyance system on site.

The building extension and internal roadway would increase the total site impervious area by approximately 1979 m². It is intended that this runoff would be managed using the same process that controls and cleanses the existing roof runoff. A basic DRAINS model was established to calculate the peak flow rates from the current site and the site with the proposed extension. The results are presented in the table below.

	1 in 2 ARI	1 in 100 ARI
Peak flow for existing hatchery facility (m ³ /s)	0.13	0.41
Peak flow for extended hatchery facility (m ³ /s)	0.16	0.45
Increase in peak flow (m ³ /s)	0.03	0.04
Increase in peak flow (%)	19	9

The peak flows for the site are based on the 25 minute design storm event which the critical duration event. The volume for this storm event is very low in comparison to the volumes that may be encountered during a Gawler River flood event. There is a low point in the site at the main access from Adams Street with two double side entry pits at this location. In situations where the drainage system downstream exceeds capacity, this will be a relief point that allows short term surface ponding that would recede quickly once the hydraulic grade line in the system begins to drop.

The changes to the flow regime associated with the extension would result in very minor increases to the peak flow and volume. It is expected that the informal detention provided within the site at the low point at Adams Street would be sufficient to negate any impacts associated with these minor changes to flow.

Reviewing the drainage system downstream, it appears that the main outlet from the site discharges to the drainage system in Adam Street which subsequently runs approximately 100m south along Kelly Road and discharges to the North Para. Any changes to the flow rates in the external system are expected to be very minor and there is little infrastructure at increased risk in this areas.

Water quality from the extension area will generally be of good quality due to the vast majority of increased impervious area being roof. Increased trafficable surfaces may be a higher risk runoff surface from the perspective of hydrocarbons and fine sediment but this is considered to be very minor. If Council had any concerns in this regard, a suitable gross pollutant trap on the stormwater system prior to discharge to the Council drainage network could be installed to further minimise likelihood of any contaminants leaving the site.

We trust the above information will assist with the review of this development proposal. Please do not hesitate to contact me should you have any further queries.

Yours sincerely,



Geoff Fisher

Director
Australian Water Environments Pty Ltd

Enc: List of useful reference material ; AWMA Demountable Flood Barriers Brochure

Useful References:

Australian Building Codes Board, 2012. *Construction of Buildings in Flood Hazard Areas*.

Commonwealth of Australia, 2012. *National Guidelines for the National Flood Risk Information Program*.

Department of Infrastructure, Planning and Natural Resources, 2005. *Floodplain Development Manual* (New South Wales Government).

FEMA (2013) *Floodproofing Non-Residential Buildings*. Published by US Department of Homeland Security, report FEMA P-936, 2013.

SCARM (2000). *Floodplain Management in Australia. Best Practice Principles and Guidelines*. Agriculture and Resource Management Council of Australia and New Zealand, Standing Committee on Agriculture and resource Management Report no. 73.

FLOOD/FREE

DEMOUNTABLE FLOOD BARRIER

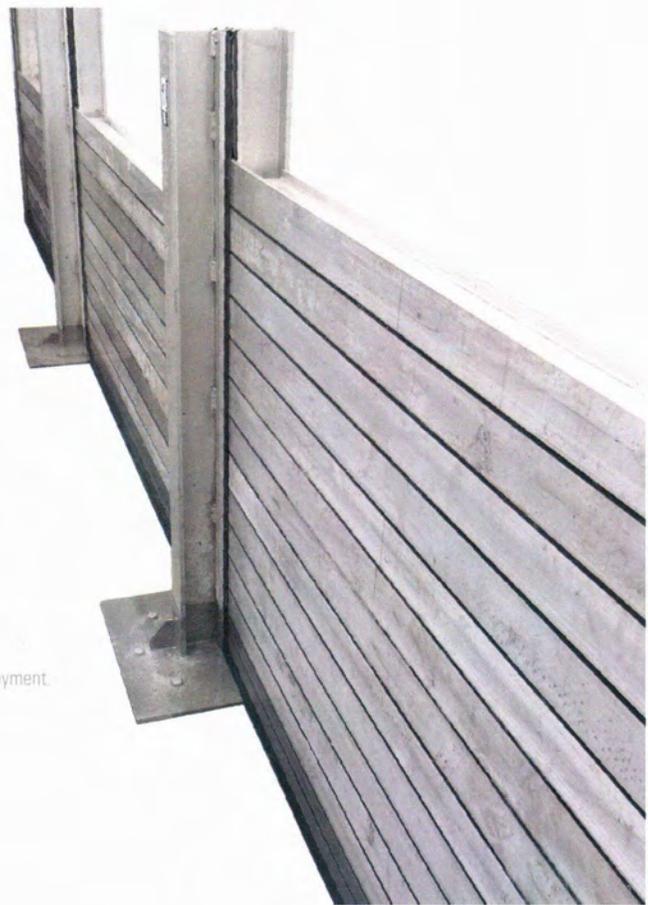
AWMA's Demountable Flood Barriers allow property and asset owners to manually deploy their own protection barrier to isolate flood and storm waters in and around existing infrastructure.

FEATURES

- Proven flood protection.
- Designed to suit square and rectangular openings of an infinite length.
- Modular segments are fabricated in 100mm high increments.
- Side frames and barrier post footings permanently installed for rapid deployment.
- Segments consist of extruded section with embedded seals.
- Storage solutions and transportation trolleys available.
- Economical, proven flood prevention solution.

APPLICATIONS

- Residential and commercial building protection
- Boundary protection
- Liftwell barriers
- Driveway barriers
- Doorway barriers
- Ventilation outlet isolation
- Basement barriers
- Access barriers
- Protection of Alfresco and Outdoor Entertainment areas





DEMOUNTABLE FLOOD BARRIER

DESIGN

DESIGN SUPPORT

- AWMA's design team will provide full support to ensure the most appropriate solution is developed and specified during the preliminary design.

SIZES

- Fabricated up to 3m high
- All AWMA Flood Barriers are custom sized to ensure they meet specific site requirements.

MATERIALS

- AWMA select materials to meet a minimum design life of 25 years. Where required, AWMA can offer higher grade materials, coatings and protection systems to extend the design life to 100+ years.
- Materials used for barriers and frames include marine grade aluminium and grades 304, 316, 2205 and 2507 stainless steel.
- AWMA use ultra high molecular weight polyethylene (UHMWPE) for guides to provide maintenance free bearing surfaces.
- Plasticised PVC or EPDM are used for the manufacture of seals. These materials offer superior endurance in wastewater and freshwater applications.
- Materials used in the construction of the Flood Barrier range have a high corrosion resistance and can be operated for many years with minimal maintenance.

SEALING

- The seal performance of AWMA Flood Barriers exceeds that required by the 'Australian Technical Specification for Fabricated Water Control Infrastructure'.

MAINTENANCE

- The AWMA Flood Free range has a minimum 25 year design life.
- Minimal maintenance is required ensuring low 'whole of life costs'.

MANUFACTURE

QUALITY

- All fabrication is in accordance with the 'Australian Technical Specification for Fabricated Water Control Infrastructure'.
- All procedures are in accordance with AWMA's accredited ISO 9001 Quality Management System to ensure each gate is manufactured to a high standard, tested and ready for trouble free operation.

INSTALLATION

MOUNTING OPTIONS

- Barriers are designed to retrofit existing infrastructure or 'green field sites'.
- AWMA offer install supervision for all turn-key installations.

ACTUATION SYSTEMS

- The AWMA Demountable Flood Barriers are designed to be manually deployed by a single operator.

OPERATION SYSTEMS

- The barrier posts and barrier segments can be typically installed by a single operator.

COMMISSIONING

DOCUMENTATION AND TRAINING

- Detailed documentation on operation, testing procedures and maintenance will be provided with all AWMA flood defence systems.
- Comprehensive on and/or off site training available.



HEAD OFFICE

Phone +61 3 5456 3331 Email info@awmawatercontrol.com.au
118 Roviras Road, PO Box 433, Cohuna Victoria 3568, Australia.

www.awmawatercontrol.com.au

14 September 2017

Town of Gawler
 PO Box 130
 GAWLER EAST SA 5118

Attention: Mr James Booker

Dear James,



RE: RESPONSE TO REQUEST FOR FURTHER INFORMATION - EXTENSION TO EXISTING CHICKEN HATCHERY (INTENSIVE ANIMAL KEEPING) - COUNCIL REFERENCE: DA490/381PL/17

I refer to Council's correspondence dated 15 August 2017 seeking additional information in respect to the abovementioned applicaiton. PSA Consulting, on behalf of the applicant BPL Livestock Pty Ltd, provides a full response to all matters raised by Council.

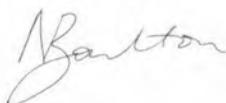
MATTERS RAISED BY COUNCIL	APPLICANT'S RESPONSE
<p>1) Council acknowledges the submitted hydrological report. However, the report is not considered to adequately address the impact the proposed expansion (including earthworks) on the flood risk to surrounding properties. The report should specifically address the question of whether the proposal exacerbates the risk of flooding on any other land in the surrounding area. The AWE report makes mention of flood barrier protection and a perimeter wall, however a comprehensive flood mitigation plan including location of flood barriers has not been supplied. Please provide details of the flood barriers (including their assembly time), parameter wall and flood response plan. Please also consider the flood impacts of the relocated workshop.</p>	<p>In response to Council's request a revised assessment has been prepared by AWE to examine the potential impacts of flooding on surrounding properties. A copy of the Revised Assessment is attached as Appendix 1. As outlined in the assessment, <i>"the only areas where significant but small increases in flood depth are expected are confined to the Hatchery site itself, where there is a small area of potential increase in depth, immediately adjacent to the perimeter wall. An area near the southwest that corner of Elliot Goodger Memorial Park may potentially experience a small increase depth but results here are within the error bounds of the modelling process and hence are considered insignificant"</i>.</p> <p>Updated site plans are included in Appendix 2. These show the required rainwater tank as per the AWE Report, the location and extent of flood perimeter wall is shown on the building elevations and essentially surrounds the new building areas. The temporary flood barriers will be retrofitted to all existing entrances to the building.</p> <p>A product brochure showing the proposed flood barriers was included within Appendix 3 of the submitted Statement of Effects. Once the mounting brackets for the barriers are installed, the barriers can be slid in place by hand, providing instantaneous flood protection. Given the site only subject to riverine flooding during significant events, ample response time is available for staff to set up the barriers.</p>
<p>2) Due to the site's close proximity to the residential suburb of Reid, it is recommended that some level of vegetation screening be provided to the rear (western)</p>	<p>As a result of the construction of 1.8m colourbond fencing around the rear of the residential dwellings, overlooking of the hatchery building will be</p>

MATTERS RAISED BY COUNCIL	APPLICANT'S RESPONSE
boundary to assist in mitigating the visual impact of the proposed extension of the building.	restricted. Regardless, the Applicant is willing to provide screening vegetation along the western boundary of the site between the proposed building and the residential area. This planting is shown on the updated site plan included in Appendix 2 . Suitable species can be conditioned by Council.
3) Dimensioned elevations of all sides of the relocated workshop (scale not less than 1:100)	Updated Building Elevation Plans, including the relocated workshop are included in Appendix 2 .
4) Please note, the site plan and floor plan are inconsistent in terms of car parking layout. Please ensure these plans match and provide dimensions of spaces.	An updated Site Plan and Flood Plan have been Building Elevation Plans, including the relocated workshop are included in Appendix 2 .
5) Please provided a floor area breakdown distinguishing the total office area (existing and proposed) from all other areas (to assist Council assess car parking provisions).	<p>Updated site plans (including a floor area and car parking breakdown) is included in Appendix 2. 60 car parking spaces are required and 60 car parking spaces are provided.</p> <p>As shown the expanded hatchery is comprised of 6,338m² of hatchery area and 83m² of ancillary office. In accordance with Council's car parking requirements, the facility requires provision of 60 Spaces based on the industrial warehouse rates as follows:</p> <p>Office Component (83m²): 3.32 Spaces (4/100m²) Hatchery (0-200m²): 4 Spaces (2/100m²) Hatchery (200-2000m²): 23.94 Spaces (1.33/100m²) Hatchery (Remainder): 29.06 Spaces (0.67/100m²)</p> <p>Given the site is expected to accommodate around 40 employees, the provision of 60 spaces is considered sufficient for staff and the limited number of visitors accessing the site.</p>
<p>6) Civil plan / Stormwater Management Plan (at an appropriate scale) that shows:</p> <p>(a) The surveyed levels of the land (including contours and spot levels)</p> <p>(b) Excavation and/or fill</p> <p>(c) Finished benched levels (BL) and finished floor levels (FFL)</p> <p>(d) Retaining walls including top and bottom of wall height</p> <p>(e) Existing and proposed stormwater infrastructure (i.e. downpipe locations, stormwater entry pits and grates, on-site swales, water quality treatment devices etc). Please provide details of the capacity of the existing stormwater system and how the increase stormwater runoff shall be managed (ie. Stormwater calculations and detention may be required). Please provide calculations showing that the 100 and 10 year average recurrence interval (ARI) flow rates are not to</p>	<p>Stormwater Management is addressed in the updated AWE Report included in Appendix 1.</p> <p>While the current building has not been subject to a detailed survey, data has been obtained for the western corner of the site where the retaining wall is proposed to be constructed. As shown on the site plan the ground will be excavated to 45.60m with the maximum height of the retaining wall to sit at 47.80.</p> <p>The proposed stormwater arrangements recommended by AWE including a 40kL rainwater tank, discharging into the existing stormwater system are shown in their updated assessment.</p>

MATTERS RAISED BY COUNCIL	APPLICANT'S RESPONSE
<p>exceed to the equivalent existing conditions 100 and 10 year ARI flow rates from the site.</p>	
<p>7) It is noted in the submitted documentation that a trade waste agreement currently exists between the occupier of the site and SA Water. Please provide commentary regarding the expected increase of wastewater as a result of the proposed expansion and provide approximate figures.</p>	<p>As outlined in the submitted Statement of Effects, No liquid wastes is generated from the actual hatching process however, waste water is generated as a result of sanitation and wash down procedures carried out to maintain hygiene standards. As per the current situation, waste water will be collected via internal drains which discharge into settling pits before final discharged into the Council's reticulated sewerage system.</p> <p>Flow rates are not expected to increase as a result of the proposed development. However, periods of higher flow will be extended to longer periods of time as a result of the increase in waste water loads.</p> <p>The site currently has a Trade Waste Agreement with SA Water which allows for the discharge of 402,000L to 455,000 per week. To date the site has not exceeded 67% of the approved discharged volume and the proposed expansion is not expected to require any variation to the current agreement.</p> <p>A copy of the Trade Waste Agreement is provided in Appendix 3.</p>
<p>8) Category 3 public notification is required as this is a Non-complying development. A fee of \$503.00 is required for Council to undertake this notification process.</p>	<p>A cheque is provided for this amount.</p>
<p>9) A referral to the Environmental Protection Authority (EPA) is required due to Schedule 8 Part 2 10 (b) (as the expansion is not minor in nature). A fee of \$222.00 is required for Council to make this referral.</p>	<p>A cheque is provided for this amount.</p>

We trust this information provides Council with all the requested information. Should you require any further information or wish to discuss, please do not hesitate to contact either David Ireland or myself on telephone number (07) 3220 0288.

Yours sincerely,



Nicole Boulton
Principal Planner
PSA Consulting (Australia) Pty Ltd

Our Ref: 15112

ABN 17 485 960 719

1 / 198 Greenhill Road
EASTWOOD SA 5063

Phone: 08 8378 8000
Fax: 08 8357 8988

Wednesday, 6 September 2017

Mr David Ireland
Town Planner
PSA Consulting Australia

Dear David,

Re: Gawler Hatchery Facility Flood Management

Thank you for the opportunity to provide additional information with respect to flood and hydrological impacts associated with the proposed extension of the existing hatchery facility at Gawler. The following sections outline our review of the proposed methods for managing the flood risk to the proposed extension to the facility and approach to stormwater management onsite.

Flood Risk Management

The existing facility is located within the extent of the 1% AEP flood for the Gawler River. The inundation area extent, depth of flood and flow vectors are illustrated in Figure 1 below.

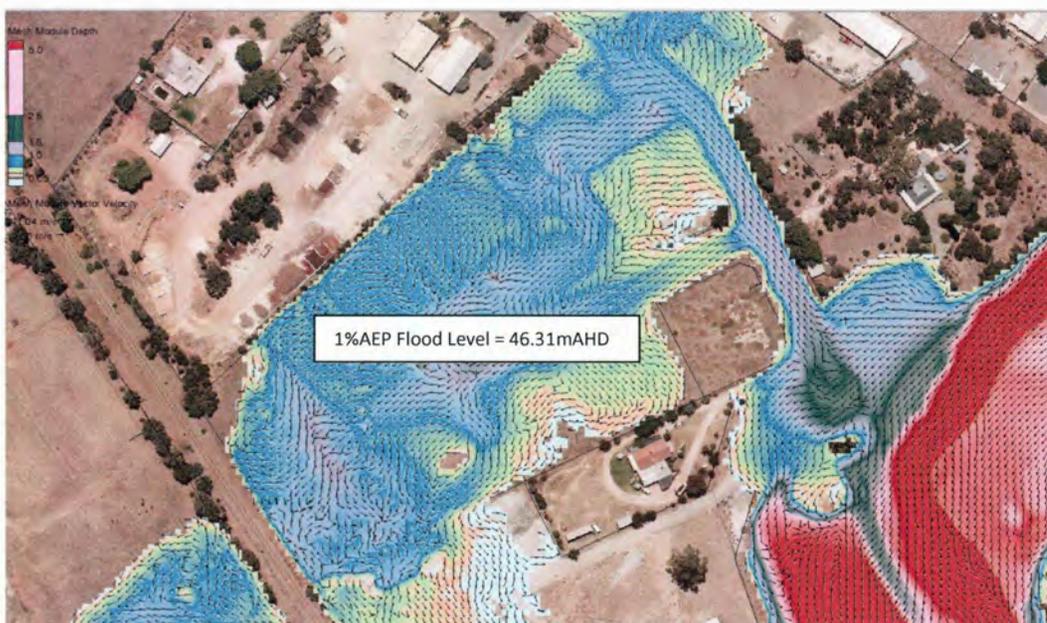


Figure 1 : Flood inundation extent and depths 1% AEP flood.

The expected flood characteristics for the 1% AEP Gawler River flood event were modelled using the 2D hydraulic modelling program TUFLOW. A higher resolution model of the area near the Gawler Hatchery was developed to better represent local flood characteristics (the base model). This model was calibrated to the water surface elevations in the regional indicated in the 2015 flood model for the Gawler River.

Inspection of the floodplain mapping flow direction data indicates that the primary flow path affecting the Hatchery site is via flow from the North Para River up Kelly Road (for the 1 % AEP event).

The subject property is bounded by the fill above the 1% AEP flood level on allotments to the north, south and the railway to the west. As a consequence the flow velocities within the Gawler Hatchery site are expected to be very low (less than 0.15 m/s). This area of the floodplain can be considered to be an ineffective flow area and does not actively contribute to the flood conveyance of the North Para.

The modelling assessment was further refined through the inclusion of the existing building footprint into the numerical model. This has not previously been done for earlier modelling work at this site. In addition, we have assumed for the existing building scenario that measures would be taken during a flood to minimise water ingress to the building (eg sand bagging). These more detailed mapping results are presented in Figure 2.

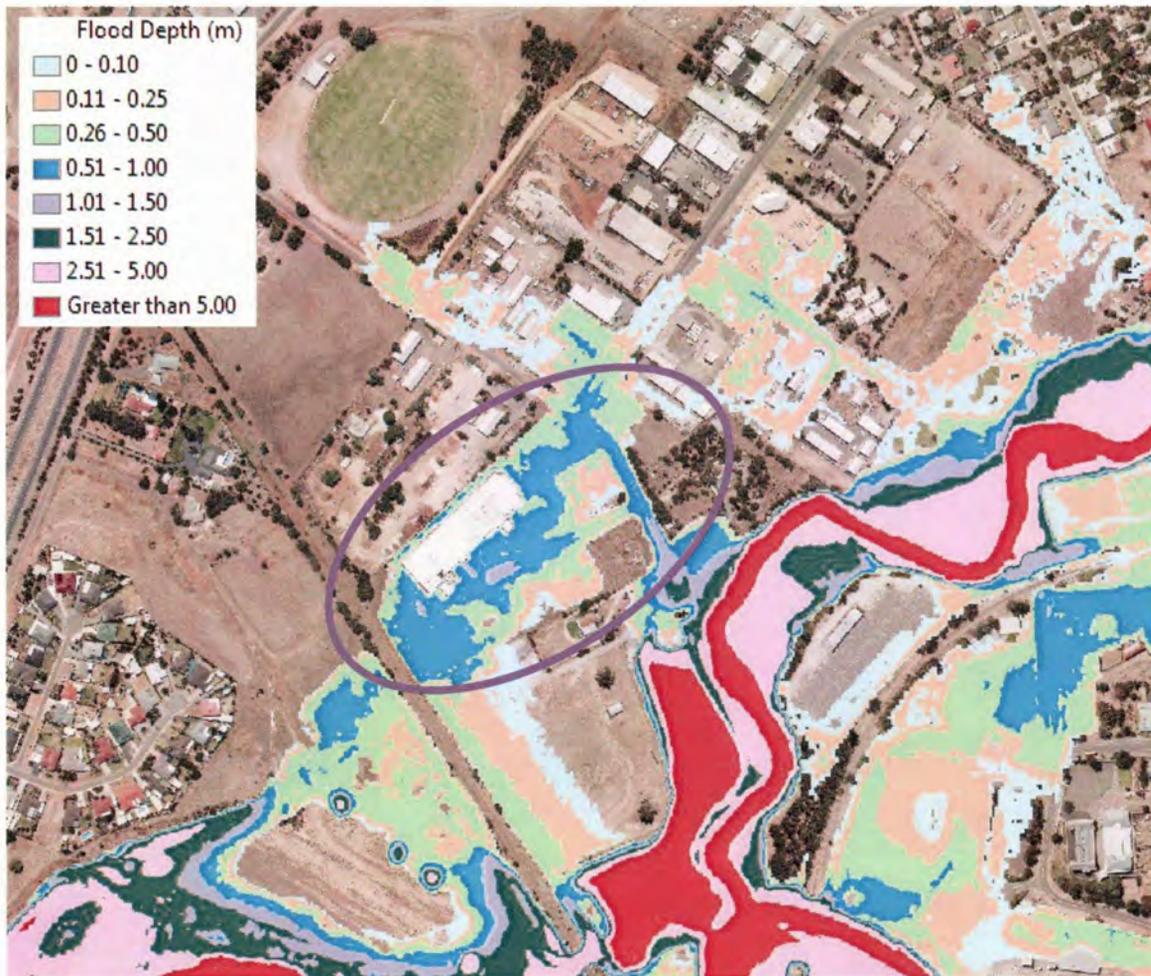


Figure 2 : 1% AEP flood inundation extent and depths – with allowance for existing Gawler Hatchery facilities

The proposed extension to the Hatchery can be protected from flood inundation and damage by implementing a series of onsite, dry flood proofing measures within the building structure of the proposed extension – as per our letter of advice dated 7th July 2017.

The proposed flood proofing approach involves incorporating an impermeable perimeter wall around the new extension area. This provides protection from inundation for the new extension whilst enabling the floor level to be retained at a similar level to the existing building.

The proposed structural approach is consistent with the Building Codes Board publication "Construction of Buildings in Flood Hazard Areas" (2012), as well as other similar documents such as "Floodproofing Non-Residential Buildings", published by the US Department of Homeland Security. A list of relevant reference material is provided at the end of this report.

This scenario was then modelled (refer Figure 3) and results compared with floodplain mapping without the extension but with allowance for the existing facilities (refer Figure 4).

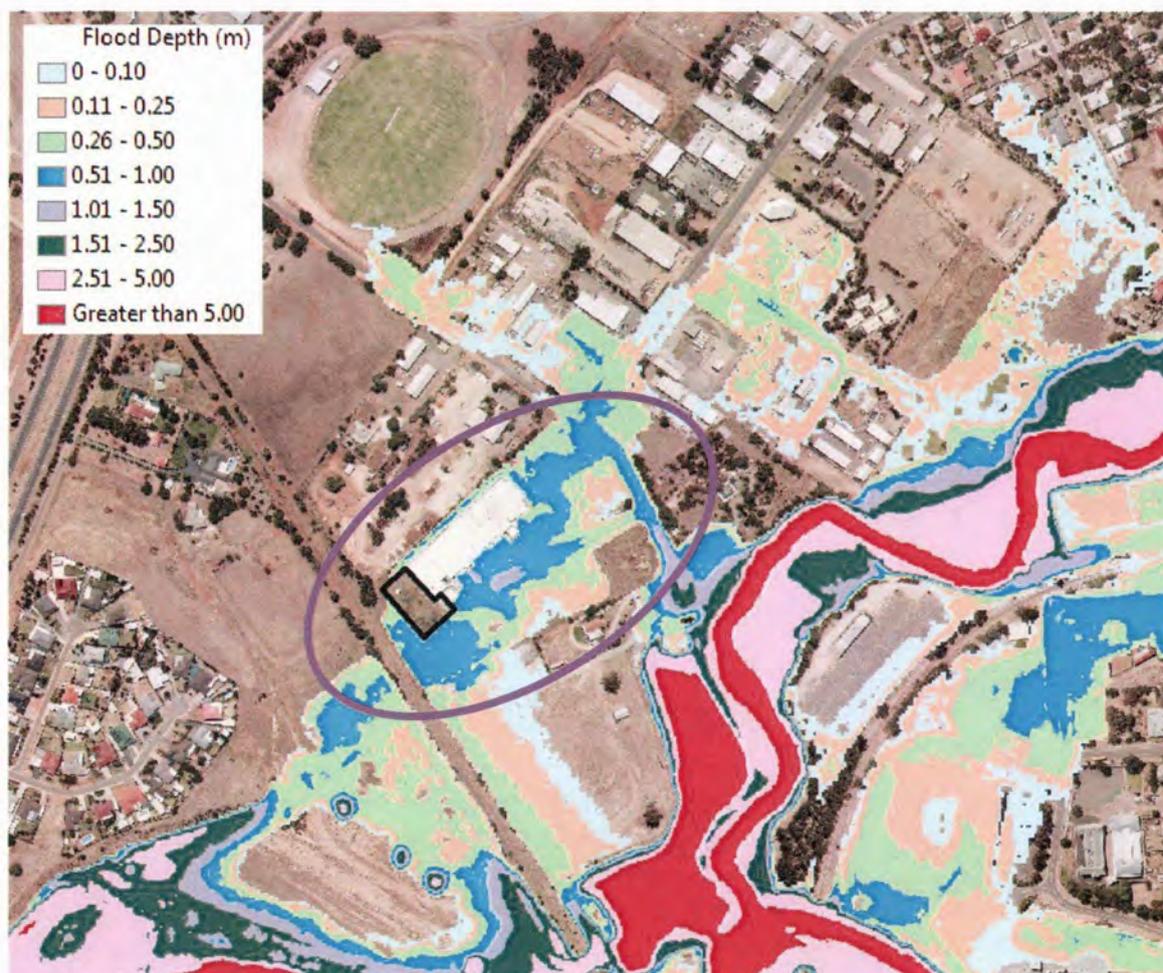


Figure 3 : 1% AEP flood inundation – with allowance for extension to Gawler Hatchery facilities

The difference mapping in Figure 4 indicates that the only areas where significant but small increases in flood depth are expected are confined to the Hatchery site itself, where there is a small area of potential increase in depth, immediately adjacent the perimeter wall. An area near the southwest corner of Elliot Goodger Memorial Park may potentially experience a small increase depth but results here are within the error bounds of the modelling process and hence are considered insignificant.

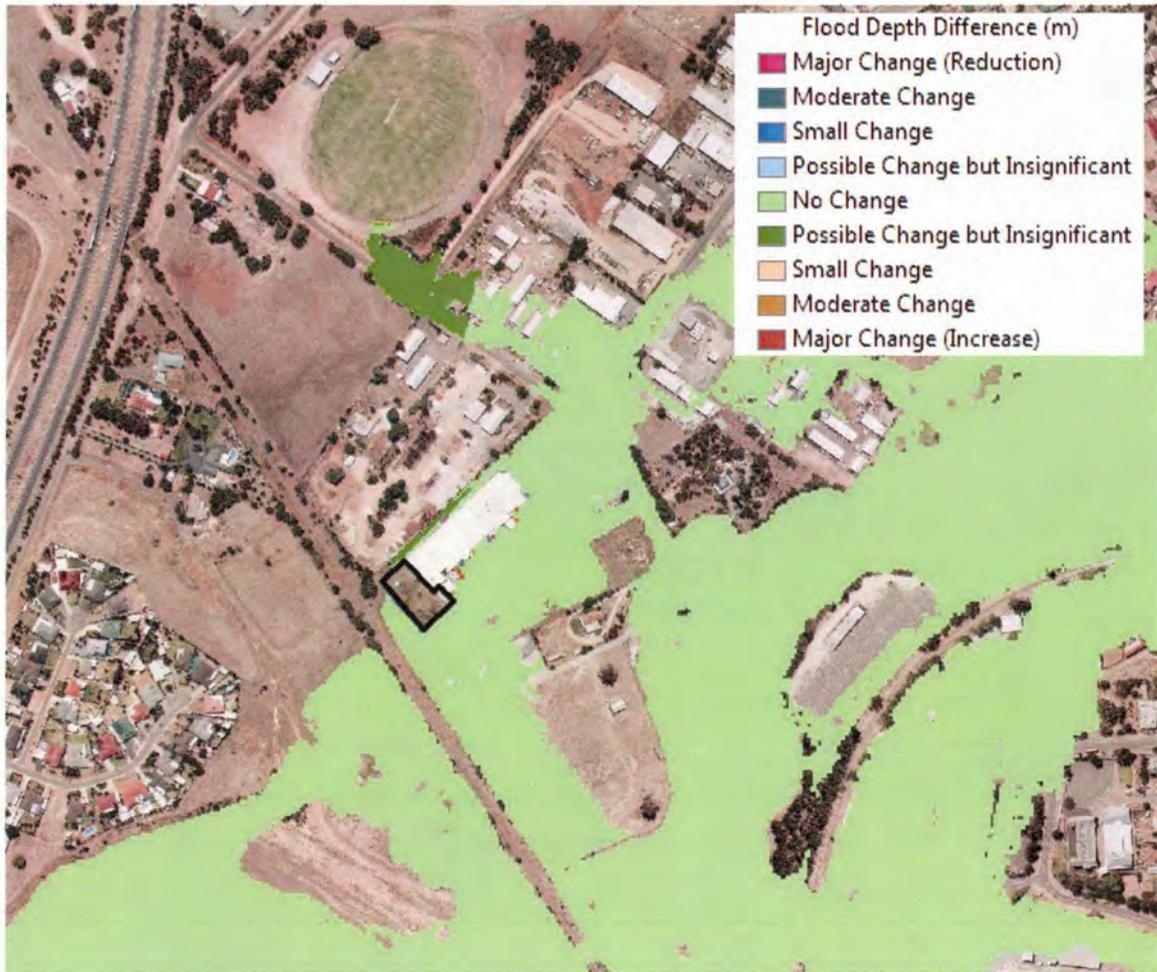


Figure 4 : 1% AEP flood inundation difference map – comparison for with and without Gawler Hatchery Extension

The protection of the existing building could also be formalised by extending flood proofing measures to protect it as well (rather than relying solely on response during a flood). Protection from flooding can be improved for the existing building by the erection of demountable flood barriers (as per our previous advice).

Given the very low flow velocities on this area of the floodplain, the forces that will be applied to the perimeter wall and the demountable barriers will be limited primarily to hydrostatic pressures alone and hence the perimeter wall and demountable barriers can be readily configured to be able to withstand these forces.

The proposed approach still requires the facility to respond to a flood emergency by inserting the demountable flood barriers. It is anticipated that this can be ensured given that the facility is operated 24 hours, seven days per week. Furthermore, this is a vastly superior approach to the current situation which relies solely on emergency sand bagging during a flood.

The approach would be supported through an appropriate flood response plan for the site which can be incorporated with the emergency response procedures for the Hatchery.

The proposed perimeter wall for the extension and demountable barriers would extend up to elevation 46.75m AHD. This will provide 440 mm of freeboard which is considered a sufficient freeboard allowance.

Any plumbing connections from the outside into the proposed extension (eg gully traps), as well as those connecting into the existing building would need to be fitted with a one-way valve to prevent water backing up through the system and flooding the extension or the existing building.

On site Stormwater Management

The existing hatchery operation has a stormwater management system which conveys all stormwater from the site. The current system is well formalised and includes a piped drainage system as well as a swale system which is likely to provide some water quality improvements during smaller more frequent runoff events through sedimentation and infiltration. The current system also has an isolating valve which can be shut to isolate the stormwater management system from the Council network should an emergency spill of liquid wastes or contaminants occur.

The wastewater streams for the Hatchery are captured and disposed of in a system separate from the stormwater capture and conveyance system on site.

The 2017 hatchery building extension would increase the total site impervious fraction by 15%. It is intended that this runoff would be managed using the same process that controls and cleanses the existing roof runoff. New downpipes associated with the extension would be connected to the existing main drainage system on the site.

A DRAINS model of the main stormwater trunk line on the property was established to calculate the peak flow rates from the current site and the site with the proposed extension. The results are presented in the Table 1.

TABLE 1: PEAK FLOW COMPARISON FROM HATCHERY FACILITY TO COUNCIL DRAINAGE SYSTEM

	10% AEP	1% AEP
Peak flow for existing hatchery facility to Council drainage (m ³ /s)	0.126	0.193
Peak flow for extended hatchery facility to Council drainage (m ³ /s)	0.126	0.193
Increase in peak flow (m ³ /s)	0.0	0.0

The changes to the flow regime associated with the extension would not result in any increases to the peak flow and volume to the Council drainage system. This is because the outflow rates are effectively capped by the capacity of the existing internal drainage system.

Furthermore, a review the drainage system downstream indicates that the main outlet from the site discharges to the drainage system in Adam Street which subsequently runs approximately 100m south along Kelly Road and discharges to the North Para. Hence, in the unlikely event that there was small increase in runoff from the site any changes to the flow rates to the external system could be expected to be very minor and there is little infrastructure at increase risk in this areas.

The modelling also demonstrated that connecting the extension of the Hatchery building directly to the existing drainage system within the site would increase the frequency and extent of ponding at the side entry pit to the west of the truck turn-around adjacent the extension. This pit is the logical point for connection of the drainage from the extension. Under existing conditions water would surcharge from this pit causing ponding in the south west corner of the site (but still contained within the site) in a 1% AEP rainfall event. No such ponding is expected for the smaller design storm (10% AEP).

With the direct connection of the extension runoff to this pit there would be an increase in the frequency of water surcharging the pit and causing ponding.

The preferred approach to addressing this on-site ponding issue is to provide detention storage to temporarily detain and slowly release flows from the extension into the existing internal drainage system.

The maximum storage volume required for the 1% event is 40 kL of detention. This can be achieved with a rainwater detention tank with a 50 mm orifice at the outlet (at the base of the tank).

This arrangement should ensure nuisance ponding and flooding of the surrounds of the extension are avoided for the full range of design events.

A summary of the modelling results is provided in the Table 2.

TABLE 2: PEAK PIT OVERFLOW FLOW COMPARISON FROM EXISTING SEP TO LOW POINT AT SOUTHWEST OF SITE

	10% AEP	1% AEP
Peak overflow from south west pit for existing hatchery facility (m ³ /s)	0.0	0.083
Peak overflow from south west pit for extended hatchery facility without detention (m ³ /s)	0.024	0.094
Peak overflow from south west pit for extended hatchery facility with 40,000 litre rainwater tank detention and 50 mm orifice (m ³ /s)	0.0	0.083
Increase in peak flow (m ³ /s)	0.0	0.0

A plan showing the suggested locations for down pipes and the rainwater detention tank is attached

We would also recommend the installation of a Humeceptor STC 3 oil and sediment trap unit to provide treatment to the runoff from the carpark and truck turnaround areas. Generally the site pollutant load should primarily consist of these contaminants. Furthermore, we would expect that the pollutant loads will be relatively small given the low traffic volume of the site. We do not envisage that litter and other gross pollutants will be an issue for the site. The suggested location for trap is on the main stormwater drainage pipe discharging to the south eastern corner of the site. The unit should be located a short distance upstream of the isolation valve and within the carpark.

We trust the above information will be of assistance.

Yours sincerely,



Geoff Fisher
Director
Australian Water Environments Pty Ltd

Useful References:

Australian Building Codes Board, 2012. *Construction of Buildings in Flood Hazard Areas*.

Commonwealth of Australia, 2012. *National Guidelines for the National Flood Risk Information Program*.

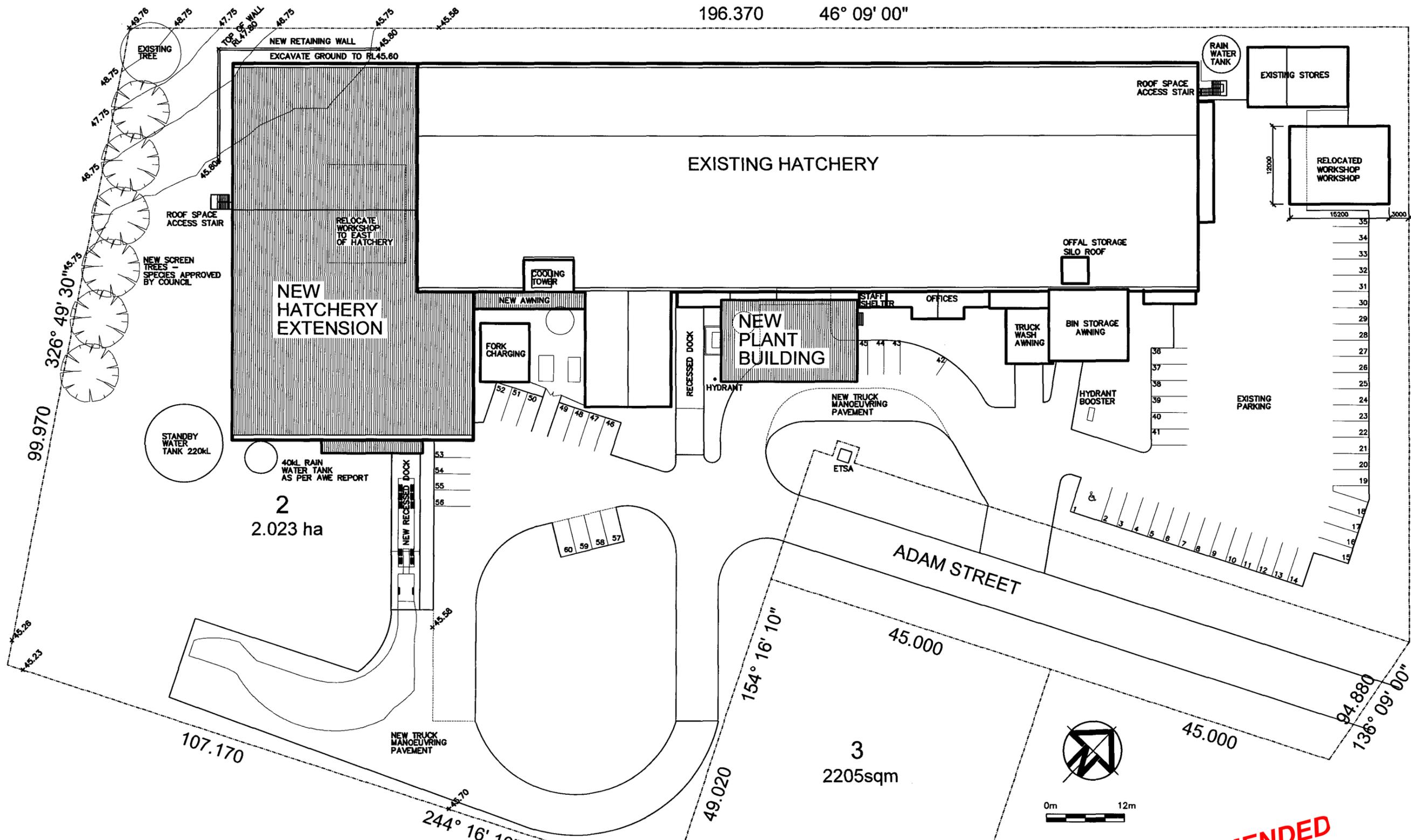
Department of Infrastructure, Planning and Natural Resources, 2005. *Floodplain Development Manual* (New South Wales Government).

FEMA (2013) Floodproofing Non-Residential Buildings. Published by US Department of Homeland Security, report FEMA P-936, 2013.

SCARM (2000). *Floodplain Management in Australia. Best Practice Principles and Guidelines*. Agriculture and Resource Management Council of Australia and New Zealand, Standing Committee on Agriculture and resource Management Report no. 73.

196.370 46° 09' 00"

136° 09' 00" 94.880



2
2.023 ha

3
2205sqm

AMENDED

PARKING	
EXISTING HATCHERY	4248sqm incl 74sqm OFFICE
EXISTING OUTBUILDINGS	390sqm
NEW HATCHERY EXTENSION	1783sqm incl 9sqm OFFICE
NEW PLANT BUILDING	196sqm
	<hr/>
	6617sqm
PARKING REQUIRED	60 spaces
PARKING PROVIDED	60 spaces

**GAWLER HATCHERY
CAPACITY INCREASE
SITE PLAN**

FILE: 170912_GAW_175553_CAPACITY INCREASE
SCALE 1:300 A1

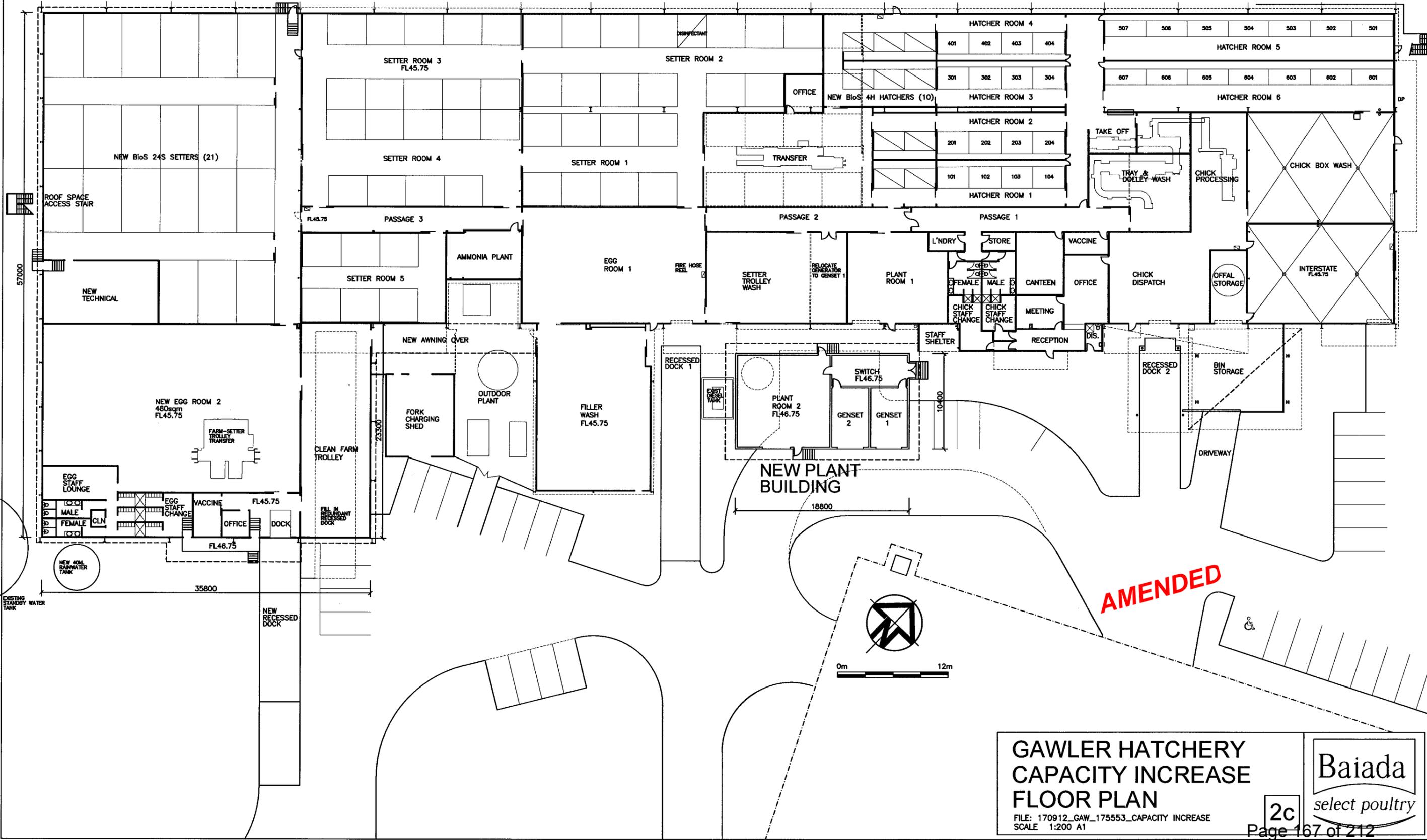
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NEW HATCHERY EXTENSION

28100

V U T S R Q P N M L K J H G F E D C B A



AMENDED

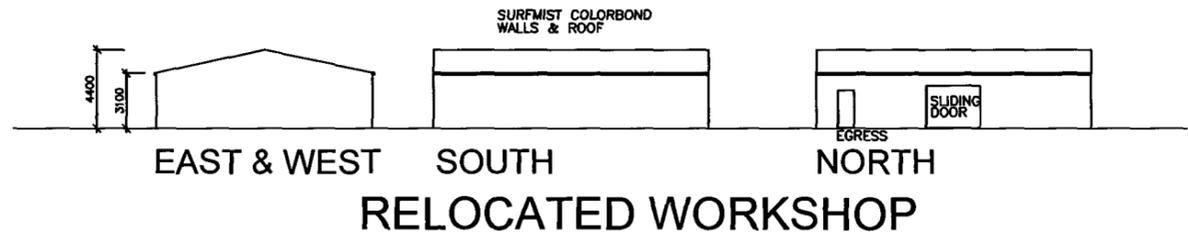
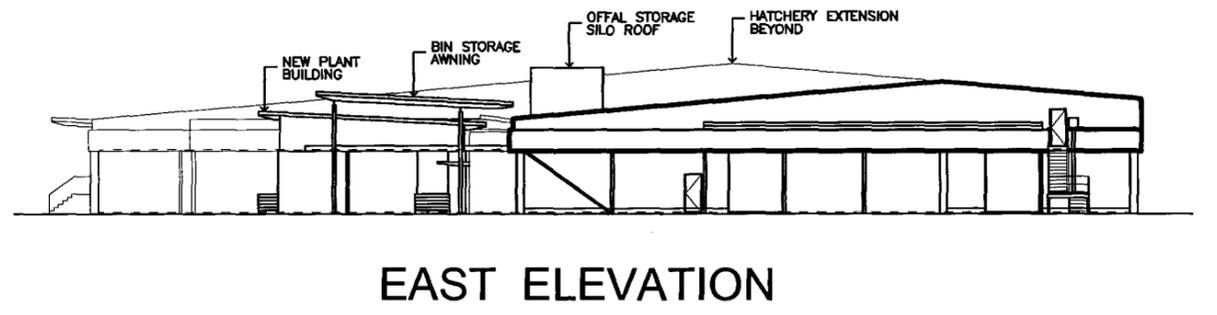
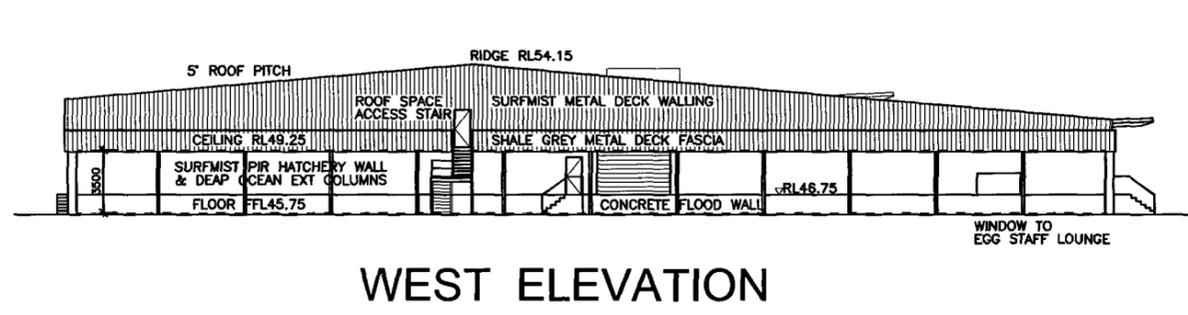
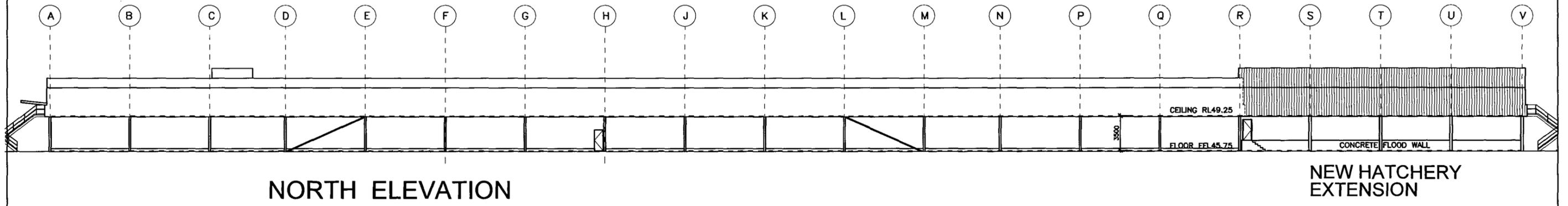
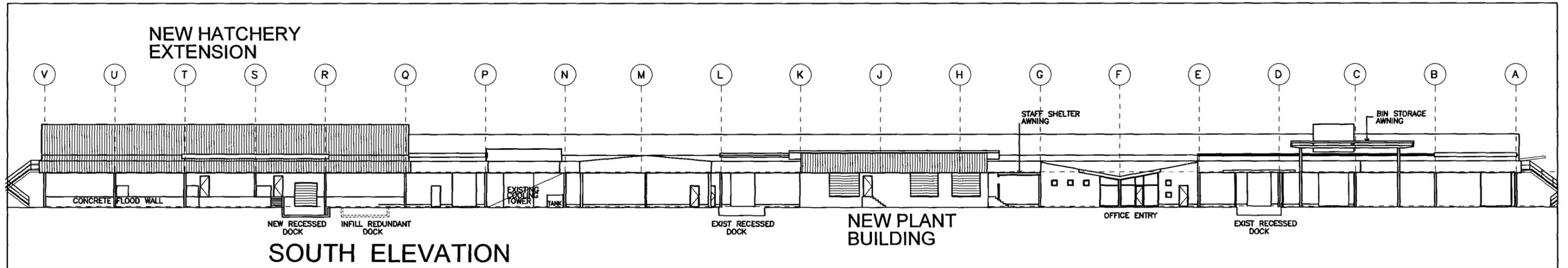


**GAWLER HATCHERY
CAPACITY INCREASE
FLOOR PLAN**

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SCALE 1:200 A1

Baiada
select poultry

2c
Page 167 of 212



AMENDED



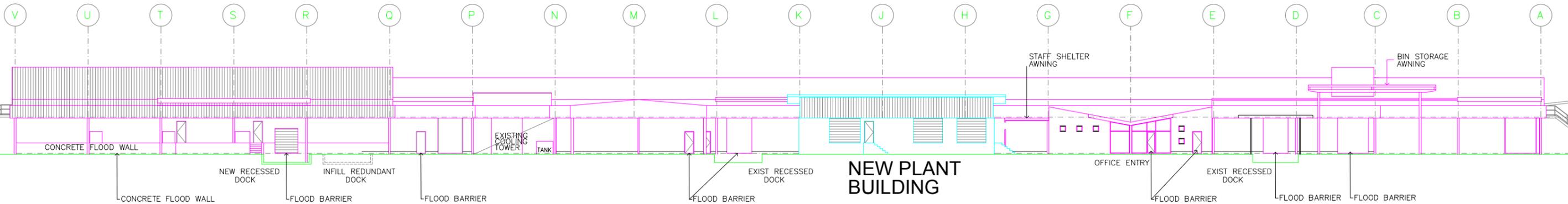
GAWLER HATCHERY CAPACITY INCREASE ELEVATIONS

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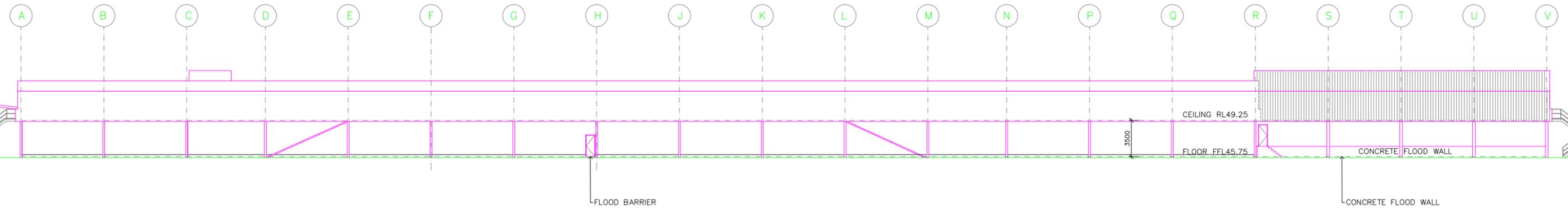
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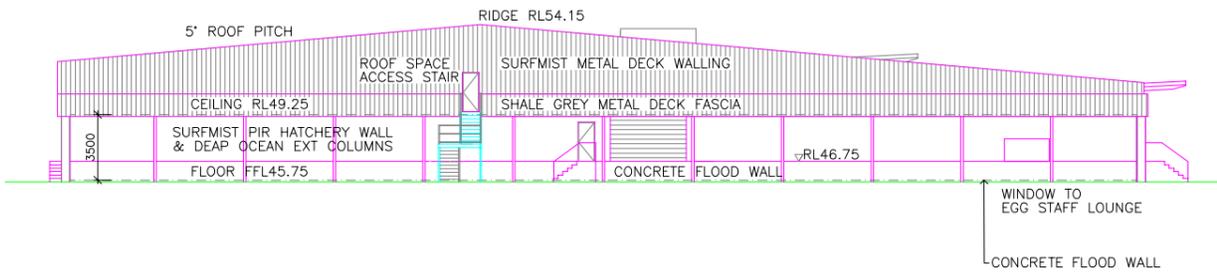
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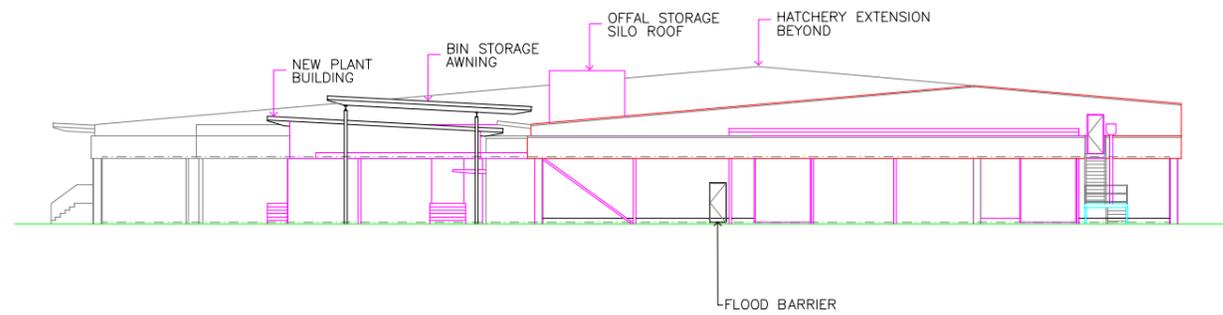
SOUTH ELEVATION



NORTH ELEVATION



WEST ELEVATION



EAST ELEVATION



**EAST & WEST SOUTH NORTH
RELOCATED WORKSHOP**



APPENDIX 3: TRADE WASTE AGREEMENT

AP03



VOLUME AND LOAD BASED TRADE WASTE DISCHARGE AUTHORISATION

FOR

Baiada Poultry Pty Limited

Authorisation commenced on 1st July 2014

Trade Waste Discharge Authorisation – Volume & Load Based Dischargers

Pursuant to section 56 of the Water Industry Act 2012, the **South Australian Water Corporation** (the Corporation) hereby authorises **Baiada Poultry Pty Limited** (the Company) to discharge trade waste, as defined in the Corporation's policy document, *Restricted Wastewater Acceptance Framework (the Framework)*, into the Corporation's sewer in accordance with the specific terms and conditions set out in this authorisation and the general terms and conditions for discharging contained in the Framework.

This authorisation applies to high volume and/or high load dischargers of trade waste.

Company Name:	Baiada Poultry Pty Limited
Authorisation Number:	517853 (Version 2)
Property Address:	Lt 101 Adam Street Willaston, SA, 5118
Property Account Numbers:	4932843356
Risk Index Rating:	Medium
Date Authorisation issued:	1st July 2014
Authorisation duration:	ongoing – subject to general conditions as outlined in section 5 of this authorisation
SA Water Contact Details:	Trade Waste & Networks Branch Level 6, 242 – 260 Victoria Square Adelaide SA 5000
	Phone (08) 7424 1336
	Facsimile (08) 7003 3366
	Internet www.sawater.com.au

24 HOUR EMERGENCY TRADE WASTE NUMBER – 0439 888 164

This Authorisation version issued 05/08/2015 on behalf of the South Australian Water Corporation by



Mrs. Lisa Hannant
Senior Manager Wastewater Operations

The Corporation will provide details about this Authorisation for the purposes of complying with information requirements of Regulation 12 of the Water Industry Act 2012.

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TRADE WASTE DISCHARGE AUTHORISATION
SPECIFIC TERMS AND CONDITIONS

1. Trade Waste Discharge to Sewer

The following limits are specific to the operation and take precedence over the general limits for these parameters given in the Restricted Wastewater Acceptance Standards.

1.1 Maximum Discharge Rate

5 Litres per second

1.2 Maximum Discharge Volume

2000 kilolitres per month

1.3 Acceptable Trade Waste Quality

Specific discharge limits for the following parameters are:

Parameter	Limits	Compliance determination method
Suspended Solids (SS)	500 mg/L	Composite (refer section 3)
Biochemical Oxygen Demand (BOD)	1500 mg/L	Composite (refer section 3)
Grease	100 mg/L	Composite (refer section 3)
Total Dissolved Solids (TDS)	1500 mg/L	Composite/electronic monitoring
Total Kjeldahl Nitrogen (TKN)	200 mg/L	Composite (refer section 3)
Total Phosphorus (TP)	100 mg/L	Composite (refer section 3)
TDS Charges apply from	650 mg/L	Composite (refer section 3)
pH	6.0-10.0	Grab / electronic monitoring
Temperature	38°C	Grab / electronic monitoring

Note: These limits are specific to your operation and take precedence over the general limits for these parameters given in the Restricted Wastewater Acceptance Standards

(<https://www.sawater.com.au/business/trade-waste>).

1.3.1 The limits for all other parameters that might arise from activities listed in Section 2.1 shall be in accordance with the Restricted Wastewater Acceptance Standards.

1.3.2 Compliance with all other limits will be determined using the analysis results from grab samples (refer glossary of terms) or electronic monitoring (refer section 3).

- 1.3.3 The Company shall not discharge trade waste exceeding the discharge limits specified in this Authorisation into the Corporation's sewer without obtaining prior approval from and under the conditions specified by the Corporation.
- 1.3.4 Where the Company cannot consistently achieve compliance, the Corporation may require the Company to modify or upgrade existing processes and/or pre-treatment devices.
- 1.3.5 Intentional dilution with clean water, groundwater or stormwater is not permitted as a means of achieving discharge quality (refer to the [Framework](#) for more information).

1.4 Prohibited Material

All liquid wastes, sludges, spent process liquors etc. that:

- a) if discharged would exceed the maximum discharge rate specified in Section 1.1 or the maximum discharge volume specified in Section 1.2;
- b) do not meet the conditions set out in Section 1.3;
- c) come from sources other than the activities specified in Section 2.1;
- d) have not been treated by the appropriate pre-treatment devices that are described in Section 2.2.1 and that have been maintained as described in Section 2.2.2;

shall be removed for offsite disposal.

1.5 Risk Minimisation and Contingency Plan

- 1.5.1.1 **On a yearly basis**, the Company shall review and if necessary update its risk minimisation strategy and contingency plan, with respect to factors having the potential for adversely affecting the quality of the Company's trade waste discharges. Upon completion, the Company shall convey the outcome of the review to the Corporation.

Trade Waste Guideline '[Risk Management Information](#)' contains further information.

1.6 Emergency Response

If any spill or discharge occurs which has the potential to damage the Corporation's infrastructure, the Company will activate its contingency plan (refer Section 1.5). The Company shall also contact the Corporation's Trade Waste & Networks Branch immediately, once it is aware of the occurrence.

24 HOUR EMERGENCY TRADE WASTE NUMBER – 0439 888 164

2 Operating Conditions

2.1 Sources of Trade Waste

This Authorisation relates only to discharges from the following individual activities generating trade waste at the time of Authorisation issue.

- 2.1.1 CIP events
- 2.1.2 Truck wash
- 2.1.3 Cooling tower bleed
- 2.1.4 Boiler blowdown
- 2.1.5 Hatchery floor wastewaters

2.2 Pre-treatment Devices

2.2.1 The following pre-treatment devices are acceptable for the duration of this Authorisation providing consistently acceptable trade waste quality is achieved.

- 2.2.1.1 2400 ltr settling pit – east side of dispatch canopy
- 2.2.1.2 2400 ltr settling pit – west side of dispatch canopy
- 2.2.1.3 Numerous silt traps in production area

2.2.2 The Company shall maintain the effectiveness of pre-treatment devices by regular maintenance and servicing, in particular:

- 2.2.2.1 Annual calibration of effluent flow meter
- 2.2.2.2 Regular pump out of settling pits
- 2.2.2.3 Ensure silt traps are in place and regularly emptied

2.2.3 The company may vary its pre-treatment device/s (2.2.1) upon agreement with the Corporation.

2.3 Monitoring Equipment

2.3.1 The following trade waste discharge monitoring devices are acceptable for the duration of this Authorisation.

- 2.3.1.1 Conductivity ($\mu\text{s}/\text{cm}$)
- 2.3.1.2 Flow (L/sec)

Please refer to section 3.3.4 for specific electronic monitoring system requirements.

- 2.3.2 The Company shall maintain the accuracy and proper functioning of the equipment listed in Section 2.3.1.1, to ensure reliable provision of valid data and prevent false alarms, in particular:
- 2.3.2.1 Following all manufacturers calibration recommendations.
 - 2.3.2.2 Following all manufacturers servicing/ maintenance recommendations.
 - 2.3.2.3 Regular cleaning and inspection of electronic probes at a minimum frequency of once per month. Clearly dated comprehensive records of inspections must be kept and made available to SA Water on request.
- 2.3.3 The Company shall consider the nature of its trade waste discharges and their influence on instrument reliability when determining servicing requirements. As a minimum, the Company will calibrate this equipment at a frequency recommended by the manufacturer.
- 2.4 Protection of Sewer**
- 2.4.1 The Company shall protect sewer entry points on its premises from potential entry of non-authorised substances and stormwater by appropriate physical segregation barriers, such as bunds and roofing.
 - 2.4.2 The Company shall take all precautions reasonably practical to prevent discharge of material into the Corporation's sewer from its premises by any person or persons in contravention with the provisions of this Authorisation.
 - 2.4.3 For the purposes of this Authorisation, any discharge of material into the Corporation's sewer by any person or persons on the Company's premises will be taken to have been done with the Company's consent.

3 Monitoring

3.1 The Corporation

- 3.1.1 The Corporation may perform 2 site audits per calendar year in accordance with the site's risk index rating, to ensure compliance with the conditions of this Authorisation. The Corporation may conduct additional audits where a significant non compliance is identified and remedial action is needed. The Company shall pay to the Corporation an audit fee for each such site audit in accordance with the Corporation's charging protocol.
- 3.1.2 Where the Corporation does not act as the contractor for the Company with respect to Section 3.2.1, it may perform 1 independent sample per 18 month period without notice to the company to verify the validity of the monitoring process. The Company may request a copy of analytical results from the Corporation. The corporation will communicate these costs as early as possible in each financial year.
- 3.1.2.1 In the event that the independent sample identifies a disparity between results being represented by the company. The corporation will perform an investigation on the company's monitoring procedures to ensure compliance with section 3.3. The corporation may recover costs associated with this investigation if it is determined that the monitoring practices of the company are in contravention of section 3.3 of this authorisation.
- 3.1.3 In the event that the Corporation is required to respond to an incident, monitoring alarm (refer 3.3.5.2) or other unusual event at the Company's operation, it may recover its costs in doing so (including the cost of laboratory analysis of any samples that it collects) from the Company.
- 3.1.4 Sections 3.1.1, 3.1.2 and 3.1.3 in no way limit the Corporation's statutory power of inspection.

3.2 The Company

The Company (or its contractor) shall, at its expense:

- 3.2.1 Perform routine self-monitoring of trade waste discharge performance, in accordance with Section 3.3 – Monitoring Protocol.
- 3.2.2 Record:
 - a) metered trade waste volume discharge for each month;
 - b) metered mains water consumption for each month;
 - c) production volume for each month; and
 - d) variations in production or other factors that could significantly influence trade waste quality, quantity or rate of discharge from time to time.
- 3.2.3 Report to the Corporation's Trade Waste & Network Branch the following:
 - a) laboratory test results within 7 days of receipt; and
 - b) recorded information as specified in Section 3.2.2 in a format acceptable to the Corporation, no more than seven days after the end of each quarter.
- 3.2.4 Retain receipts for removal of prohibited material, as stated in Section 1.4.
- 3.2.5 Keep required records or data for a period of two years.

3.3 Monitoring Protocol

3.3.1 Wastewater Sampling Procedure

- 3.3.1.1 Sample wastewater in accordance with the principles set out in AS/NZS 5667. 1 & 10: 1998 Water Quality – Sampling – Guidance on sampling of waste waters.
- 3.3.1.2 A 24 hour composite sample will be collected from each discharge point:
- Flow proportionally (Functioning pulse output 6 pin amphenol connection from effluent flow meter must be available), during any representative production day **once per quarter**.
 - From the final gully of both settling pits
 - Using an auto-sampler to deliver a minimum of 52 sub samples on a flow proportional basis or
 - As agreed by both parties from time to time.
- 3.3.1.3 If requested, provide a duplicate sample split to the Corporation for independent analyses.
- 3.3.1.4 Refrigerate (or pack in ice water) the sample until analysis occurs.
- 3.3.1.5 Take the sample to an analytical laboratory, which has NATA certification for the specific analyses required in line with the holding times listed below.
- 3.3.1.6 Analyse the sample (using Standard Methods as per "Standard Methods for the Examination of Water and Wastewater", APHA, AWWA, WPCF, 22nd Edition, 2012.) as follows:

Parameter	Method	Maximum Holding time
Suspended Solids	2540D&E	24 hours
Biochemical Oxygen Demand (BOD)	5210B	24 hours
Total Dissolved Solids	2510B#	24 hours
Grease	5520D	24 hours
Total Kjeldahl Nitrogen	4500-N (org B or C)	24 hours
Total Phosphorus	4500-P B.4, 4500-P E, 4500P-I, 4500-P F	24 hours

Note: Conductivity (EC in $\mu\text{S}/\text{cm}$) using Method 2510B is converted to Total Dissolved Solids (TDS in mg/L) by using the following equation.

$$TDS = (0.548 \times EC) + (2.2 \times 10^{-6} \times EC^2) - (2.06 \times 10^{-12} \times EC^3)$$

3.3.2 Repeat Samples

- 3.3.2.1 Where sample results do not meet the specific discharge limits as outlined in section 1.3, the Company will investigate contributing factors and report these to the Corporation within 5 days of non-compliance being identified.
- 3.3.2.2 Where the corporation considers necessary to obtain further sample results to give a fair representation of discharge performance (e.g. when an unusual analytical result is obtained, or to reflect changes from normal production/discharge circumstances), additional sampling shall be undertaken.

3.3.3 Flow Metering

3.3.3.1 The Company shall maintain an accurate effluent flow meter on all trade waste outlets to the Corporation's sewer.

3.3.3.2 Measure and display cumulative trade waste discharge to sewer in kilolitres (minimum six digits)

3.3.3.3 Measure and display instantaneous discharge flow rate in litres per second (to one decimal place)

3.3.3.4 Provide pulse outputs to enable sampling in accordance with Section 3.3.1.2.

Fact Sheet *Trade Waste Discharge Flow Meters* provides specific technical details.

(<https://www.sawater.com.au/business/trade-waste/industry-guidelines>)

3.3.4 Electronic Monitoring / Data Collection

3.3.4.1 The Company, at its own expense, shall maintain equipment to electronically monitor and log data on the final trade waste discharge for the following parameters:

3.3.4.2 Conductivity ($\mu\text{s}/\text{cm}$)

3.3.4.3 Flow (L/sec)

3.3.5 Monitoring system requirements;

- a) Upon request from SA Water (usually during audits) raw logging data and plots for all monitored parameters must be supplied without delay.
- b) The electronic monitoring system shall be capable of exporting historical raw data for the previous 24hr period in a generic format (e.g. CSV file), without the need for proprietary software.
- c) Historical data must be stored either online or by other means for a period of up to 2 years, and be made available without delay upon SA Water's request. These data transactions may occur routinely or ad hoc for compliance / incident investigations. Email transactions may occur for file sizes up to 5MB. Alternatively a Trade Waste officer may obtain data during a site audit with a USB mass storage device.

3.3.5.2 Electronic monitoring equipment shall send alarms automatically to the Corporation's emergency number (**ph 0439 888 164**), in particular:

- a) Not applicable at this time. Should your risk rating be reclassified as High or Extreme electronic alarms may be required.

Fact Sheet [*Electronic Monitoring and Data Collection*](#) provides specific technical details.

4 Charges

4.1 Volume and load-based Charges

- 4.1.1 The Corporation periodically changes volume and load based charges in line with SA Water's [Framework & Fees and Charges](#). Current charges are available from the Corporation upon request, or from the Corporation's internet site.
<https://www.sawater.com.au/business/trade-waste>
- 4.1.2 The Corporation calculates discharge loadings by using the average of all valid sample results for the quarter and quarterly total trade waste flow, as specified in Section 3.3 Monitoring Protocol.
- 4.1.3 The Corporation will use the recorded flow value from the trade waste discharge flow meter.
- 4.1.4 Should the trade waste discharge meter fail or the meter is yet to be installed (section 3.3.3), the Corporation will base its calculations on 90% of water consumption for that billing period.
- 4.1.5 Where the Company can show to the Corporation's satisfaction that an individual sample represents a short-term anomaly, the Corporation will adjust the calculation of quarterly average sample results accordingly.
- 4.1.6 The Corporation will only disregard anomalous sample results if it is satisfied that a sampling or laboratory analysis error led to erroneous results.
- 4.1.7 Should any parameter exceed the maximum allowable flow for the period listed in Section 1.2 or any of the concentration limits listed in Section 1.3, the Corporation will recover the full cost of accepting and treating the non-compliant portion of the overall discharge loading for that billing period. For this purpose, the prevailing cost reflective volume and load based charges (as given in SA Water's [fees and charges](#)) will be used. Normal charges as stated in Section 4.1.2 continue to apply to the compliant discharge portion.
- 4.1.8 Should any daily maximum load (represented in Kg or Tonnes per day) as listed in section 1.3 be exceeded, the corporation may recover the cost of accepting and treating the non-compliant portion in accordance with section 4.1.7.
- 4.1.9 If the appropriate monitoring records specified in Section 3.2.3 have not been received by the stipulated deadline, the Corporation will substitute (as needed) the highest quarterly sample contaminant concentration(s) and/or the highest quarterly discharge volume from the previous 12 months into its billing calculations.

Information received following this deadline will be reviewed upon receipt by the Corporation to determine if it will be considered for inclusion. Appropriate administrative costs will be recovered by the Corporation in this event.



Government
of South Australia



- 4.1.10 The Corporation will apply a discount to the Volume Load Based (VLB) charges for each billing period against property sewerage rates, amounting to half of the calculated trade waste charge, or one third of property sewer rates (whichever is the lesser).

4.2 Billing

- 4.2.1 The billing frequency will be quarterly in arrears and completely separate from the normal water and sewerage accounts.
- 4.2.2 GST will apply to sampling/monitoring and audits. Other charges and fees are not subject to GST.

5 General Terms

5.1 Variation and renewal

- 5.1.1 Conditions within this Authorisation may be varied from time to time as specified in this Section. In such an event, the Corporation will consult with the Company and issue an amended Authorisation for the remainder of this Authorisation period.
- 5.1.2 The Corporation bases acceptance of trade waste into its sewer on the Company's operating conditions prevailing when this Authorisation is issued. Where the Company intends to make changes that would affect the quality or quantity of its trade waste discharges, it shall give the corporation 10 business days notice before making any changes, to allow the Corporation to consider the proposal and issue an appropriate response. If the Company intends major alterations or additions, it shall submit a new completed Trade Waste Discharge Application form.
- 5.1.3 Variations to conditions of this Authorisation may be necessary due to circumstances beyond the Corporation's control, such as changes in law or varying regulatory requirements on the corporations discharge licences. Where practicable to do so, the Corporation will give reasonable advance notice in writing of such variations.
- 5.1.4 In addition to the provisions under Sections 5.1.2 and 5.1.3, variations to the conditions of this Authorisation may be made by agreement between both parties.

5.2 Non Compliance and Breaches

- 5.2.1 Where a non-compliance with any condition of this Authorisation has been determined, the Corporation may issue a Non-Compliance Notice to the Company specifying:
- the nature of the non-compliance;
 - the clause or section of this Authorisation that has not been complied with;
 - appropriate remedial action to be taken by the Company; and
 - the deadline for completion of remedial action.
- 5.2.2 A breach of this Authorisation occurs if the Company fails to:
- fulfil the requirements of a Non Compliance Notice;
 - meet conditions of payment for all related fees and charges related to this Authorisation; or
 - comply with a Notice given in accordance with Section 5.2.1

5.3 Suspension or Termination of Authorisation

- 5.3.1 The Corporation may suspend authorisation to discharge into the Corporation's sewer at any time and require the Company to cease discharge of part or all of its trade waste, in circumstances where this material:
- cannot be safely accepted into the Corporation's sewer;
 - cannot be effectively treated at the Corporation's Wastewater Treatment Plant; or
 - is likely to cause the failure to meet a product specification of any of the Corporation's residual products.
- 5.3.2 In serving Notice to the Company under Section 5.2.1, the Corporation will specify:

- a) the reason(s) for the notice;
- b) what the Company shall do; and
- c) the likely duration of the suspension period

5.3.3 The period of suspension under Section 5.3.1 will be of a duration that in the opinion of the Corporation is consistent with the circumstances.

5.3.4 The Company shall comply with any notice given under Section 5.2.1, subject only to any delay that may be required to safeguard the health or life of any person.

5.3.5 The Corporation will reinstate authorisation to discharge trade waste once it is reasonably satisfied that the circumstances giving rise to suspension under Section 5.3.1 no longer exist.

5.3.6 The Corporation may terminate this Authorisation, on giving one month's notice in writing to the Company:

- a) on the ground that there has been a breach as defined in Section 5.2.2; or
- b) on such other ground as the Corporation thinks fit and the Company has not, within the one month notice period, demonstrated to the satisfaction of the Corporation that the ground for termination specified in the Corporation's notice is erroneous or that reasonable grounds exist for continuing the Authorisation.

5.3.7 In instances where the Company intends to cease making discharges into the Corporation's sewer, it may terminate its obligations under this Authorisation upon giving one month's notice in writing to the Corporation and making payment to the Corporation of all outstanding amounts that have become payable to the Corporation in relation to this Authorisation. This Authorisation shall terminate at the later of the expiration of the one-month notice period or the payment to the Corporation of all amounts payable in relation to the Authorisation. Termination shall not prejudice any rights that have accrued to either the Company or the Corporation in relation to this Authorisation prior to the time of termination.

5.4 No transfer or assignment

The Company shall not transfer or assign any rights or obligations under this Authorisation to a third party without the Corporation's prior consent in writing.

5.5 In the event of conflict

In the event of any conflict occurring between the provisions of this Authorisation and other requirements set by the Corporation, the provisions of this Authorisation shall prevail.

5.6 Supersedes previous Authorisations

This Authorisation supersedes all previous Authorisations, approvals or other provisions for accepting trade waste discharges from the Company into the Corporation's sewer.

5.7 Mains water protection

Backflow protection at the connection to our mains water supply to your company must at all times comply with the relevant plumbing and building standards as regulated by the Office of the Technical Regulator, telephone (08)8303 2233.

5.8 Confidentiality

The Corporation will treat the contents of this Authorisation and all data/information regarding activities at the Company's site as confidential. Disclosure to a third party may only occur after express approval being given by both the Company and the Corporation, except as required by law or to Parliament, a Minister of the Crown, a Parliamentary or Cabinet Committee or a government agency. If any such disclosure is required, the Corporation will notify the Company prior to making that disclosure.

5.9 Miscellaneous

In exercising any power, right or authority under this Authorisation and its activities on the Company's property, the Corporation will at all times act reasonably and in good faith.

Glossary of Terms

Backflow	The reversal of flow in water supply pipes due to back pressure or back siphoning.
Bund	An impervious system for containing spilled or leaked materials. Further details can be found in "Trade Waste Guideline 4 – Bunding" and the South Australian Environment Protection Authority's "Bunding and Spill Management Guideline EPA 080/07".
Composite Sample	Sample taken in accordance with section 3.3.1 of this authorisation (involves series of samples collected over a period of time).
Grab Sample	Sample taken from a sample point representative of trade waste discharge to sewer. Represents discharge quality at time of collection only.
NATA	National Association of Testing Authorities. NATA is Australia's national laboratory accreditation authority. NATA accreditation recognises and promotes facilities competent in specific types of testing, measurement, inspection and calibration.
Pre-treatment device	Equipment that modifies, or removes contaminants from trade waste, so as to achieve acceptable discharge quality.
Risk index rating	The outcome of an assessment of the risk posed to SA Water from accepting trade waste from a Company. The assessment method uses standardised ratings for the Company's activities, its location within the sewerage network, any previous breaches and discharge volume/ contaminants/ load.
Trade Waste	The liquid waste from any industry, business, trade or manufacturing premises, other than domestic sewage, which is disposed of to the sewer. For the purposes of this Authorisation, the discharges from toilets, hand washing and showering facilities are domestic sewage.
WWTP	Waste Water Treatment Plant
The Framework	https://www.sawater.com.au/business/trade-waste

Version History

Version	Review Date	Changes	Responsible Officer
Version 2	30/07/2015	Updated hyperlinks for new SA Water website	Andrew Manzinger

21 December 2017

Client Services Officer

Development Applications
Science and Assessment Division
Environment Protection Authority
GPO Box 2607
ADELAIDE SA 5001
Email: epa.planning@sa.gov.au

Attention: Michael Guy

Dear Michael,

RE: RESPONSE TO DEVELOPMENT APPLICATION INFORMATION REQUEST - EXTENSION TO EXISTING CHICKEN HATCHERY (INTENSIVE ANIMAL KEEPING) - EPA REFERENCE: 34212

I refer to the Environment Protection Authority's (EPA) correspondence dated 27 October 2017 and email dated 15 November 2017 (from Michael Guy to David Ireland) seeking additional information in respect to the abovementioned applicaiton. PSA Consulting, on behalf of the applicant BPL Livestock Pty Ltd, provides a full response to all matters raised by the EPA.

MATTERS RAISED BY EPA	APPLICANT'S RESPONSE
<u>Matters raised in correspondence dated 27 October 2017 (EPA Reference 34212)</u>	
1. <i>Confirm if the rendering plant is located off-site and that no rendering is carried out on-site.</i>	We can confirm that there will be no rendering undertaken on site.
2. <i>Clarify if any fuel burning is to occur on-site as part of the plant expansion. If so, confirm what kind of plant, fuel types, location of all fuel burning equipment, heat rates, flue methodology, stack height, etc.</i>	An existing gas fired boiler provides hot water for the hatchery equipment and diesel generator provides back up power in the event of mains power failure. Both have flues that extend through the roof approximately 3 metres in accordance with the applicable Australian Standards. No additional fuel burning is proposed as part of this application.
3. <i>Provide a report prepared by a suitably experienced, professional acoustic engineering consultant, and to the satisfaction of the Environment Protection Authority, demonstrating that worst case predicted noise from the proposal can meet the Noise Criteria. The report should state what the overall predicted noise will be at the most noise affected sensitive receivers after adjustment for any noise character. If the report cannot demonstrate that the worst case predicted noise from the proposal can meet the Noise Criteria, it should give details and specifications of what treatments, procedures and/or practices are required on the subject land to achieve compliance. Worst case predicted noise includes, but not limited to, the overall noise from all equipment operating and</i>	An Acoustic Impact Assessment report is attached as Appendix 1 . The report concludes that the noise levels at surrounding dwellings have been predicted based on noise level measurements at the existing site and acoustic treatment measures recommended for the facility, including: <ul style="list-style-type: none"> - A barrier adjacent to the new loading dock; and - Appropriate selection and screening of mechanical plant. With the recommended acoustic treatments in place, the noise at the dwellings from the expanded activity on the site is predicted to achieve the relevant requirements of the <i>Environmental Protection (Noise) Policy 2007</i> .

MATTERS RAISED BY EPA	APPLICANT'S RESPONSE
<p><i>activities being carried out and vehicles (including commercial vehicles, refrigeration units on trucks, staff cars, forklifts, reversing alarms) entering, leaving, moving and operating on site that could occur simultaneously.</i></p>	
<p><i>Matters raised in email dated 15 November 2017 (from Michael Guy to David Ireland)</i></p>	
<p><i>Section 4.3 of the application states the expansion is expected to increase the overall water demand by 19%, totalling 600,000 litres to 680,000 litres per week. However, the current Trade Waste agreement only allows for the discharge of up to 455,000 litres per week. Can you please clarify how the remaining 225,000 litres (estimated) would be disposed?</i></p>	<p>There was an oversight in the original planning report supporting this application. The following summarises the proposed water usage and wastewater discharge on the site.</p> <p>The current operation uses 395,000 litres of water per week, which results in approximately 265,000 litres of waste water (i.e. 67% of the water used on site ends up in trade waste). The site currently has a trade waste agreement which allows for 455,000 litres per week.</p> <p>With the proposed expansion of the site, it is anticipated that there would be an increase in 50-70% of water use (i.e. 600-680,000 litres per week of water used). Assuming the same ratio of waste water production, this would result in an anticipated waste water discharge of between 402-456,000 litres per week. As we have used conservative assumptions, we are confident that the required trade waste discharge will fall within the current trade waste agreement.</p>

We trust this information provides the EPA with all the requested information. Should you require any further information or wish to discuss, please do not hesitate to contact either David Ireland or myself on telephone number (07) 3220 0288.

Yours sincerely,



Nicole Boulton
Principal Planner
PSA Consulting (Australia) Pty Ltd

CC: Town of Gawler
PO Box 130
GAWLER EAST SA 5118

Attention: Mr James Booker

Extension of Poultry Hatchery

Adam Street, Willaston

Environmental Noise Assessment

December 2017

S5468C3

sonus.

Sonus Pty Ltd
17 Ruthven Avenue
Adelaide 5000 SA
+61 (8) 8231 2100
www.sonus.com.au

Document Title : Extension of Poultry Hatchery - Environmental Noise Assessment
Document Number : S5468C3
Date : December 2017
Author : Jason Turner, MAAS
Reviewer : Chris Turnbull, MAAS

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1 INTRODUCTION

An environmental noise assessment has been made of the proposed extension of the poultry hatchery located at Lot 2 Adam Street, Willaston. The extension includes a new setter (incubator) and chiller (egg storage) room, as well as a new delivery loading dock and plant room.

In broad terms, the development is well located in a General Industry Zone and incorporates an expansion of activity already occurring in the environment which is predominantly enclosed in an insulated building. Notwithstanding this, an environmental noise assessment has been conducted to ensure that the proposed expansion does not detrimentally impact on the acoustic amenity of the surrounding residences and satisfies all relevant requirements of the Gawler Council Development Plan.

The closest residences to the development are to the west on Chignell Circuit. In addition, there appears to be a dwelling to the south with frontage to Kelly Road located in the General Industry Zone. The subject site and residences are shown in Appendix A.

The assessment considers noise levels at the residences from the following:

- operation of the expanded hatchery;
- the use of the new delivery loading dock;
- additional truck dispatch movements on site, and;
- new mechanical plant serving the development.

The assessment has been based upon:

- PSA Consulting Australia *Statement of Effect & Statement of Support* dated 12 July 2017;
- noise measurements conducted on 21 November 2017 at the existing poultry hatchery site; and,
- the understanding that:
 - the expansion does not propose to modify existing approved operating hours;
 - incubators that utilise electric heating elements are proposed for the setter rooms;
 - the thermal plant will be duplicated to service the expansion;
 - the building extension will be constructed from 100mm thick metal skinned insulated panels;
 - there will be up to 5 additional chicken dispatch trucks per day,
 - 2 emergency generators are proposed within the new plant building.
 - The vacant land in the Rural Living Zone will not be developed closer to the expanded facility than existing dwellings on the basis of its location in a flood plain area.
 - Waste collection will occur in the same location.

2 ASSESSMENT CRITERIA

2.1 Development Plan

The subject site and closest residence to the south are located a General Industry Zone, and the closest residences to the west are located in Rural Living Zone (refer Appendix A). The subject site and residences are all located within the Gawler Development Plan¹. The Development Plan has been reviewed and particular regard given to the following relevant provisions:

Council Wide

Interface Between Land Uses

OBJECTIVES

39. *Development located and designed to prevent adverse impact and conflict between land uses.*
40. *Protect community health and amenity and support the operation of all desired land uses.*

PRINCIPLES OF DEVELOPMENT CONTROL

97. *Development should not detrimentally affect the amenity of the locality or cause unreasonable interference through any of the following:
...
(b) noise;
...*
98. *Development should be sited and designed to minimise negative impact on existing and potential future land uses considered appropriate in the locality.*
100. *Residential development adjacent to non-residential zones and land uses should be located, designed and/or sited to protect residents from potential adverse impacts from non-residential activities.*
101. *Sensitive uses likely to conflict with the continuation of lawfully existing developments and land uses considered appropriate for the zone should not be developed or should be designed to minimise negative impacts.*

Noise

102. *Development should be sited, designed and constructed to minimise negative impacts of noise and to avoid unreasonable interference*
103. *Development should be consistent with the relevant provisions in the current Environment Protection (Noise) Policy.*

¹ Consolidated 28 April 2016

2.2 Environment Protection (Noise) Policy 2007

Council Wide Interface between Land Uses Principle of Development Control 103 specifically references the *Environment Protection (Noise) Policy 2007* (the Policy), which provides objective criteria for environmental noise from a development to residences.

The Policy is based on the World Health Organisation Guidelines to prevent annoyance, sleep disturbance and unreasonable interference on the amenity of an area. Therefore, compliance with the Policy is considered to satisfy all provisions of the Development Plan related to environmental noise.

Noise from General Activity

In situations where an existing approved operation is proposed to expand without modifying the operating hours or type of activity, the *Guidelines for use of the Environment Protection (Noise) Policy 2007* (the Guidelines) recommend that the expanded activity is to be assessed against the indicative noise levels less 5 dB(A).

The indicative noise levels are based on the land uses that are principally promoted in the zones in which the facility and the closest residences are located.

Based on residential land uses principally promoted in the Rural Living Zone adjacent to the site, the Policy recommends the following noise levels to be achieved for the proposed extension:

- Existing dwelling in a General Industry Zone
 - an average (L_{Aeq}) noise level of 60 dB(A) at any time
- Existing dwellings in a Rural Living Zone
 - an average (L_{Aeq}) noise level of 54 dB(A) during the daytime (7am to 10pm);
 - an average (L_{Aeq}) noise level of 45 dB(A) during the night time (10pm to 7am); and
 - a maximum instantaneous noise level (L_{Amax}) of 60 dB(A) at night time.

Given the site can operate at any time during the day or night, the “night” time goal noise level provides the most relevant criterion.

When measuring or predicting noise levels for comparison with the average goal noise levels of the Policy, penalty adjustments are applied for any characteristic of tone, low frequency, modulation or impulsiveness. A penalty of 5 dB(A) is applied if one characteristic is present; 8 dB(A) is applied for two characteristics; and 10 dB(A) is applied for three or four characteristics.

Noise from Emergency Generators

The Policy criteria are based on noise sources that can operate continuously every day of the year. Where the noise sources operate for a limited frequency and duration, the Policy enables the goal noise levels to be relaxed.

There is no specific approach provided in the Policy that deals with emergency generators. However, due to limited operation of the generator and that the only scheduled operation occurs for maintenance purposes during the day, reference is made to the daytime compliance goal noise levels of the Policy at the nearest dwellings. The compliance goal noise levels are as follows:

- an average (L_{Aeq}) noise level of 65 dB(A) at dwellings in the General Industry Zone
- an average (L_{Aeq}) noise level of 59 dB(A) during the daytime at dwellings in a Rural Living Zone

3 ASSESSMENT

3.1 Noise Sources

Noise levels at the closest residences in the vicinity of the development have been assessed based on noise measurements and observations made on 21 November 2017 at the existing poultry hatchery site. A summary of the measured noise levels are provided in Appendix B.

The internal noise levels of the existing hatchery process were measured and the transfer from inside to outside the expanded facility was determined in order to assess this aspect of the expansion.

The noise levels of the existing thermal plant were measured and extrapolated to account for the influence of a doubling of the plant in order to assess this aspect of the operation.

The noise levels of a truck arrival, loading and dispatch were measured and adjusted to account for the new loading dock location in order to assess this aspect of the operation.

3.2 Predicted Noise Level

The noise level at the nearest residences has been predicted based on the combined operation of the expanded activity occurring concurrently. That is, with the expanded hatchery process in operation with the expanded thermal plant at the time of a truck arriving on site, a truck unloading eggs, a truck loading chicks and a truck exiting the site in a 15 minute period (default measurement period of the Policy).

The predictions indicate that the average (L_{Aeq}) noise from the expanded concurrent activity could be up to the following levels at the nearest residences without any specific acoustic treatment. The predicted noise levels will be subject to the final mechanical services plant design and the extent of concurrent activity:

- 56 dB(A) at the potential dwelling in the General Industry Zone; and,
- 52 dB(A) at the dwellings in the Rural Living Zone.

The predictions and observations of activity on site indicate that the dominant noise source will be the broadband and continuous cooling tower and truck refrigeration equipment operation, and as such a penalty for noise characteristics is not applicable in the comparison of the predicted levels against the Policy goal noise levels.

Based on the above, the requirements of the Policy will be achieved in the General Industry Zone, but not at the dwellings in the Rural Living Zone where no specific acoustic treatment measures are incorporated.

The following acoustic treatment measures are recommended to reduce the noise level from the the expanded activity at the dwellings in the Rural Living Zone to a level of 45 dB(A), therefore achieving the noise criteria of the Policy at all locations and for any combination of expanded activity.

New Loading Dock

Construct a barrier for the extent shown in Blue in Appendix A. The barrier should be constructed from Colorbond (or a material with equivalent or greater surface density) that is sealed air tight at all junctions, including at the ground. The height of the barrier should be such that it blocks line of sight between the truck (including the exhaust and refrigeration unit) and the dwellings in the Rural Living Zone taking into account the final dock arrangement, the barrier location and the relative dock finished floor level.

Mechanical Services Plant

At the development application stage of a project, the mechanical plant is not designed or selected. In these circumstances, it has been assumed that the new plant and equipment will double the capacity of the existing plant and equipment resulting in the following extent of treatment:

- Locate new major thermal plant (such as cooling towers) such that the new or existing hatchery building blocks line of sight between the equipment and the dwellings in the Rural Living Zone; and,
- Provide attenuation of ventilation openings through the building construction such that the acoustic integrity of the building is maintained.

The above treatment measures should be reviewed during the detailed design phase of the project, once final equipment selections have been made.

3.3 Noise from Generators

It is understood that indicative generator selections for the proposed site indicate noise levels of up to 45 dB(A) can be achieved at a distance of 100m. Based on closest sensitive receivers being located a distance of 100m or more and with the benefit of an enclosed installation and the influence of large structures, the noise from the generators can easily achieve the daytime compliance goal noise levels of the Policy.

The ability to comply with the Policy should be reviewed once final generator selections and location details have been made.

4 CONCLUSION

An environmental noise assessment has been made of the proposed extension of the poultry hatchery located at Lot 2 Adam Street, Willaston.

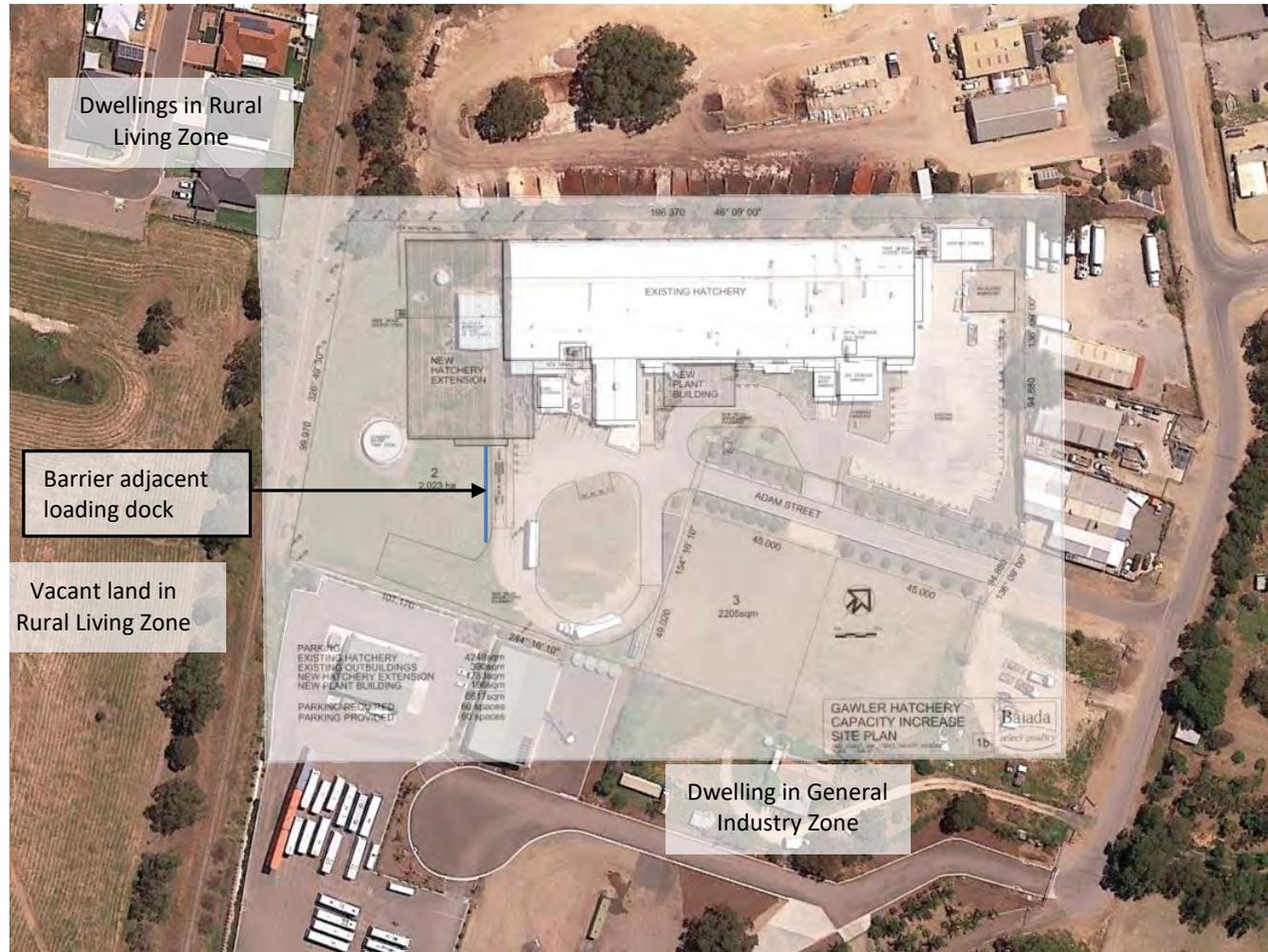
The noise levels at surrounding dwellings have been predicted based on noise level measurements at the existing site and acoustic treatment measures recommended for the facility, including:

- a barrier adjacent the new loading dock, and;
- appropriate selection and screening of mechanical plant.

With the recommended acoustic treatment measures in place, the noise at the dwellings from the concurrent operation of the expanded activity at the site is predicted to achieve the relevant requirements of the *Environment Protection (Noise) Policy 2007*.

Based on the above, it is considered that the expansion will *not detrimentally affect the amenity of the locality* and will *minimise negative impacts of noise*, thereby achieving the relevant provisions of the Gawler Council Development Plan.

APPENDIX A: Subject Site, Residences and Acoustic Treatment



APPENDIX B: Measured Noise Levels

Noise Source / Activity	Noise Descriptor	Overall Noise Level (dB(A))
Noise Level within setter and chiller rooms	Sound pressure level, L_p , (dB re 20 μ Pa)	74
Truck Movement with Refrigeration	Sound power level, L_w , (dB re 1 ρ W)	100
Truck Idle with Refrigeration	Sound power level, L_w , (dB re 1 ρ W)	99
Cooling Towers	Sound power level, L_w , (dB re 1 ρ W)	99

Extension of Poultry Hatchery

Adam Street, Willaston

Response to Information Request

February 2018

S5468C3

sonus.

Jason Turner
Associate

Sonus Pty Ltd
17 Ruthven Avenue
Adelaide 5000 SA
+61 (8) 8231 2100
www.sonus.com.au

Background

Sonus conducted an Environmental Noise Assessment (reference "S5468C2") for the proposed extension of the poultry hatchery located at Lot 2 Adam Street, Willaston, in December 2017 (the Noise Assessment).

The EPA has reviewed the Noise Assessment and has requested further clarification of aspects of the report (EPA Reference: 34212, dated 11 January 2018).

This report provides the information requested by the EPA.

EPA Request

The EPA request included the following:

- 1. The EPA requires further clarification regarding the noise criterion used in the Noise Assessment. A night time noise level of 45 dB(A) is listed within the report. However, the EPA has calculated (by an averaging of relevant zones and considering the Industry Zone as principally promoting both General Industry and Light Industry) a night time level of 42 dB(A). Consequently, it is requested that the Noise Assessment demonstrate compliance with the night time criterion of 42 dB(A).*
- 2. Provide discussion to clarify that noise from the activities at the proposed extension would not exceed a maximum noise level of 60 dB(A) L_{max} at the nearest noise-affected premises in the Rural Living Zone between 10pm and 7am.*
- 3. Page 8 of the Noise Assessment includes recommendations that 'treatment measures should be reviewed during the detailed design phase, once final equipment selections have been made' and that 'the ability to comply with the policy should be reviewed once final generator selections and location details have been made'. To provide confidence that the requirements of the Environment Protection (Noise) Policy 2007 can be achieved, the EPA requests that the Noise Assessment considers available indicative outputs and specifications for equipment and generators that have potential to be used.*

Response to EPA Request

The response to the EPA request is provided below:

1. The applicable criterion was resolved based on discussions with the EPA and it was confirmed that this item was no longer required to be addressed as per the EPA email dated 19 January 2018.
2. For typical noise sources, compliance with the “average” criterion of the Policy means that the maximum noise level requirements are easily achieved. Notwithstanding this, a specific assessment has been made as requested. The highest L_{max} values associated with the expansion of the site relate to the truck air-release and loading and unloading activity at new loading dock located on the western side of the site.

Noise predictions have been made based on detailed noise measurements made of truck activity on the site. The predictions indicate a maximum noise level of 60 dB(A) will be easily achieved with the inclusion of the barrier recommended adjacent the loading dock. The truck air release L_{max} is predicted to be in the order of 54 dB(A) and the loading and unloading activity is predicted to generate a typical L_{max} in the order of 48 dB(A).

3. As noted in the Noise Assessment, mechanical plant is not designed, selected or procured until after the development application stage of a project. Notwithstanding, to provide confidence that the requirements of the *Environment Protection (Noise) Policy 2007* can be achieved, the following sound power levels are provided as the representative levels utilised for the predictions of the noise from the new major equipment and emergency generators:

Equipment	Source of Data	Utilised Sound Power Level (dB(A))
New major thermal plant (such as cooling towers)	Measurements of equivalent equipment at the Willaston site	100
Emergency Generators	Indicative selection data (refer Appendix A)	93

The above levels can be realistically achieved for major equipment and emergency generators selections. It is noted that the noise from the emergency generators is predicted to easily achieve the daytime compliance goal noise levels of the Policy, and emergency generators with a significantly higher noise level could be accommodated. Any additional minor plant (such as fans, etc.) will have significantly lower noise compared to the major plant, and can be readily designed with standard acoustic treatment measures (such as acoustic ductwork or attenuators) to achieve the requirements of the *Environment Protection (Noise) Policy 2007*. A condition requiring a design or procurement stage assessment to be made could be incorporated.

Appendix A: Indicative Emergency Generator Data



Noise At Distance Calculator printout -- 16-Nov-17

Enclosure Size: 40ft (High Cube) ISO Container

Enclosure Length: 12192 mm

Enclosure Width: 2438 mm

Enclosure Height: 2896 mm

Sound Pressure Level @ 1m: 73 dBA

Distance of Measurement: 100 m

Predicted Sound Pressure Level @ 100 m: 45.1 dBA



EPA Reference: 34212

14 February 2018

Mr James Booker
Senior Development Assessment Planner
Town of Gawler
PO Box 130
GAWLER SA 5118

Dear Mr Booker

ADVICE FOR REGARD - Activity of Environmental Significance

Development Application No.	490/381/2017
Applicant	BPL Livestock Pty Ltd (PSA Consulting Pty Ltd)
Location	A2 DP50460, Hundred Mudla Wirra, Adam Street, Willaston SA 5118.
Activity of Environmental Significance	Schedule 8 Item 10(b); Schedule 21 Item
Proposal	Extension to poultry hatchery.

Decision Notification	A copy of the decision notification must be forwarded to: Client Services Officer Environment Protection Authority GPO Box 2607 ADELAIDE SA 5001
-----------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------

I refer to the above development application forwarded to the Environment Protection Authority (EPA) in accordance with Section 37 of the *Development Act 1993*. The proposed development involves an activity of environmental significance as described above.

The following response is provided in accordance with Section 37(4)(a)(i) of the *Development Act 1993* and Schedule 8 Item 10(b) of the *Development Regulations 2008*.

In determining this response the EPA had regard to and sought to further the objects of the *Environment Protection Act 1993*, and also had regard to:

- the General Environmental Duty, as defined in Part 4, Section 25 (1) of the Act; and
- relevant Environment Protection Policies made under Part 5 of the Act.

Please direct all queries relating to the contents of this correspondence to Michael Guy on telephone (08) 82042129 or facsimile (08) 81244673 or email Michael.Guy@epa.sa.gov.au.

THE PROPOSAL

The proposed development seeks to extend the existing building envelope and increase operating capacity of the existing hatchery, incorporating the following:

- 1,783 square metre extension to the main hatchery building
- 196 square metres of new plant room
- relocation of the existing workshop and storage shed
- an additional loading bay and vehicle manoeuvring areas, and
- an increase in processing capacity at the site from 920,000 to 1,550,000 day-old chickens per week.

SITE DESCRIPTION

The site of the proposed development is described as 273 Adams Street, Willaston on Certificate of Title Volume 5602 Folio 273.

The existing hatchery (including ancillary buildings) has a gross floor area of 4,638 square metres.

Current operating hours at the site are from 5am to 10pm Monday to Friday, 5am to 6pm Saturdays and 6am to 5pm Sundays and public holidays. There are currently 40 staff employed at the site with no increase proposed.

The nearest sensitive receiver is approximately 40 metres to the west of the site of the extension.

ENVIRONMENTAL ISSUES

Interface between land uses

The EPA's *Evaluation distances for effective air quality and noise management* (2016) recommends that odour modelling be considered for poultry farm applications. As the nearest sensitive receiver is approximately 40 metres to the west of the site of the development, potential noise impacts have also been assessed.

Air Quality

Odour can be generated as a result of anaerobic decomposition of manure, spilt feed and other organic matter. Bird respiration, high moisture content in litter and wet feathers can exacerbate odour issues. As most air emissions from the hatchery consist of water vapour and carbon dioxide, (from incubators and hatchers) odour impacts are likely to be low. Consequently, further modelling is not required.

Transport activities at the hatchery also have the potential to cause dust impacts. As the facility incorporates sealed roadways, offsite dust emissions are not likely to occur from transport activities. This is acceptable to the EPA.

Noise

Noise sources from poultry activities can include:

- ventilation fans
- food delivery
- bird collection and delivery
- waste litter removal
- truck and forklift movements within the site
- cleaning of sheds (e.g. high pressure sprays, compressors, front end loaders etc.), and
- use of generators, pumps and other ancillary equipment.

The aspects of the proposed development that have the potential to cause noise impacts include:

- a 196 square metre plant building incorporating an extra generator set, a relocated generator set and a 'plant room'
- a 1,783 square metre extension to the hatchery building, and
- a new truck loading dock and manoeuvring area.

At the request of the EPA, the applicant submitted an *Environmental Noise Assessment* (by Sonus, Ref. S5468C3, December 2017) on 21 December 2017 (the Noise Report) and a *Response to Information Request, February 2018, S5468C3* on 7 February 2018. The Noise Report considers impacts to the nearest sensitive receivers from noise sources including the expanded hatchery, the new delivery loading dock, additional truck movements and new mechanical plant. Its recommendations include that acoustic treatment measures be implemented to ensure the requirements of *Environment Protection (Noise) Policy 2007* can be achieved. This is acceptable to the EPA and a condition relating to noise has been advised.

A note is also advised to remind the applicant of the mandatory construction noise provisions of the *Environment Protection (Noise) Policy 2007*.

Waste Management

Solid Waste

Solid waste at the existing facility is primarily generated from egg waste, mortalities and chicken fluff. The waste is collected from the building via a vacuum pump and held within a sealed container for daily collection and transfer to a rendering plant.

Solid waste is also generated from the screens associated with the wastewater drains. These wastes would be collected from the screens and placed with the other offal waste products from the hatching process and transported to the off-site rendering plant.

The proposed development would not alter the existing waste collection process and is acceptable to the EPA. A condition has been advised to ensure that solid waste is collected and stored in a sealed container and transported to an appropriately licensed facility on a daily basis.

Liquid Waste

Wastewater is generated at the site during sanitisation and wash down procedures. As per existing operations, wastewater would be collected via internal drains and directed into two 2,000 litre settling pits before being discharged to SA Water's trade waste. Although the proposed development would increase the volume of wastewater generated at the site, conservative figures provided by the applicant indicate the proposal would not exceed the current agreement of 455,000 litres per week. This is acceptable to the EPA and a condition is advised to ensure wastewater is directed to the existing wastewater management system.

Water Quality

The proposed development would cause minor increases to the peak flow and volume of stormwater generated at the facility. An existing swale system at the site incorporates an isolating valve that can be shut off to prevent stormwater discharges to the Council infrastructure (should an emergency arise i.e. spill of contaminants). This is acceptable to the EPA.

CONCLUSION

Provided the poultry farm is constructed and managed in accordance with the plans and details provided in the submitted documentation and conditions advised below, the EPA considers the potential for environmental harm from the proposed development to be low.

ADVICE

The planning authority is advised to attach the following conditions to any approval:

1. The loading dock and mechanical services plant must be constructed as prescribed on page 8 and Appendix A of the *Extension of Poultry Hatchery Adam Street, Willaston - Environmental Noise Assessment (S5468C3)*, December 2017 (unless an equivalent noise attenuation strategy is agreed with the Town of Gawler and the Environment Protection Authority).
2. All wastewater must be directed to the existing wastewater management system.
3. Solid waste must be collected and stored in a sealed container and transported daily to an appropriately licensed waste facility.

The following notes provide important information for the benefit of the applicant and are requested to be included in any approval:

- The applicant is reminded of its general environmental duty, as required by section 25 of the *Environment Protection Act 1993*, to take all reasonable and practicable measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes or may cause environmental harm.
- The applicant is reminded that demolition and construction will need to be carried out in compliance with the mandatory construction noise provisions of Part 6, Division 1 of the *Environment Protection (Noise) Policy 2007*.
- EPA information sheets, guidelines documents, codes of practice, technical bulletins etc can be accessed on the following web site: <http://www.epa.sa.gov.au>

Yours faithfully

A handwritten signature in black ink, appearing to read 'Hayley Riggs', with a long horizontal flourish extending to the right.

Hayley Riggs
Delegate

ENVIRONMENT PROTECTION AUTHORITY