



## STATEMENT OF ENVIRONMENTAL EFFECTS



**Alterations to an existing mushroom growing facility - intensive plant agriculture - 'Premier Mushrooms'**

Lot 1 and 2 DP603811  
Nos. 172 - 182 Boundary Road  
GLOSSODIA

December 2015  
Job No.140565

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# CONTENTS

<b>1. INTRODUCTION.....</b>	<b>1</b>
1.1. Scope.....	1
<b>2. THE LAND.....</b>	<b>2</b>
2.1. Legal Description .....	2
2.2. Site Location .....	2
2.3. Zoning .....	3
2.4. Acid Sulfate Soils.....	3
2.5. Terrestrial Biodiversity.....	3
<b>3. HISTORY.....</b>	<b>3</b>
3.1. Pre-lodgement meeting.....	4
<b>4. EXISTING DEVELOPMENT .....</b>	<b>5</b>
4.1. Subject Site.....	5
4.2. Existing operations.....	8
<b>5. PROPOSED DEVELOPMENT.....</b>	<b>9</b>
5.1. Details of proposal.....	9
5.2. The Mushroom Growing Process .....	11
5.3. Proposed Operations .....	12
5.3.1. Receiving.....	12
5.3.2. Manufacturing and processing .....	12
5.3.3. Packing.....	15
5.3.4. Despatch.....	15
5.4. Staging.....	15
5.5. Mushroom Production.....	15
5.6. Hours of Operation .....	16
5.7. Use of Chemicals.....	16
5.8. Water Management.....	16
5.9. Effluent Management.....	16
5.10. Subdivision.....	17
5.11. Dwellings .....	17
<b>6.0 PLANNING CONTROLS .....</b>	<b>18</b>
6.1. Environmental Planning and Assessment Act 1979 and Environmental Planning and Assessment Regulation 2000.....	18
6.2. State Environmental Planning Policy (State and Regional Development) 2011 .....	20

6.3.	State Environmental Planning Policy (SEPP) – Infrastructure 2007.....	21
6.4.	State Environmental Planning Policy No.44 – Koala Habitat Protection .....	21
6.5.	State Environmental Planning Policy No.55– Remediation of Land .....	22
6.6.	State Environmental Planning Policy No.33– Hazardous and Offensive Development. ....	22
6.7.	Sydney Regional Environmental Plan No.20 – Hawkesbury/Nepean River .....	23
6.8.	Hawkesbury Local Environmental Plan 2012 .....	25
6.9.	Hawkesbury Development Control Plan 2002 .....	32
6.10.	Hawkesbury City Council Section 94a Development Contributions Plan 2006.....	38
<b>7.0</b>	<b>MATTERS FOR DISCUSSION.....</b>	<b>38</b>
7.1.	Flora and Fauna Report.....	38
7.2.	Bushfire .....	39
7.3.	Acoustic.....	40
7.4.	Traffic .....	40
7.5.	Water management.....	41
7.6.	Wastewater .....	42
7.7.	Rural Landscape.....	43
<b>8.0</b>	<b>PLANNING ASSESSMENT.....</b>	<b>48</b>
<b>9.0</b>	<b>CONCLUSION.....</b>	<b>51</b>

## 1. INTRODUCTION

This report constitutes a Statement of Environmental Effects and accompanies the submission of a Development Application to Hawkesbury City Council for alterations and additions to an existing mushroom growing facility (intensive plant agriculture) 'Premier Mushrooms' including associated works, to be undertaken in three stages, at Lots 1 and 2 DP 603811, 172 - 182 Boundary Road, Glossodia, NSW.

The development involves construction of new sheds (growing rooms), road construction, car parking, earthworks and drainage works, dam construction and tree removal associated with an expansion of the mushroom farm to be undertaken in 3 stages, including a lot boundary adjustment.

### 1.1. Scope

The Statement of Environmental Effects has been prepared by Urban City Consulting on behalf of Premier Mushrooms. The purpose of this statement is to indicate the following matters:

1. The environmental impacts of the development;
2. How the environmental impacts of the development have been identified; and
3. The steps to be taken to protect the environment or to lessen the expected harm to the environment.

To discuss the relevant issues pertaining to the proposed development, the following matters will be raised: -

1. The subject site and existing development;
2. Describe the locality in which the proposed development is to be located; and
3. Discuss the relevant Statutory Controls such as the Environmental Planning & Assessment Act 1979 and Regulation 2000, Environmental Planning Instruments (EPI's) and or Development Control Plans (DCP's).

## 2. THE LAND

### 2.1. Legal Description

The site is legally described as Lots 1 and 2 DP 603811, 172 - 182 Boundary Road, Glossodia (the 'site').

### 2.2. Site Location

The site is located on the eastern side of Boundary Road approximately 1.9kilometres to the north of the junction with the Creek Ridge Road, Glossodia. The location of the site is illustrated in Figure 1 below: -



Figure 1. Locality Plan

### 2.3. Zoning

The subject property is zoned **RU1 Primary Production** under the Hawkesbury Local Environmental Plan 2012<sup>1</sup>.

### 2.4. Acid Sulfate Soils

The site contains a small portion of Class 5 Acid Sulfate soils adjoining the southern boundary of the property (Hawkesbury LEP 2012 mapping).

### 2.5. Terrestrial Biodiversity

The subject site is identified as containing areas of terrestrial biodiversity.

A Flora and Fauna Report has been prepared which addresses the potential impacts of the development on biodiversity (refer **separate report**).

## 3. HISTORY

In 1989 development application DA118/89 was approved by Hawkesbury City Council for the existing *mushroom growing facility* (Lot 1 DP603811). The DA0118/89 approval granted consent for the erection of buildings and installation of equipment for mushroom growing in 5 stages (total 28 growing rooms).

The development was implemented on site and consists of parts of stages 1,2,3 and 5. The site contains 12 growing rooms constructed as part of DA118/89.

In 2012 an application under S96 of the EPA Act was lodged to modify development consent D0118/89 (D118/89A). The modification involved the construction of 13 additional growing rooms (for a total of 25 growing rooms to be located on site); additions to cool room, storage and packing areas; new loading dock and a storeroom and lunchroom building. The modifications were located generally within the approved building footprint. The approved development involved Lot 1 DP603811. The modifications as approved have not been undertaken at this stage.

The current proposal involves the expansion of the existing mushroom growing facility to incorporate an adjoining property to the east (Lot 2 DP603811). The proposal involves the construction of new buildings, roads and associated landscaping and drainage works to expand the production of the existing facility.

The Capital Investment Value of the project is \$25,256,123 and as such the development application is reported to the Joint Regional Planning Panel (Sydney West) for determination.

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<sup>1</sup> Planning Certificate PC0992/15 dated 7 November 2014.



regarding meeting dates, agenda and members can be found on Councils website or by contacting the relevant Planning Officer.

### **6. Contributions**

Please be aware that the Hawkesbury City Council Section 94a Development Contributions Plan 2006 applies to this development.

These matters have been addressed in the report.

## **4. EXISTING DEVELOPMENT**

### **4.1. Subject Site**

The site is described as Lots 1 and 2 DP 603811, 172 - 182 Boundary Road, Glossodia. The site has an area of 20.34 hectares and a frontage to Boundary Road of 185.48 metres. It is an irregular L-shaped allotment that falls from Boundary Road towards the north and east.

The site consists of:

#### Lot 1 DP603811:

- The existing mushroom production facility 'Premier Mushrooms' including associated ancillary buildings and parking areas;
- Entry and exit driveways to Boundary Road;
- An existing dwelling house;
- Areas of vegetation;

The site is adjoins a watercourse at the rear (north) of the site (Howes Creek).

#### Lot 2 DP603811:

- Two dwelling houses;
- Single driveway access to Boundary Road;
- Areas of vegetation;

The following photographs (**Plates 1 – 8**) illustrate existing development on the site.



**Plate 1:**

View from existing development (mushroom growing rooms) towards Boundary Road looking west.



**Plate 2:**

View of existing administration buildings.



**Plate 3:**

View from existing development (mushroom growing rooms) at rear of mushroom growing rooms.



**Plate 4:**

View from existing development (mushroom growing rooms) at rear of mushroom growing rooms looking from west to east (towards Boundary Road).



**Plate 5:**

View from existing development (mushroom growing rooms) towards existing dwelling (Lot 1) looking south to north – gated entrance driveway.



**Plate 6:**

View from existing development (mushroom growing rooms) towards existing dwelling (Lot 1) showing setback landscaped areas.



**Plate 7:**  
View from Lot 1 towards existing dwellings on Lot 2 (looking from west to east).



**Plate 8:**  
View from looking from Lot 2 towards Lot 1 – from east to west towards existing separation fence.

The site is located within a rural area of Glossodia which contains a mix of rural land uses (agriculture) and rural residential properties. The site adjoins agricultural uses to the south (market garden), rural properties to the east and west and a watercourse (Howes Creek) to the north. An unformed crown road traverses the site from east to west in the northern part of the site.

#### 4.2. Existing operations

The site contains an approved *mushroom growing facility* including buildings used for mushroom production (13 mushroom growing rooms) and associated buildings used for storage and packing areas. The existing development consists of the following:

- Mushroom growing rooms and facilities (13 separate mushroom growing rooms);
- Mushroom Production: 30 tonnes of mushrooms/per week;
- Existing area (buildings) including growing rooms, peat storage, lunchroom, packing, amenities: 2708m<sup>2</sup>.

- Staff numbers: 45 staff on site at any one time (7 days per week) with a staff of 70 people including both full-time and part-time staff working in shifts.

## 5. PROPOSED DEVELOPMENT

The development seeks approval for expansion of an existing mushroom growing facility to incorporate new state of the art picking and packing machinery technology, allowing for a new way of growing mushrooms over a single level.

The development is to be undertaken in three (3) stages, namely:

- Increase in mushroom production to 120 tonnes/per week at the completion of stage 3, with each stage providing for production of 30tonnes/week.
- Construction of buildings (mushroom growing rooms, storage and packing areas, staff rooms, amenities);
- internal access roads, car parking and stormwater management measures;
- Associated earthworks (level building pad areas, road access, dam and stormwater measures) tree removal and landscaping;
- Demolition of existing dwellings (as required);
- Boundary adjustment (2 in to 2 lot subdivision) to allow for new building construction (minimum 10ha site area retained).

### 5.1. Details of proposal

The works are proposed for construction over three stages, as outlined in **Table 1**.

**Table 1 – Proposed development**

Description	Proposal
<ul style="list-style-type: none"> <li>➤ <b>Building Design and construction</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Construction of a shed</b> (new growing rooms) in 3 stages:                             <ul style="list-style-type: none"> <li>○ Stage 1 building: 46.8metres x 142.5metres (6,669m<sup>2</sup>);</li> <li>○ Stage 3 building: 46.8metres x 142.5metres (6,669m<sup>2</sup>)</li> <li>○ Stage 3 building: 46.8metres x 142.5metres (6,669m<sup>2</sup>)</li> <li>○ <u>Total shed size: 20,007m<sup>2</sup></u></li> </ul> </li> <li>○ <b>24 growing rooms in total</b> 12 existing growing rooms (built as part of DA118/89); 12 proposed growing rooms (4 in each building in stages 1, 2 and 3)</li> <li>○ Height: from finished floor level (FFL) 10.2metres (proposed FFL 38.22m AHD) at the highest point.</li> <li>○ Wall height at façade is 3.650metres from ground floor level.</li> <li>○ Height from natural ground level (NGL) varies - approximately 15.2metres (natural ground levels existing between RL33.15 – RL38.1metres AHD).</li> </ul>
<ul style="list-style-type: none"> <li>○ Construction of new storage</li> </ul>	<ul style="list-style-type: none"> <li>○ Carton area extension 74.5m<sup>2</sup></li> <li>○ Packing area extension 103.5m<sup>2</sup></li> </ul>

Description	Proposal
and packing areas:	<ul style="list-style-type: none"> <li>○ Peat and general storage behind workshop 401.5m<sup>2</sup></li> <li>○ Hardstand area 570m<sup>2</sup></li> </ul>
<ul style="list-style-type: none"> <li>○ Construction of new lunchroom and amenities areas:</li> </ul>	<ul style="list-style-type: none"> <li>○ Lunch room and toilet up to 77m<sup>2</sup></li> <li>○ Amenities 30m<sup>2</sup>.</li> <li>○ To be constructed in stages 1, 2, 3 to suit staff numbers</li> </ul>
<ul style="list-style-type: none"> <li>➤ <b>Mushroom Production:</b></li> </ul>	<ul style="list-style-type: none"> <li>○ Existing: 30 tonnes mushrooms/per week:</li> <li>○ Stage 1 : 30 tonnes of mushrooms/per week;</li> <li>○ Stage 2 : 30 tonnes of mushrooms/per week;</li> <li>○ Stage 3 : 30 tonnes of mushrooms/per week;</li> <li>○ <b><u>Total: 120 tonnes of mushrooms/per week</u></b> (30 tonnes/week existing and 90 tonnes/week additional).</li> </ul>
<ul style="list-style-type: none"> <li>➤ <b>Staff numbers:</b></li> </ul>	<ul style="list-style-type: none"> <li>○ Existing: 45 existing staff</li> <li>○ Stage 1 : 26 additional staff;</li> <li>○ Stage 2 : 14 additional staff;</li> <li>○ Stage 3 : 14 additional staff;</li> <li>○ <u>Total: 54 additional staff</u></li> <li>○ <u>Total staff on site: 99 staff (45 existing staff + 54 proposed).</u></li> </ul> <p>An allowance has been made for an average of 14 pickers per 30 tonnes of mushrooms. This picking rate is expected to improve with increased robotisation and the adoption of the single layer growing system which improves productivity.</p>
<ul style="list-style-type: none"> <li>➤ <b>Vehicle movements and parking:</b></li> </ul>	<ul style="list-style-type: none"> <li>○ The operation of the mushroom farm requires trucks to access the site, including loading and unloading compost in the initial production phase and collection of packaged mushrooms in the final phase.</li> <li>○ Existing approved car parking (38 spaces approved DA118/89)</li> <li>○ Proposed car parking provision 103 spaces.</li> <li>○ A traffic report has been prepared to assess the impact of the proposal on the road network. Refer <b>separate report.</b></li> </ul>
<ul style="list-style-type: none"> <li>➤ <b>Internal access road:</b></li> </ul>	<ul style="list-style-type: none"> <li>○ An internal access road is proposed for construction to allow truck access around the perimeter of each building in stages (stages 1, 2 and 3).</li> </ul>
<ul style="list-style-type: none"> <li>➤ <b>Tree removal</b></li> </ul>	<ul style="list-style-type: none"> <li>○ Removal of trees to provide for shed construction.</li> <li>○ A Flora and Fauna report has been prepared. Refer <b>separate report.</b></li> </ul>

Description	Proposal
➤ <b>Earthworks:</b>	<ul style="list-style-type: none"> <li>○ Earth batters and retaining walls proposed to building pad area – Refer engineering drawings for details. Refer <b>separate attachment</b>.</li> </ul>
➤ <b>Water management and drainage</b>	<ul style="list-style-type: none"> <li>○ Includes dam construction:</li> <li>○ Stormwater storage (7 megalitre);</li> <li>○ Roof runoff (3 megalitre);</li> <li>○ Washdown water and treatment system including settling area, removal system, wetland and 7 megalitre dam</li> <li>○ Refer engineering drawings and stormwater concept drawings for details. Refer <b>separate attachment</b>.</li> </ul>
➤ <b>Existing dwellings:</b>	<ul style="list-style-type: none"> <li>○ The site contains existing dwellings: Lot 1: 1 x dwelling Lot 2 : 2 x dwellings</li> <li>○ It is proposed to retain the existing dwellings on Lot 1 and 2 in the initial stages of development. The two dwellings on Lot 2 will be demolished progressively as the staged building works are constructed.</li> </ul>

## 5.2. The Mushroom Growing Process

The mushroom growing process on the site involves three steps including, typically:

- Step 1: Import mushroom compost and casing
- Step 2: Pinning
- Step 3: Cropping.



The mushroom growing process for the proposal are detailed below in relation to the proposal:

- The mushrooms compost is imported on to the site (includes mushroom spawn);
- On delivery the compost is packed in to the growing shelves with a layer of peatmoss across the top of the fully grown compost;

- A pin is formed when the mushroom develops and the pin continues to expand and grow larger to the button stage, and ultimately the button enlarges to form a mushroom. Harvestable mushrooms form between 14 – 15 days after casing;
- After the pinning stage the compost will be transferred from the short rooms to the long rooms for cropping;
- The mushrooms are watered intermittently to raise the moisture level to allow mushroom pins to form;
- The mushrooms are picked;
- The mushrooms are packed;
- The mushrooms leave the site for sale without further processing or handling;
- The spent compost is removed from the site without further processing or handling.

It takes approximately 6 weeks to complete an entire production cycle, from the start of the composting until the mushrooms are harvested. It is estimated that the new technologies utilised in the proposed growing rooms will improve the production cycle, allowing for a production period of 4 weeks.

### **5.3. Proposed Operations**

#### **5.3.1. Receiving**

The mushroom growing process involves the use of compost which is delivered to Premier Mushrooms from off-site suppliers. A traffic report has been prepared which addresses the traffic impacts of the proposal (refer **Section 7.4** and **separate report**).

#### **5.3.2. Manufacturing and processing**

The proposal involves the construction of a new building to facilitate new state-of-the-art picking and packing machines and involves a different way in which mushrooms are grown. Traditionally mushrooms are grown on shelves which are stacked vertically on top of each other. The mushrooms are picked by hand from each box once they reach the required size (refer **Plates 9 - 11**).



**Plate 9:**  
Existing growing rooms showing stacked shelving and picking.



**Plate 10:**  
Packing of mushrooms for shipment.



**Plate 11:**  
Packing of mushrooms for shipment.

The new machinery automatically picks and packs the mushrooms and it is no longer a manual activity (refer **Plates 12 - 13**). The machine works on a flat plane which alters the way the mushrooms are traditionally grown i.e. stacked on top of each other.



**Plate 12** – example - machinery for mushroom picking  
(transfer from growing room to growing room)



**Plate 13** – example - proposed mushroom growing layout

The new method of picking requires a large floor area for the growing of mushrooms as it is no longer possible to stack the growing boxes on top of each other.

### **5.3.3. Packing**

All mushrooms will be packed within the existing packing area (Lot 1) by pallet and trolley for shipping and packing.

### **5.3.4. Despatch**

As outlined above, the mushroom growing process involves the delivery of packed mushrooms for sale to off-site locations. The spent mushroom compost is removed from the site. A traffic report has been prepared which addresses the traffic impacts of the proposal (refer **Section 7.4** and **separate report**).

## **5.4. Staging**

All building works will be undertaken in three (3) stages to allow for building construction and associated works to suit business demand, namely:

### Stage 1 –

- New growing rooms (shed 1): building 6669m<sup>2</sup>
- Additions to existing building (Carton area extension 74.5m<sup>2</sup>, packing area extension 103.5m<sup>2</sup>)
- Lunchroom and amenities
- Earthworks and Road construction – internal ring road – stage 1
- Civil works, stormwater works, dam construction
- Car parking area

### Stage 2 –

- New growing rooms (shed 2): building 6669m<sup>2</sup>
- Lunchroom and amenities
- Road construction – internal ring road – stage 2
- Car parking
- Demolition of existing dwelling (Lot 2)

### Stage 3 –

- New growing rooms (shed 3): building 6669m<sup>2</sup>
- *Lunchroom and amenities*
- Road construction – internal ring road – stage 3
- Car parking area
- Demolition of existing dwelling (Lot 2)

The application seeks to stage the construction and therefore we request that in the event of approval that staged construction certificates can be issued and the payable section 94 contributions be allowed to be paid 'Prior to Occupation Certificate' for each stage rather than prior to the release of the construction certificate.

## **5.5. Mushroom Production**

The new additions will allow for an increase in mushroom production. The existing mushroom facility produces 30tonnes/week.

The new additions will increase the production of mushrooms to 120 tonnes/per week at the completion of stage 3, with each stage providing for production of 30tonnes/week.

## 5.6. Hours of Operation

### Current Hours of operation:

Monday – Sunday (7 days): 6am – 10pm.

### Proposed Hours of operation:

Monday – Sunday (7 days): 6am – 12midnight.

## 5.7. Use of Chemicals

The existing operation utilises chemicals in the production process and provides storage of LPG gas and diesel for operation of machinery and equipment. The storage of chemicals will not significantly increase as a result of the expansion, with no increase in LPG gas storage or diesel proposed.

The site provides dedicated storage areas within the existing building which provides for a locked area with restricted access and a register of materials. Management measures are implemented on the site (Emergency Management Evacuation Plan) which identify procedures in the case of emergency.

## 5.8. Water Management

The water management on the site involves separation of storm water and washdown water associated with the washing of the mushroom growing rooms following harvesting cleaning and maintenance activities.

The stormwater proposal involves construction of a water storage dam for stormwater (7 megalitre), a roof water runoff dam (3 megalitre) and a wastewater treatment system which discharges in to a 7 megalitre storage dam.

As outlined in the Stormwater Management Report, the proposed water management system enables storage of both types of run-off (stormwater and wastewater) as well as re-use of water within the farm, providing water quality benefits for site runoff as well as cost savings in the operation of the farm and environmental benefits through reduction in water consumption.

A Stormwater Management Report has been prepared. Refer **separate report**.

## 5.9. Effluent Management

An On-site Wastewater Management Report has been prepared by Envirotech Pty Ltd (refer **separate report**). It is proposed to install a new septic tank, toilet facility and lunch room in proximity to the new growing rooms. An on site wastewater treatment system using Aerated Wastewater Treatment System (AWTS) is proposed including installation of Evapo-transpiration Absorption beds to suit the staging of the development.

### 5.10. Subdivision

The existing mushroom processing facility is located on Lot 1 DP603811. The owner has purchased the property to the east (lot 2 DP603811) and the proposed new building extends into this property. A boundary adjustment is proposed to allow for the proposed growing rooms to be located on a separate land parcel (a Building Code requirement for separation between buildings).

The existing lot size areas include:

Lot 1 DP603811 – 10.03hectares (182 Boundary Road)

Lot 2 - DP603811 - 10.31hectares (172 Boundary Road)  
'Grey Gums Park'

The proposed Lot 1 is 10.03hectares and Lot 2 size 10.31hectares, maintaining the minimum 10hectare lot size requirement required under Hawkesbury LEP 2012.

### 5.11. Dwellings

The site contains existing dwellings:

Lot 1: 1 x dwelling

Lot 2 : 2 x dwellings

It is proposed to retain the existing dwellings on Lot 1 and 2 in the initial stages of development. The two dwellings on Lot 2 will be demolished progressively as the staged building works are constructed.

## 6.0 PLANNING CONTROLS

The following planning legislation and development controls are relevant to this application:

- Environmental Planning and Assessment Act 1979 and Regulation 2000;
- State Environmental Planning Policy (State and Regional Development) 2011;
- State Environmental Planning Policy (SEPP) – Infrastructure 2007;
- State Environmental Planning Policy No.44 – Koala Habitat Protection;
- State Environmental Planning Policy No.55– Remediation of Land;
- State Environmental Planning Policy No.33– Hazardous and Offensive Development;
- Sydney Regional Environmental Plan No.20 – Hawkesbury/Nepean River;
- Hawkesbury Local Environmental Plan 2012 (HLEP);
- Hawkesbury Development Control Plan 2002 (HDCP); and
- Hawkesbury City Council Section 94a Development Contributions Plan 2006.

### 6.1. Environmental Planning and Assessment Act 1979 and Environmental Planning and Assessment Regulation 2000

The proposal has been assessed against the matters for consideration under the Environmental Planning and Assessment Act 1979 (EP&A Act) in **Section 8**.

The following clauses contained in the EP&A Act (apart from Section 79C) are relevant to this application:

- ***EP& A Regulation 2000: What is designated development?***

Development classified as designated development is described in Clause 4 of EP&A Regulation 2000 and is identified in Schedule 3 of the Regulation.

The production of mushrooms is not identified as an agricultural produce industry (i.e. 'being industries that process agricultural produce, including dairy products, seeds, fruits, vegetables or other plant material'). Although mushrooms are a type of agriculture, there is no 'process' involved in the production (that 'crush, juice, grind, mill, gin, mix or separate.....').

- ***EP& A Act 1979: Section 91 (What is "integrated development"?)***

- **Protection of the Environment Operations Act 1997**

Protection of the Environment Operations Act 1997 (PoEo Act 1997) has been assessed in regards to the proposal. Schedule 1 of the PoEO Act 1997 contains a list of the activities that are 'scheduled activities' for the purposes of the PoEo Act (Clause 48).

**Schedule 1 Clause 2: *Agricultural processing***

(1) *This clause applies to the following activities:*

**dairy processing**, meaning the processing of dairy produce as part of the production of milk, evaporated or condensed milk, buttermilk, cream, cheese, butter, ice-cream or similar products.

**general agricultural processing**, meaning the processing of agricultural produce (otherwise than as part of the manufacture of beer, wine, spirits, vinegar, acetic acid or similar products), but excluding:

- (a) dairy processing and grape processing, and
- (b) the processing of agricultural produce by means of mobile processing operations.

**grape processing**, meaning the processing of grapes (otherwise than by distilling) as part of the manufacture of wine, spirits, vinegar, acetic acid or similar products.

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

(3) *In this clause:*

**agricultural produce** includes seeds, fruit, vegetables and other plant material, but excludes dairy produce and grapes.

**process** includes crush, juice, grind, gin, mill, separate, wash, sort, coat, roll, press, steam, flake, comb, homogenise and pasteurise.

**Table**

<b>Column 1</b>	<b>Column 2</b>
<b>Activity</b>	<b>Criteria</b>
<i>dairy processing</i>	<i>capacity to process more than 30 megalitres of dairy produce per year</i>
<i>general agricultural processing</i>	<i>capacity to process more than 30,000 tonnes of agricultural produce per year</i>
<i>grape processing</i>	<i>capacity to process more than 30,000 tonnes of grapes per year</i>

The development involves expansion of the existing ‘intensive plant agriculture’ (as defined under Hawkesbury LEP 2012) to provide a total yield of 120 tonnes/week of mushrooms. This equates to production of 6,240tonnes of mushrooms per year (120tonnes x 52 weeks).

As outlined above (Schedule 1 PoEO Act) defines activities to which a scheduled activities relates. The proposal involves the growing and cultivation of mushrooms (a type of horticulture). The relevant definitions<sup>2</sup> are:

<sup>2</sup> POEO Act. Schedule 1. Part 1. Clause 2(3).

**agricultural produce** includes seeds, fruit, vegetables and other plant material, but excludes dairy produce and grapes.

**process** includes crush, juice, grind, gin, mill, separate, wash, sort, coat, roll, press, steam, flake, comb, homogenise and pasteurise.

A mushroom is not defined as ‘agricultural produce’ under the PoEO Act. No processing (as defined) i.e. *crush, juice, grind, gin, mill, separate, wash, sort, coat, roll, press, steam, flake, comb, homogenise and pasteurize* is involved in the mushroom growing process.

Therefore an integrated development referral under this section is **not** required.

o **Water Management Act 2000:**

The site adjoins a watercourse to the rear (north) of the site ‘Howes Creek’. The proposed works are not located within 40metres of the watercourse and therefore the development as proposed is not classified as “integrated development” in accordance with the provisions of this section.

• **Schedule 4A (Development for which Regional Panels may be authorised to exercise consent authority functions of Councils):**

The development meets the criteria of Clause 3 under Schedule 4A as it is for a development that has a capital investment value (CIV) of more than \$20 million<sup>3</sup> and therefore, must be referred to the Joint Regional Planning Panel for determination.

o **Rural Fires Act:**

The site is identified as being wholly bushfire prone land. An assessment of the proposed development having regard to Planning for Bushfire Protection 2006 has been made and a Bushfire Assessment has been prepared. Refer **separate report**.

The proposal is not ‘integrated development’ under Cl. 91 of the EP& A Act as the proposal involves the expansion of an existing mushroom farm and a boundary adjustment of bushfire prone land. There is no new residential development proposed, and there are no works proposed that are considered a ‘special fire protection purpose’ under Section 100B of the Rural Fires Act 1997.

## 6.2. State Environmental Planning Policy (State and Regional Development) 2011

State Environmental Planning Policy (State and Regional Development) 2011 applies to the proposal. The development is of a class or description included in Schedule 4A of the EPA Act (i.e. a development that has a capital investment value (CIV) of more than \$20 million). As required by Part 4 of the SEPP (State and Regional Development) 2011, the

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<sup>3</sup> Refer C.I.V. report (**separate report**).

Council is required to refer the development to the Joint Regional Planning Panel for determination.

### **6.3. State Environmental Planning Policy (SEPP) – Infrastructure 2007**

State Environmental Planning Policy (SEPP) – Infrastructure 2007 generally aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency and providing flexibility infrastructure and service facilities.

The proposal involves the expansion of an existing mushroom farm located on Boundary Road, Glossodia. Boundary Road, Glossodia is not a classified road.

The proposed parking involves expansion of the existing car parking area to provide parking for a total of one hundred and three (103) vehicles. No traffic generating development is proposed.

### **6.4. State Environmental Planning Policy No.44 – Koala Habitat Protection**

State Environmental Planning Policy No.44 – Koala Habitat Protection (SEPP No. 44) aims to: *‘encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline:*

- (a) by requiring the preparation of plans of management before development consent can be granted in relation to areas of core koala habitat, and*
- (b) by encouraging the identification of areas of core koala habitat, and*
- (c) by encouraging the inclusion of areas of core koala habitat in environment protection zones’.*

A Flora and Fauna assessment has been undertaken by Fraser Ecological Consulting. The report has provided an assessment against SEPP No. 44<sup>4</sup>. The assessment identified koala feed trees on the site however the assessment provides that *‘no koalas were observed during the fauna survey and no evidence of Koala habitation, such as scats, claw and scratch marks, were located on the site. Therefore the subject site is considered to not form core koala habitat as defined by SEPP 44’.*

It is considered that the proposal does not impact on the habitat for koalas, with the identified vegetation for removal providing for a mix of tree species with the overall condition of the vegetation proposed for removal considered to be in ‘poor condition’<sup>5</sup>.

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<sup>4</sup> Page 33-34 Flora and Fauna report.

<sup>5</sup> Page 21.

## **6.5. State Environmental Planning Policy No.55– Remediation of Land**

State Environmental Planning Policy No.55– Remediation of Land aims to: *'promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment:*

- (a) by specifying when consent is required, and when it is not required, for a remediation work, and*
- (b) by specifying certain considerations that are relevant in rezoning land and in determining development applications in general and development applications for consent to carry out a remediation work in particular, and*
- (c) by requiring that a remediation work meet certain standards and notification requirements'.*

The site contains an existing rural land use including building and hardstand areas for use for agriculture. The proposed expansion of the existing use and construction of a new building is proposed over an area identified as containing mixed vegetation (Shale Sandstone Transition Forest). The development as proposed does not propose any works that relate to sensitive land uses and it is not considered that a Phase 1 Contamination report is warranted.

## **6.6. State Environmental Planning Policy No.33– Hazardous and Offensive Development**

State Environmental Planning Policy No.33– Hazardous and Offensive Development aims to:

- (a) to amend the definitions of hazardous and offensive industries where used in environmental planning instruments, and*
- (b) to render ineffective a provision of any environmental planning instrument that prohibits development for the purpose of a storage facility on the ground that the facility is hazardous or offensive if it is not a hazardous or offensive storage establishment as defined in this Policy, and*
- (c) to require development consent for hazardous or offensive development proposed to be carried out in the Western Division, and*
- (d) to ensure that in determining whether a development is a hazardous or offensive industry, any measures proposed to be employed to reduce the impact of the development are taken into account, and*
- (e) to ensure that in considering any application to carry out potentially hazardous or offensive development, the consent authority has sufficient information to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimise any adverse impact, and*
- (f) to require the advertising of applications to carry out any such development.*

The provisions of SEPP 33 apply to a development for the purposes of industry. The proposal involves use of the site for intensive plant agriculture and an associated agricultural produce industry (packing). Rural industries are not considered a type of 'industry' as defined.

An existing mushroom farm operates on the site. The existing operation utilises chemicals in the production process and provides storage of LPG gas and diesel for operation of machinery and equipment. The site provides dedicated storage areas within the existing building which provides for a locked area with restricted access and a register of materials. Management measures are implemented on the site (Emergency Management Evacuation Plan) which identify procedures in the case of emergency.

The quantity of goods stored on site will not increase significantly with the proposed expansion of the mushroom farm. It is considered that the management measures currently in place as required under the Work Health and Safety Act 2011 and associated codes of practice will continue to be implemented on the site as required.

#### **6.7. Sydney Regional Environmental Plan No.20 – Hawkesbury/Nepean River**

Sydney Regional Environmental Plan No.20 – Hawkesbury/Nepean River (SREP 20) applies to the subject land and stipulates that the consent authority shall not grant consent to an application unless it is of the opinion that the carrying out of the development is consistent with any relevant, general and specific aim of SREP No.20.

An extract of the Scenic Qualities map (SREP 20 – Map sheet 21) is provided below:

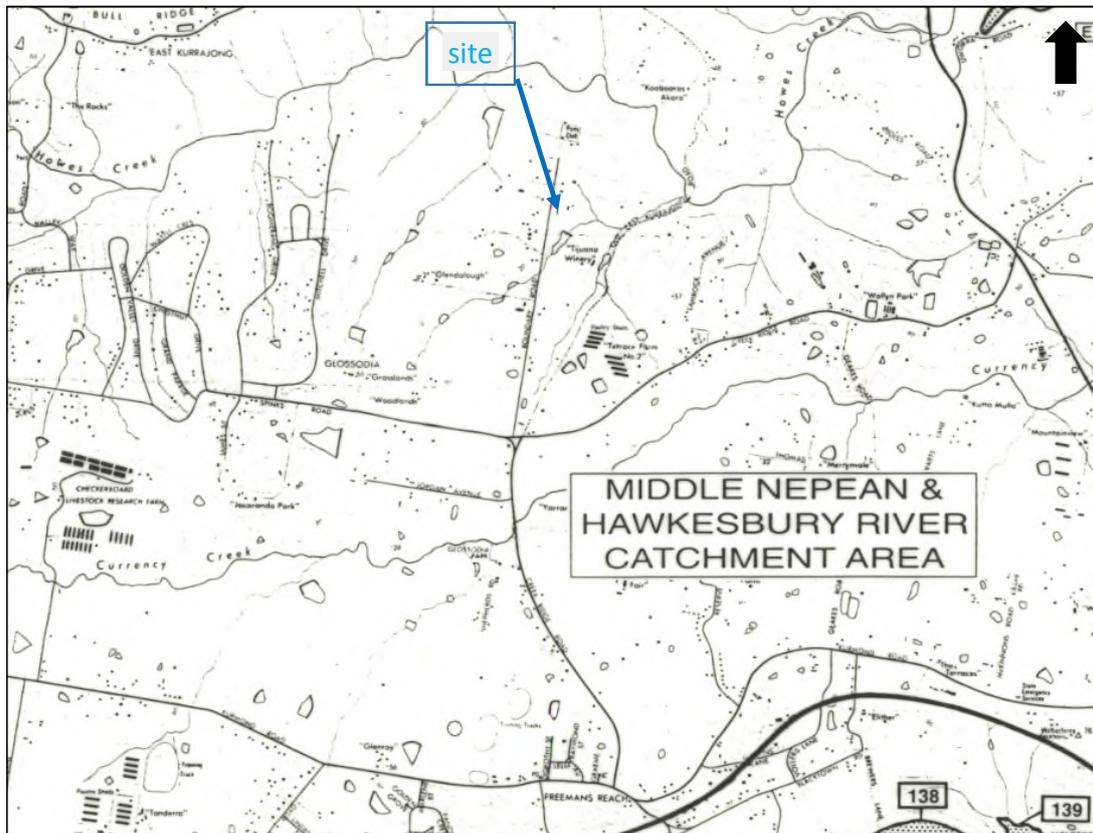


Plate 14. SREP No. 20 Map extract (sheet no. 21)

The site does not contain any areas identified as being of significance including any wetland areas.

Consideration of the aims and objectives of the plan, planning strategies and policies have been made and outlined in the following table: -

**Table 2 – SREP No. 20 Provisions**

Clause	Comment
<b>3 Aim of this plan</b> The aim of this plan is to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context.	The proposed development has been considered in respect to the aims of SREP 20. It is considered that the proposed development is consistent with the aim of the plan to consider development in a regional context.
<b>4 Application of general planning considerations, specific planning policies and recommended strategies</b>	Consideration of the general planning strategies in Clause 5 and the specific planning policies in Clause 6 has been made.
<b>5 General planning considerations</b> The general planning considerations relevant for this Part are:	With regard to the general planning considerations the following is noted:

Clause	Comment
(a) the aim of this plan, and (b) the strategies listed in the Action Plan of the Hawkesbury-Nepean Environmental Planning Strategy, and (c) whether there are any feasible alternatives to the development or other proposal concerned, and (d) the relationship between the different impacts of the development or other proposal and the environment, and how those impacts will be addressed and monitored	<ul style="list-style-type: none"> <li>• The proposal does not affect the policies, strategies and actions outlined in the Action Plan of the Hawkesbury Nepean Environmental Planning Strategy 1997.</li> <li>• The proposed development will implement erosion and sediment control measures during construction and a Management Plan will be implemented to provide monitoring during the operational phase of development.</li> </ul>

**6 Specific planning policies and recommended strategies**

The specific planning policies and recommended strategies for this plan are as follows:

<p><b>(1) Total catchment management</b>                      Total catchment management is to be integrated with environmental planning for the catchment.</p>	<p>A stormwater concept design has been prepared which includes measures for treatment of stormwater.</p>
<p><b>(6) Flora and fauna</b>                      Policy: Manage flora and fauna communities so that the diversity of species and genetics within the catchment is conserved and enhanced.</p>	<p>It is considered that the Flora and Fauna report submitted provides for mitigation measures to be implemented to manage flora and fauna communities.</p>
<p><b>(7) Riverine scenic quality</b>                      Policy: The scenic quality of the riverine corridor must be protected.</p>	<p>The site is not located in a riverine scenic corridor.</p>
<p><b>(9) Rural residential development</b>                      Rural residential development should not reduce agricultural sustainability, contribute to urban sprawl, or have adverse environmental impacts (particularly on the water cycle or on flora or fauna).</p>	<p>The proposal involves an agricultural land use and therefore contributes to the agricultural sustainability of the land.</p>

The proposed development has the ability to minimise any potential impacts through implementation of water management measures and erosion and sediment controls during construction and therefore minimise any impacts on the Hawkesbury Nepean River system and the proposal is consistent the plan.

**6.8. Hawkesbury Local Environmental Plan 2012**

**(i) Permissibility**

The subject property is zoned **RU1 Primary Production** under the provisions of the Hawkesbury Local Environmental Plan 2012 (HLEP). The permitted uses within the **RU1 Primary Production** are outlined as follows:

### 3 Permitted with consent

*Animal boarding or training establishments; Boarding houses; Boat sheds; Building identification signs; Business identification signs; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Child care centres; Community facilities; Correctional centres; Crematoria; Dual occupancies (attached); Dwelling houses; Educational establishments; Entertainment facilities; Environmental facilities; Extractive industries; Farm buildings; Flood mitigation works; Food and drink premises; Forestry; Funeral homes; Health consulting rooms; Helipads; Heliports; Home-based child care; Home industries; Hospitals; Intensive livestock agriculture; **Intensive plant agriculture**; Jetties; Landscaping material supplies; Moorings; Open cut mining; Places of public worship; Plant nurseries; Public administration buildings; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Registered clubs; Respite day care centres; Roads; Roadside stalls; Rural industries; Rural supplies; Rural workers' dwellings; Tourist and visitor accommodation; Truck depots; Veterinary hospitals; Water recreation structures; Water storage facilities*

#### Mushroom growing facility:

The development involves additions to an existing mushroom growing facility 'Premier Mushrooms'. The use is best defined as 'intensive plant agriculture' and an associated 'agricultural produce industry', namely:

**intensive plant agriculture** means any of the following:

- (a) the cultivation of irrigated crops for commercial purposes (other than irrigated pasture or fodder crops),
- (b) horticulture,
- (c) turf farming,
- (d) viticulture.

**Note.** Intensive plant agriculture is a type of **agriculture**—see the definition of that term in this Dictionary.

The growing of mushrooms is defined as a type of horticulture<sup>6</sup>, namely:

**horticulture** means the cultivation of fruits, vegetables, **mushrooms**, nuts, cut flowers and foliage and nursery products for commercial purposes, but does not include a plant nursery, turf farming or viticulture (emphasis in '**bold**' added).

**agricultural produce industry** means a building or place used for the handling, treating, processing or **packing**, for commercial purposes, of produce from agriculture (including dairy products, seeds, fruit, vegetables or other plant material), and includes wineries, flour mills, cotton seed oil plants, cotton gins, feed mills, cheese and butter factories, and juicing or canning plants, but does not include a livestock processing industry (emphasis in '**bold**' added).

**Note.** Agricultural produce industries are a type of **rural industry**—see the definition of that term in this Dictionary.

<sup>6</sup> Hawkesbury LEP 2012 Dictionary.

The proposal involves the use of the site for ‘intensive plant agriculture’ involving the cultivation of mushrooms, a type of ‘horticulture’ and the associated handling and packing of the mushrooms (‘agricultural produce industry’) as defined in LEP 2012. Intensive plant agriculture and the associated agricultural produce industry are land uses permitted with consent in the RU1 Primary Production zone.

#### Dwellings:

A dwelling is located on Lot 1 and two separate dwellings are located on Lot 2. It is proposed to realign the boundaries to allow construction of the new growing rooms. The dwelling on Lot 1 will be retained. The dwellings on Lot 2 will be demolished as the staged building works are constructed (stages 2 and 3) however both dwellings on Lot 2 will be retained in the initial stage 1 building phase, as a dwelling house and a rural worker’s dwelling, namely:

***rural worker’s dwelling** means a building or place that is additional to a dwelling house on the same lot and that is used predominantly as a place of residence by persons employed, whether on a long-term or short-term basis, for the purpose of agriculture or a rural industry on that land.*

**Note.** Rural workers’ dwellings are a type of **residential accommodation**—see the definition of that term in this Dictionary.

The rural workers dwelling will accommodate a manager to provide for 24hour monitoring of the site, within close proximity to on site operations.

Dwellings and Rural workers dwellings are permitted with consent in the RU1 Primary Production zone. It is intended to demolish the dwellings on Lot 2 during construction of stages 2 and 3, and ultimately retain a single dwelling on the site (Lot 1).

#### **(ii) Objectives of the Zone**

The objectives of the RU1 Primary Production zone are outlined below: -

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To encourage diversity in primary industry enterprises and systems appropriate for the area.*
- *To minimise the fragmentation and alienation of resource lands.*
- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*
- *To encourage agricultural activities that do not rely on highly fertile land.*
- *To ensure that development occurs in a way that does not have a significant adverse effect on water catchments, including surface and groundwater quality and flows, land surface conditions and important ecosystems such as waterways.*

- *To promote the conservation and enhancement of local native vegetation including the habitat of threatened species, populations and ecological communities by encouraging development to occur in areas already cleared of vegetation.*
- *To ensure that development retains or enhances existing landscape values including a distinctive agricultural component.*
- *To ensure that development does not detract from the existing rural character or create unreasonable demands for the provision or extension of public amenities and services.*

In respect to the objectives of the zone, the proposal involves the cultivation of mushrooms, a type of horticulture and is associated with an existing mushroom farm on the site. The proposal is consistent with the objectives of the zone, namely:

- Provides for an agricultural activity that does not rely on highly fertile land;
- Provides for continued use of the site for agricultural purposes within a rural zone that permits agriculture;
- The design allows for minimisation of any potential impacts on native vegetation or water catchments as identified in specialist reports.

The use is considered compatible with the rural zone, which allows for primary production including intensive plant agriculture.

A number of specialist reports have been prepared including a Flora and Fauna Report, Wastewater report, Bushfire report, Acoustic Report and Stormwater design which provides an assessment of the proposal and provides a range of mitigation measures to minimise potential impacts.

Accordingly, it is considered that the proposal and associated with the use of the site for intensive plant agriculture is consistent with the objectives of the zone.

### **(iii) Development Provisions**

Consideration of the applicable Development Provisions of Hawkesbury LEP 2012 are made as follows:

**Table 1 - Hawkesbury LEP 2012 Relevant Provisions**

Clause	Development Provision	Comment
<b>Part 4 Principal Development Standards</b>		
4.1	Subdivision	Subdivision is sought in this application. A boundary adjustment is proposed (2 in to 2 lot subdivision).  Lot 1 DP603811 – 10.03hectares (182 Boundary Road)  Lot 2 - DP603811 - 10.31hectares (172 Boundary Road) 'Grey Gums Park'

Clause	Development Provision	Comment
		The <u>Lot size map</u> indicates a lots size of 10hectares applies to both lots. The subdivided lots will retain the minimum 10hectare lot size.
4.3	Height of buildings	<p>The maximum building height which applies to the site is ten (10) metres.</p> <p>A level building pad area is proposed to allow for a building FFL of RL38.22metres.</p> <p>The development proposes installation of buildings with a proposed height of 10.2metres from FFL to roof apex.</p> <p>The existing ground levels vary within the proposed building area between RL33.15 – RL38.1metres AHD.</p> <p>The overall building height varies between 3.650metres (wall height at façade) to an apex height of 10.2metres from finished floor level. These levels vary from natural ground level at the highest point from 10.2metres (western end and minimal filling) and apex height of 15.72metres (eastern end with 5.52metres filling).</p> <p><b>A variation is required. Refer separate attachment – Request for Variation to Development Standard.</b></p>
4.4	Floor Space Ratio	No FSR specified for the development site.
4.5	Calculation of Floor space ratio and site area	None adopted.
4.6	Exceptions to development standards	<p><b>A contravention to a development standard is proposed – 4.3 Height of Buildings.</b></p> <p>A written request is provided which justifies the contravention of the development standard.</p>
<b>Part 5 Miscellaneous Provisions</b>		
5.1-5.1A	Relevant Acquisition Authority	The land is not subject to any acquisition purpose.
5.2	Classification and Reclassification of Public Land	Not applicable.
5.3	Development Near Zone Boundaries	The proposed development does not seek any flexibility in zone boundaries.
5.4	Controls relating to Miscellaneous Uses	The proposed development is not identified in any of the prescribed uses.

Clause	Development Provision	Comment
5.5	Development within Coastal Zone	The land is not located within coastal zone.
5.6	Architectural Roof Features	The proposed structure does not contain any architectural roof features.
5.7	Development Below Mean High Water Mark	No works are proposed below the mean high water mark.
5.8	Conversion of Fire Alarms	None proposed.
5.9	Preservation of trees or vegetation  <i>.... This clause applies to species or kinds of trees or other vegetation that are prescribed for the purposes of this clause by a development control plan made by the Council.</i>	Trees are to be removed as part of the proposal.  Chapter 9 Preservation of Trees and Vegetation of Hawkesbury DCP 2002 identifies that trees with a height in excess of 4m located on land with an area greater than 1,000m <sup>2</sup> and removal of native vegetation on land zoned RU2 and trees within 40m of a watercourse are 'prescribed' for the purposes of Section 5.9 of the Hawkesbury LEP 2012.  The site area is 20.34hectares.  A Flora and Fauna Assessment has been prepared which considers the potential impacts of the development. Refer <b>Section 7.1</b> and <b>separate report</b> .
5.10	Heritage	There are no heritage items on the site or in vicinity to the site.
5.11	Bushfire Hazard reduction	None proposed.
5.12	Infrastructure development and use of existing buildings of the Crown	Not applicable.
5.13	Eco-tourist facilities	Not applicable.
<b>Part 5A Urban Release Areas</b>		
5.13A – 5.13C	-	The land is not within an urban release area.
<b>Part 6 Additional Local Provisions</b>		
6.1	Acid sulfate soils	The site is identified as containing acid sulphate soils on the Hawkesbury LEP Map (Class 5).

Clause	Development Provision	Comment
		An area identified as containing class 4 soils adjoins the site to the rear (north-east) within the area identified as Howes Creek. This area is located approximately 350metres to the north-east of the area of proposed works. The land is not below 5metres AHD. As such, the proposal is consistent with Clause 6.1.
6.2	Earthworks	The proposal involves earthworks (filling of land) to provide a level building platform.  A water management plan and erosion and sediment control plan have been prepared which aim to implement measures to minimise impacts of development.
6.3	Flood planning	The <b>flood planning level</b> means the level of a 1:100 ARI (average recurrent interval) flood event. The 1:100 year flood planning level for the Hawkesbury LGA is 17.3m.  The works are proposed at with a FFL of 38.22metres.  The planning certificate identifies the site as subject to 'riverine flooding'. The site adjoins Howes Creek to the north. There are no works proposed within this area of the site.
6.4	Biodiversity (Terrestrial)	Biodiversity Maps indicate that the site contains lands identified with biodiversity value.  A Flora and Fauna Report has been prepared which identifies the potential impacts of tree removal proposed on terrestrial biodiversity. The report provides a range of proposed mitigation measures to minimise potential impacts.
6.5	Wetlands	The proposal is located outside any identified wetland areas.
6.6	Development in areas subject to aircraft noise	The site is not identified as being subject to aircraft noise.
6.7	Essential services	The development will connect to existing services for electricity and telephone.  Water: The site is connected to town water and bore water, in addition to containing on site water storage dams.  Wastewater: on site waste water disposal is proposed.
6.8 – 6.11		Not applicable.

A variation is proposed to development standard Clause 4.3 Height of the Hawkesbury Local Environmental Plan 2012 (refer **separate document**).

## 6.9. Hawkesbury Development Control Plan 2002

The Hawkesbury Development Control Plan 2002 (HDCP) applies to the development. The following parts of HDCP 2002 are considered in respect to the proposed development:

- Part C - General Guidelines
- Part D – Specific Development

Consideration of the applicable Development Provisions of Hawkesbury DCP 2002 are made as follows:

**Table 3 – Hawkesbury Development Control Plan 2002 Provisions**

Element	Rules	Comment
<b>Part C - General Guidelines</b>		
Chapter 1 Landscaping	<p><b>Existing Vegetation</b> <i>Landscaping should retain, protect and enhance existing native vegetation.</i></p> <p><i>Maximum advantage should be taken of existing mature trees and shrubs on the site and these should be incorporated into the overall landscape strategy.</i></p> <p><i>During construction, all trees and stands of vegetation which are to be preserved, should be protected by temporary staking or fencing which shall be the drip line of the tree, to ensure root and trunk damage does not occur as a result of machinery movements or storage of building materials.</i></p>	<p>The proposed development retains vegetation in those areas not proposed for building including along the Boundary Road frontage and at the rear of the site adjacent Howes Creek.</p> <p>The site area is 20.34 hectares adequate landscaped areas. The areas to be cleared for bushfire protection measures and dam construction have been addressed in the Flora and Fauna Report.</p> <p>It is proposed to retain the landscaped areas adjoining the existing dwellings to allow for privacy between the development and the dwellings on the site.</p> <p>No works are proposed within 40metres of the watercourse (Howes Creek) at the rear of the site.</p>
Chapter 2 Car parking and access	<p>No specific rate is provided for parking for rural industry or agriculture.</p> <p>The development does not open to the public with no retail component proposed from the site.</p>	<p>The proposal currently provides parking for 45 employees.</p> <p>The expansion will employ an additional 44 staff by the end of stage 3). A total staff number of 99 staff has been allowed for at the end of stage 3.</p>

Element	Rules	Comment
	A traffic report has been provided.	<p>Landscaping is retained adjacent to the car parking area to provide shading and lessen the visual impact of the proposal.</p> <p>Existing access to the site is available from Boundary Road. These access points will be retained. The new internal access road will provide for improved on-site maneuvering for vehicles and separate ingress and egress points for vehicles.</p> <p>Accessible parking is provided in accordance with Australian Standards.</p> <p>A traffic report has been prepared which identifies the potential impacts of the proposal including traffic generation and impact on the street network.</p> <p>Refer <b>Section 7.4</b> and <b>separate report</b>.</p>
Chapter 3 Signs	<ul style="list-style-type: none"> <li>•  No signage is proposed.</li> </ul>	
Chapter 4 Erosion and Sediment Control	<ul style="list-style-type: none"> <li>• <i>Consider the principles of erosion and sediment control.</i></li> </ul>	<p>A detailed water management plan and stormwater engineering plans have been prepared which includes erosion and sediment control measures.</p> <p>Refer separate reports and plans.</p>
Chapter 5 Bushfire Prone Land	<ul style="list-style-type: none"> <li>• <i>Compliance with relevant provisions.</i></li> </ul>	<p>All of the land is bushfire prone.</p> <p>The site is proposed for construction of a shed for agriculture and associated rural industry.</p> <p>A bushfire report has been prepared. Refer <b>separate report</b>.</p>
Chapter 6 Energy Efficiency	<ul style="list-style-type: none"> <li>• <i>achieve greater efficiency in domestic energy use</i></li> </ul>	No residential building is proposed.
Chapter 7 Effluent Disposal	<ul style="list-style-type: none"> <li>• <i>This chapter deals with on-site sewage management facilities.</i></li> </ul>	An on site sewage management facility exists on the site.

Element	Rules	Comment
		Additional amenities are proposed to cater to the proposed increase in staff including new effluent disposal areas.  A wastewater report has been prepared. Refer <b>separate report</b> .
Chapter 8 Waste Management	<ul style="list-style-type: none"> <li>• <i>to achieve waste minimisation targets</i></li> </ul>	A Waste Management Plan has been prepared.
Chapter 9 Preservation of Trees and Vegetation		Removal of vegetation is proposed for building, access and bushfire management.  A Flora and Fauna assessment has been undertaken. Refer <b>Section 7.1</b> and <b>separate report</b> .
9.4 MATTERS FOR CONSIDERATION	1. <i>The existing and likely future amenity of the area.</i>	A Flora and Fauna assessment has been undertaken. The existing landscaped areas along Boundary Road and adjoining properties to the east, west and south have been retained. Landscaping will be provided along the proposed embankment areas.
	2. <i>The health and safety of the tree or vegetation</i>	A Flora and Fauna assessment has been undertaken.
Chapter 10 Heritage Management		Not applicable.
<b>Part D - Specific Guidelines</b>		
Chapter 6 Dam construction		An existing dam is located on the site. The proposal involves expansion of the existing dam and construction of a new dam.  A detailed water management plan and engineering drawings are provided which detail the proposed dam construction.  A plant species list is provided which identifies suitable species for minimisation of impacts on scenic quality.

Element	Rules	Comment
<p><b>Dams:</b></p> <p><b>Design and Construction requirements</b></p>	<p><b>6.3.1 Crest Rules</b></p> <p><i>(a) The width of the dam crest is to be a minimum of 3metres for a 3metre high dam wall. The crest should increase in width 0.5m for every metre above a 3 metre high dam.</i></p>	<p>Refer engineering drawings.</p>
	<p><b>6.3.2 Freeboard</b></p> <p><i>A minimum of 1 metre is to be established for freeboard. This should increase by 10% for every metre over a 3 metre high wall.</i></p>	<p>Refer engineering drawings.</p>
	<p><b>6.3.3 Embankments</b></p> <p><i>(a) A soil with 25% clay content is ideal to form an impervious barrier.</i></p> <p><i>(b) The following soil types should not be used for dam construction:</i></p> <ul style="list-style-type: none"> <li>— Sand</li> <li>— Gravels</li> <li>— Organic soils</li> <li>— peat</li> </ul> <p><i>(c) Topsoil should be stripped and stockpiled from the excavation and wall areas before the dam wall is constructed, with the stockpile located clear of any natural watercourse. There should be no excavation above high water mark.</i></p> <p><i>(d) the embankment is to be completed with at least 100millimetres of top soil. It is to be planted with a good holding grass such as couch. Trees or shrubs are not to be planted on the embankment as roots may provide seepage paths for water.</i></p> <p><i>(e) The slope of the upstream embankment batters should be</i></p>	<p>Refer engineering drawings.</p>

Element	Rules	Comment
	<p><i>no steeper than the ratio of 2.5 horizontal to 1.0 vertical, while the downstream batter should be no steeper than 3.0 horizontal to 1.0 vertical.</i></p>	
	<p><b>6.3.4 Spillway</b></p> <p><i>(a) The spillway should be a minimum of 3 metres in width increasing in size dependent on the size of the dam and catchment. Generally, spillways are to be designed so as not to overflow more than half the depth of the freeboard.</i></p> <p><i>(b) The width of the outlet is not to be less than the inlet width. The spillway also is not to direct flows onto the downstream toe. The spillway area should be grassed, stable and able to accept runoff flow. In some instances it may be necessary to turf the spillway area. The spillway cut batter should have a maximum steepness of 2.5 horizontal and 1.0 vertical.</i></p>	<p>Refer engineering drawings.</p>
	<p><b>6.3.5 Cut –off trench</b></p> <p><i>(a) The cut-off trench is to be constructed along the entire length of the embankment at a minimum width of 2 metres. The trench should be excavated at least 1 metre into impervious soil and backfilled with impervious material.</i></p>	<p>Refer engineering drawings.</p>
	<p><b>6.3.6 Vegetation Filters and Tree Planting</b></p> <p><i>(a) A gate should be provided in the fence so that the filter area can be renovated by light grazing during rapid growth seasons. Prolonged grazing in</i></p>	<p>Refer engineering drawings.</p>

Element	Rules	Comment
	<p><i>dam catchments has potential to cause algal and weed growth in the dam due to the introduction of nutrients from manure.</i></p>	
	<p><b>6.3.7 Hydrological Aspects</b></p> <p><i>(a) Clay lining and limiting depths of dam construction to above the water table are consent requirements to minimize the threat of contamination to groundwater.</i></p> <p><i>(b) All excavations which intercept the groundwater are required to be licensed by Department of Land and Water Conservation under the Water Act.</i></p>	<p>Refer engineering drawings.</p>
<p><b>Chapter 7</b> Landfill</p>		<p>Filling of the land is proposed to allow for shed construction due to the site topography which falls from Boundary Road to the east and north.</p> <p>The site of the proposed building is not impacted by flooding.</p> <p>Environmental measures to conserve landscape and surrounding environment can be installed during construction – erosion and sediment control measures and through planting following construction.</p> <p>A Water management plan and sediment and erosion control plan have been prepared.</p>
<p><b>Chapter 8</b> Erection of Rural Sheds</p>		<p>This section primarily relates to the erection of rural sheds associated with existing dwelling houses.</p> <p>The proposed shed will be constructed from non-reflective materials of a suitable colour to minimize the impact on the landscape.</p> <p>The visual impact of the development has been discussed in <b>Section 7.7</b>.</p>

## 6.10. Hawkesbury City Council Section 94a Development Contributions Plan 2006

Section 94a Development contributions are payable under the Hawkesbury City Council Section 94a Contributions Plan 2006.

The application seeks to stage the construction and therefore we request that the payable section 94 contributions be allowed to be paid 'Prior to Occupation Certificate' for each stage rather than prior to the release of the construction certificate.

## 7.0 MATTERS FOR DISCUSSION

### 7.1. Flora and Fauna Report

A Flora and Fauna Report has been prepared by Fraser Ecological Consulting (refer **separate report**) to assess the impacts of removal of vegetation associated with the proposal.

The flora and fauna provided assessment<sup>7</sup> of the following matters:

- Identifies key flora and fauna habitats within the subject site;
- Reviews literature and databases relevant to the subject site;
- Describes the methodology and results of the survey;
- Addresses potential impacts on flora and fauna and their habitats resulting from the proposed development;
- Proposes appropriate mitigation measures; and
- Provides an assessment of the likelihood of significant impacts on threatened species and populations, and endangered ecological communities, according to Section 5A of the NSW EPA Act, TSC ACT, Commonwealth EPBC Act. This was done to determine the need for an SIS or an application under the EPBC Act.

The site was identified as containing cleared or highly modified native vegetation however remnant plant species consisting of 'Shale Sandstone Transition Forest' was identified on the site.

The report considers the impact of the proposed tree removal within the building area and the area proposed for dam construction.

The report recommends the implementation of Environmental Protection Measures<sup>8</sup> during construction to minimise potential impacts, including:

- Bushland protection during construction;
- Erosion and Sediment Control measures;

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<sup>7</sup> Page 6. Flora and Fauna report.

<sup>8</sup> Pages 43 – 45. Flora and Fauna report.

- Weed management following construction works; and
- General Environmental Management.

The report concludes<sup>9</sup>:

- i. No threatened flora species listed within the TSC Act (1995) or the EP&BC Act (1999) were observed during surveys;
- ii. The impact on the threatened flora and fauna species are considered minimal given the low value and volume of habitat proposed for removal.
- iii. Disturbed Shale Sandstone Transition Forest Critically Endangered Ecological Community and River Flat Eucalypt Forest Critically Endangered Ecological Community proposed for removal is in poor condition.
- iv. A referral to the Australian Government Department of the Environment is not likely to be required as it was determined that the proposal would not have a significant impact on nationally listed threatened or migratory species listed under the EPBC Act (1999).
- v. A Species Impact Statement is not required for the proposed development. The proposed development is not likely to have a significant effect on threatened species, populations or ecological communities or their habitats listed under the TSC Act (1995) with the implementation of recommended environmental protection measures.

It is considered that with the recommendations and mitigation measures to be implemented, the proposal is satisfactory as proposed.

## 7.2. Bushfire

A Bushfire Safety and Evacuation Plan has been prepared by Dialla Design and Drafting Services<sup>10</sup>.

The Bushfire report identifies that construction levels are required for bushfire compliance and asset protection zone compliance can be achieved by maintaining landscaped and cleared areas (30metres to the south).

Evacuation measures and on-going property maintenance measures are recommended including generally keeping the building and surrounds in good condition, ensuring water supply is in good working order, and the like.

It is considered the matters identified within the Bushfire Report can be achieved and implemented as part of the proposal.

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<sup>9</sup> Page 46. Flora and Fauna Assessment.

<sup>10</sup> Dated Sept. 2015

### 7.3. Acoustic

An Acoustic Impact Assessment has been undertaken by PKA Acoustic Consulting. The report was commissioned to assess the potential noise impacts of the proposed extension of the mushroom farm.

A number of mitigation measures have been recommended<sup>11</sup> to reduce the noise associated with the mushroom farm processes including:

1. *Installation of an acoustic barrier to the south of outdoor concrete area and the truck route. The barrier should be to the height of 2.4 m above the concrete surface and should be constructed of acoustic material such as 10 mm fc sheets or colourbond. The barrier should have no gaps and openings and should extend 2m beyond the spray wash area and the peat shed in each direction.*
2. *No high level noise activities should take place between the hours of 10 pm and 7 am.*
3. *Truck drivers working at night time (after 10 pm) should be trained and required to keep the noise to a minimum.*

It is considered the matters identified within the Acoustic Impact Assessment can be achieved and implemented as part of the proposal.

### 7.4. Traffic

A Parking and Traffic Impact Study has been undertaken by Thompson Stanbury and Associates<sup>12</sup> to assess the proposal to expand an existing mushroom farm development located at the site.

The traffic report provides an assessment of potential traffic impacts associated with increased operational vehicle movements and increased staff vehicle movements and assesses the adequacy of the parking provision.

The report provides a detailed conclusion, which identifies the proposal is acceptable in terms of potential traffic and parking impacts, namely<sup>13</sup>:

- The proposed off-street passenger vehicle parking provision is projected to be suitably capable of accommodating the peak operational demands of the expanded business operations;
- The existing site access arrangements are expected to provide a safe and efficient means of site access, whereby vehicles up to and including articulated vehicles are capable of entering and exiting the site in a forward direction;

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<sup>11</sup> Page 16.

<sup>12</sup> Dated August 2015

<sup>13</sup> Page 15.

- The proposed internal circulation maneuvering and servicing arrangements are capable of providing for safe and efficient vehicular movements during peak times;
- The surrounding road network operates with a good level of service during peak periods;
- The subject development is projected to generate a maximum of 57 additional vehicle movements to and from the site during any one hourly period; and
- The surrounding road network is considered to be capable of accommodating the traffic projected to be generated by the development in a safe and efficient manner.

The report concludes '*Based on the contents of this report and the conclusions contained herein, we consider that there are no traffic related issues that should prevent approval of the subject application and we therefore recommend that action to Council*'. It is considered that the proposal is suitable in regards to potential traffic impacts and the design is suitable as proposed.

## 7.5. Water management

A Stormwater Management Plan has been prepared by Barker Ryan Stewart Engineers to investigate the management of stormwater on the site and determine options for its detention, re-use and solids removal. The report has considered the existing site conditions, the catchment area, storage requirements for detention and re-use purposes and the configuration of the site stormwater drainage system.

The proposal involves the following<sup>14</sup>:

- Installation of an extensive stormwater management system on the site to manage both, the stormwater runoff from rainfall events and runoff from wash-down, cleaning and maintenance activities;
- This system will enable the storage of both types of runoff and the re-use of water within the farm, thereby resulting in water quality benefits for site runoff as well as significant cost savings in the operation of the farm and an environmental benefit from the reduction in water consumption;
- The stormwater runoff will be collected and stored in a proposed 7 megalitre dam, whilst the wash-down water from maintenance and cleaning activities will be treated in a treatment system comprising of a settling area, solids removal system and a wetland before being discharged into a 7 megalitre storage dam. The

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<sup>14</sup> Page 6. Stormwater Management Plan.

roofwater runoff will be collected in a separate 3 megalitre dam for supply to cooling towers and boilers;

The report concludes that the identified components will operate satisfactorily with the following capacities:

- *The construction of a dam with a maximum storage capacity of approximately 7 megalitres;*
- *The construction of a dam with a maximum storage capacity of approximately 3 megalitres;*
- *The dam capacity will be sufficient to provide the site with 40% of its water usage;*
- *The detention storage requirement to reduce developed flows back to pre-developed flows;*
- *Provide adequate water quality controls for the site to ensure that stormwater leaving the site will conform to at least the minimum water quality requirements as stipulated by the relevant government organisations.*

The report identifies that *'if the above system is implemented as part of the development and satisfactorily operated and maintained, then the stormwater management of the site will meet water quality and quantity requirements'*.

## **7.6. Wastewater**

An On-site Wastewater Management Report has been prepared by Envirotech Pty Ltd. It is proposed to install a new septic tank, toilet facility and lunch room in proximity to the new growing rooms.

The investigation involved a soil assessment which indicated the soil properties including physical properties, chemical properties, erodibility, salinity and drainage are acceptable.

An on site wastewater treatment system using Aerated Wastewater Treatment System (AWTS) is proposed. The proposal involves the use of Evapo-transpiration Absorption beds due to the land availability and site constraints. The bed sizing calculations have been provided for each stage of the proposal, allowing for the development to be undertaken in accordance with demand.

The absorption beds have been located to the north-east of the existing dwelling (46metres setback) and greater than 40metres from the proposed retention basin within an area of the site that has been cleared of trees.

A number of recommendations have been provided which identify the works to be undertaken within each stage including the modification of existing system, the size and area of transpiration beds, maintenance of required setbacks and installation of a sequencing valve to ensure even distribution of effluent throughout the proposed Evapo-transpiration Absorption beds.

The report has identified no major limitations to on site wastewater management and it is considered the effluent management can be undertaken and managed as outlined within the Wastewater Report.

## 7.7. Rural Landscape

The Hawkesbury LEP 2012 identifies one of the objectives of the RU2 Rural Landscape zone is to:

*To ensure that development retains or enhances existing landscape values including a distinctive agricultural component.*

This section discusses the concept of 'landscape values' in relation to the proposal. There are no specific guidelines produced by Hawkesbury Council which identify 'landscape values' however generally landscape character is derived from a combination of landscape components such as landform, land cover and land use that distinguishes one land area from another.<sup>15</sup>

The landscape of Glossodia is characterised by rural land uses such as agriculture – orchards, animal grazing and large allotment residential uses as well as vegetated areas that are undergoing increased development (refer **Plates 15 – 22**).



**Plate 15:** View looking from the site towards the north-east

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<sup>15</sup> RMA Quality Planning Resource 'Landscape Assessment':  
Source: <http://www.qualityplanning.org.nz>



**Plate 16:** Area of proposed expansion (looking from north to south) showing existing vegetation areas



**Plate 17:** Area of proposed expansion (looking from north to south) showing existing vegetation areas



**Plate 18:** Area of proposed expansion (looking from north to south)  
(within existing Lot 2)



**Plate 19:** View looking from Lot 2 (172 Boundary Road) west towards existing buildings



**Plate 20:** View looking from Lot 2 (172 Boundary Road) west towards existing buildings



**Plate 21:** View looking from Lot 2 south towards an existing market garden (152 Boundary Road Glossodia)



**Plate 22:** View from the access driveway within Lot 2 (172 Boundary Road)  
Looking north towards an existing mushroom farm

Planning in NSW allows for a capacity assessment approach to landscape character – what impacts will the development place on the landscape and how can these be accommodated and proposal-driven landscape assessments – visual impacts and physical impacts on the landscape.

Well managed agricultural land uses can positive influence the rural character of the landscape with implementation of a balanced approach to agriculture including implementation of farm management measures that include design around physical constraints: including management measures such as weed control, soil and erosion control, managed work practices, trees as windbreaks, etc.

It is considered that use of the expansion of the mushroom farm will result in a rural landscape consistent with rural land uses such as those used for rural industries (large shed structures).

A recommendation of the acoustic report includes installation of a 2.4m height acoustic wall to the south of the existing building. It is considered the acoustic wall can be finished in a suitable colour consistent with the rural landscape, and any potential visual impact on the surroundings will be minimal.

Trees have been retained along the site's boundaries to provide screening of the development from Boundary Road and adjoining development. The sheds are located behind the existing buildings when viewed from Boundary Road to minimise the visual impact of the development.

Additional planting is proposed on the embankments to provide for additional visual screening from surrounding development.

## 8.0 PLANNING ASSESSMENT

As assessment of the proposal is made pursuant to Section 79C of the Environmental Planning and Assessment Act 1979 as follows: -

### (1) **Matters for consideration—general**

*In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:*

#### (a) *the provisions of:*

##### (i) *any environmental planning instrument, and*

#### **Comment:**

Consideration of the SEPP Infrastructure 2007, SEPP No. 44, SEPP No. 55, SEPP No. 33 and Sydney Regional Environmental Plan No.20 – Hawkesbury/Nepean River and Hawkesbury Local Environmental Plan 2012 has been made.

The proposal is consistent with the objectives of Hawkesbury LEP 2012 to allow for economic development that sympathetically relates to adjoining and nearby development (i.e. agricultural land uses). A Request for variation is sought to the height limit (Clause 4.3 of HELP 2012) to allow for building construction on a single level and allow for installation of up-to-date machinery associated with mushroom picking. It is considered that the location of the proposed buildings at the rear of the existing buildings, provides for economic development, while minimising potential impacts on the environment.

The proposal is considered to be satisfactory.

##### (ii) *any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and*

**Comment:** No draft environmental planning instruments relate to the proposal.

##### (iii) *any development control plan, and*

#### **Comment:**

Consideration of Hawkesbury Development Control Plan 2002 has been made and it is considered the proposed development is consistent with the provisions of Hawkesbury Development Control Plan 2002.

*(iiia) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F, and*

**Comment:** No Planning Agreements apply to the development.

*(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and*

**Comment:**

The Regulations have been consulted of which the proposal is considered to be consistent.

*(v) any coastal zone management plan (within the meaning of the Coastal Protection Act 1979),*

**Comment:** Not applicable.

*(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*

**Comment:**

**Natural Environment:**

A number of specialist reports including a Flora and Fauna Report have been prepared that addresses the proposed removal of vegetation on the site. The area proposed for development is located within the eastern portion of the site, near existing buildings, with the remaining section of the site providing for preservation of large areas of vegetation. The use is consistent with the rural zoning of the land and the specialist reports identify ongoing mitigation and management measures for implementation to ensure that potential impacts are minimised during the operational phase of the development.

**Built Environment:**

The proposal involves the construction of three shed buildings associated with the proposed 3-stage development and expansion of the mushroom farm. The sheds have been designed to provide for growing of mushrooms including new technologies which require construction of the sheds at a single level. The site falls away from existing building to the north and north-east which requires the construction of a level pad area for building construction. A variation to the building height requirement of Hawkesbury LEP 2012 has been sought.

The development has been sited to provide for centralised building location and minimise the proportion of the site covered by buildings, retaining areas of vegetation to the north.

It is considered the potential built environmental impacts are acceptable with the implementation of mitigation measures such as improved landscaping and sympathetic building colours, providing for development consistent with the rural land use. Accordingly,

it is considered that the proposal is in keeping with the surrounding built environment and the rural landscape.

#### Social and Economic Impacts

It is considered the proposal provides for positive economic outcomes, providing for continued employment and increased employment within the outer Western Sydney region.

The proposal has the ability to provide positive social impacts through provision of employment. It is considered the potential environmental impacts of the proposal can be managed and no impacts on health and safety of the community have been identified.

#### *(c) the suitability of the site for the development,*

##### **Comment:**

The proposed use of the site for agriculture is a land use compatible to the rural area and associated rural land uses. A number of specialist reports have been prepared which identify implementation of mitigation measures to minimise the potential impacts of the development.

A single variation is proposed in regards to the proposed building height. It is considered a variation can be supported and the potential impacts of the proposal can be managed.

#### *(d) any submissions made in accordance with this Act or the regulations,*

**Comment:** Any submissions received during the notification period would be considered.

#### *(e) the public interest.*

**Comment:** The proposal involves the expansion of an existing mushroom growing facility which provides for an agricultural land use within a zoned rural area. The proposal involves a use permitted within the rural zone and provides for a use of the land for rural purposes. A number of specialist reports have been prepared which identify the potential impacts of the proposal and it is considered with the implementation of recommendations and mitigation measures the application is suitable as proposed.

Accordingly, the proposed development is considered to be in the public interest.

## 9.0 CONCLUSION

In conclusion, the following is noted: -

- The proposed development has been considered against the relevant legislation including State Environmental Plans, Regional Plans, the objectives and controls set out in the Hawkesbury Local Environmental Plan 2012 and the Hawkesbury Development Control Plan 2002.
- The development involves the expansion of an existing agricultural land use within a rural zoned area. The proposal allows for the continuation of an existing rural land use within an area of outer Western Sydney that provides employment for the community.
- Appropriate recommendations and safeguards are identified in the accompanying specialist reports to ensure that potential impacts relating to earthworks, noise and vegetation removal are suitably mitigated and the site is suitably managed. It is considered the traffic, stormwater, wastewater and bushfire measures are acceptable and can be managed during the construction process. The proposed development is considered to be in the public interest

The proposal is considered satisfactory and is worthy of support.