Modification of Minister's Approval

Section 75W of the *Environmental Planning and Assessment Act 1979*

As delegate for the Minister for Planning under delegation executed on 14 September 2011, the Planning Assessment Commission of NSW (the Commission) modifies the project approval referred to in Schedule 1, subject to the conditions in Schedule 2.

Member of the Commission

Sydney 2016

SCHEDULE 1

Project Approval:	MP 08_0255 granted by the Minister for Planning on 11 January 2012
For the following:	Elf Substrate Plant and Elf Mushroom Farm Project
On land comprising:	**Substrate Plant Site** Lot 14 DP 1138749 and part Lot 13 DP 1138749 108 Mulgrave Road, Mulgrave **Mushroom Farm Site Land** Lot 138 DP 752037, 521 The Northern Road, Londonderry
Modification Number:	MP 08_0255 MOD 1
Modification:	The modification relates to the Substrate Plant site only and includes: • a new odour management system in the form of a biofilter and six ammonia scrubbers; • an additional 6 phase 2/3 tunnels; and • the continued use of fill associated with the biofilter pad.

SCHEDULE 2

This approval is modified as follows:

In the definitions table:

1. Deleting the definition for Department, Director-General, EPA, Minister and Project and inserting the following definitions in alphabetical order:

Department	Department of Planning and Environment or its successors in title
EPA	Environment Protection Authority
Minister	Minister for Planning
Secretary	Secretary of the Department of Planning and Environment, or nominee
Project	development described in the EA as modified by MOD 1

2. Inserting the following definitions in alphabetical order:

MOD 1	The modification as described in the Environmental Assessment, titled *Mushroom Substrate Plant Modification to Approved Project Environmental Assessment* dated February 2015, prepared by Perram and Partners, the letter Response to Submissions titled *Mushroom Substrate Plant, Mulgrave Application to Modify Project Approval and Concept Plan Approval (08_0255 MOD 1)*, dated 29 August 2015, prepared by Perram and Partners and the *Assessment of Biofilter Filling* dated 17 December 2015, including the letter by WMA Water dated 21 January 2016, prepared by Perram and Partners
Noise Wall	As described in the EA
Odour emissions plant	Ammonia scrubbers and biofilter as described in MOD 1

In Schedules 2, 3 and 4:

3. Deleting all instances of the word Director-General and replacing with the word Secretary.

4. Deleting all instances of the word OEH and replacing with the word EPA except in Conditions 20 and 21 of Schedule 4.

5. Deleting Condition 2(d) of Schedule 2 and replacing with a new Condition 2(d):

   2(d) MOD 1.

6. Replacing Condition 7(2)b) of Schedule 2 with the following new Condition 7(2)b):

   7(2)b) an independent audit of the site operating in this range has been prepared and submitted in accordance with Condition 5(c) of Schedule 3.

   Production of up to 2,400 tonnes of phase 1 substrate a week may not occur until the Proponent has received the written approval of the Secretary.

7. Replacing Condition 7(3)b) of Schedule 2 with the following new Condition 7(3)b):

   7(3)b) an independent audit of the site operating in this range has been prepared and submitted in accordance with Condition 5(c) of Schedule 3.

   Production of up to a maximum of 3,200 tonnes of phase 1 substrate a week may not occur until the Proponent has received the written approval of the Secretary.

8. Inserting the following new Condition 7(4)d) after Condition 7(4)c) of Schedule 2:

7(4)d) consider EPA advice regarding compliance with the POEO Act.

9. Inserting the following new Condition 7A after Condition 7 of Schedule 2:

7A Unless otherwise agreed in writing by the Secretary, the Proponent shall ensure that the work associated with MOD 1, with the exception of the additional Phase 2/3 tunnels and the pre-wet tunnels to be constructed as part of Stage 3 (as identified on the plan in Appendix 2), has been constructed and is operating within two years from the date of the approval of MOD 1.

10. Inserting the following new Condition 7B after Condition 7A of Schedule 2:

7B Nothing in this approval permits the construction of the landscaped mound along the Substrate Plant site's western boundary identified in the letter from WMA Water dated 21 January 2016.

11. Inserting the following new Condition 11A after Condition 11 of Schedule 2:

11A The Proponent shall ensure that any structures which require a relevant alternative solution developed to meet the performance requirements of the BCA shall be designed in consultation with Fire and Rescue NSW.

12. Inserting the following new Condition 1A after Condition 1 of Schedule 3:

1A The Proponent shall update the CEMP required by Condition 1 of Schedule 3 to include the works associated with MOD 1. The updated plan shall be submitted to and approved by the Secretary prior to the commencement of any construction works associated with MOD 1.

The revised CEMP shall be implemented throughout the construction works.

13. Deletion of Condition 3 of Schedule 3.

14. Inserting the following new Condition 3 after Condition 2 of Schedule 3:

Odour Emissions Plant Design and Construction

3 Prior to the commencement of construction of the works associated with MOD 1, the Proponent shall commission and pay the full cost of an independent odour specialist to review the detailed design of the odour emissions plant and assess its capacity to meet the performance criteria within the Environmental Assessment for MOD 1. The review shall:

(a) be provided to the Secretary and the EPA within two weeks of finalisation of the review; and

(b) be endorsed by the Secretary in consultation with the EPA prior to the commencement of construction of the works associated with MOD 1.

Should the review not certify that the odour emissions plant has the capacity to meet the performance criteria within the Environmental Assessment for MOD 1, then the Proponent shall undertake additional design to meet the criteria, to the satisfaction of the Secretary within the timeframe specified by the Secretary. The additional design is to be endorsed by the independent odour specialist.

15. Inserting the following new Condition 3A after condition 3 of Schedule 3:

3A The Proponent shall construct the odour emissions plant in accordance with the final design endorsed by the independent odour specialist required by Condition 3.

16. Insert the following new condition 3B after condition 3A Schedule 3:

3B Prior to the commencement of operation of the odour emissions plant, the Proponent shall commission and pay the full cost of an independent odour specialist to certify that the 'as constructed' odour emissions plant has been undertaken in accordance with the final detailed design with reference to the Environmental Assessment for MOD 1 and the outcomes of Condition 3 of Schedule 3.

A copy of the certification is to be provided to the Secretary and the EPA within one week of its finalisation.

17. Inserting the following new Condition 3C after Condition 3B of Schedule 3:

3C The Proponent shall implement all reasonable and feasible measures to ensure that all new structures are constructed to prevent corrosion from the atmosphere contained within those structures.

18. Inserting the following new Conditions 4A and 4B after Condition 4 of Schedule 3:

4A The Proponent shall update the Odour Management Plan for the Substrate Plant site, in consultation with the EPA, to the satisfaction of the Secretary. This plan is to update the plan approved under Condition 4 of Schedule 3 and shall:

(a) be prepared a suitably independent, qualified and experienced expert whose appointment has been endorsed by the Secretary;
(b) be submitted to the Secretary for approval within one month of the date of endorsement by the Secretary of the odour emissions plant design as required under Condition 3(a) of the approval;
(c) identify of all major sources of odour;
(d) include management measures to ensure no offensive odours from the Substrate Plant site;
(e) include procedures for the monitoring of odour emissions, in accordance with the requirements of the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales* and any requirements of the EPA. The odour monitoring program shall include, but not be limited to:
    i. results of the complaints handling system; and
    ii. system and performance review for continuous improvement;
(f) include odour management performance parameters that are consistent with the manufacturers' performance guarantees provided for the biofilter and scrubbers;
(g) include measures to prevent and/or mitigate fugitive emissions;
(h) include triggers for remedial and contingency action; and
(i) include contingency measures in the event of failure of any component of the odour emissions plant and biofilter system or identification of fugitive emissions from the facility. Contingency measures shall include enclosing the West Water Recycle pit and treating the post 36 hour emissions from the Phase 2/3 building via the ammonium scrubbers and biofilter.

4B The approved updated Plan (as revised and approved by the Secretary from time to time), shall be implemented for the life of the Project as soon as written endorsement by the Secretary is received.

19. Replacing Condition 5 of Schedule 3 with the following:

Odour Emissions and Biofilter Control System Audit

5 The Proponent shall undertake an Odour Emissions and Biofilter Control System Audit to quantify the odour abatement efficiency of the odour emissions plant and assess the effectiveness of all other odour controls on the Substrate Plant site:
(a) within six weeks of the commissioning of the biofilter;
(b) within six weeks of the decommissioning of the bioscrubber;
(c) prior to the commencement of each increase in production, in accordance with Conditions 7(2) and 7(3) of Schedule 2;
(d) and as directed by the Secretary;
(e) each audit required under (a) to (d) inclusive, shall:
i. be undertaken and prepared by a suitably qualified, experienced and independent expert whose appointment has been endorsed by the Secretary;
ii. be prepared in consultation with the EPA;
iii. report on the results of the source emissions sampling and analysis undertaken in accordance with the Odour Management Plan (required by Condition 4A of Schedule 3) or as otherwise agreed to in writing by the EPA;
iv. review the Proponent's production data (that are relevant to the audit) and complaints record;
v. review any complaints received during the relevant period;
vi. determine whether the Project is complying with condition 2 of Schedule 3; and, if necessary;
vii. recommend whether any additional management works and/or management practices are required to ensure no offensive odours from the Substrate Plant site.

20. Inserting the following new Condition 6A after condition 6 of Schedule 3:

6A Two months after the completion of the audits required under Conditions 5 (a) and 5(b) of Schedule 3, the Proponent shall submit to the satisfaction of the Secretary, a report verifying that any actions identified in the audit have been implemented.

21. Replacing Condition 11 of Schedule 3 with the following Condition 11:

11 The Proponent shall ensure that all dangerous goods and hazardous substances are stored and handled on the Substrate Plant site in accordance with the Dangerous Goods Code and *AS 1940-2004: The storage and handling of flammable and combustible liquids* and *AS 3780-2008 The Storage and Handling of Corrosive Substances.*

22. Inserting the following new Conditions 16A and 16B after Condition 16 of Schedule 3:

16A The Proponent shall ensure that the earthworks associated with the biofilter pad do not act as a source of sedimentation. The Proponent shall stabilise the area of fill associated with the biofilter within one week of the approval of MOD 1.

16B Prior to the commencement of construction of the biofilter, the Proponent shall submit to the Secretary, details demonstrating that the earthworks in the area of the biofilter have been:
(a) undertaken in accordance with AS 3798; and
(b) compacted to 98% Standard dry density ratio (AS1289 E4.1).

23. Inserting the following Condition 17A after Condition 17 of Schedule 3:

17A The Proponent shall prepare an updated Water Management Plan for the Substrate Plant site required by Condition 17 of Schedule 3 to include the works associated with MOD 1. The plan shall be submitted to the Secretary for approval prior to the commencement of operation of MOD 1.

Operation of works associated with MOD 1 shall not commence until the Proponent has received written approval of the plan. The approved Plan shall be implemented for the life of the Project.

24. Inserting the following Condition 17B after Condition 17A of Schedule 3:

17B The Proponent shall ensure that the western dam at the Substrate Plant site (identified on the plan in Appendix 2 of this approval) does not receive process water.

Notes: The dam may receive water from direct rainfall, area runoff and groundwater and during times of emergency.

25. Inserting the following Condition 17C after Condition 17B of Schedule 3:

17C Notwithstanding Condition 17B of Schedule 3, in the event of an emergency such as a high rainfall event or plant breakdown, the Proponent may use the western dam. Notification of any emergency use of the dam shall be provided to the Secretary in writing within 7 days of the emergency.

26. Replacing Condition 19 of Schedule 3 with the following:

19 The Proponent shall ensure that the operational noise generated by the Substrate Plant site does not exceed the criteria in Table 2.

Table 2: Operational Noise impact assessment criteria dB(A)

Receiver/Location	**Day /Evening** $L_{Aeq(15\ minute)}$	**Night** $L_{Aeq(15\ minute)}$
R1 – 46 Mulgrave Road, Mulgrave	43	43
R2 – Mulgrave Industrial area	42	42
R3 – 2 Railway Road, Mulgrave	42	*37*
R4 – 126 Mulgrave Road	44	41
R5 – Chisholm Place, South Windsor	44	42

Noise generated by the Project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

27. Replacing Condition 21 of Schedule 3 with the following:

21 The Proponent shall construct the 7 m high noise wall adjacent to the southern side of the bale storage shed or implement 'other noise mitigation measures' with the same or greater effect, prior to commencement of stage 2B construction works.

Should 'other noise mitigation measures' be implemented, the Proponent shall demonstrate, to the satisfaction of the Secretary, that the chosen measures will be as effective as modelled for the noise wall. Construction of Stage 2B cannot commence unless the Proponent has received the Secretary's approval for the 'other noise mitigation measures'.

28. Inserting the following new Conditions 22A and 22B after Condition 21 of Schedule 3:

22A The Proponent shall update the Noise Management Plan for the Substrate Plant site, to the satisfaction of the Secretary. This plan is to update the plan approved under Condition 22 of Schedule 3 and shall include:
(c) the works associated with MOD 1; and
(d) a revised monitoring protocol for evaluating compliance with the noise impact assessment criteria in this approval once all construction works associated with MOD 1 are complete.

22B Operation of works associated with MOD 1 shall not commence until the Proponent has received the Secretary's written approval of the plan**.** The approved Plan (as revised and approved by the Secretary from time to time), shall be implemented for the life of the Project as soon as written endorsement by the Secretary is received.

29. Inserting the following new Conditions 24A and 24B after Condition 24 of Schedule 3:

24A The Proponent shall prepare a Landscape Management Plan for the Substrate Plant site. The plan shall:
(a) be prepared in consultation with Council;
(b) identify screen planting to minimise visual impacts of the site, particularly the new biofilter; and
(c) be approved by the Secretary prior to the commencement of construction of the works associated with MOD 1.

24B The landscaping around the site of the new biofilter required under MOD 1 shall be installed within three months following the completion of the construction of the biofilter. All other landscaping shall be installed prior to the commencement of operation of the works associated with MOD 1.

30. Replacing Condition 3 of Schedule 5 with the following:

3 By the end of September 2016, and annually thereafter, unless otherwise agreed by the Secretary, the Proponent shall review the environmental performance of the Project to the satisfaction of the Secretary. This review must.
(a) describe the operations that were carried out during the reporting period;
(b) analyse the monitoring results and complaints records of the Project during the reporting period, which includes a comparison of these results against the:
i. relevant statutory requirements, limits or performance measures/ criteria;
ii. monitoring results of previous years; and
iii. relevant predictions in the EA;
(c) identify any non-compliance during the reporting period, and describe what actions were (or are being) taken to ensure compliance;
(d) identify any trends in the monitoring data over the life of the Project; and
(e) describe what measure(s) will be implemented during the next reporting period to improve the environmental performance of the Project.

31. Inserting the following Condition 3A after Condition 3 of Schedule 5

Independent Environmental Audit

3A Within six months of the approval of MOD 1, and every two years thereafter, unless otherwise agreed by the Secretary, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the Project. This audit must:

(a) be conducted by suitably qualified, experienced and independent team of experts (including an odour expert), whose appointment has been endorsed by the Secretary;
(b) include consultation with the relevant agencies;
(c) include a full odour audit of the Project, taking into consideration the relevant technical guidelines and any odour complaints made since the previous audit;
(d) assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any other licenses and approvals that apply to the project, (including any assessment, plan or program required under these approvals);
(e) review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate;
(f) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals.

Within six weeks of the completing of this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

32. Replacing Condition 4 of Schedule 5 with the following:

4 Within three months of the submission of an:
(a) incident report under condition 5 of schedule 5;
(b) review under condition 3 of schedule 5, and
(c) audit under condition 3A of Schedule 5,

the Proponent shall review, and if necessary revise the plans and programs required under this approval to the satisfaction of the Secretary.

Note: This is to ensure the plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the Project.

33. Inserting the following new Conditions 6 and 7 after Condition 5 of Schedule 5:

Access to Information

6 The Proponent shall prepare a Community Consultation Strategy for the Substrate Plant site to address existing and future operations at the Substrate Plant site, including construction of works associated with MOD 1. This Plan shall:
(a) be submitted to the satisfaction of the Secretary within one month from the approval of MOD 1;
(b) include procedures for updating the community on the general operation of the site as well as the progress of any construction works; including
i. a newsletter for the local community which details the:
- construction activities and the expected duration of works;
- a general summary of the environmental management to be implemented; and
- telephone number for taking complaints or enquiries in relation to the activities;
ii. the website required by Condition 7 of Schedule 5; and
iii. public meetings;
(c) describe the distribution area for the newsletter (at a minimum all residents within 2 km from the site boundary), prepared in consultation with Council; and

(d) include procedures for handling and monitoring all complaints received; and detail what management and/or contingency actions will be taken if complaints are received.

7 The approved Strategy (as revised and approved by the Secretary from time to time), shall be implemented for the life of the Project as soon as written endorsement by the Secretary is received.

34. Inserting the following Condition 8 after Condition 7 of Schedule 5

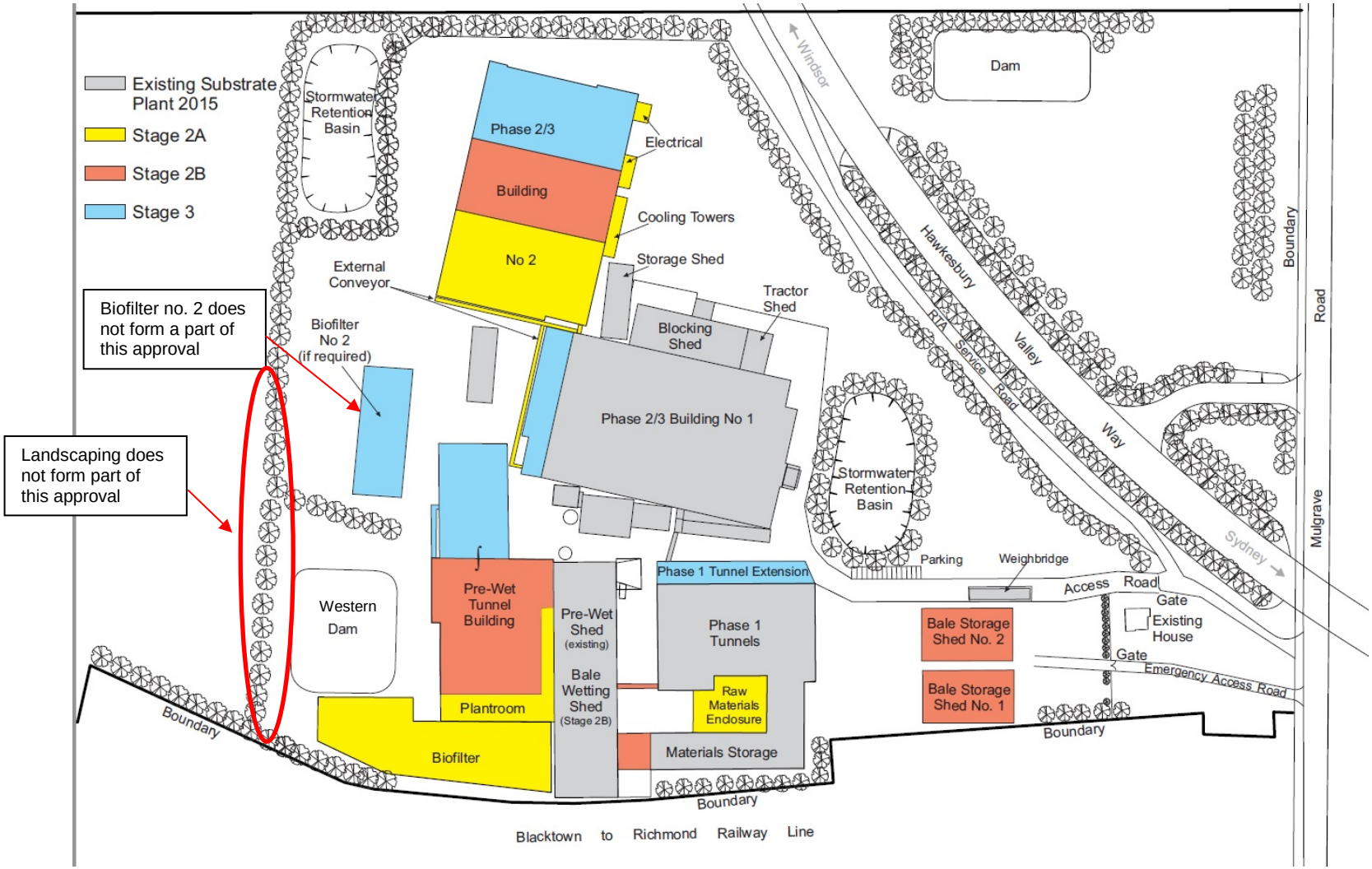
8 Within three months from the date of the approval of MOD 1, the Proponent shall make the following information (unless commercially sensitive) freely available on a publicly accessible website, as it is progressively required under the approval:
(a) all current statutory approvals, including this approval and any modifications to it;
(b) plans and programs required under this approval;
(c) technical analysis/reports of monitoring results, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;
(d) a complaints register, which is to be updated on a monthly basis;
(e) a copy of any review as required under Condition 3 of Schedule 5 (over the last five years);
(f) updates on the progress of the construction works associated with MOD 1; and
(g) any other material as required by the Secretary.

35. Replacing Appendix 1 with the Proponent's revised statement of commitments dated 22 May 2015 as shown in Appendix 1.

36. Replacing Appendix 2 with the revised Substrate Plant Site Layout and Stages as shown in Appendix 2.

APPENDIX 1
PROPONENT'S STATEMENT OF COMMITMENTS

APPENDIX 2
SUBSTRATE PLANT SITE LAYOUT and STAGES



MUSHROOM SUBSTRATE PLANT, MULGRAVE APPLICATION TO MODIFY APPROVALS FOR PROJECT AND CONCEPT PLAN (08_0255 MOD 1) REVISED STATEMENT OF COMMITMENTS

The statement of commitments previously submitted by the applicant and included in the project approval has been reviewed and amended to include revised wording for items 3.6, 4.4, 4.5, 4.6 and 4.7. These changes are necessary for consistency with the proposed modification, including revised odour management system and noise assessment.

1. Mushroom Farm - Construction

Outcome	Commitment		Timing
Environmental management	1.1	Prepare and subsequently implement an environmental management plan for construction, consistent with this environmental assessment and conditions of approval.	Prior to issue of construction certificate
	1.2	Identify and clearly mark vegetation to be retained.	Prior to construction
	1.3	Instruct all construction personnel of the requirements for environmental management on the site.	Prior to and during construction
Minimise soil erosion and sediment deposition	1.4	Implement erosion and sediment controls consistent with the erosion and sediment control plan and keep in place with adequate maintenance until work is complete or they are no longer required.	Prior to commencement of earthworks and thereafter as long as necessary
	1.5	Progressively rehabilitate areas disturbed during construction with grass or landscaping as designed	During construction
Control nuisance dust	1.6	Implement dust mitigation measures as follows: • restrict vehicles to a defined route within the site; • limit vehicle speeds on unsealed surfaces; • maintain haul routes for fill trucks in a damp state; • apply temporary stabilisation to any exposed surface that is unlikely to be further disturbed for a period of one month or longer; and • rehabilitate finished surfaces as soon as possible to limit wind-generated dust.	During construction
Minimise construction noise	1.7	Implement construction noise mitigation measures as follows. • Construct the northern acoustic mound as early as practicable in the construction program; • adopt construction practices recommended by DECCW for best management and best available technology economically achievable; • select construction plant and equipment having regard to controlling noise emissions, including reversing alarm noise;	During construction

Outcome	Commitment		Timing
		• reduce operating speeds of equipment where practical and switch off idle plant when not in active use; • arrange vehicular access to work areas to allow for forward vehicle travel, minimising reversing or manoeuvring wherever possible; • provide site induction and personnel/ contractor training in correct use of plant and equipment to minimise noise; • develop and implement a program to inspect and maintain mobile plant to ensure noise performance criteria are met; • comply with the standard construction hours of working; • establish a noise complaints procedure with contact phone number and logging and response protocols; and • review the use of mobile plant reversing alarms including altering work practices and/or replacing with less intrusive devices where practicable.	
Manage construction traffic	1.8	Prepare in consultation with the RTA and implement a traffic management plan for construction, including signs warning traffic on The Northern Road of the heavy vehicle entry.	Prior to commencement of construction work.
	1.9	Construct the intersection of the site access road and The Northern Road to Type AU in accordance with the RTA *Road Design Guide*	Prior to issue of occupation certificate
Minimise visual impact	1.10	Implement the following measures to reduce visual impact: • select external building finishes and colours to reduce glare and minimise visual obtrusiveness. • construct and landscape the mound along The Northern Road frontage and the northern site boundary as soon as possible after site activities commence; • plant a mixture of semi-advanced trees, shrubs and groundcover on the mound to achieve early coverage and height enhancement; • maintain and nurture the landscaping on the mound with appropriate mulching, frequent watering at first and frequent inspections to correct any wind or animal damage and to replace failed plantings; • plant additional trees in the south eastern corner of the site to further restrict diagonal views from northbound vehicles on The Northern Road; • plant additional trees in the southern section of the site to further restrict views from the adjoining residence to the south towards the development area; • during each stage of the development, when the frame of the main building or building extension has been erected, undertake a visual assessment from The Northern Road and with the agreement of	During construction and prior to issue of occupation certificate

Outcome	Commitment		Timing
		owners, from adjoining properties. Where it is practicable to reduce visual impact: • plant additional screening vegetation in strategic locations on the property, such as in the southern area, to further reduce visibility from The Northern Road and the residence to the south; • offer to residents on properties to the north to plant screening vegetation on their properties at locations agreed with them and if the offer is accepted, undertake the plantings for the residents to maintain; • during construction, minimise the area of physical disturbance to the land at any one time and revegetate any disturbed areas visible from beyond the site that are not required as hardstand.	
Protect cultural heritage	1.11	Implement the following protocols as required: • should any Aboriginal object be identified during construction, work should cease and notification given to the NSW OEH, a qualified archaeologist and Aboriginal representatives of the Deerubbin LALC. The archaeologist is to develop an appropriate mitigation or management strategy in consultation with OEH and DLALC and the EMP is to be amended accordingly; • should skeletal remains be discovered, cease work at the location and report the find to the police. If the remains prove to be of Aboriginal origin advise DECCW, a qualified archaeologist and Aboriginal representatives of the Deerubbin LALC.	During construction
Protect flora and fauna	1.12	Implement flora and fauna protection measures as follows: • avoid removing remnant trees wherever possible; • install temporary fencing to protect woodland remnants when undertaking construction work in the immediate vicinity that does not require disturbance of the woodland; • collect stormwater from the development in dams rather than directing it into woodland areas; • plant local native species from the Castlereagh Woodlands along The Northern Road frontage and elsewhere for landscaping to enhance the remnant of this community. A suitable species list has been provided. • manage the rural property during construction to maintain pasture and suppress weeds; • separately fence the groupings of threatened species located in the asset protection zone west of the spent substrate store and avoid disturbance to the fenced areas.	Prior to and during construction

2. Mushroom Farm - Operation

Outcome		Commitment	Timing
Environmental management	2.1	Prepare and subsequently implement an environmental management plan for operation consistent with this EA and conditions of approval.	Prior to issue of occupation certificate for each stage
Minimise operational noise	2.2	Operate the farm in a manner to maintain noise levels at nearby sensitive receptors within DECCW criteria.	During operation
	2.3	Implement operational noise mitigation measures as follows: • undertake detailed design of buildings and structures to meet specified noise attenuation criteria as indicated in Table 10 of the mushroom farm noise assessment report; • select mechanical plant and equipment to meet sound power levels and/or acoustic performance indicated in Table 10 of the noise assessment report (see below); • construct a noise mound along the northern boundary with finished level at least 2.5 metres above the floor level of the main building; • construct a noise mound along the eastern boundary with finished level at least 2.5 metres above existing ground level; • modify moving floor substrate trucks to incorporate acoustic enclosures for trailer motors and residential grade mufflers to achieve a minimum 3 dB(A) noise reduction and result in a sound power level in the order of Lw100 dB(A); • maintain truck airbrake release discharge noise levels to Lw115 dB(A) or less; • require trucks to operate on the access roads at speeds not exceeding 20 kph; • fit “quacker” reversing alarms to mobile plant where practicable; and • incorporate the noise management protocols within the environmental management plan for the site.	During operation
Avoid offensive odour	2.4	Implement odour controls as follows: • keep spent substrate retained on the site for refining under cover to prevent further wetting during rainfall; • turn and blend spent substrate from time to time to assist aeration; • remove collected solids from pit filters each week using a telescopic loader; and • manage and maintain the wash down water recycling system to prevent odour generation. • include in the environmental management plan a procedure for recording and responding to any complaints that may be received pertaining to operation of the facility	During operation

Outcome		Commitment	Timing
Effectively manage operational water	2.5	Manage the operation to prevent discharge of process water from the site and to maximise use of collected and recycled water.	During operation
	2.6	Adequately maintain the sewage treatment plant to ensure satisfactory operation.	During operation
	2.7	Adequately maintain the wash down water recycling system to ensure satisfactory operation.	During operation
	2.8	Maintain 100% ground cover over parts of the site not subject to building work or operations.	During operation
	2.9	Maintain perimeter mounds so that rainfall runoff will continue to flow to natural drainage without ponding.	During operation
Protect flora and fauna	3.0	Continue to suppress weeds on the development site and protect remaining trees.	During operation
Bushfire Protection	3.1	Implement the following measures to minimise bushfire risk: • establish and maintain a defendable space of 10 metres to the west, north and south of each building. The defendable space is to be a clear area with unimpeded access for fire fighting; • on sides of the spent substrate store where there is no concrete apron, include a three-metre hardstand area as part of the defendable space; • provide a static water supply (water tank, not dependent upon electricity for pumping) to supplement the reticulated supply; • use non-combustible external cladding to the main building; • provide ember protection to the spent substrate store in the form of drencher sprays to keep the contents damp during a bushfire event; • design the structures to have concrete floors, steel roof cladding, non-combustible flashing at roof intersections with no gaps and non-combustible gutters and downpipes; • fit steel mesh screens to all windows and personnel doors on the northern and western elevations; • maintain an asset protection zone for 24 metres to the north, east and western aspects of the buildings with shrub layer managed so as not to exceed five tonnes per hectare. Existing trees do not require removal, but branches should not come within five metres; • provide a reticulated water supply compliant with relevant standards capable of providing emergency supply for fire fighting; • provide a rubber fire hose of minimum diameter 18 millimetres capable of reaching all elevations of all buildings;	During operation

Outcome		Commitment	Timing
		• maintain vehicle access to the site in compliance with the standard and fire brigade access to the northern and western asset protection zones; • develop and adopt an emergency bushfire plan.	
Monitor performance	3.2	Continue to monitor operations as specified in the environment management plan	During operation

3. Substrate Plant - Construction

Outcome		Commitment	Timing
Environmental management	3.1	Prepare and subsequently implement an environmental management plan for construction, or modify the existing EMP, consistent with this EA and conditions of approval.	Prior to issue of construction certificate
	3.2	Instruct all construction personnel of the requirements for environmental management on the site.	Prior to and during construction
Minimise soil erosion and sediment deposition	3.3	Implement erosion and sediment controls consistent with the erosion and sediment control plan and keep in place with adequate maintenance until work is complete or they are no longer required.	Prior to commencement of earthworks and thereafter as long as necessary
	3.4	Progressively rehabilitate areas disturbed during construction with landscaping or hardstand as designed	During construction
Control nuisance dust	3.5	Implement the following dust mitigation measures: • limit vehicle speeds on unsealed surfaces; • maintain unsealed haul routes for fill trucks in a damp state; and • rehabilitate finished surfaces as soon as possible either with landscaping or hardstand, according to intended use.	During construction
Minimise construction noise	3.6	Implement construction noise mitigation measures as follows: • avoid operating the bulldozer and compactor simultaneously during filling operations; • when concrete pours are taking place, locate concrete trucks and pumps in a manner that will maximise screening to residential properties to the south and west; • construct the southern boundary wall or provide alternative noise attenuation in this location as early as practicable in the construction program; • adopt construction practices recommended by DECCW for best management and best available technology economically achievable; • select construction plant and equipment having regard to controlling noise emissions, including reversing alarm noise;	During construction

Outcome		Commitment	Timing
		• where practicable schedule the noisiest activities to occur during parts of the day when ambient noise levels are higher; • undertake audits at receiver locations to monitor noise from site construction; • establish a noise complaints procedure with contact phone number and logging and response protocols; • undertake construction activities in accordance with AS 2436:1981, *Guide to Noise Control on Construction, Maintenance and Demolition Sites*, with all equipment demonstrating compliance with the noise levels recommended in the standard.	
Manage construction traffic	3.7	Maintain the intersection of the site access road and Mulgrave Road in a safe condition suitable for heavy construction traffic including vehicles delivering fill.	During construction
Minimise visual impact	3.8	Implement measures to reduce visual impact of the development as follows: • commence screen planting around the periphery of the extended platform area as early as possible during the project; • during construction, minimise the area of physical disturbance to the land at any one time and revegetate any disturbed areas visible from beyond the site that are not required as hardstand; • mulch fill batters as soon as possible after completion and maintain them to achieve total vegetation cover; • continue to maintain previous landscaping and screen planting on the site to maximise screening of the plant; • incorporate building materials of the same colour and texture as used in the existing plant, which minimise glare and visual obtrusiveness.	During construction
Protect cultural heritage	3.9	Implement the following protocols as required: • should any Aboriginal object be identified during construction, work should cease and notification given to DECCW, a qualified archaeologist and Aboriginal representatives of the Deerubbin LALC. The archaeologist is to develop an appropriate mitigation or management strategy in consultation with OEH and DLALC and the EMP is to be amended accordingly; • should skeletal remains be discovered, cease work at the location and report the find to the police. If the remains prove to be of Aboriginal origin advise DECCW, a qualified archaeologist and Aboriginal representatives of the Deerubbin LALC.	During construction
Protect flora and fauna	3.10	Suppress weeds on the construction site and protect existing landscape planting that is to be retained.	During construction

4. Substrate Plant - Operation

Outcome		Commitment	Timing
Environmental management	4.1	Prepare and subsequently implement an environmental management plan for operation, or modify the existing EMP, consistent with this EA and conditions of approval.	Prior to issue of occupation certificate for each stage
Production limit	4.2	Maintain average weekly production of Phase 1 substrate within upper limits as follows: • Stage 1 1600 tonnes • Stage 2 2400 tonnes • Stage 3 3,200 tonnes	During operation
Minimise operational noise	4.3	Operate the plant in a manner to maintain noise levels at nearby sensitive receptors within DECCW criteria.	During operation
	4.4	Implement the following noise mitigation measures: • undertake detailed design of buildings and structures to meet requirements specified in section 7.4 of the substrate plant noise assessment report and where relevant, the assumptions in the acoustic review for modification 1, as follows: – Building walls (materials storage shed and bale breaking area) shall consist of concrete to a height of 2 metres above FFL followed by galvanised steel frame and galvanised wall/roof sheeting nominally 0.6 mm BMT and a minimum of Rw22; – Fan plant rooms for new pre-wet processing tunnels to south (Tunnels 1-6) and north (Tunnels 7-10) constructed with concrete walls (min Rw50) and composite roof/ceiling OR in situ concrete (min Rw40) – Penetration of fan rooms to be reviewed by acoustic consultant and appropriately detailed to avoid de=rating the structure; – New processing tunnels to be of concrete construction; – Construction materials of working hall between processing tunnels (1-6 and 7-10) typically concrete wall construction nominal installed noise reduction in the order of 40 dB (min Rw46) and composite roof/ceiling nominal installed noise reduction in the order of 25 dB (Rw31); – Proposed external fans identified on current design drawings (No 41, 42, 43, 44, 52, 53, 66, 67, and 68) to incorporate inlet/discharge attenuators; – Fan room intake for new Phase 2/3 building (Fan No 110-134 inclusive, 25 fans) subject to acoustic review; – Internal walls and roof of tunnels within phase 2/3 building precast or cast in situ concrete and/or hebel panels/blocks;	During operation

Outcome		Commitment	Timing
		– Building wall cladding (Phase 2/3 building) consisting of insulated colorbond sandwich panels consistent with existing Phase 2/3 building proving a nominal installed noise reduction in the order of 23 dB(A) (Rw28 or greater). – Building roof cladding consisting of sheet metal (min 0.42 BMT) over fibreglass building blanket and medium duty thermofoil or similar and insulated colorbond sandwich panel (ceiling) consistent with existing Phase 2/3 tunnel building providing a nominal installed noise reduction in the order of 28 dB(A) (Rw34 or greater). – Final details of building designs subject to acoustic review prior to final specification – Final design/tender specification to be reviewed by an acoustic consultant; • select mechanical plant and equipment to meet acoustic performance and where relevant, sound power levels and/or acoustic performance in Table 10 of the acoustic assessment report for the substrate plant (see below); • require trucks to operate on the access roads at speeds not exceeding 20 kph; • fit “quacker” reversing alarms to mobile plant where practicable; and • incorporate noise management protocols within the environmental management plan for the site.	
Avoid offensive odour	4.5	Design, build, operate and maintain the plant in a manner: • that does not cause offensive odour; • that restricts odour emissions to remain within limits specified in the environment protection licence.	During operation
	4.6	Continue to implement existing odour controls at the plant except where superseded by the modified proposal: • under-cover storage for raw materials to keep them dry; • fully enclosed processing areas for all potentially odour-generating activities; • air-under system in the pre-wet and Phase 1 tunnels to improve aeration of composting material; • automatic control system for fans to maintain optimum air supply and extraction; • enclosed conveyor transport for tunnel loading, dispatch loading and transfer to Phase 2/3 tunnels;	During operation

Outcome		Commitment	Timing
		• a monitoring system to detect any faults or operational anomalies and immediately send an alarm to the Duty Manager at any time of day.	
	4.7	Implement the following additional odour control measures: • construct the approved second emissions treatment plant to a new design incorporating ammonia scrubbers and biofilters, instead of constructing a second bioscrubber and second chimney; • install ductwork to convey extracted air from the current Phase 1 and pre-wet operating areas of the site and deliver it to the new emissions treatment plant; • enclose the raw materials courtyard to contain chicken manure dust and enable controlled air extraction from this area; • install exhaust ductwork from both the existing and future Phase 2/3 buildings; • provide an enclosed conveyor from the pre-wet building to the Phase 1 tunnel building replacing the vehicle passageway to speed up the material transfer process and reduce the potential for fugitive emissions from this operation; • provide controlled air extraction from all external conveyors.	
Effectively manage operational water	4.8	Manage the operation to prevent discharge of process water from the site and to maximise use of collected and recycled water.	During operation
Improve runoff water quality	4.9	Implement and maintain the stormwater modifications recommended in the stormwater management plan , including orifice plates, reed bed and bio-basin.	During construction and operation
Minimise visual impact	4.10	Continue to manage the landscaped areas to ensure the vegetation screen remains effective.	During operation
Protect flora and fauna	4.11	Continue to suppress weeds on the development site and protect remaining trees.	During construction
Monitor and report performance	4.12	Continue to monitor operations and report results as specified in the environment management plan	During operation

Table 10 of the mushroom farm noise assessment report

Table 10: Plant/Equipment Sound Power Levels L_{Aeq} re: 10^{-12} Watts

Plant Description	Sound Power Level								
	dB(A)	**63**	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**
Truck (moving)	101	98	102	101	97	94	94	91	80
Truck (idle)	91	88	92	91	87	84	84	81	70
Refrigerated Truck (SB310 refrig. unit)	93	90	94	93	89	86	86	83	72
JCB Telescopic Handler	105	109	99	99	100	101	99	95	93
Nufab Compost Turner	93	93	94	93	90	88	84	80	75
Head Filling Activities (truck engine, filling machine & peat loading)	103	113	107	95	100	94	96	92	85
Cooling Towers x2 (each) (AquaCool MSS 187LS3)	99	91	87	88	90	95	93	87	84
Compressors x 5 (total) (PowerPax TT400)	93	82	82	85	85	89	86	79	83
Steam Generator (ST302l)	99	89	89	94	94	96	93	87	82
Humidification Boiler (Saacke SR1000/PAG10A)	90	104	101	94	85	79	76	72	64
Plant Room (space averaged) [1]	95	84	84	87	87	91	88	81	85
North Air Intake [2]	85	74	74	77	77	81	78	71	75
Roof Air Discharge [2]	85	74	74	77	77	81	78	71	75
AHU Ridge Vents [3]	63	66	62	60	61	59	51	46	40

Note: 1 All fixed plant in purpose designed plant room resulting in space averaged SPL of 95dB(A)
2 Noise attenuation incorporated into plant room to result in source noise level of Lw85dB(A) for intake / discharge
3 AHU would be installed wholly within roof space. Source noise level based on Lw57 at discharge for AHU connected via ducted vents comprising a total of 74 vents, adjusted for 18 ridge top source points. AHU are ducted and could incorporate insulated ducting if required prior to discharge to meet specified limits.

Table 10 of the Substrate plant Noise assessment report

Table 10: External Plant/Equipment Sound Power Levels L_{Aeq} re: 10^{-12} Watts

Plant Description	Sound Power Level								
	dB(A)	63	125	250	500	1k	2k	4k	8k
Super Chill Condensers EWK-D680 (x6)	83	79	81	81	78	75	73	76	72
Compressor Room (external door) x2	80	79	75	77	76	76	70	69	63
Bioscrubber 2 Fans – each (x2)	107	-	106	104	107	100	98	92	-
Conveyor Drive – New Phase 3 (E-W)	80	72	74	72	77	76	72	63	55
Conveyor Belt – New Phase 3 (E-W)	70*	75	75	70	70	63	59	52	43
Conveyor Drive – New Phase 3 (N-S)	80	72	74	72	77	76	72	63	55
Conveyor Belt – New Phase 3 (N-S)	70*	75	75	70	70	63	59	52	43
Conveyor Drive – Pre Wet	80	72	74	72	77	76	72	63	55
Conveyor Belt – Pre Wet	70*	75	75	70	70	63	59	52	43
FEL – Volvo L90E	102	115	104	100	98	99	92	92	87
FEL – Volvo L150E	105	120	104	103	102	99	97	95	91
FEL – Komatsu WA320	104	114	102	100	102	99	96	93	86
Traymaster Blender	110	109	110	109	108	104	102	99	96
Pre-Wet Shed (average in shed)	85	84	85	84	83	79	77	74	71
Truck (moving)	101	98	102	101	97	94	94	91	80
Loading Activities (Phase 2/3 average in loading hall)	86	81	84	85	85	81	78	73	65
Loading Activities (Phase 2/3 external facade)	63	66	68	63	61	60	49	43	37

* sound power level per metre of conveyor