

Management & Mitigation Measures

State Significant Development 6820 – Proposed LWA Facility
780 Wallgrove Road, Horsley Park

PART G MANAGEMENT AND MITIGATION MEASURES

by Lumetum Pty Ltd
in relation to Proposed Light Weight Aggregate Facility
at 780 Wallgrove Road Horsley Park (Lot 7 in Deposited Plan 1059698)

Lumetum will undertake the construction and operation of the proposed LWA Facility in accordance with the following:

The following defines some of the terms and abbreviations used in this statement:

Approval	The Minister's approval to the Project
BCA	Building Code of Australia
Council	Fairfield City Council
Department	Department of Planning and Environment
Secretary-General	Secretary-General of the Department (or delegate)
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
Lumetum	Lumetum Pty Ltd
Project	The development as described in the EIS
Site	Land to which the project application applies
WorkCover	NSW WorkCover

ADMINISTRATIVE COMMITMENTS

Commitment to Minimise Harm to the Environment

1. Lumetum will implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction or operation of the project.

Occupation Certificate

2. Lumetum will ensure an Occupation Certificate is obtained prior to the occupation of the facilities.

Terms of Approval

3. Lumetum will carry out the project generally in accordance with the:
 - a) Environmental Impact Statement;
 - b) Drawings prepared by SBA Architects
 - c) Management and Mitigation Measures; and
 - d) Any Conditions of Approval.
4. If there is any inconsistency between the above, the Conditions of Approval shall prevail to the extent of the inconsistency.
5. Lumetum will ensure compliance with any reasonable requirement/s of the Secretary-General of the Department of Planning and Environment arising from the Department's assessment of:

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- a) Any reports, plans, programs, strategies or correspondence that are submitted in accordance with this Approval; and
- b) The implementation of any recommended actions or measures contained in reports, plans, programs, strategies or correspondence submitted by the Project Team as part of the application for Approval.

Structural Adequacy

6. Lumetum will ensure that all new buildings and structures on the site are constructed in accordance with the relevant requirements of the BCA

Construction Traffic Management Plan

7. Lumetum will ensure a Construction Traffic Management Plan is prepared and implemented in consultation with Council, and to the satisfaction of the Secretary-General. This plan will:
 - a) be submitted to the Secretary-General for approval prior to the commencement of construction;
 - b) describe the traffic volumes and movements to occur during construction;
 - c) detail proposed measures to minimise the impact of construction traffic on the surrounding network, including driver behaviour and vehicle maintenance; and
 - d) detail the procedures to be implemented in the event of a complaint from the public regarding construction traffic.

Operation of Plant and Equipment

8. Lumetum will ensure that all plant and equipment used on site is maintained and operated in proper and efficient manner, and in accordance with relevant Australian Standards and EPA License conditions.

SPECIFIC ENVIRONMENTAL COMMITMENTS

Noise

9. Construction on the site will only be undertaken between 7am and 6pm Monday to Friday, and 7am and 1pm on Saturdays. No construction will be allowed on site on Sundays or public holidays.

All operational noise measures will be complied with as per the undertakings given in the Noise Impact Assessment (Report No. 121005_Noise_Rep_Rev5) dated October 2015 prepared by Benbow Environmental.

Air

Construction Traffic

10. During construction:
 - a) all trucks entering or leaving the site with loads have their loads covered;
 - b) trucks associated with the project do not track dirt onto the public road network; and
 - c) the public roads used by these trucks are kept clean.

Dust Management

11. During the construction and operation phase of the project, all reasonable and feasible measures to minimise the dust generated by the project as summarised below:

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Dust Control Measures To be implemented at all times	Trigger for Additional Mitigation Measures	Additional Mitigation Measures
Use of water sprays for crushing operations	Significant visible dust plumes emanating within the Project site boundary or Critical Wind Alert (i.e. wind speeds > 7.5m/sec in any direction) for at least two consecutive hours	Increase intensity of water sprays
Use of water sprays for grinding and screening operations		Increase intensity of water sprays
Use of watercarts to water unpaved surfaces twice a day		Increase frequency of watering to four times a day
Imposing speed restrictions of 40km/hour for all light and heavy vehicles whilst travelling on any unsealed surfaces		Reduction of hauling speed to 30 km/hr
Use of water sprays during conveying of material		Increase intensity of water sprays
Provision of wind breaks and watering of stockpiles to minimise wind erosion		Increase intensity of water sprays
Progressive vegetation or rehabilitation for any large exposed areas		Use of water sprays
Covering haul trucks while transporting material to and from the Project site		Ensuring all haul trucks are fully covered
Minimising spillage from loading and unloading operations.		Ensuring spillage is minimum
Cleaning spillage as soon as practicable.		Expedite cleaning of any material spillage

Flue Emissions

- Air pollution control measures will be implemented to reduce flue gas emissions generated from Stage 1 and Stage 2 LWA manufacturing including – baghouse for controlling particulate emissions and metals, lime scrubber for reducing acid gas concentrations and integrated RTO-SNCR system for effectively reducing organic and NOx emissions. These proposed control measures are to be designed and managed / maintained effectively to ensure that the estimated control efficiencies are achieved at all times and that the emission levels comply with the Group 6 emission standards. Additionally, Lumetum would be installing a Cascade Scrubber system for the existing Plant 2 operations to reduce fluoride emissions. The Cascade Scrubber would be installed on Plant 2 prior to undertaking construction and operation works for the Stage 1 LWA operations.

Fugitive Emissions

- Control measures identified above would be implemented at all times to minimise and manage fugitive dust emissions.
- Enclosed infrastructures – material handling activities including crushing, grinding and screening operations will be conducted in enclosed facilities.

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Waste Management

15. Lumetum will ensure that all waste generated on site during operation is classified in accordance with the Office of Environmental and Heritage's *Waste Classification Guidelines: Part 1 Classifying Waste* and disposed of to a facility that may lawfully accept the waste.

Biodiversity Offset

16. Lumetum will prepare a Biodiversity Offset Strategy prior to approval which will identify biodiversity offset measures to satisfy the number of credits.

Vegetation Management

17. Lumetum will implement the following mitigation measures:

Pre-construction phase:

- Native vegetation to be retained that is in close proximity to the Development Site should be protected through a 1.8m high fence that is erected prior to demolition, construction and re-contouring of the landscape.
- Sediment and erosion control measures are to be installed immediately prior to the commencement of demolition, construction and earthworks.

Construction phase:

- Sediments are to be effectively retained within the site to minimise deterioration water quality during the construction works.
- Sediment deposition and water quality (Routine Environmental Nutrients and turbidity) is to be monitored before, during and after development to ensure that surface water quality is maintained to acceptable receiving water standards within Eastern Creek.
- Eastern Creek (watercourse 1):
 - Protect the watercourse from all proposed works within 20m of the top of bank;
 - Undertake target weed removal and regeneration within Eastern Creek immediately adjacent to the proposed works;
 - Stabilise overland flows from the existing basins into the creek (currently directed over a vegetated embankment);
 - Filter all runoff through wetland beds or sedge filter zones; and
 - Undertake restoration revegetation works to expand the width of the riparian corridor to compensate for any perceived loss in the 'riparian protection zone'.
- Unnamed watercourse (watercourse 2) – first order stream – 10m from top of bank:
 - Declassify as a watercourse to drainage line;
 - Provide a recreated watercourse with a minimum 10m fully vegetated riparian protection zone;
 - Remove fill, stabilise and revegetate with Swamp Oak Forest and or reconstruction of wetland and frog habitat; and
 - Stabilise the channels and discharge point into Eastern Creek.

Post construction phase:

- Loss of vegetation compensated by the planting of River-flat Eucalypt Forest vegetation along the remaining degraded western fringes of the site adjacent to Eastern Creek and the planting of Cumberland Plain Woodland vegetation along the remaining degraded eastern fringes of the site. Revegetation will enhance these areas to provide north-south connectivity as well as replace foraging trees for birds and bats. A 0.5 ha rehabilitation area has been proposed in the north western corner of the Austral Bricks land to compensate for the loss of habitat and existing vegetation caused by the proposal.
- Aim to filter any runoff through sedge planted filters to minimise deposition within Eastern creek of associated drainage lines.

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- Target weed control should be undertaken across all retained vegetation, focussing upon invasive and noxious weed species.
- Undertaken survey for a monitor the utilisation for the site for any threatened frog species such as Green and Golden Bell Frog and if present provide alternative artificial habitat free from disturbance.