

Project Approval

Section 75J of the *Environmental Planning & Assessment Act 1979*

I, the Minister for Planning and Infrastructure, approve the project application referred to in Schedule 1, subject to the conditions in Schedule 2.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- ensure regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.



The Hon Brad Hazzard MP
Minister for Planning and Infrastructure

Sydney 9 NOV 2011 2011 File No: 09/01422

SCHEDULE 1

Application No.:	MP 10_0052
Proponent:	NSW Roads and Traffic Authority
Approval Authority:	Minister for Planning and Infrastructure
Land:	Land generally within and in the vicinity of the existing M5 South West Motorway corridor between King Georges Road, Beverly Hills and Camden Valley Way, Prestons within the Canterbury, Bankstown and Liverpool local government areas.
Project:	M5 West Widening Project, including: • an additional westbound and eastbound lane between King Georges Road, Beverly Hills and Camden Valley Way, Prestons; • variable message signage at a number of locations within the project corridor and on the surrounding road network; • an operations management control system including construction of a new control building in the toll plaza at Hammondville; • reconfiguration of the Hammondville Toll Plaza layout; and • construction of new drainage basins and augmentation of existing drainage basins within the project corridor.
Major Project:	The proposal is declared a major project under section 75B(1)(b) of the <i>Environmental Planning and Assessment Act 1979</i> , by virtue of an order made by the then Minister for Planning and gazetted on 12 March 2010.
Critical Infrastructure:	The proposal is declared to be critical infrastructure under section 75C of the <i>Environmental Planning and Assessment Act 1979</i> , by virtue of an order made by the then Minister for Planning and gazetted on 12 March 2010.

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DEFINITIONS

Act, the	<i>Environmental Planning and Assessment Act 1979</i>
Ancillary facility	Temporary facility for construction including, for example, an office and amenities compound, construction compound, batch plant (concrete or bitumen), materials storage compound, maintenance workshop, testing laboratory or material stockpile area.
Conditions of Approval	The Minister's conditions of approval for the project.
Construction	Includes all work in respect of the project other than survey; acquisitions; fencing; investigative drilling or excavation; building/road dilapidation surveys; minor clearing (except where heritage, threatened species, populations or endangered ecological communities would be affected); or other activities determined by the Environmental Representative to have minimal environmental impact (e.g. minor access roads and adjustments to services/utilities, etc).
Department, the	NSW Department of Planning and Infrastructure
Director General, the	Director General of the NSW Department of Planning and Infrastructure
Director General's Approval	A written approval from the Director General (or delegate). Where the Director General's approval is required under a condition of this approval, the Director General will endeavour to provide a response within one month of receiving an approval request. The Director General may ask for additional information if the approval request is considered incomplete. When further information is requested the time taken for the Proponent to respond in writing will be added to the one month period.
Feasible and Reasonable	Consideration of best practice taking into account the benefit of proposed measures and their technological and associated operational application in the NSW and Australian context. Feasible relates to engineering considerations and what is practical to build. Reasonable relates to the application of judgement in arriving at a decision, taking into account mitigation benefits and cost of mitigation versus benefits provided, community views and nature and extent of potential improvements. Where requested by the Director General, the Proponent shall provide evidence as to how feasible and reasonable measures were considered and taken into account.
High-noise generating activities	Means jack hammering, rock breaking or hammering, pile driving, vibratory rolling, cutting of pavement, concrete or steel or other work occurring on the surface that generates noise with impulsive, intermittent, tonal or low frequency characteristics.
Minister, the	Minister for Planning and Infrastructure
Motorway	The M5 South West Motorway corridor between King Georges Road, Beverly Hills and Camden Valley Way, Prestons.
Operation	Means the operation of the project, but does not include commissioning trials of equipment or temporary use of parts of the project during construction.
Project	The project that is the subject of Major Project Application 10_0052.
Proponent	NSW Roads and Traffic Authority
Publicly available	Available for inspection by a member of the general public (for example available on an internet website or at a local display site).
Relevant council	Canterbury, Bankstown and/or Liverpool City Council as applicable.
Sensitive receiver	Residence, educational institution (e.g. school, university, TAFE college), health care facility (e.g. nursing home, hospital) and religious facility (e.g. church).

SCHEDULE 2

PART A - ADMINISTRATIVE CONDITIONS

TERMS OF APPROVAL

- A1. The Proponent shall carry out the project generally in accordance with the:
- (a) Major Projects Application 10_0052;
 - (b) *M5 West Widening – Environmental Assessment* (Volumes 1, 2 and 3), prepared by Manidis Roberts and dated September 2010;
 - (c) *M5 West Widening – Submissions and Preferred Project Report* (Volumes 1 and 2), prepared by the NSW Roads & Traffic Authority and dated May 2011, including the revised Statement of Commitments contained therein; and
 - (d) conditions of this approval.
- A2. In the event of an inconsistency between:
- (a) the conditions of this approval and any document listed from condition A1(a) to A1(c) inclusive, the conditions of this approval shall prevail to the extent of the inconsistency; and
 - (b) any document listed from condition A1(a) to A1(c) inclusive, the most recent document shall prevail to the extent of the inconsistency.
- A3. The Proponent shall comply with any reasonable requirement(s) of the Director General arising from the Department's assessment of:
- (a) any reports, plans or correspondence that are submitted in accordance with this approval; and
 - (b) the implementation of any actions or measures contained within these reports, plans or correspondence.
- A4. Subject to confidentiality, the Proponent shall make all documents required under this approval available for public inspection on request.

LIMITS OF APPROVAL

- A5. This approval shall lapse five years after the date on which it is granted, unless works that are the subject of this project approval are physically commenced on or before that date.
- A6. This approval does not negate the Proponent's obligations under any existing approvals under the *Environmental Planning and Assessment Act 1979*, applicable to the M5 South West Motorway.

STATUTORY REQUIREMENTS

- A7. The Proponent shall comply with all relevant Australian Standards and Codes (including Building Code of Australia) and ensure that all necessary licences, permits and approvals required for the development of the project are obtained and maintained as required throughout the life of the project. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such necessary licences, permits or approvals except as provided under section 75U of the *Environmental Planning and Assessment Act 1979*. This shall include relevant certification requirements in accordance with section 109R of the *Environmental Planning and Assessment Act 1979*.

STAGING

- A8. The Proponent may elect to construct and/or operate the project in stages. Where staging of the project is proposed, these conditions of approval are only required to be complied with at the relevant time and to the extent that they are relevant to the specific stages of works. Where staging is proposed, the Proponent shall submit a Staging Report to the Director General for approval prior to the commencement of the first proposed stage, which provides details of:
- (a) how the project would be staged including general details of work activities associated with each stage and the general timing of when each stage would commence; and
 - (b) the relevant conditions of approval which would apply to each stage and how these will be addressed across and between the stages of the project.

- A9. The Proponent shall ensure that an updated Staging Report (or advice that no changes to staging are proposed) is submitted to the Director General for approval prior to the commencement of each stage, identifying any changes to proposed staging or applicable conditions.
- A10. The Proponent shall ensure that all plans, sub-plans, reports and other management documents required by the conditions of this approval and relevant to each stage (as identified in the Staging Report) are submitted to the Director General for approval no later than four weeks prior to the commencement of the relevant stage(s), unless an alternative timeframe is agreed to by the Director General.
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PART B – PRIOR TO CONSTRUCTION

TRAFFIC AND ACCESS

Dilapidation Reporting

- B1. The roads likely to be used by heavy construction vehicles shall be identified in the Construction Traffic Management Sub-plan required under condition B27(a) of this approval. Road dilapidation reports shall be prepared for local roads identified to be used by construction traffic, and a copy of the report(s) shall be provided to the relevant council(s) prior to the use of the roads by heavy construction vehicles.

Access

- B2. Where approved access to a property is to be affected by the construction of the project, the Proponent shall provide, unless otherwise agreed with the property owner, an alternative access of a standard that is at least equivalent to that currently existing and meets relevant road safety standards, prior to affecting access. Details for provision of altered access shall be determined in consultation with the property owner.

BIODIVERSITY

Clearing

- B3. Prior to commencement of clearing, the Proponent shall implement mitigation measures, as identified in the Flora and Fauna Management Sub-plan required under condition B27(b) of this approval, to minimise impacts to native vegetation (particularly threatened species and endangered ecological communities and their habitat), including areas not proposed to be cleared as part of the project. The Proponent shall ensure that clearing of native vegetation is limited to the minimal extent required for the construction and operation of the project.

Fauna Roosting and Habitat Measures

- B4. Prior to the commencement of any clearing, a qualified and experienced ecologist shall undertake a survey to determine whether any hollow bearing trees need to be removed. Should site investigations reveal the need to remove tree hollows to construct and/or operate the project, the Proponent shall provide replacement hollows for displaced fauna. Each hollow shall be replaced by nest boxes at a ratio of 2:1 and in a location determined by the project ecologist.
- B5. Prior to the commencement of construction in the vicinity of bridges, culverts and hollow-bearing trees, targeted survey(s) shall be undertaken for microbat roosting sites, by a qualified and experienced microbat specialist. If microbats or evidence of roosting are discovered during these survey(s), no works that impact on microbats are to commence in these areas until such time that the microbat management strategy required under condition B27(b)(vi) has been approved by the Director General and implemented. The mitigation and management measures are to be determined by the microbat specialist.

Mitigation Measures - *Acacia pubescens* (Downy Wattle)

- B6. Prior to the commencement of construction that would result in the disturbance of *Acacia pubescens*, the Proponent shall, in consultation with the NSW Office of Environment and Heritage, develop a management plan for this species which includes, but is not necessarily limited to:
- (a) mitigation measures to be implemented during construction to avoid and minimise impacts to areas identified to contain this species, including impacts arising from the use and storage of construction plant, equipment and materials;
 - (b) identification of suitable recipient sites where the species is to be translocated;
 - (c) details of the mechanisms that will be used to secure the recipient sites from future development;
 - (d) identification of the translocation method(s) to be used;
 - (e) details on the ongoing management of the translocated specimens and sites including responsibilities;
 - (f) details of the proposed propagation program, including timing and responsibilities; and

- (g) a process for incorporating appropriate biodiversity offsets for *Acacia pubescens* in the Biodiversity Offset Strategy referred to in condition B8 of this approval should translocation not be feasible, or where the monitoring undertaken as part of conditions B27(b)(vii) and E7 of this approval indicates that translocation measures have not been successful (as identified through performance criteria).

The management plan is to be consistent with the *Guidelines for the Translocation of Threatened Plants in Australia – Second Edition* (Australia Network for Plant Conservation, 2004).

Unless otherwise agreed by the Director General, the plan shall be submitted for the Director General's approval at least four weeks prior to the commencement of any construction that would result in the disturbance of *Acacia pubescens*. Nothing in this condition precludes the inclusion of this plan in the Flora and Fauna Management Sub-plan required under condition B27(b) of this approval.

***Litoria aurea* (Green and Golden Bell Frog)**

- B7. The Proponent shall prepare and submit for the approval of the Director General a management plan that identifies the strategies that would be implemented in the event that the Green and Golden Bell Frog is identified during pre-construction and construction works, including works associated with drainage infrastructure, the establishment of ancillary facilities, spoil reuse areas, and clearing. The plan shall be developed in consultation with the NSW Office of Environment and Heritage and include details of the mitigation measures to be implemented to minimise the risk to this species, including direct and indirect impacts to its habitat. The plan is to be submitted to the Director General at least four weeks prior to any of the aforementioned works proceeding, unless otherwise agreed by the Director General. Nothing in this condition precludes the inclusion of this plan in the Flora and Fauna Management Sub-plan required under condition B27(b) of this approval.

Offsets

- B8. The Proponent shall develop a **Biodiversity Offset Strategy** that identifies options for offsetting the biodiversity impacts of the project in perpetuity, with consideration to the *Principles for the Use of Biodiversity Offsets in NSW* (NSW Office of Environment and Heritage website). The Strategy shall include, but not necessarily be limited to:
 - (a) the aims and objectives of the biodiversity offset strategy;
 - (b) confirmation of the vegetation communities/habitat (in hectares) to be cleared and their condition;
 - (c) identification of the vegetation communities/habitat to be offset, including justification for communities/habitat discounted as requiring offsetting;
 - (d) a description of the methodology to be used to determine the offsets required;
 - (e) details of the available offset measures that are available to compensate for the loss of threatened species and vulnerable and endangered ecological communities and/or their habitats, and native vegetation (including mangroves, salt marsh and riparian vegetation). The measures shall achieve a neutral or net beneficial outcome for all the biodiversity values likely to be impacted directly or indirectly during both the construction and operational phases of the project;
 - (f) the decision-making framework that would be used to select the final suite of offset measures to achieve the aims and objectives of the Strategy, including the ranking of offset measures;
 - (g) a process for addressing and incorporating offset measures arising from changes in biodiversity impacts (where these changes are generally consistent with the biodiversity impacts identified for the project in the documents listed under condition A1 of this approval) resulting from -
 - (i) changes to the footprint due to detailed design,
 - (ii) changes to predicted impacts as a result of changes to mitigation measures, and
 - (iii) identification of additional species/specimens and/or habitat during pre-clearing surveys, construction or the establishment of ancillary facilities;

- (h) a commitment to manage any offset sites in perpetuity; and
- (i) identification of the mechanisms that will be used to secure the offset.

The Biodiversity Offset Strategy shall be developed in consultation with the NSW Office of Environment and Heritage and submitted to the Director General for approval at least four weeks prior to the commencement of any construction work that could result in the disturbance of any native vegetation, unless otherwise agreed by the Director General.

- B9. Within 12 months of the approval of the Biodiversity Offset Strategy, the Proponent shall prepare and submit a **Biodiversity Offset Package** for the approval of the Director General, unless otherwise agreed by the Director General. The Package shall be developed in consultation with the NSW Office of Environment and Heritage and shall include, but not necessarily be limited to:
- (a) details of the final suite of biodiversity offset measures to be implemented for the project demonstrating how it achieves the aims and objectives of the Biodiversity Offset Strategy required to be prepared under condition B8 of this approval;
 - (b) the final selected means of securing the biodiversity values of the offset package in perpetuity, including ongoing management, maintenance and monitoring requirements; and
 - (c) timing and responsibilities for the implementation of the provisions of the Package.

The requirements of the Biodiversity Offset Package shall be implemented by the responsible parties according to the timeframes set out in the Package, unless otherwise agreed by the Director General.

NOISE

Operational Noise Mitigation Review

- B10. Unless otherwise agreed by the Director General, upon completion of the detailed design and prior to commencing work on noise barriers, the Proponent shall, in consultation with the NSW Office of Environment and Heritage, prepare and submit for the approval of the Director General, a review of the operational noise mitigation measures proposed to be implemented for the project. The review shall:
- (a) confirm the operational noise predictions of the project based on detailed design;
 - (b) include targeted noise model validation that compares traffic noise measurements against modelled noise levels using traffic count data and, where available, actual speed data acquired during the noise measurement period;
 - (c) include traffic noise emanating from the Georges River West bridge crossing;
 - (d) where the confirmed operational noise predictions are higher than the predictions set out in Appendix C of volume 2 of the document listed under condition A1(c) of this approval, review the suitability of the operational noise mitigation measures identified in Appendix C to achieve, where feasible and reasonable, the criteria outlined in the *Environmental Criteria for Road Traffic Noise* (Environment Protection Authority, 1999), based on the operational noise performance of the project predicted under (a) above;
 - (e) where necessary, investigate and identify additional feasible and reasonable noise mitigation measures to achieve the criteria outlined in the *Environmental Criteria for Road Traffic Noise* (Environment Protection Authority, 1999); and
 - (f) identify all sensitive receiver locations where architectural treatments shall be considered.
- B11. The Operational Noise Mitigation Review shall include noise monitoring at representative locations:
- (a) to the north and the south of the Motorway between the Hume Highway, Casula and the Georges River West; and
 - (b) to the south of the Motorway between Camden Valley Way, Prestons and Kurrajong Road, Prestons,
- and incorporate the noise monitoring results in the modelling.

Monitoring shall be undertaken prior to commencing construction works, unless otherwise agreed by the Director General.

- B12. The Proponent shall confirm to the Director General the accuracy of the traffic data used in the modelling in the operational noise mitigation review required under condition B10 of this approval.

Architectural Treatment at Sensitive Receivers

- B13. Within four weeks of the Director General's approval of the report required by condition B10 of this approval, the Proponent shall write to each landowner whose property is identified as eligible for architectural treatment (as per condition B10 of this approval), offering to provide and fund feasible and reasonable architectural treatments to reduce the impact of operational traffic noise at the affected premises.

The Proponent's offer shall remain open for acceptance by the affected landowner for at least 12 months from the date of the notification required under this condition.

- B14. Acoustic treatments agreed between the parties shall be implemented as soon as practicable after reaching such an agreement.

SEDIMENTATION, EROSION, SOILS AND WATER QUALITY

- B15. Erosion and sediment control measures shall be implemented consistent with the documents *Managing Urban Stormwater: Soils and Construction* (Landcom, 2006) and *Managing Urban Stormwater: Soils and Construction - Volumes 2A Installation of Services and 2D Main Road Construction* (Department of Environment and Climate Change, 2008).
- B16. The Proponent shall ensure that any works in identified areas of acid sulfate soil risk are undertaken in accordance with the *Acid Sulfate Soil Manual* (Acid Sulfate Soil Management Advisory Committee, 1998).

HYDROLOGY AND FLOODING

- B17. Prior to the commencement of construction, the Proponent shall undertake further hydrological and hydraulic modelling based on the detailed design of the project to determine the ability of the receiving drainage systems to effectively convey pavement drainage from the Motorway. The modelling report shall be prepared in consultation with the relevant council(s) and shall:
- (a) confirm the location, size, and capacity of all drainage basin structures associated with the construction and operation of the project;
 - (b) assess the potential impacts of pavement drainage discharges from the Motorway drainage systems on the receiving environment including the hydrology (water quality and quantity) of receiving waterways, riparian vegetation, aquatic ecology and property;
 - (c) identify all feasible and reasonable mitigation measures to be implemented where pavement drainage from the Motorway drainage systems adversely impacts on the receiving environment;
 - (d) where pavement drainage from the Motorway flows to a council stormwater drainage system, confirm the location of the cross drainage point and, where available, use drainage information obtained from the relevant council, to -
 - (i) confirm the capacity of the councils' drainage system and its ability to receive and convey the flows,
 - (ii) identify any consequent upstream and downstream impacts on cross drainage infrastructure capacity,
 - (iii) assess the impacts on the receiving environment at the final outflow point resulting from any additional flow volume (including, but not limited to, scour, flooding, water quality impacts, and impacts on riparian vegetation, aquatic ecology and property), and
 - (iv) identify all feasible and reasonable mitigation measures to be implemented where increased flows through cross drainage systems adversely impact on council drainage infrastructure and the receiving environment; and
 - (e) set out a clear time frame for the implementation of mitigation measures.

The modelling report shall be submitted to the Director General at least four weeks prior to the commencement of any new drainage works or modifications to existing drainage works, unless otherwise agreed by the Director General.

URBAN DESIGN AND LANDSCAPING

B18. The Proponent shall prepare and implement an **Urban Design and Landscape Plan** for the project. The Plan shall be prepared in consultation with the relevant council(s) and shall present an integrated urban design for the project. The Plan shall include, but not necessarily be limited to:

- (a) a principal goal of achieving the urban design objectives outlined in Section 6, Appendix F, Volume 2 of the document referred to in condition A1(c) of this approval;
- (b) details of the location of existing vegetation, landscaping and design features;
- (c) graphics, such as sections, perspective views and sketches, for key elements of the project (including, but not limited to built elements);
- (d) a description of locations along the project corridor directly or indirectly impacted by the construction of the project (including temporary ancillary facilities and spoil reuse areas) and details of the strategies to progressively rehabilitate/ regenerate/revegetate the locations, including species to be replanted/revegetated, shall be provided, including their appropriateness to the area and considering existing vegetation and habitat for threatened species;
- (e) an assessment of the visual screening affects of existing vegetation and the proposed landscaping;
- (f) strategies for progressive landscaping of other environmental controls such as erosion and sedimentation controls, drainage, and noise mitigation;
- (g) a description of the location and design treatments for built elements of the project (as described in Schedule 1 of this approval) including retaining walls, cuttings, embankments, noise barriers, bridge modifications and signage;
- (h) location and design treatments for any other features such as lighting (in accordance with *AS 4282-1997 Control of the Obtrusive Effect of Outdoor Lighting*) and fencing;
- (i) evidence of consultation with the community on the proposed urban design and landscape measures prior to finalisation of the Plan; and
- (j) monitoring and maintenance procedures for the built elements and landscaping (including weed control) including responsibilities, timing and duration, and contingencies where landscaping measures fail.

The Plan shall be submitted for the approval of the Director General within six months of the commencement of construction of the project, unless otherwise agreed by the Director General.

COMPLIANCE TRACKING

B19. The Proponent shall develop and implement a **Compliance Tracking Program** to track compliance with the requirements of this approval. The Program shall be submitted to the Director General for approval prior to the commencement of construction and shall be applied during construction and for a minimum of one year following commencement of operation. The program shall include, but not necessarily be limited to:

- (a) provisions for the notification of the Director General of the commencement of works prior to the commencement of construction and prior to the commencement of operation of the project (including prior to each stage, where works are being staged);
- (b) provisions for periodic review of project compliance with the conditions of this approval, Statement of Commitments and documents listed under condition A1 of this approval;
- (c) provisions for periodic reporting of compliance status against the conditions of this approval, Statement of Commitments and documents listed under condition A1 of this approval to the Director General including at least four weeks prior to the commencement of construction and the commencement of operation of the project and at other intervals during the construction and operation, as identified in the Program;
- (d) provision for reporting of the results of monitoring undertaken in accordance with the conditions of this approval, to the Director General and NSW Office of Environment and Heritage;

- (e) a program for independent environmental auditing of the environmental performance of the project (that is, environmental management systems, procedures and measures) in accordance with *ISO 19011:2003 - Guidelines for Quality and/ or Environmental Management Systems Auditing*;
- (f) mechanisms for recording incidents and actions taken in response to those incidents;
- (g) provisions for reporting environmental incidents, as defined in the Construction Environmental Management Plan required under condition B26 of this approval, to the Director General during construction; and
- (h) procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management.

COMMUNITY INFORMATION AND INVOLVEMENT

Provision of Electronic Information

- B20. Prior to the commencement of construction, the Proponent shall establish and maintain a new website, or dedicated pages within an existing website, for the provision of electronic information associated with the project. The Proponent shall, subject to confidentiality, publish and maintain up-to-date information on the website or dedicated pages including, but not necessarily limited to:
- (a) information on the current implementation status of the project;
 - (b) a copy of the documents referred to under condition A1 of this approval, and any documentation supporting modifications to this approval that may be granted from time to time;
 - (c) a copy of this project approval and any future modifications to this approval;
 - (d) a copy of each relevant environmental approval, licence or permit required and obtained in relation to the project;
 - (e) a copy of each current strategy, plan, program or other document required under this approval; and
 - (f) the outcomes of compliance tracking in accordance with the requirements of condition B19 of this approval.

Complaints and Enquiries Procedure

- B21. Prior to the commencement of construction, the Proponent shall ensure that the following are available for community complaints and enquiries during the construction and operation of the project:
- (a) a telephone number on which complaints and enquiries about construction and operation activities may be registered;
 - (b) a postal address to which written complaints and enquiries may be sent; and
 - (c) an email address to which electronic complaints and enquiries may be transmitted.

The telephone number, the postal address and the email address shall be published in a newspaper circulating in the local area prior to the commencement of construction and prior to the commencement of project operation. The above details shall also be provided on the website (or dedicated pages) required by this approval.

- B22. The Proponent shall prepare and implement a **Complaints Management System** consistent with *AS 4269 Complaints Handling* prior to the commencement of construction activities and shall maintain the System for the duration of construction activities and operation of the project.

Information on all complaints received, including the means by which they were addressed and whether resolution was reached and whether mediation was required or undertaken, shall be maintained by the Proponent and included in a complaints register. The information contained within the System shall be made available to the Director General on request.

Community Involvement

- B23. The Proponent shall prepare and implement a **Community Communication Strategy** for the project. This Strategy shall be designed to provide mechanisms to facilitate communication between the Proponent, the Contractor, the Environmental Representative, relevant councils and local community (broader and local stakeholders) on the detailed design, construction and environmental management of the project. The Strategy shall include, but not necessarily be limited to:
- (a) identification of stakeholders to be consulted as part of the Strategy, including public and private transport users, and affected and adjoining landowners;
 - (b) procedures and mechanisms for the regular distribution of information to stakeholders on the progress of the project and matters associated with environmental management, including processes for consulting and/or notifying sensitive receivers of construction activities to be undertaken outside of the standard hours of construction as set out in condition C11 of this approval;
 - (c) procedures and mechanisms through which stakeholders can discuss or provide feedback to the Proponent and/or Environmental Representative in relation to the environmental management and delivery of the project;
 - (d) procedures and mechanisms through which the Proponent can respond to any enquires or feedback from stakeholders in relation to the environmental management and delivery of the project; and
 - (e) procedures and mechanisms that would be implemented to resolve any issues/disputes that may arise between parties on the matters relating to the environmental management and delivery of the project. This may include the use of an appropriately qualified and experienced independent mediator.
- B24. Key issues to be addressed in the Community Communication Strategy shall include, but not necessarily be limited to:
- (a) traffic management (including access, construction vehicle management and parking);
 - (b) landscaping and urban design matters;
 - (c) air quality;
 - (d) erosion and sediment control;
 - (e) noise and vibration mitigation and management; and
 - (f) construction timetable and construction progress.

The Proponent shall maintain and implement the Strategy throughout construction of the project. The Strategy shall be submitted to the Director General for approval at least four weeks prior to the commencement of construction, or as otherwise agreed to by the Director General.

ENVIRONMENTAL MANAGEMENT

Environmental Representative

- B25. Prior to the commencement of construction of the project, or as otherwise agreed by the Director General, the Proponent shall nominate for the approval of the Director General a suitably qualified and experienced Environment Representative(s) that is independent of the design (including preparation of documentation referred to in condition A1 of this approval), and construction personnel. The Proponent shall employ the Environmental Representative(s) for the duration of construction, or as otherwise agreed by the Director General. The Environment Representative(s) shall:
- (a) be the principal point of advice in relation to the environmental performance of the project;
 - (b) be consulted in responding to the community concerning the environmental performance of the project;
 - (c) monitor the implementation of all environmental management plans and monitoring programs required under this approval;
 - (d) monitor the outcome of all environmental management plans and advise the Proponent upon the achievement of all project environmental outcomes;

- (e) have responsibility for considering and advising the Proponent on matters specified in the conditions of this approval, and all other licences and approvals related to the environmental performance and impacts of the project;
- (f) ensure that environmental auditing is undertaken in accordance with the requirements of condition B19(e) of this approval and the project's Environmental Management System(s);
- (g) be given the authority to approve/reject minor amendments to the Construction Environment Management Plan. What constitutes a "minor" amendment shall be clearly explained in the Construction Environment Management Plan required under condition B26 of this approval; and
- (h) be given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur.

Construction Environmental Management Plan

- B26. Prior to the commencement of construction, the Proponent shall prepare and (following approval) implement a **Construction Environmental Management Plan** for the project. The Plan shall outline the environmental management practices and procedures to be followed during construction, and shall be prepared in consultation with relevant agencies and in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004). The Plan shall include, but not necessarily be limited to:
- (a) a description of the activities to be undertaken during construction of the project or stages of construction, as relevant;
 - (b) statutory and other obligations that the Proponent is required to fulfil during construction including all approvals, consultations, and key legislation and policies. Evidence of consultation with relevant public authorities, shall be included identifying how issues raised by these public authorities have been addressed in the Plan;
 - (c) a description of the roles and responsibilities for all relevant employees involved in the construction of the project, including relevant training and induction provisions for ensuring that all employees, including contractors and sub-contractors, are aware of their environmental and compliance obligations under these conditions of approval;
 - (d) identification of ancillary facility site locations and spoil reuse sites;
 - (e) an environmental risk analysis to identify the key environmental performance issues associated with the construction phase, and details of how environmental performance would be monitored and managed to meet acceptable outcomes including what actions will be taken to address identified potential adverse environmental impacts. In particular, the following environmental performance issues shall be addressed in the Plan -
 - (i) measures to monitor and manage **dust emissions** including wind-blown, traffic-generated dust, dust from stockpiles, and material tracking from construction sites onto public roads,
 - (ii) measures to minimise **hydrology** impacts, including measures to stabilise bank structures as required,
 - (iii) measures to monitor and manage impacts associated with the construction and operation of **ancillary facilities**,
 - (iv) protocols for construction works in areas of potential or actual **acid sulfate soils**, including procedures for the investigation, handling, treatment and management of such soils and water seepage,
 - (v) measures for the handling, treatment and management of **contaminated soils**,
 - (vi) measures to monitor and manage **waste** generated during construction including, but not necessarily limited to, general procedures for waste classification, handling, reuse, and disposal, how contaminated materials would be handled and disposed, use of secondary waste material in construction wherever feasible and reasonable, procedures for dealing with green waste including timber and mulch from clearing activities, and measures for reducing demand on water resources (including the potential for reuse of treated water from sediment control basins),

- (vii) measures to monitor and manage **spoil and fill** including details of how excavated material would be handled, stockpiled, reused and disposed and a stockpile/spoil reuse management protocol detailing location criteria that would guide the placement of stockpiles and spoil reuse, and minimum management measures (including rehabilitation) that would be implemented to avoid and/or minimise adverse amenity impacts to surrounding residents and environmental risks (including to surrounding watercourses),
- (viii) measures to monitor and manage **hazard and risks** including emergency management and risks to resident safety during the temporary removal of noise barriers, and
- (ix) the issues identified in condition B27 of this approval;
- (f) details of community complaints handling procedures and community involvement strategies during construction, consistent with the requirements of conditions B20 to B24 of this approval,
- (g) details of compliance and incident management consistent with the requirements of condition B19, including a definition of environmental incident categories and reportable environmental incidents; and
- (h) procedures for the periodic review and update of the Construction Environmental Management Plan and its sub-plans as necessary (including where minor changes can be approved by the Environmental Representative).

The Plan shall be submitted for the approval of the Director General at least four weeks prior to the commencement of construction, or as otherwise agreed by the Director General. Construction works shall not commence until written approval has been received from the Director General.

B27. As part of the Construction Environment Management Plan for the project required under condition B26 of this approval, the Proponent shall prepare and implement the following sub plan(s):

- (a) a **Construction Traffic Management Sub-plan**, prepared in accordance with the document *QA Specification G10 – Control of Traffic and Traffic Control at Work Sites Manual* (Roads & Traffic Authority, 2003), to manage the construction traffic and access impacts of the project and minimise disruptions to motorway and local traffic movements. The Sub-plan shall be developed in consultation with the relevant council(s) and include, but not necessarily be limited to -
 - (i) identification of construction traffic routes and quantification of construction traffic volumes (including heavy vehicle/spoil haulage) on these routes,
 - (ii) details of vehicle movements for construction sites and site compounds including parking, dedicated vehicle turning areas, and ingress and egress points,
 - (iii) details of the potential impacts to traffic in the M5 corridor (including associated local roads) and potential disruptions pedestrians, public transport, parking and cyclists,
 - (iv) identification of measures to ensure safe cycle passage and maintenance of existing levels of access for bicycles during and post construction,
 - (v) identification of impacts to pedestrian access in the vicinity of construction compounds and variable message signs, and measures to ensure safe pedestrian access at all times, and the provision of alternative access for pedestrians where required,
 - (vi) identification of impacts to bus stops arising from construction activities at motorway interchanges, construction compounds and variable message sign locations, and
 - (vii) a response procedure for dealing with traffic incidents;
- (b) a **Construction Flora and Fauna Management Sub-plan** to detail how construction impacts on flora and fauna will be minimised, managed and monitored. The Sub-plan shall be developed in consultation with the NSW Office of Environment and Heritage and include, but not necessarily be limited to -
 - (i) details of pre-construction surveys undertaken to verify the construction boundaries/footprint of the project based on detailed design and to confirm the vegetation to be cleared as part of the project (including tree hollows, threatened flora and fauna species, mangroves and riparian vegetation),

- (ii) details of mitigation measures to be implemented during construction to minimise impacts on native fauna and to native vegetation (particularly threatened species and endangered ecological communities) including (but not necessary limited to) fencing of sensitive areas, set backs, a protocol for the removal and relocation of fauna during clearing, presence of an experienced ecologist to oversee clearing activities and facilitate fauna rescues and re-location, clearing timing with consideration to breeding periods, measures for maintaining existing habitat features, seed harvesting and appropriate topsoil management, construction worker education, weed management, erosion and sediment control and progressive re-vegetation,
- (iii) a procedure for dealing with unexpected finds of threatened species and endangered ecological communities and their habitat identified during construction, including stopping works and notification to the NSW Office of Environment and Heritage, determination of appropriate mitigation measures in consultation with the NSW Office of Environment and Heritage (including relevant re-location measures) and update of biodiversity offset requirements consistent with condition B8 of this approval,
- (iv) details of the riparian setbacks to be implemented as part of the project, including justification for setbacks that are not consistent with the distances set out in the document *Controlled Activities: Guidelines for Riparian Corridors* (NSW Office of Water, 2011),
- (v) maintenance strategies for any nest boxes installed,
- (vi) a microbat management strategy in the case that microbats or evidence of roosting are identified during pre-construction surveys. The strategy shall detail short- and long-term management measures to minimise and mitigate impacts to microbats and identified roost sites,
- (vii) an adaptive monitoring program to assess the effectiveness of the flora and fauna management and mitigation measures, including those identified in conditions B6, B7 and B18 of this approval, throughout the duration of construction, and
- (viii) processes for identifying changes to habitat usage and where this is attributable to the construction of the project, details of contingency measures that would be implemented;
- (c) a **Construction Noise and Vibration Management Sub-plan** to detail how construction noise and vibration impacts will be minimised and managed. The Sub-plan shall be developed in consultation with the NSW Office of Environment and Heritage and include, but not necessarily be limited to –
 - (i) identification of the nearest sensitive receivers and relevant construction noise and vibration goals applicable to the project,
 - (ii) identification of key noise and/or vibration generating construction activities (based on representative construction scenarios, including at construction compounds) that have the potential to impact on surrounding sensitive receivers including expected noise and vibration levels,
 - (iii) identification of feasible and reasonable measures proposed to be implemented to minimise construction noise (including construction traffic noise impacts),
 - (iv) identification of procedures and feasible and reasonable mitigation measures that aim to achieve relevant vibration criteria, including, applicable buffer distances for vibration intensive works, use of low-vibration generating equipment/vibration dampeners or alternative construction methodology, and pre- and post-construction dilapidation surveys of sensitive structures where vibration is likely to result in building damage,
 - (v) procedures for notifying sensitive receivers of construction activities that are likely to affect their noise and vibration amenity, as well as procedures for dealing with and responding to noise complaints,
 - (vi) a safety risk assessment to determine the availability of safe alternatives to 'beeper' type reversing or movement alarms on vehicles, plant and equipment used during the construction of the project, and

- (vii) a program for construction noise and vibration monitoring clearly indicating monitoring frequency, location, how the results of this monitoring would be recorded and, procedures to be followed where significant exceedences of relevant noise and vibration goals are detected;
 - (d) a **Construction Soil and Water Quality Management Sub-plan** to manage surface and groundwater impacts during the construction of the project. The Sub-plan shall be developed in consultation with the NSW Office of Water and the relevant council(s) and include, but not necessarily be limited to -
 - (i) identification of all potential sources of erosion and sedimentation, and water pollution (including those resulting from maintenance activities),
 - (ii) details of the control measures to be employed to manage any accumulation of groundwater and surface water, including procedures for handling, treatment and disposal of groundwater and contaminated groundwater,
 - (iii) details of how construction activities would be managed to mitigate and minimise erosion and sedimentation, consistent with condition B15 of this approval,
 - (iv) details of proposed buffer zones adjacent to waterways;
 - (v) opportunities for recycling/re-use of stormwater or other sources,
 - (vi) contingency plans to be implemented in the event of major fuel spills or other chemicals, and
 - (vii) a program for monitoring and reporting on the effectiveness of the sediment and erosion control system against performance goals.
 - (e) a **Construction Heritage Management Sub-plan** to manage the discovery of heritage items during the construction of the project. The Sub-plan shall be developed in consultation with the NSW Office of Environment and Heritage and include, but not necessarily be limited to -
 - (i) the processes to manage the discovery of previously unidentified heritage items including temporary cessation of works in the vicinity, notification, assessment of the significance of the item(s), and determination of appropriate management and mitigation measures, including approvals,
 - (ii) managing the discovery of confirmed or potential human remains including temporary cessation of works in the vicinity, notification of the NSW Police, the NSW Office of Environment and Heritage, the Department, and Aboriginal stakeholders, and not recommencing any works in the area unless authorised by the Director General and or the NSW Police (whichever is relevant), and
 - (iii) heritage inductions for construction personnel (including procedures for keeping records of inductions).
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PART C – DURING CONSTRUCTION

TRAFFIC, TRANSPORT AND ACCESS ARRANGEMENTS

- C1. The Proponent shall provide appropriate car parking and shall manage construction traffic and construction personnel to discourage and minimise construction vehicles from parking or queuing on public roads.
- C2. Access to ancillary facilities shall be via the M5 South West Motorway, interchanges and arterial roads where practicable.
- C3. Heavy vehicle movements from ancillary facilities shall be limited as far as practicable at night in residential areas.
- C4. No access to the Graham Avenue Compounds 1, 2 and 3 are permitted from the local road network, unless approved by a Construction Traffic Management Sub-plan required under condition B27(a) of this approval.
- C5. The Proponent shall notify residents, emergency services and other key stakeholders in the event of any full or partial road closure of De Meyrick Avenue, Casula a minimum of two weeks prior to the closure. Any diversions shall be clearly and suitably signposted for their duration, in consultation with Liverpool City Council.

Pedestrian and Cyclist Access

- C6. The Proponent shall maintain safe pedestrian and cyclist access through or around ancillary facilities and variable message sign locations during construction. In circumstances where pedestrian and cyclist access is restricted due to construction activities, the Proponent shall ensure that alternative access is provided and signposted.

BIODIVERSITY

- C7. The Proponent shall employ feasible and reasonable measures to minimise the clearing of native vegetation to the greatest extent practicable during the construction of the project.
- C8. Any areas temporarily disturbed during construction (including access tracks and compound sites) shall be rehabilitated to a standard equal to or better than the existing condition, as soon as feasible and reasonable following the completion of construction activities in the affected location. Replanting of affected vegetation shall be undertaken using locally occurring endemic species.
- C9. The Proponent shall ensure that there is no clearing of, or disturbance to, the threatened plant species *Wilsonia backhousei* (Narrow-leaved Wilsonia) and *Eucalyptus nicholii* (Narrow-leaved Black Peppermint), unless otherwise approved by the Director General, in consultation with the NSW Office of Environment and Heritage. Where clearing is approved by the Director General, appropriate biodiversity offsets shall be included in the Biodiversity Offset Strategy required under condition B8 of this approval.
- C10. In the event that the species *Littoria aurea* (Green and Golden Bell Frog) is identified during construction, all work in the vicinity of the sighting shall stop and the procedures set out in the management plan referred to under condition B7 of this approval implemented.

NOISE, VIBRATION AND BLASTING

Construction Hours

- C11. The Proponent shall only undertake construction activities associated with the project during the following standard construction hours:
 - (a) 7:00 am to 6:00 pm Mondays to Fridays, inclusive; and
 - (b) 8:00 am to 1:00 pm Saturdays; and
 - (c) at no time on Sundays or public holidays.

- C12. Works outside of the construction hours identified in condition C11 of this approval may be undertaken in the following circumstances:
- (a) where LAeq(15 minute) noise levels are -
 - (i) no more than 5 dB above rating background level at any residence in accordance with the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009), and
 - (ii) no more than the noise management levels specified in Table 3 of the *Interim Construction Noise Guideline* at other sensitive land uses; or
 - (b) for delivery of materials outside these hours where required by the NSW Police or other authorities for safety reasons; or
 - (c) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; or
 - (d) where an Environment Protection Licence applies to the construction of the project, the approved construction hours, and any associated conditions/requirements, as set out in the Environment Protection Licence.
- C13. Except as expressly permitted by an Environment Protection Licence issued for the project, high noise generating activities and works occurring on the premises shall only be undertaken:
- (a) between the hours of 8:00 am to 6:00 pm Mondays to Fridays;
 - (b) between the hours of 8:00 am to 1:00 pm Saturdays; and
 - (c) in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block.

For the purposes of this condition 'continuous' includes any period during which there is less than a one hour respite between ceasing and recommencing any of the work the subject of this condition.

- C14. Blasting is not permitted for the project.
- C15. The Proponent shall consult with any affected educational institutions (as identified in the documents referred to in condition A1(b) and (c)) to ensure that disruptive noise-generating construction works in the vicinity of the institutions are not timetabled during examination periods, unless other appropriate arrangements to the affected institutions are made at no cost to the affected institutions.

Construction Noise and Vibration Goals

- C16. The Proponent shall implement all reasonable and feasible noise mitigation measures with the aim of achieving the construction noise management levels detailed in the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009). Any activities that could exceed the construction noise management levels shall be identified and managed in accordance with the Construction Noise and Vibration Management Sub-plan required under condition B27(c) of this approval.
- C17. The Proponent shall implement all reasonable and feasible mitigation measures with the aim of achieving the following construction vibration goals and ground-borne noise levels:
- (a) for structural damage vibration, the vibration limits set out in the German Standard *DIN 4150 Part 3-1999 Structural Vibration in Buildings - Effects on Structures*;
 - (b) for human exposure, the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006); and
 - (c) the ground-borne noise levels set out in the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009).

Vibration Testing and Monitoring

- C18. The Proponent shall conduct representative vibration testing and monitoring during construction to confirm the minimum working distances to sensitive receivers with the objective of meeting the preferred values for vibration (for low probability of adverse comment) presented in *Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006). In the event that the vibration testing and monitoring shows that the preferred values for vibration at any affected sensitive receivers are likely to be exceeded, the Proponent shall review the construction methodology and, where feasible and reasonable, implement additional mitigation measures.

Noise Barriers

- C19. The Proponent shall minimise the removal of existing noise barriers until feasible and reasonable mitigation measures are implemented to minimise impacts on the existing acoustic amenity of sensitive receivers. Measures shall include, but not necessarily be limited to, the provision of new barriers prior to removing existing barriers or, where this is not practicable, constructing new barriers expeditiously following the removal of existing barriers.

Heavy Vehicle Compression Braking

- C20. The Proponent shall develop a **Heavy Vehicle Compression Braking Strategy**, in consultation with the NSW Office of Environment and Heritage and relevant council(s), for the project to identify and trial mitigation measures to minimise the noise impacts of heavy vehicle compression braking (at the source) on sensitive receivers, including those in close proximity to the Georges River West bridge. The Strategy shall:
- (a) identify all reasonable and feasible mitigation measures for reducing noise at the source;
 - (b) identify the preferred mitigation measure(s), and justify why other measures were discounted;
 - (c) describe the location, timing and responsibility for implementation of the preferred mitigation measure(s); and
 - (d) describe how the effectiveness of the mitigation measure(s) will be monitored and assessed.

The Strategy shall be submitted to the Director General for approval within three months of the commencement of construction, unless otherwise agreed or directed by the Director General.

SEDIMENTATION, EROSION AND WATER

- C21. Where available, and of appropriate chemical and biological quality, the Proponent shall use stormwater, recycled water or other water sources in preference to potable water for construction activities, including concrete mixing and dust control.
- C22. Soil and water management measures consistent with *Managing Urban Stormwater - Soils and Construction Vols 1 and 2, 4th Edition* (Landcom, 2006) and *Managing Urban Stormwater Soils and Construction Vols 2A and 2D Main Road Construction* (Department of Environment and Climate Change, 2008) shall be employed during the construction of the project for erosion and sediment control.

HERITAGE IMPACTS

- C23. The Proponent shall not destroy, modify or otherwise physically affect any heritage items as part of this project.
- C24. Variable message signage constructed as part of the project shall be located to avoid indirect impacts on heritage items, including their heritage setting, as far as practicable. Variable Message Sign 1 should not obstruct the views of Apex Park (located on the corner of the Hume Highway and Elizabeth Drive, Liverpool) and be no closer than 50 metres to the north and to the south from the southeast and southwest corners of Apex Park. Variable Message Sign 16 shall not be located within a 100 metre stretch along Moorebank Avenue, centred on Kitchener House.

PROPERTY AND LANDUSE

- C25. The Proponent shall construct the project in a manner that minimises impacts to private properties and other public or private structures (such as fences and utility services infrastructure) along the project corridor and in the vicinity of variable message signs. In the event that construction of the project results in direct or indirect damage to any such property or structure, the Proponent shall arrange and fund repair of the damage to a standard comparable to that in existence prior to that damage, unless otherwise agreed to by the property owner or public authority.

HAZARDS AND RISKS

- C26. The Proponent shall store and handle all dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with:
- (a) all relevant Australian Standards;
 - (b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and
 - (c) the *Environment Protection Manual for Authorised Officers: Bunding and Spill Management, Technical Bulletin* (Environment Protection Authority, 1997).

In the event of an inconsistency between the requirements listed from (a) to (c) above, the most stringent requirement shall prevail to the extent of the inconsistency.

AIR QUALITY IMPACTS

- C27. The Proponent shall employ all feasible and reasonable measures (including temporary cessation of relevant works, as appropriate) to ensure that the project is constructed in a manner that minimises dust generation on the site and minimises dust emissions from the site, including wind-blown, traffic-generated dust, dust from stockpiles and spoil reuse sites, and material tracking from construction/ancillary facility/spoil reuse sites onto public roads.

WASTE AND SPOIL MANAGEMENT

- C28. The Proponent shall ensure that all liquid and/or non-liquid waste generated on the site is assessed and classified in accordance with *Waste Classification Guidelines* (Department of Environment, Climate Change and Water, 2009) and where removed from the site, is only directed to a waste management facility lawfully permitted to accept the materials).
- C29. The Proponent shall maximise the reuse and/or recycling of waste materials generated on site as far as practicable, to minimise the need for treatment or disposal of those materials off site.
- C30. The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*, if such a licence is required in relation to that waste.

ANCILLARY FACILITIES

- C31. Ancillary facilities should be located to avoid or minimise impacts on threatened species and endangered ecological communities and their habitats, and riparian zones.
- C32. The sites for ancillary facilities associated with the construction of the project shall:
- (a) be located more than 50 metres from a waterway;
 - (b) have ready access to the road network or direct access to the construction corridor;
 - (c) be located in areas of low ecological significance and require minimal clearing of native vegetation (not beyond that already required by the project);
 - (d) be located on relatively level land;

- (e) be separated from the nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);
 - (f) be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented;
 - (g) not unreasonably affect the land use of adjacent properties;
 - (h) operate in accordance with the construction hours set out in condition C11 of this approval;
 - (i) provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours; and
 - (j) be located in areas of low heritage conservation significance (including identified Aboriginal cultural value) and not impact on heritage sites beyond those already impacted by the project.
- C33. Ancillary sites that do not meet the criteria set out under condition C32 of this approval shall be approved by the Director General prior to establishment. In obtaining this approval, the Proponent shall assess the ancillary facility against the criteria set out under condition C32 of this approval to demonstrate how the potential environmental impacts can be mitigated and managed to acceptable standards (including demonstrating consistency with project impacts identified in the documents listed under condition A1). Such assessment(s) can be submitted separately or as part of the Construction Environmental Management Plan required under condition B26 of this approval. The assessment shall include, but not necessarily be limited to:
- (a) a description of the ancillary facility, its components and the surrounding environment;
 - (b) details on the activities to be carried out at the facility, including the hours of use and the storage of dangerous and hazardous goods;
 - (c) an assessment of the environmental impacts on the site and the surrounding environment, including, but not limited to noise, vibration, air quality, traffic and access, flora and fauna, heritage and light spill;
 - (d) details on the mitigation, monitoring and management procedures specific to the ancillary facility that would be implemented to minimise environmental impacts or, where this is not possible, feasible and reasonable measures to offset these impacts and an assessment of the adequacy of the mitigation or offsetting measures. This shall include consideration of restrictions on the hours of use or exclusion of certain activities;
 - (e) details on the timing for the completion of activities at the ancillary facility and how the site will be decommissioned (including any necessary rehabilitation); and
 - (f) demonstrated overall consistency with the approved project.
- C34. The Director General's approval is not required for minor ancillary facilities (e.g. lunch sheds, office sheds, and portable toilet facilities) that do not comply with the criteria set out in condition C32 of this approval and:
- (a) are located within an active construction zone within the approved project footprint; and
 - (b) have been assessed by the Environmental Representative to be -
 - (i) of low amenity risk to surrounding residences, with consideration to matters such as noise and vibration impacts, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and
 - (ii) of low environmental risk in respect to waste management and impacts on flora and fauna, soil and water, and heritage; and
 - (c) have environmental and amenity impacts that can be managed through the implementation of environmental measures detailed in the Construction Environmental Management Plan for the project.

ROCK CRUSHING AND SCREENING

- C35. Rock crushing and screening activities shall be approved by the Director General prior to establishment. In obtaining this approval, the Proponent shall submit an assessment of the activities to the Director General. The assessment shall include, but not necessarily be limited to:
- (a) a description of the site and surrounding environment;
 - (b) a description of the equipment to be used and the hours of operation;

- (c) an assessment of the environmental impacts on the site and the surrounding environment, including, but not limited to noise, vibration, air quality, traffic and access, flora and fauna, and heritage;
- (d) details on the mitigation, monitoring and management measures that would be implemented to manage and minimise any environmental impacts;
- (e) details on the timing for the completion of activities at the site and how the site will be decommissioned (including any necessary rehabilitation); and
- (f) demonstrated overall consistency with the approved project.

LIGHTING

- C36. The Proponent shall ensure that external lighting associated with the construction of the project is mounted, screened (where practicable) and directed in such a manner so as to minimise light spillage and/or glare to residences. The lighting shall be the minimum level of illumination necessary and shall comply with the *Australian Standard AS4282:1997 – Control of the Obtrusive Effects of Outdoor Lighting*.

PART D – PRIOR TO OPERATIONS

OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN

- D1. The Proponent shall prepare and implement an Operational Environmental Management Plan for the project that details the environmental management framework, practices and procedures to be followed during its operation. The Plan shall be consistent with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004) and shall provide a clear environmental management framework for the operation of the project. The Plan shall be prepared in consultation with the relevant government agencies and include, but not necessarily be limited to:
- (a) a description of all relevant activities to be undertaken during operation of the project including an indication, where relevant, of stages of operation;
 - (b) statutory and other obligations that the Proponent is required to fulfil during operation including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
 - (c) details of how the project's environmental performance will be monitored and reported and what actions will be taken to address identified adverse environmental impacts. In particular, the following environmental performance issues shall be addressed in the Plan -
 - (i) measures to monitor and maintain translocated specimens of *Acacia pubescens* and biodiversity offset measures implemented in accordance with conditions B6 and B8 of this approval,
 - (ii) measures to monitor and maintain rehabilitated areas (including riparian zones) during the establishment phase and long term, and control the spread of weeds,
 - (iii) measures to monitor and maintain landscaping undertaken along the project corridor during establishment and over the long term,
 - (iv) measures to monitor and maintain the effectiveness of fauna management measures,
 - (v) processes for identifying changes to habitat usage and where this is attributable to the operation of the project, details of the contingency measures that would be implemented,
 - (vi) measures to monitor and manage noise impacts,
 - (vii) measures to monitor and manage traffic impacts along the M5 South West Motorway, and
 - (viii) measures to monitor and minimise soil erosion and the discharge of sediment and other pollutants from drainage systems on receiving environments;
 - (d) a description of the roles and responsibilities for all relevant employees involved in the operation of the project; and
 - (e) complaints handling procedures during operation.

The Plan shall be submitted for the Director General's approval no later than four weeks prior to the commencement of operation, or within such period as otherwise agreed by the Director General. Operation of the project shall not commence until written approval has been received from the Director General.

Nothing in this condition precludes the Proponent from updating an existing operational environment management plan (or systems) to meet this requirement, providing the Proponent demonstrates, to the satisfaction of the Director General, where the relevant conditions of this approval have been addressed.

ROAD DILAPIDATION REPORTING AND REPAIR

- D2. The Proponent shall prepare a dilapidation report for all local roads utilised by construction traffic during the construction of the project as identified in the Construction Traffic Management Sub-plan required under condition B27(a) of this approval. Where it is identified that damage to the road(s) has been caused from construction traffic, the road(s) is to be repaired at the cost of the Proponent. The dilapidation report is to be prepared within four weeks of the completion of construction and a copy provided to the relevant council(s). The report is to outline the timing for undertaking any necessary road repairs.

PART E – DURING OPERATIONS

OPERATIONAL PERFORMANCE AUDIT

- E1. Within twelve months of the commencement of operation of the project, and then again at three years thereafter if required by the Director General, the Proponent shall commission an independent, qualified person or team to either undertake, or coordinate and endorse, an Operational Performance Audit of the project. The independent person or team shall be approved by the Director General prior to the commencement of the Audit. An Operational Performance Audit Report shall be submitted to the Director General within four weeks of the completion of the Audit, unless otherwise agreed by the Director General. The Audit shall:
- (a) assess compliance with the requirements of this approval, and other licences and approvals that apply to the project;
 - (b) assess the environmental performance of the project against the predictions made and conclusions drawn in the documents referred to under condition A1(b) and (c) of this approval for key environmental issues as identified through a risk assessment process; and
 - (c) review the effectiveness of the environmental management of the project, including any environmental impact mitigation works.

OPERATIONAL NOISE

Operational Noise Reviews

- E2. The Proponent shall undertake **Operational Noise Reviews** to confirm the operational noise impacts of the project. The Reviews shall be prepared in consultation with the NSW Office of Environment and Heritage, and be based on noise monitoring undertaken:
- (a) within 12 months of the commencement of operation of the project; and
 - (b) within 12 months of the operation of the M5 East Freeway upgrade, unless otherwise directed, or agreed, by the Director General.

The Reviews shall assess:

- (a) the operational noise levels of the project against the criteria and noise goals established in the *Environmental Criteria for Road Traffic Noise* (Environment Protection Authority, 1999); and
 - (b) the noise performance of the project against the operational noise levels predicted in the review of operational noise mitigation measures required under condition B10 of this approval.
- E3. The outcomes of each Review shall be documented in an Operational Noise Report. The Report shall include:
- (a) a description of the methodology, locations (including representative locations to the north and the south of the Motorway between the Hume Highway, Casula and the Georges River West, and to the south of the Motorway between Camden Valley Way, Prestons and Kurrajong Road, Prestons) and frequency of noise monitoring undertaken, including monitoring sites at which project noise levels are ascertained, with specific reference to locations indicative of impacts on sensitive receivers;
 - (b) details on any required recalibrations of the noise model, taking into consideration factors such as noise monitoring undertaken and actual traffic numbers and proportions;
 - (c) the operational noise levels as ascertained by the noise monitoring program;
 - (d) an assessment of the performance and effectiveness of applied noise mitigation measures;
 - (e) identification of additional feasible and reasonable measures that would be implemented with the objective of meeting the criteria outlined in the *Environmental Criteria for Road Traffic Noise* (Environment Protection Authority, 1999), when these measures would be implemented and how their effectiveness would be measured and reported to the Director General and the NSW Office of Environment and Heritage; and
 - (f) details of any complaints and enquiries received in relation to operational noise generated by the project between the date of commencement of operation and the date the report was prepared.

The Proponent shall provide the Director General and the NSW Office of Environment and Heritage with a copy of each Operational Noise Report within 60 days of completing the required operational noise monitoring, or as otherwise agreed by the Director General.

The identification of additional feasible and reasonable measures required under condition E3(e) of this approval shall be undertaken in accordance with the *Environmental Criteria for Road Traffic Noise* (Environment Protection Authority, 1999) and the procedures set out in the *Environmental Noise Management Manual* (NSW Roads & Traffic Authority, 2001).

OPERATIONAL TRAFFIC

Operational Traffic Reviews

- E4. The Proponent shall undertake an **Operational Traffic Review** to confirm the operational traffic impacts of the project on surrounding arterial roads and major intersections 12 months after the commencement of operation of the project. The Review shall be either undertaken, or coordinated and endorsed, by a suitably qualified traffic consultant that is independent of the design and traffic studies undertaken as part of the Environmental Assessment and Preferred Project Report. In undertaking the Review the Proponent shall:
- (a) assess the level of service at the major intersections on the alternative route to the M5 South West Motorway as described in Table 4-8, Appendix E, Volume 2 in the document referred to under condition A1(b) of this approval; and
 - (b) assess the level of service at the principal route intersections crossing the M5 South West Motorway as described in Table 4-9, Appendix E, Volume 2 in the document referred to under condition A1(b) of this approval.

The assessment shall be based on actual traffic counts.

- E5. The Proponent shall ensure that the methodology and results of the modelling utilised in the Operational Traffic Review are comparable with those from the Environmental Assessment. If not, the Proponent shall undertake further modelling using the traffic data from the Environmental Assessment, so as to provide a basis for comparison.
- E6. The outcomes of the Operational Traffic Review shall be documented in an Operational Traffic Report, including:
- (a) details of the methodology used to measure and monitor performance, including the traffic model used, and model calibration and validation processes;
 - (b) details on the intersection levels of service at the intersections described in Tables 4-8 and 4-9, Appendix E in the document referred to under condition A1(b) of this approval (Volume 2);
 - (c) details of queuing/congestion on roads at onramps to the M5 South West Motorway.
 - (d) an assessment of the intersection levels of service against those described in the document referred to under condition A1(b) of this approval; and
 - (e) details of feasible and reasonable measures (including both traffic management measures and/or intersection works) to be implemented to improve intersection levels of performance where it is determined that the level of service has significantly deteriorated as a result of the project, compared to the levels described in the document referred to under condition A1(b) of this approval (Volume 2).

The Proponent shall provide the Director General and the relevant council(s) with a copy of the Operational Traffic Report within 60 days of completing the operational traffic review or as otherwise agreed by the Director General.

OPERATIONAL MONITORING

- E7. Monitoring measures implemented in accordance with the requirements of condition D1(c)(i)-(iv) shall be undertaken from opening of the project to traffic until such time as the effectiveness of mitigation measures can be demonstrated to have been achieved, or as otherwise agreed or directed by the Director General.

SPOIL REUSE

- E8. The Proponent shall undertake an environmental assessment of operations involving the winning of spoil from spoil reuse sites. The assessment shall be provided to the Director General for approval at least four weeks prior to removing the spoil, unless otherwise agreed to by the Director General. The assessment shall include, but not be limited to, measures to: manage and/or mitigate noise, traffic and access, and dust impacts; and details of the rehabilitation/landscaping of the affected area.