

Project Approval

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

I 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;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.



Brad Hazzard MP
Minister for Planning & Infrastructure

Sydney

22nd July

2013

SCHEDULE 1

Application No.:	MP10_0240
Proponent:	Roads and Maritime Services
Approval Authority:	Minister for Planning and Infrastructure
Land:	Land generally commencing at Toolijooa Road near Foxground for a distance of 11.6 km to Schofields Lane south of Berry, in the Kiama and Shoalhaven local government areas.
Project:	<p>The construction and operation of approximately 11.6 kilometres of two lane divided carriageways (with the exception of the cutting through Toolijooa Ridge which comprises two lanes plus a climbing lane in each direction), with provisions for the possible future widening to three lanes within the road corridor (if required in the future).</p> <p>The project is referred to as the Princes Highway Upgrade - Foxground and Berry Bypass Project.</p>

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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.
Conditions of Approval	The Minister's conditions of approval for the project.
Construction	<p>Includes all work in respect of the Project other than:</p> <ul style="list-style-type: none"> a) establishing ancillary facilities/construction work sites (in locations meeting the criteria identified in the Conditions of Approval); b) installation of environmental impact mitigation measures, fencing, enabling works; c) minor clearing or translocation of native vegetation associated with a) above; and d) other activities determined by the Environmental Representative to have minimal environmental impact (e.g. minor access roads) and consistent with project order. <p>Note - work where heritage, threatened species, populations or endangered ecological communities would be affected that work is classified as construction, unless otherwise approved by the Director General in consultation with the Office of Environment and Heritage.</p>
Department, the	Department of Planning and Infrastructure.
Director General, the	Director General of the Department of Planning and Infrastructure.
Director General's approval, agreement or satisfaction	<p>A written approval from the Director General (or delegate).</p> <p>Where the Director General's approval, agreement or satisfaction is required under a condition of this approval, the Director General will endeavour to provide a response within one month of receiving an approval, agreement or satisfaction request. The Director General may ask for additional information if the approval, agreement or satisfaction 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.</p>
DPI	Department of Primary Industries.
EA	Environmental Assessment titled <i>Princes Highway upgrade – Foxground and Berry bypass</i> prepared by AECOM Australia Pty Ltd for Roads and Maritime Services and dated November 2012.
EEC	Endangered Ecological Communities.
EPA	Environment Protection Authority of the Office of Environment and Heritage.
Feasible and Reasonable	<p>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</p>

	<p>benefits and cost of mitigation versus benefits provided, community views and nature and extent of potential improvements.</p> <p>Where requested by the Director General, the Proponent must provide evidence as to how feasible and reasonable measures were considered and taken into account.</p>
Heritage	Encompasses both Aboriginal and historic heritage including sites that predate European settlement, and a shared history since European settlement such as a shared associations in pastoral landscapes as well as associations linked with the mission period.
Heritage item	An item as defined under the <i>Heritage Act 1977</i> , and assessed as being of local, State and/ or National heritage significance, and/ or an Aboriginal Object or Aboriginal Place as defined under the <i>National Parks and Wildlife Act 1974</i>
High-noise impact activities and work	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.
Low noise impact activities and work	Means deliveries, site access, equipment pre-start, refuelling, office works, foot-based and manual activities using hand tools, work in ancillary activities, and finishing works and clean-up.
Minister, the	Minister for Planning and Infrastructure.
NOW	NSW Office of Water.
OEH	Office of Environment and Heritage
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 MP10_0240.
Project Order	A declaration made by the Minister for Planning and Infrastructure that the project is one to which Part 3A of the <i>Environmental Planning and Assessment Act 1979</i> applies. The project Order was published in the NSW Government Gazette No. 114 on 10 September 2010.
Proponent	Roads and Maritime Services.
Publicly available	Available for inspection by a member of the general public (for example available on an internet website).
Relevant council	Shoalhaven City Council and/ or Kiama Municipal Council, as applicable.
RtS	Response to Submissions titled <i>Princes Highway upgrade – Foxground and Berry bypass</i> prepared by AECOM Australia Pty Ltd for Roads and Maritime Services and dated May 2013.
Sandtrack	An alternative route between Gerringong and Bomaderry comprising Fern Street, Crooked River Road, Gerroa Road and Bolong Road.
Sensitive receiver	Residence, education 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 Project Application MP10_0240;
 - (b) *Princes Highway upgrade – Foxground and Berry bypass - Environmental Assessment (Volumes 1-2)*, prepared by AECOM Australia Pty Ltd for Roads and Maritime Services and dated November 2012;
 - (c) *Princes Highway upgrade – Foxground and Berry bypass – Submissions Report*, prepared by AECOM Australia Pty Ltd for Roads and Maritime Services and dated May 2013, 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, and any other 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.
- A5. The Proponent shall notify the Director General and other relevant government agencies of any incident with actual or potential significant off-site environmental impacts on people or the biophysical environment as soon as practicable and within 24 hours after the occurrence of the incident. The Proponent shall provide full written details of the incident to the Director General within seven days of the date on which the incident occurred.
- Note: Where an incident also requires reporting to the OEH and/or EPA the incident report prepared for the purposes of notifying the OEH and/or EPA would meet this requirement
- A6. The Proponent shall meet the requirements of the Director General or relevant government agency (as determined by the Director General) to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition A5, within such period as the Director General may require.

Limits of Approval

- A7. This approval shall lapse ten years after the date on which it is granted, unless construction works the subject of this project approval are physically commenced on or before that date.

Statutory Requirements

- A8. The Proponent shall 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 Act. This shall include relevant certification requirements in accordance with section 109R of the Act.

Staging

- A9. The Proponent may elect to construct and/ or operate the project in stages. Where staging is proposed, the Proponent shall submit a Staging Report to the Director General prior to the commencement of the first proposed stage. The Staging Report shall provide 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) details of the relevant conditions of approval, which would apply to each stage and how these shall be complied with across and between the stages of the project.

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 stage(s).

The Proponent shall ensure that an updated Staging Report (or advice that no changes to staging are proposed) is submitted to the Director General prior to the commencement of each stage, identifying any changes to the proposed staging or applicable conditions.

The Proponent shall ensure that all plans, sub-plans 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 no later than one month prior to the commencement of the relevant stages, unless an alternative timeframe is agreed to by the Director General.

PART B – PRIOR TO CONSTRUCTION

Design

B1. The Proponent shall, in consultation with the relevant council/s, investigate the need for

- a) potential future on and off ramps at Woodhill Mountain Road; and
- b) potential future left turn lane onto the new highway from Toolijooa Road.

The investigation shall be undertaken to the satisfaction of Director General, and include consideration of the relevant environmental impacts (noise, flooding, heritage, biodiversity, traffic etc.) and consider any alternative options.

B2. The bridge piers at the Connollys Creek / Bundewallah Creek / Broughton Mill Creek crossing shall be located and designed in such a way to minimise visual impacts to Berry and the bridge piers at Broughton Creek crossing 3 are located and designed in such a way to minimise visual impacts to RMB 353 Princes Highway, Broughton Village. Evidence of how visual impacts have been minimised shall be provided to the Director General prior to the commencement of works that would influence the design of the bridge in this location.

Biodiversity

Mitigation Measures – Fauna and Waterway Crossings

B3. The Proponent shall design (and implement) the fauna crossings identified in Table 5.1 of Appendix F of the document listed under condition A1(b), at the locations and in accordance with the minimum design principles identified in Table 5.1, unless otherwise agreed by the Director-General.

B4. Investigations into the design of fauna crossings identified in Table 5.1 of Volume 2 Appendix F of the document listed under condition A1(b) during detailed design shall be undertaken with the input of a suitably qualified and experienced ecologist and in consultation with OEH and DPI (Fishing and Aquaculture).

B5. The Proponent shall prepare a report on the final design of fauna and/or waterway crossings identified in Table 5.1 of Appendix F of the document listed under condition A1(b), where the location of the crossing has changed and/or the crossing does not meet the minimum design principles identified in Table 5.1. The report shall be submitted to the Director General prior to the commencement of construction of the relevant crossing, and shall demonstrate how the new location and/ or design would result in acceptable biodiversity outcomes. The report shall clearly identify how the fauna and/or waterway crossing will work in conjunction with complementary fauna exclusion fencing measures to be implemented for the project. The report shall be accompanied by evidence of consultation with OEH and DPI (Fishing and Aquaculture) in relation to the suitability of any changes to the location and/or crossing design.

B6. The Proponent shall, in consultation with OEH and DPI (Fishing and Aquaculture), ensure that all waterway crossings are designed and constructed consistent with the principles of the *Guidelines for Controlled Activities Watercourse Crossings* (Department of Water and Energy, February 2008), *Policy and Guidelines for Fish Friendly Waterway Crossings* (NSW Fisheries, February 2004) and *Policy and Guidelines for Design and Construction of Bridges, Roads, Causeways, Culverts and Similar Structures* (NSW Fisheries 1999). Where multiple cell culverts are proposed for creek crossings, at least one cell shall be provided for fish passage, with an invert or bed level that mimics creek flows.

Biodiversity Offsets

- B7. The Proponent shall, in consultation with the OEH and DPI (Fishing and Aquaculture), develop a **Biodiversity Offset Strategy** that identifies the available options for offsetting the biodiversity impacts of the project in perpetuity, with consideration to the *Principles for the use of biodiversity offsets in NSW* (OEH website <http://www.environment.nsw.gov.au/biocertification/offsets.htm> dated 17 June 2011). Unless otherwise agreed to by the OEH and DPI (Fishing and Aquaculture), offsets shall be provided on a like-for-like basis and at a minimum ratio of 4:1 for areas of high conservation value (including EEC, salt marsh, and poorly conserved vegetation communities identified as being more than 75% cleared in the catchment management area) and 2:1 for the remainder of native vegetation areas (including threatened species habitat, mangroves, seagrass, and non-EEC riparian vegetation). 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 type/ habitat (in hectares) to be cleared and their condition, and the size of offsets required (in hectares);
 - (c) details of the type of available offset measures that have been identified to compensate for the loss of threatened species and vulnerable and endangered ecological communities and/ or their habitats, and native vegetation (including mangroves, seagrasses, 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 operation of the project;
 - (d) 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;
 - (e) 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), including:
 - (i) changes to the footprint due to detailed design;
 - (ii) changes to predicted impacts as a result of changes to mitigation measures;
 - (iii) the identification of additional species/ habitat through pre-clearance surveys and construction;
 - (iv) addressing outcomes of the ecological monitoring program; and
 - (v) additional impacts associated with the establishment of ancillary facilities; and
 - (f) options for the securing and management of biodiversity offsets in perpetuity.

The Biodiversity Offset Strategy shall be submitted to the Director General for approval no later than 6 weeks prior to the commencement of construction that would result in the disturbance of native vegetation, unless otherwise agreed by the Director General.

- B8. Within two years of the date of approval of the Biodiversity Offset Strategy, unless otherwise agreed by the Director General, the Proponent shall prepare and submit a **Biodiversity Offset Package** for the approval of the Director General. The Package shall be developed in consultation with the OEH and DPI (Fishing and Aquaculture), and shall include, but not necessarily be limited to:
- (a) details of the final suite of the biodiversity offset measures to be implemented for the project demonstrating how it achieves the requirements of the Biodiversity Offset Strategy (including specified offset ratios);
 - (b) the final selected means of securing the biodiversity values of the Package in perpetuity, including ongoing management, maintenance and monitoring requirements; and

- (c) timing and responsibilities for the implementation of the provisions of the Package over time.

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

Ecological Monitoring

- B9. The Proponent shall develop an **Ecological Monitoring Program** to monitor the effectiveness of the biodiversity mitigation measures implemented as part of the project. The program shall be developed by a suitably qualified and experienced ecologist in consultation with the OEH and DPI (Fishing and Aquaculture) and shall include but not necessarily be limited to:
- (a) an adaptive monitoring program to assess the effectiveness of the mitigation measures identified in conditions B3 and B36(b) and allow amendment to the measures if necessary. The monitoring program shall nominate performance parameters and criteria against which effectiveness will be measured and include operational road kill surveys to assess the effectiveness of fauna crossings and exclusion fencing implemented as part of the project;
 - (b) mechanisms for developing additional monitoring protocols to assess the effectiveness of any additional mitigation measures implemented to address additional impacts in the case of design amendments or unexpected threatened species finds during construction (where these additional impacts are generally consistent with the biodiversity impacts identified for the project in the documents listed under condition A1);
 - (c) monitoring shall be undertaken during construction (for construction-related impacts) and from opening of the project to traffic (for operation/ ongoing impacts) until such time as the effectiveness of mitigation measures can be demonstrated to have been achieved over a minimum of three successive monitoring periods after opening of the project to traffic, unless otherwise agreed by the Director General. The monitoring period may be reduced with the agreement of the Director General in consultation with the OEH and DPI (Fishing and Aquaculture), depending on the outcomes of the monitoring;
 - (d) provision for the assessment of the data to identify changes to habitat usage and whether this can be directly attributed to the project;
 - (e) details of contingency measures that would be implemented in the event of changes to habitat usage patterns directly attributable to the construction or operation of the project; and
 - (f) provision for annual reporting of monitoring results to the Director General and the OEH and DPI (Fishing and Aquaculture), or as otherwise agreed by those agencies.

The Program shall be submitted to the Director General for approval no later than 6 weeks prior to the commencement of construction that would result in the disturbance of native vegetation (unless otherwise agreed by the Director General).

Hydrology and Flooding

- B10. The Proponent shall ensure, where feasible and reasonable, that the project is designed to not exceed the afflux and other flooding criteria within the vicinity of the project as identified or predicted in the documents listed under condition A1. New or duplicated drainage structures shall be designed to minimise changes to afflux and flooding to waterways that traverse the project alignment to the greatest extent practicable.

- B11. The Proponent shall develop a **Hydrological Mitigation Report** for properties in the Broughton Creek, Town Creek, Bundewallah Creek and Shoalhaven floodplain areas where flood impacts are predicted to increase as a result of the project. The Report shall be based on detailed floor level survey and associated assessment of potentially flood affected properties in those areas. The Report shall:
- (a) identify properties in those areas likely to have an increased flooding impact and detail the predicted increased flooding impact;
 - (b) identify mitigation measures to be implemented where increased flooding is predicted to adversely affect access, property or infrastructure;
 - (c) identify measures to be implemented to minimise scour and dissipate energy at locations where flood velocities are predicted to increase as a result of the project and cause localised soil erosion and/or pasture damage;
 - (d) be developed in consultation with the relevant council, NSW State Emergency Service and directly-affected property owners; and
 - (e) identify operational and maintenance responsibilities for items (a) to (c) inclusive.

The Proponent shall not commence construction of the project on or within those areas likely to alter flood conditions until such time as works identified in the hydrological mitigation report have been completed, unless otherwise agreed by the Director General.

- B12. Based on the mitigation measures identified in condition B11, the Proponent shall prepare a final schedule of feasible and reasonable flood mitigation measures proposed at each directly-affected property in consultation with the property owner. The schedule shall be provided to the relevant property owner(s) prior to the implementation/ construction of the mitigation works, unless otherwise agreed by the Director General. A copy of each schedule of flood mitigation measures shall be provided to the Department and the relevant council prior to the implementation/ construction of the mitigation measures on the property.
- B13. In the event that the Proponent and the relevant property owner cannot agree on feasible and reasonable flood mitigation measures to be applied to a property within one month of the first consultation on the measures (as required under condition B12), the Proponent shall employ a suitably qualified and experienced independent hydrological engineer, who has been approved by the Director General, for the purposes of this condition prior to the commencement of construction in the Broughton Creek, Town Creek, Bundewallah Creek and Shoalhaven floodplain areas affected by increased afflux from the project to advise and assist affected property owners in negotiating feasible and reasonable mitigation measures.
- B14. The Proponent shall provide assistance to the relevant council and/ or NSW State Emergency Service, to assist in the preparation of any new or necessary update(s) to the relevant plans and documents in relation to flooding, to reflect changes in flooding levels, flows and characteristics as a result of the project.

Sedimentation, Erosion and Water

- B15. Prior to the commencement of construction, unless otherwise agreed by the Director General, the Proponent shall in consultation with the EPA and NOW, undertake groundwater modeling on the concept design for the project, subject to the modelling being revised should the detailed design have a significantly different impact on groundwater than the concept design. The modeling shall be undertaken by a suitably qualified and experienced groundwater expert and assess the construction and operational impacts of the proposal on the groundwater resources, groundwater quality, groundwater hydrology and groundwater dependent ecosystems and provide

details of contingency and management measures in the groundwater management strategy required under condition B36(d).

- B16. The Proponent shall prepare and implement a **Water Quality Monitoring Program** to monitor the impacts of the project on surface and groundwater quality and resources and wetlands, during construction and operation. The Program shall be developed in consultation with the OEH, EPA, DPI (Fishing and Aquaculture) and NOW and shall include but not necessarily be limited to:
- (a) identification of surface and groundwater quality monitoring locations (including watercourses, waterbodies and SEPP14 wetlands) which are representative of the potential extent of impacts from the project;
 - (b) the results of the groundwater modelling undertaken under condition B15;
 - (c) identification of works and activities during construction and operation of the project, including emergencies and spill events, that have the potential to impact on surface water quality of potentially affected waterways;
 - (d) development and presentation of parameters and standards against which any changes to water quality will be assessed, having regard to the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000* (Australian and New Zealand Environment Conservation Council, 2000);
 - (e) representative background monitoring of surface and groundwater quality parameters for a minimum of twelve months (considering seasonality) prior to the commencement of construction, to establish baseline water conditions, unless otherwise agreed by the Director General;
 - (f) a minimum monitoring period of three years following the completion of construction or until the affected waterways and/ or groundwater resources are certified by an independent expert as being rehabilitated to an acceptable condition. The monitoring shall also confirm the establishment of operational water control measures (such as sedimentation basins and vegetation swales);
 - (g) contingency and ameliorative measures in the event that adverse impacts to water quality are identified; and
 - (h) reporting of the monitoring results to the Department, OEH, EPA and NOW.

The Program shall be submitted to the Director-General for approval 6 months prior to the commencement of construction of the project, or as otherwise agreed by the Director General. A copy of the Program shall be submitted to the OEH, EPA, DPI (Fishing and Aquaculture) and NOW prior to its implementation.

Heritage Impacts

Built and Landscape Heritage

- B17. Prior to pre-construction and construction impacts affecting 'Glen Devon' Federation Cottage (H11) and skid mounted work-site shed (H60), the Proponent shall carry out further historical research and investigate the options for relocation of these heritage items, in consultation with the department and the Heritage Council of NSW, to the satisfaction of the Director General.

Additionally, for H11, the proponent shall:

- (a) undertake archaeological investigations in accordance with condition B20; and
- (b) provide for the preparation and implementation of a heritage interpretation plan.

- B18. Prior to the commencement of preconstruction and construction works in proximity to the following items G2B H11, H13, H15, H16, H17, H19, H21, H22, H23, H30, H45, H47, H53, H54, H55, H56, H62, H63, and the Southern Illawarra Coastal Plain and Hinterland Cultural Landscape (SICPH CL), and G2B A13, A14, A39, TRACL and MFT 12 the Proponent shall complete all archival recordings, including photographic

recording. In addition detailed historical research shall be undertaken for the following items G2B H60, H61, H63, the SICPH CL and G2B A39.

This work shall be undertaken by an experienced heritage consultant, in accordance with the guidelines issued by the Heritage Council of NSW. The areas containing these items shall be clearly identified and/or fenced until the completion of the archival recordings. Within 6 months of completing the above work, the Proponent shall submit a report containing the archival recordings and the historical research, where required, to the Director General, the Heritage Council of NSW, the local Council and the local Historical Society.

- B19. Prior to pre-construction and construction impacts affecting G2B H15, H19, H21, H22, H23, H30 and H55 the Proponent shall carry out further historical and physical archaeological investigations in relation to these road alignments, in consultation with the department and the Heritage Council of NSW, to the satisfaction of the Director-General. These investigations must:
- (a) undertake archaeological investigations in accordance with condition B22;
 - (b) provide for the detailed analysis of any heritage items discovered during the investigations;
 - (c) include management options for these heritage items (including options for relocation and display); and
 - (d) if the findings of the investigations are significant, provide for the preparation and implementation of a heritage interpretation plan.

Archaeology (Aboriginal and non-Aboriginal)

B20. Prior to the commencement of pre-construction and construction activities affecting Aboriginal site G2B PAD 1 the Proponent shall:

- (a) undertake archaeological investigation of this site using a methodology generally consistent with testing undertaken for the Environmental Assessment, and prepared in consultation with the OEH (Aboriginal heritage) and the Aboriginal stakeholders; and
- (b) report on the results of the archaeological investigation, including recommendations (such as for further archaeological work) in consultation with the OEH and to the satisfaction of the Director General, and shall include, but not necessarily be limited to:
 - (i) consideration of measures to avoid or minimise disturbance to Aboriginal objects where objects of moderate to high significance are found to be present;
 - (ii) where impacts cannot be avoided, recommendations for any further investigations under condition B21; and
 - (iii) management and mitigation measures to ensure there are no additional impacts due to pre-construction and construction activities.

B21. Prior to the commencement of pre-construction and construction activities affecting sites G2B A16, A18, A24, A29, A30, A31, A32, A33, A36, and G2B PAD1 the proponent shall:

- (a) develop a detailed salvage strategy, prepared in consultation with the OEH (Aboriginal heritage) and the Aboriginal stakeholders. The investigation program shall be prepared to the satisfaction of the Director General; and
- (b) undertake any further archaeological excavation works recommended by the results of the Aboriginal archaeological investigation program.

Within twelve months of completing the above work, unless otherwise agreed by the Director General, the Proponent shall submit a report containing the findings of the excavations, including artefact analysis and Aboriginal Site Impacts Recording Forms (ASIR), and the identification of final storage location for all Aboriginal objects

recovered (testing and salvage), prepared in consultation with the Aboriginal stakeholders, the OEH (Aboriginal heritage) and to the satisfaction of the Director General.

Note: where archaeological testing has occurred as part of the Environmental Assessment and the results are included in the documents listed in condition A1(b) the sites tested must still form part of the final report prepared under B21(b).

B22. Prior to the commencement of pre-construction and construction activities affecting non-Aboriginal sites H11, H14, H19, H23, H28, H30, H48, H49, H53, and H55, the Proponent shall:

- (a) Undertake an Historic archaeological investigation program in accordance with the Heritage Council's *Archaeological Assessments Guideline* (1996) using a methodology prepared, in consultation with the OEH (Heritage Branch), and to the satisfaction of the Director-General. This work should be undertaken by an archaeological heritage consultant approved by the Director-General. The nomination for the Excavation Director shall demonstrate ability to comply with the Heritage Council's *Criteria for the Assessment of Excavation Directors* (July 2011).
- (b) Report on the results of the non-Aboriginal archaeological investigation program, including recommendations (such as for further archaeological work), in consultation with the Heritage Branch, OEH and to the satisfaction of the Director General, and shall include, but not necessarily be limited to:
 - (i) consideration of measures to avoid or minimise disturbance to archaeology, where archaeology of non-Aboriginal archaeological significance is found to be present;
 - (ii) where impacts cannot be avoided, recommendations for any further investigations for archaeology of historical archaeological significance; and
 - (iii) management and mitigation measures to ensure there are no additional impacts due to pre-construction and construction activities.
- (c) Undertake any further archaeological excavation works recommended by the results of the non-Aboriginal archaeological investigation program.

Within 12 months of completing the above work, unless otherwise agreed by the Director General, the Proponent shall submit a report containing the findings of the excavations, including artefact analysis, and the identification of a final repository for finds, prepared in consultation with the OEH (Heritage branch) and to the satisfaction of the Director General.

Note: where archaeological testing has occurred as part of the environmental assessment and the results are included in the documents listed in condition A1(b) the sites tested must still form part of the methodology and final report prepared for the non-Aboriginal archaeological investigation program.

Urban Design and Landscaping

B23. 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 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 2.2 Volume 2 Appendix I of the document referred to in Condition A1(b);
- (b) location of existing vegetation and proposed landscaping (including use of indigenous and endemic species where possible) 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 such as retaining walls, cuttings, embankments, bridges, and noise barriers);

- (d) a description of locations along the project corridor directly or indirectly impacted by the construction of the project (e.g. temporary ancillary facilities, access tracks, watercourse crossings, etc.) and details of the strategies to progressively rehabilitate regenerate and/ or revegetate the locations with the objective of promoting biodiversity outcomes and visual integration. Details of 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. Where residences and businesses have been identified as likely to experience high visual impact as a result of the project and high residual impacts are likely to remain, the Proponent shall in consultation with affected receptors, identify opportunities for providing at-receptor landscaping to further screen views of the project. Where agreed to with the landowner, these measures shall be implemented during the construction of the project;
- (f) take into account appropriate roadside plantings and landscaping in the vicinity of heritage items and ensure no additional heritage impacts;
- (g) specific details on the landscape treatments for the North Street corridor, Town Creek diversion and Town Park.
- (h) strategies for progressive landscaping of other environmental controls such as erosion and sedimentation controls, drainage and noise mitigation;
- (i) location and design treatments for any associated footpaths and cyclist elements, and other features such as seating, lighting (in accordance with AS 4282-1997 *Control of the Obtrusive Effect of Outdoor Lighting*), fencing, and signs;
- (j) evidence of consultation with the relevant council and community on the proposed urban design and landscape measures prior to its finalisation; and
- (k) monitoring and maintenance procedures for the vegetated built elements, rehabilitated vegetation and landscaping (including weed control) including performance indicators, responsibilities, timing and duration and contingencies where rehabilitation of vegetation and landscaping measures fail.

The Plan shall be submitted for the approval of the Director General prior to the commencement of construction, unless otherwise agreed by the Director General. The Plan may be submitted in stages to suit the staged construction program of the project.

Signage Policy

B24. The Proponent shall prepare a signage policy which addresses the bypassed towns of Foxground and Berry, in consultation with the relevant council.

B25. The signage policy shall be consistent with the *Guide: Signposting* (RTA July 2007), *Tourist Signposting guide* (RMS and Destination NSW 2012) and provide information on the range of services available within Berry including advice on any parks that could be used as a rest area (and directional signage to these parks) and that that the route through the towns may be taken as an alternative to the highway.

Property and Landuse

B26. The Proponent shall ensure that the project is designed to minimise land take impacts to surrounding properties (including agricultural properties) as far as feasible and reasonable, in consultation with the affected landowners. Where the viability of existing agricultural operations are identified to be impacted by the land requirements of the project, the Proponent shall as part of detailed design employ a suitably qualified and experienced independent agricultural specialist (that is approved by the Director General for the purpose of this condition), to assist in identifying alternative farming opportunities for the relevant properties.

- B27. The proponent shall discuss Crown Land transfer options with DPI (Crown Lands) and Shoalhaven Council, for Crown land located along the length of the project between Tannery Road and the northern interchange, with a view to reaching a mutually acceptable outcome for all parties. Evidence of consultation shall be provided to the Director General prior to the commencement of construction, with an agreed outcome to be reached, and submitted to the Director General, prior to the operation of the upgraded highway. In the event that a mutually acceptable agreement can not be reached, the Director General must be advised in writing, to determine whether mediation may be required.
- B28. The proponent shall, in consultation with Shoalhaven City Council, prepare a strategy for the use of the Council land adjacent the project at North Street (presently occupied by the Berry Riding Club) investigating options to minimise impacts on the riding club both during construction and operation of the project. The final option(s) shall be determined by the proponent prior to the commencement of construction of works in the vicinity of the riding club, in consultation with Shoalhaven City Council and to the satisfaction of the Director General.

Compliance Tracking

- B29. 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 relate to both the construction and operational phases of the project, and 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 requirements of this approval and the documents listed under condition A1, including the Statement of Commitments;
 - (c) provisions for periodic reporting of compliance status against the requirements of this approval and the documents listed under condition A1, including the Statement of Commitments, to the Director General including at least one month prior to the commencement of construction and operation of the project and at other intervals during the construction and operation, as identified in the Program;
 - (d) a program for independent environmental auditing in accordance with *ISO 19011:2003 - Guidelines for Quality and/ or Environmental Management Systems Auditing*;
 - (e) mechanisms for reporting and recording incidents and actions taken in response to those incidents;
 - (f) provisions for reporting environmental incidents to the Director General during construction and operation; and
 - (g) procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management.

Community Information and Involvement

Provision of Electronic Information

- B30. 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 approval and any future modification 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 B29.

Complaints and Enquiries Procedure

- B31. Prior to the commencement of construction, the Proponent shall ensure that the following are available for community complaints and enquiries during the construction period:
- (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.

- B32. The Proponent shall prepare and implement a **Construction Complaints Management System** consistent with AS 4269 Complaints Handling prior to the commencement of construction activities and must maintain the System for the duration of construction activities.

Information on all complaints received, including the means by which they were addressed and whether resolution was reached and whether mediation was required or used, 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

- B33. 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, the relevant council and the local community (broader and local stakeholders) on the 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 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;
 - (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 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 issues/ disputes that may arise between parties on the matters relating to environmental management and the delivery of the project. This may include the use of an appropriately qualified and experienced independent mediator.

Key issues that should be addressed in the Community Communication Strategy should include (but not necessarily be limited to):

- (i) traffic management (including property access, pedestrian access);
- (ii) landscaping/urban design matters;
- (iii) construction activities; and
- (iv) noise and vibration mitigation and management.

The Proponent shall maintain and implement the Strategy throughout construction of the project. The Strategy shall be approved by the Director General prior to the commencement of construction, or as otherwise agreed by the Director General.

Environmental Management

Environmental Representative

- B34. 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), 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 where the resolution of points of conflict between the Proponent and the community is required;
 - (c) monitor the implementation of environmental management plans and monitoring programs required under this approval;
 - (d) monitor the outcome of environmental management plans and advise the Proponent upon the achievement of project environmental outcomes;
 - (e) have responsibility for considering and advising the Proponent on matters specified in the conditions of this approval, and 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 B29 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 B35; 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

- B35. 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 that are to be followed during construction, and shall be prepared in consultation with the 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 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 approvals, consultations and agreements required from agencies and key legislation and policies. Evidence of consultation with relevant agencies shall be included identifying how issues raised by these agencies have been addressed in the Plan;
- (c) a description of the roles and responsibilities for relevant employees involved in the construction of the project including relevant training and induction provisions for ensuring that 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, including an assessment against the location criteria outlined in condition C32;
- (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 (including any impacts arising from the staging of the construction of the project and/ or concurrent construction works with adjacent Princes Highway Upgrade projects, as relevant). In particular, the following environmental performance issues shall be addressed in the Plan:
 - (i) measures to monitor and manage **dust emissions** including dust from stockpiles, blasting, traffic on unsealed public roads and materials tracking from construction sites onto public roads;
 - (ii) measures to minimise **hydrology** impacts, including measures to stabilise bed and bank structures as required,
 - (iii) measures to monitor and manage impacts associated with the construction and operation of **ancillary facilities**,
 - (iv) measures for the handling, treatment and management of **contaminated materials**,
 - (v) measures to monitor and manage **waste** generated during construction including but not necessarily limited to: general procedures for waste classification, handling, reuse, and disposal; 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);
 - (vi) measures to monitor and manage spoil, fill and materials **stockpile sites** including details of how spoil, fill or material would be handled, stockpiled, reused and disposed and a stockpile management protocol detailing locational criteria that would guide the placement of stockpiles and management measures that would be implemented to avoid/ minimise amenity impacts to surrounding residents and environmental risks (including to surrounding water courses). Stockpile sites that affect heritage, threatened species, populations or endangered ecological communities require the approval of the Director General, in consultation with the OEH;
 - (vii) measures to monitor and manage **hazard and risks** including emergency management; and
 - (viii) the issues identified in condition B36;

- (f) details of community involvement and complaints handling procedures during construction, consistent with the requirements of conditions B30 to B33;
- (g) details of compliance and incident management consistent with the requirements of condition B29; and
- (h) procedures for the periodic review and update of the Construction Environmental Management Plan and sub-plans required under condition B35 and B36 respectively, 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 no later than one month prior to the commencement of construction, or within such period otherwise agreed by the Director General. Construction works shall not commence until written approval has been received from the Director General.

B36. As part of the Construction Environment Management Plan for the project required under condition B35, the Proponent shall prepare and implement the following sub plan(s):

- (a) a **Construction Traffic Management Sub-plan**, prepared in accordance with the Roads and Maritime Service's *QA Specification G10 – Control of Traffic and Traffic Control at Work Sites Manual* (2003) to manage disruptions to traffic movements as a result of construction traffic associated with the project. The sub-plan shall be developed in consultation with the relevant council and shall 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 potential impacts to traffic on the existing highway, the 'Sandtrack', and associated local roads, including, intersection level of service and potential disruptions to pedestrians, public transport, parking, cyclists and property access;
 - (iv) details of temporary and interim traffic arrangements to address potential impacts;
 - (v) details of evidence based mitigation measures to address potential impacts on the 'Sandtrack'.
 - (vi) a response procedure for dealing with traffic incidents; and
 - (vii) mechanism for the monitoring, review and amendment of this sub-plan.
- (b) a **Construction Flora and Fauna Management Sub-plan** to detail how construction impacts on ecology will be minimised and managed. The sub-plan shall be developed in consultation with the OEH and DPI (Fishing and Aquaculture) and shall include, but not necessarily be limited to:
 - (i) details of pre-construction surveys undertaken by a suitably qualified and experienced ecologist 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 and riparian vegetation);
 - (ii) updated sensitive area/ vegetation maps based on (i) above and previous survey work;
 - (iii) details of general work practices and mitigation measures to be implemented during construction to minimise impacts on native fauna and native vegetation (particularly threatened species and EECs) not proposed to be cleared as part of the project, including, but not necessarily limited to: fencing of sensitive areas, a protocol for the removal and relocation of

- fauna during clearing, engagement of a suitably qualified and experienced ecologist to identify locations where they would be present to oversee clearing activities and facilitate fauna rescues and re-location, clearing timing with consideration to breeding periods, measures for maintaining existing habitat features (such as bush rock and tree branches etc), seed harvesting and appropriate topsoil management, construction worker education, weed management (including controls to prevent the introduction or spread of *Phytophthora cinnamomi*), erosion and sediment control and progressive re-vegetation;
- (iv) specific procedures to deal with EEC/ threatened species anticipated to be encountered within the project corridor including re-location, translocation and/or management and protection measures;
 - (v) a procedure for dealing with unexpected EEC/threatened species identified during construction including cessation of work and notification of the OEH, determination of appropriate mitigation measures in consultation with the OEH (including relevant re-location measures) and update of ecological monitoring and/ or biodiversity offset requirements consistent with conditions B7 and B8; and
 - (vi) mechanism for the monitoring, review and amendment of this sub-plan;
- (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 EPA and include, but not necessarily be limited to:
- (i) identification of nearest sensitive receptors 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 ancillary facilities) that have the potential to impact on surrounding sensitive receivers including expected noise/ vibration levels;
 - (iii) identification of feasible and reasonable measures proposed to be implemented to minimise construction noise and vibration impacts (including construction traffic noise impacts);
 - (iv) procedures for dealing with out-of-hour works in accordance with condition C4 and C6, including procedures for notifying the Director General concerning complaints received in relation to the extended hours approved under condition C4(e);
 - (v) procedures and mitigation measures to ensure relevant vibration and blasting criteria are achieved, including a suitable blast program, 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 blasting and/ or vibration is likely to result in damage to buildings and structures (including surveys being undertaken immediately following a monitored exceedance of the criteria);
 - (vi) 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; 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 exceedances 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 construction of the project. The sub-

plan shall be developed in consultation with the OEH, EPA, DPI (Fishing and Aquaculture) and NOW and include, but not necessarily be limited to:

- (i) identification of potential sources of erosion and sedimentation, and water pollution (including those resulting from maintenance activities);
 - (ii) details of how construction activities would be managed and mitigated to minimise erosion and sedimentation consistent with condition C20;
 - (iii) where construction activities have the potential to impact on waterways or wetlands (through direct disturbance such as construction of waterway crossings or works in close proximity to waterways or wetlands), site specific mitigation measures to be implemented to minimise water quality, riparian and stream hydrology impacts as far as practicable, including measures to stabilise bed and/ or bank structures where feasible and reasonable, and to rehabilitate affected riparian vegetation to existing or better condition. The timing of rehabilitation of the waterways shall be identified in the sub-plan;
 - (iv) a contingency plan, consistent with the *Acid Sulfate Soils Manual*, to deal with the unexpected discovery of actual or potential acid sulfate soils, including procedures for the investigation, handling, treatment and management of such soils and water seepage;
 - (v) a tannin leachate management protocol to manage the stockpiling of mulch and use of cleared vegetation and mulch filters for erosion and sediment control;
 - (vi) construction water quality monitoring requirements consistent with condition B16; and
 - (vii) a groundwater management strategy, including (but not necessarily limited to):
 - i. description and identification of groundwater resources (including depths of the water table and water quality) potentially affected by the project based on baseline groundwater monitoring undertaken in accordance with condition B15;
 - ii. identification of surrounding licensed bores, dams or other water supplies and groundwater dependant ecosystems and potential groundwater risks associated with the construction of the project on these groundwater users and ecosystems;
 - iii. measures to manage identified impacts on water table, flow regimes and quality and to groundwater users and ecosystems;
 - iv. groundwater inflow control, handling, treatment and disposal methods; and
 - v. a detailed monitoring plan to identify monitoring methods, locations, frequency, duration and analysis requirements; and
- (e) a **Construction Heritage Management Sub-plan** to detail how construction impacts on Aboriginal and non-Aboriginal heritage will be avoided, minimised and managed. The sub-plan shall be prepared by an appropriately qualified heritage consultant(s) and be developed in consultation with the Heritage Council of NSW, the OEH (Aboriginal heritage), and registered Aboriginal stakeholders (for Aboriginal heritage), and include, but not necessarily be limited to:
- (i) In relation to Aboriginal Heritage:
 - i. details of management measures and strategies for protection, salvage, and/or conservation of sites and items that will be directly or indirectly impacted during construction (including further archaeological investigations, salvage measures and/ or measures to protect unaffected sites during construction works in the vicinity);

- ii. procedures for dealing with previously unidentified Aboriginal objects (excluding human remains) including cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can re-commence by a suitably qualified archaeologist in consultation with the department, OEH and registered Aboriginal stakeholders and assessment of the consistency of any new Aboriginal heritage impacts against the approved impacts of the project, and notification to the OEH, in accordance with section 89A of the *National Parks and Wildlife Act 1974*, and the department;
 - iii. procedures for dealing with human remains, including cessation of works in the vicinity and notification of the department, NSW Police Force, OEH and registered Aboriginal stakeholders and not recommencing any works in the area unless authorised by the department and/ or the NSW Police Force); and
 - iv. induction processes (identification, protection) for construction personnel (including procedures for keeping records of inductions) and procedures for ongoing Aboriginal consultation and involvement; and
- (ii) In relation to non-Aboriginal Heritage:
- i. details of management measures and strategies for protection, excavation, archival recording and/or conservation of heritage items that will be directly or indirectly impacted during construction (including measures to protect unaffected items during construction works in the vicinity);
 - ii. procedures for dealing with previously unidentified items of heritage significance, including cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can re-commence by a suitably qualified and experienced archaeologist in consultation with the department and the Heritage Council of NSW and assessment of the consistency of any new non-Aboriginal heritage impacts against the approved impacts of the project and notification of the Heritage Council of NSW, in accordance with Section 146 of the *NSW Heritage Act 1977*, and the department;
 - iii. procedures for dealing with human remains, including cessation of works in the vicinity and notification of the department, NSW Police Force, the Heritage Council of NSW and not recommencing any works in the area unless authorised by the department, and/ or the NSW Police Force); and
 - iv. heritage induction processes (identification, protection) for construction personnel (including procedures for keeping records of inductions).
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PART C – DURING CONSTRUCTION

Biodiversity

- C1. The Proponent shall employ feasible and reasonable measures to minimise the clearing of native vegetation during the construction of the project.

Air Quality Impacts

- C2. The Proponent shall employ feasible and reasonable measures (including cessation of relevant works, as appropriate) to ensure that the project is constructed in a manner that minimises dust generation, including wind-blown dust, traffic-generated dust, dust from stockpiles and material tracking from construction and ancillary facility sites onto public roads.

Noise and Vibration Impacts

Construction Hours

- C3. The Proponent shall only undertake construction activities associated with the project during the following standard construction hours:
- (i) 7:00am to 6:00pm Mondays to Fridays, inclusive; and
 - (ii) 8:00am to 1:00pm Saturdays; and
 - (iii) at no time on Sundays or public holidays.
- C4. Works outside of the standard construction hours identified in condition C3 may be undertaken in the following circumstances:
- (a) works that generate noise that is:
 - (i) no more than 5 dB(A) above rating background level at any residence; or
 - (ii) no more than the noise management levels specified in Table 3 of the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009) at other sensitive land uses; or
 - (b) for delivery of materials required outside these hours by the NSW Police Force 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;
 - (d) For the area between Toolijooa Road and Tindalls Lane, encompassing Toolijooa cut, Broughton Creek floodplain and major bridge works (outside of Berry township) low noise impact activities and works as follows:
 - (i) between 6:00am and 7:00am Monday to Friday; and
 - (ii) between 6:00pm and 7:00pm Monday to Friday; and
 - (iii) 1:00pm and 5:00pm on Saturdays; and
 - (iv) at no time after 6pm on a day preceding a public holiday long weekend; and
 - (e) with the approval of the Director General in accordance with condition C6.
- C5. Except as expressly permitted by an Environment Protection Licence issued for the project, high noise impact activities and works shall only be undertaken:
- (a) between the hours of 8:00am to 6:00pm Mondays to Fridays;
 - (b) between the hours of 8:00am to 1:00pm 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.

- C6. Construction activities (Out of Hours work) may be allowed to occur outside the construction hours specified in condition C3 with the prior written approval of the Director General. Requests for Out of Hours approval will be considered for

construction activities which cannot be undertaken during the construction hours specified in condition C3 for technical or other justifiable reasons and will be considered on a case by case or activity-specific basis. Request for Out of Hours work must be accompanied by:

- (a) details of the nature and need for activities to be conducted during the varied construction hours;
- (b) written evidence to the EPA and the Director General that activities undertaken during the varied construction hours are justified, appropriate consultation with potentially affected receivers and notification of the relevant Council has been undertaken, issues raised have been addressed, and all feasible and reasonable mitigation measures have been put in place; and
- (c) evidence of consultation with the EPA on the proposed variation in standard construction hours.

Despite the above, Out of Hours work may also occur in accordance with an approved Construction Environment Management Plan or Construction Noise and Vibration Management Sub-plan for this project, where that plan provides a process for considering the above on a case by case or activity specific basis by the Proponent, including factors (a) to (c) above.

- C7. Blasting associated with the project shall only be undertaken during the following hours:
- (a) 9:00am to 5:00pm, Mondays to Fridays, inclusive;
 - (b) 9:00am to 1:00pm on Saturdays; and
 - (c) at no time on Sundays or public holidays.

This condition does not apply in the event of a direction from the NSW Police Force or other relevant authority for safety or emergency reasons to avoid loss of life, property loss and/or to prevent environmental harm.

Construction Noise and Vibration Goals

- C8. The Proponent shall implement feasible and reasonable 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) during construction activities. 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 B36.
- C9. The Proponent shall implement all feasible and reasonable mitigation measures with the aim of achieving the following construction vibration goals:
- (a) for structural damage to heritage structures, the vibration limits set out in the German Standard DIN 4150-3: Structural Vibration - effects of vibration on structures;
 - (b) for damage to other buildings and/or structures, the vibration limits set out in the British Standard BS 7385-1:1990 – Evaluation and measurement for vibration in buildings. Guide for measurement of vibration and evaluation of their effects on buildings; and
 - (c) 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).
- C10. The Proponent shall ensure that airblast overpressure generated by blasting associated with the project does not exceed the criteria specified in Table 1 when measured at the most affected residence or other sensitive receiver.

Table 1 - Airblast overpressure criteria

Airblast overpressure (dB(Lin Peak))	Allowable exceedance
115	5% of total number of blasts over a 12 month period
120	0%

- C11. The Proponent shall ensure that ground vibration generated by blasting associated with the project does not exceed the criteria specified in Table 2 when measured at the most affected residence or other sensitive receiver.

Table 2 – Peak particle velocity criteria

Receiver	Peak particle velocity (mm/s)	Allowable exceedance
Residence on privately owned land	5	5% of total number of blasts over a 12 month period
	10	0%
Non-Aboriginal Heritage item	3	0%

- C12. To ensure that the criteria specified in conditions C10 and C11 are satisfied at the most affected residence or other sensitive receiver, blasting trials shall be undertaken prior to the commencement of the project's blasting program, with results from the trial blasts used to determine site specific blast design to satisfy the relevant criteria.
- C13. The blasting criteria identified in conditions C10 and/or C11 may be exceeded where the Proponent has written approval from the Director General. In obtaining the Director General approval for any such exceedance the Proponent shall submit to the Director General:
- a written agreement from the EPA and the relevant landowner to exceed the criteria;
 - details of the proposed blasting program and justification for the proposed increase to blasting criteria including alternatives considered (where relevant);
 - an assessment of the environmental impacts of the increased blast limits on the surrounding environment and most affected residences or other sensitive receivers including, but not limited to noise, vibration and air quality and any risk to surrounding utilities, services or other structures;
 - details of the blast management, mitigation and monitoring procedures to be implemented; and
 - details of consultation undertaken (including clear identification of proposed blast limits and potential property impacts) and agreement reached with the relevant landowners and EPA (including a copy of the agreement in relation to increased blasting limits).

Unless otherwise agreed by the Director General, the following exclusions apply to the application of this condition:

- any agreements reached may be terminated by the landowner at any time should concerns about the increased blasting limits be unresolved; and
- the blasting limit agreed to under any agreement can at no time exceed a maximum Peak Particle Velocity vibration level of 25 mm/s or maximum Airblast Overpressure level of 125 dBL.

The provisions under condition C13 (to increase applicable blast criteria in agreement with the relevant landowners) do not apply where the property is a non-Aboriginal heritage item.

Operational Noise Mitigation Review

- C14. Unless otherwise agreed by the Director General, within 6 months of commencing construction, the Proponent shall, in consultation with the EPA, 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. This operational noise assessment shall be based on an appropriately calibrated noise model (which has incorporated additional noise monitoring, where necessary for calibration purposes);
 - (b) review the suitability of the operational noise mitigation measures identified in the documents listed under condition A1 to achieve the criteria outlined in the *Road Noise Policy* (DECCW, 2011), based on the operational noise performance of the project predicted under (a) above; and
 - (c) where necessary, investigate additional feasible and reasonable noise mitigation measures to achieve the criteria outlined in the *Road Noise Policy* (DECCW, 2011),.

Heritage Impacts

- C15. This approval does not allow the Proponent to destroy, modify or otherwise physically affect human remains as part of the project.
- C16. The Proponent shall not destroy, modify or otherwise physically affect Aboriginal sites A3, A20, A37 – A39, and MFT 13-23 and non-Aboriginal sites H25, H26, H51, H52, H58, and H59.
- C17. Identified impacts to heritage (both Aboriginal and non-Aboriginal), shall be minimised to the greatest extent practicable through both detailed design and construction, particularly with regard to Aboriginal sites A13, A14, A18 and TRACL, and historic sites H13, H20, H54, H62, H63 and the Southern Illawarra Coastal Plain and Hinterland Cultural Landscape. Where impacts are unavoidable, works shall be undertaken in accordance with the actions to manage heritage construction impacts required by condition B36(e) and under the guidance of an appropriately qualified heritage specialist.
- C18. The proponent shall not destroy, modify or otherwise physically affect any heritage items outside the approved project footprint, unless otherwise agreed by the Director General in accordance with Condition C32 of this project approval.
- C19. The measures to protect Aboriginal or historic heritage sites near or adjacent to the project during construction shall be detailed in the Heritage Management Sub-plan required under condition B36(e).

Sedimentation, Erosion and Water

- C20. Soil and water management measures consistent with *Managing Urban Stormwater - Soils and Construction Vols 1 and 2, 4th Edition* (Landcom, 2004) 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.

- 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. All surface water and groundwater must be adequately treated prior to entering the stormwater system to protect the receiving water source quality.

Property and Landuse

- C23. The Proponent shall construct the project in a manner that minimises impacts to private properties and other public or private structures (such as dams, fences, utilities, services etc) along the project corridor. In the event that construction of the project results in direct or indirect damage to such property or structure, the Proponent shall arrange and fund repair of the damage to a standard comparable to that in existence prior to the damage occurring, unless otherwise agreed by the relevant property or utility owner.
- C24. Access to private property shall be maintained during construction unless otherwise agreed with the property owner in advance. A landowner's access that is physically affected by the Project shall be reinstated to meet at least equivalent standard and / or relevant road safety standards, in consultation with the property owner.
- C25. Any damage caused to property as a result of the project shall be rectified or the property owner compensated, within a reasonable timeframe, with the costs borne by the Proponent. This condition is not intended to limit any claims that the property owner may have against the Proponent.
- C26. The Proponent shall, in consultation with relevant property owners, construct the project in a manner that minimises intrusion and disruption to agricultural operations/ activities in surrounding properties (e.g. stock access, access to farm dams etc), unless otherwise agreed by the relevant property owner.

Traffic Impacts

- C27. The roads likely to be used by the project's heavy construction vehicles shall be identified in the Construction Traffic Management Sub-plan required under condition B36(a).
- a) Road dilapidation reports shall be prepared for local roads likely to be used by the project's construction traffic, and a copy of the report(s) shall be provided to the relevant council, prior to use by the project's heavy construction vehicles. Any damage resulting from the use of the identified local roads by the project's heavy construction vehicles, aside from that resulting from normal wear and tear, shall be repaired at the cost of the Proponent, unless otherwise agreed by the relevant council.
 - b) A road dilapidation report shall be prepared for the 'Sandtrack' and a copy of the report shall be provided to the relevant council, prior to commencement of construction. Should monitoring in accordance with Condition B36(a) reveal higher than anticipated volumes of traffic (as defined in the document referred to in Condition A1(b)) resulting in a higher rate of deterioration in the condition of local road infrastructure, consultation with the relevant Council shall be undertaken to determine mitigation measures in accordance with Condition B36(a). A report shall be prepared and submitted to the Director General at 12 months and 24 months after commencement of construction, and prior to operation, unless otherwise agreed by the Director General.

Waste Management

- C28. The Proponent shall not cause, permit or allow 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.
- 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 ensure that liquid and/or non-liquid waste generated on the site is assessed and classified in accordance with *Waste Classification Guidelines* (Department of Environment and Climate Change, 2008) and where removed from the site is directed to a waste management facility lawfully permitted to accept the materials.

Hazards and Risks

- C31. The Proponent shall store and handle dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with:
- (a) 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.

Ancillary Facilities

- C32. Unless otherwise approved by the Director General in accordance with this condition, the sites for ancillary facilities (except stockpiles) 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) not require native vegetation clearing beyond that already required by the project;
 - (d) be sited 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) not unreasonably affect the land use of adjacent properties;
 - (g) be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented;
 - (h) 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
 - (i) not impact on heritage items beyond those already impacted by project (including identified Aboriginal cultural value and archaeological sensitivity).
- 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. Such assessment(s) can be submitted separately or as part of the Construction Environmental Management

Plan required under B35 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 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 the 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.

The Proponent shall demonstrate to the satisfaction of the Director-General that there will be no significant adverse impact from that facility's construction or operation.

C34. The Director General's approval is not required for minor ancillary facilities (e.g. lunch sheds, office sheds, and portable toilet facilities, etc.) that do not comply with the criteria set out in condition C32 of this approval and which:

- (a) are located within an active construction zone within the approved project footprint; and
 - (b) have been assessed by the Environmental Representative to have:
 - (i) minimal amenity impacts 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) minimal environmental impact in respect to waste management, and no impacts on flora and fauna, soil and water, and heritage beyond those approved for the project; and
 - (c) have environmental and amenity impacts that can be managed through the implementation of environmental measures detailed in a Construction Environment Management Plan for the project.
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PART D – PRIOR TO OPERATIONS

Operational Environment Management System

- D1. Prior to the commencement of operation, the Proponent shall incorporate the project into its existing environmental management systems.
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PART E – DURING OPERATIONS

Operational Noise

- E1. Within 12 months of the commencement of operation of the project, or as otherwise agreed by the Director General, the Proponent shall undertake operational noise monitoring to compare actual noise performance of the project against noise performance predicted in the review of noise mitigation measures required by condition C14, and prepare an **Operational Noise Report** to document this monitoring. The Report shall include, but not necessarily be limited to:
- (a) noise monitoring to assess compliance with the operational noise levels predicted in the review of operational noise mitigation measures required under condition C14 and documents specified under condition A1 of this approval;
 - (b) a review of the operational noise levels in terms of criteria and noise goals established in the *NSW Road Noise Policy* (EPA, 2011);
 - (c) methodology, location 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;
 - (d) 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;
 - (e) any required recalibrations of the noise model taking into consideration factors such as actual traffic numbers and proportions;
 - (f) an assessment of the performance and effectiveness of applied noise mitigation measures together with a review and if necessary, reassessment of all feasible and reasonable mitigation measures; and
 - (g) identification of additional feasible and reasonable measures to those identified in the review of noise mitigation measures required by condition C14, that would be implemented with the objective of meeting the criteria outlined in the *NSW Road Noise Policy* (EPA, 2011), when these measures would be implemented and how their effectiveness would be measured and reported to the Director General and the EPA.

The Proponent shall provide the Director General and the EPA with a copy of the Operational Noise Report within 60 days of completing the operational noise monitoring referred to in (a) above or as otherwise agreed by the Director General.
