

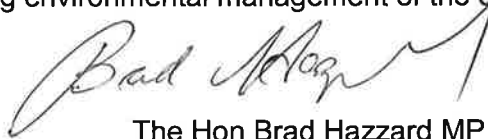
Infrastructure Approval

Section 115ZB of the *Environmental Planning and Assessment Act 1979*

I grant approval to the State significant infrastructure application referred to in schedule A, subject to the conditions in schedules B to F.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts including economic and social impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the development.



The Hon Brad Hazzard MP
Minister for Planning and Infrastructure

17 JUL 2013

Sydney

2013

SCHEDULE A

Application no.:	SSI-5132
Proponent:	Transport for NSW
Consent Authority:	Minister for Planning and Infrastructure
Land:	Land required for the construction and operation of the proposal, generally between Epping and Thornleigh
Infrastructure:	Construction and operation of the Epping to Thornleigh Third Track, including operation and construction/modifications of stations; station precincts; service facilities; rail infrastructure and systems.
State significant infrastructure:	The Proposal is State significant infrastructure by virtue of Schedule 3, Clause 1(1) of the State and Regional Development SEPP.

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 long-term (greater than 6 months) material stockpile area.
Conditions of approval	The Minister's conditions of approval for the SSI.
Construction	<p>Includes all work in respect of the SSI other than:</p> <ul style="list-style-type: none">a) survey, acquisitions, building/ road dilapidation surveys;b) investigative drilling/ excavation,c) minor clearing or translocation of vegetation;d) establishing ancillary facilities/ construction work sites (in locations meeting the criteria identified in the Conditions of Approval);e) installation of environmental impact mitigation measures, fencing, enabling works;f) other activities determined by the Environmental Representative to have minimal environmental impact (e.g. access roads, adjustments to services/ utilities, etc). <p>Work where a heritage item, 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 and/ or the Heritage Council of NSW.</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 nominee).</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
EEC	Endangered ecological community
EIS	Environmental Impact Statement
Enabling Works	Works which allow isolation of the site so that access for construction can be provided.
EPA	Environment Protection Authority.
EPL	Environment Protection Licence under the <i>Protection of the Environment Operations Act 1997.</i>

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 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 shall 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 works and 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.
IGANRIP	<i>Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects</i> (DECC and DoP, 2007).
Minister, the	Minister for Planning and Infrastructure
NOW	NSW Office of Water
OEH	Office of Environment and Heritage
Operation	Means the operation of the SSI, but does not include commissioning trials of equipment or temporary use of parts of the SSI during construction.
Proponent	Transport for NSW
Publicly available	Available for inspection by a member of the general public (for example available on an internet website).
Relevant council(s)	Hornsby Shire or Parramatta City Council
Rail curve	Rail curves with a horizontal radius of less than 500 metres.
RING	<i>Rail Infrastructure Noise Guideline</i> (EPA, 2013).
RMS	Roads and Maritime Services
Sensitive receiver	Residence, education institution (e.g. school, university, TAFE college), health care facility (e.g. nursing home, hospital), religious facility (e.g. church), children's day care facility, community centres, and recreation areas.
SSI	Means the infrastructure approved under this approval and as generally described in Schedule A.

SCHEDULE B

ADMINISTRATIVE CONDITIONS

TERMS OF APPROVAL

- B1. The Proponent shall carry out the SSI generally in accordance with the:
- (a) SSI Application SSI-5132;
 - (b) *Epping to Thornleigh Third Track: Environmental Impact Statement*, dated 13 September 2012;
 - (c) *Epping to Thornleigh Third Track Submissions Report*, dated 13 March 2013; and
 - (d) conditions of this approval.
- B2. In the event of an inconsistency between:
- (a) the conditions of this approval and any document listed from condition B1(a) to B1(c) inclusive, the conditions of this approval shall prevail to the extent of the inconsistency; and
 - (b) any document listed from condition B1(a) to B1(c) inclusive, the most recent document shall prevail to the extent of the inconsistency.
- B3. 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 prepared and/or submitted in accordance with this approval; and
 - (b) the implementation of any actions or measures contained within these reports, plans or correspondence.
- B4. Subject to confidentiality, the Proponent shall make all documents required under this approval available for public inspection on request.

LIMITS OF APPROVAL

- B5. This approval shall lapse 10 years after the date on which it is granted, unless the works the subject of this SSI approval are physically commenced on or before that date.

STATUTORY REQUIREMENTS

- B6. The Proponent shall ensure that the SSI complies with all relevant legislation and that all licences, permits and approvals are obtained as required by law and maintained as required throughout the life of the SSI. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals.
- B7. Any changes to the scope of the infrastructure activity shall be subject to a consistency review. Should the review identify activity scope and environmental impacts inconsistent with the assessed infrastructure activity, a modification to the infrastructure activity approval would be required.

STAGING

- B8. The Proponent may elect to construct and/ or operate the SSI 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 SSI 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 SSI.

Where staging of the SSI 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.

- B9. 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 otherwise agreed by the Director General.

Note: These conditions do not relate to staged infrastructure within the meaning of section 115ZD of the EP&A Act.

COMPLIANCE

- B10. The Proponent shall ensure that any strategy, plan, program (or the like) incorporates mitigation measures identified in the documents listed in condition B1, as relevant, and as modified by this approval.
- B11. The Proponent shall ensure that employees, contractors and sub-contractors are aware of, and the need to comply with, the conditions of this approval relevant to their respective activities.
- B12. The Proponent shall be responsible for environmental impacts resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and authorised visitors.

SCHEDULE C

ENVIRONMENTAL PERFORMANCE

NOISE AND VIBRATION

Operational Noise and Vibration

- C1. Rail line components of the SSI shall be designed and operated with the objective of not exceeding the airborne and ground-borne noise trigger levels at existing development, at each stage of the SSI, as presented in IGANRIP or RING, whichever is the most conservative.

For the purpose of this condition, existing development includes all development that at the date of this approval, has been carried out in the vicinity of the rail corridor and any such development approved prior to the determination of this SSI, but only to the extent that the location of the development is known.

- C2. Stationary facilities (including stations) shall be designed and operated with the objective of meeting operational noise levels derived from the *NSW Industrial Noise Policy* (NSW Government, 2000).
- C3. The SSI shall be designed and operated with the objective of not exceeding the vibration goals for human exposure for existing sensitive receivers, as presented in *Assessing Vibration: a Technical Guideline* (DECC, 2006).
- C4. The Proponent shall prepare an Operational Noise and Vibration Review (ONVR) to confirm noise and vibration control measures that will be implemented for the SSI. The ONVR shall be prepared in consultation with the EPA and relevant Councils and shall:
- (a) identify the appropriate operational noise and vibration objectives and levels for receiving existing development, including all sensitive receivers;
 - (b) predict the operational noise and vibration impacts at receiving existing development based on the final design and operation of the SSI. This prediction shall include a safety factor on train numbers and re-examination of curve squeal. Noise predictions shall be presented in catchments with each sensitive receiver clearly identified and described (including type and number of storeys) with their appropriate noise predictions. Absolute noise levels shall be presented to the nearest whole decibel, and the 'increase' in noise presented to a single decimal place;
 - (c) assess all feasible and reasonable noise and vibration mitigation measures, with a preferential focus on source control and design consistent with IGANRIP. The feasible and reasonable analysis shall be transparent and fully justified and shall include, but not be limited to the consideration of subjective noise factors, such as the number of noisy events, the duration of noisy events and the characteristics of the noise (e.g. wheel squeal, low frequency noise) and consideration of the following mitigations measures:
 - signal relocation;
 - composite sleepers;
 - rail dampeners;
 - gauge face lubricators for curve track and squeal;
 - noise barriers/bunds, including low profile rail barriers close to the track; and
 - property treatments;
 - (d) include a mitigation plan for each catchment showing all sensitive receivers where IGANRIP triggers are exceeded and a strategy to mitigate the noise, including the identification of specific physical and other mitigation measures for

- controlling noise and vibration at the source and at the receiver including location, type and timing for the implementation of mitigation measures;
- (e) include a consultation strategy to seek feedback from directly affected property owners on the noise and vibration mitigation measures;
 - (f) include procedures for operational noise and vibration complaints management, including investigation and monitoring (subject to complainant agreement); and
 - (g) incorporate results from the Source Noise Monitoring Plan (condition C5).

Notwithstanding the feasible and reasonable noise mitigation assessment, gauge face lubricators for curve squeal shall be implemented as part of the SSI. Should operational noise monitoring (conditions C5 and F2) identify lubricators not effective in reducing curve squeal, property treatments or other mitigation measures if deemed more practicable, are to be implemented for sensitive receivers immediately adjacent (generally within 50m from the newly constructed track) to rail curves on the downside (western side) of the rail corridor, irrespective of IGANRIP/RING noise trigger level exceedances.

The ONVR (and any subsequent amendment) is to be independently verified by a noise and vibration expert. The scope of the verification exercise undertaken by the noise and vibration expert is to be developed by the Proponent in consultation with the EPA. The verification will be undertaken at the Proponent's expense and the independent expert shall be approved by the Director-General. The ONVR and independent review is to be submitted to and approved by the Director-General prior to the commencement of the laying of rail track or the construction of physical noise mitigation structures, unless otherwise agreed to by the Director-General.

The Proponent shall implement the identified noise and vibration control measures prior to operation and make the ONVR publicly available.

Source Noise Monitoring Plan

- C5. The Proponent shall prepare a Source Noise Monitoring Plan for the SSI rail corridor to assist in identifying and managing noisy freight locomotives and their rolling stock. The Plan shall be prepared prior to operation and in consultation with the EPA and shall include:
- (a) real time noise monitoring at a representative rail curve that potentially cause wheel squeal and other annoying rail noise characteristics;
 - (b) the identification of noisy freight locomotives and their rolling stock and associated noise levels; and
 - (c) the reporting of monitored data to be made publicly available within a reasonable time frame.

Monitoring results shall be incorporated into the development of initiatives to address broader rail noise within the corridor and across the rail network. Monitoring results shall be reported and addressed in the Operational Noise and Vibration Compliance Monitoring and Assessment Report (condition F2).

BIODIVERSITY

Water courses

- C6. All works taking place in, on or under waterfront land, as defined by the *Water Management Act*, shall be undertaken in accordance with the NOW's *Guidelines for Controlled Activities*.
- C7. Watercourses affected by the proposal shall, where feasible and reasonable, be rehabilitated to emulate a natural stream system. The rehabilitation of watercourses

shall be consistent with the NSW Office of Water *Guidelines for Controlled Activities*; and stream armouring should be minimised to the greatest extent practicable.

Biodiversity Offset Package

- C8. Within twelve months of the commencement of construction, or as otherwise agreed to by the Director General, the Proponent shall develop and submit a Biodiversity Offset Package for the approval of the Director General. The Package shall detail how the ecological values lost as a result of the SSI will be offset. The Package shall be developed in consultation with OEH and the relevant Council(s) and shall (unless otherwise agreed by the Director General) include, but not necessarily be limited to:
- (a) the identification of the extent, types and condition of habitat that shall be lost or degraded as a result of the SSI, including the consideration of indirect impacts on adjacent retained vegetation and impacts caused through weed incursion and other potential edge effects;
 - (b) the objectives and biodiversity outcomes to be achieved;
 - (c) the final suite of the biodiversity offset measures selected and secured with consideration of the Biodiversity Offset Strategy and subject to the conditions of this approval;
 - (d) the management and monitoring requirements for biodiversity offset measures proposed to ensure the outcomes of the package are achieved, including:
 - i) the monitoring of the condition of species and ecological communities at offset locations;
 - ii) the methodology for the monitoring program(s), including the number and location of offset monitoring sites, and the sampling frequency at these sites;
 - iii) provisions for the annual reporting of the monitoring results for a set period of time as determined in consultation with the OEH; and
 - (e) timing and responsibilities for the implementation of the provisions of the Package.

Land offsets shall be consistent with the *Principles for the use of Biodiversity Offsets in NSW* and the *Interim Policy on Assessing and Offsetting Biodiversity Impacts of Part 3A, State Significant Development (SSD) and State Significant Infrastructure (SSI) Projects* (OEH, 2011). Any land offset shall be enduring and be secured by a conservation mechanism which protects and manages the land in perpetuity. Where land offsets cannot solely achieve compensation for the loss of affected biodiversity, additional measures shall be provided to collectively deliver a biodiversity offset in accordance with the *Interim Policy on Assessing and Offsetting Biodiversity Impacts of Part 3A, State Significant Development (SSD) and State Significant Infrastructure (SSI) Projects* (OEH, 2011) and to provide a positive biodiversity outcome for the region.

Where possible, priority shall be given to securing offset sites as near to the location of the impact/loss as possible to assist with the preservation of the specific endemic community of the area and assure that the ecological and amenity benefits of retaining endemic vegetation remain within the locality.

Where monitoring indicates biodiversity outcomes are not being achieved, remedial actions, (such as improved land management measures or changes to the size and/or location of the offset area), shall be developed. Such remedial actions shall be documented under an addendum to the Biodiversity Offset Package and the addendum be submitted to and approved by the Director-General, prior to the implementation of that addendum.

TRANSPORT AND ACCESS

- C9. The SSI shall be designed and constructed with the objective of minimising adverse changes to existing access arrangements and services for other transport modes (including pedestrians and cycles) and, where feasible and reasonable facilitate an improved level of access and service to other transport modes comparable to the existing situation.
- C10. In relation to new or modified roads (including rail bridges), parking, pedestrian and cycle infrastructure, the SSI shall be designed:
- (a) in consultation with the relevant road authority and Council(s);
 - (b) in consideration of road safety and traffic network impacts;
 - (c) to meet relevant design, engineering and safety guidelines, including Austroads Guide to Traffic Engineering Practice; and
 - (d) is certified by an appropriately qualified person that has considered the above matters.
- C11. Bridgeworks and other structures in the proximity of the road and associated transport networks shall be designed to ensure the efficient and safe operation of the networks.
- C12. The proponent shall implement, to the greatest extent practicable and subject to the conditions of this approval, the mitigation measures and strategies identified in section 6 of the *Epping to Thornleigh Third Track EIS: Technical Paper - Traffic and Transport* dated September 2012.

AIR QUALITY

- C13. The SSI shall be operated with the objective of meeting ambient air quality impact assessment criteria for identified pollutants as presented in Table 3.1 of *Epping to Thornleigh Third Track EIS: Technical Paper – Air Quality* dated September 2012.

SOIL, WATER QUALITY AND HYDROLOGY

- C14. Except as may be provided by an EPL, the SSI shall be constructed and operated to comply with section 120 of the Protection of the Environment Operations Act 1997, which prohibits the pollution of waters.

Flooding

- C15. The SSI shall be designed, to the extent that is feasible and reasonable, to not worsen existing flooding characteristics in the vicinity of the infrastructure activity. Not worsen is defined as:
- (a) a maximum increase in inundation levels upstream of the SSI of 50 mm in a 1 in 100 year ARI rainfall event; and
 - (b) a maximum increase in inundation time of one hour in a 1 in 100 year ARI rainfall event.

Any increase in flow velocity in a 100 year ARI flood event should minimise the potential for soil erosion and scouring.

Groundwater

- C16. The SSI shall be designed to avoid impacts on existing bores and user rights, to the greatest extent practicable. Where impacts cannot be avoided, impacts shall be minimised and monitored as part of the Water Quality Monitoring Program (condition C17).

Water Quality Monitoring Program

C17. A Water Quality Monitoring Program shall be prepared and implemented to monitor impacts on surface and groundwater quality resources during construction and operation. The Program shall be developed in consultation with the DPI and shall include but not necessarily be limited to:

- (a) identification of surface and groundwater quality monitoring locations which are representative of the potential extent of impacts from the SSI;
- (b) identification of works and activities during construction and operation of the SSI, including emergencies and spill events, that have the potential to impact on surface water quality of potentially affected waterways;
- (c) 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);
- (d) representative background monitoring of surface and groundwater quality parameters prior to the commencement of construction, to establish baseline water conditions, unless otherwise agreed by the Director General;
- (e) a minimum monitoring period of 12 months following the completion of construction or until the affected waterways and/ or groundwater resources affected by the SSI 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);
- (f) contingency and ameliorative measures in the event that adverse impacts to water quality are identified; and
- (g) reporting of the monitoring results to the Department and DPI.

The Program shall be submitted to the Director General prior to the commencement of construction of the SSI, or as otherwise agreed by the Director General. A copy of the Program shall also be submitted to the DPI prior to its implementation.

Earthworks

C18. The SSI shall be designed to ensure the maintenance of land stability and geological integrity to protect property and infrastructure. The design shall be informed by appropriate geotechnical investigations and the report detailing these investigations and design responses shall be made publicly available.

In locations identified through the geotechnical investigations, of having a stability risk to property and infrastructure, monitoring shall be undertaken throughout construction of those works with a potential risk and for a period of not less than 6 months after construction of those works with a potential risk. The investigation, SSI design and monitoring regime shall be informed by an appropriately qualified geotechnical professional

Land Contamination

C19. To protect the environment and human health from contamination, measures to identify, handle and manage potential contaminated soil, materials and groundwater shall be incorporated into the Construction Environmental Management Plan (condition E33). If remediation of contaminants is required, a soil sampling validation report shall be prepared verifying that the site has been remediated to a standard consistent with the intended land use.

Note: Terms used in this condition have the same meaning as in the *Contaminated Land Management Act 1997*.

WASTE MANAGEMENT

- C20. All waste materials removed from the site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials.
- C21. Waste generated outside the site shall not 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.
- C22. All liquid and/or non-liquid waste generated on the site shall be assessed and classified in accordance with Waste Classification Guidelines (Department of Environment, Climate Change and Water, 2009), or any superseding document.

HAZARDS AND RISK

- C23. Dangerous goods, as defined by the *Australian Dangerous Goods Code*, shall be stored and handled 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 (EPA, 1997).

In the event of an inconsistency between the requirements listed above, the most stringent requirement shall prevail to the extent of the inconsistency.

UTILITIES AND SERVICES

- C24. Utilities, services and other infrastructure potentially affected by construction shall be identified prior to construction affecting the item, to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the SSI shall be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The Proponent shall ensure that disruption to any service is minimised and shall work with the relevant service provider to advise local residents and businesses affected prior to any planned disruption of service.
- C25. The Proponent shall consult with the relevant road authority regarding the use of any weight restricted road by heavy construction vehicles if required.

HERITAGE

- C26. During detailed design and construction of the SSI, impacts to heritage items and conservation areas shall, where feasible and reasonable, be avoided and minimised, under the guidance of an appropriately qualified heritage specialist. Where impacts are unavoidable, work shall be undertaken in accordance with the strategy outlined in the Construction Heritage Management Plan (condition E34(e)).
- C27. The Proponent shall not, where feasible and reasonable, physically affect the heritage listed causeway at Devlins Creek. The measures to protect the causeway during construction, management and remedial actions (if damage occurs) should be detailed under the Construction Heritage Management Plan (condition E34(e)).
- C28. Prior to the commencement of pre-construction and/ or construction activities that may impact the historical archaeological causeway at Devlins Creek, the Proponent shall undertake an archaeological excavation program, to the extent that the causeway is

impacted by the SSI and where it is safe to do so, in accordance with the Heritage Council of NSW Archaeological Assessments Guideline (1996) using a methodology prepared in consultation with the Heritage Council of NSW. This work shall be undertaken by an appropriately qualified archaeological heritage consultant.

- C29. Within 2 years of completing the work at C28, 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 any finds, prepared in consultation with the Heritage Council of NSW.
- C30. Archival recording of directly impacted heritage items, including the side platform and subway structure at Beecroft, shall be undertaken in accordance with the NSW Heritage Council Guidelines.

URBAN DESIGN AND LANDSCAPING

- C31. An Urban Design and Landscape Plan shall be prepared and implemented for the SSI. The Plan shall be prepared by appropriately qualified persons(s) in consultation with RailCorp, relevant Councils and the community and shall present an integrated design and landscape plan for the SSI. The Plan shall include, but not necessarily be limited to:
- a) identification of urban design principles and standards based on:
 - i. local environmental and heritage values,
 - ii. urban design context,
 - iii. sustainable design and maintenance,
 - iv. transport and land use integration;
 - v. passenger and community safety and security;
 - vi. community amenity and privacy, and
 - vii. relevant design standards and guidelines such as the *NSW Sustainable Design Guidelines for Rail* (v2.0, TfNSW, 2011), *Bridge Aesthetics Design guidelines to improve the appearance of bridges in NSW* (RMS, 2012), *Guidelines for the Development of Public Transport Interchange Facilities* (Ministry of Transport, 2008) and *Crime Prevention Through Environmental Design Principles* (Department of Urban Affairs and Planning, 2001), and relevant Agency and Council design standards.
 - b) the location of existing and retained vegetation and landscaping;
 - c) a description of disturbed areas and details of the strategies to progressively rehabilitate regenerate and/ or revegetate these areas. Details of species to be replanted/ revegetated shall be provided, including their appropriateness to the area and habitat for threatened species;
 - d) specific measures to limit the visual impacts of the proposed elevated concourse of Cheltenham Station, including limiting privacy and overshadowing impacts;
 - e) design details of built elements (retaining walls, bridges, viaducts, stations, parking areas etc) and measures to minimise the impact of these elements, including an embankment and retaining wall plan that avoids, where feasible and reasonable, the use of shotcrete;
 - f) an assessment of the visual screening affects of existing vegetation and the proposed landscaping and built elements. Where receivers have been identified as likely to experience a moderate or high visual impact as a result of the operation and residual impacts are likely to remain, the Proponent shall, in consultation with affected receivers, identify opportunities for providing at-receiver landscaping to further screen views of the SSI. Where agreed to with the landowner, these measures shall be implemented during the construction of the SSI;
 - g) graphics such as sections, perspective views and sketches for key elements of the SSI, including, but not limited to built elements of the SSI;

- h) monitoring and maintenance procedures for the built elements (including graffiti management), rehabilitated vegetation and landscaping (including weed control) including performance indicators, responsibilities, timing and duration and contingencies where rehabilitation of vegetation and landscaping measures fail; and
- i) evidence of consultation with the relevant council and community on the proposed urban design and landscape measures prior to its finalisation.

The Plan shall be submitted to and approved by the Director General prior to the commencement of permanent built works (excluding those works that are subject to prescribed engineering standards and the like such as railway tracks, signal boxes, overhead wiring etc) and/ or landscaping, unless otherwise agreed by the Director General. The Plan may be submitted in stages to suit the staged construction program of the SSI.

SCHEDULE D

COMMUNITY INFORMATION, REPORTING AND AUDITING

COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

- D1. A **Stakeholder and Community Involvement Plan** shall be prepared and implemented to provide mechanisms to facilitate communication between the Proponent (and its contractor(s)), the Environmental Representative (condition E32), the relevant Council(s) and community stakeholders (particularly adjoining landowners) on the construction environmental management of the SSI. The Plan shall include, but not be limited to:
- (a) identification of community and business 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 community and business stakeholders on construction progress, construction activities that are likely to affect their amenity and matters associated with environmental management;
 - (c) the formation of community/business-based forums that focus on key environmental management issues for the SSI. The Strategy shall provide detail on the structure, scope, objectives and frequency of the forums;
 - (d) procedures and mechanisms through which community and business stakeholders can discuss or provide feedback to the Proponent and/or Environmental Representative in relation to the environmental management and delivery of the SSI;
 - (e) procedures and mechanisms through which the Proponent can respond to enquiries or feedback from community and business stakeholders in relation to the environmental management and delivery of the SSI; and
 - (f) 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 SSI. This may include the use of an appropriately qualified and experienced independent mediator.

Issues that shall be addressed through the Community Communication Plan include (but are not necessarily limited to) construction traffic and access arrangements, construction noise and vibration, impacts to local businesses, land uses and community facilities, and other construction generated impacts.

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

Complaints and Enquiries Procedure

- D2. Prior to the commencement of construction, or as otherwise agreed by the Director General, the Proponent shall ensure that the following are available for community enquiries and complaints for the duration of construction:
- (a) a 24 hour telephone number(s) on which complaints and enquiries about the SSI may be registered;
 - (b) a postal address to which written complaints and enquires may be sent;
 - (c) an email address to which electronic complaints and enquiries may be transmitted; and
 - (d) a mediation system for complaints unable to be resolved.

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

- D3. Prior to the commencement of construction, or as otherwise agreed by the Director General, the Proponent shall prepare and implement a Construction Complaints Management System consistent with *AS 4269: Complaints Handling* and maintain the System for the duration of construction and up to 12 months following completion of the SSI.

Information on all complaints received, including the means by which they were addressed and whether resolution was reached, with or without mediation, shall be maintained in a complaints register and included in the construction compliance reports required by this approval. The information contained within the System shall be made available to the Director General on request.

Provision of Electronic Information

- D4. Prior to the commencement of construction, or as otherwise agreed by the Director General, 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 SSI, for the duration of construction and for 12 months following completion of the SSI. The Proponent shall, subject to confidentiality, publish and maintain up-to-date information on the website, dedicated pages or linkages including, but not necessarily limited to:

- (a) information on the current implementation status of the SSI;
- (b) a copy of the documents referred to under condition B1 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 key relevant environmental approvals, licences or permits required and obtained in relation to the SSI;
- (e) a copy of each current strategy, plan, program or other document required under this approval;
- (f) the outcomes of compliance tracking in accordance with condition D5 of this approval; and
- (g) details of contact point(s) to which community complaints and enquiries may be directed, including a telephone number, a postal address and an email address.

COMPLIANCE MONITORING AND TRACKING

Compliance Tracking Program

- D5. 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 and approved by the Director General prior to the commencement of construction and operate 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 prior to the commencement of construction of the SSI (including prior to each stage, where works are being staged);
- (b) provisions for periodic review of the compliance status of the SSI against the requirements of this approval;
- (c) provisions for periodic reporting of compliance status to the Director General, including a Pre-Construction Compliance Report, during construction reporting, and a Post-Construction Compliance Report;
- (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 recording environmental incidents during construction and actions taken in response to those incidents;
- (f) provisions for reporting environmental incidents (as defined in D6) to the Director General and relevant public authorities during construction;

- (g) procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management; and
- (h) provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.

Incident Reporting

D6. The Proponent shall notify the Director General of any incident with actual or potential significant off-site impacts on people or the biophysical environment within 24 hours of becoming aware 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..

SCHEDULE E

CONSTRUCTION ENVIRONMENTAL MANAGEMENT

NOISE AND VIBRATION

Construction Hours

E1. Except as permitted by an EPL, construction activities associated with the SSI shall be undertaken during the following standard construction hours:

- (a) 7:00am to 6:00pm Mondays to Fridays, inclusive; and
- (b) 8:00am to 1:00pm Saturdays;
- (c) at no time on Sundays or public holidays.

E2. Except as permitted by an EPL, high noise impact works and activities shall only be undertaken:

- (a) between the hours of 8:00 am to 6:00 pm Monday to Fridays;
- (b) between the hours of 8:00 am to 1:00 pm Saturday; 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 that is the subject of this condition.

E3. Notwithstanding conditions E1 to E2, construction activities outside of the prescribed construction hours may be undertaken in any of the following circumstances:

- (a)
 - (i) construction works that generate air-borne noise that is no more than 5 dB(A) above rating background level at any residence in accordance with the *Interim Construction Noise Guideline* (DECC, 2009); and
 - (ii) construction works that generate air-borne noise that is 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 receivers; and
 - (iii) construction works that generate continuous or impulsive vibration values, measured at the most affected residence, that are no more than those for human exposure to vibration, specified for residences in Table 2.2 of *Assessing Vibration: a technical guideline* (DEC, 2006); and
 - (iv) works that generate intermittent vibration values, measured at the most affected residence, that are no more than those for human exposure to vibration, specified for residences in Table 2.4 of *Assessing Vibration: a technical guideline* (DEC, 2006);
- (b) where a negotiated agreement has been reached with affected receivers, where the prescribed noise and vibration levels can not be achieved;
- (c) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons;
- (d) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; and
- (e) works approved through an EPL, including for works identified in an out of hours procedure.

Notwithstanding the above, the Proponent shall limit construction outside of standard construction hours, particularly during the night time period, to the greatest extent practicable.

Construction Noise and Vibration

E4. The SSI shall be constructed with the aim of achieving the construction noise management levels detailed in the *Interim Construction Noise Guideline* (DECC, 2009). All feasible and reasonable noise mitigation measures shall be implemented and any activities that could exceed the construction noise management levels shall be identified and managed in accordance with the Construction Noise and Vibration Management Plan (condition E34 (b)).

Note: The *Interim Construction Noise Guideline* identifies 'particularly annoying' activities that require the addition of 5dB(A) to the predicted level before comparing to the construction Noise Management Levels.

E5. The SSI shall be constructed with the aim of achieving the following construction vibration goals:

- (a) for structural damage, the vibration limits set out in the German Standard *DIN 4150-3: Structural Vibration - effects of vibration on structures*; and
- (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).

E6. Except as permitted by an EPL, the airblast overpressure generated by blasting associated with the SSI shall 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%

E7. Except as permitted by an EPL, the ground vibration generated by blasting associated with the SSI shall 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%
Other sensitive receivers	5	0%
Historic heritage structures	3	0%
Public infrastructure	50	0%

E8. Should blasting be required, the Proponent shall prepare a Blast Management Plan for the SSI, which shall:

- (a) assess the potential noise and vibration impacts of the blasting activities and set criteria limits for airblast overpressure and ground vibration;
- (b) identify a strategy to minimise and manage blasting impacts including preparation of an appropriate community information program;
- (c) identification of feasible and reasonable 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;

- (d) include pre and post construction dilapidation surveys of property where blasting and/ or vibration may result in damage to buildings and structures (including surveys being undertaken immediately following a monitored exceedance of the criteria), consistent with condition E25. Any damage caused by blasting shall meet the requirements of condition E26;
- (e) include a monitoring program to enable modification of blast design where monitoring indicates impacts are greater than the criteria limits; and
- (f) identify a strategy for receiving, investigating and responding to complaints.

The methods contained in AS2187.2-2006 shall be utilised by the Proponent to manage blasting to minimise ground vibration and overpressure impacts.

The Plan shall form a component of the Construction Noise and Vibration Management Plan required by condition E34.

- E9. For any section of construction where blasting is proposed, a series of initial trials at reduced scale shall be conducted prior to production blasting to determine site-specific blast response characteristics and to define allowable blast sizes to meet the airblast overpressure and ground vibration limits in this approval.
- E10. Wherever feasible and reasonable, piling activities shall be undertaken using quieter alternative methods than impact or percussion piling, such as bored piles or vibrated piles.
- E11. The Proponent shall consult with potentially-affected community, religious, educational institutions and vibration-sensitive businesses and where reasonable and feasible schedule noise and vibration generating construction works in the vicinity of the receivers outside of sensitive periods, unless appropriate other arrangements are made.
- E12. During construction, Proponents of other major construction works in the vicinity of the SSI shall be consulted, and reasonable steps taken to coordinate works to minimise impacts on, and maximise respite for affected sensitive receivers.

BIODIVERSITY

- E13. The clearing of native vegetation shall be minimised with the objective of reducing impacts to any threatened species or EECs to the greatest extent practicable.

Pre clearing surveys

- E14. Prior to construction, pre clearing surveys and inspections for native fauna and threatened flora species and habitat features shall be undertaken. The surveys and inspections, and any subsequent relocation of species, shall be undertaken under the guidance of a qualified ecologist and the methodology incorporated into the Construction Flora and Fauna Management Plan (condition E34).

Nest Box Plan

- E15. Prior to the commencement of construction work that would result in the disturbance of vegetation with habitat trees (or as otherwise agreed by the Director General), a Nest Box Plan to provide replacement hollows for displaced fauna shall be prepared in consultation with the relevant Council(s). The Plan, to be incorporated into the Construction Environmental Management Plan (condition E33) and Biodiversity Offset Package (condition C8), shall detail the number and type of nest boxes to be installed,

which shall be justified based on the number and type of hollows removed (based on pre clearing surveys), the density of hollows in the area to be cleared and in adjacent areas, and the availability of adjacent food resources. The Plan shall also consider the relocation of any hollows removed from the site to provide for potential nesting habitat. The Plan shall also provide details of maintenance protocols for the nest boxes installed including responsibilities, timing and duration.

TRANSPORT AND ACCESS

Road Dilapidation

E16. Upon determining the haulage route(s) for construction vehicles associated with the SSI, and prior to use of the haulage route(s) by heavy vehicles, an independent and qualified person or team shall undertake a **Road Dilapidation Report** on local roads from the construction access/ egress point(s) to the arterial road network. The report shall assess the current condition of the road and describe mechanisms to restore any damage that may result due to traffic and transport related to the construction of the SSI, during construction. The Report shall be submitted to the relevant road authority for review prior to use of the haulage routes(s).

Following completion of construction, a subsequent report shall be prepared to assess any damage that may have resulted from the construction of the SSI.

Measures undertaken to restore or reinstate roads affected by the SSI shall be undertaken in a timely manner, in accordance with the reasonable requirements of the relevant road authority, and at the full expense of the Proponent.

Access

E17. Safe pedestrian and cyclist access through or around worksites shall be maintained during construction. In circumstances where pedestrian and cyclist access is restricted due to construction activities, a feasible and reasonable alternate route shall be provided and signposted.

E18. Construction vehicles (including staff vehicles) associated with the SSI shall be managed to:

- (a) minimise parking or queuing on public roads;
- (b) minimise the use of local roads (through residential streets and town centres) to gain access to construction sites and compounds;
- (c) minimise traffic past schools and child care centres, particularly during opening and closing periods; and
- (d) adhere to the nominated haulage routes identified in the Construction Traffic Management Plan (condition E34).

E19. The Proponent shall ensure all lane and road closures and diversions are minimised and carried out to the satisfaction of the relevant road authority.

E20. Access to property shall be maintained during construction unless otherwise agreed with the property owner in advance. Access that is physically affected by the infrastructure activity shall be reinstated to at least an equivalent standard, in consultation with the property owner.

AIR QUALITY

E21. The SSI shall be constructed in a manner that minimises dust emissions from the site, including wind-blown and traffic-generated dust and tracking of material onto public roads. All activities on the site shall be undertaken with the objective of minimising

visible emissions of dust from the site. Should such visible dust emissions occur at any time, the Proponent shall identify and implement feasible and reasonable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.

SOIL, WATER QUALITY AND HYDROLOGY

Construction Soil and Water Management

E22. Soil and water management measures consistent with *Managing Urban Stormwater - Soils and Construction Vols 1 and 2, 4th Edition* (Landcom, 2004) shall be employed during the construction of the SSI to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.

E23. Where available and practicable, and of appropriate chemical and biological quality, stormwater, recycled water or other water sources shall be used in preference to potable water for construction activities, including concrete mixing and dust control.

PROPERTY AND BUSINESS IMPACTS

E24. The Proponent shall design and construct the SSI with the objective of minimising impacts to, and interference with, third party property and infrastructure, and that such infrastructure and property is protected during construction and operation.

Impacts to Third Party Property and Structures

E25. The Proponent shall, prior to the commencement of construction for each part of the SSI that may impact on surrounding properties at risk from damage:

- (a) where agreed with the property owner, undertake independent inspections of these properties prior to construction in accordance with *AS 4349.1 'Inspection of Buildings'*. This inspection shall be undertaken by appropriately qualified and experienced persons, and report on property features that may be affected by construction;
- (b) contact the owners of all buildings on which property inspections are to be conducted before the inspection, or as otherwise agreed by the affected property owner, and advise of the scope and methodology for the inspection, and of the process for making a property damage claim;
- (c) provide a copy of the property inspection report to the owner of each property inspected prior to construction that could affect the property;
- (d) determine an appropriate property vibration criteria and management and protection measures to ensure that property damage (including cosmetic damage) will be avoided; and
- (e) maintain a register of all properties inspected by the Proponent, indicating whether the owner accepted or refused the property inspection offer, and provide a copy of the register to the Director General upon request.

Reports advising on the risk of damage to properties shall be made available upon request to the Director General.

E26. Any damage caused to property as a result of the SSI 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.

VISUAL AMENITY

E27. The SSI shall be constructed in a manner that minimises visual impacts resulting from construction compounds. Where feasible and reasonable, this shall include retaining existing vegetation around the perimeter of construction compounds, providing permanent landscaping to soften views of compounds, minimising light spillage, and incorporating treatments and finishes within key elements of temporary structures that reflect the context within which the compounds are located.

REHABILITATION

E28. Where land associated with construction sites are not proposed to be utilised as part of the operational stage of the SSI, the Proponent shall ensure that these sites are fully rehabilitated to either the same level or better than their pre-construction condition, and that rehabilitation activities are commenced prior to the operation of the SSI, in consultation with the relevant landowner.

ANCILLARY FACILITIES

E29. Unless otherwise approved by the Director General, the location of Ancillary Facilities, not identified in the documents listed in B1, shall:

- (a) be located more than 50 metres from a waterway;
- (b) be located within or as close as possible to where the SSI is being carried out;
- (c) have ready access to the road network;
- (d) be located to minimise the need for heavy vehicles to travel through residential areas;
- (e) be sited on relatively level land;
- (f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);
- (g) not require vegetation clearing beyond that already required by the SSI;
- (h) not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the SSI;
- (i) not unreasonably affect the land use of adjacent properties;
- (j) be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and
- (k) 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.

The location of the ancillary facilities shall be identified in the Construction Environmental Management Plan (condition E33) and include consideration of the above criteria. Where the above criteria cannot be met for any proposed ancillary facility, 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. Such assessment(s) can be submitted separately or as part of the Construction Environmental Management Plan.

E30. The Director General's approval is not required for minor ancillary facilities (e.g. lunch sheds, office sheds and portable toilet facilities and minor stockpiles) that do not comply with the criteria set out in condition E29 of this approval and which:

- (a) are located within an active construction zone within the rail corridor; and
- (b) have been assessed by the Environmental Representative to have:

- (i) minimal amenity impacts to surrounding residences, with consideration of 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, listed flora and fauna communities, soil and water and heritage not 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 site specific Environmental Control Map, consistent with the measures identified in the Construction Environment Management Plan for the project.

E31. All Ancillary Facilities shall be rehabilitated to at least their pre-construction condition, unless otherwise agreed by the landowner where relevant.

ENVIRONMENTAL REPRESENTATIVE

- E32. Prior to the commencement of construction of the SSI, 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 and construction personnel. The Proponent shall employ the Environment 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 SSI;
 - (b) monitor the implementation of environmental management plans and monitoring programs required under this approval and advise the Proponent upon the achievement of these plans/ programs;
 - (c) 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 SSI;
 - (d) ensure that environmental auditing is undertaken in accordance with the Proponent's Environmental Management System(s);
 - (e) 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 (condition E33);
 - (f) be given the authority and independence to advise on reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts; and
 - (g) be consulted in responding to the community concerning the environmental performance of the SSI where the resolution of points of conflict between the Proponent and the community is required.

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

- E33. Prior to the commencement of construction, or as otherwise agreed by the Director General, the Proponent shall prepare and implement (following approval) a Construction Environmental Management Plan for the SSI. 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 government agencies and Council(s) in accordance with the *Guideline for the Preparation of Environmental Management Plans* (DIPNR, 2004). The Plan shall include, but not necessarily be limited to:
- (a) a description of activities to be undertaken during construction of the SSI (including staging and scheduling);

- (b) statutory and other obligations that the Proponent is required to fulfil during construction, including approvals, consultations and agreements required from authorities and other stakeholders under key legislation and policies;
- (c) a description of the roles and responsibilities for relevant employees involved in the construction of the SSI, 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) an environmental risk analysis to identify the key environmental performance issues associated with the construction phase; and
- (e) details of how environmental performance would be managed and monitored 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 SSI). In particular, the following environmental performance issues shall be addressed in the Plan:
 - (i) compounds and Ancillary Facilities;
 - (ii) ecological impacts;
 - (iii) noise and vibration;
 - (iv) traffic and access;
 - (v) soil, water quality and spoil;
 - (vi) groundwater and groundwater discharge;
 - (vii) soil contamination, groundwater contamination, hazardous material and waste;
 - (viii) air quality and dust;
 - (ix) landscape and visual amenity;
 - (x) Aboriginal and historic heritage; and
 - (xi) hazard and risk.

The Plan shall be submitted for the approval of the Director General no later than one month prior to the commencement of construction, or as otherwise agreed by the Director General. The Plan may be prepared in stages, however, construction works shall not commence until written approval has been received from the Director General.

Note: The approval of a Construction Environmental Management Plan does not relieve the Proponent of any requirement associated with this SSI approval. If there is an inconsistency with an approved Construction Environmental Management Plan and the conditions of this SSI approval, the requirements of this SSI approval prevail.

E34. As part of the Construction Environmental Management Plan for the SSI required under condition E33 the Proponent shall prepare and implement:

- (a) a Construction Compound and Ancillary Facilities Management Plan to detail the management of construction compounds and Ancillary Facilities associated with the SSI. The Plan shall include but not be limited to:
 - (i) a description of each facility, its components and the surrounding environment;
 - (ii) details of the activities to be carried out at each facility, including the hours of use and the storage of dangerous and hazardous goods;
 - (iii) an assessment against the locational criteria outlined in condition E29;
 - (iv) details of the mitigation and management procedures specific to the facility that would be implemented to minimise environmental and amenity impacts and an assessment of the adequacy of the mitigation or offsetting measures;
 - (v) identification of the timing for the completion of activities at the facility and how the site will be decommissioned (including any necessary rehabilitation); and
 - (vi) mechanisms for the monitoring, review and amendment of this Plan.

- (b) a Construction Noise and Vibration Management Plan to detail how construction noise and vibration impacts will be minimised and managed. The Plan shall be consistent with the guidelines contained in the *Interim Construction Noise Guidelines* (DECC, 2009). The Plan shall be developed in consultation with the EPA and shall include, but not be limited to:
- (i) identification of sensitive receivers and relevant construction noise and vibration goals applicable to the SSI stipulated in this approval;
 - (ii) details of construction activities and an indicative schedule for construction works, including the identification of key noise and/or vibration generating construction activities (based on representative construction scenarios, including at ancillary facilities) that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers, particularly residential areas;
 - (iii) identification of feasible and reasonable measures proposed to be implemented to minimise and manage construction noise impacts (including construction traffic noise impacts);
 - (iv) a Blast Management Plan (condition E8), if relevant;
 - (v) identification of feasible and reasonable procedures and mitigation measures to ensure relevant vibration criteria are achieved, 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 damage to buildings and structures (including surveys being undertaken immediately following a monitored exceedance of the criteria);
 - (vi) a description of how the effectiveness of mitigation and management measures would be monitored during the proposed works, clearly indicating how often this monitoring would be conducted, the locations where monitoring would take place, how the results of this monitoring would be recorded and reported, and, if any exceedance is detected, how any non-compliance would be rectified; and
 - (vii) mechanisms for the monitoring, review and amendment of this Plan.
- (c) A Construction Traffic Management Plan to manage construction traffic and transport access impacts of the SSI. The Plan shall be developed in consultation with and meet the reasonable requirements of the relevant road authority, and/or transport operator, and shall include but not be necessarily limited to:
- (i) identification of construction traffic routes and 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) identification of construction impacts that could result in disruption of traffic, public transport, pedestrian and cycle access, property access, including details of oversize load movements;
 - (iv) identification of potential traffic noise impacts, sensitive receivers and sensitive times of the day;
 - (v) details of management measures to minimise traffic impacts, including driver training, temporary road work traffic control measures, onsite vehicle queuing and parking areas and management measures to minimise peak time congestion and measures to ensure safe pedestrian and cycle access;
 - (vi) a response plan which sets out a proposed response to any traffic, construction or other incident; and
 - (vii) mechanisms for the monitoring, review and amendment of this Plan.

- (d) A Construction Soil and Water Quality Management Plan to manage soil, surface and groundwater impacts during construction of the SSI. The Plan shall be developed in consultation with the DPI and relevant Council(s) and include, but not necessarily be limited to:
- (i) details of construction activities and their locations, which have the potential to impact on human health and the environment, including water courses, stormwater flows, and groundwater;
 - (ii) surface water and ground water impact assessment criteria consistent with the principles of the Australian and New Zealand Environment Conservation Council (ANZECC) guidelines;
 - (iii) management measures to be used to minimise surface and groundwater impacts, including details of how spoil and fill material required by the SSI will be sourced, handled, stockpiled, reused and managed; erosion and sediment control measures; groundwater interception, dewatering, storage and disposal measures; and the consideration of flood events;
 - (iv) management measures for contaminated soils, material and groundwater, and a contingency plan to be implemented in the case of unanticipated discovery of contaminants during construction (including a Contamination Management Plan and Asbestos Management Plan);
 - (v) a description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be undertaken, the locations where monitoring would take place, how the results of the monitoring would be recorded and reported, and, if any exceedance of the criteria is detected how any non-compliance can be rectified. This shall include the requirements of the Water Quality Monitoring Program (condition C17); and
 - (vi) mechanisms for the monitoring, review and amendment of this Plan.
- (e) a Construction Heritage Management Plan to detail how construction impacts on Aboriginal and Historic heritage will be minimised and managed. The Plan shall include, but not necessarily be limited to:
- (i) In relation to Aboriginal Heritage:
 - I. developed in consultation with registered Aboriginal stakeholders where Aboriginal Heritage impacts are identified;
 - 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 recommence by a suitably qualified archaeologist in consultation with the Department and registered Aboriginal stakeholders and assessment of the consistency of any new Aboriginal heritage impacts against the approved impacts of the SSI, and registering of the new site in the OEH's Aboriginal Heritage Information Management System (AHIMS) register;
 - 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 OEH and/ or the NSW Police Force;
 - IV. heritage training and induction processes for construction personnel (including procedures for keeping records of inductions) and obligations under the conditions of this approval including site identification, protection and conservation of Aboriginal cultural heritage; and
 - V. procedures for Aboriginal consultation and involvement for the duration of the SSI where Aboriginal Heritage impacts are identified; and

- (ii) In relation to Historic Heritage:
 - I. developed in consultation with the NSW Heritage Council and the relevant Council;
 - II. identification of Heritage items directly and indirectly affected by the SSI;
 - III. details of management measures to be implemented to prevent and minimise impacts on heritage items (including further heritage investigations, archival recordings and/ or measures to protect unaffected sites during construction works in the vicinity);
 - IV. details of monitoring and reporting requirements for impacts on heritage items; and
 - V. procedures for dealing with previously unidentified relics, 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 OEH and RailCorp heritage specialist, and the Department, and assessment of the consistency of any new heritage impacts against the approved impacts of the SSI.
 - (iii) heritage training and induction processes for construction personnel (including procedures for keeping records of inductions) and obligations under the conditions of this approval including site identification, protection and conservation of Aboriginal and historic heritage; and
 - (iv) mechanisms for the monitoring, review and amendment of this Plan.
- (f) a Construction Flora and Fauna Management Plan to detail how construction impacts on ecology will be minimised and managed. The Plan shall be developed in consultation with the OEH and relevant Councils and shall include, but not necessarily be limited to:
- i. plans for impacted and adjoining areas showing vegetation communities; important flora and fauna habitat areas; locations where threatened species, populations or ecological communities have been recorded; including pre-clearing surveys to confirm the location of threatened flora and fauna species and associated habitat features;
 - ii. the identification of areas to be cleared and details of management measures (such as fencing, clearing procedures, removal and relocation of fauna during clearing, habitat tree management and construction worker education) to avoid any residual habitat damage or loss and to minimise or eliminate time lags between the removal and subsequent replacement of habitat. Specifically, temporary fencing is to be placed around all retained vegetation areas containing *Epacris purpurascens var. purpurascens* in the vicinity of the construction footprint; vegetation management plan(s) for sites where vegetation is proposed to be retained and adjacent to the construction footprint;
 - iii. identification of measures to reduce disturbance to bats and nocturnal birds (and other sensitive fauna);
 - iv. weed management measures focusing on early identification of invasive weeds and effective management controls;
 - v. rehabilitation details, including identification of flora species and sources, and measures for the management and *maintenance of rehabilitated areas* (including duration of the implementation of such measures);
 - vi. a description of how the effectiveness of these management measures would be monitored;
 - vii. a procedure for dealing with fauna and unexpected EEC/ threatened species identified during construction, including cessation of work and notification of the Department, determination of appropriate mitigation

- measures (including relevant re-location measures) and updating of ecological monitoring and/ or biodiversity offset requirements; and
- viii. mechanisms for the monitoring, review and amendment of this Plan.
- (g) a Construction Air Quality Management Plan to detail how construction impacts on air quality will be minimised and managed. The Plan shall be developed in consultation with relevant Councils and shall include, but not necessarily be limited to:
- i. the identification of potential sources of dust;
 - ii. dust management objectives;
 - iii. management and mitigation measures to be implemented, including measures during weather conditions where high level dust episodes are probable (such as strong winds in dry weather);
 - iv. a monitoring program to assess compliance with the identified objectives; and
 - v. mechanisms for the monitoring, review and amendment of this Plan

SCHEDULE F

OPERATIONAL ENVIRONMENTAL MANAGEMENT

OPERATIONAL ENVIRONMENTAL MANAGEMENT

F1. Prior to the commencement of operation, the Proponent shall incorporate the SSI into existing environmental management systems administered by the Proponent and prepared in accordance with the AS/NZS ISO 14000 Environmental Management System series or equivalent.

OPERATIONAL NOISE

Operational Noise and Vibration Compliance Monitoring and Assessment

F2. The Proponent shall undertake noise and vibration compliance monitoring and assessments to confirm the predictions of the noise assessment and mitigations referred to in the ONVR (condition C4). The noise and vibration compliance assessment shall be developed in consultation with the EPA and be undertaken at twelve months, 5 years and 10 years of the commencement of operation of the SSI, or as otherwise agreed by the Director-General. The assessment shall include, but not necessarily be limited to:

- (a) noise and vibration monitoring and compliance assessment, to assess compliance with conditions C1 to C3 of this approval and the ONVR;
- (b) an assessment methodology and the outcomes of the Source Noise Monitoring Plan and other relevant Rail Noise Initiatives developed and implemented for the SSI (condition F3);
- (c) details of any complaints received relating to operational noise and vibration impacts;
- (d) an assessment of the performance and effectiveness of the applied noise and vibration mitigation measures;
- (e) any required recalibration of the noise and vibration model, including consideration of freight train movements should the average number of night time trains exceed the projected value used for the noise mitigation design of the ONVR; and
- (f) identification, if required, of further noise and vibration mitigation measures to meet the requirements of C1 to C3 of this approval and the objectives identified in the ONVR.

An Operational Noise and Vibration Compliance Assessment Report providing the results of the assessment shall be submitted to the Director-General and the EPA within 60 days of its completion and made publicly available. If the assessment indicates an exceedance of the noise and vibration objectives and predictions identified in the ONVR, the Proponent shall implement further feasible and reasonable measures to mitigate these exceedances in consultation with affected property owners (where required).

Rail Noise Initiatives

F3. The Proponent shall ensure that the rail corridor associated with the SSI is considered in the development of initiatives to manage existing noise across the rail network. Where feasible and reasonable, initiatives that would address broader rail noise should be implemented as they relate to the SSI corridor. The implementation of these initiatives shall be reported in the Operational Noise and Vibration Compliance and Monitoring Assessment Report (condition F2).

DESIGN AND LANDSCAPING

Maintenance

F4. The ongoing maintenance and operation costs of design and landscaping items and works implemented as part of this SSI approval shall remain the Proponent's responsibility until satisfactory arrangements have been put in place for the transfer of the asset to the relevant authority. Prior to the transfer of assets, the Proponent will maintain items and works to the design standards established in the Design and Landscape Plan (condition C31).