

Infrastructure approval

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

I, Chris Wilson, Executive Director Infrastructure and Industry Assessments, as delegate of the Minister for Planning under Instrument of Delegation dated 10 November 2014, grant approval to the State significant infrastructure 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 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 SSI.

Chris Wilson
Executive Director
Infrastructure and Industry Assessments

Sydney

2014

SCHEDULE 1

Application No.:	SSI-6103
Proponent:	Roads and Maritime Services
Approval Authority:	Minister for Planning
Land:	Parts of Villiers, Dobie, Pound, Clarence and Greaves streets in Grafton. Parts of Iolanthe, Through and Spring streets and the Pacific and Gwydir highways in South Grafton. Sections of the Clarence River, approximately 70 metres downstream of the existing Grafton Bridge. Other areas in Grafton and South Grafton within the Clarence Valley local government area.
State Significant Infrastructure:	The construction and operation of a new road bridge across the Clarence River, Grafton approximately 70 metres downstream of the existing Grafton Bridge (which will be retained) and the upgrade of approach roads and intersections in Grafton and South Grafton.

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DEFINITIONS

Act, the	<i>Environmental Planning and Assessment Act, 1979.</i>
Ancillary Facility	<p>Temporary facility for construction, including for example an office and amenities compound, construction compound, batch plant (concrete or bitumen), material crushing and screening, materials storage compound, maintenance workshop, testing laboratory or material stockpile area.</p> <p><i>Note:</i> Where a stockpile management protocol has been approved by the Secretary for the SSI, material stockpile areas are not considered to be ancillary facilities.</p>
CEMP	Construction Environmental Management Plan.
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 works including general alignment survey and installation of survey controls (GPS), repeater stations, survey of existing and future utilities or building/road dilapidation surveys; (b) further investigations including investigative drilling, excavation or salvage; treatment of contaminated sites or work undertaken in accordance with a strategy or salvage operation required by the conditions of this approval; (c) minor clearing or translocation of native vegetation; (d) establishing ancillary facilities/construction work sites (in locations meeting the criteria identified in the conditions of approval), or where criteria are not fully satisfied, those ancillary facility sites which have been fully assessed against all criteria, with mitigation to manage and minimise impacts identified in the documents referred to in condition A2 and approved by the Environmental Representative or Secretary. This includes the establishment of ancillary facilities, access roads, the provision of services to the facility and installation of erosion and sedimentation controls; (e) installation of environmental impact mitigation measures (including erosion and sedimentation control, temporary exclusion fencing for sensitive areas, and at-house acoustic treatment) and measures identified in approved strategies, plans, programs and other documents required by the conditions of this approval; (including works associated with the construction of connectivity structures (including boundary and exclusion fencing and vegetation planting)); (f) property acquisition adjustment works including the installation of property fencing, demolition and removal of buildings, relocation of utilities to property (including water supply and electricity); (g) duplication of Charles Street (Gwydir Highway), between the Pacific Highway and Bent Street in South Grafton, as specified in the documents referred to in condition A2(d), where a Construction Environmental Management Plan/Environmental Work Method Statement has been approved by the Environmental Representative in consultation with Council. The duplication works include the road works, utilities adjustment (stormwater, lighting, etc.), construction of a pedestrian and cycle path, and

	<p>establishment and operation of ancillary facilities; and</p> <p>(h) other activities determined by the Environmental Representative to have minimal environmental impact (e.g. minor access roads, minor adjustments to services/utilities, temporary relocation of pedestrian and cycle paths and property access, etc.).</p> <p><i>Note:</i> <i>Work where heritage, threatened species or suitable habitat, populations or endangered ecological communities would be affected that work is classified as construction, unless otherwise approved by the Secretary in consultation with the Office of Environment and Heritage or in accordance with an approved strategy, plan or program required by this approval.</i></p>
Council	Clarence Valley Council
DPI	Department of Primary Industries.
EEC	Endangered Ecological Communities.
EIS	Environmental Impact Statement. The EIS for the SSI is the document referred to in condition A2(b).
EPA	Environment Protection Authority.
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 expectations and nature and extent of potential improvements.</p> <p>Where requested by the Secretary, the Proponent shall provide evidence as to how feasible and reasonable measures were considered and taken into account.</p> <p><i>Note:</i> <i>Community expectations must be taken into account but it is not expected that specific community consultation will be required in every instance.</i></p>
Floodplain	The area of land subject to flooding and outside the protection of the existing levee systems in Grafton and South Grafton.
Heritage	Encompasses both Aboriginal and non-Aboriginal 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	Jack hammering, rock breaking or hammering, pile driving, dynamic compaction, 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.
NOW	NSW Office of Water.
NSW Heritage Council	Heritage Council of NSW or its delegate.

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, or operation of the Charles Street duplication, or maintenance.
Proponent	Roads and Maritime Services (RMS).
Publicly available	Available for inspection by a member of the general public (for example available on an internet website).
Secretary	Secretary of the Department of Planning and Environment.
Secretary's approval, agreement or satisfaction	A written approval from the Secretary (or delegate/nominee). Where the Secretary's approval, agreement or satisfaction is required under a condition of this approval, the Secretary will endeavour to provide a response within one month of receiving an approval, agreement or satisfaction request. The Secretary 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.
Sensitive receiver	Residence, educational institution (e.g. school, university, TAFE college), health care facility (e.g. nursing home, hospital), religious facility (e.g. church) and children's day care facility.
SES	NSW State Emergency Service
SSI	Means the State significant infrastructure approved under this approval and as generally described in Schedule 1 (SSI-6103).
SSI boundary	The boundary of the SSI as defined in the documents referred to in condition A2.
SSI footprint	That area within the SSI boundary physically impacted by construction activities.
Standard Construction Hours	The standard construction hours are: <ul style="list-style-type: none"> • 7.00 am to 6.00 pm Monday to Friday; • 8.00 am to 1.00 pm Saturdays; and • at no time on Sundays or public holidays.
Response to Submissions Report (RtS)	The proponent's response to submissions made during public exhibition of the EIS. The Response to Submissions Report (RtS) for the SSI is the document referred to in condition A2(c).

SCHEDULE 2

PART A

ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

- A1. In addition to meeting the specific performance criteria established under this approval, the Proponent shall implement all feasible and reasonable measures to prevent and/or minimise any harm to the environment that may result from the construction or operation of the SSI.

TERMS OF APPROVAL

- A2. The Proponent shall carry out the SSI generally in accordance with the:
- (a) State significant infrastructure application SSI-6103;
 - (b) *Additional Crossing of the Clarence River at Grafton Environmental Impact Statement Main Volume and Appendices A - L*, prepared by Roads and Maritime Services, dated August 2014;
 - (c) *Additional Crossing of the Clarence River at Grafton Submissions Report Main Volume and Appendices*, prepared by Roads and Maritime Services, dated October 2014;
 - (d) Correspondence from Roads and Maritime Services to the Department titled *Grafton Bridge - Additional Crossing of the Clarence River at Grafton – Proposed Early Works* dated 1 December 2014; and
 - (e) Conditions of this approval.
- A3. If there is any inconsistency between the above documents, the more recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
- A4. The Proponent shall comply with any reasonable requirement(s) of the Secretary arising from the Department's assessment of:
- (a) any documentation or correspondence that is submitted in accordance with this approval; and
 - (b) the implementation of any actions or measures contained in these documents.

LIMITS OF APPROVAL

- A5. 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

- A6. The Proponent shall ensure 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.

STAGING

- A7. 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 Secretary prior to the commencement of each proposed stage. The Staging Report shall provide details of:
- 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
 - 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).

SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM

- A8. The Proponent shall ensure that any strategy, plan, program or other document required by the conditions of this approval and relevant to each stage (as identified in the Staging Report) is submitted to the Secretary no later than one month prior to the commencement of the relevant stage(s), unless otherwise agreed by the Secretary.

Notes:

- While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and*
- If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program shall clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.*

COMPLIANCE MONITORING AND TRACKING

- A9. The Proponent shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.
- A10. 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 visitors.
- A11. In the event of a dispute between the Proponent and a public authority, in relation to an applicable requirement in this approval or relevant matter relating to the SSI, either party may refer the matter to the Secretary for resolution. The Secretary's determination of any such dispute shall be final and binding on the parties.
- A12. The Proponent shall prepare and implement a **Compliance Tracking Program**, to track compliance with the requirements of this approval. The Program shall be submitted to the Secretary for approval prior to the commencement of construction and operate for a minimum of one year following commencement of operation, subject to the Secretary's review of the outcomes of the Independent Environmental Audit Report referred to in condition E5. The operation of the program may be extended if the Secretary determines that there has been unsatisfactory compliance. The Program shall include, but not necessarily be limited to:
- :

- (a) provisions for the notification of the Secretary prior to the commencement of construction and prior to the commencement of operation 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 Secretary, including but not limited to:
 - (i) a Pre-Construction Compliance Report, prior to the commencement of construction;
 - (ii) 6-monthly Construction Compliance Reports, for the duration of construction; and
 - (iii) a Pre-Operation Compliance Report prior to the commencement of operation;
- (d) a program for independent environmental auditing in accordance with AS/NZS ISO 19011:2014 – Guidelines for Auditing Management Systems;
- (e) mechanisms for recording environmental incidents during construction and actions taken in response to those incidents;
- (f) provisions for reporting environmental incidents to the Department and relevant public authorities during construction;
- (g) procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management;
- (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; and
- (i) provisions for reporting complaints received in accordance with the Construction Complaints Management System required under condition C2 of this approval.

INCIDENT REPORTING

- A13. The Proponent shall notify the EPA in relation to any pollution incident in carrying out the SSI as required by the *Protection of the Environment (Operations) Act 1997* as required by that Act. The Proponent shall provide the Secretary with a record of any such notification..
- A14. .The Proponent shall notify the Secretary (using the contact name and phone number notified by the Department from time to time) of any incident (other than those relating to the *Protection of the Environment (Operations) Act 1997*) with actual or potential significant off-site impacts on people or the biophysical environment within 24 hours of becoming aware of the incident on weekdays, or the following business day on weekends. The Proponent shall provide full written details of the incident to the Secretary within seven days of the date on which the incident occurred..
- A15. The Proponent shall meet the requirements of the Secretary or relevant public authority (as determined by the Secretary) to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition A14, within such period as the Secretary may require.

PART B

ENVIRONMENTAL PERFORMANCE

BIODIVERSITY

- B1. The clearing of native vegetation shall be generally in accordance with the areas specified in the documents listed in condition A2, and with the objective of reducing impacts to any endangered ecological communities (EECs), threatened species and their habitat to the greatest extent practicable.
- B2. Prior to construction, pre-clearing surveys and inspections for EECs and threatened species shall be undertaken. The surveys and inspections, and any subsequent relocation of species, shall be undertaken under the guidance of a suitably qualified ecologist and shall be in accordance with the methodology incorporated into the approved Construction Flora and Fauna Management Plan required under condition D46(e).
- B3. The Proponent shall undertake flora and fauna surveys of those parts of the project area previously not surveyed, due to accessibility issues, prior to the commencement of construction that affects those areas. Should threatened species, communities or habitats be identified, these shall be offset and addressed in the Biodiversity Offset Statement required under condition D1.
- B4. The Proponent shall undertake a targeted rehabilitation program post construction to restore riparian habitat to at least the pre-construction condition or better, unless otherwise agreed by DPI (Fisheries) and NOW.
- B5. Vegetation shall be established in or adjacent to disturbed areas and include species which may provide habitat for wildlife following the completion of construction in the vicinity of the disturbed area. Revegetation is to be consistent with the Urban Design and Landscape Plan required under condition D42.

SOIL, WATER QUALITY AND HYDROLOGY

Hydrology and Flooding

- B6. Scour protection measures shall be implemented prior to and during construction on the banks of the Clarence River in the vicinity of the bridge works to protect the riverbank from erosion and instability during construction and operation.
- B7. The Proponent shall consult with and provide feasible and reasonable assistance to NSW State Emergency Service and Council, prior to operation of the SSI, to:
- prepare any new or necessary update(s) to the relevant evacuation, traffic management and flood plans and documents in relation to flooding events in Grafton and South Grafton, to reflect changes to flooding levels, flows and characteristics; and
 - prepare or update community evacuation information, to improve the community's awareness of the risk of flooding and the need to evacuate Grafton and South Grafton prior to the levees overtopping.

Drainage

- B8. Any drainage works that are intended to be operated by Council shall be designed in consultation with Council. Facilities such as back-up generators shall be provided to ensure continued operation of the Pound Street pumping station during electrical power outages.

Water Quality Management

- B9. 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.
- B10. All water from the SSI shall be appropriately treated prior to discharge, to protect the quality of the receiving waters.

Land Contamination

- B11. In the event that remediation of contaminated soils is required, the Proponent shall engage a suitably qualified and experienced contaminated land consultant to prepare a validation report upon completion of the remediation. The validation report shall verify that the site has been remediated consistent with the remediation action plan for the project and to a standard consistent with the clean-up criteria for the site.
- B12. The Proponent shall engage an accredited NSW Site Auditor to prepare a **Site Audit Report** and **Site Audit Statement** to determine the land use suitability. The Site Audit Report shall summarise the information reviewed by the auditor and provide the basis for the conclusions contained in the Site Audit Statement. The Statement and Report shall be submitted to the Secretary within seven days of the report being finalised and prior to the commencement of site preparation or excavation activities within areas identified as requiring remediation. A copy of the report shall also be submitted to Council for its information.

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

HERITAGE

Aboriginal Heritage

- B13. Impacts to Aboriginal heritage shall be minimised to the greatest extent practicable through both detailed design and construction, particularly with regard to encroachment on the Aboriginal dreaming site Golden Eel (AHIMS site number 12-6-0326). Where impacts are unavoidable, works shall be undertaken in accordance with the strategy outlined in the Construction Heritage Management Plan required under condition D46(d).

Non-Aboriginal Heritage

- B14. Prior to the commencement of construction in proximity to the following heritage items: CZB18, CZB25, CZB26, CZB27, CZB28, CZB30, CZB31, CZB32, CZB33 and CZB35, the Proponent shall complete all archival recordings, including photographic recording of these heritage items, unless otherwise agreed by the Secretary.
- B15. Prior to construction partially affecting the following heritage items: CZB10, CZB11, CZB19, CZB20, CZB21 and CZB37, the Proponent shall complete archival recordings of existing condition, including photographic recording of these heritage items, unless otherwise agreed by the Secretary. The Proponent shall ensure the project is conducted in a sympathetic manner that minimises impact to these sites.
- B16. Archival recording shall be undertaken by an experienced heritage consultant, in accordance with the Guidelines issued by the Heritage Council of NSW. The areas containing heritage items shall be clearly identified and/or fenced until the completion of the archival recordings. Within 6 months of completing the archival recording, the Proponent shall submit a report containing the archival and photographic recordings and the historical research, where required, to the Department, the Heritage Council of

NSW, Australian Rail Track Corporation, the local library and the local Historical Society.

- B17. A monitoring program shall be implemented for construction works in the vicinity of the flood levee in highly archaeologically sensitive areas and overseen by an appropriately qualified archaeologist. Any previously unidentified heritage items shall be managed in accordance with the procedures detailed in the Construction Heritage Management Plan provided under condition D46(d) of this approval.
- B18. Prior to the commencement of construction, the Proponent shall implement 'no-go' exclusion zones to prevent access and protect the following heritage item: FMW29.
- B19. The Proponent shall not destroy, modify or otherwise physically affect the heritage items listed in Table 8-46 in the *Additional Crossing of the Clarence River at Grafton Environmental Impact Statement Main Volume* (RMS, August 2014).

Heritage - General

- B20. Identified impacts to heritage sites shall be minimised where feasible and reasonable through both detailed design and construction, particularly with regard to retained locally listed historic properties and the existing Grafton Bridge.

Where impacts are unavoidable, works shall be undertaken in accordance with the actions to manage heritage construction impacts required by condition D46(d) and under the guidance of an appropriately qualified heritage specialist.

- B21. This approval does not allow the Proponent to destroy, modify or otherwise physically affect human remains as part of the SSI.
- B22. The Proponent shall not destroy, modify or otherwise physically affect any heritage items outside the SSI footprint, unless otherwise agreed by the Secretary in accordance with condition D41.
- B23. The measures to protect heritage sites near or adjacent to the SSI during construction shall be detailed in the Construction Heritage Management Plan required under condition D46(d).

TRANSPORT AND ACCESS

- B24. In relation to new or modified local road, parking, pedestrian and cycle infrastructure, the SSI shall, where feasible and reasonable, be designed:
- (a) in consultation with the Council;
 - (b) to take into consideration existing and future demand, road safety and traffic network impacts;
 - (c) to meet relevant design, engineering and safety guidelines, including *Austroads Guide to Traffic Engineering Practice*; and
 - (d) be certified by an appropriately qualified person that has considered the above matters.

PROPERTY AND LANDUSE

- B25. The Proponent shall ensure that the SSI is designed to minimise land take impacts to surrounding properties as far as feasible and reasonable, in consultation with the affected landowners.

B26. The Proponent shall, in consultation with relevant landowners, construct the SSI in a manner that minimises intrusion and disruption to surrounding properties, unless otherwise agreed by the landowner.

B27. Any damage caused to property as a result of the SSI shall be rectified or the landowner compensated, within a reasonable timeframe, with the costs borne by the Proponent. This condition is not intended to limit any claims that the landowner may have against the Proponent.

UTILITIES AND SERVICES

B28. Utilities, services and other infrastructure potentially affected by construction and operation shall be identified prior to construction 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 cost of any such arrangements shall be borne by the Proponent.

PART C

COMMUNITY INFORMATION AND REPORTING

COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

- C1. Prior to the commencement of construction or as otherwise agreed by the Secretary, the Proponent shall prepare and implement a **Community Communication Strategy** to the satisfaction of the Secretary. The Strategy shall provide mechanisms to facilitate communication between the Proponent (and its contractor(s)), the Environmental Representative (see condition D43), the Council and community stakeholders (particularly adjoining landowners) on the construction environmental management of the SSI. The Strategy shall include, but not 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 community stakeholders on construction progress and matters associated with environmental management;
 - (c) the formation of community-based focus groups for key environmental management issues for the SSI. The Strategy shall provide detail on the structure, scope, objectives and frequency of the community-based focus groups;
 - (d) procedures and mechanisms through which the community 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 the community 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 Strategy include (but are not necessarily limited to):

- (i) flooding and hydrology matters, including levee works;
- (ii) traffic management (including parking, property access, pedestrian access);
- (iii) noise and vibration mitigation and management;
- (iv) heritage matters;
- (v) landscaping and urban design matters;
- (vi) construction staging, hours and activities;
- (vii) the relocation of moorings including a strategy for consulting with affected mooring owners;
- (viii) biodiversity matters; and
- (ix) socio-economic, property and land use impacts, including impacts to recreational and commercial river users.

The Proponent shall maintain and implement the Strategy throughout construction of the SSI.

Complaints and Enquiries Procedure

- C2. Prior to the commencement of pre-construction and construction, or as otherwise agreed by the Secretary, 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 and prior to the commencement of operation. This information shall also be provided on the website (or dedicated pages) required by this approval.

- C3. Prior to the commencement of pre-construction and construction, or as otherwise agreed by the Secretary, 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 condition A12 of this approval. The information contained within the System shall be made available to the Secretary and relevant agencies on request.

Provision of Electronic Information

- C4. Prior to the commencement of pre-construction and construction, or as otherwise agreed by the Secretary, 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 or dedicated pages including, but not necessarily limited to:
- (a) information on the current implementation status of the SSI;
 - (b) a copy of the documents listed in condition A2, 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 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 A12 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.

PART D

CONSTRUCTION ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

BIODIVERSITY

- D1. Prior to the commencement of operation of the SSI, the Proponent shall prepare a **Biodiversity Offset Statement** in consultation with the OEH. The Statement shall:
- (a) confirm the threatened species, communities and their habitat (in hectares) cleared and their condition; and
 - (b) provide details of measures to offset impacts of the SSI on native vegetation, including threatened species, communities and their habitats, including the timing, responsibility, management and monitoring, and implementation of the offset measures.

Biodiversity impacts shall be offset in accordance with the document *Principles for the Use of Biodiversity Offsets in NSW* (DECCW, 2008). A copy of the statement shall be submitted to the Secretary and OEH.

NOISE AND VIBRATION

Construction Hours

- D2. Construction activities associated with the SSI shall be undertaken during the following standard construction hours:
- (a) 7:00 am to 6:00 pm Monday to Friday, inclusive; and
 - (b) 8:00 am to 1:00 pm Saturday; and
 - (c) at no time on Sunday or public holidays.
- D3. Construction works outside the standard construction hours may be undertaken in the following circumstances:
- (a) construction works that generate noise and vibration that is:
 - (i) LAeq(15 minute) noise levels no more than 5 dB(A) above rating background level at any residence in accordance with the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009); and
 - (ii) LAeq(15 minute) noise levels 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) 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*; and
 - (iv) 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*; or
 - (b) where a negotiated agreement has been reached with affected receivers, where the prescribed noise and vibration levels cannot be achieved; or
 - (c) for the delivery of materials required outside the standard construction hours by the NSW Police Force or other authorities for safety reasons; or
 - (d) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; or
 - (e) out-of-hours work in accordance with condition D4.

- D4. Construction activities which cannot be undertaken during the standard construction hours for technical or other justifiable reasons (Out of Hours work) may be permitted with the approval of the Environmental Representative. Out of Hours work shall be undertaken in accordance with an approved Construction Environment Management Plan or Construction Noise and Vibration Management Plan for the SSI, where that plan provides a process for the consideration of Out of Hours work. This consideration includes:
- (a) process for obtaining the Environmental Representative's approval for Out of Hours work;
 - (b) details of the nature and need for activities to be conducted during the varied construction hours;
 - (c) justifies the varied construction hours in accordance with the *Interim Construction Noise Guideline* (DECC, 2009);
 - (d) provides evidence that consultation with potentially affected receivers, that the issues raised have been addressed and all feasible and reasonable mitigation measures have been put in place; and
 - (e) provides evidence of consultation with the EPA and Council on the proposed work outside the standard construction hours.
- D5. Construction activities resulting in impulsive or tonal noise emission (such as rock breaking, rock hammering, pile driving) shall only be undertaken:
- (a) between the hours of 8:00 am to 6:00 pm Monday to Friday;
 - (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 the subject of this condition.

- D6. The Proponent shall, where feasible and reasonable, limit high noise impact activities and work to the mid-morning and mid-afternoon periods.

Construction Noise and Vibration

- D7. 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 required under condition D46(a).

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 Level.*

- D8. The SSI shall be constructed 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 – Part 3 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 of vibration in buildings - Guide for measurement of vibration and evaluation of their effects on*

- buildings* (and referenced in Australian Standard 2187.2 – 2006 *Explosives – Storage and use – Use of explosives*); and
- (c) for human exposure, the acceptable vibration values set out in *Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006).

- D9. Wherever feasible and reasonable, piling activities shall be undertaken using quieter construction methods, such as bored piles or vibrated piles rather than impact or percussion piling methods.
- D10. During construction, affected educational institutions shall be consulted and reasonable steps taken to ensure that noise generating construction works in the vicinity of affected buildings are not timetabled during examination periods where practicable, unless other reasonable arrangements to the affected institutions are made at no cost to the affected institution.

Review of Noise Mitigation Measures

- D11. The Proponent shall undertake a review of the operational noise mitigation measures proposed to be implemented for the SSI, within six months of commencing construction, unless otherwise agreed by the Secretary. The review shall be submitted for the approval of the Secretary, and be prepared in consultation with the EPA, and shall:
- (a) confirm the operational noise predictions of the SSI 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 in condition A2. The review shall take into account the detailed design of the SSI and, where feasible and reasonable, and where necessary, refine the proposed measures with the objective of meeting the criteria outlined in the *NSW Road Noise Policy* (Department of Environment, Climate Change and Water, 2011), based on the operational noise performance of the SSI predicted under (a) above; and
 - (c) where necessary, investigate additional feasible and reasonable noise mitigation measures to achieve the criteria outlined in the *NSW Road Noise Policy* (DECCW, 2011).
- D12. Where feasible and reasonable, operational noise mitigation measures shall be implemented at the start of construction (or at other times during construction) to minimise construction noise impacts.

TRANSPORT AND ACCESS

Access

- D13. Access to all properties shall be maintained during construction, where feasible and reasonable, unless otherwise agreed by the relevant property owner or occupier. Any access physically affected by the SSI shall be reinstated to at least an equivalent standard, unless agreed with by the property owner.
- D14. 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 satisfactory alternate route shall be provided and signposted.

D15. Construction vehicles (including staff vehicles) associated with the SSI shall be managed to:

- (a) minimise parking or queuing on public roads;
- (b) minimise idling and queuing in local residential streets where practicable;
- (c) minimise the use of local roads (through residential streets and town centres) to gain access to construction sites and compounds; and
- (d) adhere to the nominated haulage routes identified in the Construction Traffic and Access Management Plan required under condition D46(b).

Parking

D16. Where feasible and reasonable, the Proponent shall provide alternative temporary parking spaces for formal on-street parking spaces removed and/or impacted by the construction of the SSI. The location and number of temporary or relocated parking spaces shall be determined in consultation with Council and affected businesses. The alternative parking spaces shall be provided prior to commencement of construction activities that impact on parking spaces within the SSI footprint.

Road Dilapidation

D17. Upon determining the haulage route(s) for construction vehicles associated with the SSI, and prior to construction, an independent and qualified expert shall prepare a **Road Dilapidation Report** for local roads outside the SSI boundary. The Report shall assess the current condition of the road and describe mechanisms to restore any damage that may result due to their use by traffic and transport related to the construction of the SSI. The Report shall be submitted to Council for review prior to the commencement of haulage.

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 local roads affected by the SSI shall be undertaken in a timely manner, in accordance with the reasonable requirements of Council, and at the full expense of the Proponent.

Note:

- *Nothing in this condition restricts the Proponent commencing adjustments and minor upgrades to the existing road network to cater for construction traffic and installation of temporary project signage prior to the commencement of construction.*

SOIL, WATER AND HYDROLOGY

D18. Where available and practicable, and of appropriate chemical and biological quality, stormwater, recycled water or other water sources shall be used, where feasible and reasonable, in preference to potable water for construction activities, including concrete mixing and dust control.

Soil and Water Management

D19. Soil and water management measures consistent with *Managing Urban Stormwater - Soils and Construction Volumes 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 water.

D20. Works in riparian areas and on riverfront land shall be undertaken in accordance with NOW guidelines for controlled activities on waterfront land, as applicable.

Flood Management

- D21. The Proponent shall consult with the NSW State Emergency Service during detailed design on feasible and reasonable measures to maximise the evacuation capability of Grafton and South Grafton during a major flood emergency.
- D22. The Proponent shall undertake further flood modelling based on the detailed design of the SSI. The flood modelling shall consider the recommendations of WMAwater outlined in Appendix A *EIS flooding and hydrology technical paper peer review* in the document listed in condition A2(c), and:
- (a) include a detailed floor level survey of potentially affected properties, as identified in the flood modelling;
 - (b) update the flood frequency analysis and application of the latest hydrological practice of the new *Australian Rainfall and Runoff* publication;
 - (c) assess the same design flood events as those in the EIS, including the probable maximum flood (PMF) event; and
 - (d) assess and report all flood height changes to a resolution no coarser than 1cm.

Hydrological Mitigation Report

- D23. The Proponent shall prepare a **Hydrological Mitigation Report** that details all feasible and reasonable flood mitigation measures for properties where flood impacts are predicted to increase as a result of the SSI. The Report shall be prepared by a suitably qualified and experienced expert, whose appointment has been approved by the Secretary. The Report shall:
- (a) be informed by the detailed surveys (e.g. floor levels) of potentially affected properties and the results of the flood modelling of the detailed design carried out under condition D22 of this approval and in consultation with OEH and Council;
 - (b) include mitigation measures based on documented flood management objectives for affected properties. The flood management objectives shall cover flood level (height), duration, velocity and direction, and flood evacuation and be developed in consultation with Council and the SES;
 - (c) ensure mitigation measures that include changes to the height of the levees have no detrimental impact on residences and urban land uses protected by the levees and properties downstream of the SSI;
 - (d) identify properties in those areas likely to have an increased/exacerbated flooding impact and detail the predicted impact. The types of impacts to be considered include all those examined in the EIS including but not limited to changes in flood levels and velocities, alteration to drainage, reduction in flood evacuation access or capability and impacts on infrastructure,;
 - (e) identify mitigation measures to be implemented to address these impacts:
 - (f) 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 SSI;
 - (g) demonstrate consistency with the flood management objectives in subsection (b);
 - (h) be developed in consultation with directly-affected landowners, and Council and in relation to public assets and community flood evacuation issues; and
 - (i) where house raising is proposed, ensure habitable floor levels are raised to a minimum height of the 100 year ARI flood plus 0.5m freeboard, unless justified by site-specific assessment.

Where the flood management objectives in subsection (b) cannot be complied with, the Proponent shall achieve compliance through modified design of the SSI; or achieve an acceptable level of mitigation of impacts through at property design measures (e.g. raised access tracks, flood refuge, house raising) in consultation with affected landowners.

The Report shall be submitted for the approval of the Secretary one month prior to the commencement of construction within the floodplain that has potential to alter flood behaviour, unless otherwise agreed by the Secretary.

Construction shall not commence on any components of the SSI that have potential to alter flood conditions until such time as works identified in the hydrological mitigation report have been completed, unless otherwise agreed by the Secretary.

- D24. Based on the mitigation measures identified in the Hydrological Mitigation Report, the Proponent shall prepare and implement a final schedule of feasible and reasonable flood mitigation measures proposed at each directly-affected property in consultation with the landowner, and consistent with the flood management objectives described in condition D23(b). The schedule shall be provided to the relevant landowner(s) prior to the implementation/construction of the mitigation works, unless otherwise agreed by the Secretary. A copy of each schedule of flood mitigation measures shall be provided to the Department and Council prior to the implementation/construction of the mitigation measures on the property.
- D25. The Proponent shall undertake engineering and property investigations of the Grafton and South levees prior to detailed design to inform the structural capability of changes to the levees. Any work to augment the structure of the levees shall be carried out in consultation with Council and affected landowners.

Note:

- *Should additional assessment of work arising from the engineering and property investigations of the levees be required, the proponent shall undertake a review of the consistency of those works with the SSI approval. Work that is inconsistent with the SSI may require a modification of the approval.*

- D26. The proposed Grafton and South Grafton levee flood mitigation measures shall be implemented prior to construction commencing in the Clarence River, including pier/pile construction and the installation of temporary in-river rock platforms, unless otherwise agreed by the Secretary.
- D27. The Proponent shall employ a suitably qualified and experienced independent hydrological expert, whose appointment has been endorsed by the Secretary, to provide independent advice for all hydrological matters, including assistance to landowners in resolving feasible and reasonable mitigation measures.

Drainage

- D28. During detailed design, the Proponent shall undertake a detailed drainage study of the SSI adjacent to the northern and southern approach roads within the levees to ensure there are no adverse impacts to property or existing infrastructure. The study shall be carried out in consultation with Council and include the design of the Pound Street drainage basin and pumping station, and Council's existing drainage and flood relief systems.

AIR QUALITY

- D29. 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 preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, the Proponent shall identify and implement all feasible and reasonable dust

mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.

HAZARDS AND RISK

D30. 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 (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.

WASTE MANAGEMENT

D31. 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 or waste exemption under the *Protection of the Environment Operations Act 1997*, if such a licence is required in relation to that waste.

D32. The reuse and/or recycling of waste materials generated on site shall be maximised as far as practicable, to minimise the need for treatment or disposal of those materials off site.

D33. 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).

D34. All waste materials removed from the site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials.

CONSTRUCTION ACTIVITIES

D35. The Proponent shall ensure that all plant and equipment used at the site is:

- (a) maintained in a proper and efficient condition; and
- (b) operated in a proper and efficient manner.

ANCILLARY FACILITIES

D36. The sites for ancillary facilities that are associated with the construction of the SSI and that have not been identified and assessed in the documents listed in condition A2 shall:

- (a) be located more than 50 metres from a waterway, including the Clarence River;
- (b) be located within or adjacent to the SSI boundary;
- (c) have ready access to the road network or direct access to the construction corridor;
- (d) be located to minimise the need for heavy vehicles to travel through residential areas;
- (e) be located in areas of low ecological significance and require no clearing of native vegetation;
- (f) be located on relatively level land;

- (g) be separated from the nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);
- (h) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented;
- (i) not unreasonably affect the land use of adjacent properties;
- (j) provide sufficient area for the storage of material to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours; and
- (k) be located in areas of low heritage conservation significance (including areas identified as being of Aboriginal cultural value) and not impact on heritage sites beyond those already impacted by the SSI.

The Proponent shall undertake an assessment of the facility against the above criteria in consultation with the relevant public authority(s) and the Council. The site and relevant environmental management measures shall be included in the Construction Environmental Management Plan required under condition D45.

- D37. Ancillary facilities that have not been previously identified and assessed in the documents listed in condition A2, and do not meet the criteria set out under condition D36, shall be approved by the Environmental Representative prior to its establishment. In obtaining this approval, the Proponent shall consult with the relevant public authority(s) and the Council, and demonstrate to the satisfaction of the Environmental Representative, how the potential environmental impacts can be mitigated and managed to acceptable standards. The outcomes of the assessment shall be documented in a report and include, but not necessarily be limited to:
- (a) details on the site location and access arrangements;
 - (b) a description of the activities to be undertaken including the hours of use and storage of dangerous goods;
 - (c) outcomes of the assessment of the site against the locational criteria set out in condition D36;
 - (d) an assessment of the environmental impacts on the site and the surrounding environment, including, but not limited to noise, vibration, air quality, traffic and access during site establishment and operation, flora and fauna, heritage, erosion and sedimentation, water quality and light spill;
 - (e) details of the mitigation, monitoring and management procedures specific to the ancillary facility that would be implemented to minimise environmental impacts; and
 - (f) demonstrated overall consistency with the approved SSI (including impacts identified in the documents listed in condition A2).

A copy of the report shall be included in the Construction Environmental Management Plan required under condition D45.

- D38. Notwithstanding condition D37, ancillary facilities that that have not been previously identified and assessed in the documents listed in condition A2 and result in additional impacts to biodiversity, heritage, flooding and noise beyond those approved for the SSI, shall be approved by the Secretary prior to their establishment. In order to obtain this approval, the Proponent shall undertake an assessment of the ancillary facility in accordance with condition D37 and forward a copy of the assessment report to the Secretary, as part of the approval submission, at least one month prior to the establishment of the facility.

- D39. All ancillary facilities and access points shall be rehabilitated to at least their pre-construction condition or better, unless otherwise agreed by the landowner where relevant.

- D40. Where changes are made to the boundary or use of an ancillary facility, including facilities identified in the documents listed in condition A2, the Proponent shall assess the facility against the criteria set out in condition D36. If the ancillary facility site:
- (a) does not meet the criteria set out under condition D36 the Proponent shall seek the approval of the Environmental Representative in accordance with condition D37; or
 - (b) results in impacts to biodiversity, heritage, flooding and noise beyond those approved for the SSI, the Proponent shall seek the approval of the Secretary in accordance with condition D38.

The relevant approval shall be obtained prior to the establishment of the ancillary facility.

- D41. The Proponent may undertake archaeological investigations at ancillary sites that do not meet the criterion set out in condition D36, where this is required to assess the potential Aboriginal and non-Aboriginal archaeological impacts of the ancillary facility provided they are undertaken under a methodology prepared to the satisfaction of the Secretary in consultation with OEH.

URBAN DESIGN AND LANDSCAPE

- D42. The Proponent shall prepare and implement an **Urban Design and Landscape Management Plan** prior to the commencement of permanent built works and/or landscaping, unless otherwise agreed by the Secretary, to present an integrated landscape and design for the SSI. The Plan shall be prepared in accordance with the Roads and Maritime Services urban design and visual guidelines, and the design principles and revegetation guidelines outlined in the EIS. The Plan shall be prepared by an appropriately qualified expert in consultation with OEH, including the Heritage Division, Council and community, and submitted to the Secretary for approval. The Plan shall include, but not necessarily be limited to:
- (a) identification of design principles and standards based on -
 - (i) local environmental values,
 - (ii) heritage values,
 - (iii) urban design context,
 - (iv) sustainable design and maintenance,
 - (v) community amenity and privacy,
 - (vi) relevant design standards and guidelines including “Crime Prevention Through Environmental Design Principles”, and
 - (vii) the urban design objectives outlined in the EIS Technical Paper *Urban Design and Landscape Concept Report*;
 - (b) details on the location of existing vegetation and proposed landscaping (including use of indigenous and endemic species where possible). Details of species to be replanted/revegetated shall be provided in a **Revegetation Strategy**, including their appropriateness to the area and habitat for threatened species;
 - (c) a description of locations along the corridor directly or indirectly impacted by the construction of the SSI (e.g. temporary ancillary facilities, access tracks, 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;
 - (d) appropriate roadside plantings and landscaping in the vicinity of heritage items and ensure no additional heritage impacts;
 - (e) appropriate landscape treatments on flood levees to ensure the structural integrity of the levees is not compromised;

- (f) strategies for progressive landscaping of environmental controls (such as erosion and sedimentation controls, drainage controls);
- (g) responsibilities for maintaining landscaping treatments and areas of regeneration and revegetation;
- (h) location and design treatments for any associated footpaths and cyclist elements, and other features such as seating, fencing, materials and signs;
- (i) a lighting plan lighting (with lighting in accordance with *AS/NZS 1158 Lighting for Roads and Public Spaces* series as relevant and *AS 4282-1997 Control of the Obtrusive Effect of Outdoor Lighting*) including lighting designs;
- (j) an assessment of the visual screening effects of existing vegetation and the proposed landscaping and built elements. Where properties have been identified as likely to experience high visual impact as a result of the SSI and high residual impacts are likely to remain, the Proponent shall, in consultation with affected landowners, identify opportunities for providing at-property landscaping to further screen views of the SSI. Where agreed with the landowner, these measures shall be implemented during the construction of the SSI;
- (k) graphics such as sections, perspective views and sketches for key elements of the SSI, including, but not limited to built elements of the SSI;
- (l) final design details of the proposed external materials and finishes for the bridge and noise barriers, including schedules and a sample board of materials and colours;
- (m) monitoring and maintenance procedures for the built elements, including performance indicators, responsibilities, timing and duration; and
- (n) evidence of consultation with OEH, Council and community on the proposed urban design and landscape measures prior to finalisation of the Plan.

Note:

- *The Urban Design and Landscape Plan shall be consistent with any revegetation and biodiversity offsets established for the SSI under the conditions of this approval.*

ENVIRONMENTAL REPRESENTATIVE

D43. Prior to the commencement of construction of the SSI, or as otherwise agreed by the Secretary, the Proponent shall nominate for the approval of the Secretary a suitably qualified and experienced Environmental Representative(s) that is independent of the design and construction personnel. The Proponent shall employ the Environmental Representative(s) for the duration of construction, or as otherwise agreed by the Secretary. 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;
- (f) be given the authority to approve/reject Out of Hours Works in accordance with condition D4. These works shall be conducted in accordance with the Out of Hours Works Protocol (OOHW Protocol) required in accordance with condition D46(a)(vi);

- (g) be given the authority to approve/reject ancillary facilities in accordance with conditions D36 and D37;
- (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; and
- (i) 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.

D44. The Environmental Representative shall prepare and submit to the Secretary a monthly report on the Environmental Representative's actions and decision on matters specified in condition D43 for the preceding month. The reports shall be submitted within seven (7) days from the end of each month for the duration of construction of the SSI, or as otherwise agreed by the Secretary. Notwithstanding, the Environmental Representative shall be given the independence to report to the Secretary at any time and/or at the request of the Secretary.

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

D45. The Proponent shall prepare and implement a **Construction Environmental Management Plan** for the SSI, prior to the commencement of construction, or as otherwise agreed by the Secretary. The Plan shall be prepared in consultation with relevant agencies and Council and outline the environmental management practices and procedures that are to be followed during construction. The Plan shall be prepared in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004) and is to include, but not necessarily be limited to, the following:

- (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 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) measures to minimise **hydrology** impacts, including measures to stabilise bank structures as required;
 - (ii) measures to monitor and manage **dust** emissions including dust from stockpiles, traffic on unsealed roads and from materials tracking;
 - (iii) measures to minimise emissions from construction vehicles, plant and equipment;
 - (iv) 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 in a **Stockpile Management Protocol**. The Protocol shall include details of the locational criteria that would guide the

- placement of temporary stockpiles, and management measures that would be implemented to avoid/minimise amenity impacts to surrounding residents and environmental risks (including surrounding water courses);
- (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 or dealing with green waste including timber and mulch from clearing activities;
 - (vi) measures for managing asbestos waste including its removal, handling, storage, transport and disposal;
 - (vii) measures for reducing demand on water resources (including potential for reuse of treated water from sediment control basins);
 - (viii) measures to monitor and manage **hazard and risks** including emergency management;
 - (ix) details of compliance and incident management consistent with the requirements of condition A12; and
 - (x) procedures for the periodic review and update of the Construction Environmental Management Plan and Plans required under condition D46, as necessary (including where minor changes can be approved by the Environmental Representative).

The Plan shall be submitted for the approval of the Secretary no later than one month prior to the commencement of construction, or as otherwise agreed by the Secretary. Construction work shall not commence until written approval has been received from the Secretary.

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 shall prevail.

- D46. As part of the Construction Environmental Management Plan for the SSI, the Proponent shall prepare and implement:
- (a) a **Construction Noise and Vibration Management Plan** to detail how construction noise and vibration impacts will be minimised and managed. The Plan shall be developed in consultation with the EPA and shall be consistent with the guidelines contained in the *Interim Construction Noise Guidelines* (DECC, 2009) and shall include, but not necessarily 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 and vibration impacts (including construction traffic noise impacts);
 - (iv) procedures and mitigation measures to ensure relevant vibration criteria are achieved, including 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); and
- (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 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;
 - (vi) an out-of-hours work (OOHW) protocol for the assessment, management and approval of works outside of standard construction hours as defined in condition D4 by the Environmental Representative;
 - (i) 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;
 - (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 exceedances of relevant noise and vibration goals are detected; and
 - (viii) mechanisms for the monitoring, review and amendment of this plan.
- (b) a **Construction Traffic and Access Management Plan** to manage construction traffic and access impacts of the SSI. The Plan shall be developed in consultation with Council and shall include, but not necessarily be 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, levee stockpile 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, and parking including details of oversize load movements;
 - (iv) details of management measures to minimise traffic impacts, including 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;
 - (v) details of measures to manage traffic movements, parking, loading and unloading at ancillary facilities during out-of-hours work;
 - (vi) a response plan which sets out a proposed response to any traffic, construction or other incident;
 - (vii) details on any access and speed restrictions to be imposed along the Clarence River, including timing and duration;
 - (viii) information on the number of moorings to be relocated, their current location, proposed location, whether the relocation would be permanent and if not, the duration of relocation; and
 - (ix) mechanisms for the monitoring, review and amendment of this plan.
- (c) a **Construction Soil and Water Quality Management Plan** to manage surface water impacts during construction of the SSI. The Plan shall be developed in consultation with the EPA, DPI (Fisheries), NOW and the Council and include, but not necessarily be limited to:
- (i) details of construction activities and their locations, which have the potential to impact on waterways and stormwater drainage;
 - (ii) surface water impact assessment criteria consistent with Australian and New Zealand Environment Conservation Council (ANZECC) guidelines;

- (iii) risk assessment of the potential surface and groundwater quality impacts posed by bridge construction;
 - (iv) management measures to be implemented to minimise surface water and groundwater impacts including details on waste water treatment devices, sediment basins, measures for managing pollutants at the source, spill management, and water quality monitoring;
 - (v) details of the management measures to be implemented during piling, construction of bridge pylons and the use and decommissioning of temporary work platforms on the Clarence River to minimise water quality impacts;
 - (vi) details of how spoil and fill material required by the SSI will be sourced, handled, stockpiled, reused and managed, including locational criteria for guiding the placement of temporary stockpiles and measures to minimise potential impacts associated with stockpiling on waterways (such as erosion and sedimentation);
 - (vii) a description of the erosion and sediment control measures to be implemented;
 - (viii) details on the outcomes of the detailed site contamination investigations and proposed remediation measures, if remediation is required;
 - (ix) a procedure detailing the contingency measures to be implemented in the event of the discovery of previously unidentified contaminated soils, including the process for updating or preparing a remediation action plan;
 - (x) an **Acid Sulfate Soils contingency plan**, consistent with the *Acid Sulfate Soils Manual* (Acid Sulfate Soils Management Advisory Committee, 1998) and *Acid Sulfate Soils Assessment Guidelines* (Ahern et al., 1998) to deal with the unexpected discovery of acid sulfate soils, including procedures for the investigation, handling, treatment and management of such soils and water seepage;
 - (xi) a **tannin leachate management protocol** to manage the stockpiling of mulch and use of cleared vegetation and mulch filters for erosion and sediment control;
 - (xii) 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; and
 - (xiii) mechanisms for the monitoring, review and amendment of this plan.
- (d) a **Construction Heritage Management Plan** to detail how construction impacts on Aboriginal and non-Aboriginal heritage will be minimised and managed. The Plan shall be developed in consultation with the OEH, the NSW Heritage Council (for non-Aboriginal heritage) and Registered Aboriginal Parties (for Aboriginal heritage), and include, but not necessarily be limited to:
- (i) in relation to Aboriginal Heritage:
 - (a). details of management measures to be carried out in relation to Aboriginal heritage;
 - (b). 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 Parties 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;
- (c). 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 Parties and not recommencing any works in the area unless authorised by the OEH and/or the NSW Police Force;
- (d). 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
- (e). procedures for ongoing Aboriginal consultation and involvement for the duration of the SSI; and
- (ii) in relation to non-Aboriginal Heritage:
 - (a). identification of heritage items directly and indirectly affected by the SSI;
 - (b). 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);
 - (c). details of monitoring and reporting requirements for impacts on heritage items;
 - (d). procedures for dealing with previously unidentified heritage objects, (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, OEH and NSW Heritage Council, and assessment of the consistency of any new heritage impacts against the approved impacts of the SSI; and
 - (e). heritage training and induction processes for construction personnel (including procedures for keeping records of inductions and obligations under this approval including site identification, protection and conservation of non-Aboriginal cultural heritage; and
- (iii) mechanisms for the monitoring, review and amendment of this plan.
- (e) a **Construction Flora and Fauna Management Plan** to detail how construction impacts on ecology will be minimised and managed. The Plan shall be prepared by a suitably qualified and experienced ecologist and developed in consultation with the OEH and DPI (Fisheries), 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 endangered ecological communities have been recorded; including pre-clearing surveys to confirm the location of any threatened flora and fauna species and associated habitat features;
 - (ii) a protocol for the removal and relocation of fauna during clearing, including provision for engagement of a suitably qualified and experienced ecologist to identify locations where they would be present; to oversee clearing activities and facilitate fauna rescue and re-location; and consideration of timing of vegetation clearing with consideration to the avoidance of clearing native vegetation during the breeding/nesting periods of threatened species, where feasible and reasonable;

- (iii) details of general work practices and mitigation measures to be implemented during construction and operation to minimise impacts on native terrestrial and aquatic fauna and flora (particularly threatened species and their habitats and endangered ecological communities) not proposed to be cleared as part of the SSI, including, but not necessarily limited to: fencing of sensitive areas; 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, erosion and sediment control, including measures to at least maintain habitat values downstream; and progressive re-vegetation;
 - (iv) rehabilitation and revegetation details, including objectives, identification of flora species and sources, measures for the management and maintenance of rehabilitated areas, and timeframes and responsibilities for revegetation and rehabilitation;
 - (v) procedures for monitoring success of regeneration and revegetation, and corrective actions should regeneration or revegetation not conform to the objectives adopted;
 - (vi) weed management measures focusing on early identification, suppression and control of invasive weeds and effective management controls;
 - (vii) a protocol for managing aquatic and terrestrial pest animal/invasive species and plant species, and pathogens;
 - (viii) a procedure for dealing with unexpected endangered ecological communities and threatened species identified during construction, including cessation of work and notification of the OEH and DPI (Fisheries), determination of appropriate mitigation measures in consultation with these agencies (including relevant re-location measures) and updating of ecological monitoring and/or biodiversity offset requirements; and
 - (ix) mechanisms for the monitoring, review and amendment of this plan.
- (f) a **Construction Flood Management Plan** to detail how construction impacts on hydrology and flooding from works on the flood levee and within the Clarence River and its floodplain will be minimised and managed and that any significant adverse impacts to people and property are avoided. The Plan shall be prepared in consultation with a suitably qualified and experienced hydrologist, OEH, SES and Council, and shall include, but not necessarily be limited to:
- (i) an assessment of the probabilities and consequences of flood damages and personnel safety over the likely construction period including for possible extensions to this period;
 - (ii) details of works and activities, including structures within the Clarence River, which may be impacted by a flood during construction and associated risks;
 - (iii) details of measures to ensure work sites and plant and equipment are secure during flooding events and do not become flood debris or impact on property and the environment;
 - (iv) management measures and procedures that would be implemented prior to a flooding event, including timeframes for securing work sites and moving plant and equipment,
 - (v) consideration of the flood management objectives described in condition D23(b);
 - (vi) monitoring of the work sites during flood events; and
 - (vii) mechanisms for the monitoring, review and amendment of this plan.

PART E

OPERATIONAL ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

OPERATIONAL NOISE

- E1. The SSI shall be designed and operated with the objective of not exceeding the road noise criteria outlined in the NSW Road Noise Policy (Department of Environment, Climate Change and Water, 2011).
- E2. The Pumping Station at Pound Street shall be designed and operated (including regular maintenance and testing) to not exceed the noise criteria in the *NSW Industrial Noise Policy (2000)*.

Operational Noise Compliance

- E3. The Proponent shall undertake operational noise monitoring, to compare actual noise performance of the SSI against noise performance predicted in the review of noise mitigation measures required by condition D11 within 12 months of the commencement of operation of the SSI, or as otherwise agreed by the Secretary.

The Proponent shall subsequently prepare an **Operational Noise Compliance 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 D11 and documents listed in condition A2;
- (b) a review of the operational noise levels in terms of criteria and noise goals established in the *NSW Road Noise Policy 2011*;
- (c) methodology, location and frequency of noise monitoring undertaken, including monitoring sites at which SSI 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 SSI 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 noise monitoring and 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 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 D11, that would be implemented with the objective of meeting the criteria outlined in the *NSW Road Noise Policy 2011*, when these measures would be implemented and how their effectiveness would be measured and reported to the Secretary and the EPA.

The Proponent shall provide the Secretary 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 Secretary.

ENVIRONMENTAL MANAGEMENT SYSTEMS

- E4. 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 or similar Environmental Management System series.

If there is an inconsistency between the existing environmental management systems and the conditions of this SSI approval, the requirements of this SSI approval shall prevail.

INDEPENDENT ENVIRONMENTAL AUDIT

- E5. Within 18 months of the commencement of operation, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the SSI. This audit shall:
- (a). be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b). include consultation with the relevant agencies and Council;
 - (c). assess the environmental performance of the SSI and assess whether it is complying with the requirements in this approval, and any other relevant approvals (including any assessment, plan or program required under these approvals);
 - (d). review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and
 - (e). recommend measures or actions to improve the environmental performance of the SSI, and/or any strategy, plan or program required under these approvals.

Note:

- *This audit team shall be led by a suitably qualified auditor, and include experts in noise and vibration, hydrology and any other fields specified by the Secretary.*

- E6. Within 90 days of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary and relevant public authorities, together with its response to any recommendations contained in the audit report.

Should the Audit identify unsatisfactory compliance with the SSI approval, the Secretary may require an additional Audit to be undertaken at a later date(s).

MAINTENANCE

- E7. The Proponent shall maintain the SSI in accordance with the documents listed in condition A2 and any strategy, plan, program or other document required by the conditions of this approval.