

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 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 development.



Executive Director
Development Assessment, Systems and Approvals
Planning and Infrastructure

Sydney **27 FEBRUARY** 2014

SCHEDULE 1

Application No.:	SSI- 5039
Proponent:	State Water Corporation
Approval Authority:	Minister for Planning and Infrastructure
Land:	Land generally in the vicinity of and surrounding Chaffey Dam, located 45 km south-south-east of Tamworth
Approved Infrastructure:	<p>Chaffey Dam Safety Upgrade and Augmentation, including:</p> <ul style="list-style-type: none">• Raising of the dam wall by 6.8 metres to a crest height of 542.1m AHD;• Increasing the height of the existing main morning glory spillway by 6.5 metres to 525.1m AHD;• Increase the capacity of the reservoir to a Full Supply Level (FSL) of 100 GL, with an FSL height of 525.1m AHD;• Realignment of Tamworth-Nundle Road, Rivers Road and Western Foreshore Road, including new bridges at Bowling Alley Point and Hydes Creek;• Relocation/replacement of recreational facilities associated with the reservoir; and• Miscellaneous ancillary works as detailed in the EIS and PIR.

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DEFINITIONS

Act, the	<i>Environmental Planning and Assessment Act, 1979</i>
Agency	Planning and Infrastructure
Ancillary Facility	Temporary facility for construction, including for example an office and amenities compound, construction compound, batch plant (concrete or bitumen), materials storage compound, maintenance workshop, testing laboratory or material stockpile area
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, or salvage; 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); 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. minor access roads, minor adjustments to services/ utilities, etc.) <p>Note - work where heritage, threatened species, populations or endangered ecological communities would be affected that work is classified as construction, unless otherwise approved by the Director General in consultation with the Environment Protection Authority</p>
CEMP	Construction Environmental Management Plan
Council(s)	Tamworth Regional Council
Director-General	Director General of Planning and Infrastructure
Director-General's Approval	A written approval from the Director-General (or a nominee) where approval from the Director-General is required under a condition
Director-General's Report	The report provided to the Minister by the Director-General of the Agency under Section 115ZA of the Act
DOE	Commonwealth Department of the Environment
DPI	Department of Primary Industries (including NSW Office of Water, NSW Fisheries, Crown Lands, NSW Agriculture)
EEC	Endangered ecological communities
EIS	<i>Environmental Impact Statement Chaffey Dam Augmentation and Safety Upgrade</i> , prepared by the Proponent and dated 7 December 2012
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	Feasible relates to engineering considerations and what is practical to build
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>
Incident	A set of circumstances that: <ul style="list-style-type: none"> • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this approval
LLS	Local Land Services
Minister	Minister for Planning and Infrastructure
NOW	NSW Office of Water
OEH	Office of Environment and Heritage, formerly Department of Environment, Climate Change and Water (DECCW) and Department of Environment and Climate Change (DECC)
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
PIR	<i>Preferred Infrastructure Report Chaffey Dam Augmentation and Safety Upgrade</i> , prepared by State Water Corporation and dated 15 March 2013
Proponent	State Water Corporation
Public Authority	As defined in Section 4 of the Act
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Relevant Road Authority	As defined in Section 4 of the <i>Roads Act 1993</i>
Reservoir	The body of water immediately behind and created by Chaffey Dam
Sensitive receiver	Residence, education 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
SSI	State significant infrastructure means the infrastructure approved under this approval and as generally described in Schedule 1

SCHEDULE 2

PART A

ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

- A1. The proponent shall implement management and mitigation measures to prevent and/or minimise any harm to the environment that may result from the construction or operation of the project in accordance with the commitments made in documents listed under condition A2, except as amended by this approval. In the event of unforeseen environmental harm, the proponent shall implement all feasible and reasonable measures to prevent environmental harm.

TERMS OF APPROVAL

- A2. The Proponent shall carry out the SSI generally in accordance with the:

- a) State Significant Infrastructure Application SSI 5039;
 - b) Environmental Impact Statement, prepared by Worley Parsons and dated 7 December 2012;
 - c) Preferred Infrastructure Report, prepared by Worley Parsons and dated 15 March 2013;
 - d) Response to Agencies' Comments on the PIR, prepared by Worley Parsons and dated 31 May 2013;
 - e) Letter from Worley Parsons to Planning and Infrastructure dated 20 August 2013;
 - f) Vegetation Offset Plan, prepared by Worley Parsons and dated 1 November 2013;
 - g) Booroolong Frog Offset Plan, prepared by EcoLogical Australia and dated 15 November 2013; and
 - h) The conditions of this approval.
- A3. If there is any inconsistency between the plans and documentation referred to above, the most recent document shall prevail to the extent of the inconsistency. However, conditions of this approval prevail to the extent of any inconsistency.
- A4. The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Agency's assessment of:
- a) any reports, plans or correspondence that are submitted in accordance with this approval; and
 - b) the implementation of any actions or measures contained within these documents.

LIMITS ON APPROVAL

- A5. This approval shall lapse 5 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.

COMPLIANCE TRACKING

- A6. Prior to the commencement of construction, the Proponent shall develop and implement a Compliance Tracking Program for the project, to track compliance with the requirements of this approval during the construction of the project and shall include, but not necessarily be limited to:
- a) provisions for periodic reporting of compliance status to the Director-General including at least prior to the commencement of construction of the project, and prior to the commencement of operation.
 - b) a program for independent environmental auditing in accordance with AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing;
 - c) procedures for rectifying any non-compliance with the approval identified during environmental auditing or review of compliance;
 - d) mechanisms for recording environmental incidents and actions taken in response to those incidents;
 - e) provisions for reporting environmental incidents to the Director-General and other relevant parties/the department or Minister responsible for other relevant legislation during construction and operation; and
 - f) 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.

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 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, any condition of approval is only required to be complied with at the relevant time and to the extent that it is 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.

- A8. The Proponent shall ensure that all 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.

STAGED SUBMISSION OF PLANS OR PROGRAMS

- A9. With the approval of the Director-General, the Proponent may:
- a) submit any strategy, plan or program required by this approval on a progressive basis; and/or
 - b) combine any strategy, plan or program required by this approval.
- A10. Until they are replaced by an equivalent strategy, plan or program approved under this approval, the Proponent shall continue to implement existing strategies, plans or programs for operations on site that have been approved by previous approvals or approvals.

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

COMPLIANCE

- 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 activity, with the exception of Conditions A12, A13, A15 and A15, either party may refer the matter to the Director-General for resolution. The Director-General's determination of any such dispute shall be final and binding on the parties.

OTHER APPROVALS

- A12. The Proponent shall ensure that all necessary licences, permits and approvals required for the development of the project are obtained and maintained as required throughout the life of the project.
- A13. The Proponent shall apply under the *Water Management Act 2000* to vary Water Supply Work Approval 90WA819132, held by State Water Corporation, to the extent required to avoid inconsistencies between this SSI approval and Water Supply Work Approval 90WA819132.
- This application shall include any requirement to temporarily draw down the water level in the reservoir for construction purposes, in addition to ongoing operational management.
- A14. Should a temporary draw down be required, a Drawdown Management Strategy must accompany the application to vary Water Supply Work Approval 90WA819132. This Strategy shall include:
- a) Description of the necessity of, and any alternatives considered to drawing down the water levels,
 - b) An analysis of the possible reduction of water held in storage under various climatic scenarios and different construction schedules,
 - c) Description of measures considered and proposed to lessen the reduction in, or impact from, reduced allocations,
 - d) An analysis of any potential impact to meet environmental release requirements or the ability to comply with the rules in the Water Sharing Plan for the Peel Valley Regulated, Unregulated, Alluvium and Fractured Rock Water Sources 2010 relating to available water determinations,
 - e) Evidence of consultation with affected water users and the outcomes of that consultation

- f) A communications strategy to inform water users about the expected impacts, including providing updates as the project progresses, and
- g) Protocols for releasing water during the drawdown (such as timing and rates of water release) to enable released water to be used by general security licence holders.

A15. The SSI must be operated in accordance with the Water Supply Work Approval.

AIR QUALITY

- B1. The SSI shall be constructed with the objective of meeting air quality goals for PM₁₀ as prescribed in the *National Environment Protection Measure (NEPM) for Ambient Air Quality*.

Dust Management

- B2. The Proponent shall carry out all reasonable and feasible measures to minimise dust generated by the construction of the SSI, including ensuring that:
- a) no vehicle on site exceeds a speed limit of 40 kilometres per hour;
 - b) all loaded vehicles entering or leaving the site have their loads covered; and
 - c) all loaded vehicles leaving the site are cleaned of dirt, sand and other materials before they leave the site, to avoid tracking these materials on public roads.

ANCILLARY FACILITIES

- B3. Unless otherwise approved by the Director General, the location of Ancillary Facilities shall:
- a) be located more than 40 metres from a waterway;
 - b) be located within or adjacent to land 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 or threatened species habitat clearing beyond that already required by the SSI;
 - h) not impact on known heritage items (including areas of archaeological sensitivity) beyond those already impacted by the SSI;
 - i) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and
 - j) 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 CEMP. Where any of 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 the facilities' construction or operation. The location of and proposed measures to manage the ancillary facilities shall be identified in the Construction Environmental Management Plan.

- B4. The Director General's approval is not required for minor ancillary facilities (e.g. lunch sheds, office sheds, and portable toilet facilities, etc.) that do not comply with the criteria set out in condition B3 of this approval and which:
- are located within an active construction zone within the approved project footprint; and
 - have been assessed by the Environmental Representative to have:
 - minimal amenity impacts to surrounding residences, with consideration to matters such as noise and vibration impacts, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and
 - minimal environmental impact in respect of waste management, and no impacts on flora and fauna, soil and water, and heritage beyond those approved for the project; and
 - have environmental and amenity impacts that can be managed through the implementation of environmental measures detailed in a Construction Environment Management Plan for the project.
- B5. All Ancillary Facilities shall be rehabilitated to at least their pre-construction condition, unless otherwise agreed by the landowner where relevant.

BIODIVERSITY

Construction Impacts

- B6. Clearing of native vegetation, known threatened species habitat and rocky outcrops during construction and inundation shall be limited to the following:

Total Native Vegetation Impacts (includes EEC)	Box Gum Woodland (listed under the TSC Act)	Box-Gum Grass Woodland (listed under the EPBC Act)	Booroolong Frog habitat (listed under the TSC and EPBC Acts)
161.71 ha	150 ha	7.5 ha	4.09 ha

Biodiversity Offset Package

- B7. The Proponent shall prepare a Biodiversity Offset Package that formalises the final suite of offset measures that have been selected to offset the loss of existing vegetation, threatened species and/or their habitat, and Endangered Ecological Communities impacted by the SSI, as quantified in Condition B6. The Biodiversity Offset Package shall be developed in consultation with DOE, OEH and the North West LLS and shall (unless otherwise agreed by the Director-General) include, but not necessarily be limited to:
- the extent and types of habitat that would be lost or degraded as a result of the final design of the development;
 - the objectives and biodiversity outcomes to be achieved;
 - the final suite of the biodiversity offset measures selected and secured. The biodiversity offset measures should be generally consistent with the Vegetation Offset Plan, prepared by Worley Parsons and dated 1 November 2013 and the Booroolong Frog Offset Plan, prepared by EcoLogical Australia and dated 15 November 2013 or as agreed with OEH or the Commonwealth Department of the Environment;

- d) alternative or compensatory biodiversity offset sites/measures shall be nominated if the offset sites described in the Vegetation Offset Plan, prepared by Worley Parsons and dated 1 November 2013 and the Booroolong Frog Offset Plan, prepared by EcoLogical Australia and dated 15 November 2013 are unavailable;
 - e) the management and monitoring requirements for compensatory habitat works and other biodiversity offset measures proposed to ensure the outcomes of the package are achieved, including:
 - i) details of management actions within the offset site, including details of timing and responsibility of these actions, and coordination of management activities across multiple landholdings comprising the offset site;
 - ii) the monitoring of the condition of species, habitat and ecological communities at offset locations in an integrated manner across the offset site;
 - iii) the methodology for the monitoring program(s), including the number and location of offset monitoring sites, and the sampling frequency at these sites;
 - iv) provisions for establishing appropriate ecological milestones/benchmarks for monitoring results, for changing or ceasing regular monitoring, and for reporting of the monitoring results in accordance with those milestones/benchmarks; and
 - f) timing and responsibilities for the implementation of the provisions of the Package.
- B8. The Biodiversity Offset Package must be approved by the Director-General prior to any construction work that would result in the disturbance of threatened native vegetation, threatened species or their habitat identified in the Vegetation Offset Plan, prepared by Worley Parsons and dated 1 November 2013 and the Booroolong Frog Offset Plan, prepared by EcoLogical Australia and dated 15 November 2013. The Biodiversity Offset Strategy shall be implemented in accordance with the Director General's approval.
- B9. Land offsets shall be consistent with the *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy* (2012) and the *OEH Interim Policy on Assessing and Offsetting Biodiversity Impacts of Part 3A, State Significant Development (SSD) and State Significant Infrastructure (SSI) Projects* (2011). Any land offset shall be enduring and be secured by a conservation mechanism which protects and manages the land for the life of the impact.
- B10. Following completion of construction, or in the case of Booroolong Frog habitat, immediately upon the reservoir reaching the new FSL, the Proponent shall confirm, through recalculation, that the extent of biodiversity impacts was commensurate with and not greater than that specified in Condition B6.
- B11. Where monitoring referred to in Condition B7 indicates that biodiversity outcomes are not being achieved, remedial actions or compensatory offset measures shall be developed in consultation with DOE, OEH and North West LLS and submitted to the Director General for approval. Following amendment and approval of the offset package, the amended offset package shall be implemented.

HAZARDS AND RISK

B12. Dangerous goods, as defined by the *Australian Dangerous Goods Code*, (seventh edition, 2007) shall be stored and handled strictly in accordance with:

- a) all relevant Australian Standards;
- b) *Storage and Handling Liquids: Environmental Protection – Participants Manual* (DECC, 2007); and
- c) *Environmental Compliance Report: Liquid Chemical Storage, Handling and Spill Management – Part B Review of Best Practice and Regulation* (DECC, 2005).

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.

HERITAGE

B13. A Heritage Conservation Strategy for the purpose of managing impacts on Aboriginal objects and historic heritage items must be developed by a suitably qualified and experienced heritage consultant in consultation with the OEH and registered Aboriginal stakeholders submitted to and approved by the Director-General prior to the commencement of construction. The strategy shall include but not be limited to:

- a) a protocol to salvage and relocate all affected identified Aboriginal objects in consultation with the registered Aboriginal stakeholders and OEH;
- b) registration of all affected Aboriginal objects in the Aboriginal Heritage Information Management System (AHIMS);
- c) method of mapping and archival recording of historic heritage items identified for mapping and archival recording as identified in documents referred to in Condition A2. Archival recording shall be undertaken in accordance with the Heritage Council document *Photographic Recording of Heritage Items using Film or Digital Capture*. A copy of the archival recording is to be lodged with Tamworth Regional Council;
- d) nomination of locations for relocation of historic heritage items identified in Table 6.5 of the PIR; and
- e) details on timing of actions required by parts (a) to (d) above, to ensure that actions occur prior to construction or inundation impacts affecting particular items and/or artefacts.

NOISE AND VIBRATION

Construction Hours

B14. 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; and
- c) at no time on Sundays or public holidays.

B15. Construction works outside of the standard construction hours identified in condition B17 may be undertaken in the following circumstances:

- a) construction works that generate noise that is:
 - (i) 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) 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; or

- b) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or
- c) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm;
- d) works approved through an EPL, or
- e) works as approved through the out-of-hours work protocol outlined in the CEMP.

B16. Except as expressly permitted by an EPL, 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 5:00 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.

B17. The SSI shall be constructed with the aim of achieving the construction noise management levels detailed in the *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 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 CEMP.

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.

B18. 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).

Airblast Overpressure

B19. 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	At no time

- B20. 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	At no time

- B21. Where feasible and reasonable, piling activities shall be undertaken using quieter alternative methods than impact or percussion piling, such as bored piles or vibrated piles.
- B22. Where feasible and reasonable, operation noise mitigation measures shall be implemented at the start of construction (or at other times during construction) to minimise construction noise impacts.

RECREATIONAL USES

- B23. Existing recreational facilities impacted by the SSI (such as the Bowling Alley Point Recreational Area and the South Bowlo Fishing Club) must be relocated and/or rebuilt outside the augmented Full Supply Level of the reservoir prior to the reservoir exceeding 518.6 metres AHD. The boundaries, facility type and standard shall be agreed with the relevant management trust, lessee, or other responsible body..
- B24. Details of the replacement recreational facilities at the Bowling Alley Point Recreational Area must be developed in consultation with community stakeholders and the DPI (Crown Lands and NSW Fisheries) and shall be submitted to and approved by the Director General.

SOIL, WATER QUALITY AND HYDROLOGY

Construction Soil and Water Management

- B25. Except as may be provided by an EPL issued for this SSI, the project 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.
- B26. Soil and water management measures consistent with *Managing Urban Stormwater - Soils and Construction Vols 1* (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.
- B27. Borrow areas for core material shall be restricted to land above the 20 year ARI flood level at a distance of greater than 30 metres from the waterway. Borrow pits must be backfilled with suitable material to natural bed levels and revegetated in accordance with Condition C2 a)(ii). Any variation to this requirement must demonstrate how borrow areas can be managed to limit future erosion, scouring and channel alignment during high flow periods.

Watercourse crossings

- B28. Watercourse crossings shall be designed in consultation with DPI (NOW and/or NSW Fisheries) and, where feasible and reasonable, be consistent with the *Guidelines for Watercourse Crossings on Waterfront Land* (NSW Office of Water, 2012), *Policy and Guidelines for Fish Friendly Waterway Crossings* (NSW Fisheries, February 2004) and *Policy and Guidelines for Design and Construction of Bridges, Roads, Causeways, Culverts and Similar Structures* (NSW Fisheries 1999). Where multiple cell culverts are proposed for creek crossings, at least one cell shall be provided for fish passage, with an invert or bed level that mimics creek flows.

WASTE MANAGEMENT

- B29. All waste materials removed from the site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials.
- B30. Waste generated outside the site shall not be received at the site for storage, treatment, processing, reprocessing, or disposal on the site.
- B31. 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.
- B32. The Proponent must ensure that waste identified for recycling is stored separately from other waste.

UTILITIES AND SERVICES

- B33. Utilities, services and other infrastructure potentially affected by construction and operation (including inundation) 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.

TRANSPORT AND ACCESS

- B34. The SSI shall be designed with the objective of minimising adverse changes to existing property access arrangements and road functionality for other road users.
- B35. Access to private property shall be maintained during construction unless otherwise agreed with the property owner in advance. A landowner's access that is physically affected by the SSI shall be reinstated to at least an equivalent standard, in consultation with the property owner.
- B36. In relation to new or modified road, parking, pedestrian or cycle infrastructure, the SSI shall be designed:
- a) in consultation with the Relevant Roads Authority;
 - b) in consideration of existing and future demand, road safety and traffic network impacts;
 - c) to meet relevant design, engineering and safety guidelines, including *Austrroads Guide to Traffic Engineering Practice*; and
 - d) with certification by an appropriately qualified person that has considered the above matters.

Note: A separate approval to open or close any road under Section 138 of the Roads Act 1993 may be required from the Relevant Roads Authority.

PART C ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Construction Environmental Management Plan (CEMP)

C1. The Proponent shall prepare and implement a Construction Environmental Management Plan for the SSI in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Planning, Infrastructure and Natural Resources 2004). No construction associated with the SSI shall commence until written approval of this plan has been received from the Director-General or his nominee. The Plan must:

- a) be submitted to the Director-General for approval no later than four weeks prior to the commencement of construction or demolition or within such period otherwise agreed by the Director-General;
- b) include actions or procedures to manage the following:
 - (i) biodiversity;
 - (ii) soil and water;
 - (iii) air quality;
 - (iv) noise and vibration;
 - (v) construction traffic;
 - (vi) heritage; and
 - (vii) recreational uses

C2. The Proponent shall ensure that the following specific requirements are considered in developing the sub-plans or procedures identified in condition C1, further to any guidelines contained within the *Guideline for the Preparation of Environmental Management Plans* (Department of Planning, Infrastructure and Natural Resources 2004):

- a) **Biodiversity**, to be prepared and implemented in consultation with DOE, OEH, North West LLS and DPI (NSW Fisheries) and include the following:
 - (i) details of all vegetation clearing activities (including EECs) and methods to minimise biodiversity impact including specific species and seasonal variations, and pre-clearing surveys of hollow bearing trees;
 - (ii) methods for, and monitoring of, reinstatement work of native vegetation as soon as possible after construction, including establishment of riparian vegetation surrounding the new FSL; and
 - (iii) weed management and minimisation methodologies;
 - (iv) strategies to mitigate the impacts of the project upon the Booroolong Frog, Border Thick-tailed Gecko, Murray Cod, White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC, and White Box-Yellow Box-Blakely's Red Gum Woodland EEC; and
 - (v) procedures to clearly define work areas (including access trails) using a combination of posts, fencing or markers, and suitably marked up maps, as appropriate, and restricting all on-site construction movements by vehicles or personnel to these areas.

- b) **Soil and Water**, to be prepared in consultation with OEH, EPA, North West LLS, and DPI (NSW Office of Water and NSW Fisheries) and include the following:
- (i) a description of measures to minimise soil erosion and the potential for the sediment transport to the reservoir and upstream and downstream waters in accordance with the Managing Urban Stormwater – Soils and Construction Vols 1 (Landcom, 2004); and
 - (ii) contingency and ameliorative measures in the event that adverse impacts to water quality are identified.
- c) **Noise and Vibration**, to be developed in accordance with the NSW Interim Construction Noise Guidelines (DECC, July 2009) and in consultation with the EPA and include the following:
- (i) details of all potentially noise-generating activities (including vehicle activities on the SSI site and on the surrounding road network), and all potentially noise-affected receivers;
 - (ii) selection and application of feasible and reasonable mitigation measures to reduce construction noise and vibration impacts including the use of noise attenuation barriers, alternative construction methods (including alternative piling methods) and work practices where potential noise impacts exceed the relevant objectives; and
 - (iii) procedures for notifying residents of construction activities that are likely to affect their noise and vibration amenity and receiving complaints.
- d) **Construction Traffic**, to be prepared and implemented in consultation with the Relevant Road Authority/Authorities and include the following:
- (i) details of traffic routes for heavy vehicles, including any necessary route or timing restriction for oversized loads;
 - (ii) interaction with local, regional and state roads and surrounding land uses;
 - (iii) measures to manage interaction with local school bus travel or other timetabled public passenger transport; and
 - (iv) procedures for informing the public where any road access will be restricted as a result of the project;
- Note: the construction traffic measures must be consistent with noise and vibration measures with regard to noise and vibration impacts of traffic generated during construction of the SSI.*
- e) **Heritage**, developed in consultation with the OEH and registered Aboriginal stakeholders (for Aboriginal heritage) prior to any archaeological or salvage works commencing and detailing actions to manage identified Aboriginal objects and historic heritage items directly and indirectly impacted by construction, including but not limited to:
- (i) procedures for dealing with previously unidentified Aboriginal objects (excluding human remains) including cessation of works, assessment of significance and determination of appropriate management measures, including involvement of a suitable qualified archaeologist and consultation with the Agency, OEH and registered Aboriginal stakeholders, actions required to enable construction to recommence and registering any new site(s) in the OEH's Aboriginal Heritage Information Management System (AHIMS) register;

- (ii) procedures for dealing with human remains, including cessation of works in the vicinity of the remains and notification of relevant stakeholders, including NSW Police and where relevant, OEH;
 - (iii) procedures for monitoring and reporting effectiveness of management measures, including reporting of non-compliance and rectification;
 - (iv) mechanisms for the monitoring, review and amendment of this plan developed in consultation with the OEH and registered Aboriginal stakeholders (for Aboriginal heritage); and
 - (v) a procedure for consultation with OEH and the registered Aboriginal stakeholders for the management of identified sites, potential archaeological deposits and potential archaeological sensitive areas for the duration of the project.
- f) **Recreational Uses**, to be developed in consultation with DPI (Crown Lands and NSW Fisheries) including methods to ensure safe recreational use of the reservoir and foreshore during construction and communication strategies to notify the public and other stakeholders of any changes to the recreational uses of the reservoir.

Note: An existing Construction Environmental Management Plan may be used where this plan meets the requirements of this condition

Revision of Strategies, Plans and Programs

- C3. The Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General, within three months of the submission of an:
- a) incident report under condition C4 below; or
 - b) any modification to the conditions of this approval,

Note: This is to ensure that the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.

REPORTING

Incident Reporting

- C4. The Proponent shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident and measures to be implemented to address actual harm or variations to procedures to minimise the chance of reoccurrence.

ACCESS TO INFORMATION

- C5. Within one (1) month of the date of this approval, and as documents are progressively finalised and approved, or as otherwise agreed by the Director-General, the Proponent shall:
- a) make copies of the following publicly available on its website:
 - (i) the documents referred to in Condition A2;
 - (ii) all current statutory approvals for the development;
 - (iii) all approved strategies, plans and programs required under the conditions of this approval;

- (iv) any independent environmental audit of the development, and the Proponent's response to the recommendations in any audit; and
 - (v) any other matter required by the Director-General; and
- b) keep this information up to date for at least five years from the commencement of operation of the augmented dam, or in the case of monitoring reports, for at least three years from the completion of each report.

to the satisfaction of the Director-General.

Note: Culturally sensitive material may be withheld or redacted from public display where registered local stakeholders have requested that certain culturally sensitive information is withheld. Environmentally sensitive information, such as geographical locations of threatened species records may be withheld or redacted from public display where it is considered that a site may be vandalised or otherwise threatened if that information is made publicly available.

ENVIRONMENTAL REPRESENTATIVE

- C6. Prior to the commencement of construction of the Development, 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;
 - 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 CEMP required under condition C1;
 - f) 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
 - 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.

COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

- C7. A Community Communication Strategy shall be prepared and implemented to facilitate communication between the Proponent (and its contractor(s)), the Environmental Representative (see condition C6), the relevant council and community stakeholders (particularly adjoining landowners) on the construction environmental management and operation of the project. The Strategy shall be submitted to the Director General for approval at least four weeks prior to the commencement of construction and 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 stakeholders on construction progress and matters associated with environmental management and key environmental management issues for the project. The Strategy shall provide detail on the structure, scope, objectives and frequency of the distribution of information;
- c) procedures and mechanisms through which the stakeholders can discuss or provide feedback to the Proponent and/or Environmental Representative in relation to the environmental management and delivery of the project;
- d) procedures and mechanisms through which the Proponent can respond to enquiries or feedback from the stakeholders in relation to the environmental management and delivery of the project; and
- e) procedures and mechanisms that would be implemented to resolve issues/ disputes that may arise between parties on the matters relating to environmental management and the delivery of the project. This may include the use of an appropriately qualified and experienced independent mediator.

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

Complaints and Enquiries Procedure

C8. 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:

- f) a 24 hour telephone number(s) on which complaints and enquiries about the project may be registered;
- g) a postal address to which written complaints and enquires may be sent;
- h) an email address to which electronic complaints and enquiries may be transmitted; and
- i) a mediation system for complaints unable to be resolved.
- j) 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.

C9. 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.

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. The information contained within the System shall be made available to the Director General on request.