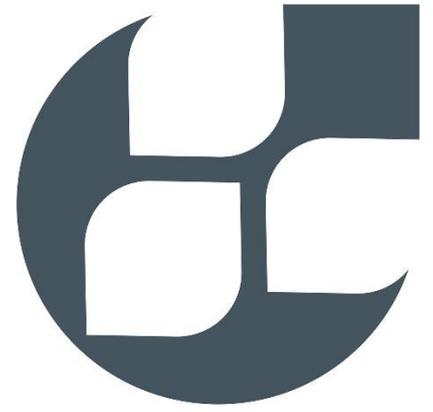


# Independent Environmental Compliance Audit



Chaffey Dam Safety Upgrade & Augmentation Project  
September 2015



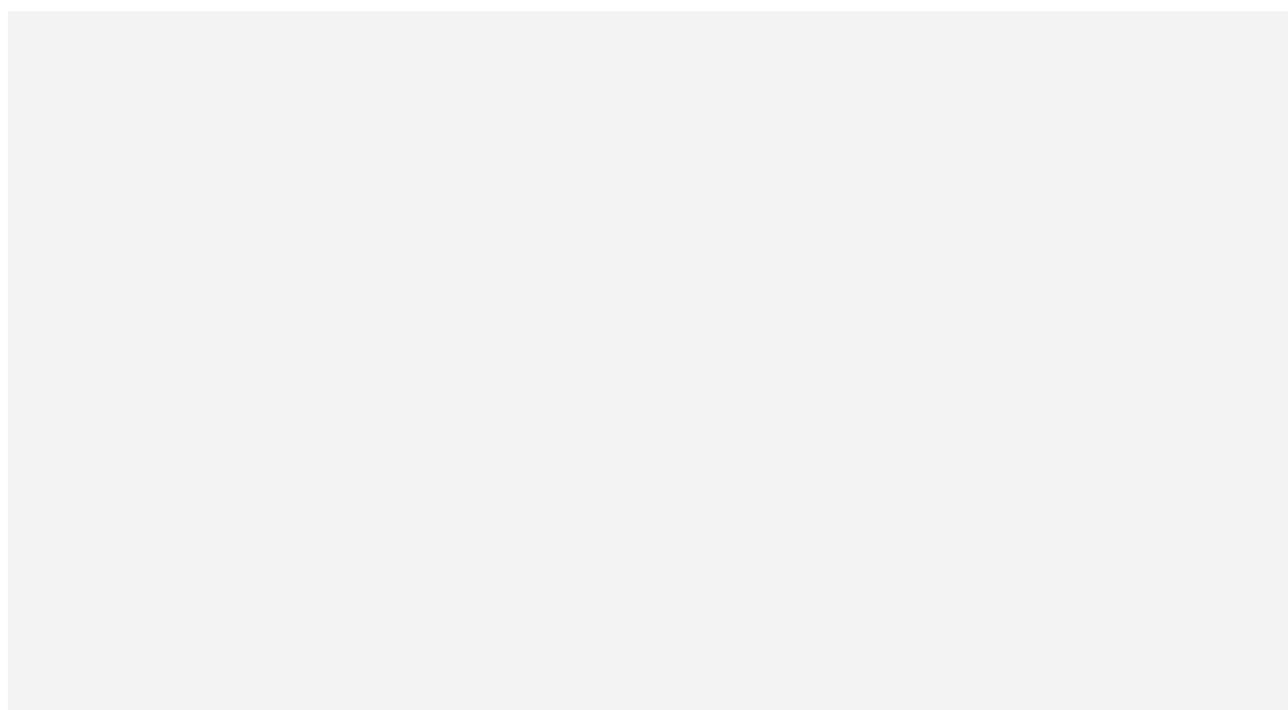
## Document History

Revision	Date	Prepared By	Checked By	Description
V0.1	17/8/2015	Steve Fermio	WNSW	First draft Environmental Compliance Audit report
V1.0	31/8/2015	Steve Fermio	WNSW	Final Draft Environmental Compliance Audit report
V2.0	21/9/2015	Steve Fermio	E Pattison	Final Audit Report including response to audit findings



Signed:

Date: 21 September 2015



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## Executive Summary

The purpose of this audit was to undertake the independent environmental audit required under Condition A6 b) of the Infrastructure Approval (IA) for the Chaffey Dam Safety Upgrade and Augmentation Project (the Project). The proponent for the Project is Water NSW and the design and construction of the Project is being undertaken by the John Holland Group Pty Ltd (JH).

Condition A6 of the IA requires a Compliance Tracking Program (CTP) to be prepared and implemented, of which this Audit is a part. In accordance with the CTP the independent audits are to be undertaken annually. This Audit has evaluated compliance with the following requirements for the Project:

1. The conditions of the IA
2. The conditions of the Approval issued under the Federal Environment Protection and Biodiversity Conservation Act (EPBC Act)
3. The conditions of the Environment Protection Licence (EPL) held by JH for the construction of the Project
4. The environmental mitigation measures referred to in the Environmental Impact Assessment and Submissions Report
5. The mitigation measures referred to in the Construction Environmental Management Plan (CEMP) and related environmental and biodiversity management plans for the Project

There were no non-compliances made against the conditions of the regulatory approvals (1-3 above) and the mitigation measures in the EIS and Submissions Report (4 above). There was one instance where a mitigation measure referred to in the CEMP was not implemented and four observations have been made.

The audit found that the CEMP and related environmental and biodiversity management plans were generally being effectively implemented. The mitigation measures in the CEMP have achieved a high level of environmental protection and no complaints have been made by the public or concerns raised by regulatory authorities during the works carried out to date.

The review of compliance records indicated a strong focus by the Project team on achieving compliance. Compliance records held by JH and WNSW were well organised and in most cases available at the time of the site inspection and interviews.

Relevant environmental monitoring data continues to be collected and reported as required to provide verification of compliance with statutory requirements and the broader Project environmental requirements.

All of the information, plans and reports required to be made public were available on WNSW or JH's websites.

The overall outcome of the audit was very positive with no non-conformances with approval or licence conditions, one non-compliance with a CEMP requirement and four observations identified.

This represents a commendable level of compliance.

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## 1.0 Introduction

### 1.1 Project Description & Location

The project works that are the subject of this audit are the Chaffey Dam (the Dam) Safety Upgrade and Augmentation Project (the Project) which are being delivered by Water NSW (WNSW). Chaffey Dam is located on the Peel River approximately 30 kilometres (km) south east of Tamworth, in northern New South Wales (NSW). The location of the Project is shown in Figure 1.

The dam and its catchment are located within the Tamworth Regional Local Government Area (LGA). The town of Woolomin is located approximately 6 km north of the dam wall, downstream on the Peel River and the town of Nundle is located approximately 13 km south of the dam wall.

Chaffey Dam is owned and operated by WNSW and stores water that is used as the town water supply for Tamworth and for irrigation purposes. It currently has a storage capacity of 62 gigalitres (GL), a reservoir surface area of 542 hectares (ha) and a catchment area of 420 km<sup>2</sup>. The Project site comprises the existing Chaffey Dam (the dam wall, spillways and reservoir) and additional Crown, leasehold and freehold land to be inundated and land for realignment of roads (including works areas).

The Project works include augmentation of the Full Supply Level (FSL) of the Dam by raising the dam wall to increase its safe permanent storage capacity from 62 GL to 100 GL in order to cater for a Probable Maximum Flood event.

Design and construction works are being delivered on behalf of WNSW by the John Holland Group Pty Ltd (JH) and include the following:

- raising the dam wall by 8.4 m;
- raising the Morning Glory Spillway by 6.5 m and reconfiguration of the auxiliary spillway fuseplug;
- realignment of various roads and bridges (including parts of Tamworth-Nundle Road, Rivers Road, Western Foreshore Road, Bowling Alley Point Bridge, Hydes Creek Bridge and a culvert crossing at Silver Gully, are required due to the increased FSL).

Relocation of some facilities at the Bowling Alley Point Recreation Area and the South Bowlo Fishing Club is also required due to the increased FSL. As part of the Project, the South Bowlo Fishing Club facilities will be relocated to higher ground, proximate to their existing locations. These works were not assessed as they had not been commenced at the time of this audit.

Project works commenced in September 2014 and are expected to be completed in mid-2016.

# Independent Environmental Compliance Audit Chaffey Dam Upgrade (September 2015)

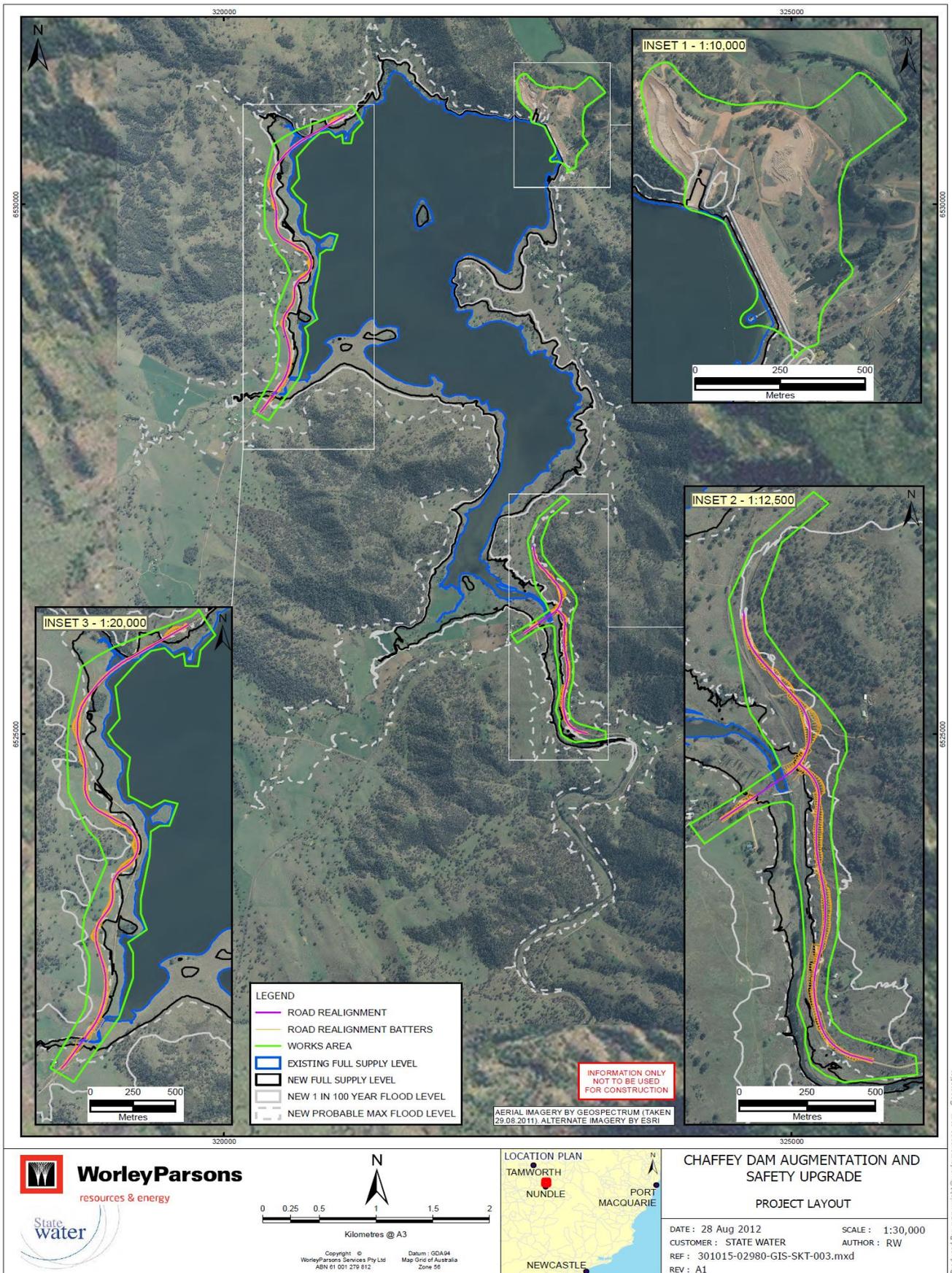


Figure 1: Location of Project site (from EIS, Worley Parsons, December 2012)

## 1.2 Regulatory Requirements

There are three key regulatory instruments that apply to the Project. The Infrastructure Approval (IA) for the Project was issued by the Minister for Planning and Infrastructure pursuant to section 115ZB of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) on 27 February 2014 subject to a number of Conditions of Approval (CoA). The IA is held by WNSW.

As the Project is a *controlled action* under the Federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), the Federal Minister for the Environment's Approval under that Act is also required. The EPBC Act Approval was issued by the Federal Minister for the Environment on 3 April 2014. The EPBC Act Approval is held by WNSW.

The construction of the Project is also a *scheduled activity* (Crushing, Grinding or Separating works) in accordance with Schedule 1 of the Protection of the Environment Operations Act NSW 1997. Accordingly, the organisation responsible for the day to day management of the construction site premises (in this case the contractor - JH) is required to hold an Environment Protection Licence for the construction works at the Project site.

## 1.3 Audit Purpose

This audit is being carried out under CoA A6 (specifically clause b) of the IA which requires that:

*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.*

## 1.4 Scope

The scope of this audit is included in WNSW's *Compliance Tracking Procedure – Chaffey Dam Safety Upgrade and Augmentation* (DOC14/39228) (CTP) prepared by WNSW. The CTP is designed to manage compliance with both the IA and EPBC Act Approval conditions. WNSW also requested that the scope of the audit include the conditions of the EPL held by JH for the construction of the Project.

The extent of compliance with the environmental mitigation measures in JH's CEMP and sub plans for the Project was also assessed as part of this audit.

## 1.5 Methodology

This audit was conducted in accordance with the principles of ISO 19011:2003 – Guidelines for Quality and/or Environmental Management Systems Auditing as required under CoA A6(b). The audit included an inspection of the active construction work sites at and nearby Chaffey Dam on 6 August, interviews with key personnel (including staff from JH, WNSW and the Environmental Representative) on 6 & 7 August and review of project records, relevant websites and monitoring results.

The checklists in Appendices A to D set out the details of the:

- EP&A Act IA Conditions for the Project
- EPBC Act Approval Conditions for the Project
- EPL Conditions for the Project
- Environmental mitigation measures in the CEMP and sub plans for the Project.

The checklists A – D include details of the evidence provided or observed in response to the audit scope. In relation to the findings made in the checklists:

- **Compliant:** Complies with all requirements of the condition or mitigation measure
- **Observation:** A situation observed during the audit that is not necessarily best practice and/or required some corrective action or further consideration.
- **Non-compliance:** Does not fully comply with all requirements of the condition or mitigation measure. These are categorised as minor or major, depending on the severity of the non-compliance.
- **Not Applicable:** There were either no compliance issues related to the condition, is a future required action or was not applicable at the time of the audit.

The audit was undertaken by Steve Fermio, an Exemplar Global (formerly RABQSA) certified environmental auditor. Steve has had no other involvement or role on the Project (including in the environmental assessment stage) and is independent of the Proponent (WNSW) and construction contractor (JH).

The audit attendee lists for the opening and closing meetings of the audit are attached at Appendix E.

## 2.0 Audit Findings

Table 1 provides a summary of the findings of this audit and responses to the findings. Some of the findings have been closed out between the date of the audit and the finalisation of this report as indicated in Table 1.

The Audit Checklists are provided in Appendices A - D include details of all of the evidence collected, observed and provided in support of compliance, publicly available information on WNSW and JH websites. They also include evidence collected during the inspection of the Project site and interviews with personnel on 6 & 7 August 2015.

Highlighted text in the Checklists indicates a finding.

### 2.1 Compliance Status

There were no non compliances with the conditions of the IA, EPBC Approval and EPL and one non-compliance with a mitigation measures in the Noise and Vibration Management Sub Plan. The latter non-compliance is outlined below.

- No CNVIS has been prepared for OOHW as required by the Noise & Vibration Sub Plan

### 2.2 Observations

There were four observations made during the audit relating to conditions in the IA, EPBC Approval and EPL and mitigation measures in the CEMP/sub plans identified in this audit in relation to WNSW or JH responsibilities. These are outlined below.

- Consider amending CEMP to reflect current practice of revegetating disturbed areas as soon as practically possible
- It is recommended that the Discharge Permit be amended to include a section requiring the relevant physio-chemical qualities of the receiving water environment to be recorded, rather than relying on a visual assessment only
- Monitoring records table should be amended to more clearly identify the discharge point and its corresponding upstream and downstream water quality results for each instance of discharge to waters to assist in demonstrating compliance with the EPL condition L1.1
- The process for ensuring compliance of design of the infrastructure with the requirements of the environmental documentation referred to in Condition A2 of the IA was not able to be evidenced

### 3.0 Audit Conclusions

The outcome of the audit indicates a strong focus by the Project team on achieving compliance with the key regulatory approvals and environmental mitigation measures in the CEMP and sub plans.

Compliance records were well organised and were mostly available at the time of the site inspection and interviews with personnel on 6 & 7 August 2015.

Relevant environmental and compliance monitoring data continues to be collected and reported as required to provide verification of compliance to statutory requirements and Project environmental requirements. The majority of this information is publicly available as required, along with the relevant environmental management plans, on WNSW and JH websites.

The overall outcome of the audit indicated no non-compliances with approval or licence conditions, one non-compliance with a mitigation measure required in a sub plan to the CEMP and four observations identified. This represents a high level of compliance.

The auditor would like to thank the auditees for their high level of organisation, cooperation and assistance during the audit.

**Table 1: CHAFFEY DAM AUGMENTATION & SAFETY UPGRADE 2015 AUDIT ACTION LIST**

No	Item	Type	Details of Item	Proposed Action	Who By	When
1	Biodiversity Management Plan Section 7.2	Observation	Consider amending CEMP to reflect current practice of revegetating disturbed areas as soon as practically possible	Rev 3 of CEMP amended on 3/9/2015 to reflect current practice (as per ER email advice of 14/9/2015)	JH	Closed
2	Soil and Water Management Plan Appendix 3	Observation	It is recommended that the Discharge Permit be amended to include a section requiring the relevant physio-chemical qualities of the receiving water environment to be recorded, rather than relying on a visual assessment only	Discharge Permit JH-C680-PSF-001 amended 3/9/2015 to include measurement of receiving waters (as per ER email advice of 14/9/2015)	JH	Closed
3	Noise & Vibration Management Plan Section 4.1.2	Non-compliance	No CNVIS has been prepared for OOHW as required by the sub plan	JH to prepare CVNIS for upcoming Morning Glory OOHW	JH	Prior to works occurring as required
4	JH EPL L1.1	Observation	Monitoring records table should be amended to more clearly identify the discharge point and its corresponding upstream and downstream water quality results for each instance of discharge to waters. Otherwise it will be difficult to demonstrate compliance with this EPL condition	Upstream monitoring has commenced upstream of temporary bridge at Crushing Area and is ongoing at Bowling Alley Point	JH	Ongoing as required
5	IA Condition A2	Observation	No evidence was provided indicating how the design of the infrastructure has been informed by, or considered, the details and requirements in the EIS and conditions of IA in accordance with section 2.7.1 (o) of the Design Management Plan (43168079_SY_WAT_DMP_002_0/0). For example (but not limited to), how the design process has ensured that project works occur within the approved Project boundary as set out in the EIS; design inputs on page 24 of EIS etc.			

Independent Environmental Compliance Audit  
Chaffey Dam Upgrade (September 2015)



**PHOTOS – 6 AUGUST 2015**

# Independent Environmental Compliance Audit Chaffey Dam Upgrade (September 2015)

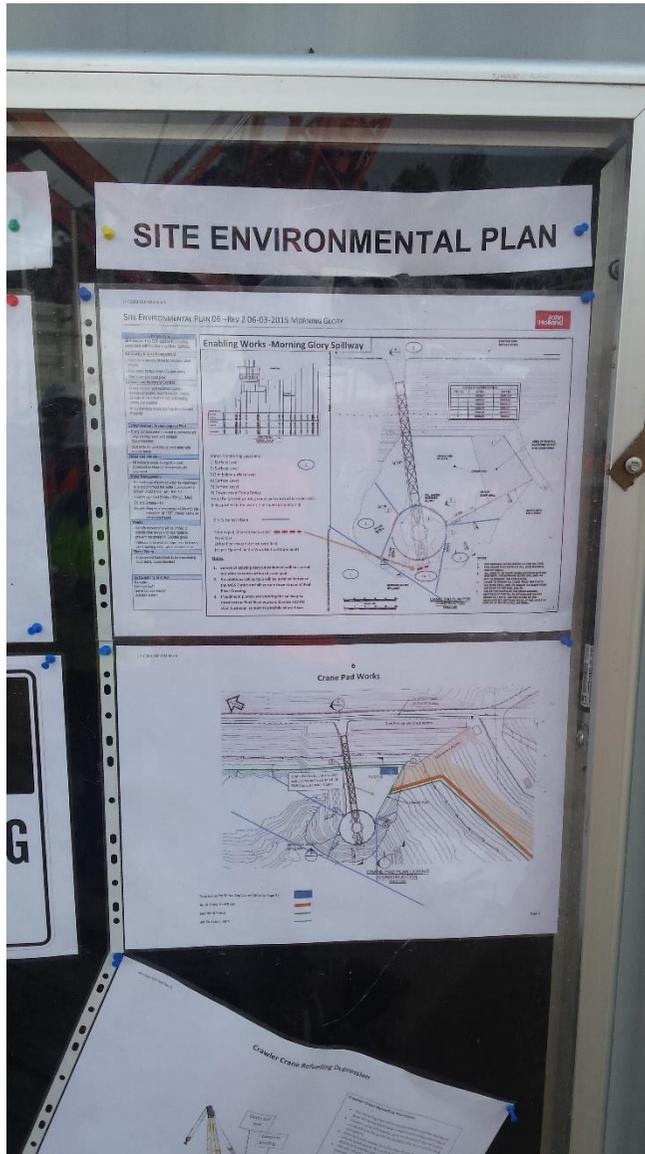


Plate 1: Site Environment Plan on display at Morning Glory Spillway site



Plate 2: Spill kit at Morning Glory Spillway site

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Plate 3: Silt curtain installed at Morning Glory site



Plate 4: Fuel & chemical storage in bunded container store at Crusher site



Plate 5: Double skinned & banded bulk fuel storage at Crusher site



Plate 6: Hydromulched surface at Crusher site

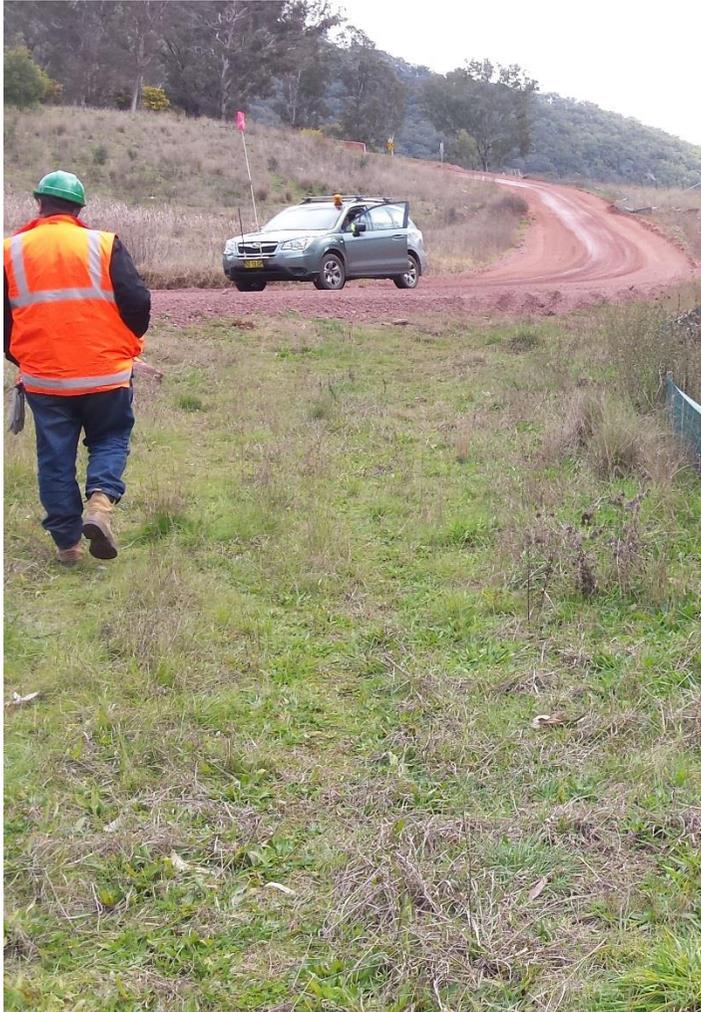


Plate 7: Silt fence at Bowling Alley Point site



Plate 8: Scour protection in Peel River within Bowling Alley Point Bridge site



Plate 9: Concrete washout pit at Crusher site



Plate 10: Water truck used for dust suppression at Crusher site



**Appendix A. CEMP & sub plans mitigation measures checklist**

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	<b>Auditor: Steve Fermio (WolfPeak Pty Ltd)</b>		<b>Audit ID: Chaffey Dam Safety Upgrade &amp; Augmentation Annual Independent Environmental Compliance Audit</b>	<b>Date: August 2015</b>
	<b>Scope: Specification: CEMP and Sub-plans</b>	<b>Rev:</b>	<b>V0.1</b>	
No.	Mitigation Measure / Requirement	Ref.	Comments	Finding
<b>Construction Environmental Management Plan (JH/C680/05, Rev 2, 9/10/14)</b>				
1	John Holland Group has committed to the following Performance Targets: <ul style="list-style-type: none"> <li>▶No Class 1 or 2 incidents (Incident classifications are set out in Part 6 of this Plan)</li> <li>▶Environmental Incident Frequency Rate (EIFR) = 0.30</li> </ul>	1.7	Current EIFR = Zero No Penalty Infringement Notices issued to date	Compliant
2	Six monthly management system reviews with the JH Project Manager, Senior Project Engineer, SQE Managers will be carried out.	1.8	Sighted Minutes of Management Review Meeting dated 2/7/2015	Compliant
3	Site Environment Plans (SEPs) are designed to provide site-specific detail and draw the relevant and specific information from the plans and procedures discussed above. Prior to works commencing in each work area, these illustrative maps will be prepared to highlight environmentally sensitive areas. <ul style="list-style-type: none"> <li>▶Cultural heritage sites and areas of archaeological potential</li> <li>▶Habitat areas of importance</li> </ul>	3.1.1	6 SEPs were sighted. SEPs observed on site notice boards. Latest revisions are saved in JH Project Pack <sup>1</sup> .	Compliant
4	Complaints register will be maintained	5.1	No complaints have been made to date. A Complaints Form was sighted in Project Pack and once entered the details automatically populate a register	Compliant
5	Recreation Use Management Plan	5.1.1	Recreation Management Plan - Doc # JH/C680/12 sighted. Plan approved by DPE on 17 October 2014.	Compliant

<sup>1</sup> Project Pack is JH's online project management and document record system

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<b>No.</b>	<b>Mitigation Measure / Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
6	<p>Environmental monitoring will be undertaken for the duration of the project. Records of monitoring and inspections will be documented and will be used to -</p> <ul style="list-style-type: none"> <li>▶ Evaluate performance against regulatory, contract, permit and licence commitments</li> <li>▶ Identify non-conformances and corrective actions</li> <li>▶ Track and trend progress against objectives and targets</li> </ul>	5.2	<p>Safety and Environment Metre Walk (fortnightly). Records observed. Findings/actions included.</p> <p>Weekly Environmental Inspection includes Action Register NCR (Environmental) raised in JHET (2/7/2015) for incident on 18/05/2015 involving waste that was not properly classified</p> <p>Monthly JH Project Environmental Report provided to JH senior management. Report for July 2015 sighted.</p> <p>Incident tracking register sighted.</p>	Compliant
7	<p>The following inspections will be undertaken throughout the works</p> <ul style="list-style-type: none"> <li>▶ Site inspections and surveillance of work activities and subcontractors will be undertaken on a day-to-day basis by site Supervisors identifying any potential or actual environmental impacts associated with construction activities</li> <li>▶ Environmental team personnel will undertake weekly environmental inspections with</li> </ul>	5.2	<p>Evidence of noise monitoring having been carried out was sighted in the Project Pack.</p> <p>Real time dust monitoring from April to July. Dust exceedances related to condensation issues</p> <p>Joint ER/JH Environment Manager inspections carried out weekly. Record of 28 July 2015 sighted.</p> <p>Site Supervisors maintain daily site diaries including environmental observations where relevant.</p>	Compliant
8	<p>The audits will be conducted at regular intervals. An audit schedule will be established for the</p> <p>project as outlined in Appendix 3,</p>	5.2	<p>Audit Schedule dated 6 August 2015 sighted. Includes quality safety and environmental audits (both internal and external).</p> <p>11 audits in total have been carried out by JH (internal) / ER / ISO certification/surveillance.</p> <p>JH Internal Audit in February 2015</p>	Compliant
9	<p>Performance reporting will be conducted monthly to State Water</p>	5.4	<p>JH July 2015 Quality and Environmental Report sighted.</p>	Compliant

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<b>No.</b>	<b>Mitigation Measure / Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
10	A Compliance Tracking sheet has been developed for the project to track compliance with the requirements of the CoA during the construction of the SSI, as per Appendix 2.	5.4.1	Compliance Tracking Registers maintained by JH and WNSW. JH update its register monthly and provides to WNSW. Last report provided to WNSW on 4 <sup>th</sup> August 2014.	Compliant
11	Pollution monitoring data will be recorded on the John Holland website and published in accordance with the EPL conditions.	5.4.2	Chaffey Dam monitoring data was sighted on JH's website	Compliant
12	The Environment Manager and other project personnel will attend specific training programs as required. Appropriate training programs and/or qualified person will be sourced to provide training to the relevant project personnel. Type of training programs that may be delivered include -  ▶Erosion and Sediment Control (Blue Book)	5.7.4	Training carried out as follows: Boat rescue and spill response – 31/7/2015 RE wall installation – 15/7/15 Blue Green Algae – 29/5/2015 HSE Alerts - Turbid Water Release – 29/4/2015 Waste Management Laws – 25/5/2015	Compliant
13	The location of ancillary facilities shall be as detailed on CoA 18 and Section 5.10.	5.10	Site compounds have generally been established in the areas identified in the EIS.  A minor facility was approved by the ER as per B4 following a Consistency Review. ER email approval of 27/10/2014 sighted	Compliant
14	The Director-General's approval is not required for minor ancillary facilities i.e. lunch sheds,  portable toilets and office sheds that do not comply with the above requirements (CoA B3)	5.10	Noted	Compliant

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<b>No.</b>	<b>Mitigation Measure / Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
15	All environmental incidents will be reported to State Water and the ER. In addition, the DPE and all other relevant agencies will be notified of all Class 1 and 2 incidents at the earliest opportunity, and a report provided within 7 days on the incident	6.1.2	Event Notification record of 18 May 2015 sighted. This was notified to the ER. The ER confirmed that incidents are notified to him as required and that he then issues a notification to WNSW via 'Ticket'.	Compliant
16	The Project Emergency Response Plan may be triggered in the event of a significant environmental incident. This Plan will cover Pollution Incident Response as required under the POEO Act. John Holland as the owner of the EPL will develop, implement and	6.3/6.4	PIRMP tested as part of emergency drill on 18/3/2015. Record of Emergency Evaluation Exercise checklist sighted.	Compliant
<b>Biodiversity Management Plan (JH/C680/06 – Rev 2, 8/10/14)</b>				
17	Booroolong Frog:  An ecologist will conduct a pre-construction survey of the possible frog habitats and any frog discovered will be relocated to suitable habitats.  <del>The ecologist will conduct a training session for procedures if the construction team</del>	Table 4	On-site Environment Management Pre-cleaning Survey Report – October 2014	Compliant
18	Border Thick-tailed Geckos:  An ecologist will conduct a pre-construction survey of the possible Gecko habitats.  Any Geckos discovered will be relocated to the wildlife corridor in Goat Mountain.  Clearing and rock removal will begin from the south-eastern end of the dam wall and	Table 4	On-site Environment Management Pre-cleaning Survey Report – October 2014	Compliant
19	Flora White Box-Yellow Box-Blakeley's Red Gum Grassy Woodland and Derived Native Grassland CEEC, White Box-Yellow Box, Blakeley's Red Gum Woodland EEC:  An Ecologist will conduct a pre-clearing survey for tree removal using a	Table 4	On-site Environment Management Pre-cleaning Survey Report – October 2014. Pre-cleaning survey indicated none of these communities exist in construction zone.	Compliant

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<b>No.</b>	<b>Mitigation Measure / Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
20	Watercourse crossings to be designed in consultation and with approval from Department of Fisheries.  ▶When designing the Peel River crossings up and downstream of Chaffey Dam, the design will not contribute to sediment load and flow will be maintained to ensure	Table 5	Email from Matthew Gordos of DPI Fisheries dated 23/10/14 sighted	Compliant
21	Exclusion zones for riparian zones that do not need to be accessed would be established before works start to avoid any disturbances of the banks	Table 5	ATF and farm fencing and sediment fencing observed during site inspection	Compliant
22	During water crossing works, should large woody debris need to be removed for any construction activities the following will be implemented:  ▶Fisheries NSW will be notified a minimum of three days prior to removal of any large woody debris	Table 5	Not applicable. No such debris required to be removed	Compliant
23	Any imported materials such as sand and gravel will be sourced from sites which do not show evidence of noxious weeds or diseases that may be harmful to native vegetation.	Table 5	Only material imported is rock for gabion baskets, 75-100mm rock is sourced from Willow Tree. Not soil, sand or gravel.	Compliant
24	A suitably qualified ecologist will manage and direct all aspects of vegetation clearing including identification of potential habitats and undertaking of wildlife rescues	7.1	On-site Environment Management Pre-cleaning Survey Report – October 2014. JH Application for Removal of Trimming of Vegetation permit (15 September 2014) sighted.	Compliant

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<b>No.</b>	<b>Mitigation Measure / Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
25	<p>John Holland will complete revegetation works within the following timeframes</p> <ul style="list-style-type: none"> <li>▶ Revegetation of areas with slopes 3H to 1V or flatter, over an area of 1ha within 14 days of completion</li> <li>▶ Revegetation of areas with slopes steeper than 3H to 1V, over an area of 1ha within 7 days of completion</li> </ul>	7.2	<p>These timeframes have been difficult to achieve due to weather. ER is not concerned that revegetation unduly delayed and current process of revegetating as soon as practically possible is adequate.</p> <p><b>Observation:</b> <b>Consider amending CEMP to reflect current practice.</b></p>	<b>Observation</b>
26	Relevant personnel will receive training appropriate for their role in flora and fauna management on the project	8.1	Site Induction provides appropriate details and additional training provided via Toolbox Talks	Compliant
27	<p>Monitoring will essentially comprise of the following:</p> <ul style="list-style-type: none"> <li>▶ Daily monitoring of construction activities via onsite visual inspections by Supervisors</li> <li>▶ Environment Manager or delegate to conduct weekly environmental inspections and include visual monitoring for threatened species and weed infestation. A monitoring checklist detailing mitigation measures in this Biodiversity Management plan will be used.</li> <li>▶ Fauna mortality as a result of construction related traffic and activities ie. Ensure survey during site clearing activities</li> </ul>	8.2	<p>Relevant items included in Weekly Checklist (Form No OPF-2206-Chaffey Dam)</p> <p>Site Supervisors maintain daily site diaries</p>	Compliant

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	<b>Scope: Specification: CEMP and Sub-plans</b>	<b>Rev:</b>	<b>V0.1</b>	
<b>No.</b>	<b>Mitigation Measure / Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
28	Documents specific to the management of flora and fauna are detailed below - <ul style="list-style-type: none"> <li>▶Pre-clearing Ground Disturbance Inspection Checklist and Permit</li> <li>▶Fauna Rescue/Relocation/Mortality Record</li> <li>▶Weekly Site Environment Checklist</li> </ul>	8.3	Yes, relevant forms and records sighted including Environmental Inspection Checklist and JH Application for Removal of Trimming of Vegetation permit (15 September 2014) sighted. No fish kills have been observed during the works	Compliant
29	Vegetation Clearing Procedure: Hold point (ESCP & Pre-clearing ground disturbance Inspection checklist)	App A	JH Application for Removal of Trimming of Vegetation permit (15 September 2014) sighted.	Compliant
<b>Biodiversity Offset Management Plan (Ecological, Oct 2014)</b>				
30	No unintended access by stock access to the site	5.1	Sites are secured by agricultural and ATF fencing	Compliant
31	Weed control: Reporting of annual weed control works to be prepared annually. Reporting is to include areas worked, man hours completed, target weeds, methods and equipment used, issues encountered and recommendations	5.2	Records of weed spraying in May 2015 provided by WNSW in email of 25 August 2015. Spraying of bamboo infestation at Bowling Alley Bridge Site occurred on 7 August 2015 and ongoing management / monitoring to be undertaken as confirmed in JH email of 7 August 2015	Compliant
32	After each pest control event, a report is to be prepared documenting the area worked, the target species, the methods used, bait uptake and results. After each monitoring event, a report is to be prepared to document the monitoring methods used, results and	5.3	No pest control required to date	Compliant
33	Annual inspections and reporting (Appendix A could be used to document inspections) of gate and signage condition to ensure they are in place and in adequate repair, and to	5.4	Appropriate signage in place	Compliant
34	Weed controls: Blackberry and other weeds in MZ 3 and 6 should be subject to primary and secondary weed control works as a priority in year 1	5.5	As per item 31 above	Compliant

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35	Controlled burns: develop strategy in year 1	5.6	Not applicable at this stage of construction work	Compliant
<b>Site Access and Traffic Management Plan (Rev 3, 8/10/14)</b>				
36	Reiterate aspects of the TMP as required during regular pre-start meetings, tool box talks, and other necessary occasions	2.4	Pre start meeting records 19/12/2014 & 10/12/2014 included traffic related issues. Driving issues are a standard item on all records	Compliant
37	The effectiveness of the TMP will be reviewed at least once a month, or more frequently if additional risk areas are encountered.	2.4	As sites change VMPs are revised accordingly. Variable message signboards are used on local roads that are adjacent to worksites. Evidence sighted of traffic management being discussed at weekly planning meetings. Traffic Control Plans (developed by Workforce Road Service Traffic Consultant) provided to Tamworth Council for review	Compliant
38	All plant will be provided with a copy of the Vehicle Movement Plan related to their role in the construction zone	2.4	VMPs observed on notice boards in lunch rooms and high visitation areas	Compliant
<b>Waste Management Plan (Rev 1, JH/C680/13, 1/9/14)</b>				
39	Environmental Management Documents and Records ▶Compliance Tracking Program ▶Waste Tracking Dockets ▶Workplace Risk Assessments	1.4	Waste is reported in JH's Monthly Report. Cleanaway dockets sighted. Bins and septic tank pump out records sighted Recycling is taken by staff to their home recycling bins	Compliant

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No.	Mitigation Measure / Requirement	Ref.	Comments	Finding
40	The following will be reported to State Water <ul style="list-style-type: none"> <li>▶ total electricity consumption</li> <li>▶ total potable water consumption and expenditure</li> <li>▶ top three waste streams by volume or top three waste streams by cost of disposal (P1)</li> </ul>	6.1.1	These details are included in the JH Monthly Quality and Environment Reports provided to WNSW	Compliant
41	A waste collection and storage area will be established and maintained at each work area.	Table 4	Waste collection and storage areas were observed	Compliant
42	Compliance records will be retained and will include: <ul style="list-style-type: none"> <li>▶ Records of inspections in relation to waste management and recycling activities</li> <li>▶ Records detailing the beneficial re-use or recycling of material either within the project site or at off-site locations</li> <li>▶ Waste dockets for any material disposed of to land-fill sites</li> <li>▶ WRAPP reports as per Contract Requirements</li> </ul>	8.2	These records were observed. WRAPP reporting is no longer required for the 2013/14 period and confirmed in email advice provided to WNSW by OEH on 8 July 2015	Compliant
43	The following wastes are subject to special monitoring and reporting requirements by EPA under the waste tracking system: <ul style="list-style-type: none"> <li>▶ Hazardous non-liquid waste (e.g. batteries);</li> </ul>	8.2.1	Not applicable.	Compliant

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No.	Mitigation Measure / Requirement	Ref.	Comments	Finding
44	Bi-monthly Waste Recycling and Purchasing Reports will be submitted to State Water and include total quantity of material purchased, quantity purchased with recycled content, total quantity of waste generated, the total quantity recycled, the total quantity disposed of and the method and location of disposal. Waste disposal certificates and/or company certification confirming appropriate, lawful disposal of waste will also be submitted with the report.	8.3	WRAPP legislation has been repealed and this requirement is now redundant. WNSW will no longer be submitting WRAPP to EPA	Compliant
Air Quality Management Plan (Rev 1, JH/C680/09, 1/9/14)				
45	Environmental Management Documents and Records <ul style="list-style-type: none"> <li>▶ Compliance Tracking Program</li> <li>▶ Plant Hazard Assessments</li> <li>▶ Equipment Pre-start Checks</li> <li>▶ BOM Weather Monitoring</li> <li>▶ Workplace Risk Assessments/ Activity Method Statements</li> <li>▶ Real Time Dust Monitoring</li> <li>▶ Inspection and audits</li> </ul>	1.4	JH Pre –acceptance Checklist dated 15 March 2013 sighted. Includes air quality criteria. Dust monitoring records observed Weather station installed at main site office	Compliant
46	Stockpiles will be stabilised (e.g. by watering, covering or revegetating, as practical) and, wherever practicable, shielded from the prevailing wind using wind breaks or by positioning them in sheltered areas, screened from the nearest sensitive receivers by topography or existing trees.	Table 4	Spray grass used where necessary. Evidence observed on site Most stockpiles comprise crushed rock which generates only small amounts of dust . Soil stockpiles near Bowling Alley Bridge were covered with geofabric over the Christmas break Water cart observed in operation on site	Compliant

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47	Construction activities will cease or be modified on dry windy days, when significant visible dust emissions can be observed travelling offsite towards nearby sensitive receptors.	Table 4	Water art is called up on windy days. Few sensitive receivers are located near to worksites	Compliant
48	All loaded vehicles leaving the site are cleaned of dirt, sand and other materials before they leave site, to avoid tracking these materials on public roads. Rumble grids will be installed at exit points from the project site.	Table 4	Rumble grids were installed at entry/exit points	Compliant
49	Visual Surveillance Dust monitoring - real- time particulate dust monitoring  Complaints	Table 5	Weekly Environmental Checklist contains dust monitoring reference. No complaints have been made regarding dust . Supervisors and EM observe dust levels and call up water cart when needed	Compliant
<b>Soil and Water Management Plan (Rev 4, JH/C680/08, 23/4/14)</b>				
50	Environmental Management Documents and Records  ▶Compliance Tracking Program  ▶Dewatering and Discharge Records	1.4	Dewatering Permits – 26/2/2015, 25/2/2015 & 24/2/2015 sighted. ERSED plans & SEPs plans for worksites sighted and observed to be implemented during site inspection	Compliant
51	A Sediment and Erosion Control Plan (ESCP) will be developed and implemented ▶Use of silt fences, drains and sediment traps as relevant throughout ground disturbing works  ▶Use of silt curtains where ground disturbing works are being carried out near or adjacent to waterways  ▶Use of silt curtains where works are being carried out to the top or upstream	Table 3	Evidence of implementation of ERSED plans observed during site inspections including silt curtains near Dam works. Silt fences, sediment traps and other controls in use at sites. Weekly Checklist includes surveillance of ERSED controls	Compliant

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<b>No.</b>	<b>Mitigation Measure / Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
52	The Erosion Sedimentation Control Plans will detail i. access and haulage tracks ii. borrow pits iii. <u>stockpile and storage areas</u>	6.1	ERSED plans include these details	Compliant
53	Rehabilitation will incorporate revegetation with native species of local provenance to stabilise soils and reduce erosion	Table 3	Species requirements are set out in Deed	Compliant
54	Namoi CMA will be consulted during the preparation of the Sediment and Erosion Control Plan and during the revision of the Foreshore Management Plan	Table 3	CEMP and SECP approval by DPE evidences consultation having occurred	Compliant
55	Sediment and erosion control devices will be checked regularly, including after heavy rainfall and cleaned or replaced as required	Table 3	Record of checking of ERSED controls after rain event on 13/7/2015 observed	Compliant
56	Floating booms shall be utilised during activities adjacent to or over water where the potential exists for sediment, hydrocarbon leaks or spills to enter water	Table 3	Boom observed to be in use near Dam at time of inspection	Compliant
57	All ESCPs will require sign off by the Environment Manager and a Site Supervisor prior to implementation.	6.1	Site shed copies are signed. BAP Bridge Landscape Plan – emails sighted showing evidence of internal review process.	Compliant

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<b>No.</b>	<b>Mitigation Measure / Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
58	Testing and, where necessary, treatment of water captured within sedimentation basins, in excavations or in sealed container(s) will be undertaken. Prior to any discharge off the premises or reuse within the premises, the EM or authorised delegate(s) is to signoff that the water is suitable for reuse or discharge as per the Dewatering and Discharge Checklist, Water Quality Objectives (WQO)	6.4	Approval to Discharge or Reuse Water checklists sighted and these were signed off by relevant project personnel.	Compliant
59	A concrete lined bund will be constructed for the crane to reverse into and be refuelled by a double skinned fuel truck	6.7	Concrete-lined bund for the crane refuelling sighted	Compliant
60	Documents specific to the management of soil and water are detailed below - ▶Water Discharge and Reuse records ▶Spoil classification records and reports	7.2	Relevant records sighted	Compliant
61	<b>Water Reuse on Site</b> <b>HOLD POINT</b> ▶Prior to any water reuse on the premises contact the EM who will sign off the hold point confirming criteria has been met ▶Record all details on the Dewatering and Discharge Checklist <b>Discharge off the premises</b> <b>HOLD POINT</b> ▶Testing and where necessary treatment (Refer next page) of all water must be undertaken prior to discharge from the premises. This may occur within excavation or the sediment basin	App 3	Approval to Discharge or Reuse Water permits observed. Permit does not include a field for recording details of the receiving environment, including the physio-chemical quality of the receiver water - other than a visual assessment. <b>Observation:</b> <b><i>It is strongly recommended that the Permit be amended to include a section requiring the relevant physio-chemical qualities of the receiving water environment to be recorded, rather than relying on a visual assessment only</i></b>	

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<b>Construction Noise and Vibration Plan (Rev 2, JH/C680/10, 23/9/14)</b>				
62	<b>Environmental Management Documents and Records</b> <ul style="list-style-type: none"> <li>▶ Compliance Tracking Program</li> <li>▶ OOHW Application Form</li> </ul>	1.4	Appropriate records sighted Records of neighbours having been consulted and agreed to OOHW sighted	Compliant
63	If works are undertaken OOWH a Construction Noise and Vibration Impact Statement (CNVIS) will be prepared to document potential impacts associated with the work.	4.1.2	No CNVIS has been prepared for OOHW. Informal assessment only by contractor	Non-compliant
64	Residents adjacent to works areas will be informed prior to and during construction, as per EPL requirements of the nature, duration and expected overall noise and dust levels of construction activities. Relevant contact details for site personnel will also be provided	Table 9	Evidence of consultation with residents at CLG Meeting held on 18 May 2015 provided in minutes of meeting	Compliant
65	Vibration monitoring will be carried out at the nearest sensitive receiver on commencement of significant construction activities, as follows:  ▶ In the event that construction vibration is found to be significantly below construction vibration criteria, no subsequent monitoring of that activity is required	Table 9	As no blasting and no vibrating rollers have been used near to residents, no vibration monitoring has been carried out to date	Compliant
66	Where feasible and reasonable, piling activities shall be undertaken using quieter alternative methods than impact or percussion piling. Bored piling will be used during the construction of Bowling Alley Bridge.	Table 9	Bored piles used	Compliant
67	A Plant Hazard Assessment will be prepared for each piece of plant prior to its operation on site. The PHA will require measurement of the sound power level and will confirm that actual plant noise levels are within those maximum noise levels in Table 6.	8.2.1.1	Evidence of sound power level assessments of plant being undertaken provided in Project Noise Management Methods report (August 2015, JH).	Compliant

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<b>No.</b>	<b>Mitigation Measure / Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
68	<p>Attended noise monitoring will be carried out to verify construction noise levels against the Construction Noise and Vibration Impact Assessment and determine effectiveness of noise mitigation strategies. Attended noise monitoring of construction activities will be undertaken</p> <p>▶Within 14 days of commencement of significant construction activities, as follows:</p> <ul style="list-style-type: none"> <li>- In the event that construction noise is found to be significantly below construction noise criteria, no subsequent monitoring of that activity is required</li> <li>- If monitored noise levels are considered to be high-risk or close to the noise criteria, noise monitoring will be carried out on a fortnightly basis at the nearest noise sensitive receivers.</li> </ul>	8.2.1. 2	Project Noise Management Methods report (August 2015, JH) provides detailed records of attended noise monitoring at various locations, details of activities being carried out and other non-project noise sources.	Compliant
69	<p>For works that are considered inaudible, the following will apply</p> <p>▶Document why works are inaudible using the OOHW application form</p>	App 1	Fitter does Saturday evening work. EM is aware of this. Only hand tools used	Compliant
<b>Heritage Management Plan (Rev 1, JH/C680/11, 1/9/14)</b>				
70	<p>Environmental Management Documents and Records</p> <p>▶Compliance Tracking Program</p> <p>▶Unanticipated Discovery Records</p>	1.4	Appropriate records sighted No Go Zone established around slab and footings from old hotel.	Compliant
71	Known Aboriginal heritage sites adjacent to construction footprints will be fenced off during all construction works. Unauthorised access to these areas by personnel and equipment will be prohibited	Table 5	No indigenous heritage sites known to occur within current construction zones	Compliant

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No.	Mitigation Measure / Requirement	Ref.	Comments	Finding
72	Fencing (star pickets connected with high visibility flagging, or similar) of the Works Area boundary will be implemented during works in the vicinity of European heritage sites.	Table 5	No Go Zone established around former Hotel slab	Compliant
73	In the case that a previously unidentified potential heritage object is uncovered during construction, the following will be implemented: measures will be implemented to avoid disturbance to the object, until an appropriate management strategy is implemented.	Table 5	Not applicable as no heritage items found to date	Compliant
74	Specific Site Environmental Plans (SEPs) will be developed for any activities that need to occur within a heritage buffer zone, showing access routes, modified fences, control measures and proposed work areas. SEPs to be included as part of TRA documentation.	6.1	Hotel slab not shown on SEP but outside of construction zone in any case	Compliant
75	Monitoring ▶ Minimum weekly inspection of onsite heritage management controls as part of the EM or delegates environment inspections	7.2	Heritage included in Weekly Inspection Checklist	Compliant
<b>Booroolong Frog Offset Plan (Ecological, November 2013)</b>				
76	As the location of the river banks is variable, and currently the boundary of the Booroolong Frog offset site is not delineated on the ground by fencing or other markers, <u>the boundaries of the offset site will be surveyed and defined by clearly labelled</u>	4.1	Not relevant to current stage of construction	NA
77	Property Vegetation Plans (PVPs) will be established prior to project construction works commencing.	4.1	Addressed in other checklists. Not relevant to JH construction activities	NA

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78	<p>Do PVPs include requirements for:</p> <ul style="list-style-type: none"> <li>• <b>Suitable fencing of the riparian zone</b> being required in perpetuity, with alternative off-stream stock watering sites to be maintained. Grazing allowed for no more than seven days at a time, with minimum 60 day between grazing events, as well as exclusion from 1st October to 28th February each year, and grazing must not reduce grass sward height to less than 15 cm at any time.</li> <li>• Bank erosion will be reduced by <b>limiting stock access</b>, as well as controlling weeds which will allow native vegetation to improve and to stabilise banks and prevent erosion.</li> </ul>	4.2	Not applicable to JH construction activities	NA
<b>Vegetation Offset Plan (WorleyParsons, 1/11/13)</b>				
79	In order to secure the North-Western Offset Site for the purposes of a biodiversity offset, it is proposed that a Conservation Agreement under the <i>National Parks and Wildlife Act 1974</i> be established over the land. The Conservation Agreement will comprise a joint agreement between State Water and the Minister for the Environment and will remain in place for the life of the proposed augmentation.	5	Not applicable to JH construction activities	NA



**Appendix B. EPL checklist**

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	<b>Scope: EPL Conditions (No. 20483, held by JH)</b>	<b>Rev:</b>	<b>V0.1</b>							
<b>No.</b>	<b>Conditions of Approval Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>						
1	<p>This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation. Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Scheduled Activity</th> <th style="width: 33%;">Fee Based Activity</th> <th style="width: 33%;">Scale</th> </tr> </thead> <tbody> <tr> <td>Crushing, Grinding or Separating</td> <td>Crushing, grinding or separating</td> <td>&gt; 100000 - 500000 T processed</td> </tr> </tbody> </table>	Scheduled Activity	Fee Based Activity	Scale	Crushing, Grinding or Separating	Crushing, grinding or separating	> 100000 - 500000 T processed	A1	Records are kept of crushing volumes as the crushing plant operator is subcontracted and paid for volume crushed.	Compliant
Scheduled Activity	Fee Based Activity	Scale								
Crushing, Grinding or Separating	Crushing, grinding or separating	> 100000 - 500000 T processed								
2	<p>This licence applies to all other activities carried on at the premises, including</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 100%;">Ancillary Activity</th> </tr> </thead> <tbody> <tr> <td>Road realignment works - Tamworth Nundle Road and Bowling Alley Poin</td> </tr> </tbody> </table>	Ancillary Activity	Road realignment works - Tamworth Nundle Road and Bowling Alley Poin	A3	Noted	Compliant				
Ancillary Activity										
Road realignment works - Tamworth Nundle Road and Bowling Alley Poin										
3	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.	P1.1.	Noted	Compliant						

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	<b>Scope: EPL Conditions (No. 20483, held by JH)</b>				<b>Rev: V0.1</b>										
<b>No.</b>	<b>Conditions of Approval Requirement</b>				<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>								
4	<p>The following utilisation areas referred to in the table below are identified in this licence for the purposes</p> <p>of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.</p> <p style="text-align: center;">Water and land</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">EPA Identification no.</th> <th style="width: 15%;">Type of Monitoring Point</th> <th style="width: 15%;">Type of Discharge Point</th> <th style="width: 15%;">Location Description</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description					P1.2	No discharge points have been identified to EPA.	NA
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description												
5	For the purpose of this licence the discharge points referred to at Condition P1.1 and P1.2 of this licence are those from sediment basins identified in the Erosion and Sediment Control Plans for each work area				P1.3	No discharge points have been identified to EPA.	NA								
6	The licensee, in commissioning a new sediment basin, may only vary the discharge point locations identified in Condition P1.2 and P1.3 if it provides the EPA with a copy of the revised document/s				P1.4	No discharge points have been identified to EPA.	NA								
7	The licensee, in decommissioning an existing sediment basin, may only vary the discharge point locations identified in Condition P1.2 and P1.3 if it provides the EPA with a copy of the revised document/s identified at Condition P1.3 of this licence, at least 21 days prior to construction within the work areas				P1.5	No discharge points have been identified to EPA.	NA								
8	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997				L1.1	<p>Monitoring records provided do not clearly demonstrate that discharge water quality was equivalent to, or better than, upstream water quality.</p> <p><b>Observation</b></p> <p><i>Monitoring records table should be amended to more clearly identify the discharge point and its corresponding upstream and downstream water quality results for each instance of discharge to waters.</i></p>	<b>Observation</b>								

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	<b>Scope: EPL Conditions (No. 20483, held by JH)</b>					<b>Rev:</b>	<b>V0.1</b>	
<b>No.</b>	<b>Conditions of Approval Requirement</b>					<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
9	For each monitoring/discharge point or utilisation area specified in the table below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.					L2.1	No discharge points have been identified to EPA.	NA
10	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.					L2.2	No discharge points have been identified to EPA.	NA
11	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table.					L2.3	No discharge points have been identified to EPA.	NA
12	Water and/or Land Concentration Limits					L2.4	No discharge points have been identified to EPA.	NA
	Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit		
	Oil and Grease	Visible				Nil		
	pH	pH				6.5-8.5		
	Total Suspended Solids	mg/l				50		

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No.	Conditions of Approval Requirement	Ref.	Comments	Finding									
13	<p>Exceeding the limits specified in Condition L2.4 of this licence for pH and total suspended solids (TSS) for discharges from the sediment basins identified by Conditions P1.1 and P1.2 is only permitted when the discharge occurs solely as a result of rainfall measured at the premises. The rainfall must exceed the 5 day rainfall depth value for the corresponding discharge point in the table below over a consecutive 5 day period for discharge to be considered to occur solely as a result of rainfall.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Basin/Point</th> <th style="width: 40%;">Classification of Basin</th> <th style="width: 35%;">Design 5 day rainfall event (mm)</th> </tr> </thead> <tbody> <tr> <td>To be confirmed</td> <td>75th percentile</td> <td>21.6</td> </tr> <tr> <td>To be confirmed</td> <td>80th percentile</td> <td>25.2</td> </tr> </tbody> </table>	Basin/Point	Classification of Basin	Design 5 day rainfall event (mm)	To be confirmed	75th percentile	21.6	To be confirmed	80th percentile	25.2	L2.5	No discharge points have been identified to EPA.	NA
Basin/Point	Classification of Basin	Design 5 day rainfall event (mm)											
To be confirmed	75th percentile	21.6											
To be confirmed	80th percentile	25.2											
14	<p>If the licensee uses turbidity (NTU) in place of TSS to determine compliance with Condition L2.4, the licensee must develop a statistical correlation which identifies the relationship between NTU and TSS for water quality in the sediment basin/s in order to determine the NTU equivalent of 50 mg/L TSS before its use.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 25%;">To be confirmed</td> <td style="width: 40%;">85th percentile</td> <td style="width: 35%;">30.8</td> </tr> <tr> <td>To be confirmed</td> <td>90th percentile</td> <td>39.2</td> </tr> </tbody> </table>	To be confirmed	85th percentile	30.8	To be confirmed	90th percentile	39.2	L2.6	No discharge points have been identified to EPA.	NA			
To be confirmed	85th percentile	30.8											
To be confirmed	90th percentile	39.2											
15	<p>The licensee must develop and implement a method to enable the ongoing verification of the relationship between NTU and TSS.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 25%;">To be confirmed</td> <td style="width: 40%;">95th percentile</td> <td style="width: 35%;">54.2</td> </tr> </tbody> </table>	To be confirmed	95th percentile	54.2	L2.7	No discharge points have been identified to EPA.	NA						
To be confirmed	95th percentile	54.2											
16	The licensee must provide the EPA with any amendments the licensee makes to the statistical correlation as a result of the ongoing verification required by Condition L2.7 before using the revised statistical correlation	L2.8	No discharge points have been identified to EPA.	NA									

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17	<p>Standard construction hours</p> <p>Unless otherwise specified by any other condition of this licence, all construction activities are:</p> <p>a) restricted to between the hours of 7:00am and 6:00pm Monday to Friday;</p>	L3.1	Site induction, SEPs, CEMP refer to these hours. No complaints have been received in relation to out of hours work.	Compliant
18	<p>Exemptions to standard construction hours</p> <p>The three categories of works that may be undertaken outside the standard hours of operation permitted</p> <p>by Condition L4.1 are:</p> <p>a) the delivery of oversized plant or structures that police or other authorised authorities determine require special arrangements to transport along public roads;</p> <p>b) emergency work to avoid the loss of lives or property, or to prevent environmental harm;</p>	L3.2	No works have been undertaken within these categories	Compliant

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19	<p>Works approved outside of standard construction hours are permitted provided it is agreed through negotiations between the licensee and all noise sensitive receivers likely to be affected or as otherwise agreed by the EPA. Any agreement(s) between the licensee and the residents must be recorded in writing and a copy of the agreement(s) kept on the premises by the licensee for the duration of the licence.</p> <p>If approval from the EPA is sought for works outside of standard construction hours, the licensee must submit to the EPA in writing:</p> <ul style="list-style-type: none"> <li>a) a description of consultation with all noise sensitive receivers likely to be affected;</li> <li>b) a description of the works to be undertaken outside of standard construction hours;</li> <li>c) a description of the planned timeframes for the works;</li> <li>d) justification as to why the works must be undertaken outside of standard construction hours; and</li> <li>e) the mitigation measures that will be applied to the works, having regard to the "Interim Construction Noise Guideline, DECC July 2009".</li> </ul>	L3.3	Signed agreement letters from affected residents included in Appendix 3 of Project Noise Management Methods report (August 2015, JH)	Compliant
20	<p>Respite periods – construction work generating high noise impact grinding, jack hammering, line drilling, pile driving, rock breaking, rock hammering, saw cutting, sheet piling, vibratory rolling and any construction work that generates impulsive, intermittent, low frequency or tonal noise must:</p> <ul style="list-style-type: none"> <li>(a) be only undertaken between the hours of 8:00 am to 5:00pm Monday to Friday;</li> <li>(b) be undertaken only between the hours of 8:00 am to 1:00pm Saturday;</li> <li>(c) not be undertaken on any Sunday or Public Holiday; and</li> </ul>	L3.4	None of these works have been undertaken.	Compliant

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No.	Conditions of Approval Requirement	Ref.	Comments	Finding
21	If the licensee demonstrates to the satisfaction of EPA's Armidale office that the nearest sensitive receivers are not impacted by construction work generating high noise impact such as: <ul style="list-style-type: none"> <li>Grinding, jack hammering, line drilling, pile driving, rock breaking, rock hammering, saw cutting, sheet piling, vibratory rolling; or</li> </ul>	L3.5	There is no condition L4.4	NA
22	Licensed activities must be carried out in a competent manner. This includes: <p>a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.</p>	O1.1	Site inspection on 6 August 2015 indicated compliance with this condition	Compliant
23	All plant and equipment installed at the premises or used in connection with the licensed activity: <p>a) must be maintained in a proper and efficient condition; and</p>	O2.1	Pre Acceptance Checklist (13/3/2015) indicates that this condition is complied with.	Compliant
24	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	O3.1	Water cart observed in use on 6 August 2015. No dust complaints. No dust emissions observed on 6 August 2015.	Compliant
25	All works must be carried out in accordance with the "Interim Construction Noise Guideline, DECC July 2009" to minimise the emission of noise and vibration from the premises.	O4.1	Project Noise Management Methods report (August 2015, JH indicates that works have generally been carried out consistent with the DECC Guidelines.	Compliant
26	The licensee must maximise the diversion of run-on waters from lands upslope and around the site whilst land disturbance activities are being undertaken.	O4.2	Diversion drains upslope of roadworks. Indicated on relevant ESCP/SEPs	Compliant
27	The licensee must maximise the diversion of stormwater runoff containing suspended solids to sediment basins installed on the premises.	O4.3	Diversion drains upslope of roadworks. Indicated on relevant ESCP/SEPs	Compliant

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28	The drainage from all areas that will mobilise suspended solids when stormwater runs over these areas must be controlled and diverted through appropriate erosion and sediment control measures.	O4.4	ERSED controls in place at all sites	Compliant
29	The licensee must minimise the area of the site that is able to generate suspended material when water runs over it.	O4.5	Sites being progressively rehabilitated.	Compliant
30	Where sediment basins are necessary, all sediment basins and associated drainage must be installed and commissioned prior to the commencement of any clearing or grubbing works within the catchment area of the sediment basin that may cause sediment to leave the site. Note: This condition does not apply to those works associated with the actual installation of sediment basins or associated drainage	O4.6	Noted	Compliant
31	The sediment basins must be designed (stability, location, type and size), constructed, operated and maintained in accordance with the guideline "Managing Urban Stormwater – Soils and Construction, Volume 2D, Main road construction" DECC 2008, or "Managing Urban Stormwater – Soils and Construction, Volume 2E, Mines and Quarries" DECC 2008 (depending on the nature of the works serviced by the sediment basin in question), which are to be read and used in conjunction with volume 1 "Managing urban stormwater: soils and construction" Landcom 2006.	O4.7	Existing sediment basins in use at Dam / Crushing site. Basins not registered as discharge points	Compliant
32	The licensee must ensure the design storage capacity of the sediment basins installed on the premises is reinstated within 5 days of the cessation of a rainfall event that causes runoff to occur on or from the premises.	O4.8	Basins not registered as discharge points	Compliant
33	The licensee must ensure that sampling point(s) for water discharged from the sediment basin(s) are provided and maintained in an appropriate condition to permit:  a) the clear identification of each sediment basin and discharge point;  b) the collection of representative samples of the water discharged from the sediment	O4.9	Basins not registered as discharge points	Compliant

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34	The licensee must endeavour to maximise the reuse of captured stormwater on the premises.			O4.10	Wash water from crushing being reused for dust suppression	Compliant
35	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition			M1.1	Not applicable	NA
36	All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and			M1.2	Written legible records available	Compliant
37	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected;			M1.3	Water quality monitoring table includes these details.	Compliant
38	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns.			M2.1	No discharge points have been identified to EPA.	NA
39	Water and/ or Land Monitoring Requirements			M2.2	No discharge points have been identified to EPA.	NA
	Pollutant	Units of measure	Frequency	Sampling Method		
	Oil and Grease	Visible	Special Frequency 1	Inspection		
	pH	pH	Special Frequency 1	Probe		

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40	For the purposes of the table(s) above, Special Frequency 1 means the collection of samples < 24 hours prior to a controlled/scheduled discharge and daily for any continued controlled/scheduled or uncontrolled discharge.				M2.3	No discharge points have been identified to EPA.	NA
41	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.				M3.1	No discharge points have been identified to EPA.	NA
42	At the point(s) indentified below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively.				M4.1	No discharge points have been identified to EPA.	NA
	Parameter	Sampling method	Units of measure	Averaging period	Frequency		
43	For the purposes of the table(s) above, Special Method 1 means measuring and recording the rainfall at the premises (exact location to be confirmed) in millimetres per 24 hour period at the same time each day from the time that the site office associated with the activities permitted by this licence is established. Note: The rainfall monitoring data collection in accordance with this condition may be used to determine compliance with conditions L2.5 and O4.8.				M4.2	No discharge points have been identified to EPA.	NA
	Rainfall	Special method 1	mm	24 hours	Daily		
44	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.				M5.1	Complaints Form sighted. No complaints made to date	Compliant

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45	The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; <del>d) the nature of the complaint.</del>	M5.2	Complaints Form sighted. No complaints made to date	Compliant
46	The record of a complaint must be kept for at least 4 years after the complaint was made.	M5.3	Noted	Compliant
47	The record must be produced to any authorised officer of the EPA who asks to see them	M5.4	Noted	Compliant
48	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	M6.1	WNSW Complaint line 1300 662 077 Project Manager's mobile number is also on the sign board at entrances to site compounds	Compliant
49	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	M6.2	Complaints line is on project website and was notified in local newspapers on 30 September 2014	Compliant
50	The preceding two conditions do not apply until 3 months after a) the date of the issue of this licence or b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation	M6.3	Noted	Compliant

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51	Noise monitoring must be carried out in accordance with Australian Standard AS 2659.1 – 1998: Guide to the use of sound measuring equipment – Portable sound level meters, and the compliance monitoring guidance provided in the NSW Industrial Noise Policy.	M7.1	Noted	Compliant
52	The licensee must undertake noise and vibration monitoring as directed by an authorised officer of the EPA	M7.2	Noted	Compliant
53	All erosion and sediment control measures installed on the premises must be inspected and works undertaken to repair and/or maintain these controls:  a) weekly during normal construction hours outlined in Condition L4.1;  b) daily during periods of rainfall; and  c) within 24 hours of the cessation of a rainfall event causing runoff to occur on or from the premises	M7.3	Records of such inspections were sighted	Compliant
54	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:  a) a Statement of Compliance; and  b) a Monitoring and Complaints Summary.	R1.1	Noted	Compliant
55	An Annual Return must be prepared in respect of each reporting period, except as provided below. Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.	R1.2	Noted	Compliant

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56	Where this licence is transferred from the licensee to a new licensee:  a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and  b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of <u>the reporting period</u> .	R1.3	Noted	Compliant
57	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:  a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or	R1.4	Noted	Compliant
58	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	R1.5	Noted	Compliant
59	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	R1.6	Noted	Compliant
60	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:  a) the licence holder; or	R1.7	Noted	Compliant

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61	Notifications must be made by telephoning the Environment Line service on 131 555 Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	R2.1	No such incidents are known to have occurred to date	Compliant
62	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	R2.2	No such incidents are known to have occurred to date	Compliant
63	Where an authorised officer of the EPA suspects on reasonable grounds that: a) where this licence applies to premises, an event has occurred at the premises; or b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event	R3.1	Noted	Compliant
64	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	R3.2	Noted	Compliant

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65	The request may require a report which includes any or all of the following information:  a) the cause, time and duration of the event;  b) the type, volume and concentration of every pollutant discharged as a result of the event;  c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;  d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;  e) action taken by the licensee in relation to the event, including any follow-up contact	R3.3	Noted	Compliant
66	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	R3.4	Noted	Compliant
67	The licensee must report any exceedance of the licence blasting or water quality discharge concentration limits to the Armidale Regional Office of the EPA as soon as practicable after the exceedance becomes known to the licensee or to one of the licensee's employees or agents.	R4.1	No such limits apply as no licensed discharge points	NA
68	A copy of this licence must be kept at the premises to which the licence applies.	G1.1	Copy was sighted in premises	Compliant
69	The licence must be produced to any authorised officer of the EPA who asks to see it.	G1.2	Noted	Compliant

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	<b>Scope: EPL Conditions (No. 20483, held by JH)</b>	<b>Rev:</b>	<b>V0.1</b>	
<b>No.</b>	<b>Conditions of Approval Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
70	The licence must be available for inspection by any employee or agent of the licensee working at the premises	G1.3	Noted	Compliant

Independent Environmental Compliance Audit  
Chaffey Dam Upgrade (September 2015)



**Appendix C. EPBC Approval checklist**

Independent Environmental Compliance Audit  
Chaffey Dam Upgrade (September 2015)



	<b>Auditor: Steve Fermio (WolfPeak Pty Ltd)</b>		<b>Audit ID: Chaffey Dam Safety Upgrade &amp; Augmentation Annual Independent Environmental Compliance Audit</b>	<b>Date: August 2015</b>
	<b>Scope: Conditions of EPBC Approval</b>	<b>Rev:</b>	<b>V0.1</b>	
<b>No.</b>	<b>Conditions of Approval Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
1	<p>In order to protect the <b>Booroolong Frog, Border Thick-tailed Gecko</b> and the <b>White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland</b> ecological community, the <b>approval holder</b> must undertake all measures relevant to the protection of these matters that are identified in the <b>NSW approval conditions</b> in Schedule 2 of the NSW Government's <b>infrastructure approval decision</b> for the project.</p> <p>The measures to be undertaken must include:</p> <ul style="list-style-type: none"> <li>a. restriction of impacts on protected matters and their habitats to those areas identified in <b>NSW approval condition B6</b>;</li> <li>b. preparation and implementation of a <b>Biodiversity Management Plan</b>, detailing strategies to mitigate impacts on the matters in accordance with <b>NSW approval condition C2 (a)</b>.</li> </ul>	1	<p>Biodiversity Offset Management Plan (vegetation) has been approved by DPE.</p> <p>Booroolong Frog Management Plan in preparation.</p>	Compliant
2	<p>In order to compensate for residual significant impacts on the <b>Booroolong Frog</b> and <b>White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland</b>, the <b>approval holder</b> must prepare and implement a Biodiversity Offset Package in accordance with <b>NSW approval conditions B7-611</b> in Schedule 2 of the NSW Government's <b>infrastructure approval decision</b> for the project.</p>	2	<p>Biodiversity Offset Management Plan (vegetation) has been approved by DPE.</p> <p>Booroolong Frog Management Plan in preparation.</p>	Compliant

Independent Environmental Compliance Audit  
Chaffey Dam Upgrade (September 2015)



	<b>Auditor: Steve Fermio (WolfPeak Pty Ltd)</b>		<b>Audit ID: Chaffey Dam Safety Upgrade &amp; Augmentation Annual Independent Environmental Compliance Audit</b>	<b>Date: August 2015</b>
	<b>Scope: Conditions of EPBC Approval</b>	<b>Rev:</b>	<b>V0.1</b>	
<b>No.</b>	<b>Conditions of Approval Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
3	In addition to meeting Condition 2 of this approval, the <b>approval holder</b> must submit the Biodiversity Offset Package to the <b>Minister</b> for approval. The Biodiversity Offset Package must include <b>offset attributes, shapefiles</b> and textual descriptions and maps to clearly define the location and boundaries of the offset sites.	3	Federal Department of Environment approval for Plan obtained 12/12/2014	Compliant
4	In the event that the approval holder is unable to meet <b>NSW approval condition B8</b> , then the approval holder must: <ul style="list-style-type: none"> <li>a. submit the <b>Booroolong Frog</b> component of the Biodiversity Offset Package to the <b>Minister</b> for approval. The <b>Booroolong Frog</b> component of the Biodiversity Offset Package must be approved by the <b>Minister</b> and implemented prior to commencement of any part of the action that results in disturbance to <b>Booroolong Frog habitat</b>;</li> <li>b. submit the <b>White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland</b> component of the Biodiversity Offset Package to the <b>Minister</b> for approval. The <b>White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland</b> component of the Biodiversity Offset Package must be approved by the <b>Minister</b> and implemented prior to commencement of any part of the action that results in disturbance to <b>White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland</b>.</li> </ul>	4	In progress with regard to Booroolong Frog Biodiversity Offset Management Plan	Compliant

Independent Environmental Compliance Audit  
Chaffey Dam Upgrade (September 2015)



	<b>Auditor: Steve Fermio (WolfPeak Pty Ltd)</b>		<b>Audit ID: Chaffey Dam Safety Upgrade &amp; Augmentation Annual Independent Environmental Compliance Audit</b>	<b>Date: August 2015</b>
	<b>Scope: Conditions of EPBC Approval</b>	<b>Rev:</b>	<b>V0.1</b>	
<b>No.</b>	<b>Conditions of Approval Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
5	Within 21 days after the <b>commencement of the action</b> , the <b>approval holder</b> must advise the <b>Department</b> in writing of the actual date of commencement.	5	WNSW letter of commencement of construction submitted to the Department of Environment on 28/10/2014	Compliant
6	The <b>approval holder</b> must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval and make them available upon request to the <b>Department</b> . Such records may be subject to audit by the <b>Department</b> or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be	6	Compliance Tracking Register maintained by WNSW. Monthly compliance records maintained and sighted	Compliant
7	Within 3 months of every 12-month anniversary of the <b>commencement of the action</b> , the <b>approval holder</b> must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of any management plans as specified in the conditions. Each report must remain on the website for 12 months or until the subsequent report is published on the website. The <b>approval holder</b> may cease the publication of these reports when it receives the written agreement of the <b>Minister</b> to do so. Non-compliance with any of the conditions of this approval must be reported to the <b>Department</b> at the same time as the report is published.	7	This Audit Report will be published on WNSW website once finalised	Compliant

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Chaffey Dam Upgrade (September 2015)



	<b>Auditor: Steve Fermio (WolfPeak Pty Ltd)</b>		<b>Audit ID: Chaffey Dam Safety Upgrade &amp; Augmentation Annual Independent Environmental Compliance Audit</b>	<b>Date: August 2015</b>
	<b>Scope: Conditions of EPBC Approval</b>	<b>Rev:</b>	<b>V0.1</b>	
<b>No.</b>	<b>Conditions of Approval Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
8	Upon the direction of the <b>Minister</b> , the <b>approval holder</b> must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the <b>Minister</b> . The independent auditor must be approved by the <b>Minister</b> prior to the commencement of the audit. Audit criteria must be agreed to by the <b>Minister</b> and the audit report must address the criteria to the satisfaction of the <b>Minister</b> .	8	Noted	Compliant
9	If the <b>approval holder</b> wishes to carry out any activity otherwise than in accordance with the Biodiversity Offset Package or <b>Biodiversity Management Plan</b> , as specified in the conditions, the <b>approval holder</b> must submit to the <b>Department</b> for the <b>Minister's</b> written approval a revised version of that Biodiversity Offset Package or <b>Biodiversity management Plan</b> . The varied activity shall not commence until the <b>Minister</b> has approved the varied Biodiversity Offset Package or <b>Biodiversity Management Plan</b> in writing. The <b>Minister</b> will not approve a varied Biodiversity Offset Package or <b>Biodiversity Management Plan</b> unless the revised Biodiversity Offset Package or <b>Biodiversity Management Plan</b> would result in an equivalent or improved environmental outcome over time. If the <b>Minister</b> approves the revised Biodiversity Offset Package or <b>Biodiversity Management Plan</b> , that Biodiversity Offset Package or <b>Biodiversity Management Plan</b> must be implemented in place of the Biodiversity Offset Package or <b>Biodiversity Management Plan</b> originally approved.	9	Noted. Not required to date	Compliant

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Chaffey Dam Upgrade (September 2015)



	<b>Auditor: Steve Fermio (WolfPeak Pty Ltd)</b>		<b>Audit ID: Chaffey Dam Safety Upgrade &amp; Augmentation Annual Independent Environmental Compliance Audit</b>	<b>Date: August 2015</b>
	<b>Scope: Conditions of EPBC Approval</b>	<b>Rev:</b>	<b>V0.1</b>	
<b>No.</b>	<b>Conditions of Approval Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
10	Condition 9 does not apply if the <b>approval holder</b> wishes to make minor amendments to the <b>Biodiversity Management Plan</b> , in accordance with <b>NSW approval condition C6</b> . The approval holder must receive written approval from the <b>Department</b> of what constitutes a minor amendment to the <b>Biodiversity Management Plan</b> prior to <b>commencement of the action</b> .	10	Noted. Not required to date	Compliant
11	If the <b>Minister</b> believes that it is necessary or convenient for the better protection of listed threatened species and communities to do so, the <b>Minister</b> may request that the <b>approval holder</b> make specified revisions to the Biodiversity Offset Package or <b>Biodiversity Management Plan</b> specified in the conditions and submit the revised Biodiversity Offset Package or <b>Biodiversity Management Plan</b> for the <b>Minister's</b> written approval. The <b>approval holder</b> must comply with any such request. The revised approved Biodiversity Offset Package or <b>Biodiversity Management Plan</b> must be implemented. Unless the <b>Minister</b> has approved the revised Biodiversity Offset Package or <b>Biodiversity Management Plan</b> , then the <b>approval holder</b> must continue to implement the Biodiversity Offset Package or <b>Biodiversity Management Plan</b> originally approved, as specified in the conditions.	11	Noted. No such request made to date	Compliant

Independent Environmental Compliance Audit  
Chaffey Dam Upgrade (September 2015)



	<b>Auditor: Steve Fermio (WolfPeak Pty Ltd)</b>		<b>Audit ID: Chaffey Dam Safety Upgrade &amp; Augmentation Annual Independent Environmental Compliance Audit</b>	<b>Date: August 2015</b>
	<b>Scope: Conditions of EPBC Approval</b>	<b>Rev:</b>	<b>V0.1</b>	
<b>No.</b>	<b>Conditions of Approval Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
12	Unless otherwise agreed to in writing by the <b>Minister</b> , the <b>approval holder</b> must publish all plans, reports and strategies referred to in these conditions of approval on their website within 1 month of being approved. Superseded plans, reports and strategies must be removed from the website and replaced by revised plans, reports and strategies that have been approved by the <b>Minister</b> . Approved plans, reports and strategies must remain on the website until the <b>approval holder</b> receives written agreement from the <b>Minister</b> that the publication of the plans, reports and strategies may cease.	12	Approved, plans and reports are available on <a href="http://www.statewater.com.au/Current+Projects/Dam+Safety+Upgrades/Chaffey+upgrade">http://www.statewater.com.au/Current+Projects/Dam+Safety+Upgrades/Chaffey+upgrade</a>	Compliant



**Appendix D. Conditions of IA checklist**

Independent Environmental Compliance Audit  
Chaffey Dam Upgrade (September 2015)



	<b>Auditor: Steve Fermio (WolfPeak Pty Ltd)</b>		<b>Audit ID: Chaffey Dam Safety Upgrade &amp; Augmentation Annual Independent Environmental Compliance Audit</b>	<b>Date: August 2015</b>
	<b>Scope: Conditions of IA</b>	<b>Rev:</b>	<b>V0.1</b>	
<b>No.</b>	<b>Conditions of Approval Requirement</b>	<b>Ref.</b>	<b>Comments</b>	<b>Finding</b>
1	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	A1	Mitigation measures in EIS and PIR are included as mitigation measured in the CEMP and subplans	Compliant
2	The Proponent shall carry out the SSI generally in accordance with the: <ul style="list-style-type: none"> <li>a) State Significant Infrastructure Application SSI 5039;</li> <li>b) Environmental Impact Statement, prepared by Worley Parsons and dated 7 December 2012;</li> <li>c) Preferred Infrastructure Report, prepared by Worley Parsons and dated 15 March 2013;</li> <li>d) Response to Agencies' Comments on the PIR, prepared by Worley Parsons and dated 31 May 2013;</li> <li>e) Letter from Worley Parsons to Planning and Infrastructure dated 20 August 2013;</li> <li>f) Vegetation Offset Plan, prepared by Worley Parsons and dated 1 November 2013;</li> <li>g) Booroolong Frog Offset Plan, prepared by Ecological Australia and dated 15 November 2013; and</li> <li>h) The conditions of this approval.</li> </ul>	A2	No modifications have been made to the IA. A Consistency Review: Proposed Adjustment to Work Area for Construction of Haul Road and Laydown Area (October 2014), was prepared by JH and approved by ER JH were contracted to design (URS) in accordance with Project Approval (includes EIS) – See page 24 EIS design inputs <b>Observation</b> <b>No evidence was provided indicating how the infrastructure design has explicitly considered the details and requirements in the EIS and Project Approval IA in accordance with section 2.7.1 (o) of the Design Management Plan (43168079_SY_WAT_DMP_002_0/0). For example (but not limited to), how the design process has ensured that project works occur within the approved Project boundary as set out in the EIS; design inputs on page 24 of EIS etc.</b>	<b>Observation</b>

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3	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.	A3.	Note	Compliant
4	<p>The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Agency's assessment of:</p> <ul style="list-style-type: none"> <li>a) any reports, plans or correspondence that are submitted in accordance with this approval; and</li> <li>b) the implementation of any actions or measures contained within these documents.</li> </ul>	A4	No other additional requirements specified in approval letters from DPE received to date	Compliant
5	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	A5	Construction work started September 2014	Compliant
6	<p>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:</p> <ul style="list-style-type: none"> <li>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.</li> <li>b) a program for independent environmental auditing in accordance with AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing;</li> <li>c) procedures for rectifying any non-compliance with the approval identified during environmental auditing or review of compliance;</li> <li>d) mechanisms for recording environmental incidents and actions taken in response to those incidents;</li> <li>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</li> </ul>	A6	WNSW Compliance Tracking Procedure 14/39228 and Register of compliance with conditions and mitigation measures sighted. The Register is updated monthly	Compliant

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7	<p>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:</p> <p>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</p> <p>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.</p> <p>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</p>	A7	Not applicable. No staging proposed	NA
8	<p>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</p>	A8	Not applicable. No staging proposed	NA
9	<p>With the approval of the Director-General, the Proponent may:</p> <p>a) submit any strategy, plan or program required by this approval on a progressive basis; and/or</p> <p>b) combine any strategy, plan or program required by this approval.</p>	A9	Noted	Compliant
10	<p>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 <del>previous approvals or approvals.</del></p>	A10	Noted	Compliant
11	<p>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-</p>	A11	Not required to date	Compliant
12	<p>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.</p>	A12	<p>JH EPL (20483) is current. EPBC Approval (EPBC 2012/6523) issued to WNSW is current</p>	Compliant

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13	<p>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.</p> <p>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.</p>	A13	<p>NSW DPI Office of Water letter of 11/09/2014 to WNSW addresses the requirements of this condition</p>	Compliant
14	<p>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:</p> <ul style="list-style-type: none"> <li>a) Description of the necessity of, and any alternatives considered to drawing down the water levels,</li> <li>b) An analysis of the possible reduction of water held in storage under various climatic scenarios and different construction schedules,</li> <li>c) Description of measures considered and proposed to lessen the reduction in, or impact from, reduced allocations,</li> <li>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,</li> <li>e) Evidence of consultation with affected water users and the outcomes of that consultation</li> </ul>	A14	<p>Drawdown Management Strategy referred to in NSW DPI Office of Water letter of 11 September 2014</p>	Compliant
15	<p>The SSI must be operated in accordance with the Water Supply Work Approval.</p>	A15	<p>The Dam operations are currently as per normal due to current low storage levels</p>	Compliant
16	<p>The SSI shall be constructed with the objective of meeting air quality goals for <math>PM_{10}</math> as prescribed in the <i>National Environment Protection Measure (NEPM) for Ambient Air Quality</i>.</p>	B1	<p>This requirement is addressed in the JH Air Quality Plan (see details in CEMP checklist)</p>	Compliant

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<p>17</p> <p>The Proponent shall carry out all reasonable and feasible measures to minimise dust generated by the construction of the SSI, including ensuring that:</p> <ul style="list-style-type: none"> <li>a) no vehicle on site exceeds a speed limit of 40 kilometres per hour;</li> <li>b) all loaded vehicles entering or leaving the site have their loads covered; and</li> <li>c) all loaded vehicles leaving the site are cleaned of dirt, sand and other</li> </ul>	<p>B2</p>	<p>This requirement is addressed in the JH Air Quality Plan (see details in CEMP checklist)</p>	<p>Compliant</p>
<p>18</p> <p>Unless otherwise approved by the Director General, the location of Ancillary Facilities shall:</p> <ul style="list-style-type: none"> <li>a) be located more than 40 metres from a waterway;</li> <li>b) be located within or adjacent to land where the SSI is being carried out;</li> <li>c) have ready access to the road network;</li> <li>d) be located to minimise the need for heavy vehicles to travel through residential areas;</li> <li>e) be sited on relatively level land;</li> <li>f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);</li> <li>g) not require vegetation or threatened species habitat clearing beyond that already required by the SSI;</li> <li>h) not impact on known heritage items (including areas of archaeological sensitivity) beyond those already impacted by the SSI;</li> <li>i) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and</li> <li>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.</li> </ul>	<p>B3</p>	<p>Facilities are located in approved locations as per the EIS</p> <p>Consistency Review: Review for the Proposed Adjustment to the Work Area for Construction of Haul Road and Laydown Area (JH, October 2014) satisfied these requirements and was approved by the ER</p>	<p>Compliant</p>

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19	<p>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:</p> <ul style="list-style-type: none"> <li>a) are located within an active construction zone within the approved project footprint; and</li> <li>b) have been assessed by the Environmental Representative to have: <ul style="list-style-type: none"> <li>(i) minimal amenity impacts to surrounding residences, with consideration to matters such as noise and vibration impacts, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and</li> <li>(ii) minimal environmental impact in respect of waste management,</li> </ul> </li> </ul>	B4	Noted	Compliant								
20	All Ancillary Facilities shall be rehabilitated to at least their pre-construction condition, unless otherwise agreed by the landowner where relevant.	B5	<p>Pre-construction conditions are provided in JH letter of Dilapidation/Condition Survey reports (21/08/2014)</p> <p>Revision 1 of JH's BAP Rehabilitation Plan sighted.</p> <p>JH is also preparing Rehabilitation Plans progressively to WNSW for review and approval. None finalised yet as construction works are still underway</p>	Compliant								
21	<p>Clearing of native vegetation, known threatened species habitat and rocky outcrops during construction and inundation shall be limited to the following:</p> <table border="1" data-bbox="129 967 909 1222"> <thead> <tr> <th data-bbox="129 967 322 1158">Total Native Vegetation Impacts (includes EEC)</th> <th data-bbox="331 967 495 1158">Box Gum Woodland (listed under the TSC Act)</th> <th data-bbox="504 967 696 1158">Box-Gum Grass Woodland (listed under the EPBC Act)</th> <th data-bbox="705 967 909 1158">Booroolong Frog habitat (listed under the TSC and EPBC Acts)</th> </tr> </thead> <tbody> <tr> <td data-bbox="129 1165 322 1222">161.71 ha</td> <td data-bbox="331 1165 495 1222">150 ha</td> <td data-bbox="504 1165 696 1222">7.5 ha</td> <td data-bbox="705 1165 909 1222">4.09 ha</td> </tr> </tbody> </table>	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	B6	<p>No inundation impacts have yet occurred as Dam wall is yet to be raised</p> <p>OnSite Chaffey Dam Pre-Clearing Survey Report (October 2014) confirms that none of these ecological communities or habitats will be impacted during construction</p>	Compliant
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									

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<p>22 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:</p> <ul style="list-style-type: none"> <li>a) the extent and types of habitat that would be lost or degraded as a result of the final design of the development;</li> <li>b) the objectives and biodiversity outcomes to be achieved;</li> <li>c) 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;</li> <li>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;</li> <li>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:</li> </ul>	<p>B7 Ecological Biodiversity Offset Management Plan (Revision 15, October 2014) – covers vegetation only – approved by the DPE on 19 December 2014.</p> <p>Preparation of the Booroolong Frog Biodiversity Offset Package is in progress by NW Ecological Services (draft of June 2015 sighted).</p>	<p>Compliant</p>
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23	<ul style="list-style-type: none"> <li>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;</li> <li>ii) the monitoring of the condition of species, habitat and ecological communities at offset locations in an integrated manner across the offset site;</li> <li>iii) the methodology for the monitoring program(s), including the number and location of offset monitoring sites, and the sampling frequency at these sites;</li> <li>iv) provisions for establishing appropriate ecological milestones/benchmarks for monitoring results, for changing or</li> </ul>	B7 (cont)		Compliant
24	<p>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</p>	B8	<p>Biodiversity Offset Package (Vegetation) approved by DPE prior to construction in potentially affected areas. Impact on Booroolong Frogs will not occur until Dam fills following completion of the Dam wall (still in progress).</p>	Compliant
25	<p>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.</p>	B9	<p>Land offsets have been secured by WNSW for the vegetation as per Table 3 of the DPE approved Biodiversity Offset Management Plan (Ecological, October 2014), with the exception of Lot 7012 which the auditor was advised by WNSW was a small area of road reserve that was still in the process of being secured. Land Offset for the Booroolong Frog habitat are still in the process of being secured.</p>	Compliant
26	<p>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.</p>	B10	Not applicable at present stage of construction	Compliant

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27	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.	B11	Not applicable at present	Compliant
28	<p>Dangerous goods, as defined by the Australian Dangerous Goods Code, (seventh edition, 2007) shall be stored and handled strictly in accordance with:</p> <ul style="list-style-type: none"> <li>a) all relevant Australian Standards;</li> <li>b) Storage and Handling Liquids: Environmental Protection – Participants Manual (DECC, 2007); and</li> <li>c) Environmental Compliance Report: Liquid Chemical Storage, Handling and Spill Management – Part B Review of Best Practice and Regulation (DECC, 2005).</li> </ul> <p>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</p>	B12	Evidence observed on site of appropriate storage of dangerous good	Compliant

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29	<p>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:</p> <ul style="list-style-type: none"> <li>a) a protocol to salvage and relocate all affected identified Aboriginal objects in consultation with the registered Aboriginal stakeholders and OEH;</li> <li>b) registration of all affected Aboriginal objects in the Aboriginal Heritage Information Management System (AHIMS);</li> <li>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;</li> <li>d) nomination of locations for relocation of historic heritage items identified in Table 6.5 of the PIR; and</li> <li>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</li> </ul>	B13	<p>Heritage Conservation Strategy approved in DPE letter of 17/10/2014. Aboriginal Archaeological Subsurface Testing and Salvage Collection Program (April 2015) Navin Officer (draft) submitted to WNSW. Cultural Heritage Archival Recording (February 2015) Navin Officer (draft) sighted</p>	Compliant
30	<p>Construction activities associated with the SSI shall be undertaken during the following standard construction hours:</p> <ul style="list-style-type: none"> <li>a) 7:00am to 6:00pm Mondays to Fridays, inclusive; and</li> <li>b) 8:00am to 1:00pm Saturdays; and</li> <li>c) at no time on Sundays or public holidays.</li> </ul>	B14	<p>These hours are covered in the site induction and SEPs</p>	Compliant

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31	<p>Construction works outside of the standard construction hours identified in condition B17 may be undertaken in the following circumstances:</p> <ul style="list-style-type: none"> <li>a) construction works that generate noise that is: <ul style="list-style-type: none"> <li>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</li> <li>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</li> </ul> </li> <li>b) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or</li> <li>c) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm;</li> <li>d) works approved through an EPL, or</li> </ul>	B15	<p>Out of hours works approved as per EPL as demonstrated in Project Noise Management Methods report (August 2015, John Holland)</p>	Compliant
32	<p>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:</p> <ul style="list-style-type: none"> <li>a) between the hours of 8:00 am to 5:00 pm Monday to Friday;</li> <li>b) between the hours of 8:00 am to 1:00 pm Saturday; and</li> <li>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.</li> </ul> <p>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</p>	B16	<p>Communicated through site induction and toolbox talks</p>	Compliant

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33	<p>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.</p> <p>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.</p>	B17	<p>Process for achieving the NMLs in the ICNG is demonstrated in Project Noise Management Methods report (August 2015, John Holland). Reasonable and feasible mitigation measures have been implemented as evidenced in the report</p>	Compliant						
34	<p>The SSI shall be constructed with the aim of achieving the following construction vibration goals:</p> <ul style="list-style-type: none"> <li>a) for structural damage, the vibration limits set out in the German Standard DIN 4150-3: Structural Vibration - effects of vibration on structures; and</li> <li>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).</li> </ul>	B18	<p>No vibration monitoring undertaken due to separation distance of works from nearest sensitive receivers</p>	Compliant						
35	<p>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.</p> <p>Table 1 - Airblast overpressure criteria</p> <table border="1" data-bbox="129 1107 748 1286"> <thead> <tr> <th>Airblast overpressure (dB(Lin Peak))</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>115</td> <td>5% of total number of blasts over a 12 month</td> </tr> <tr> <td>120</td> <td>At no time</td> </tr> </tbody> </table>	Airblast overpressure (dB(Lin Peak))	Allowable exceedance	115	5% of total number of blasts over a 12 month	120	At no time	B19	<p>No blasting</p>	NA
Airblast overpressure (dB(Lin Peak))	Allowable exceedance									
115	5% of total number of blasts over a 12 month									
120	At no time									

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36	<p>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.</p> <p>Table 2 – Peak particle velocity criteria</p> <table border="1" data-bbox="129 416 819 560"> <thead> <tr> <th data-bbox="129 416 271 496">Receiver</th> <th data-bbox="271 416 510 496">Peak particle velocity (mm/s)</th> <th data-bbox="510 416 819 496">Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td data-bbox="129 496 271 560">Residence on privately</td> <td data-bbox="271 496 510 560">5</td> <td data-bbox="510 496 819 560">5% of total number of blasts over a</td> </tr> </tbody> </table>	Receiver	Peak particle velocity (mm/s)	Allowable exceedance	Residence on privately	5	5% of total number of blasts over a	B20	No blasting	NA
Receiver	Peak particle velocity (mm/s)	Allowable exceedance								
Residence on privately	5	5% of total number of blasts over a								
37	<p>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.</p>	B21	Bored piles used							
38	<p>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.</p>	B22	No operational noise measures proposed	NA						
39	<p>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</p>	B23	New locations have been agreed as per DPE approved BAP Recreational Reserve Management Plan (November 2013)	Compliant						
40	<p>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</p>	B24	Replacement facilities detailed in approved Plan	Compliant						
41	<p>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 <i>Protection of the Environment Operations Act 1997</i>, which prohibits the pollution of waters</p>	B25	Addressed in JH EPL checklist	Compliant						
42	<p>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.</p>	B26	ERSED plans developed for individual construction site areas. ERSED controls evident during site inspection	Compliant						

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43	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.	B27	Not applicable. No core material required	NA
44	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	B28	DPI (Matthew Gordos) email confirming no further comments on watercourse crossing included in Appendices to the CEMP	Compliant
45	All waste materials removed from the site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials	B29	NCR raised and closed out. ER satisfied with process	Compliant
46	Waste generated outside the site shall not be received at the site for storage, treatment, processing, reprocessing, or disposal on the site.	B30	No evidence of waste materials brought to site	Compliant
47	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.	B31	See B29 above. Records indicated appropriate disposal in one instance but matter has been rectified to satisfaction of ER	Compliant
48	The Proponent must ensure that waste identified for recycling is stored separately from other waste.	B32	Separation and recycling of wastes evident on site	Compliant
49	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	B33	Telstra relocation in progress. Energy relocation completed	Compliant

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50	The SSI shall be designed with the objective of minimising adverse changes to existing property access arrangements and road functionality for other road users.	B34	Existing access roads at the Dam wall used. New road is being built alongside existing road.	Compliant
51	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.	B35	Mr Hill near BAP managed locally by JH. Discussed at Community Liaison Group meetings. No disruption of access to private properties has occurred according to JH and ER	Compliant
52	<p>In relation to new or modified road, parking, pedestrian or cycle infrastructure, the SSI shall be designed:</p> <ul style="list-style-type: none"> <li>a) in consultation with the Relevant Roads Authority;</li> <li>b) in consideration of existing and future demand, road safety and traffic network impacts;</li> <li>c) to meet relevant design, engineering and safety guidelines, including Austroads Guide to Traffic Engineering Practice; and</li> <li>d) with certification by an appropriately qualified person that has considered the above matters.</li> </ul> <p><i>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.</i></p>	B36	Evidence provided in Final Roads Detailed Design Report, 3 December 2014 (43168079_SYD-WAT-RPT-002_3), URS Australia Pty Ltd which includes formal road safety audit and statement by Samsa Consulting (RMS accredited road safety auditors)	Compliant

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53	<p>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:</p> <ul style="list-style-type: none"> <li>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;</li> <li>b) include actions or procedures to manage the following: <ul style="list-style-type: none"> <li>(i) biodiversity;</li> <li>(ii) soil and water;</li> <li>(iii) air quality;</li> </ul> </li> </ul>	C1	CEMP and sub plans approved by the DPE on 17 October 2014	Compliant
54	<p>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):</p> <ul style="list-style-type: none"> <li>a) <b>Biodiversity</b>, to be prepared and implemented in consultation with DOE, OEH, North West LLS and DPI (NSW Fisheries) and include the following: <ul style="list-style-type: none"> <li>(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;</li> <li>(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</li> <li>(iii) weed management and minimisation methodologies;</li> <li>(iv) strategies to mitigate the impacts of the project upon the Booroolong</li> </ul> </li> </ul>	C2	Letter of CEMP submission 3/09/2014 included table of agency consultation and comments and how they are addressed.	Compliant

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55	<p>b) <b>Soil and Water</b>, to be prepared in consultation with OEH, EPA, North West LLS, and DPI (NSW Office of Water and NSW Fisheries) and include the following:</p> <ul style="list-style-type: none"> <li>(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</li> <li>(ii) contingency and ameliorative measures in the event that adverse impacts to water quality are identified.</li> </ul>	<p>Letter of CEMP submission 3/09/2014 included table of agency consultation and comments and how they are addressed</p>	Compliant
56	<p>c) <b>Noise and Vibration</b>, 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:</p> <ul style="list-style-type: none"> <li>(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;</li> <li>(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</li> <li>(iii) procedures for notifying residents of construction activities that are likely to affect their noise and vibration amenity and receiving complaints.</li> </ul>	<p>Letter of CEMP submission 3/09/2014 included table of agency consultation and comments and how they are addressed</p>	Compliant

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57	<p>d) <b>Construction Traffic</b>, to be prepared and implemented in consultation with the Relevant Road Authority/Authorities and include the following:</p> <ul style="list-style-type: none"> <li>(i) details of traffic routes for heavy vehicles, including any necessary route or timing restriction for oversized loads;</li> <li>(ii) interaction with local, regional and state roads and surrounding land uses;</li> <li>(iii) measures to manage interaction with local school bus travel or other timetabled public passenger transport; and</li> <li>(iv) procedures for informing the public where any road access will be</li> </ul>	<p>Letter of CEMP submission 3/09/2014 included table of agency consultation and comments and how they are addressed</p>	Compliant
58	<p>e) <b>Heritage</b>, 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:</p> <ul style="list-style-type: none"> <li>(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.</li> </ul>	<p>Letter of CEMP submission 3/09/2014 included table of agency consultation and comments and how they are addressed</p>	Compliant

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59	<ul style="list-style-type: none"> <li>(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;</li> <li>(iii) procedures for monitoring and reporting effectiveness of management measures, including reporting of non-compliance and rectification;</li> <li>(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</li> <li>(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</li> </ul>			
60	<p>f) <b>Recreational Uses</b>, 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.</p> <p><i>Note: An existing Construction Environmental Management Plan may be used where this plan meets the requirements of this condition</i></p>		Letter of CEMP submission 3/09/2014 included table of agency consultation and comments and how they are addressed	Compliant
61	<p>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:</p> <ul style="list-style-type: none"> <li>a) incident report under condition C4 below; or</li> <li>b) any modification to the conditions of this approval,</li> </ul> <p><i>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.</i></p>	C3	No incidents have occurred requiring reporting to the D-G (Register of Incidents sighted) and no modifications to the IA have occurred to date	Compliant

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62	<p>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.</p>	C4	<p>Not applicable. Register of Incidents sighted. ER confirms no incidents requiring reporting to the DG have occurred to date</p>	Compliant
63	<p>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:</p> <p>a) make copies of the following publicly available on its website:</p> <ul style="list-style-type: none"> <li>(i) the documents referred to in Condition A2;</li> <li>(ii) all current statutory approvals for the development;</li> <li>(iii) all approved strategies, plans and programs required under the conditions of this approval;</li> <li>(iv) any independent environmental audit of the development, and the Proponent's response to the recommendations in any audit; and</li> <li>(v) any other matter required by the Director-General; and</li> </ul> <p>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.</p> <p>to the satisfaction of the Director-General.</p> <p><i>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</i></p>	C5	<p>Documents required in condition A2 and others required under this condition are available on <a href="http://www.statewater.com.au/Current+Projects/Dam+Safety+Upgrades/Chaffey+upgrade">http://www.statewater.com.au/Current+Projects/Dam+Safety+Upgrades/Chaffey+upgrade</a></p>	Compliant

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<p>64 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 Environmental Representative(s) for the duration of construction, or as otherwise agreed by the Director-General. The Environment Representative(s) shall:</p> <ul style="list-style-type: none"> <li>a) be the principal point of advice in relation to the environmental performance of the SSI;</li> <li>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;</li> <li>c) have responsibility for considering and advising the Proponent on matters specified in the conditions of this approval;</li> <li>d) ensure that environmental auditing is undertaken in accordance with the Proponent’s Environmental Management System(s);</li> <li>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;</li> <li>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</li> </ul>	<p>C6 Evidence sighted that ER participates in Weekly Environmental Inspections ER reviews JH Monthly Compliance Tracking Reports ER participates in Weekly Meetings – (eg 29/7/2015 teleconference) on regular basis ER undertakes Quarterly Audits – focus on CEMP implementation. ER endorsed minor change to crane refuelling in Refuelling Procedure which was included in the CEMP (latest on the website)</p>	<p>Compliant</p>
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65	<p>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:</p> <ul style="list-style-type: none"> <li>a) identification of stakeholders to be consulted as part of the Strategy, including affected and adjoining landowners;</li> <li>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;</li> <li>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;</li> <li>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</li> </ul>	C7	<p>WNSW Communication Strategy included as Appendix 8 in CEMP. DPE letter of approval of Strategy dated 19/9/2014.</p> <p>Quarterly CLG meetings attended by ER..</p> <p>Signboards at entrances to Project worksites contain contact details for complaints and enquiries regarding the Project</p> <p>Web updates of activities are provided on WNSW Chaffey Dam Project website along with media releases concerning the Project.</p> <p>Community representatives attend CLG meetings.</p> <p>Email distribution list to neighbours sighted</p> <p>Direct liaison between JH and community members is one of the key communication mechanisms given the relatively remote rural location of the Project site and the small number of affected residents.</p> <p>WNSW are formally responsible for managing all communication issues and complaints.</p>	Compliant
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Chaffey Dam Upgrade (September 2015)



66	<p>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:</p> <ul style="list-style-type: none"> <li>f) a 24 hour telephone number(s) on which complaints and enquiries about the project may be registered;</li> <li>g) a postal address to which written complaints and enquires may be sent;</li> <li>h) an email address to which electronic complaints and enquiries may be transmitted; and</li> <li>i) a mediation system for complaints unable to be resolved.</li> <li>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.</li> </ul>	C8	<p>Contact details are included on website (<a href="http://www.statewater.com.au/Current+Projects/Dam+Safety+Upgrades/Chaffey+upgrade">http://www.statewater.com.au/Current+Projects/Dam+Safety+Upgrades/Chaffey+upgrade</a>) and on signboards located at entrances to Project worksites.</p> <p>Contact details were published in Tamworth Northern Daily Leader and Tamworth Times on 30 September 2014</p> <p>1300 number and email address are provided in the advertisement and on the website</p> <p>Mediation system relies on the Energy and Water Ombudsman (pg. 11 of Communications Strategy)</p>	Compliant
67	<p>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.</p> <p>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.</p>	C9	<p>Construction Complaints Management System is as per WNSW Complaints Handling Policy SW2006-P0104</p>	Compliant

## Appendix E. Audit Attendee List



**CHAFFEY DAM UPGRADE - ANNUAL INDEPENDENT ENVIRONMENTAL AUDIT**  
**CONDITION OF APPROVAL A6**  
**6 & 7 AUGUST 2015**

OPENING MEETING 6 AUGUST - ATTENDEES		
NAME	POSITION & COMPANY	SIGNATURE
Andrew Cuckshank	NSW RIBBLE WORKS - Environmental Representative	<i>[Signature]</i>
Olga Pavlovic	Water NSW	<i>[Signature]</i>
JUBRATIC KHAN	Water NSW	<i>[Signature]</i>
Tony O'Reilly	John Holland P/L Project Manager	T. O'Reilly
Peter Sheehan	John Holland P/L Q&E manager	<i>[Signature]</i>
GEOFF CHENHALL	Public Works - P&PD	<i>[Signature]</i>
CLOSING MEETING 7 AUGUST - ATTENDEES		
A. Cuckshank		<i>[Signature]</i>
G. Chenhall	} Audit venue moved offsite 7/8 but these attendees attended closing meeting of 6/8/15	
T. O'Reilly		
P. Sheehan		
Olga Pavlovic		<i>[Signature]</i>
JUBRATIC KHAN		<i>[Signature]</i>