Chaffey Dam Safety Upgrade and Augmentation

Construction Environment Management Plan

Document No. JH/C680/05

Rev	Date	Prepared by	Reviewed by	Approved	Remarks
A	27/06/2014	Krissy Vajda	Brandon Perrin	Tony O'Reilly	Draft for Principal Review
B	18/07/2014	Krissy Vajda	State Water		Draft addressing comments
C	04/08/2014	Krissy Vajda	ER		Draft addressing comments
D	15/08/2014	Krissy Vajda	Worley Parsons Agencies		Draft addressing comments
E	28/08/2014	Peter Sheehan	Public Works		For review by State Water Corporation
1	2/09/2014	Peter Sheehan			For Approval
2	24/09/2014	Peter Sheehan	Brandon Perrin	Tony O'Reilly	Response to Comments
2	9/10/2014	Peter Sheehan	Brandon Perrin	Tony O'Reilly	Response to Comments

Terms and Definitions

Term	Definition
Ancillary Facilities	Temporary facility for construction, including for example an office and amenities compound, construction compound, batch plant (concrete or bitumen), materials storage compound, maintenance workshop, testing laboratory or material stockpile area
AMS	Activity Method Statement
AS/NZS	Australian Standard/New Zealand Standard
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
DoE	Commonwealth Department of the Environment
DPE	NSW Department of Planning and Environment
DPI	Department of Primary Industries (a division within NSW Trade and Investment)
EIS	Environmental Impact Statement
EM	Environmental Manager (Project)
EMS	Environmental Management System
EPA	NSW Environment Protection Authority
EPA & Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EPBC Approval	Approval decision under sections 130(1) and 133 of the EPBC Act in relation to EPBC Approval 2012/6523
EPL	Environment Protection Licence
ER	Environmental Representative
ITP	Inspection and Test Plan
JH	John Holland
Minor Amendment	Subject to the discretion of the ER, but could include - ► Typographical or cross-referencing errors ► Updates to the Plan to reflect changes to the Environment Protection Licence (EPL) and/or

Term	Definition
	other approvals ▸ Updates to the Plan to reflect audit findings If the ER is unsure as to whether a proposed amendment can be categorised as minor, the ER shall seek advice from DPE prior to endorsing the subject amendments.
MNES	Matters of National Environmental Significance
NOW	NSW Office of Water(a division of the Department of Primary Industries)
NPW Act	National Parks and Wildlife Act 1974
NSW	New South Wales
OEH	NSW Office of Environment and Heritage
PM	Project Manager
POEO Act	Protection of the Environment Operations Act 1997
SEP	Site Environment Plan
SQE	Safety, Quality and Environment
SQERM	Safety Quality and Environment Risk Management
Project Infrastructure Approval	Infrastructure Approval SSI-5039 and accompanying Conditions of Approval (CoA), dated 27 February 2014
Project EIS	Environmental Impact Statement (EIS) for the Chaffey Dam Augmentation and Safety Upgrade prepared by WorleyParsons, dated 07 December 2012 and Preferred Infrastructure Report (PIR) for the Chaffey Dam Augmentation and Safety Upgrade prepared by WorleyParsons, dated 15 March 2013
SSI	The Chaffey Dam Safety Upgrade and Augmentation project
The Proponent	State Water Corporation
TMP	Traffic Management Plan
TRA	Task Risk Assessment
WRA	Workplace Risk Assessment

Table of Contents

List of Tables

List of Figures

1. Introduction

1.1 Purpose of the CEMP

This Construction Environmental Management Plan (CEMP) has been prepared to describe how John Holland (JH) will implement controls to manage environmental impacts of its activities. The CEMP has been prepared to meet the legislative and contractual obligations of JH and to provide a means of continually improving environmental performance for the Chaffey Dam Safety Upgrade and Augmentation Project (the SSI).

This CEMP provides a 'road map' for the implementation of environmental management for construction of the SSI, including plans, procedures and forms.

The CEMP has been developed in accordance with the framework of AS/NZS ISO 14001:2004 and the John Holland Environmental Management System, and the Guideline for the Preparation of Environmental Management Plans (Department of Planning, Infrastructure and Natural Resources 2004). In addition, this CEMP has incorporated various project specific requirements detailed in the following documents:

- Environmental Impact Statement (EIS) for the Chaffey Dam Augmentation and Safety Upgrade prepared by WorleyParsons, dated 07 December 2012
- Preferred Infrastructure Report, dated 15 March 2013
- Director-General's Environmental Assessment Report, dated February 2014
- Conditions of Approval (CoA), dated 27 February 2014
- EPBC 2012/6523 Notice of Decision, dated 3 April 2014
- NSW Government GC21 (Version 2) General Conditions of Contract, dated 30 May 2014

Upon receipt of the Environmental Protection Licence this CEMP will be revised to incorporate specific project conditions.

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. The CoA will prevail to the extent of any inconsistency. John Holland will refer any inconsistencies to State Water.

In addition to the CEMP and associated sub plans, the Infrastructure Conditions of Approval (SSI-5039) and EPBC Notice of Decision (2012/6523) require, prior to construction, approval of the Secretary (formerly Director-General) and Minister for the Environment the following stand-alone documentation relevant to each approval:

- Biodiversity Offset Package (SSI-5039 Conditions B6- B11 and EPBC 2012/6523 Notice of Decision Condition 3) comprised of:
  - North West Offset Site Management Plan
  - Booroolong Frog Offset Site Management Plan
- Heritage Conservation Strategy (SSI-5039 Condition B13)
- Details of the replacement recreational facilities at the Bowling Alley Point Recreational Area (SSI-5039 Condition B24)
- A Community Communication Strategy (SSI-5039 Condition C7)

If there is any inconsistency between the above-mentioned stand-alone documents and the management framework (including methodology and consultation) contained in the CEMP, then the stand-alone documents prevail to the extent of any such inconsistency.

1.2 Project Background

Chaffey Dam is located on the Peel River approximately 30 kilometres (km) south east of Tamworth in northern New South Wales (NSW). The dam and its catchment are wholly located within the Tamworth Regional Local Government Area (LGA). The town of Woolomin is located approximately 6 km north of the dam wall and downstream of the dam on the Peel River. The town of Nundle is located approximately 13 km south of the dam wall. The blue point marker in Figure 1 illustrates geographically the location of Chaffey Dam.

The project has been identified by the Minister for Planning and Infrastructure as a State Significant Infrastructure project. It is necessary to improve town water security for the city of Tamworth and surrounds and to improve the reliability of water supply for irrigation and agricultural purposes. The other key driver for the SSI is the need for Chaffey Dam to be upgraded to meet modern dam safety standards. The SSI has wide support from the community, irrigators and Tamworth Regional Council. Local, State and Commonwealth Governments have committed to fund the SSI.

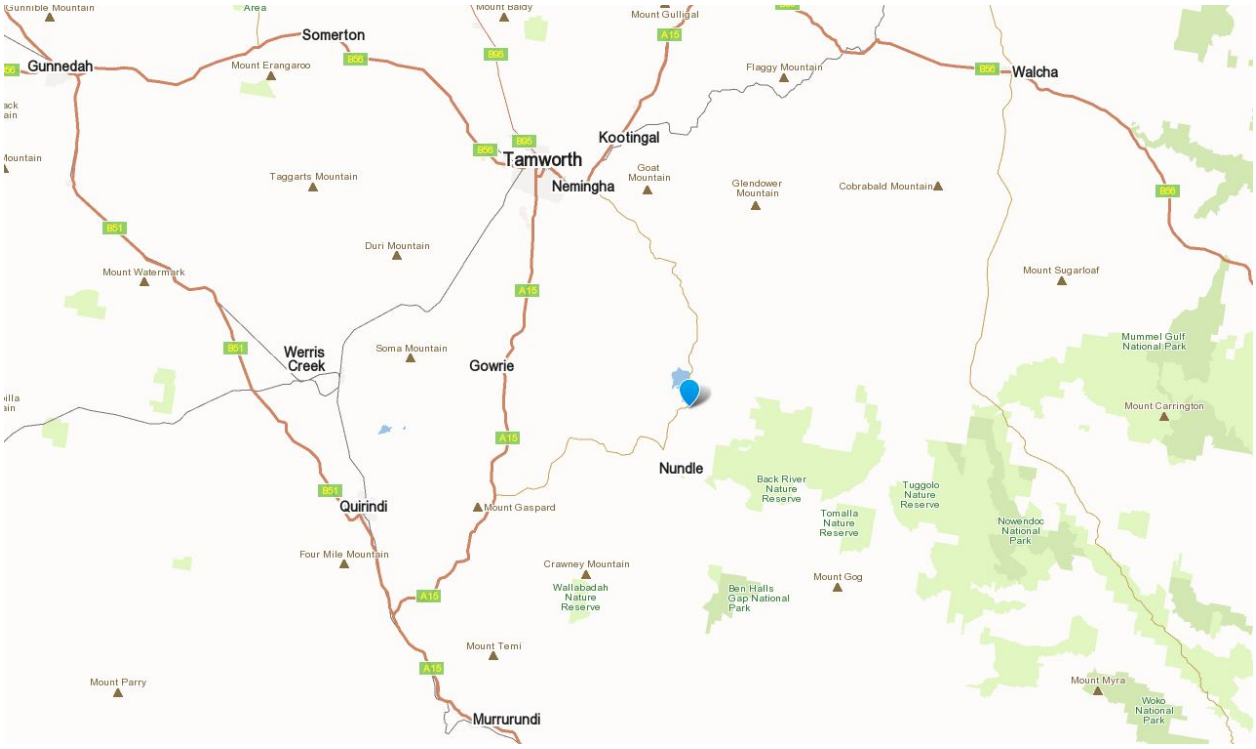


Figure 1 – Project Location

Chaffey Dam is currently rated as an “extreme” hazard dam, based on the population at risk and the severity of damage and loss that would result from dam failure, and is considered to be inadequate for the safe passage of a Probable Maximum Flood (Dams Safety Committee 2009). If Chaffey Dam were to fail due to an extreme flood event, it has been estimated that up to 150 lives would be lost and over $2.1 billion in damages to property and agriculture would accrue (GHD 2007a).

Chaffey Dam is also the primary water storage reservoir serving the town water supply for Tamworth. Tamworth Regional Council has a high security entitlement of 16,400 megalitres (ML) per year from Chaffey Dam.

The Environmental Impact Assessment (EIS) conducted by WorleyParsons dated 7 December 2012 concluded that augmentation of Chaffey Dam is required to meet the future needs of the region by securing the supply of water to Tamworth up to the existing entitlement (16,400 ML).

The SSI will not change the entitlement itself. Augmentation to 100 GL was shown to provide a sufficient increase in security of supply for high security and irrigation requirements, as well as a contingency for possible adverse events, including those resulting from climate change.

1.3 State Significant Infrastructure Scope

The SSI scope comprises of three (3) main components to successfully deliver the Chaffey Dam Augmentation and Safety Upgrade works.

The SSI scope includes the following components:

a. Augmentation of Chaffey Dam from its existing storage capacity of 62 GL at full supply level (FSL) to 100 GL at FSL, through raising of the vertical dam embankment by 6.2m

b. Associated works to raise the Morning Glory Spillway by 6.5m.

c. Realignment of roads, associated with Tamworth-Nundle Road and Rivers Road, and a new Bowling Alley Point Bridge.

Access to the Chaffey Dam wall works will be via Nundle Road at two locations and access to the road works will be via three locations along the alignment. Heavy vehicles will utilise the nominated site access points and under traffic control management, if required. Site offices and ablution facilitates will be located within the approved EPL project boundary, along with equipment laydown and stockpile areas.

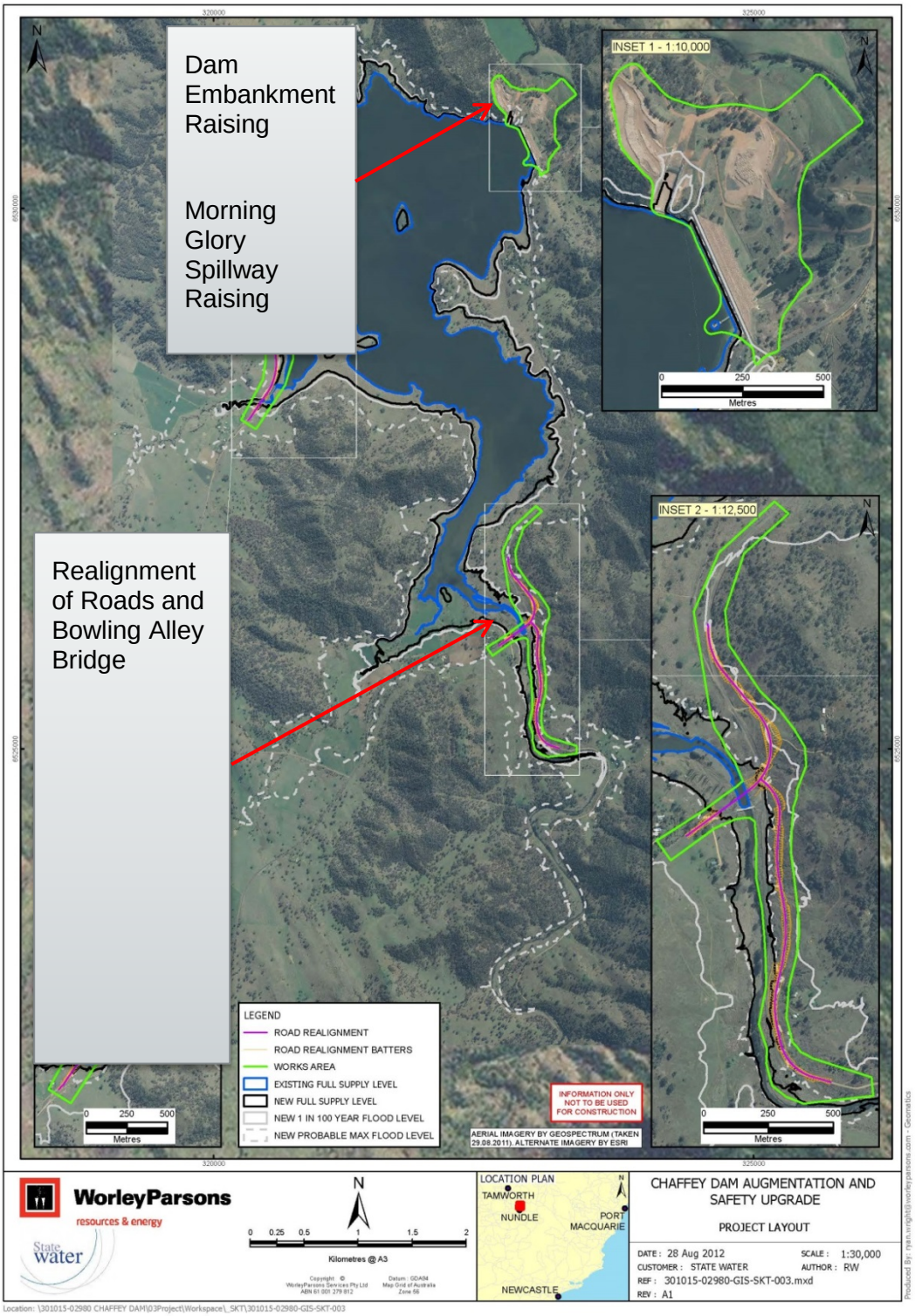


Figure 2 – Project Layout and Work Areas

1.4 Staging of Construction Activities

The staging and timing of the activities below have been planned to manage the level of risk in the event of a major rainfall event. To ensure compliance with dam safety standards the raising of the Morning Glory Spillway will not commence until the level of the dam embankment has been raised to 535.3m.

All documents required by the CoA and relevant to each stage will be issued to State Water for submission to the Director-General no later than one month prior to the commencement of the relevant stage.

Should any changes be proposed to the staging of the construction activities outlined below, an updated CEMP that reflect changes to the proposed construction staging will be issued to State Water for submission to the Director-General (or advice that no changes are proposed) one month prior to the start of each stage of works.

In addition, State Water will be formally advised about any construction schedule updates via monthly progress reports as specified in the Contract.

Table 1 - Key construction activities and program

Construction Activities	Proposed Timing	Approval Requirements Prior to Work Activity Commencing	Responsibility
NSW Department of Planning and Environment Infrastructure Approval	27 February 2014	All Work Activities	JH / SWC
Obtain Environment Protection Licence	August 2014	All Work Activities	JH
Site Establishment			
- Install erosion and sediment controls - Mobilisation of equipment - Site shed/office establishment	August/ September 2014	Environmental Representative to assess site compounds to ensure they are established in accordance with the CEMP and relevant sub plans	JH / SWC
Peel Creek Crossing			
- Install waterway crossing	September 2014	Water Crossing Design – DPI	JH

Construction Activities	Proposed Timing	Approval Requirements Prior to Work Activity Commencing	Responsibility
Embankment Raising			
- Install erosion / sediment controls (floating boom) - Access tracks/haul roads - Excavate embankment to foundation level - Clearing and grubbing activities - Remove existing precast parapet walls - Excavate filter foundation profile, place fine and coarse filter and rock fill - Install precast parapet wall - Road at raised embankment crest	September 2014 – February 2016	EPL and CEMP	JH/SWC
Morning Glory Spillway Raising			
- Access road to morning glory spillway - Clean and preparation work to Morning Glory Spillway	November 2014 – June 2015	EPL and CEMP	JH/SWC
- Form Reo Pour Morning Glory extension - Cure and strip formwork - Installing stiffeners and drilling	June 2015- Jan 2016	Drawdown – Vary Water Supply Approval 90WA819132 (Only required if water level is above 516.6m or long term weather show a risk of water levels rising)	SWC
		Booroolong Frog Offset Habitat Approval	SWC

Construction Activities	Proposed Timing	Approval Requirements Prior to Work Activity Commencing	Responsibility
Construction Bowling Alley Point Bridge			
- Piling works - Form Reo Pour abutment walls - Form Reo Pour pier columns - Form Reo Pour bridging deck - Form Reo Pour approach slabs - Form Reo Pour concrete barriers - Pavement and finishing works	September 2014 – May 2015	Biodiversity Management Plan – DPE and DoE	JH / SWC
		Biodiversity Offset Approval	SWC
		Water Crossing Design- DPI	JH
		Heritage Conservation Strategy - DPE	SWC
Tamworth - Nundle Road (Stage 1 and 2) and River Road (Stage 1 and 2)			
- Preparation works - clearing and grubbing, removal and stockpiling topsoil, Traffic diversions / temporary roads - Earthworks and road formation - Pavement - Road furniture, pavement and finishing works (topsoil, hydro mulching,)	September 2014 – July 2015	Biodiversity Management Plan – DPE and DoE	JH / SWC
		Biodiversity Offset Approval	SWC
		Water Crossing Design- DPI	JH
		Heritage Conservation Strategy - DPE	SWC
Demolition of existing Bowling Alley Point Bridge structure	July 2015 – August 2015	As above (Construction Bowling Alley Point Bridge)	As above
Site demobilisation	February 2016	NA	JH

1.5 Environmental Policy

Construction of the SSI by John Holland and its nominated contractors will be undertaken to be in accordance with the John Holland Environmental Policy as shown in Appendix 1.

1.6 Environmental Objectives

The environmental objective of this plan is to set in place a project EMS which will address all relevant environmental and planning requirements. Key environmental objectives include -

- Compliance with the Conditions of Approval (CoA)
- Compliance with conditions set in the Environmental Protection Licence

Meeting these objectives will allow for the demonstration of environmental protection, prevention of pollution, minimisation of waste and resource use, and continual improvement.

1.7 Key Performance Indicators

John Holland Group has committed to the following Performance Targets:

- No Class 1 or 2 incidents (Incident classifications are set out in Part 6 of this Plan)
- Environmental Incident Frequency Rate (EIFR) = 0.30

Incident classifications are set out in Part 6 of this Plan.

1.8 Environmental Management Overview

This CEMP has been developed within the framework of JH's third party certified EMS, as described in the John Holland Environmental Management Manual, JH-MAN-ENV-001. The system provides for ongoing continual improvement through a cycle of planning, monitoring, and reviewing as described below.

Six monthly management system reviews with the JH Project Manager, Senior Project Engineer, SQE Managers will be carried out. This review is normally conducted as an integral part of the overall review of the project system. Records of these reviews are documented as minutes and retained by the Project Manager.

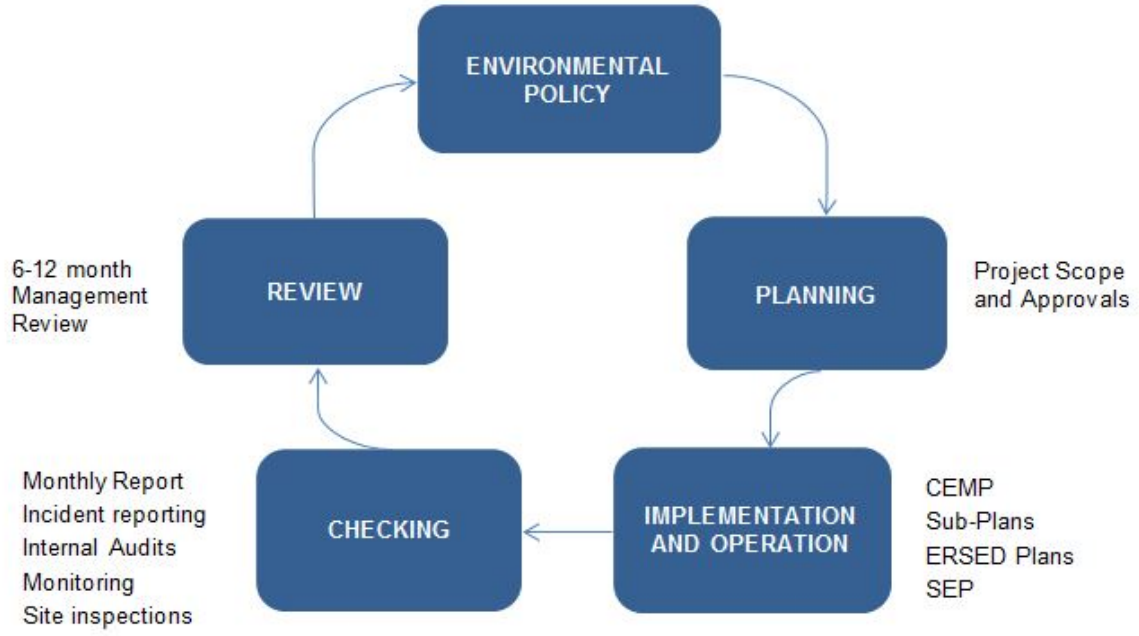


Figure 3 - Review and Continual Improvement Cycle

1.1.1 Environmental Management Document Structure

Detailed below is the environmental management document structure. The JH EMS is part of a broader project management structure, linking to the Project Delivery Cycle and Integrated Management System (IMS). The Integrated Management System Matrix located in Appendix 5 provides further details of this linked approach, and how this addresses the requirements of ISO 14001 specifically.

External References

The external references represent the applicable requirements such as Conditions of Approval, the Environmental Assessment and Contract requirements, these documents set out the specific environmental management framework for the Project.

Note – The Vegetation Offset and Booroolong Frog Offset Plans will be developed by State Water and approval gained prior to certain areas of work commencing as detailed in Section 1.4.

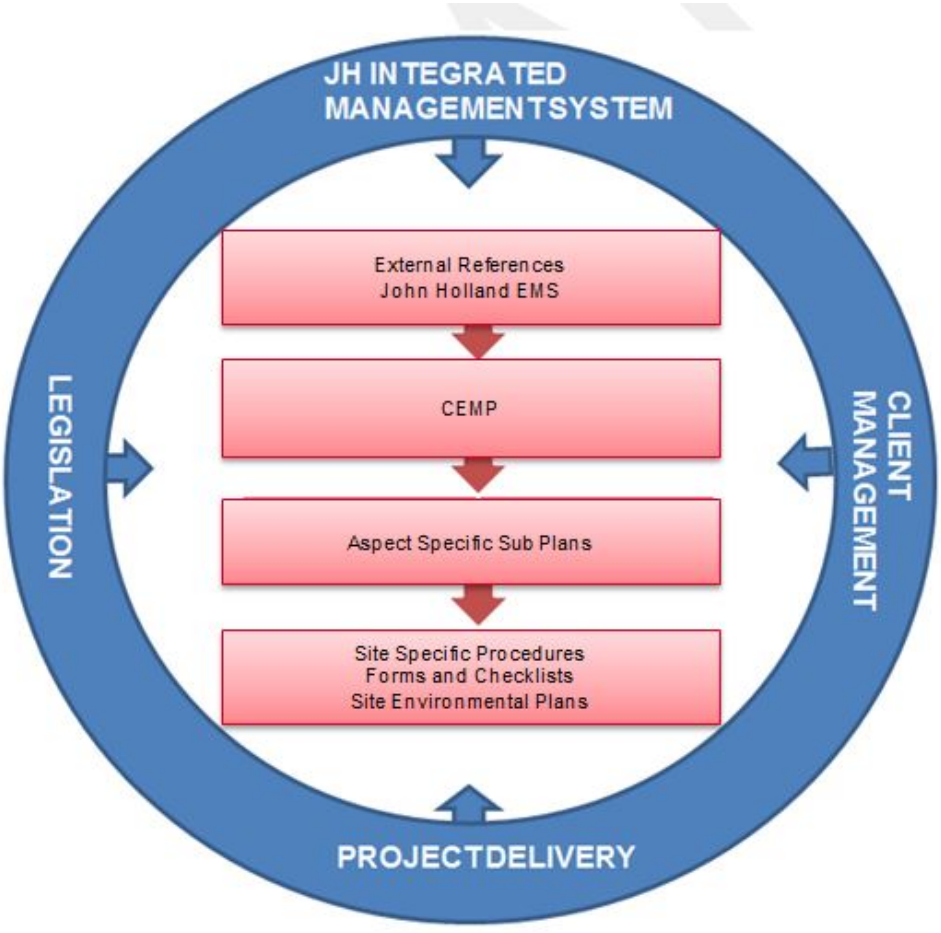


Figure 4 – Environmental Management Document Structure

Construction Environment Management Plan (CEMP)

This CEMP provides a 'roadmap' that links the relevant Federal, State, Local and Client requirements to the Project's EMS and describes the document structure that is used to manage and address the environmental requirements of the Project. The CEMP includes the registers, matrices, schedules and programs for the project detailed in the Appendices of this Plan.

Aspect Specific Sub Plans

In support of the CEMP the following aspect specific Sub Plans have been developed which detail specific environmental aspects and the required management controls for the Chaffey Dam Safety Upgrade and Augmentation -

- Biodiversity Management Plan (JH/C680/06)
- Soil and Water Management (JH/C680/08)
- Air Quality Management (JH/C680/09)
- Construction Noise and Vibration Management (JH/C680/10)
- Site Access and Traffic Management Plan (JH/C680/07)
- Heritage Management Plan (JH/C680/11)
- Waste Management (JH/C680/13)
- Dewatering and Flood Mitigation Plan (JH/C680/19)
- Recreational Use Management Plan - State Water is responsible for the development of the Recreational Use Management Plan. Recreational facility relocation works will not be completed by John Holland but will be in accordance with this CEMP.
- Community Communication Strategy - State Water Responsibility

Environmental Procedures, Checklists and Forms

Included in the aspect Specific Sub Plans are Environment Procedures, Checklists and forms that have been developed to assist in implementation. Checklists are specifically designed to the requirements of each aspect and amended as necessary. This ensures ongoing compliance with the Project's environmental obligations and commitments.

The procedures developed are for use on-site by the construction workforce and provide a step by step process for the management and mitigation for potential environmental impacts. Each specific aspect specific sub plan details the procedures, checklist and forms to be used.

1.9 Review and Ongoing Development

Ongoing development, amendment and updating of the CEMP will be undertaken to ensure it remains consistent with project priorities, risk management, client requirements and project objectives, taking into account -

- The status and progress of John Holland's activities
- Changes in the design, delivery and operations processes
- Lessons learnt during delivery and operations
- Changes in other Project Plans

In accordance with CoA C3, John Holland will review, and if necessary revise, the strategies, plans and programs required under the condition to the satisfaction of the Director-General within 3 months of the submission of

- An incident report detailing an event that has caused, or threatens to cause, material harm to the environment
- Any modification to the CoA

A detailed auditing regime is included in Section 5.3 of this plan.

2. Environmental Approvals and Planning

2.1 Environmental Planning Legislation and Project Approval

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) are the primary pieces of planning legislation relevant to the Project.

The SSI will be carried out by State Water, a public authority, on land zoned 'RU1 Primary Production' under the *Tamworth Regional Local Environmental Plan 2010*. As such, the SSI falls within the definition of 'development for the purpose of water storage facilities' in the Infrastructure SEPP and is permissible without consent under the provisions of Clause 125.

The SSI has been declared by the NSW Minister for Planning and Infrastructure as State Significant Infrastructure and is subject to the provisions of Part 5.1 of the EP&A Act. In accordance with Section 115(w) of the EP&A Act, the Minister for Planning and Infrastructure is the Determining Authority for the EIS.

The Minister for Planning and Infrastructure granted approval of the SSI under Section 115ZB of the EP&A Act on 27 February 2014. A set of conditions was provided outlining the conditions to prevent, minimise, and/or offset adverse environmental impacts including economic and social impacts, set standards and performance measures for acceptable environmental performance, require regular monitoring and reporting, and provide for the ongoing environmental management of the development.

On 3 April 2014, the Minister for the Environment granted approval for the controlled action project under sections 130(1) and 133 of the EPBC Act.

Given that the SSI will be carried out by State Water, a public authority, the consent of the owner of land on which the SSI is to be carried out is not required.

2.2 Approval and Licensing Requirements

A summary of the approvals required for the SSI is provided in Table 2 below.

Table 2 - Approval and Licensing

Regulatory Authority	Approval / Licence Requirement	Responsibility
Environment Protection and Biodiversity Conservation Act 1999	Controlled Action Approval (already obtained)	SWC
Environmental Planning and Assessment Act 1979	State Significant Infrastructure Approval (already obtained)	SWC
Protection of the Environment Operations Act 1997	Environment Protection Licence	JH
Roads Act 1993	Section 138 Consent	SWC

In addition, State Water will seek approval under the *Water Management Act 2000* to vary an existing Water Supply Work Approval 90WA819132 to operate the dam 2m below FSL. This will be in accordance with the Drawdown Management Strategy approved by the NSW Office of Water and include

- Description of the necessity of, and any alternatives considered to drawing down the water levels,
- An analysis of the possible reduction of water held in storage under various climatic scenarios and different construction schedules,

- Description of measures considered and proposed to lessen the reduction in, or impact from, reduced allocations,
- 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,
- Evidence of consultation with affected water users and the outcomes of that consultation
- A communications strategy to inform water users about the expected impacts, including providing updates as the project progresses, and
- Protocols for releasing water during the drawdown (such as timing and rates of water release) to enable released water to be used by general security licence holders.

A summary of the approvals that have been considered but are not required for implementation of the SSI are provided in Table 3. Section 115ZG of the EP&A Act provides that a number of additional approvals, permits and licences that would otherwise be triggered for development under NSW legislation are either not required for SSI projects, or cannot be refused and must be substantially consistent with the Part 5.1 approval.

Table 3 - Summary of Project Approvals Not Required

Legislation	Approval	Justification
Threatened Species Conservation Act 1995	Section 91 Licence	Not required for the carrying out of an activity by or in accordance with an approval under the EP&A Act.
Fisheries Management Act 1994	Permit under section 201, 205 or 219	Section 115ZG(1)(b) of the EP&A Act provides that such authorisations are not required for approved State Significant Infrastructure.
Fisheries Management Act 1994	Section 218 consultation with DPI Fisheries where a public authority alters or modifies a dam, in regard to the passage of fish through or over the dam	In letter to State Water dated 29 January 2007 DPI advised: 'NSW DPI does not recommend the capacity for a fish way be investigated and incorporated into the Chaffey Dam Safety Upgrade Project'. In letter to the Department of Planning and Infrastructure dated 22 December 2011 DPI Fisheries confirmed their previous correspondence with State Water that a high-level fish way will not be pursued at Chaffey Dam.
Heritage Act 1977	Approval under Part 4, or an excavation permit under section 139	Section 115ZG(1)(c) of the EP&A Act provides that such authorisations are not required for approved State Significant Infrastructure.
Native Vegetation Act 2003	Section 12 authorisation to clear native vegetation	Section 115ZG(1)(e) of the EP&A Act provides that such authorisations are not required for approved State Significant Infrastructure.
National Parks and Wildlife Act 1974	Aboriginal heritage impact permit under section 90	Section 115ZG(1)(e) of the EP&A Act provides that such authorisations are not required for approved State Significant Infrastructure.

3. Environmental Aspects, Impacts and Risks

John Holland's risk management approach comprises a comprehensive Safety, Quality and Environment (SQE) risk management planning process and includes strategic, operational, team and individual processes.

John Holland is committed to effective risk management beginning before commencement of works to confirm that the works are designed and constructed within acceptable levels to personnel and the environment.

With respect to project delivery, the following diagram provides a simplified representation of the three levels of project environmental management documentation that are prepared:

(i) Workplace Risk Assessment and CEMP;

(ii) Activity Method Statement (AMS); and

(iii) Site Environmental Plan (SEP)

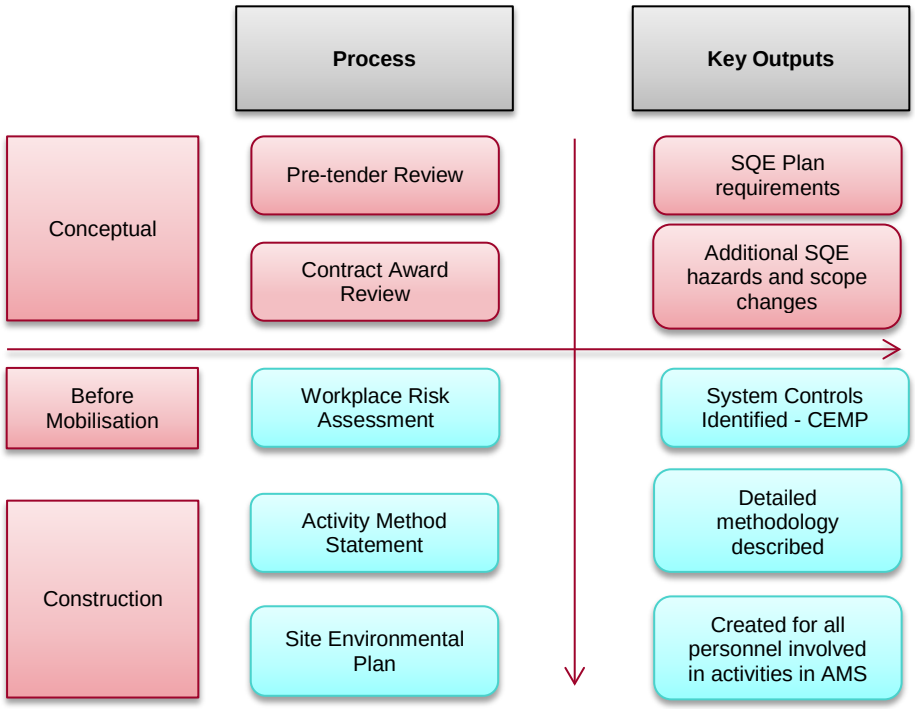


Figure 5- SQE Documentation Process

Workplace Risk Assessment (WRA)

Workplace Risk Assessments are high level risk assessments that are intended to capture:

- System, procedural and contractual requirements based on legislative and best practice requirements;
- The requirement for more detailed planning activities (i.e. Activity Method Statement) and
- The training that will be necessary to ensure works are undertaken competently.

The WRA must be initiated during prior to mobilisation. WRA reviews will take place regularly as works alter and not less than every six months. The SSI Manager is required to sign off on the WRA before implementation.

The WRA must be documented using Form JH-FRM-SQE-006-02 Workplace Risk Assessment and will be structured such that it incorporates components of work elements throughout the life cycle of the works. All WRA activities that have an overall inherent (before) risk ranking of Medium or Higher will require the development of a formal AMS.

Activity Method Statement

The AMS is intended to be a planning process that provides;

- A detailed description and scope of each activity;
- A methodology and sequence of works required to undertake the activity;
- Plant and equipment requirements;
- Permits and approvals;
- Specific guidance/procedural documentation;
- Other specific risk assessments (e.g. flora and fauna issues, noise, dust controls);
- Specific physical control actions; and
- Specific training, competencies or qualifications.

AMS are required as directed by the WRA and must cover all operational aspects of the scope of works and be fully integrated within the construction methodology.

AMS documents will be prepared in the format of form JH-FRM-SQE-006-04 worksheet, and will:

- Identify the need for a Site Environmental Plan (SEP);
- Include sign off by the Project Manager
- Provide for change management review process if processes/conditions change

3.1.1 Site Environmental Plans

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. SEPs include the following elements:

- Cultural heritage sites and areas of archaeological potential
- Habitat areas of importance
- Nearby residential, commercial and tourist sensitive receivers
- Vegetation clearing limits
- Location of approved storage locations
- Site boundary and access / egress points to site
- Monitoring locations e.g. water, noise, vibration etc.

4. Roles and Responsibilities

4.1 Reporting and Contractual Relationships

Figure 6 shows the relationship between John Holland, key regulator stakeholders, the ER and State Water -

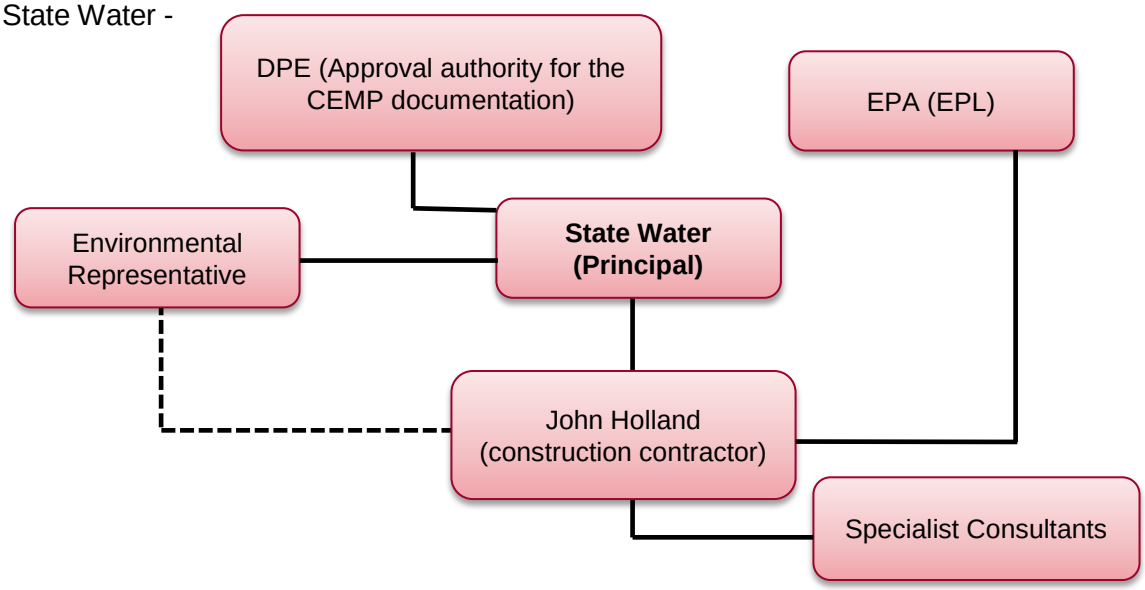


Figure 6 – Reporting Relationships

4.2 Roles, Responsibilities and Authorities

4.2.1 Regulatory and Planning Authorities

NSW Department Planning and Environment (DPE) is responsible for -

- Assessing compliance with the SSI Approval
- Assessing and approving plans and documentation required under the SSI Approval that are to developed for the construction phase which require specific approval of the Director General

The Environment Protection Authority (EPA) is responsible for -

- Assessing John Holland's application for an EPL
- Monitoring compliance with the EPL

4.2.2 State Water

State Water is the Principal with final responsibility to DPE for compliance with the SSI Approval. Personnel from State Water Environment team will -

- Ensure compliance with Project Approval
- Engage and seek approval for the Environmental Representative
- Advise John Holland of any requirements of the Director-General arising from DPE assessment of reports, plans or correspondence submitted in accordance with the SSI approval; and implementation of any actions or measures contained within those documents

- Review this plan and associated Aspect Specific Sub Plans
- Attend site inspections as required and collaborative (John Holland/State Water) audits

4.2.3 Environmental Representative

An Environmental Representative (ER) has been nominated by State Water for the approval of the Director-General to independently oversee compliance with the SSI Approval and

- Be the principal point of advice in relation to the environmental performance of the SSI
- Monitor the implementation of environmental management plans and monitoring programs required under this approval and advise State Water upon the achievement of these plans/ programs
- Have responsibility for considering and advising State Water on matters specified in the conditions of this approval
- Ensure that environmental auditing is undertaken in accordance with the State Waters Environmental Management System(s)
- Be given the authority to approve/ reject minor amendments to the CEMP
- 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 occur or be likely to occur; and
- Be consulted in responding to the community concerning the environmental performance of the SSI where the resolution of points of conflict between John Holland or its subcontractors and the community is required.

With respect to the authority to approve/reject minor amendments to the CEMP, a “minor” amendment is subject to the discretion of the ER, but could include -

- Typographical or cross-referencing errors
- Updates to the CEMP to reflect changes to the Environment Protection Licence (EPL) and/or other approvals
- Updates to the CEMP to reflect audit findings

If the ER is unsure as to whether a proposed amendment can be categorised as minor, the ER will seek advice from DPE prior to endorsing the subject amendments.

4.2.4 Specialist Consultants

Specialist consultants will be engaged to manage aspects identified in the CEMP and sub-plans and may include;

- Ecologists
- Archaeologists
- Soil and Water

4.2.5 John Holland Project Environment Manager

Accountable for approvals and environmental and sustainability performance for all John Holland Works –

- Ensuring the project team is considering environment requirements throughout project planning and delivery and implementing appropriate environment controls

- Influence a positive environmental culture across the project and promote and support environmental performance expectations, metrics and standards
- Tracking compliance of the Project's approvals, licences and permits
- Support project induction and environmental management/tools training
- Data capture, reporting, response and notifications to client, contractual and ER
- Initial completion, signoff, ongoing responsibility and review of WRA, AMS, SEP and close out and maintain evidence of environmental actions
- Develop, implement and review emergency response planning and response procedures, test and control mechanisms and maintain documentation.
- Ensure incident management response and communication protocols are adhered to.

4.2.6 John Holland Other Key Personnel

Project Manager

- Complying with the Project's approvals, licences and permits
- Authority to direct personnel to carry out actions to avoid or minimise unintended environmental impacts
- Providing sufficient resources to ensure the CEMP practices are implemented

Senior Project Engineer

- Manage construction in relation to environmental management in conjunction with the Environmental Manager.
- Ensure relevant environmental and planning requirements are addressed in design development

Project Administrator

- Ensure that relevant sustainability requirements are considered in procuring materials and services

Superintendent and Supervisors

- Ensure that CEMP requirements are communicated to all personnel under his/her control
- Be aware of all approval/contractual conditions relating to his/her area of work
- Perform surveillance and monitoring of environmental controls to ensure that they are established and maintained
- Ensure rectifications of environmental controls are carried out as required

Project and Site Engineers

- Implement and monitor on site environmental management and compliance measures across all sites in conjunction with the Environmental Manager
- Ensure environmental controls are established prior to commencement of construction activities
- Ensure participation in the preparation of SQE Risk Management documentation
- Identify and report environmental non-conformance

- Ensure and verify that corrective action is taken when required for non-conforming work

5. Implementation and Delivery

5.1 Community Information, Consultation and Involvement

John Holland acknowledges that one of the most important aspects of the delivery of the SSI will be the ongoing efficient management of all interactions with the community and stakeholders. The responsibility for development and maintenance of the Community Communication Strategy Plan lies with State Water which will be consistent with AS4269: Complaints Handling and include -

- identification of stakeholders to be consulted as part of the Strategy, including affected and adjoining landowners;
- 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;
- 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;
- 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
- procedures and mechanisms that would be implemented to resolve issues/ disputes that may arise between parties on the matters relating to environmental management and the delivery of the project. This may include the use of an appropriately qualified and experienced independent mediator.

A complaints register will be maintained and made available to the Director-General on request.

It is the responsibility of all Project personnel to fulfil their individual duties with relation to community contacts, complaints and provision of information regarding the SSI. John Holland will provide a representative to attend community liaison meetings as required.

5.1.1 Recreation Use Management Plan

State Water has undertaken an assessment of the proposed works, and recreational users will not be impacted upon by construction works. Access to recreational facilities including camping, day trips and boating will remain unchanged. The current restrictions to boating and public access will be maintained and is adequate during construction of the Dam wall and Morning Glory spillway. The Recreation Management Plan JH-C680-012 provides greater detail in regards to recreation users of Chaffey Dam.

Current recreation safety measures are considered adequate. The impact on recreational facilities will result from the increase in F.S.L post construction. Communication will be in accordance with State Water's Communication Strategy as approved by DPE.

State Water has prepared a Bowling Alley Point Recreation Impact Assessment in consultation with NSW Fisheries and the Bowling Alley Point Recreation Reserve Trust. This plan contains mitigation measures for recreational facilities, and has been submitted to DPE for approval by State Water. Appendix 9 shows an image that details the recreation management zone, new

high water level and construction area. It demonstrates that the construction area and recreation zone do not overlap.

State Water will provide feedback and address concerns through its Stakeholder Community Consultation Liaison Groups and the general public will be kept up to date with construction progress through the local media.

5.2 Compliance Monitoring and Inspections

Monitoring the implementation of environmental mitigation measures is vital to ensure that these measures are effective, and to examine methods that may be employed to further improve the performance of the control measures.

Environmental monitoring will be undertaken for the duration of the project. Records of monitoring and inspections will be documented and will be used to -

- Evaluate performance against regulatory, contract, permit and licence commitments
- Identify non-conformances and corrective actions
- Track and trend progress against objectives and targets

The following inspections will be undertaken throughout the works

- 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
- Environmental team personnel will undertake weekly environmental inspections with a standard monitoring form to ensure all aspects are being monitored and reviewed
- Specified inspections with the ER will be conducted to review environmental aspects. The Environment Manager or delegate will attend all ER inspections.
- Inspections may be conducted by external organisations such as EPA to assess specific sites or work activities e.g. working over water, and erosion and sediment controls.

AMSs, SEPs, Inspection Test Plans and procedures will identify any ‘Hold Points’ established to ensure all required approvals and management and mitigation measures are in place and where relevant sign-off is required prior to works commencing and/or recommencing.

5.3 Environmental Auditing

Auditing will be undertaken to measure environmental performance and review operating effectiveness of environmental protection measures to strive for continual improvement. Planned and documented audits aimed at evaluating the conformance and implementation of the CEMP will be carried out by internal and/or external auditors.

The audits will be conducted at regular intervals. An audit schedule will be established for the project as outlined in Appendix 3, areas that will be audited include:

- Compliance with the Conditions of Approval
- Compliance with the CEMP
- Compliance with approval, permit and licence obligations
- Complaint response
- Incidents and Non-conformances

A program of independent environmental auditing in accordance with AS/NZ ISO 19011:2003 – *Guidelines for Quality and/or Environmental Management Systems* Auditing will also be carried out by State Water.

Results of audits will be documented and brought to the attention of the personnel having responsibility for the area audited and reported to the relevant manager. For any deficiencies or non-compliances found, corrective actions will be initiated or detailed as 'Observations' in the audit report. Results of audits will also be discussed at management reviews.

5.4 Environmental Reporting

Performance reporting will be conducted monthly to State Water. The report will include -

- Status of environmental issues i.e. risks and opportunities
- Summary of performance
- Number and type of environmental inspections
- Environmental training sessions conducted
- Environmental incidents and corrective actions
- Non-Conformances against Project Approvals
- Environmental monitoring results i.e. water, noise
- Details of reviews – audits/inspections
- ER weekly reports

5.4.1 Compliance Tracking

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. A monthly compliance tracking report will be provided to State Water to demonstrate compliance with the CoA where John Holland is nominated as the responsible party.

State Water will develop and implement a Compliance Tracking program which includes -

- 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.
- a program for independent environmental auditing in accordance with AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing;
- procedures for rectifying any non-compliance with the approval identified during environmental auditing or review of compliance;
- mechanisms for recording environmental incidents and actions taken in response to those incidents;
- provisions for reporting environmental incidents to the Director-General during construction and operation; and
- 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.

5.4.2 EPL Monitoring Data

Pollution monitoring data will be recorded on the John Holland website and published in accordance with the EPL conditions. John Holland is also responsible for submitting the Annual Return for the EPL.

5.4.3 Sustainability and Energy Reporting

It is a requirement of the National Greenhouse and Energy Reporting Act 2007 (NGER Act) that John Holland report energy usage, energy production and direct Greenhouse gas emissions. The procedure outlined in Appendix 4 defines the minimum requirements for John Holland to meet the intent of the NGER Act and will be implemented throughout construction of the SSI.

5.5 Non-Conformances, Environmental Issues and Corrective Action

John Holland will identify environmental non-conformances and environmental issues during construction and will undertake the required corrective actions to address the non-conformance and implement preventative actions where required.

An *environmental non-conformance* is a non-conformance with any condition of approval, licence condition or any other statutory approval relevant to the activity and/or area where the activity occurs.

An *environmental issue* is any occurrence or set of circumstances that has the potential to cause or lead to an environmental incident or non-conformance if not rectified.

Non-conformances or environmental issues may arise as a result of the following:

- Site Inspections
- Incidents
- Audits
- Meetings and Toolbox Talks
- Complaints
- Reviews

Where a non-conformance is identified, which is not classified as an environmental incident (refer to Section 6 for Environment Incident classification) it will be recorded and addressed by the JH Environment Manager, where a non-conformance is identified and raised, the Environment Manager or delegate will liaise with the appropriate project personnel or qualified person(s) to determine the most appropriate preventative action to implement.

Where assessed by the Environment Manager to be appropriate, the preventative action will be actioned through the Non-Compliance Report (NCR) in the John Holland Event Tracking System.

All environmental non-conformances will be reported to State Water and the ER. A verbal notification will be provided to State Water and the ER as soon as possible and an initial report provided within 24 hours.

5.6 Complaints and Enquiries

State Water will provide Project contact details on their website including a 24hr information line, and postal and email addresses to enable community enquiries and complaints to be made during the construction phase. The telephone number, postal address and email address will be

published in newspaper(s) circulating in the local area prior to the commencement of construction.

Complaints may be received from various sources within the community or from other stakeholders. These include community groups, clients, interested parties, and sensitive receivers. A verified complaint may advise of practices, activities or processes which do not conform to environmental management requirements.

It is anticipated any complaint received via the information line will be communicated to John Holland effectively for investigation and action. If a complaint is received directly, John Holland will promptly notify the State Water Community Liaison Office or delegate.

On receipt of a complaint, the Environment Manager will record the necessary details on the 'Complaint Form' (JH-FRM-HRT-024-01), record it in the Complaints Register and investigate the details of the complaint.

The record of each complaint will include;

a) date and time of complaint
b) the method by which the complaint was made (telephone, letter, meeting, etc.)
c) name, address, contact telephone number of complainant (if no such details were provided, a note to that effect)
d) nature of complaint
e) action taken in response including follow up contact with the complainant
f) any monitoring to confirm that the complaint has been satisfactorily resolved
g) if no action was taken, the reasons why no action was taken.

The Environment Manager shall verify that the corrective action taken is suitable and effective. Upon satisfactory verification, the Environment Manager shall ensure that an appropriate response is provided to the originator of the complaint.

If the complaint is not confirmed, the Environment Manager shall contact the originator of the complaint to determine the course of action to resolve the issue.

5.7 Environmental Training and Awareness

5.7.1 Site Induction

Prior to working on site, all personnel and subcontractors will undertake an environmental site induction. The induction addresses a range of issues including, but not limited to:

- The CEMP (purpose, objectives and key environmental issues)
- Legal requirements including due diligence and duty of care
- Environmental responsibilities
- Conditions of any licences, permits and approvals
- John Holland Environment and Sustainability Policy
- Significant environmental issues and sensitive environmental areas of the site
- Environmental Incident management and reporting process
- Emergency Response Plans
- Environmental aspects and mitigation measures to be implemented and maintained

5.7.2 Competency Training

All personnel, subcontractors and visitors will be trained appropriately to manage environmental aspects and potential impacts associated with their works. Training will be reviewed with any review of the CEMP to ensure that appropriate environmental training is continually provided.

5.7.3 Prestart and Toolbox Talks

Daily pre-start meetings will ensure that all workers are kept informed about hazards in their work area prior to commencing for the day. The meetings are mandatory and provide an opportunity for workers to raise any concerns and for information regarding safety, quality and environmental risks to be communicated effectively to the workforce.

5.7.4 Specialist Training

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)
- Spill Response Training
- Fauna Handling Training
- Pollution Incident Response Training (PIRMP)

5.8 Environment in Procurement

The Environmental Manager will liaise with procurement personnel to ensure that purchasing documents such as tenders and subcontracts contain relevant environmental requirements i.e. copies of relevant approvals, licences and sustainability requirements.

5.8.1 Materials Control and Storage

Incoming materials or items will be handled and stored in designated storage facilities or lay down areas following receipt and inspection. Designated storage and holding areas will be provided to prevent loss of material or damage to the environment. The method of storage and handling is dependent on the types of materials and the protection required.

5.9 Subcontractor Management

All Subcontractors on site will work under this CEMP and environmental requirements included within the subcontract agreement.

Environmental responsibilities will form part of the site induction for everyone working on-site including subcontractors. Detailed task specific responsibilities will be communicated to the workforce, via pre-start meeting and toolbox talks.

The performance of subcontractors in relation to their contractual and environmental requirements will be monitored to ensure effective implementation and compliance of all requirements.

5.10 Ancillary Facilities

The location of ancillary facilities shall–

- be located more than 40 metres from a waterway;
- be located within or adjacent to land where the SSI is being carried out;
- have ready access to the road network;
- be located to minimise the need for heavy vehicles to travel through residential areas;
- be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);
- be sited on relatively level land;
- not require vegetation or threatened species habitat clearing beyond that already required by the SSI;
- not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the SSI;
- not unreasonably affect the land use of adjacent properties;
- be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and
- provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.

The location of the ancillary facilities below. In the event that changes are required to the ancillary facility and where any of the above criteria cannot be met, John Holland will demonstrate to the satisfaction of the Director-General that there will be no significant adverse impact from the facilities' construction or operation.

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) and which -

- Are located within an active construction zone within the approved project footprint
- Have been assessed by the Environmental Representative to have

  - minimal amenity impacts to surrounding residences, with consideration to matters such as noise, vibration impacts, traffic and access, dust and odour impacts, and visual (including light spill) impacts, and

  - minimal environmental impact in respect of waste management, and no impact to flora and fauna, soil and water, and heritage beyond those approved for the project; and heritage beyond those approved for the project; and

- Have environmental and amenity impacts that can be managed through the implementation of environmental measures detailed in a CEMP for the project.

All ancillary facilities will be rehabilitated to at least their pre-construction condition, unless otherwise agreed by the landowner where relevant.

5.11 Utilities, Services and Other Infrastructure

Utilities, services and other infrastructure potentially affected by construction and operation (including inundation) will be identified prior to construction via the Risk Identification and

Management process outlined in Section 3.1 of this CEMP to determine requirements for access to, diversion, protection, and/or support.

This process will involve

- Reviewing State Water utility drawings
- Contacting Dial Before You Dig
- Liaising with the appropriate utility owner/owner
- Design relocation requirements and/or support
- Make suitable arrangements for relocation support of affected infrastructure

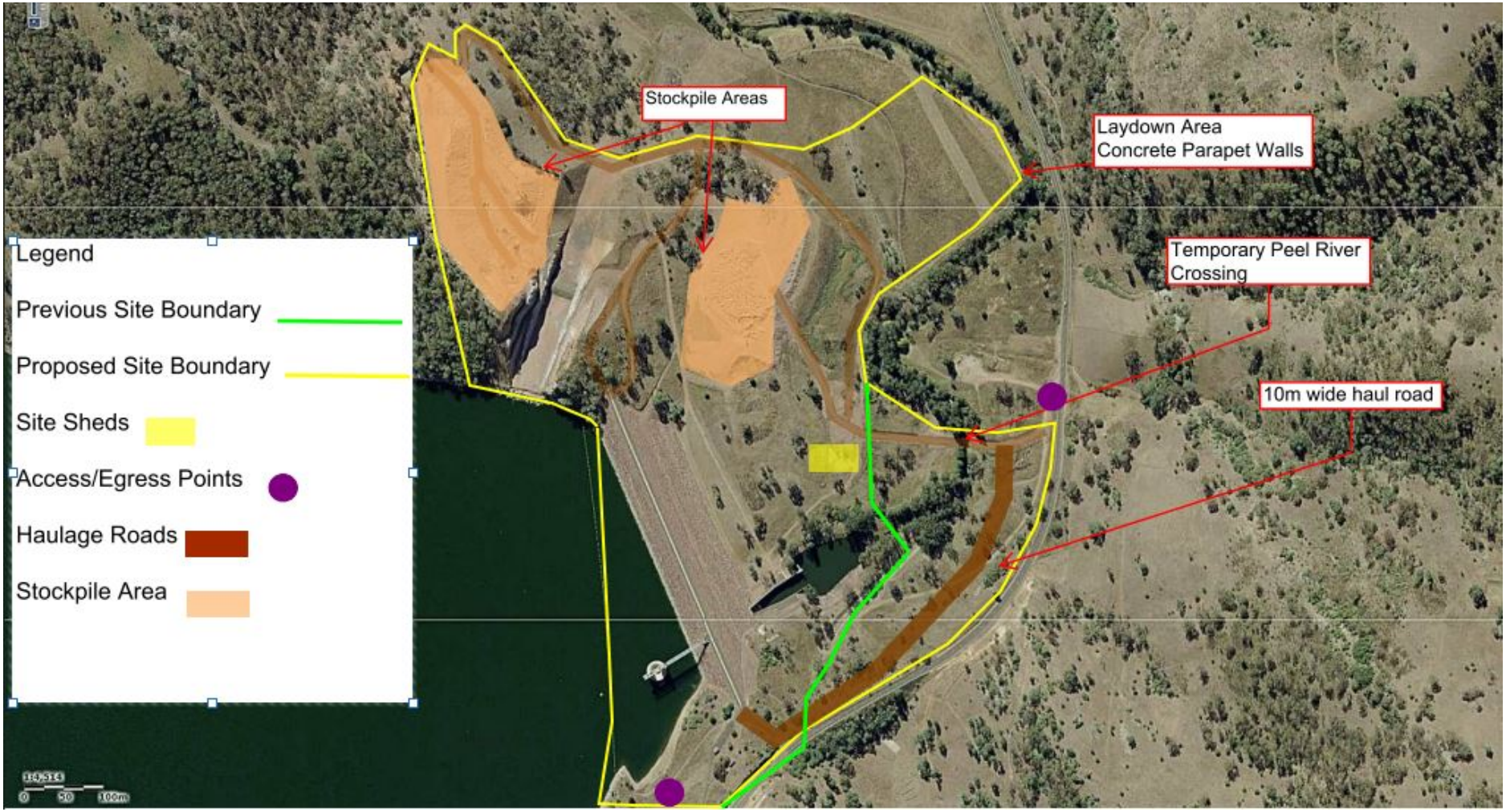


Figure 7 – Proposed Ancillary Facility Locations

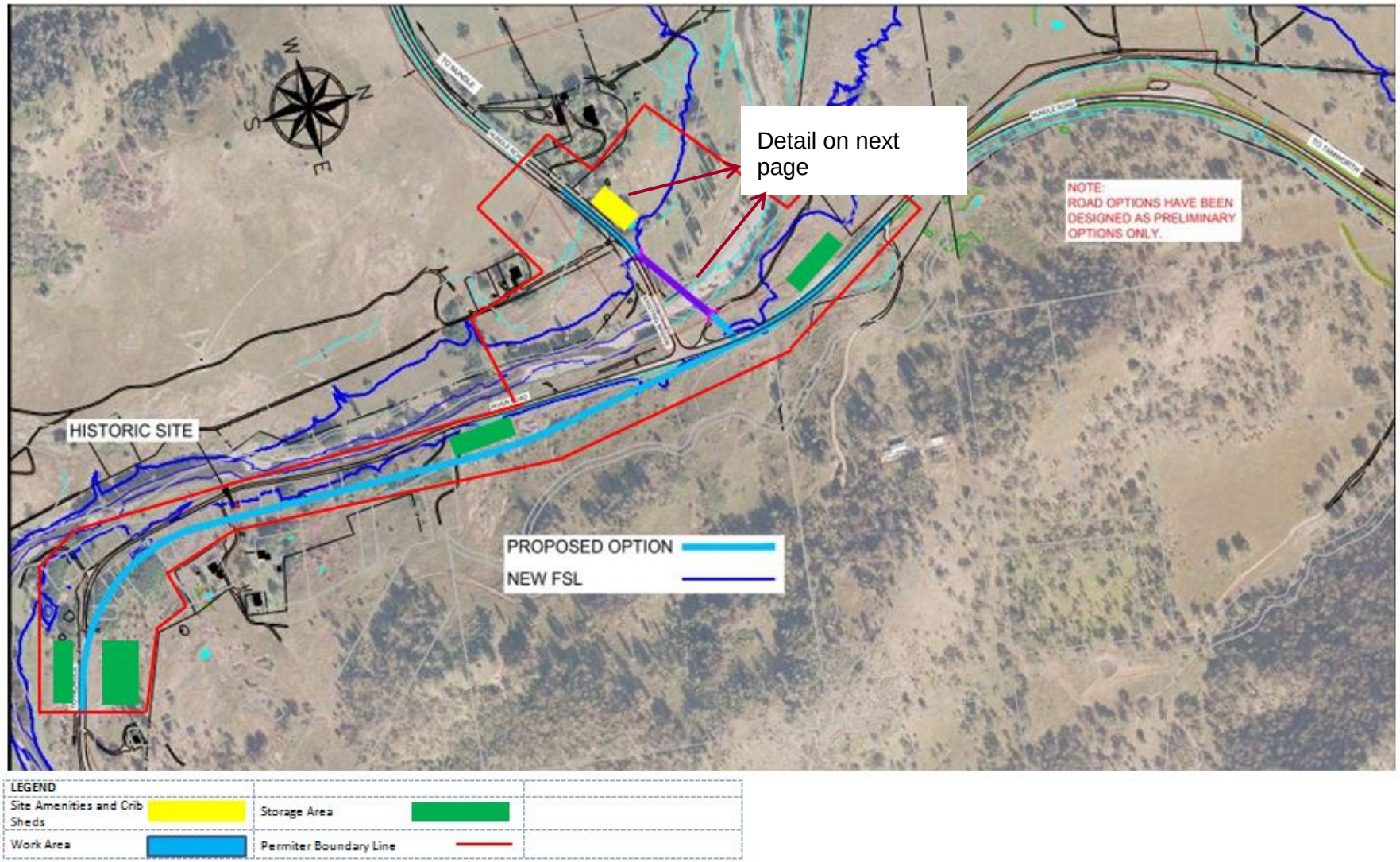


Figure 8 – Proposed Ancillary Facility Locations

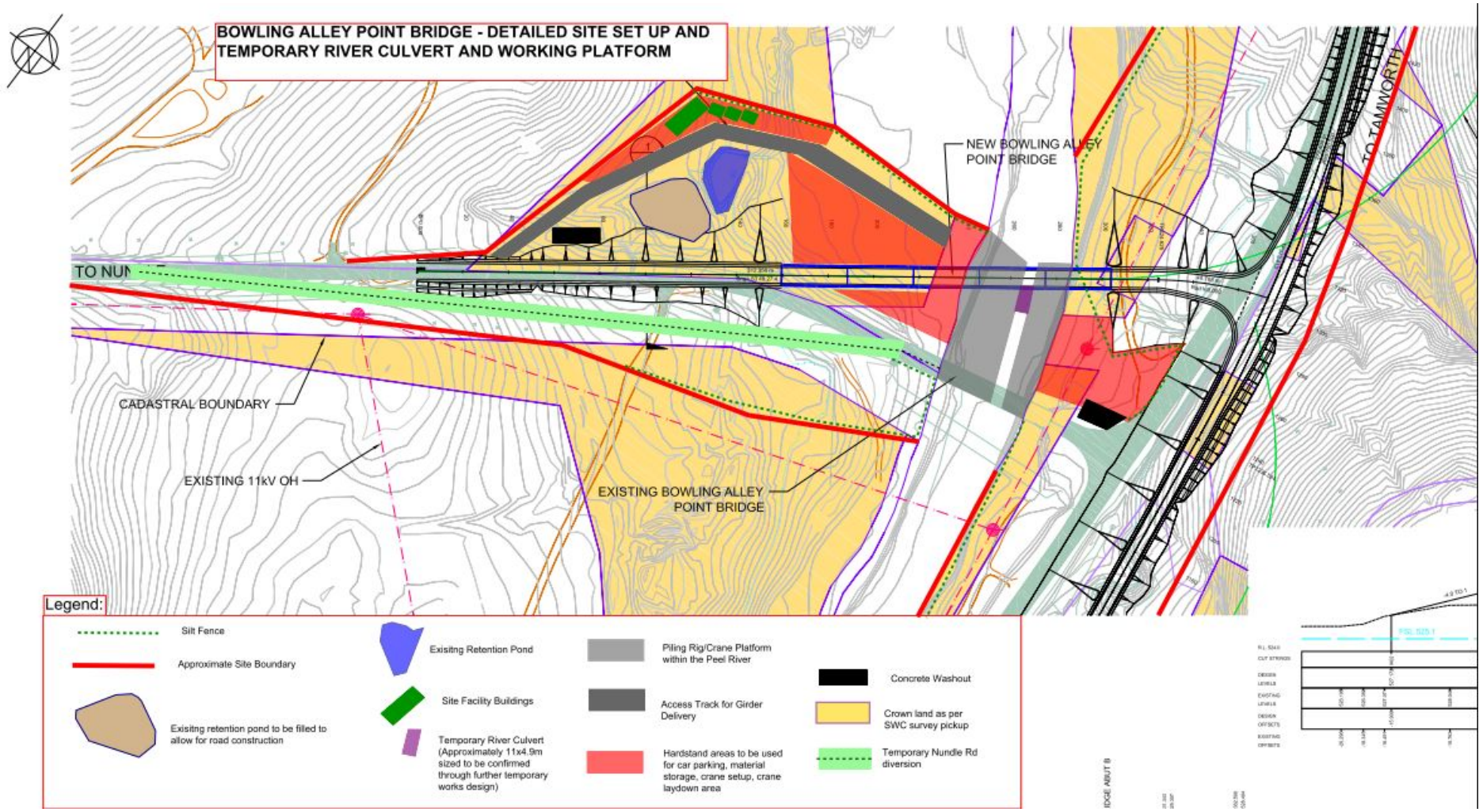


Figure 9 - Proposed Ancillary Facility Locations

6. Environment Incident Management

6.1 Environmental Incident Definitions

An environmental incident is an occurrence or set of circumstances, as a consequence of which pollution (air, water, noise, or land) or an adverse environmental impact has occurred, is occurring, or is likely to occur.

Adverse environmental impact includes contamination, harm to flora and fauna (either individual species or communities), damage to heritage items and adverse community impacts.

The POEO Act Section 147 defines the meaning of Material Harm to the environment as:

a) (i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations), and

(b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

Table 4 – JH Definition of Incident Classifications

Incident Class (Environmental)	Definition
1	Environmental Harm: Environmental discharges, environmental pollution or degradation which has high severity impacts on the community and/or environment, or may have irreversible detrimental long term impacts. Legal: Serious breach of Legislation or conditions of an Approval resulting in prosecution and/or significant financial penalties or contractual action against company, Executive Officers, or individuals.
2	Environmental Harm: Environmental discharges, environmental pollution or degradation which has moderate severity impacts on the community and/or environment (1 to 3 months) but is fully reversible in the long term. Legal: Breach of Legislation or conditions of Approval resulting in Regulatory action in the form of one or more Infringements or other penalty notices, suspension or cancellation of an Approval, or potential prosecution.
3	Environmental Harm: Environmental discharges, environmental pollution or degradation which has low severity impacts on the community and environment in the short term (<1 month) and is fully reversible with no residual impacts. Includes nuisance level impacts. Legal: Minor non-compliance or non-conformance with Legislation or conditions of an Approval that does not result in formal Regulatory action.

6.1.1 Internal Notification – John Holland

JH will follow the procedure JH-MPR-SQE-010 'Incident Management' for internal incident notification. The JH Incident Report JH-PLN-PMA-002 will be filled in and lodged electronically via the John Holland Event Tracking system.

6.1.2 State Water, ER and DPE Notification and Reporting

All environmental incidents will be reported to State Water and the ER. A verbal notification will be provided to State Water and the ER as soon as possible after the incident has occurred. An initial report will be provided within 24 hours of occurring or first being observed.

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 and measures to be implemented to address actual harm or variations to procedures to minimise the chance of reoccurrence.

6.2 Incident Investigation

All incidents must be investigated as soon as possible after the event. The Project Manager will establish an investigation team to investigate all Class 1 and 2 environmental incidents (described in Table 6 above). The investigation will address the cause and/or impact of the incident, the controls that failed and/or were not present, and the Corrective/Preventative actions that will be implemented for all identified causal factors. Class 3 incidents are considered minor in nature and do not require a detailed investigation (as per Class 1 and 2), however, causal factors will still be determined and corrective actions implemented.

John Holland will also 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 incident report that has caused, or threatens to cause, material harm to the environment.

6.3 6.4 Emergency and Pollution Response

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 test this plan.

7. Project Completion and Demobilisation

The Environment Manager or nominated project team member will review the site to ensure that environmental controls are established and note any issues highlighted for action. The nominated staff member will then coordinate agreed actions with the relevant parties to control and manage any issues prior to demobilisation.

Upon completion of the contract, a JH staff member will be nominated to demobilise from site using the 'Project Completion checklist'. Project records will be processed by the nominated staff member and forwarded to the appropriate company for archiving.

Appendix 1 – John Holland Environment Policy

POLICY

Environmental

Our commitment

John Holland is committed to caring for the environment and minimising impacts in all our operations.

Our approach

John Holland will undertake its business in a manner which recognises the importance of environmental sustainability and protection.

Environmental Policy in practice

- Comply with all applicable laws, regulations and statutory obligations
- Manage environmental aspects in accordance with customer requirements, policies and procedures
- Promote a culture of shared responsibility for environmental outcomes within our business
- Improve our energy, water and resource use efficiency, and take all reasonable and practicable steps to prevent pollution, reduce waste and other adverse environmental effects
- Improve knowledge, awareness and skills of our employees related to environmental and sustainability requirements and practices
- Measure our environmental performance and communicate it to our employees and other stakeholders
- Continually improve our Environmental Management System
- Fully and transparently investigate environmental incidents to identify all causal factors, and actions taken to prevent recurrence
- Engage with our business partners, the communities we work within and other stakeholders on environmental sustainability and protection.

We provide engineering and infrastructure solutions with skill and passion that benefit our customers, our people, our communities and our shareholders.

Glenn Palin

Group Managing Director | John Holland Group Pty Ltd

March 2013

Powered by People

Appendix 2 –Compliance Matrix

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
		P	C	O			
N/A	Approved Infrastructure: Chaffey Dam Safety Upgrade and Augmentation, including: • Raising of the dam wall by 6.8 metres to a crest height of 542.1m AHD; • Increasing the height of the existing main morning glory spillway by 6.5 metres to 525.1m AHD; • Increase the capacity of the reservoir to a Full Supply; of 100 GL, with an FSL height of 525.1m AHD; Level (FSL to be confirmed by State Water Corporation) • Realignment of Tamworth-Nundle Road, Rivers Road, including new bridges at Bowling Alley Point and Hydes Creek; •Relocation/replacement of recreational facilities associated with the reservoir; and • Miscellaneous ancillary works as detailed in the EIS and PIR	**P**	**C**	**O**	Detailed design, construction and operation must be consistent with the works described in the EIS, PIR, Response to PIR Comments and conditions of approval.	None	State Water JH
A1	The proponent shall implement management and mitigation measures to prevent and/or minimise any harm to the environment that may result from the construction or operation of the project in accordance with the commitments made in documents listed under condition A2, except as amended by this approval. In the event of unforeseen environmental harm, the proponent shall implement all feasible and reasonable measures to prevent environmental harm.	**P**	**C**	**O**	Prepare and implement environmental management plans. Note Condition A9 permits, with the approval of the Director-General, a) any strategy, plan or program required by this consent to be submitted on a progressive basis; and/or b) any strategy, plan or program required by this consent to be combined.	- Construction Environmental Management Plan (CEMP) - Air Quality Management Plan - Sediment and Erosion Control Plan - Construction Traffic Management Plan - Biodiversity Management Plan - Water Release Management Plan (or include in CEMP) - Recreation Continuance Plan (or include in CEMP) - Dulegal Arboretum Interpretation Strategy (or include in Heritage Conservation/Interpretation Strategy)	State Water JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
						- Heritage Conservation/Interpretation Strategy - Offset Plan	
A2	The Proponent shall carry out the SSI generally in accordance with the: a) State Significant Infrastructure Application SSI 5039; b) Environmental Impact Statement, prepared by Worley Parsons and dated 7 December 2012; c) Preferred Infrastructure Report, prepared by Worley Parsons and dated 15 March 2013; d) Response to Agencies' Comments on the PIR, prepared by WorleyParsons and dated 31 May 2013; e) Letter from WorleyParsons to Planning and Infrastructure dated 20 August 2013; f) Vegetation Offset Plan, prepared by WorleyParsons and dated 1 November 2013; g) Booroolong Frog Offset Plan, prepared by Ecological Australia and dated 15 November 2013; and h) The conditions of this approval.	**P**	**C**	**O**	Detailed design, construction and operation must be consistent with the works described in the EIS, PIR, Response to PIR Comments and conditions of approval.	None	State Water JH
A3	If there is any inconsistency between the plans and documentation referred to above, the most recent document shall prevail to the extent of the inconsistency. However, conditions of this approval prevail to the extent of any inconsistency.	**P**	**C**	**O**	Dates of documentation are listed below. The Conditions of Consent prevail for all inconsistencies. - EIS 7 Dec 2012 - PIR 15 Mar 2013 - Response to PIR Comments 31 May 2013 - Letter 20 August 2013 - Vegetation Offset Plan 1 November 2013 - Booroolong Frog Offset Plan - 15 November 2013	CEMP Section 1.1	State Water JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
A4	The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Department's assessment of: a) any reports, plans or correspondence that are submitted in accordance with this consent; and b) the implementation of any actions or measures contained within these documents.	**P**	**C**	**O**	All reasonable comments by the DG on draft documents must be incorporated into final documents. All reasonable directions of the DG to be complied with.	CEMP Section 4.2.2	State Water JH
A5	This approval shall lapse 5 years after the date on which it is granted unless the works the subject of this SSI approval are physically commenced on or before that date.	**P**			Physical commencement of works required prior 27th February 2019	Compliance Tracking Program	State Water JH
A6	Prior to the commencement of construction, the Proponent shall develop and implement a Compliance Tracking Program for the project, to track compliance with the requirements of this approval during the construction of the project and shall include, but not necessarily be limited to: a) provisions for periodic reporting of compliance status to the Director-General including at least prior to the commencement of construction of the project, and prior to the commencement of operation. b) a program for independent environmental auditing in accordance with AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing; c) procedures for rectifying any non-compliance with the approval identified during environmental auditing or review of compliance; d) mechanisms for recording environmental incidents and actions taken in response to those incidents; e) provisions for reporting environmental incidents to the Director-General during construction and operation; and f) provisions for ensuring all employees, contractors and sub-	**P**			Utilise this spreadsheet as a basis for the Compliance Tracking Program. Incorporate requirements, including audit and reporting schedule, induction, training, incident management and contingency measures into CEMP and OEMPs.	CEMP Section 5.3 Auditing CEMP Section 5.4.1 Compliance Tracking Program CEMP Section 5.4.1 – Monthly Compliance report	State Water JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
	contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.						
A7	The Proponent may elect to construct and/ or operate the SSI in stages. Where staging is proposed, the Proponent shall submit a Staging Report to the Director General prior to the commencement of the first proposed stage. The Staging Report shall provide details of: (a) how the SSI would be staged, including general details of work activities associated with each stage and the general timing of when each stage would commence; and (b) details of the relevant conditions of approval, which would apply to each stage and how these shall be complied with across and between the stages of the SSI. Where staging of the SSI is proposed, any condition of approval is only required to be complied with at the relevant time and to the extent that it is relevant to the specific stage(s). The Proponent shall ensure that an updated Staging Report (or advice that no changes to staging are proposed) is submitted to the Director General prior to the commencement of each stage, identifying any changes to the proposed staging or applicable conditions.	**P**	**C**	**O**	Incorporate into the CEMP Staging of Construction Activities. Note: Staging is linked with Condition A6. Also note the provisions of Conditions A7 and A8.	CEMP Section 1.4 - Staging of Construction Activities	State Water JH
A8	The Proponent shall ensure that all documents required by the conditions of this approval and relevant to each stage (as identified in the Staging Report) are submitted to the Director General no later than one month prior to the commencement of the relevant stages, unless otherwise agreed by the Director General.	**P**	**C**	**O**	Note: Documents required under this approval must be submitted **one month** prior to start of relevant stage.	CEMP Section 1.4 - Staging of Construction Activities	State Water JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
A9	With the approval of the Director-General, the Proponent may: a) submit any strategy, plan or program required by this consent on a progressive basis; and/or b) combine any strategy, plan or program required by this consent. *Note: These conditions do not relate to staged infrastructure within the meaning of section 115ZD.*	**P**	**C**	**O**	Note: Documents required under this approval may be submitted progressively or combined where required.	All documents	State Water JH
A10	Until they are replaced by an equivalent strategy, plan or program approved under this consent, the Proponent shall continue to implement existing strategies, plans or programs for operations on site that have been approved by previous consents or approvals. *Note: These conditions do not relate to staged infrastructure within the meaning of section 115ZD.*	**P**	**C**	**O**	Continue operation as per current consents, plans and programs until new plans and programs are approved.	None	State Water JH
A12	The Proponent shall ensure that all necessary licences, permits and approvals required for the development of the project are obtained and maintained as required throughout the life of the project.	**P**	**C**	**O**	Utilise Compliance Tracking Program required under Condition A6 to set out required licences, permits and approvals, associated conditions and expiry dates.	Compliance Tracking Program CEMP Section 2.2	State Water JH
B1	The SSI shall be constructed and operated with the objective of meeting air quality goals for PM_{10}, as prescribed in the *National Environment Protection Measure (NEPM) for Ambient Air Quality*.		**C**	**O**	Incorporate the provisions into Air Quality Management Plan	Air Quality Management Plan	State Water JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
B2	The Proponent shall carry out all reasonable and feasible measures to minimise dust generated by the construction of the SSI, including ensuring that: a) no vehicle on site exceeds a speed limit of 40 kilometres per hour; b) all loaded vehicles entering or leaving the site have their loads covered; and c) all loaded vehicles leaving the site are cleaned of dirt, sand and other materials before they leave the site, to avoid tracking these materials on public roads.		**C**		Incorporate the provisions into Air Quality Management Plan	Air Quality Management Plan	JH
B3	Unless otherwise approved by the Director General, the location of Ancillary Facilities shall: a) be located more than 40 metres from a waterway; b) be located within or adjacent to land where the SSI is being carried out; c) have ready access to the road network; d) be located to minimise the need for heavy vehicles to travel through residential areas; e) be sited on relatively level land; f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant); g) not require vegetation or threatened species habitat clearing beyond that already required by the SSI; h) not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the SSI; i) not unreasonably affect the land use of adjacent properties; j) be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and k) provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of		**C**		Incorporate requirements of condition into CEMP.	CEMP Section 5.10 – Ancillary Facilities	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
	deliveries required outside standard construction hours. The location of the ancillary facilities shall be identified in the CEMP. Where any of the above criteria cannot be met for any proposed ancillary facility, the Proponent shall demonstrate to the satisfaction of the Director-General that there will be no significant adverse impact from the facilities' construction or operation. The location of and proposed measures to manage the ancillary facilities shall be identified in the Construction Environmental Management Plan.						
B4	The Director General's approval is not required for minor ancillary facilities (e.g. lunch sheds, office sheds, and portable toilet facilities, etc.) that do not comply with the criteria set out in condition B3 of this approval and which: a) are located within an active construction zone within the approved project footprint; and b) have been assessed by the Environmental Representative to have: (i) minimal amenity impacts to surrounding residences, with consideration to matters such as noise and vibration impacts, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and (ii) minimal environmental impact in respect of waste management, and no impacts on flora and fauna, soil and water, and heritage beyond those approved for the project; and c) have environmental and amenity impacts that can be managed through the implementation of environmental measures detailed in a Construction Environment Management Plan for the project.		**C**		Incorporate into CEMP the requirement that any ancillary facilities that do not comply with Condition B4 must be approved in writing by the Contractor or State Water Environmental Representative prior to construction of those facilities.	CEMP Section 5.10 – Ancillary Facilities	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
B5	All Ancillary Facilities shall be rehabilitated to at least their pre-construction condition, unless otherwise agreed by the landowner where relevant.		**C**		Incorporate into CEMP requirement that all Ancillary Facilities shall be rehabilitated to at least their pre-construction condition, unless otherwise agreed **in writing** by State Water **and** the landowner.	CEMP Section 5.10 – Ancillary Facilities	JH
B6	Clearing of native vegetation, known threatened species habitat and rocky outcrops during construction and inundation shall be limited to the following: Total Native Vegetation Impacts (includes EEC) 161.71 ha Box Gum Woodland (listed under the TSC Act) 150ha Box-Gum Grass Woodland (listed under the EPBC Act) 7.5ha Booroolong Frog habitat (listed under the TSC and EPBC Acts) 4.09ha		**C**		Incorporate requirements of condition into Biodiversity Management Plan Clearing contractors should use a GPS system to ensure they clear the correct locations, do not exceed the allowed area of clearing and maintain a record of the location and size of areas cleared.	Biodiversity Management Plan	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P),	Construction (C),	Operation (O)	Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
B10	Following completion of construction, or in the case of Booroolong Frog habitat, immediately upon the reservoir reaching the new FSL, the Proponent shall confirm, through recalculation, that the extent of biodiversity impacts was commensurate with and not greater than that specified in Condition B6.		**C**	**O**	Incorporate requirements of condition into CEMP. Clearing contractors should use a GPS system to ensure they clear the correct locations, do not exceed the allowed area of clearing and maintain a record of the location and size of areas cleared. These records can then be aligned with vegetation mapping used in the EIS to determine extent of each community / habitat cleared. State Water (rather than JH) to assess the extent and location of inundation immediately upon the reservoir reaching the new FSL to determine the area of Booroolong Frog habitat impacted.	Biodiversity Management Plan Amended Biodiversity Offset Package (if biodiversity impacts greater than assessed)	State Water JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
B12	Dangerous goods, as defined by the Australian Dangerous Goods Code, shall be stored and handled strictly in accordance with: a) all relevant Australian Standards; b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and c) the Environment Protection Manual for Authorised Officers: Bunding and Spill Management, technical bulletin (Environment Protection Authority, 1997). In the event of an inconsistency between the requirements listed from a) to c) above, the most stringent requirement shall prevail to the extent of the inconsistency.		**C**	**O**	Incorporate requirements of condition into CEMP.	Soil and Water Management Plan	JH
B14	Construction activities associated with the SSI shall be undertaken during the following standard construction hours: a) 7:00am to 6:00pm Mondays to Fridays, inclusive; and b) 8:00am to 1:00pm Saturdays; and c) at no time on Sundays or public holidays.		**C**		Incorporate requirements of condition into CEMP and Construction Noise and Vibration Management Plan	Construction Noise and Vibration Management Plan	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
B15	Construction works outside of the standard construction hours identified in condition B14 may be undertaken in the following circumstances: a) construction works that generate noise that is: (i) no more than 5 dB(A() above rating background level at any residence in accordance with the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009); and (ii) no more than the noise management levels specified in Table 3 of the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009) at other sensitive receivers; or b) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or c) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; d) works approved through an EPL, or e) works as approved through the out-of-hours work protocol outlined in the CEMP.		**C**		Incorporate requirements of condition into CEMP and Construction Noise and Vibration Management Plan	Construction Noise and Vibration Management Plan	JH
B16	Except as expressly permitted by an EPL, activities resulting in impulsive or tonal noise emission (such as rock breaking, rock hammering, pile driving) shall only be undertaken: a) between the hours of 8:00 am to 5:00 pm Monday to Friday; b) between the hours of 8:00 am to 1:00 pm Saturday; and c) in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block. For the purposes of this condition 'continuous' includes any period during which there is less than a one hour respite between ceasing and recommencing any of the work the		**C**		Incorporate requirements of condition into CEMP and Construction Noise and Vibration Management Plan	Construction Noise and Vibration Management Plan	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
	subject of this condition.						
B17	The SSI shall be constructed with the aim of achieving the construction noise management levels detailed in the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009). All feasible and reasonable noise mitigation measures shall be implemented and any activities that could exceed the construction noise management levels shall be identified and managed in accordance with the CEMP. *Note: The Interim Construction Noise Guideline identifies 'particularly annoying' activities that require the addition of 5dB(A) to the predicted level before comparing to the construction noise management level.*		**C**		Incorporate requirements of condition into Construction Noise and Vibration Management Plan	Construction Noise and Vibration Management Plan	JH
B18	The SSI shall be constructed with the aim of achieving the following construction vibration goals: a) for structural damage, the vibration limits set out in the *German Standard DIN 4150-3: Structural Vibration - effects of vibration on structures*; and b) for human exposure, the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006).		**C**		Incorporate requirements of condition into Construction Noise and Vibration Management Plan	Construction Noise and Vibration Management Plan	JH
B19	Airblast overpressure generated by blasting associated with the SSI shall not exceed the criteria specified in Table 1 when measured at the most affected residence or other sensitive receiver. *Table 1 - Airblast overpressure criteria* *- Airblast overpressure (dB(Lin Peak)) = 115, Allowable exceedence = 5% of total number of blasts over a 12 month period* *- Airblast overpressure (dB(Lin Peak)) = 120, Allowable exceedence = At no time*		**C**		Incorporate requirements of condition into Construction Noise and Vibration Management Plan.	Construction Noise and Vibration Management Plan	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
B20	Ground vibration generated by blasting associated with the SSI shall not exceed the criteria specified in Table 2 when measured at the most affected residence or other sensitive receiver. *Table 2 – Peak particle velocity criteria* *- Receiver = Residence on privately owned land, Peak particle velocity* *(mm/s) = 5, Allowable exceedence = 5% of total number of blasts over a 12 month period* *- Receiver = Residence on privately owned land, Peak particle velocity* *(mm/s) = 10, Allowable exceedence = At no time*		**C**		Incorporate requirements of condition into Construction Noise and Vibration Management Plan.	Construction Noise and Vibration Management Plan	JH
B21	Where feasible and reasonable, piling activities shall be undertaken using quieter alternative methods than impact or percussion piling, such as bored piles or vibrated piles.		**C**		Incorporate requirements of condition into Construction Noise and Vibration Management Plan	Construction Noise and Vibration Management Plan	JH
B22	Where feasible and reasonable, operation noise mitigation measures shall be implemented at the start of construction (or at other times during construction) to minimise construction noise impacts.		**C**		Incorporate requirements of condition into Construction Noise and Vibration Management Plan	Construction Noise and Vibration Management Plan	JH
B25	Except as may be provided by an EPL issued for this SSI, the project shall be constructed and operated to comply with Section 120 of the Protection of the Environment Operations Act 1997, which prohibits the pollution of waters.		**C**		Incorporate requirements of condition into Soil and Water Management Plan	Soil and Water Management Plan ERSED	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
B26	Soil and water management measures consistent with Managing Urban Stormwater - Soils and Construction Vols 1 (Landcom, 2004) shall be employed during the construction of the SSI to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.		**C**		Incorporate requirements of condition into Soil and Water Management Plan	Soil and Water Management Plan ERSED	JH
B27	Borrow areas for core material shall be restricted to land above the 20 year ARI flood level at a distance of greater than 30 metres from the waterway. Borrow pits must be backfilled with suitable material to natural bed levels and revegetated in accordance with Condition C2 a)(ii). Any variation to this requirement must demonstrate how borrow areas can be managed to limit future erosion, scouring and channel alignment during high flow periods.				Incorporate requirements of condition into Soil and Water Management Plan	Soil and Water Management Plan ERSED	JH
B28	Watercourse crossings shall be designed in consultation with DPI (NOW and/or NSW Fisheries) and, where feasible and reasonable, be consistent with the Guidelines for Watercourse Crossings on Waterfront Land (NSW Office of Water, 2012), Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries, February 2004) and Policy and Guidelines for Design and Construction of Bridges, Roads, Causeways, Culverts and Similar Structures (NSW Fisheries 1999). Where multiple cell culverts are proposed for creek crossings, at least one cell shall be provided for fish passage, with an invert or bed level that mimics creek flows.		**C**		Incorporate requirements of condition into Soil and Water Management Plan	Soil and Water Management Plan ERSED	JH
B29	All waste materials removed from the site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials.		**C**		Incorporate requirements of condition into Waste Management and Recycling Plan	Waste Management and Recycling Plan	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
B30	Waste generated outside the site shall not be received at the site for storage, treatment, processing, reprocessing, or disposal on the site.		**C**		Incorporate requirements of condition into Waste Management and Recycling Plan	Waste Management and Recycling Plan	JH
B31	All liquid and/or non-liquid waste generated on the site shall be assessed and classified in accordance with Waste Classification Guidelines (Department of Environment, Climate Change and Water, 2009), or any superseding document.		**C**		Incorporate requirements of condition into Waste Management and Recycling Plan	Waste Management and Recycling Plan	JH
B32	The Proponent must ensure that waste identified for recycling is stored separately from other waste.		**C**		Incorporate requirements of condition into Waste Management and Recycling Plan	Waste Management and Recycling Plan	JH
B33	Utilities, services and other infrastructure potentially affected by construction and operation (including inundation) shall be identified prior to construction to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the SSI shall be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The cost of any such arrangements shall be borne by the Proponent.	**P**			Incorporate requirements of condition into CEMP	CEMP Section 5.11 - Utilities, Services and Other Infrastructure	State Water JH
B34	The SSI shall be designed with the objective of minimising adverse changes to existing property access arrangements and road functionality for other road users.		**C**		Incorporate requirements of condition into Traffic Management Plan	Traffic Management Plan	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
B35	Access to private property shall be maintained during construction unless otherwise agreed with the property owner in advance. A landowner's access that is physically affected by the SSI shall be reinstated to at least an equivalent standard, in consultation with the property owner.		**C**		Incorporate requirements of condition into Traffic Management Plan	Traffic Management Plan	JH
B36	In relation to new or modified road, parking, pedestrian or cycle infrastructure, the SSI shall be designed: (a) in consultation with the Relevant Roads Authority; (b) in consideration of existing and future demand, road safety and traffic network impacts; (c) to meet relevant design, engineering and safety guidelines, including Austroads Guide to Traffic Engineering Practice; and (d) is certified by an appropriately qualified person that has considered the above matters. Note: A separate approval to open or close any road under Section 138 of the Roads Act 1993 may be required from the Relevant Roads Authority.		**C**		Incorporate requirements of condition into Traffic Management Plan Note: As the Project comprises State Significant Infrastructure, then in accordance with the provisions of Section 115ZH(1)(f) of the EP&A Act, a consent under Section 138 of the Roads Act 1993 cannot be refused.	Traffic Management Plan	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
C1	The Proponent shall prepare and implement a Construction Environmental Management Plan for the SSI in accordance with the Guideline for the Preparation of Environmental Management Plans (Department of Planning, Infrastructure and Natural Resources 2004). No construction associated with the SSI shall commence until written approval of this plan has been received from the Director-General or his nominee. The Plan must: a) be submitted to the Director-General for approval no later than four weeks prior to the commencement of construction or demolition or within such period otherwise agreed by the Director-General; b) include actions or procedures to manage the following: (i) biodiversity; (ii) soil and water; (iii) air quality; (iv) noise and vibration; (v) construction traffic; (vi) heritage; and vii) recreational uses	**P**	**C**		Prepare and implement CEMP. Note CEMP to be submitted to DG for approval at least **4 weeks** prior to commencement of construction. Note requirements of C 2 (e).	CEMP (this plan) and Sub-Plans	JH
C2 a)	The Proponent shall ensure that the following specific requirements are considered in developing the sub-plans or procedures identified in condition C1, further to any guidelines contained within the Guideline for the Preparation of Environmental Management Plans (Department of Planning, Infrastructure and Natural Resources 2004): a) **Biodiversity**, to be prepared and implemented in consultation with DOE, OEH, North West LLS and DPI (NSW Fisheries) and include the following: (i) details of all vegetation clearing activities (including EECs) and methods to minimise biodiversity impact including specific species and seasonal variations, and pre-clearing	**P**			Incorporate requirements of condition into CEMP OR Incorporate relevant requirements of condition into: - Vegetation Management Plan - Booroolong Frog Management Plan - Border Thick-tailed Gecko Management Plan - Water Release Management	CEMP (or Vegetation Management Plan, Booroolong Frog Management Plan, Border Thick-tailed Gecko Management Plan, Water Release Management Plan and CEMP)	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
	surveys of hollow bearing trees; (ii) methods for, and monitoring of, reinstatement work of native vegetation as soon as possible after construction, including establishment of riparian vegetation surrounding the new FSL; and (iii) weed management and minimisation methodologies; (iv) strategies to mitigate the impacts of the project upon the Booroolong Frog, Border Thick-tailed Gecko, Murray Cod, White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC, and White Box-Yellow Box-Blakely's Red Gum Woodland EEC; and (v) procedures to clearly define work areas (including access trails) using a combination of posts, fencing or markers, and suitably marked up maps, as appropriate, and restricting all on-site construction movements by vehicles or personnel to these areas.				Plan - CEMP		
C2 b)	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): b) **Soil and Water**, to be prepared in consultation with OEH, EPA, North West LLS, and DPI (NSW Office of Water and NSW Fisheries) and include the following: (i) a description of measures to minimise soil erosion and the potential for the sediment transport to the reservoir and upstream and downstream waters in accordance with the Managing Urban Stormwater – Soils and Construction Vols 1 (Landcom, 2004); and (ii) contingency and ameliorative measures in the event that	**P**	**C**		Incorporate requirements of condition into CEMP (or Sediment and Erosion Control Plan).	CEMP (or Sediment and Erosion Control Plan)	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
	adverse impacts to water quality are identified.						
C2 c)	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): c) **Noise and Vibration** to be developed in accordance with the NSW Interim Construction Noise Guidelines (DECC, July 2009) and in consultation with the EPA and include the following: (i) details of all potentially noise-generating activities (including vehicle activities on the SSI site and on the surrounding road network), and all potentially noise-affected receivers; (ii) selection and application of feasible and reasonable mitigation measures to reduce construction noise and vibration impacts including the use of noise attenuation barriers, alternative construction methods (including alternative piling methods) and work practices where potential noise impacts exceed the relevant objectives; and (iii) procedures for notifying residents of construction activities that are likely to affect their noise and vibration amenity and receiving complaints.	**P**	**C**		Incorporate requirements of condition into Construction Noise and Vibration Plan.	Construction Noise and Vibration Plan.	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
C2 d)	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): d) **Construction Traffic** to be prepared and implemented in consultation with the Relevant Road Authority/Authorities and include the following: (i) details of traffic routes for heavy vehicles, including any necessary route or timing restriction for oversized loads; (ii) interaction with local, regional and state roads and surrounding land uses; (iii) measures to manage interaction with local school bus travel or other timetabled public passenger transport; and (iv) procedures for informing the public where any road access will be restricted as a result of the project; *Note: the construction traffic measures must be consistent with noise and vibration measures with regard to noise and vibration impacts of traffic generated during construction of the SSI.*	**P**	**C**		Incorporate requirements of condition into Construction Traffic Management Plan.	Construction Traffic Management Plan	JH
C2 e)	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): e) **Heritage,** developed in consultation with the OEH and registered Aboriginal stakeholders (for Aboriginal heritage) prior to any archaeological or salvage works commencing and detailing actions to manage	**P**	**C**		Incorporate requirements of condition into Heritage Management Plan	Heritage Management Plan	JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
	identified Aboriginal objects and historic heritage items directly and indirectly impacted by construction, including but not limited to: (i) procedures for dealing with previously unidentified Aboriginal objects (excluding human remains) including cessation of works, assessment of significance and determination of appropriate management measures, including involvement of a suitable qualified archaeologist and consultation with the Agency, OEH and registered Aboriginal stakeholders, actions required to enable construction to recommence and registering any new site(s) in the OEH's Aboriginal Heritage Information Management System (AHIMS) register; (ii) procedures for dealing with human remains, including cessation of works in the vicinity of the remains and notification of relevant stakeholders, including NSW Police and where relevant, OEH; (iii) procedures for monitoring and reporting effectiveness of management measures, including reporting of non-compliance and rectification; (iv) mechanisms for the monitoring, review and amendment of this plan developed in consultation with the OEH and registered Aboriginal stakeholders (for Aboriginal heritage); and (v) a procedure for consultation with OEH and the registered Aboriginal stakeholders for the management of identified sites, potential archaeological deposits and potential archaeological sensitive areas for the duration of the project.						
C3	The Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General, within three months of the submission of an:	**P**	**C**	**O**	Incorporate requirements of condition into CEMP.	CEMP Section 1.9 and 6.3 Compliance Tracking Register	State Water JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
	a) incident report under condition C4 below; or b) any modification to the conditions of this approval, *Note: This is to ensure that the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.* Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.				Compliance Tracking Register to document incidents, modifications to conditions of consent and revision to strategies, plans and programs.		
C4	The Proponent shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident and measures to be implemented to address actual harm or variations to procedures to minimise the chance of reoccurrence.	**P**	**C**	**O**	Incorporate requirements of condition into CEMP. Compliance Tracking Register to document incidents, modifications to conditions of consent and revision to strategies, plans and programs.	CEMP Section 6.1.2 - State Water, ER and DPE Notification and Reporting Compliance Tracking Register	State Water JH
C5	Within one (1) month of the date of this approval, and as documents are progressively finalised and approved, or as otherwise agreed by the Director-General, the Proponent shall: a) make copies of the following publicly available on its website: (i) the documents referred to in Condition A2; (ii) all current statutory approvals for the development; (iii) all approved strategies, plans and programs required under the conditions of this approval; (iv) any independent environmental audit of the	**P**	**C**	**O**	Add finalised **and** approved documents to State Water website.	Noted All documents	State Water JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
	development, and the Proponent's response to the recommendations in any audit; and (v) any other matter required by the Director-General; and b) keep this information up to date for at least five years from the commencement of operation of the augmented dam, or in the case of monitoring reports, for at least three years from the completion of each report. to the satisfaction of the Director-General. *Note: Culturally sensitive material may be withheld or redacted from public display where registered local stakeholders have requested that certain culturally sensitive information is withheld. Environmentally sensitive information, such as geographical locations of threatened species records may be withheld or redacted from public display where it is considered that a site may be vandalised or otherwise threatened if that information is made publicly available.*						
C6	Prior to the commencement of construction of the Development, or as otherwise agreed by the Director-General, the Proponent shall nominate for the approval of the Director-General a suitably qualified and experienced Environment Representative(s) that is independent of the design and construction personnel. The Proponent shall employ the Environmental Representative(s) for the duration of construction, or as otherwise agreed by the Director-General. The Environment Representative(s) shall: a) be the principal point of advice in relation to the environmental performance of the SSI; b) monitor the implementation of environmental management plans and monitoring programs required under this approval and advise the Proponent upon the achievement of these plans/ programs;	**P**	**C**		Nominate suitably qualified and experienced Environment Representative(s) for approval by DG. Employ Environment Representative(s) and enable completion of required tasks.	Nomination of Environment Representative(s) for approval by DG. CEMP Section 4.2.3	State Water

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
	c) have responsibility for considering and advising the Proponent on matters specified in the conditions of this approval; d) ensure that environmental auditing is undertaken in accordance with the Proponent's Environmental Management System(s); e) be given the authority to approve/ reject minor amendments to the Construction Environment Management Plan. What constitutes a "minor" amendment shall be clearly explained in the CEMP required under condition C1; f) be given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur; and g) be consulted in responding to the community concerning the environmental performance of the SSI where the resolution of points of conflict between the Proponent and the community is required.						
C7	A Community Communication Strategy shall be prepared and implemented to facilitate communication between the Proponent (and its contractor(s)), the Environmental Representative (see condition C6), the relevant council and community stakeholders (particularly adjoining landowners) on the construction environmental management and operation of the project. The Strategy shall be submitted to the Director General for approval at least four weeks prior to the commencement of construction and shall include, but not be limited to: a) identification of stakeholders to be consulted as part of the Strategy, including affected and adjoining landowners; b) procedures and mechanisms for the regular distribution of	**P**	**C**	**O**	Prepare and implement Community Consultation Strategy Note: this condition is relevant to construction AND operation	CEMP Section 5.1 Community Communication Strategy	State Water JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
	information to stakeholders on construction progress and matters associated with environmental management and key environmental management issues for the project. The Strategy shall provide detail on the structure, scope, objectives and frequency of the distribution of information; c) procedures and mechanisms through which the stakeholders can discuss or provide feedback to the Proponent and/or Environmental Representative in relation to the environmental management and delivery of the project; d) procedures and mechanisms through which the Proponent can respond to enquiries or feedback from the stakeholders in relation to the environmental management and delivery of the project; and e) procedures and mechanisms that would be implemented to resolve issues/ disputes that may arise between parties on the matters relating to environmental management and the delivery of the project. This may include the use of an appropriately qualified and experienced independent mediator. The Proponent shall maintain and implement the Strategy throughout construction and operation of the project.						

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
C8	Prior to the commencement of construction, or as otherwise agreed by the Director General, the Proponent shall ensure that the following are available for community enquiries and complaints for the duration of construction: f) a 24 hour telephone number(s) on which complaints and enquiries about the project may be registered; g) a postal address to which written complaints and enquires may be sent; h) an email address to which electronic complaints and enquiries may be transmitted; and i) a mediation system for complaints unable to be resolved. j) The telephone number, the postal address and the email address shall be published in newspaper(s) circulating in the local area prior to the commencement of construction. This information shall also be provided on the website (or dedicated pages) required by this approval.	**P**	**C**	**O**	Prepare and implement Construction Complaints Management System. Update State Water website to include required information. Publish the following project contact details in local newspaper(s) prior to the commencement of construction and prior to the commencement of operation. - telephone number - postal address - email address Note: this condition is relevant to construction AND operation	Construction Complaints Management System Update State Water website Newspaper publications CEMP Section 5.6 – Complaints and Enquiries	State Water
1	In order to protect the Booroolong Frog, Border Thick-tailed Gecko and the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland ecological community, the approval holder must undertake all measures relevant to the protection of these matters that are identified in the NSW approval conditions in Schedule 2 of the NSW Government's infrastructure approval decision for the project. The measures to be undertaken must include: a. restriction of impacts on protected matters and their habitats to those areas identified in NSW approval condition B6;	**P**	**C**	**O**	Implement NSW infrastructure approval conditions in SSI-5039 Prepare and implement a Biodiversity Management Plan	Biodiversity Management Plan	State Water

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
	b. preparation and implementation of a Biodiversity Management Plan, detailing strategies to mitigate impacts on the matters in accordance with NSW approval condition C2(a).						
5	Within 21 days after the commencement of the action, the approval holder must advise the Department in writing of the actual date of commencement.		**C**		Within 21 days after the commencement of the action, the approval holder must advise the Department in writing of the actual date of commencement.	Advise the Department in writing	State Water JH
6	The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval and make them available upon request to the Department. Such records may be subject to audit by the Department 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 posted on the Department's website. The results of audits may also be publicised through general media.	**P**			Requirement to maintain accurate records substantiating all activities associated with or relevant to the conditions of approval.	Compliance Tracking Program	State Water JH
7	Within 3 months of every 12 month anniversary of the commencement of the action, the approval holder 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 approval holder may cease the publication of these reports when it receives the written agreement of the Minister to do so. Non-compliance with any of the conditions of this approval must be reported to the Department as the same time as the report is published.		**C**		Within 3 months of every 12 month anniversary of the commencement of the action, a report must be prepared addressing compliance with approval conditions	Compliance Tracking Program	State Water JH

No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
8	Upon the direction of the Minister, the approval holder must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.		**C**	**O**	An independent audit of compliance with conditions may be directed at any time.	Independent audit participation	State Water JH
9	If the approval holder wishes to carry out an activity otherwise than in accordance with the Biodiversity Offset Package or Biodiversity Management Plan, as specified in the conditions, the approval holder must submit to the Department for the Minister's written approval a revised version of that Biodiversity Offset Package or Biodiversity Management Plan. The varied activity shall not commence until the Minister has approved the varied Biodiversity Offset Package or Biodiversity Management Plan in writing. The Minister will not approve a varied Biodiversity Offset Package or Biodiversity Management Plan unless the revised Biodiversity Offset Package or Biodiversity Management Plan would result in an equivalent or improved environmental outcome over time. If the Minister approves the revised Biodiversity Offset Package or Biodiversity Management Plan, that Biodiversity Offset Package or Biodiversity Management Plan must be implemented in place of the Biodiversity Offset Package or Biodiversity Management Plan originally approved.	**P**			Activities must be carried out in accordance with the approved Biodiversity Offset Package or Biodiversity Management Plan. Any varied Biodiversity Offset Package or Biodiversity Management Plan must be approved by the Minister.	Revised plans (if necessary)	State Water JH
10	Condition 9 does not apply if the approval holder wishes to make minor amendments to the Biodiversity Management Plan, in accordance with NSW approval condition C6. The approval holder must receive written approval from the Department of what constitutes a minor amendment to the Biodiversity Management Plan prior to commencement of	**P**			Written confirmation of minor amendment required.	Written approval from the Department required or ER (if necessary)	State Water JH

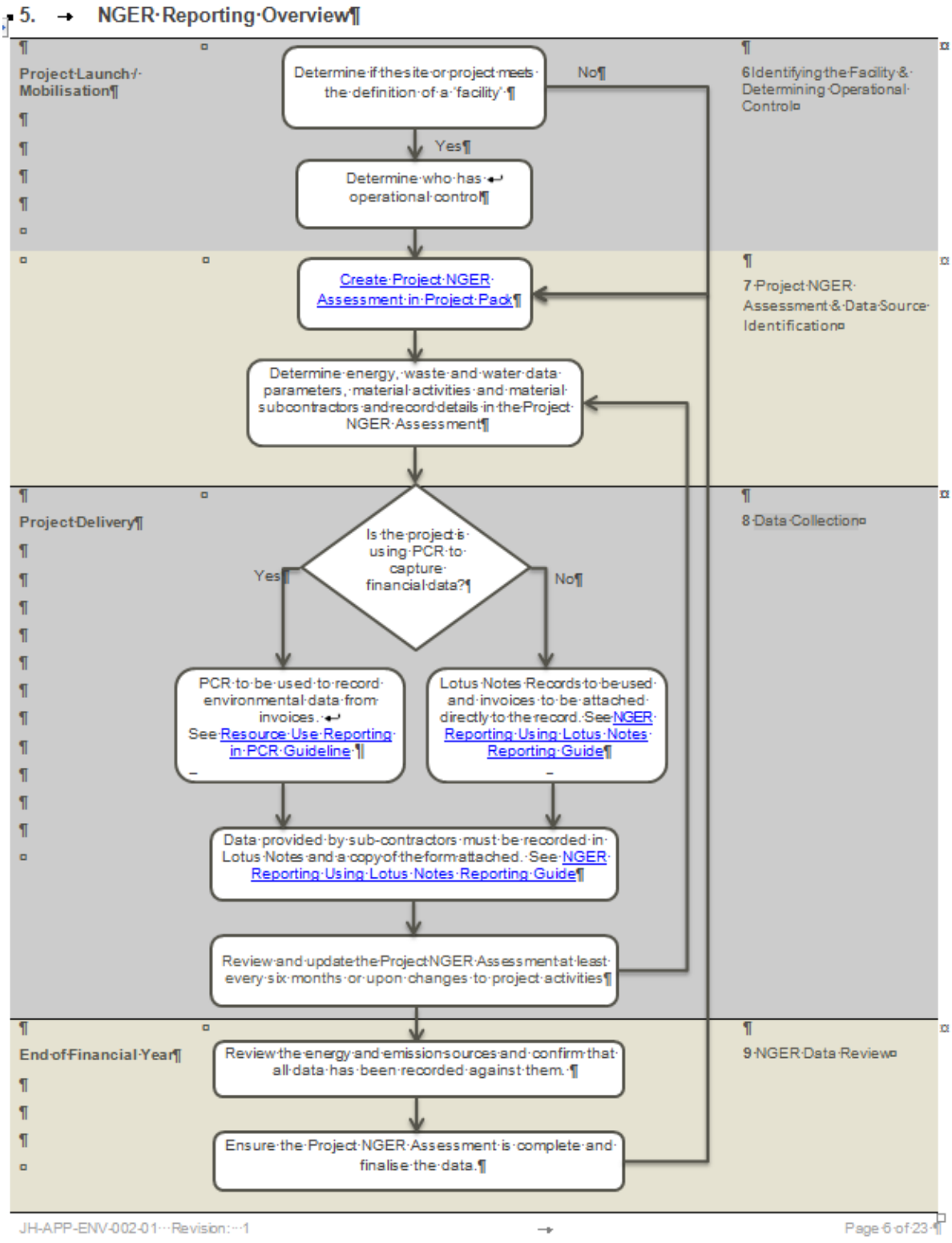
No.	SSI-5039 Infrastructure Approval Condition / Commitment	Implementation Stage Pre-Construction (P), Construction (C), Operation (O)			Implementation Plan	Document Reference OR Documents to be Produced	Responsibility
	the action.						
11	If the Minister believes that is it necessary or convenient for the better protection of listed threatened species and communities to do so, the Minister may request that the approval holder make specified revisions to the Biodiversity Offset Package or Biodiversity Management Plan specified in the conditions and submit the revised Biodiversity Offset Package or Biodiversity Management Plan for the Minister's written approval. The approval holder must comply with any such request. The revised approved Biodiversity Offset Package or Biodiversity Management Plan must be implemented. Unless the Minister has approved the revised Biodiversity Offset Package or Biodiversity Management Plan, then the approval holder must continue to implement the Biodiversity Offset Package or Biodiversity Management Plan originally approved, as specified in the conditions.	**P**	**C**	**O**	Minister may request revisions at any time	Revised Biodiversity Offset Package or Biodiversity Management Plan (if necessary)	State Water JH
12	Unless otherwise agreed to in writing by the Minister, the approval holder 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 Minister. Approved plans, reports and strategies must remain in the website until the approval holder receives written agreement from the Minister that the publication of the plans, reports and strategies may cease.	**P**	**C**	**O**	The approval holder must publish all plans, reports and strategies referred to in these conditions of approval on their website within 1 month of being approved.	Plans, report and strategies relevant to the Commonwealth conditions	State Water JH

Appendix 3 – Draft Audit Schedule

Project/Section:	Chaffey Dam Safety Upgrade and Augmentation											
System Elements:	**2014**						**2015**					
	J	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**
Compliance Audit e.g. CoA, Legislative Req's				X						X		
EM Audit e.g. CEMP and Sub Plans				X			X			X		
Waste Audit						X						
Management Audit						X						X
Environmental Monitoring Data	X	X	X	X	X	X	X	X	X	X	X	X
Resources Training and Awareness					X						X	
Complaints/Incidents/NCRs												
Emergency/Incident Preparedness							X					X
External Audit												

PLANNED ☐	**COMPLETED** ☒
Authorised By:	**Date:**

Appendix 4 – NGERS Overview



Reference Procedure JH-MPR-ENV-002 Environmental Statistical Reporting Procedure Page 6

Appendix 5 – Integrated Management System

Table below describes the framework of how JH addresses the requirements of ISO 14001. Note that in addition to ISO14001, the procedures referenced also address the requirements of AS/NZS4801, 4292 and AS/NZSISO9001.

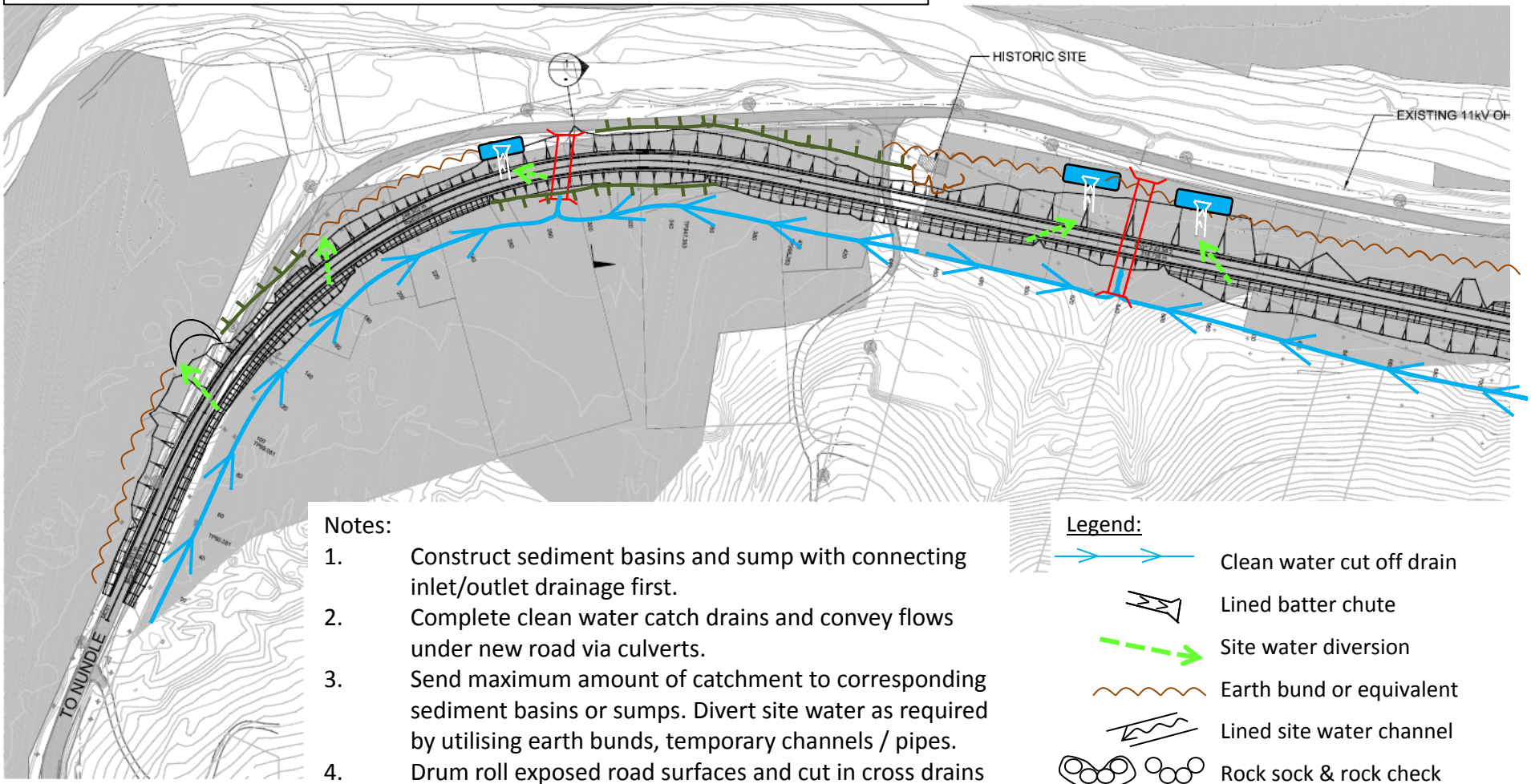
AS/NZS ISO14001 Ref	AS/NZS ISO 14001:2004 System Element Heading	IMS Ref	Integrated Management System Procedure
4.1	General requirements	JH-MPR-BUA-020 JH-MPR-PMA-014 JH-MPR-SQE-009 JH-MPR-SQE-003	Business Planning Project Monthly Reporting Performance Statistics – Safety, Quality and Environment Review & Continual Improvement
4.2	Environmental Policy		John Holland Group Environment Policy
4.3 4.3.1 4.3.2 4.3.3	Planning Environmental aspects Legal and other requirements Objectives, targets and programme(s)	JH-MPR-ENV-001 JH-MPR-PMA-001 JH-MPR-PMA-002 JH-MPR-QUA-001 JH-MPR-WHS-001 JH-MPR-BUA-004 JH-MPR-BUA-005	Environmental Planning Project Launch Planning & Programming Quality Planning WHS&R Planning Group Doc. Structure & Control Corporate Manuals
4.4 4.4.1 4.6	Implementation and operation Resources, roles, responsibility and authority Management review	JH-MPR-PMA-005 JH-MPR-PMA-006 JH-MPR-PMA-017 JH-MPR-QUA-002 JH-MPR-QUA-003 JH-MPR-QUA-004 JH-MPR-BUA-006 JH-MPR-SQE-003 JH-MPR-HRT-003 JH-MPR-HRT-019 JH-MPR-HRT-001	Letting of Consultants/Subcontracts/Supply Packages Administration of Consultants/Subcontract/Supply Packages Standard Contract Agreements Evaluation Visits to Subcontractors/Suppliers Expediting & Inspection of Subcontracted Works Performance Rating of Subcontractors Organisation & Resources Review & Continual Improvement HR Procedures Recruitment & Selection of Workforce
4.4.2	Competence, training and awareness	JH-MPR-HRT-020	Training & Development

		JH-MPR-SQE-001	Site Induction
4.4.3	Communication	JH-MPR-SQE-001 JH-MPR-PMA-009	Communication & Interface Site Meetings
4.4.4	Documentation	JH-MAN-ENV-001	Environmental Management Manual
4.4.5	Control of documents	JH-MPR-QUA-005 JH-MPR-QUA-006 JH-MPR-QUA-007	Project Documentation & Control Project Generated Drawing & Sketches. Control of Standards
4.4.6	Operational control	JH-MPR-QUA-010 JH-MPR-BUA-017 JH-MPR-BUA-022 JH-MPR-CCM-002 JH-MPR-HRT-002 JH-MPR-HRT-025 JH-MPR-PMA-012 JH-MPR-PMA-011 JH-MPR-PAE-001 JH-MPR-PAE-002	Process Control Information Technology Knowledge Management Project Public Relations Employee Relations Medical Services Site Vehicles Site Buildings Plant & Equipment Small Tools Minor Plant & Equipment
4.4.7	Emergency Preparedness and Response	JH-MPR-SQE-006 JH-MPR-PMA-008 JH-MPR-CCM-002 JH-MPR-SQE-010 JH-MPR-RCC-006	Managing Safety, Quality & Environmental Risks Emergency Evacuation and Response Project and Public Relations Incident Management and Investigation Crisis Management
4.5 4.5.1	Checking Monitoring and measurement	JH-MPR-SQE-004 JH-MPR-WHS-006 JH-MPR-QUA-008 JH-MPR-QUA-010 JH-MPR-QUA-011 JH-MPR-QUA-012	Inspection, Testing & Surveillance Workplace Hazard Identification & Inspection Monitoring & Testing Equipment Process Control Commissioning of Works Practical Completion & Handover of Documentation
4.5.2 4.5.3	Evaluation of compliance Non-conformity, corrective action and preventative action	JH-MPR-SQE-007 JH-MPR-SQE-003	Non-conformance & Corrective Action Review & Continual Improvement

4.6	Management review		
4.5.4	Control of Records	JH-MPR-BUA-018 JH-MPR-HRT-021 JH-MPR-BUA-003	Management of Records & Files Personnel Records Archiving of Records
4.5.5	Internal Audit	JH-MPR-SQE-002	Auditing

Appendix 6 Preliminary Erosion and Sediment Control Plan

Preliminary Erosion and Sediment Control Plan – Sheet 1



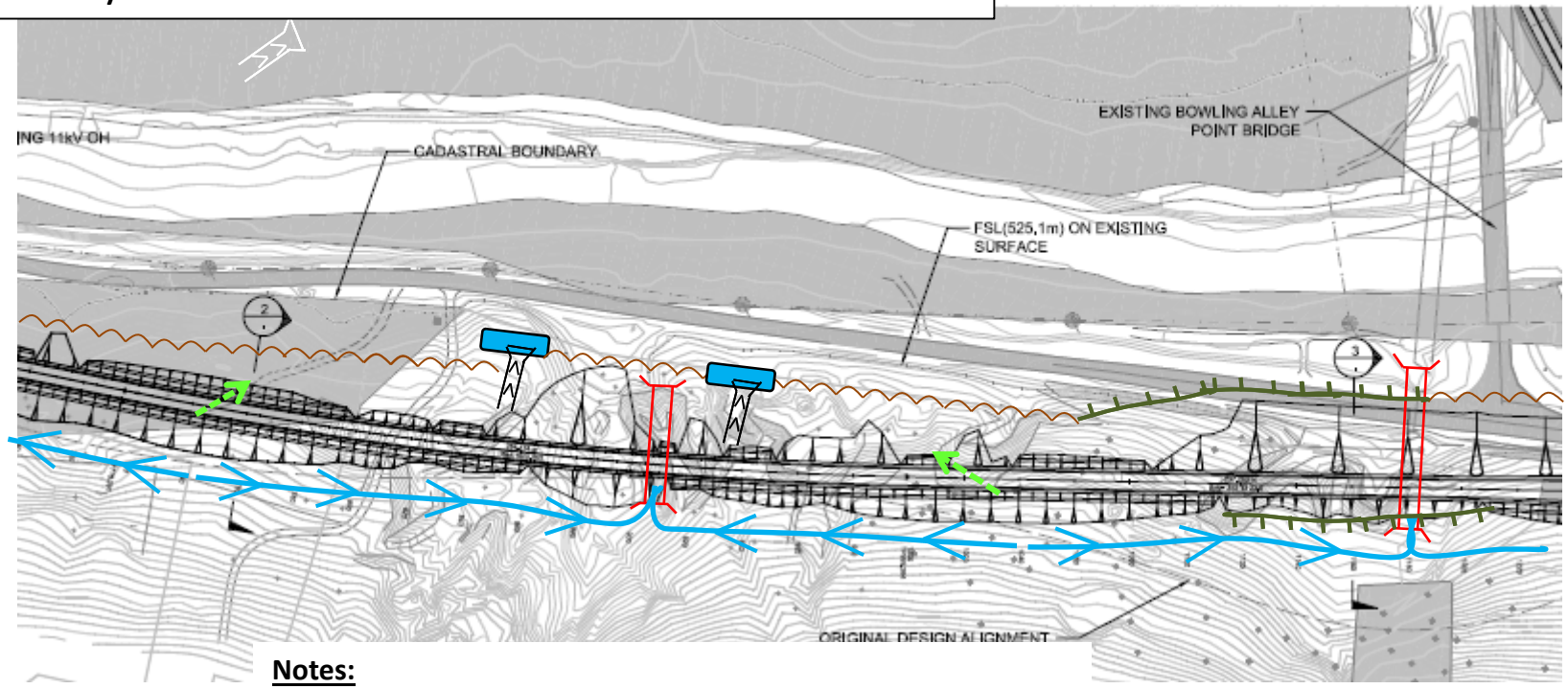
Notes:

1. Construct sediment basins and sump with connecting inlet/outlet drainage first.
2. Complete clean water catch drains and convey flows under new road via culverts.
3. Send maximum amount of catchment to corresponding sediment basins or sumps. Divert site water as required by utilising earth bunds, temporary channels / pipes.
4. Drum roll exposed road surfaces and cut in cross drains to break up slope length prior to forecast rain.
5. Stabilise earth bunds with vegetation or geofabric to provide strength and reduce dust / sediment sources.
6. As fill heights change install earth bunds along top of batter and channel water down batter chutes to basins.
7. Ensure basin/sump/bund overflows and batter chutes have a low point and are lined with plastic or geofabric and rock scour protection.

Legend:

- Clean water cut off drain
- Lined batter chute
- Site water diversion
- Earth bund or equivalent
- Lined site water channel
- Rock sock & rock check
- Sediment fence
- Sediment basin
- Sediment trap
- Piped water crossing

Preliminary Erosion and Sediment Control Plan – Sheet 2



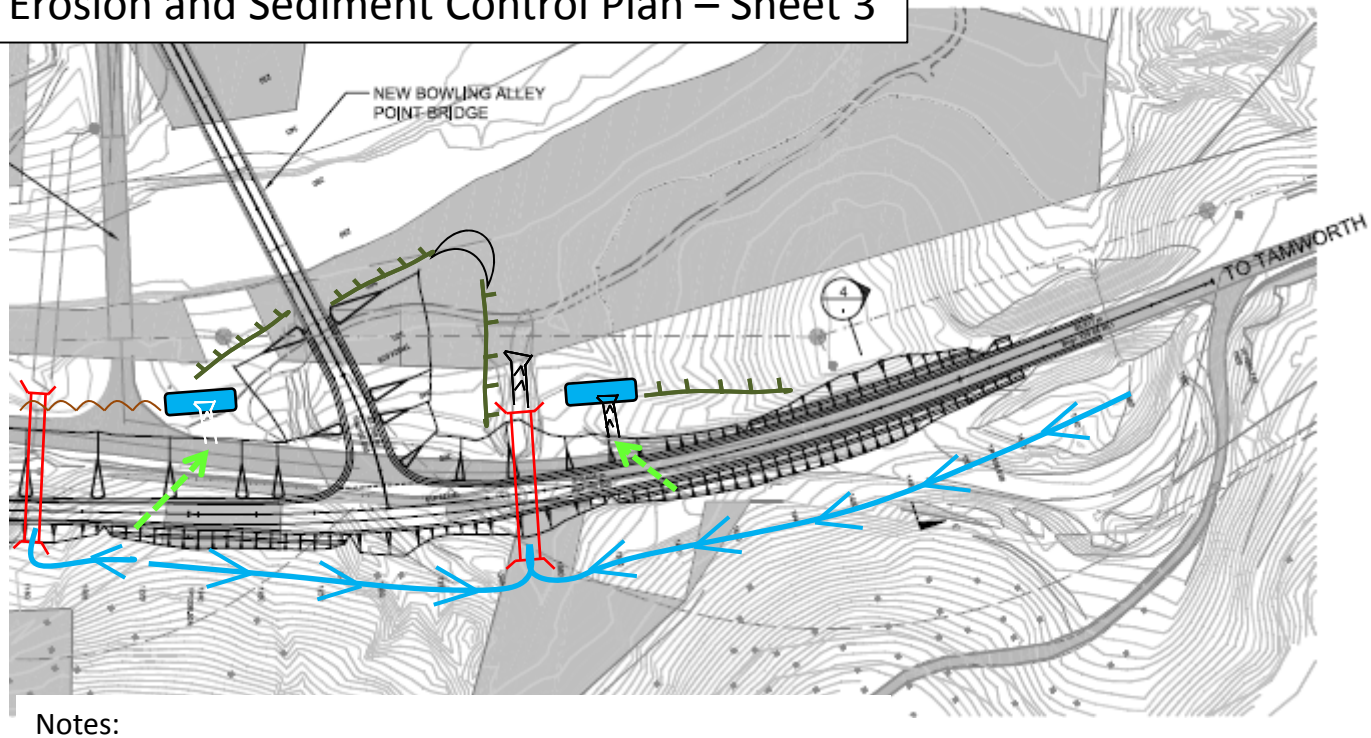
Notes:

1. Construct sediment basins and sump with connecting inlet/outlet drainage first.
2. Complete clean water catch drains and convey flows under new road via culverts.
3. Send maximum amount of catchment to corresponding sediment basins or sumps. Divert site water as required by utilising earth bunds, temporary channels / pipes.
4. Drum roll exposed road surfaces and cut in cross drains to break up slope length prior to forecast rain.
5. Stabilise earth bunds with vegetation or geofabric to provide strength and reduce dust / sediment sources.
6. As fill heights change install earth bunds along top of batter and channel water down batter chutes to basins.
7. Ensure basin/sump/bund overflows and batter chutes have a low point and are lined with plastic or geofabric and rock scour protection.

Legend:

- Clean water cut off drain
- Lined batter chute
- Site water diversion
- Earth bund or equivalent
- Lined site water channel
- Rock sock & rock check
- Sediment fence
- Sediment basin
- Sediment trap
- Piped water crossing

Preliminary Erosion and Sediment Control Plan – Sheet 3



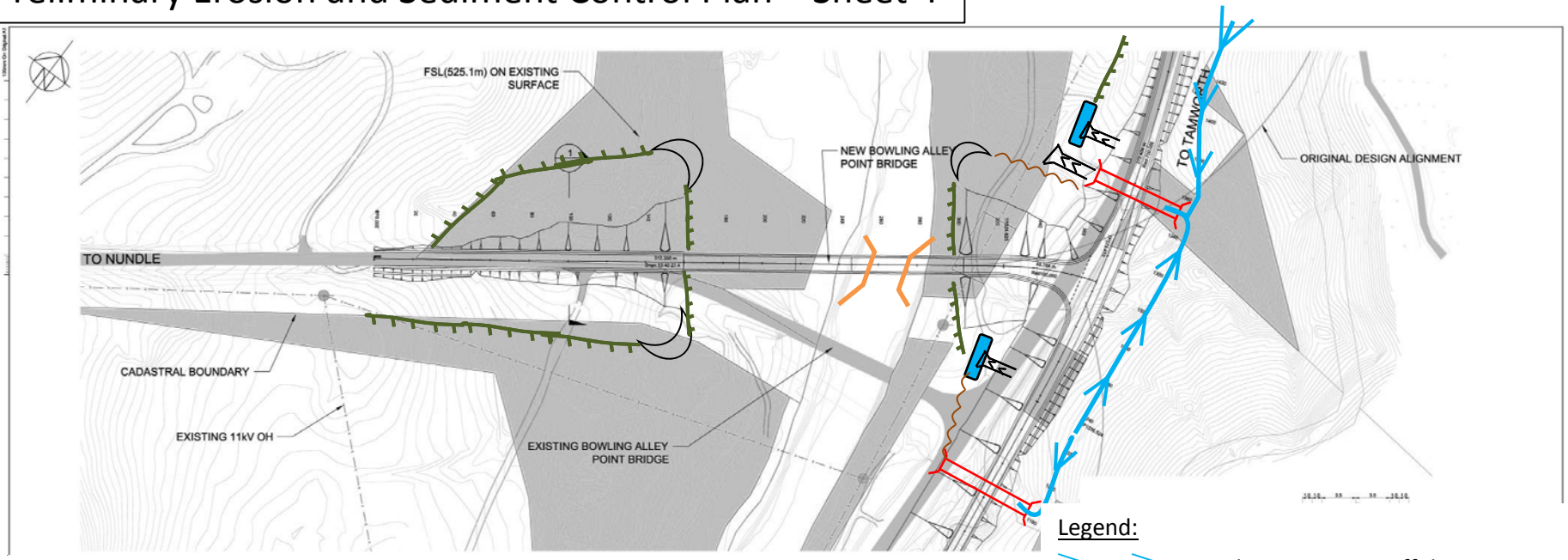
Notes:

1. Construct sediment basins and sump with connecting inlet/outlet drainage first.
2. Complete clean water catch drains and convey flows under new road via culverts.
3. Send maximum amount of catchment to corresponding sediment basins or sumps. Divert site water as required by utilising earth bunds, temporary channels / pipes.
4. Drum roll exposed road surfaces and cut in cross drains to break up slope length prior to forecast rain.
5. Stabilise earth bunds with vegetation or geofabric to provide strength and reduce dust / sediment sources.
6. As fill heights change install earth bunds along top of batter and channel water down batter chutes to basins.
7. Ensure basin/sump/bund overflows and batter chutes have a low point and are lined with plastic or geofabric and rock scour protection.

Legend:

- Clean water cut off drain
- Lined batter chute
- Site water diversion
- Earth bund or equivalent
- Lined site water channel
- Rock sock & rock check
- Sediment fence
- Sediment basin
- Sediment trap
- Piped water crossing

Preliminary Erosion and Sediment Control Plan – Sheet 4



Notes:

1. Construct sediment basins and sump with connecting inlet/outlet drainage first.
2. Complete clean water catch drains and convey flows under new road via culverts.
3. Send maximum amount of catchment to corresponding sediment basins or sumps. Divert site water as required by utilising earth bunds, temporary channels / pipes.
4. Drum roll exposed road surfaces and cut in cross drains to break up slope length prior to forecast rain.
5. Stabilise earth bunds with vegetation or geofabric to provide strength and reduce dust / sediment sources.
6. As fill heights change install earth bunds along top of batter and channel water down batter chutes to basins.
7. Ensure basin/sump/bund overflows and batter chutes have a low point and are lined with plastic or geofabric and rock scour protection.

Legend:

- Clean water cut off drain
- Lined batter chute
- Site water diversion
- Earth bund or equivalent
- Lined site water channel
- Rock Sock & Rock check
- Sediment fence
- Sediment basin
- Sediment trap
- Piped water crossing
- Silt curtain / hydrocarbon boom

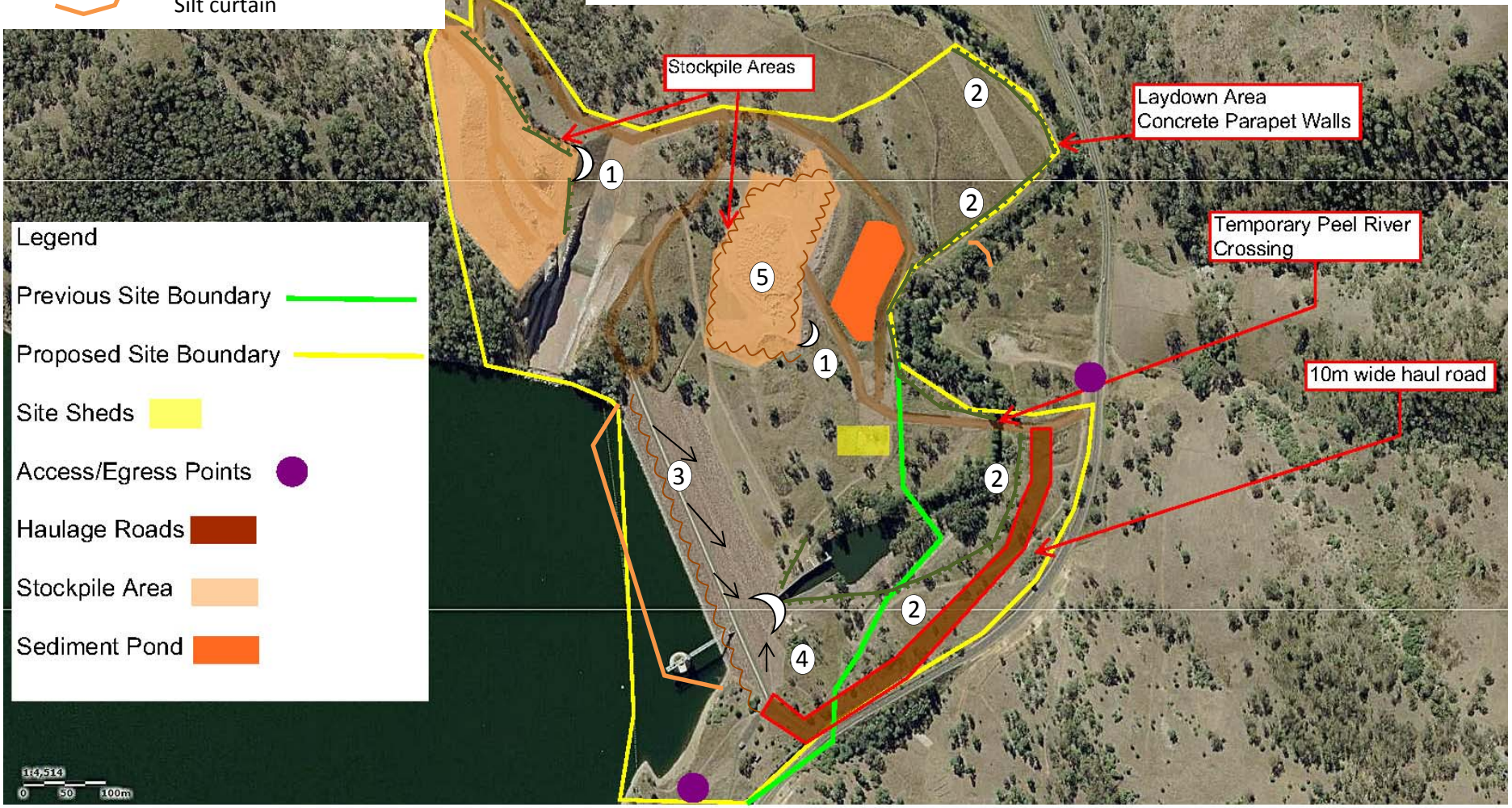
Preliminary Erosion and Sediment Control Plan – Sheet 5

ERSED Legend:

- Earth bund or equivalent
- Sediment fence
- Sediment trap
- Silt curtain

Notes:

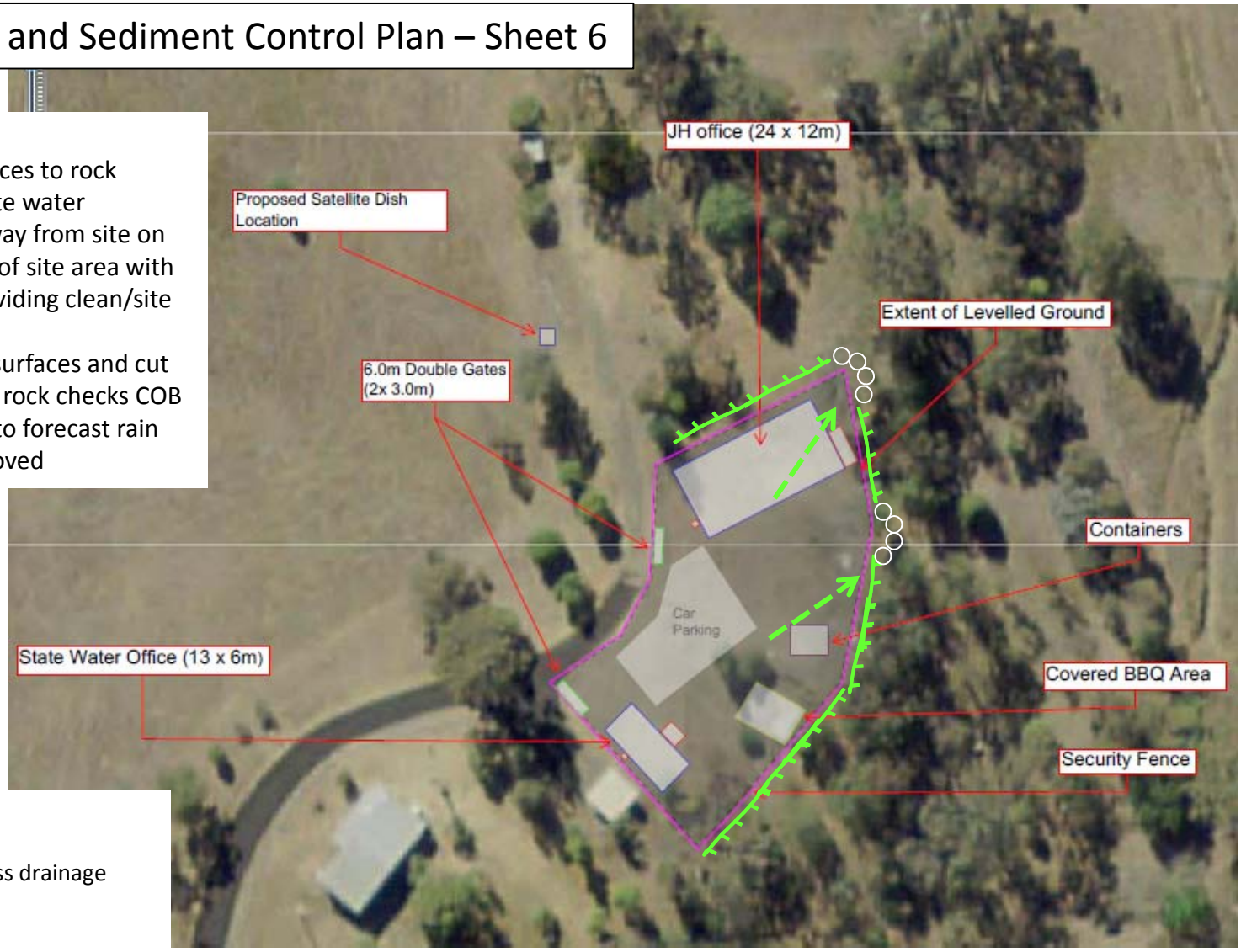
1. Construct sediment sump with connecting inlet/outlet drainage
2. Install sediment fence where indicated to protect clean water
3. Drum roll exposed surfaces and construct earth bund along water side of the dam wall COB each day and prior to forecast rain
4. Place fill so that the gradient falls back into the site and through controlled drainage flow path
5. Install earth bunds with a nominated low point around stockpile area



Preliminary Erosion and Sediment Control Plan – Sheet 6

Notes:

1. Install sediment fences to rock checks to control site water
2. Clean water falls away from site on the southwest side of site area with the hinge point providing clean/site water separation
3. Drum roll exposed surfaces and cut in cross drainage to rock checks COB each day and prior to forecast rain
4. No trees to be removed



ERSED Legend:

- Site water cross drainage
- Rock check
- Sediment fence

Appendix 7 Temporary Peel River Construction Methodology

C680 – Chaffey Dam Augmentation and Safety Upgrade
Construction of downstream Peel River Temporary Crossing – Rev 4

Author: Brandon Perrin
Date: 18/9/14

Powered by People

Table of Contents

1. Introduction

Figure 1 - Location of Temporary Peel River Crossing

The location of the crossing is identified by the red circle in the photo above. Temporary bridge will in operation between September 2014 and February 2016.

The temporary Peel River crossing will be constructed approximately 430m downstream from the centre of the crest of the dam and will span approximately 9.8m

The abutments of the temporary bridge will be excavated and constructed so that the alignment of the existing road and new bridge match as such it is expected that disturbance to riparian vegetation will be minimal and may only require minor trimming of trees so that the passage of vehicles can occur without damaging or removing tree branches.

The current river level between the abutments is dependent on the water releases from Chaffey Dam. Communication between the dam custodian and John Holland will be necessary to construct the temporary crossing safely and correctly. All earthworks within the river will be carried out during minor/low flows through liaison with SWC Chaffey Dam Custodian Nick Burr.

The existing water level will dictate the type of in river sediment control to be used. It is expected that the water level will be too low (< 300mm) to allow the use of a silt curtain and therefore sandbags will be the most suitable option.

2. Design

The bridge will form an integral part of the construction of the Augmentation and Safety Upgrade of the Chaffey Dam. The bridge will allow the hauling of stockpiled and processed material from the western side of the river to the main embankment and the road works at Bowling Alley Point Bridge.

John Holland has engaged R.C. Magro and Associates to design the temporary crossing. R.C. Magro was involved in the original design when the crossing was first constructed in 2010. A similar design will be used to for the new bridge and a copy is included in Appendix A.

Figure 2 - Original Crossing under Construction 2010

3. Environmental Controls

3.1. Air Quality and Dust Management Mitigation Measures

Water carts will be on site at all times to management dust, visible dust will be reported to the supervisor immediately.

Mitigation Measure	Project Phase
An effective Complaints Handling System as per the Community Communication Strategy will be developed and implemented throughout construction.	Construction
Distance travelled on unsealed roads will be minimised by taking the most direct route to the destination.	Construction
Vehicle speeds on unsealed roads within designated works areas will be limited to 40km/hour or less.	Construction

Mitigation Measure	Project Phase
Larger trucks will be utilised for material transport to minimise the required number of trips, where possible.	Construction
Unsealed roads, other unsealed surfaces, dry, sandy materials and stockpiles (as relevant) within designated works areas will be watered, likely using water carts, when visible dust emissions can be observed travelling offsite. Watering will be carried out at a rate of >2 L/m2/hour on unsealed travel route (note it is important to not allow unsealed roads to become saturated as this will increase emissions once they dry out).	Construction
The extent of unsealed areas will be minimised by only clearing or unsealing areas required for the works and progressively rehabilitating disturbed areas as soon as possible after works are completed.	Construction
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.	Construction
All loaded vehicles entering or leaving the site to have their loads covered	Construction
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.	Construction

3.2. Plant and Equipment Management and Maintenance

The main impacts from plant and vehicle emissions include an increase in greenhouse gases and a general reduction in air quality. The main compounds associated with diesel combustion in plant and equipment includes carbon monoxide, sulphur dioxide and nitrogen dioxide.

To minimise the impacts on local and regional air quality, mechanical inspections of plant and vehicles will be undertaken as by qualified tradesman as per manufactures specifications to ensure all equipment are in good working order. Vehicles and construction plant and equipment will be maintained in good condition and regularly serviced so that vehicular emissions remain within air quality standards. Engines will be switched off when vehicles are not in use and refuelling areas will be located away from areas of public access and sensitive receivers.

3.3. Water Quality Mitigation Measures

Mitigation Measure	***Project Phase***
A Sediment and Erosion Control Plan (ESCP) will be developed and implemented, and will include, as a minimum: ► 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 embankment of the dam wall ► Regular checking of sediment and erosion control devices, including after heavy rainfall ► Cleaning or replacement of sediment and erosion control devices as required ► No refuelling within 40 meters of a waterway	Construction
Existing cleared, disturbed and sealed areas will be identified and used preferentially for vehicle and machinery access, materials laydown and stockpiling wherever practicable to minimise disturbance to native vegetation, including areas of derived grassland	Construction
Off road driving will be minimised as far as practicable and will be limited to within designated works areas	Construction

Sediment and erosion control devices will be checked regularly, including after heavy rainfall and cleaned or replaced as required.	Construction
All concrete pours and bitumen use will be appropriately supervised	Construction
Placement of bitumen products will be restricted to periods where there is expected to be at least two days of dry weather after their application	Construction
The use of heavy machinery on areas that are outside of the area of direct impact and excavation works will be avoided during, and immediately following heavy rainfall events to protect soils from erosion and compaction	Construction
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	Construction
The extent of soil disturbance will be minimised and rehabilitation will be undertaken as soon as practicable following completion of works at each location.	Construction
The Contractor will maintain the works areas in a clean and tidy fashion.	Construction

3.4. Contamination Discovery and Prevention

If any contamination is discovered the work will cease immediately and the supervisor to be contacted. The Supervisor will call the Environmental Manager to access the situation and contact the appropriate authorities.

Prevention Measures	Project Phase
All chemical to be bunded and only a minimum taken to the site.	Construction
Spill kits to be readily accessible on site.	Construction
No refuelling within 40m of a waterway	Construction
Any spills occur contact the supervisor immediately	Construction

3.5. Noise and Vibration

The construction hours for the Project are defined by the conditions outlined in Project Infrastructure Approval. All construction works will be carried out within the approved hours or as otherwise approved as part of the Environmental Protection Licence (EPL).

The standard construction hours of work are detailed in the table below.

3.5.1. Table 1 - Construction Hours

Construction Activity	Monday to Friday	Saturday	Sunday/Public Holidays
Construction Activities	7.00am to 6.00pm	8.00am to 1.00pm	No works

3.5.2. Noise Intensive Activities

Noise intensive activities are construction works with impulsive, tonal or low frequency characteristics such as jack hammering, rock hammering, pile driving, vibratory rolling, cutting of pavement and shall, in accordance with Project Infrastructure Approval only be undertaken–

- Between the hours of 8.00am to 5.00pm Monday to Friday

- Between the hours of 8.00am to 1.00pm Saturday
- 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, except as expressly permitted by the EPL (to be issued).

Mitigation Measure	*Project Phase*
Simultaneous operation of noisy plant will be avoided wherever practicable.	Construction
Maintenance work on construction plant and vehicles will be carried out away from identified sensitive receivers and confined to standard daytime construction hours, wherever practicable.	Construction
Wherever practicable, noisy equipment will be: ► Positioned behind structures that act as barriers to identified sensitive receivers ► Positioned at the greatest distance from identified sensitive receivers ► Oriented to directed noise emissions away from identified sensitive receivers	Construction
All vehicles and equipment will be regularly serviced, as per manufactures instructions and maintained in proper working order and turned off when not in use.	Construction
"Quiet" practices will be employed wherever practicable when operating equipment.	Construction
An effective Complaints Handling System, as outlined in the Community Communication Strategy will be developed and implemented throughout construction.	Construction

3.6. Heritage (Archaeological finds)

Mitigation Measure	**Project Phase**
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. 1. All works must halt in the immediate area of the object(s) and any further disturbance to the area of the object(s) prevented 2. The discoverer of the object(s) will notify machinery operators in the immediate vicinity of the object(s) so that work can be halted 3. The object(s) will be reported to the site supervisor and the Principal/Project Manager 4. The approximate extent, nature, associated archaeological potential and likely significance of the object(s) will be determined by an appropriately qualified person or persons (such as the project archaeologist) 5. An appropriate management strategy for recording and preservation of the object (if warranted) will developed, along with a strategy to return to work as far as possible.	Construction
Where suspected human remains are uncovered, an Unanticipated Discovery Protocol will be implemented.	Construction

4. Site Traffic Management

The delivery vehicles will be coming south from Tamworth and will turn off Nundle Road into the existing haul road at the base of the dam wall.

The speed-limit in the dam embankment site and borrow area haul roads will be 20km/h, particularly once the haul road construction has been finalised.

This information will be included in the induction presentation and any changes will be updated at Toolbox Meetings.

Persons inducted onto the project will be informed of the need to only use existing access roads and to not travel off the existing pavement and into other grassed areas or on the shoulders of the road.

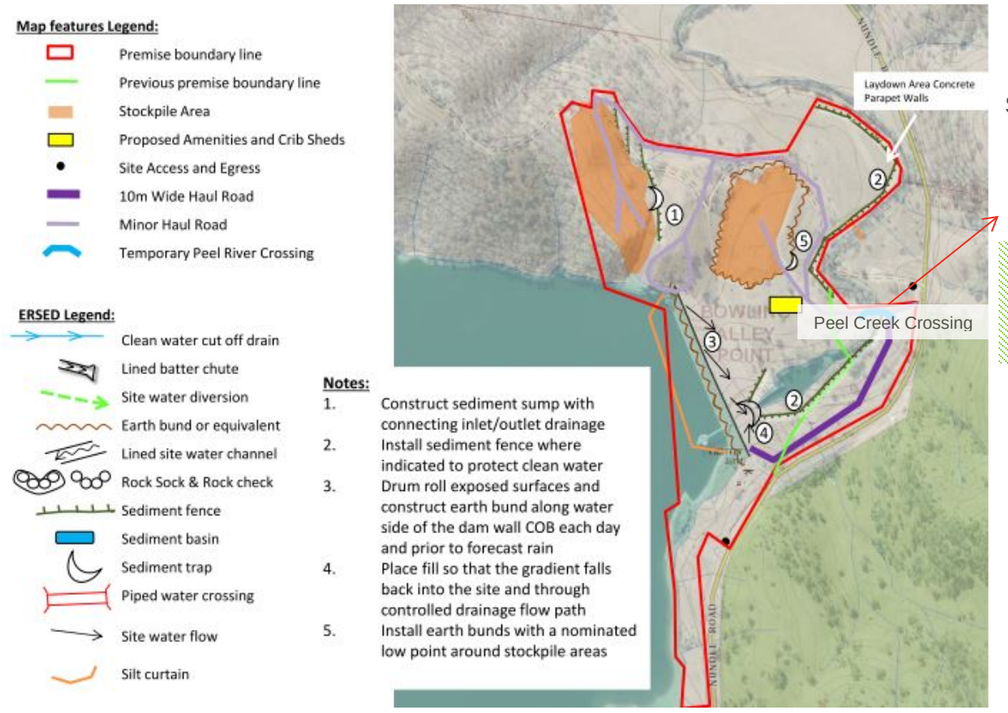
Vehicles enter this site through the existing security gates and storage of bridge components will be stored in the flat laydown area inside the security gates.

4.1. Expected Traffic Movements for the Construction of the Temporary Bridge

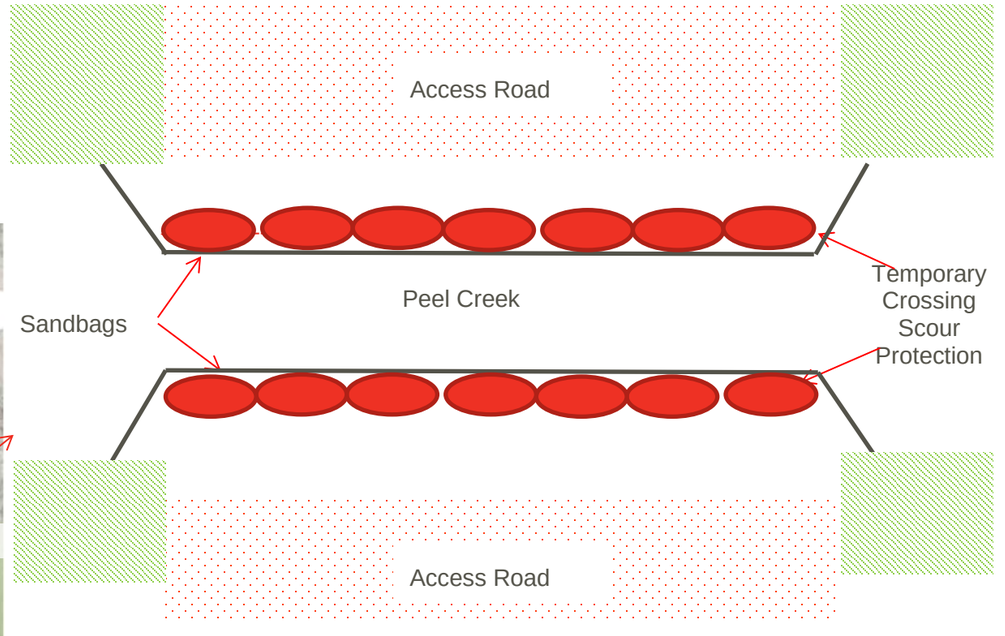
- 4 X Semi-trailers
- 5 X Concrete agitators
- 2 X 50 Tonne crane movements
- 2 X Floats for 30T excavator
- 2 X bogie tippers
- A number of light vehicles

SITE ENVIRONMENTAL PLAN – CHAFFEY DAM SAFETY UPGRADE AND AUGMENTATION

Chaffey Dam
SEP Scope: This SEP applies to activities associated with the Peel Creek Crossing at Chaffey Dam.
Air Quality & Dust Management
- Keep truck speeds down to minimise dust on site - Use water sprays when dry and windy - Water cart on site for dust control - Wet down site stockpiles
Erosion and Sediment Control
- Ensure all erosion and sediment controls are in place as per this ERSED plan prior to works taking place - Check erosion and sediment control devices prior/after rainfall events, during periods of extended rainfall and weekly during dry weather - Ensure access roads are free from tracked material
Contamination
- If any contaminated material is found stop work and cordon off area. Contact Superintendent - Spill kit to be available at work area - No refuelling near waterways >40m
Noise
- All works to occur during Standard Construction Hours unless previously approved - Standard Hours 7 am to 6 pm Monday to Friday and 8 am to 1 pm Saturday
Water Management
- No discharge of ponded water is to occur unless the water quality is within project WQO limits - pH - 6.5 -8.5 Total Suspended Solids – 50mg/L (Max) Oil and Grease – Nil Silt boom to be placed downstream of the works
Weeds
- Vehicle movements will be limited to construction areas and haul roads to prevent the spread of Coolatai grass
Archaeological Find
- Archaeological material is encountered (oily soil/bones) stop work and cordon off area. Contact Superintendent



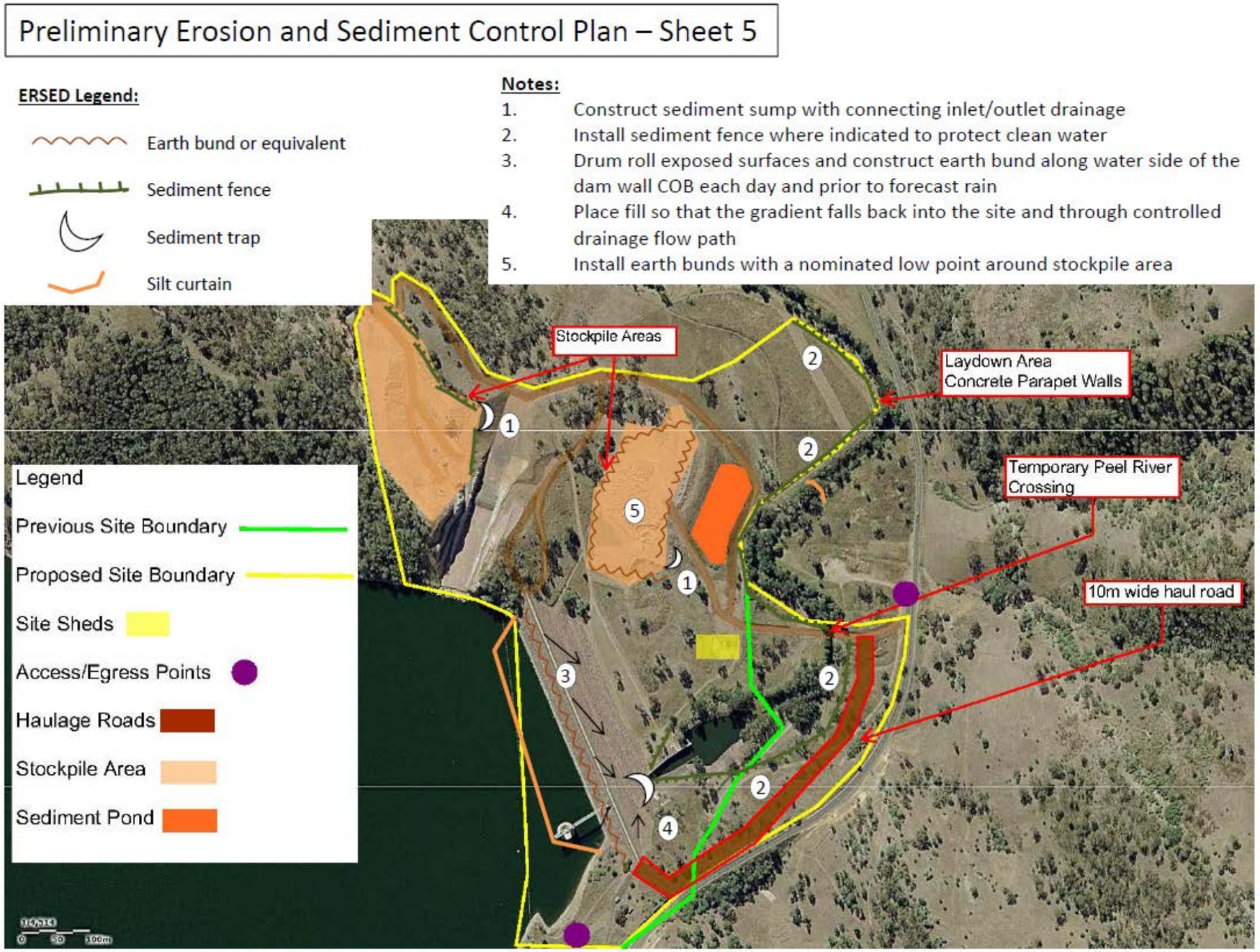
ERSED referenced from Preliminary ERSED Plans Sheet 5/Soil and Water Plan Appendix 5



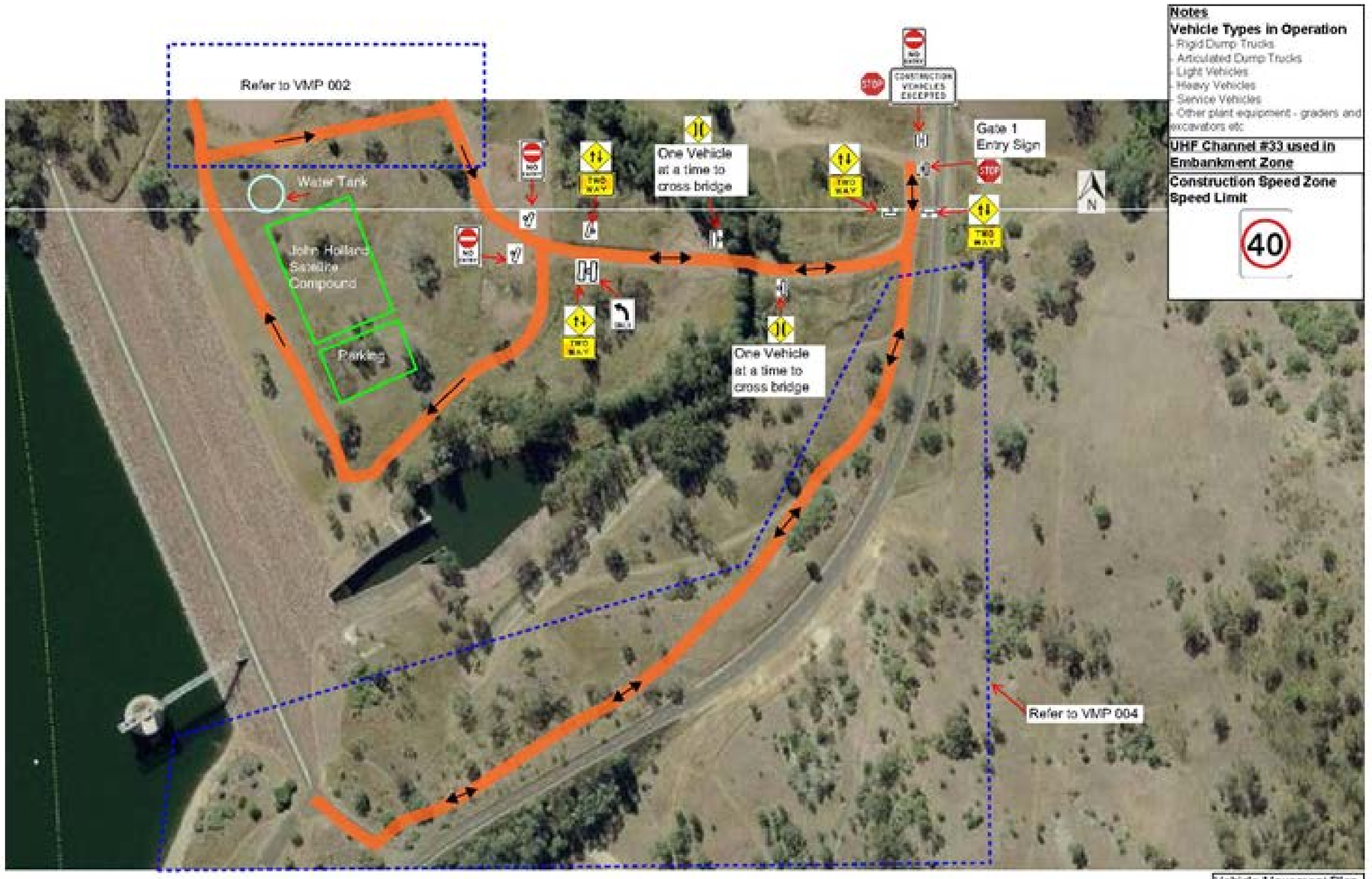
- Minimise disturbance to riparian area, exclusion zone to be established
- To protect the creek from work activities, flow will be diverted with sand bags filled with clean sand. Works to occur during periods of low flows
- Clean scour protection will be placed behind the sandbags
- Area will be excavated 500mm below current channel depth. A layer of geofabric will be placed on the excavated area and backfilled. Geotextile to be folded and closed prior to finalising abutment works
- Ensure spill kit with emergency boom is available at the work area
- Revegetation on completion of construction where necessary as per Blue Book requirements

Superintendent OR Senior Project Engineer	Signature:
	Date:
Environment Manager	Signature:
	Date:

6. Erosion and Sediment Control Plan



7. Site Vehicle Movement Plan



8. Construction Methodology

8.1. Excavate

To ensure the bridge can withstand a small to moderate flood event scour protection must be installed below the level of current river channel. This earthworks will be carried out during minor/low flows through liaison with SWC Chaffey Dam Custodian Nick Burr.

The river bank which is currently part of the river crossing will be excavated to 500mm below current channel depth and approximately 11m along each bank. This will result in the dredging of approximately 17 m3 of river bank material plus additional material from under the existing river level crossing.

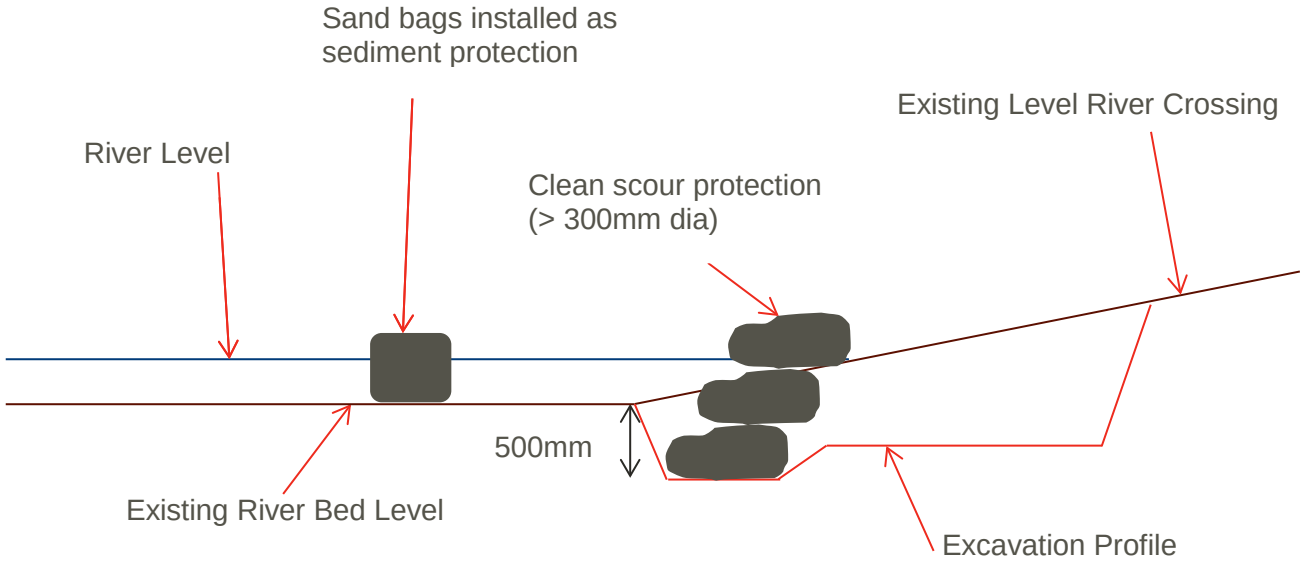


Figure 3 – Typical for excavation profile for right hand bank

8.2. Place and Compact

Following the installation of the scour protection the existing road will be levelled and proof rolled. Geotextile will then be laid along the length of the excavation and site won sub grade will be compacted to approximately 500mm thick. This earthworks will be carried out during minor/low flows through liaison with SWC Chaffey Dam Custodian Nick Burr.

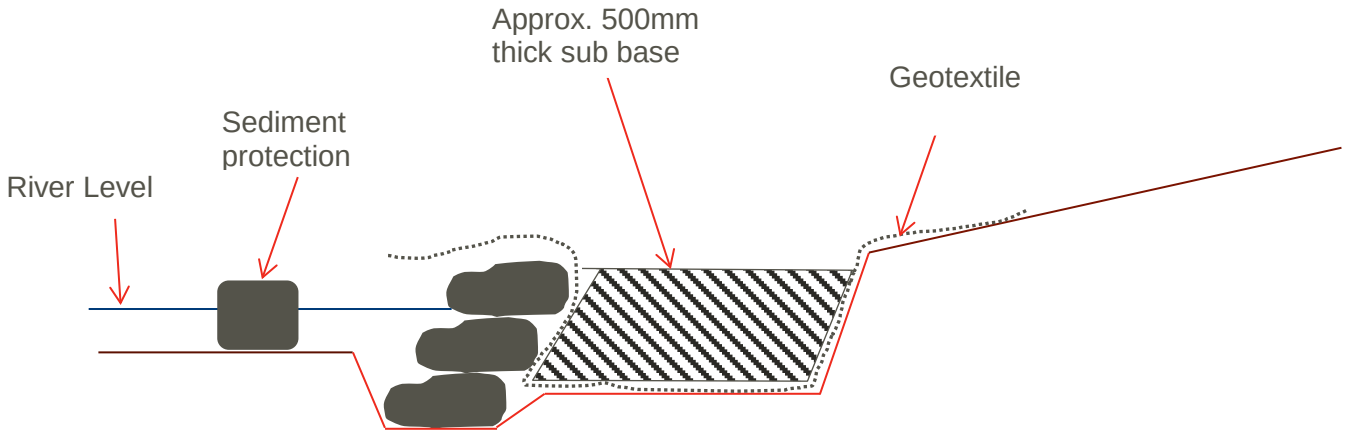


Figure 4 - Typical abutment back fill of right hand bank

8.3. Construct Abutments

The geotextile will then be folded and closed to increase the scour protection and a 75 mm thick blinding layer of concrete will then be poured over the backfill. This will allow for set-out and construction of the reinforced concrete abutments.

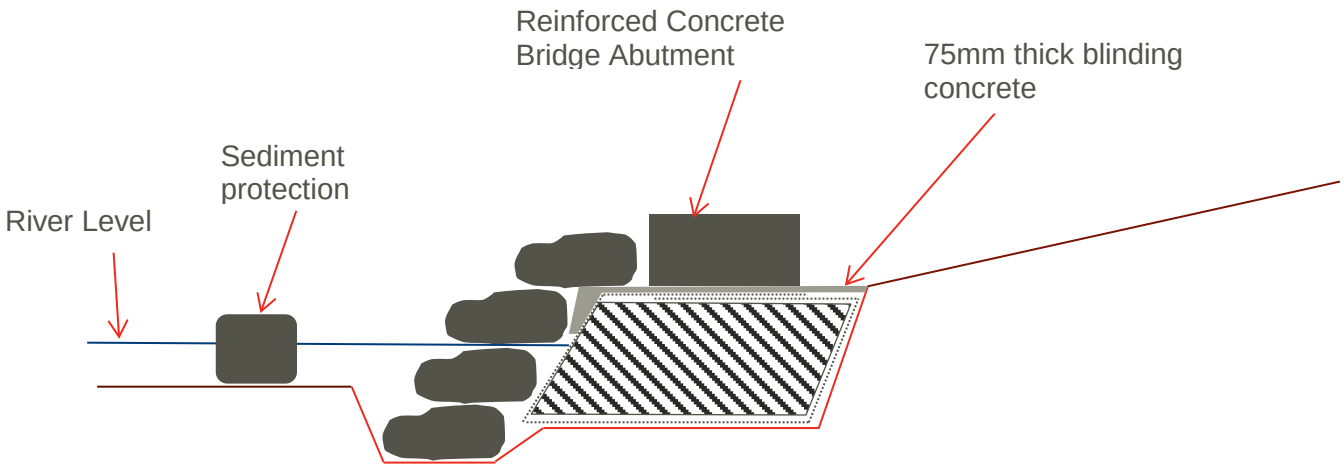


Figure 5 - Typical abutment construction right hand bank

8.4. Construct Deck

Once the abutments have been completed the steel beams for the deck will craned into position, along with the Bondek sacrificial formwork to allow the reinforcement to be tied and the concrete deck to be poured in-situ.

During formwork and concrete pouring temporary propping will be required, similar to that shown in figure 1.

8.5. Completion works

Following the deck being poured all temporary form work will be removed and the abutments backfilled with sub base.

The abutments and batter slopes will then be rock armoured on the downstream and upstream faces.

In line with SEP silt protection will then be installed along the both river banks to mitigate the risk of sediment entering the waterway.

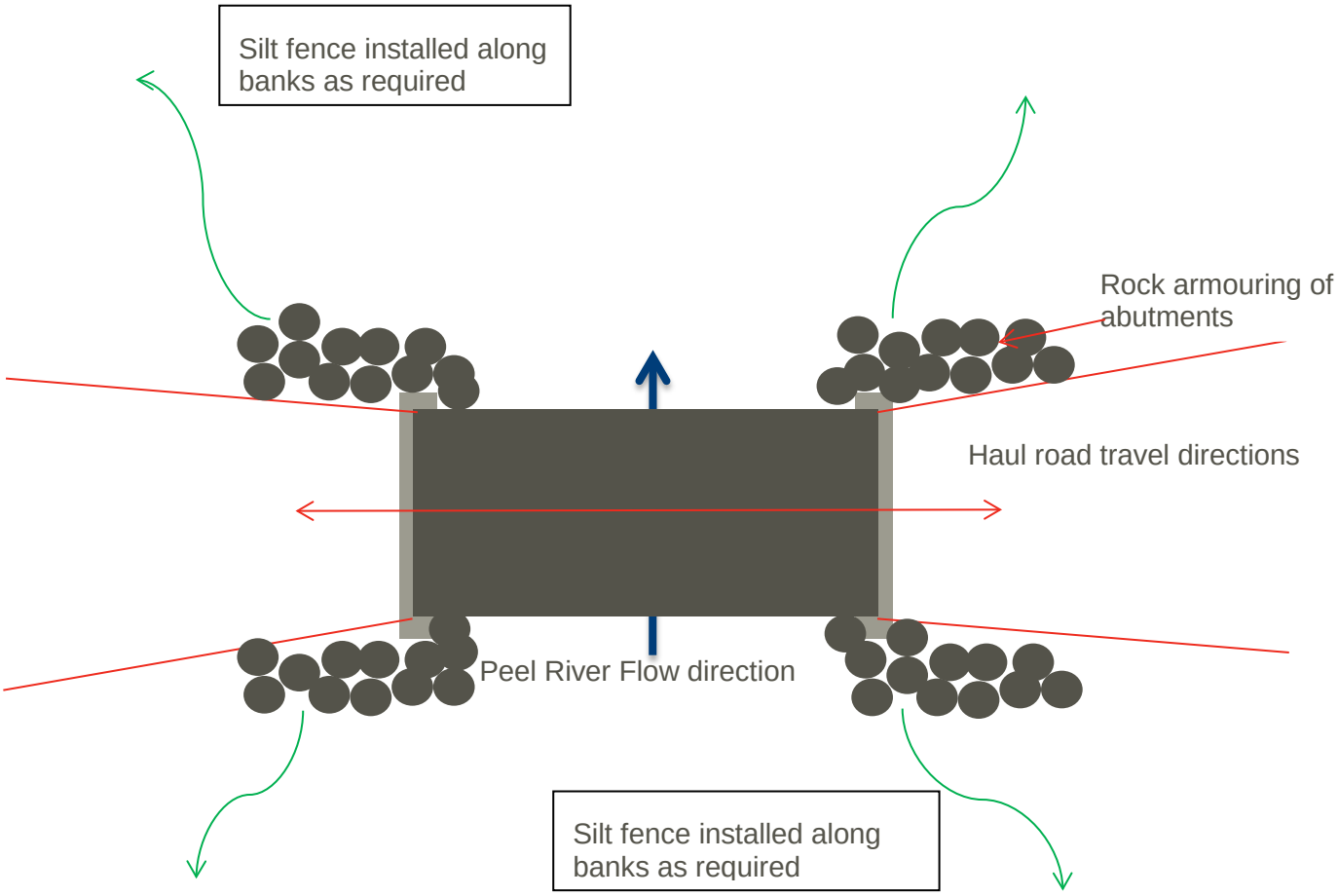


Figure 6 - Plan view of completed temporary crossing.

9. Removal of bridge and bank stabilisation

9.1. Removal of bridge

Suitable signage and controls will be implemented to notify JH and SWC personnel that the bridge is closed.

The deck of the bridge will be removed by

1. Liaise with SWC Chaffey Dam Custodian Nick Burr to determine times of low flows downstream of the dam.
2. Install sandbags in the same location as construction to control silt and sediment in the river.
3. Excavating behind the deck on each abutment,
4. Saw cutting along the line of down turn in-situ slab on each abutment
5. Removal of the down turn will be by excavator and subsequently hammered up and disposed through an appropriate waste management facility.
6. Cutting off the studs that fix the deck to the universal beams by using a grinder or an oxygen acetylene torch.
7. Using and excavator on each side of the bridge the deck will push/pulled to the eastern bank where it will be hammered up and disposed through an appropriate waste management facility.

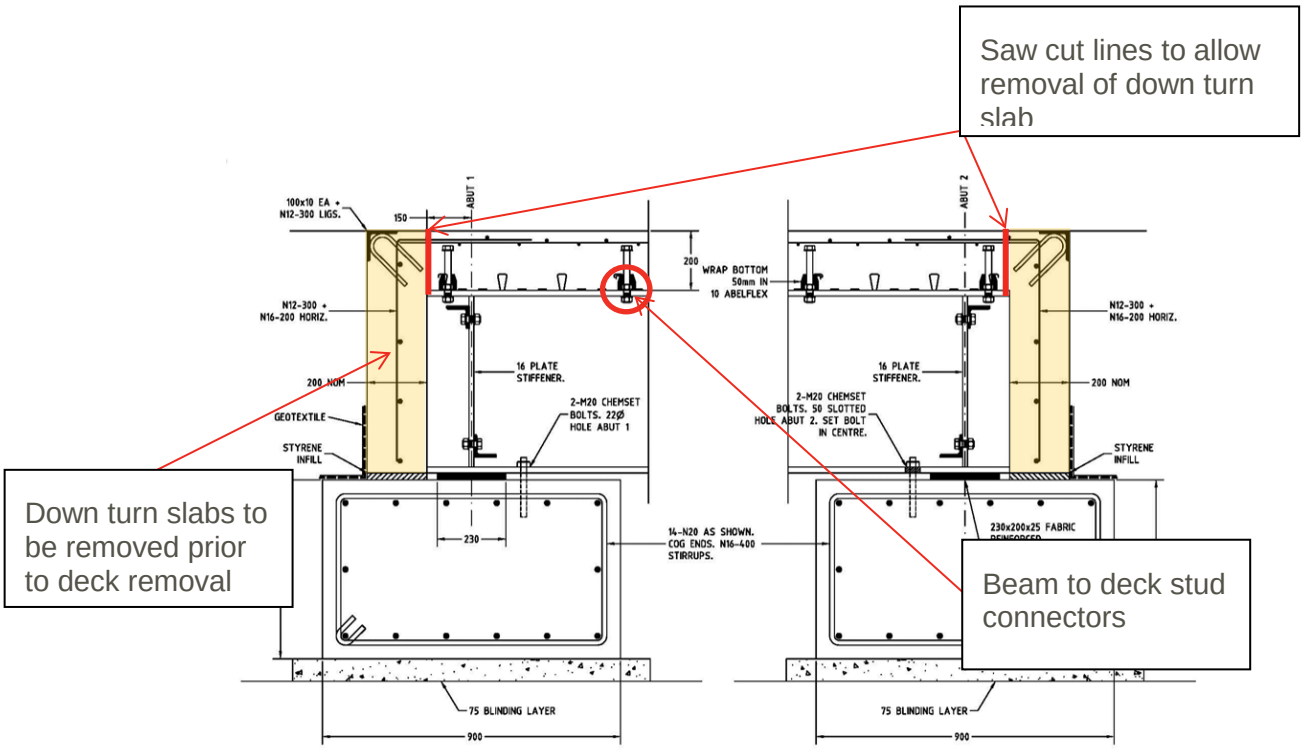
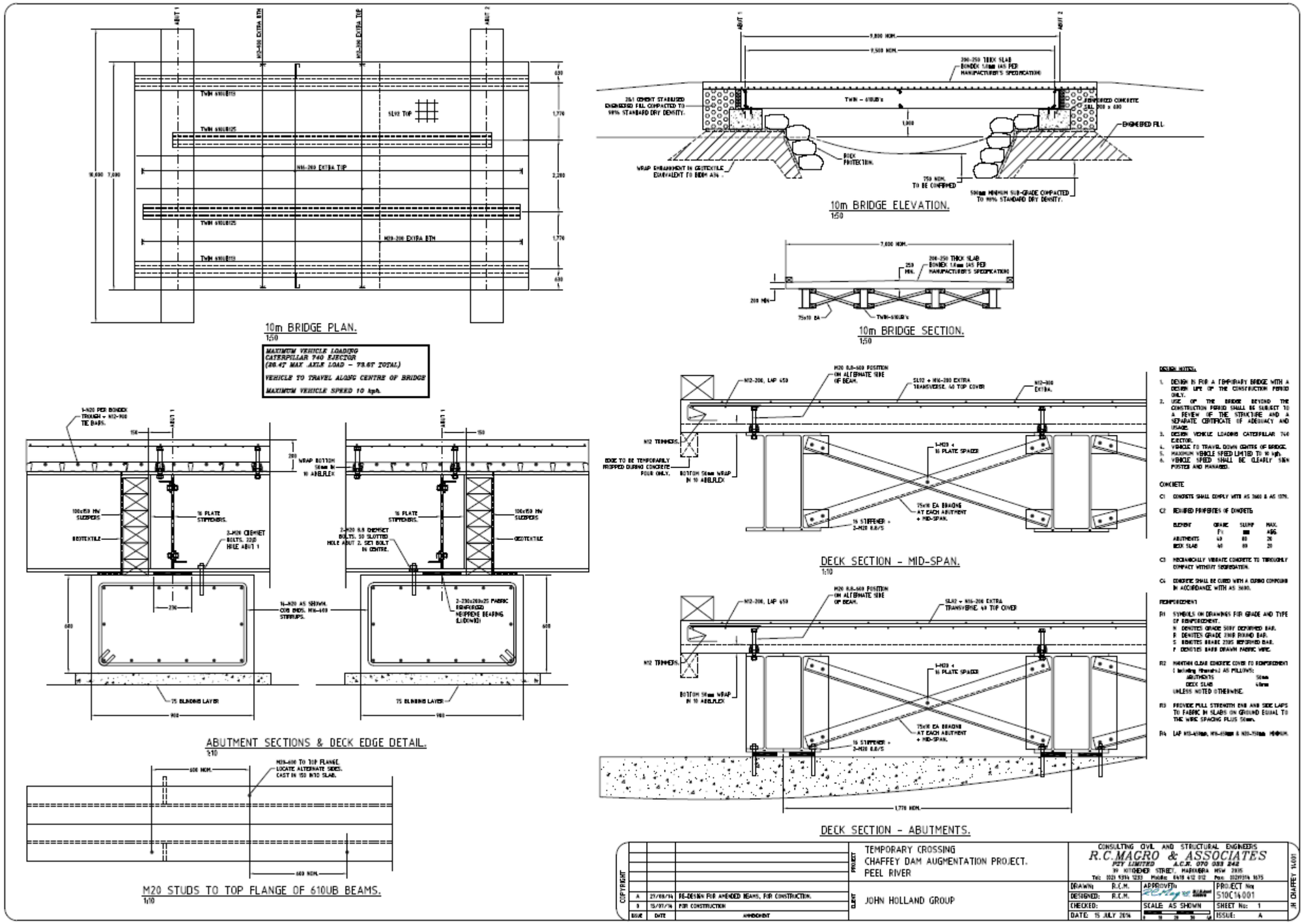


Figure 7 - Removal of temporary bridge

8. Bracing struts will then be removed.
9. Universal beams will be lifted off and returned to the John Holland Plant yard via semi-trailer.
10. Each abutment and associated blinding layers will then be pulled away from the bank by excavator and hammered up and disposed through an appropriate waste management facility.
11. Over-sized scour protection and armouring rock will be removed and returned to the stockpile areas to the west of the bridge.
12. Geofabric, sub base material and engineered fill will be removed.
13. The original profile of the river crossing will be reinstated by using the fill material that backfilled behind the abutment. This will be compacted and disturbed areas either side of the road will hydro-mulched to stabilise the batter.
14. All materials from the bridge will be re-used, recycled or disposed of in line with Waste Management Plan.

Appendix A Temporary Bridge Design



Appendix B Approval Correspondence

Please note Matt Gordos' comments in the last paragraph.

The formal concurrence will be provided when they review the CEMP. Any construction of this crossing will not be possible till the CEMP has been approved.

I suggest that the proposal for the river crossing at BAP bridge be included in this addendum as well.

Regards

Jubrahil Khan | Project Manager Chaffey Dam | State Water Corporation

PH (02) 8245 2049 | MOB 0418 414 727 | FAX (02) 8245 2104
Level 10 55 Clarence St
Sydney NSW 2000
GPO Box 1604 Sydney NSW 2001
www.statewater.com.au
ABN 21 147 934 787

From: Matthew Gordos [mailto:matthew.gordos@dpi.nsw.gov.au]
Sent: Thursday, 17 July 2014 9:33 AM
To: Brandon Perrin
Cc: ChaffeyDamASU.office; Tony O'Reilly; Jubrahil Khan
Subject: Re: DPI Approval for Temporary Crossing of Peel River Downstream of Chaffey Dam

Hi Brandon,

Thank you for the documentation. I have no major issues with what is proposed. Could I ask the following minor considerations be included in the documentation:

1. Works to occur only during minor / low flows.
2. Please indicate approximately how long the temporary bridge will be in place - estimate fine.
3. Some comment / diagram(s) should be included as to how the bridge will be removed and the bank stabilised at the end of the project.
4. Any disturbance to riparian vegetation (i.e. trees)? If so, the level of disturbance (e.g. trimming, removal) and species should be listed. It's obvious from the aerial photo that this is a previously disturbed site.
5. Where required (i.e. outside areas where scour protection / geofabric is used), sediment fencing should be placed around disturbed banks to limit sediment from entering the waterway from the banks and/or unsealed road approaches. This may not be necessary.

Otherwise, I'm happy with the proposal. Check with State Water's NAS section regarding environmental documentation / approvals. The advice above is not official concurrence from Fisheries NSW. Normally I provide concurrence for such works once an REF / CEMP is submitted by the proponent. You would of already developed such documentation for this project, so I'm unsure whether what you propose would be an addendum or new works? NAS will be able to assist to detail what paperwork is required.

Any questions - best to call through to discuss over the phone.

Kind Regards

Matthew

Matthew Gordos | Regional Manager Fish Passage | AHR
Department of Primary Industries – Fisheries NSW
1243 Bruxner Highway | Wollongbar NSW 2477

T: 02 6626 1395 | M: 04 27 243 343 |
E: matthew.gordos@dpi.nsw.gov.au |
W: www.dpi.nsw.gov.au

On 15 July 2014 17:30, Brandon Perrin <Brandon.Perrin@jhg.com.au> wrote:

Matthew,

Please find the attached Construction Methodology and design drawing for the temporary crossing for your approval as we discussed last week.

We are currently in the planning stage for the required crossing adjacent to the Bowling Alley Point bridge and will forward our methodology when finalised for your approval after you return from leave.

If you require any further information or would like to discuss changes please feel free to call or email.

Regards,

Brandon Perrin

Senior Project Engineer, Infrastructure South East

Level 3, 65 Pirrama Rd, Pyrmont NSW 2009

P. +61 2 9552 7330 **| M.** +61 409 046 219 **| F.** +61 2 9660 0410

E. brandon.perrin@jhg.com.au | **W.** johnholland.com.au

Appendix 8 State Water Chaffey Dam stage two safety upgrade and augmentationCommunication plan

State water
Taking care of it

Communication strategy

Chaffey Dam upgrade and augmentation

2014

Contents

Appendices

1 Background

Chaffey Dam is located on the Peel River about 45km south east of Tamworth. The dam is owned and operated by State Water Corporation and is one of seven State Water is upgrading to meet NSW Dams Safety Committee requirements for extreme floods.

The dam safety upgrade is being completed in two stages, stage one was completed on time and on budget in February 2011, making the dam more able to withstand an extreme flood.

The Tamworth regional community and Peel Valley irrigators called for the dam to be augmented from its current 62,000 megalitres to hold 100,000 megalitres for water security for the growing city.

Years of investigations and community consultation have taken place to determine the most suitable options and included formation of a Chaffey Dam Upgrade community reference panel.

Investigations identified that augmentation should be undertaken with stage two of the dam safety upgrade for technical and economic reasons.

In February 2011, funding for the augmentation was awarded by the NSW and Australian governments and Tamworth Regional Council.

As project managers, State Water Corporation will manage the augmentation and stage two safety upgrade. The environmental approval process included consultation with affected stakeholders regarding the impact from the increased full supply level from the augmented dam.

Tenders for construction were called late in 2012, however awarding of the construction contract has been delayed.

Additional funding (including contingency funds) was delivered from funding parties to overcome inherent and contingent risks during construction bringing the total project budget to $50M.

2 Communication goals and objectives

Goal a: No delays to the project from community concerns

Objectives:

1. Identify all key stakeholders by February 2011.
2. Consult with affected stakeholders through the Environmental Impact Assessment process
3. Hold two events attended by key stakeholders and media to celebrate commencement and completion of project
4. Update project web page as project progresses
5. Issue media releases at key points throughout project
6. Form community construction liaison group with quarterly meetings on progress as primary forum for key stakeholder consultation.

Goal b: Minimise negative correspondence to Ministers

Objectives:

1. Keep local MPs and Mayor informed at key milestones and additionally on an as-needs basis
2. Keep all key stakeholders informed and provide avenues for feedback/resolving issues directly with State Water
3. Set community expectations around project deliverables and impacts through communication of realistic timelines and any changes

Goal c: Ensure the funding partners' communication requirements are satisfied.

Objectives:

1. Acknowledge funding partners on communication materials in accordance with the communication and media protocols in section 10 of this document.
2. Establish communication lines and clear approvals process with funding partner representatives.

3 Communication strategy

Prior to contract award

- Clear identification and differentiation between funding partners and construction authority/project manager
- Work collaboratively with funding partners through the External Stakeholder Steering Committee to enable project updates and issue discussions. External Stakeholder Steering Committee representatives to liaise and update respective organisations.

Post contract award

- Proactive communication to build a positive project reputation and reduce impact of potential negative communications.
- Manage key stakeholders expectations by keeping them up-to-date on developments, environmental matters and potential impacts and providing an avenue for feedback and issue resolution
- Build relationships with journalists by providing accurate, informative and useful stories, timely responses to enquiries and high quality photos
- Develop information hot-spots at key locations in the community
- Communicate progress internally to build knowledge within State Water Corporation and enable staff to be project champions

4 Tools and tactics

- **MP and Minister briefings:** To keep MPs and Minister informed of potential project issues, as required
- **Fact sheets:** Produced internally, distributed directly to key stakeholders and to general community/interested parties via information hotspots
- **Webpage:** sub-sections off dam safety upgrades pages on State Water website; regularly updated
- **Media releases:** At key project points and general updates to local media, industry publications, customer service committee, key stakeholders and State Water staff. Media releases and media comment to abide by media protocols in section 10 of this document.
- **Letters:** to key stakeholders at key project points
- **Issues and feedback register:** A register of potential and realised project communication issues and feedback to be managed by the communication lead.

- **Information hotspots:** Posters with information on why the upgrade is happening, what it involves, photos of construction, information sheets at visitor information centres, libraries, MP offices and council reception areas.

- **Presentations and site tours:** To community groups and associated organisations on request.

- **Newsletters:** Include articles in internal State Water newsletters to educate staff on the project.

- **Award submissions:** Submissions for key engineering or construction awards depending on success of project.

- **Photos:** Taken throughout the project and distributed to media, uploaded to State Water website, Flickr page and Twitter as appropriate.

- **Videos:** Footage to be compiled throughout the project and edited into a video for uploading onto State Water's YouTube channel (www.youtube.com/statewatercorp).

- **Merchandise:** Consider producing project caps for project team, construction team and key stakeholders.

- **Meetings:** Community Construction Liaison Group (CCLG) meetings to act as the key stakeholder consultation mechanism throughout construction. Meetings to be held quarterly meetings with landholders, State Park and identified local groups as well as the designated environmental representative. Attended by State Water representatives and contractors to provide project updates and a forum for feedback/issue resolution. Other meetings to be held include GC21 for project team, Program Control Group, External stakeholder steering committee (with funding partners) and internal steering committee.

- **Social media:** All media releases to be tweeted via State Water Twitter account (www.twitter.com/statewater). Project photos may also be tweeted.

- **Ceremonies:** Ceremony to be held to recognise the start and completion of construction with key stakeholders and media invited.

- **Information sessions:** If determined as necessary local information days can be arranged.

- **Register of interest:** Self-subscribed register of interest to be generated for receiving electronic project updates linked from website

- **Signage:** Project signage to be erected at the site viewing area

5 Project timeframe

Date	Milestone
Feb 2011	Complete works package one, completion ceremony Announcement of funding stage two and augmentation Board signoff of stage two and augmentation (S2&A)
April 2012	Environmental approval and detailed design (S2&A)
July 2012	Complete detailed design
Dec 2012	Call construction tenders
Mid 2014	Award construction contract (S2&A)
Mid to late 2014	Commence construction (S2&A)
2016	Expected completion of entire upgrade

6 Stakeholders

The stakeholder database, with contact details removed for privacy, is provided in Appendix 1. Key stakeholder groups include:

Government – Australian (Department of the Environment)
- NSW (Minister for Natural Resources, Lands and Water, Department of Trade and Investment)
- Local (Tamworth Regional Council)
- NSW Office of Water

Local water industry groups – Peel Valley Water Users
- Namoi Peel Customer Service Committee
- Namoi Water

Local community – landholders
- Tamworth/Nundle/Woolomin residents

Organisations – SES
- Recreational park – Bowling Alley Point Trust
- Local Land Services
- Fishing Clubs
- Police
- Aboriginal Land Councils

State Water
- Executive
- Board
- Project staff
- Tamworth office staff
- General staff

Media

7 Roles and responsibilities

Role	Organisation	Responsibility
Chief Executive Officer	State Water	Minister's office liaison, Board representative
Chief Operating Officer	State Water	Oversee all operations
Executive Manager Major Projects	State Water	Ultimate responsibility for successful project delivery
Manager, Civil Infrastructure	State Water	Oversee successful delivery of all programs and associated projects in the Civil Infrastructure portfolio
Project sponsor	State Water	Asset owner representative
Program manager	State Water	Oversee all dam safety upgrades
Senior project manager	State Water	Oversee project manager
Project manager	State Water	Manage project
Executive Manager Corporate Affairs	State Water	Oversee liaison with funding partners
NSW Government representative	Office of Water	Represent interests of NSW Government
Australian Government funding representative	Department of Environment	Represent interests/funding decisions of Australian Government through Department of Environment
Tamworth Regional Council funding representative	Tamworth Regional Council	Represent interests/funding decisions of Tamworth Council
Senior Communication Officer	State Water	Community and media relations, Minister's office liaison, internal and external communication
Manager Basin Planning	State Water	Communicate updates on Basin Planning activity impacts
Project Manager	John Holland	Manage project construction

The list of roles, responsibilities and names is provided in Appendix 4.

8 Committees

Chaffey Dam Internal Steering Committee (internal project governance group)

- Members: Project Manager, Senior Project Manager, Program Manager, Project Sponsor, Manager Civil Infrastructure, Executive Manager Corporate Affairs, Senior Communication Officer – Major Projects.

Chaffey Dam External Stakeholder Steering Committee (including funding partners)

- Members: Tamworth Council and NSW Government funding representatives; Project Sponsor; Executive Manager Corporate Affairs

- Guests/observers: Australian Government funding representatives; Manager Basin Planning, Chief Operating Officer, Manager Civil Infrastructure, Senior Communication Officer Major Projects.

9 Spokespeople

- Media enquiries, government and agency consultation spokesperson must be approved by State Water's communication manager or senior communication officer – major projects. Prior to awarding of the construction contract the State Water spokesperson will be State Water's CEO. Once the contract is awarded the senior communication officer – major projects or other representatives approved by State Water's communication team may act as spokesperson.
- Project related enquiries – Project Manager
- Relevant funding partner representatives and government members/Ministers may speak to media regarding the project provided that comments are in line with the media protocols and not contradictory to the key messages.

10 Protocols

- All project media releases must be offered as joint media opportunities for funding partners to ensure due recognition. Draft releases must be reviewed and approved by the State Water Internal Steering Committee and funding partner representatives prior to release.
- Only authorised spokespeople may speak on behalf of the Stakeholder Steering Committee or State Water as mentioned in section 9 of this document.
- Matters identified as 'Commercial-in-Confidence' will be respected by all parties.
- All funding outcome correspondence should be circulated to State Water's Chaffey Augmentation internal mail group.

- Minister's office correspondence will be through the CEO/COO or the Senior Communication Officer.
- All project communication materials and activities must be guided by the *Australian Government's Acknowledgement of Australian Government water programme support and funding* document (Attachment 2) and the *NSW NOW and NSW Government branding style guide* (Attachment 3).
- The senior communication officer will prepare reports on media opportunities as outlined in the funding agreement detailing recent and upcoming opportunities.

11 Key messages

- Chaffey Dam is one of seven dams throughout regional NSW included in State Water's dam safety upgrade program.
- Stage one of the Chaffey Dam safety upgrade, construction of a 35 metre auxiliary spillway, was completed in February 2011 on time and on budget.
- Stage one made the dam more able to withstand extreme flooding and brought it in line with NSW Dams Safety Committee standards.
- On 9 February 2011 the NSW and Australian Governments announced funding for stage two of the dam safety upgrade and augmentation of Chaffey Dam.
- Augmentation will increase the dam's capacity from 62GL to 100GL and ensure it can withstand extreme floods.
- The total project represents an investment of $50M in securing the future water supply for the Tamworth region. The $18.03M dam safety upgrade component of the project is funded by the NSW Government. Augmentation ($31.781M) is funded by the Australian Government National Water Security Plan for Cities and Towns ($18.145M), the NSW Government ($9.668M) and Tamworth Regional Council ($3.968M).
- Stage two of the dam safety upgrade will be incorporated into augmentation, involving raising the dam wall by 8 metres. These works will increase the full supply level of the dam by 6.5 metres.
- The augmentation will help to secure the long term water supply for the growing city of Tamworth and improve the security of water entitlements for users downstream of Chaffey Dam.
- The local economy is expected to retain a significant portion of the $50 million investment through the sourcing of contractors and supplies.

- The increased full supply level of the augmented dam will mean some roads, bridges and recreation facilities will need to be relocated or realigned.

- Environmental impact assessment was carried out under the *NSW Environmental Planning and Assessment Act 1979* and *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). Approval was subsequently granted by the NSW and Australian Governments for the project to proceed. Results from the environmental impact assessment will be incorporated into construction including measures to mitigate impacts from the increased water level from augmentation.

- State Water will coordinate a community consultation liaison group consisting of key local stakeholders to provide a mechanism for updates and issue resolution.

- The community will be kept up-to-date as construction progresses through local media and the State Water website.

- Normal dam operations will continue throughout the project. Water allocations will not be affected by the project.

- The storage may have to be temporarily lowered by 2m to enable construction on the morning glory spillway. State Water has consulted with local water users regarding the process who endorsed the decision.

- State Water is the project manager and constructing authority for the project on behalf of the project funding partners the NSW Government, Tamworth Regional Council and Australian Government

12 Complaints management procedure

- Complaints are to be resolved using State Water's existing complaints management policy and procedure which is detailed on State Water's website http://www.statewater.com.au/Customer%20service/Feedback-and-Complaints-Handling-Policy

- Under the policy, complaints can be submitted by:
    - Phone - 1300 662 077
    - Fax - 1300 832 587
    - Email - feedback@statewater.com.au
    - Mail - Customer Helpdesk, State Water, PO Box 1081, DUBBO NSW 2830
    - In person to any State Water employee at any branch/location

State Water has a dedicated feedback handling team within the Customer Support Services unit. The project manager will be contacted to address the complaint.

13 Environmental management consultation process

Section 13 has specifically been prepared to address condition C7 of the Infrastructure Approval SSI-5039.

- Stakeholder identification - stakeholders have been identified in attachment one, including affected and adjoining landholders, who will be consulted on environmental management matters as part of the project.
- Information on construction progress and matters associated with environmental management and key environmental issues for the project will be provided to key stakeholders through the CCLG meeting process, which will be held quarterly, in the form of presentations, discussions, site tours, fact sheets and minutes. Information to other stakeholders will be provided through letters, fact sheets, the website and releases to local media. Further information on each of these tools is provided in section 4 of this report.
- The CCLG meetings will provide key stakeholders the opportunity to receive updates on the environmental management process directly from the project team, including the Environmental Representative and the contractor and discuss any issues at the meeting. Issues that cannot be resolved at the meeting will be minuted for relevant parties to work toward a resolution outside the meeting.
- Feedback from stakeholders regarding the project received at CCLG meetings will be considered at the meeting, minuted and actioned if required.
- Feedback from stakeholders regarding the project received elsewhere in the project, including through the complaints management procedure, will be documented and actioned as necessary through the project issues and feedback register.
- Should key stakeholders be unable to take part in meetings they will be forwarded meeting minutes and able to contact the project team via phone or email to discuss any issues outside the meetings. If the issue is unable to be resolved on the spot, State Water will endeavour to acknowledge the issue within two business days and work to resolve it in a timely matter.
- Should parties be unable to resolve issues through the CCLG process, the issues would need to be resolved through State Water's existing complaints management process, which is explained in section 12. Under the procedure complaints that cannot be resolved through the complaints management system are referred to the Energy and Water Ombudsman (EWON) for independent resolution.

14 Key Tasks/Dates/Activities

When	What	Who
Mid 2013	Form stakeholder steering committee with funding partners to meet regularly prior to construction	Project team
Nov/Dec 2013	Confirm all funding Ensure SW Board briefed	Project manager
Mid 2014	Develop and update communication collateral – fact sheets, website, register of interest, signs	Senior communication officer
Mid 2014	Secure environmental approvals	Project manager
Mid 2014	Award construction contract/media release	Senior communication officer
Mid 2014	Establish information hotspots including fact sheets, posters	Senior communication officer
September/ October 2014	Project commencement media release and ceremony	Senior communication officer
September/ October	Hold first community construction liaison group (CCLG) to then meet quarterly throughout construction	Senior communication officer/Project Manager
During construction/ monthly	Media and stakeholder updates, throughout construction. Media releases to be sent to key stakeholders/register of interest.	Senior communication officer
Christmas holiday period	Extra crowds at dam/Tamworth Country Music Festival – ensure hotspots resourced with information/any project impacts communicated.	Senior communication officer
2016	Completion of S2&A and ceremony	Project manager/ Senior communication officer

15 Communication risks

Risk	Remediation	Risk likelihood / Impact
Landholder dissatisfaction	Invite neighbouring landholders to be on CCLG	Medium/Medium
Inadequate Aboriginal participation	Invite Aboriginal group representative to be on CCLG	Low/Medium
Safety incident during construction	Aim to prevent through safety culture and safety plans. Reinforce safety measures in place and actions taken to prevent recurrence Regular media releases to mention safety actions to build confidence	Low/Medium
Environmental incident during construction	Aim to prevent through enviro culture and CEMP. Reinforce enviro measures in place and actions taken to prevent recurrence. Regular media releases to mention environmental actions to build confidence	Low/Medium
Stakeholder dissent over water level drop for construction	Seek stakeholder endorsement for plan prior to construction. Reinforce need to lower/long term benefits of project.	Low/Medium
Flooding during construction	Proactive media mentioning working with dam operators throughout construction and prior to/during flood if necessary. Reinforce key message that dam operations are not affected by the works.	Low/Low
Rumours/misinformation	Address as necessary through: - CCLG - Proactive media releases - Project web page - Twitter - Council networks - MP communications	Medium/Medium

	- Staff communication - Stakeholder email/letter - Discussion on media protocol with contractor	

16 Evaluation

Goal / objective	Outcome / level of achievement
Goal a: No delays to the project from community concerns	
Objectives:	
1. Identify all key stakeholders by February 2011.	
2. Consult with affected stakeholders through the Environmental Impact Assessment process	
3. Hold two events attended by key stakeholders and media to celebrate commencement and completion of project	
4. Update project web page as project progresses	
5. Issue media releases at key points throughout project	
6. Form community construction liaison group with quarterly meetings on progress as primary forum for key stakeholder consultation	
Goal b: Minimise negative correspondence to Ministers	
Objectives:	
7. Keep local MPs and Mayor informed at key milestones and additionally on an as-needs basis	
8. Keep all key stakeholders informed and	

provide avenues for feedback/issue resolution directly with State Water	
9. Set community expectations around project deliverables and impacts through communication of realistic timelines and any changes	
Goal c: Ensure funding partners' communication requirements are satisfied	
Objectives:	
10. Acknowledge funding partners where possible on communication materials	
11. Observe acknowledgement protocols	

Additional evaluation

Qualitative

- Anecdotal: discussions with locals and attendance at CCLG meetings

Quantitative

- Analysis of issues register
- Electronic stakeholder surveys at half-way and completion.

17 Document management

Compiled by: Senior Communication Officer, Major Projects

Reviewed by: Project Manager, Senior Project Manager, Program Manager, Project Sponsor, Executive Manager Corporate Affairs

Circulated to: Chaffey Stakeholder Steering Committee

Attachment 1:

Stakeholder list and analysis

CHAFFEY STAGE TWO AND AUGMENTATION STAKEHOLDERS

Category	Name	Position	Organisation
Consultants	Chris Thomas	Manager - Environment and Water Resources	WorleyParsons
Consultants	Fiona Gainsford		
Consultants	Jacqui Coughlan	Principal Ecologist	ngh environmental
Consultants	Mark Lucas	Senior Traffic Engineer	Better Transport Futures
Consultants	Martin Davenport	Senior Project Consultant	SLR Consulting
Consultants	Nicole Cowlishaw	Senior Environmental Planner	WorleyParsons
Consultants	Sam Harper	Archaeologist	Navin Officer
Consultants	Sofie Mason-Jones	Principal Environmental Planner	WorleyParsons
Contractors	Scott Wright	Contractors Senior Executive	John Holland
Contractors	Ivan Karaban	Construction Manager	John Holland
Contractors	Tony O'Reilly	Contractor's Authorised Person/Project Manager	John Holland
Contractors	Paul Trembath	Project Superintendent	John Holland
Contractors	Brandon Perrin	Snr Project Engineer	John Holland
Contractors	Krissy Vadja	Project Environment Representative	John Holland
Contractors	Janet Marsh	Project Commercial Administrator	John Holland
Contractors	Mark Foster	Design Manager	John Holland
Contractors	Geoff Chenhall	PAPD	NSW Public Works
Contractors	Nathan Thillainathan	APAPD	NSW Public Works
Contractors	Andrew Cruckshank	Environmental Representative	NSW Public Works
Contractors	Ray Sayad	Secondary environmental representative	NSW Public Works
CSC	James Kahl	Member	
CSC	Barry John	Member	
CSC	Brian Wainwright	Member	
CSC	Bruce Campbell	Member	
CSC	David Gee	Member	
CSC	David Phelps	Chair	Namo/Peel CSC
CSC	Dwight Gall	Member	
CSC	Ian Coxhead	Member	Peel Valley Water Users
CSC	Ildu Monticone	Chair	Peel Valley Water Users
CSC	James Hutchinson-Smith	Catchment Coordinator - Upper Namoi	Namoi Catchment Management Authority
CSC	Bevan O'Regan	Member	
CSC	Jono Phelps	Member	

CSC	Ken Stump	Member	
CSC	Matthew Davidson	Member	
CSC	Michael Carberry	Member	
CSC	Peter Watson	Member	
CSC	Robert Greenaway	Member	
CSC	Rod Tizzard	Member	
CSC	Tim Duddy	Member	
CSC and government	Daryl Albertson	Member	
CSC and government	Jane Humphries	Member	
CSC and government	Steve Costello	Member	
CSC and local government	Bruce Logan	Director of Water Enterprises	Tamworth Regional Council
CSC and local government	Fred Coralde	*Director, Urban Infrastructre Services*	
CSC and water group	Jon Baker	Member	
CSC, landowner, risk workshop	Jan Hahn	Member	
DSC	Steve Knight		NSW Dams Safety Committee
Government - Australia	Simon Chamberlain	Media for Barnaby Joyce	
Government - Australia	Greg Hunt MP	Minister for Environment	
Government - Australia	Barnaby Joyce	Federal Member for New England	
Government - Australia	Simon Birmingham	Parliamentary Secretary to the Minister for the Environment	
Government - Australia	Robert Miller	Assistant Director - On farm and urban water programs	Department of Sustainability, Environment, Population and Communities
Government - local	Clr Col Murray	Mayor	Tamworth Regional council
Government - local	Nicole Cowan	Communication officer	Tamworth Regional Council
Government - local	Paul Bennett	General Manager	Tamworth Regional Council
Government - local	Traffic Engineer		Tamworth Regional Council

Government -	Andrea Jackes	Act. Regional Operations Officer NW Branch	Environment Protection Authority
NSW Government -			- Armidale
NSW Government -	Lisa Mitchell	Manager Water, Infrastructure Projects	Department of Planning and Infrastructure
NSW Government -	David Coote		Environment NSW Frog Specialist
NSW Government -	David Ward	Conservation Manager	Department of Primary Industries
NSW Government -	Gary Estcourt??	Local Representative	-Fisheries, Forests and Office of Environment and Heritage
NSW Government -		Regional Manager	NSW office of Water
NSW Government -	Kevin Anderson MP	NSW Member for Tamworth	
NSW Government -	Kharl Turnbull		Environment Protection Authority
NSW Government -	Lindsay Fulloon		- Armidale Environment Protection Authority
NSW Government -	Mark Simons		- Armidale Office of Water
NSW Government -	David Bell	Regional Manager Northern	Roads and Maritime Services
NSW Government -	John Thompson	Boating Service Officer	Roads and Maritime Services
NSW Government -	Matthew Gordos	Senior Conservation Manager	Department of Primary Industries
NSW Government -	Peter Christie		-Fisheries, Forests and Environment NSW
NSW Government -	Stephen O'Donoghue		Department of Environment and Climate Change
NSW Government -	Alexander Scott	Planning Officer	Department of Planning and Infrastructure
Information points	Woolomin Goldrush General Store		

Information points	Nundle Post Office		
Information points	Nundle Information Centre		
Information points	Tamworth Tourist Information Centre		
Information points	Tamworth Library		
Information points	Office of Member for Tamworth		
Information points	Office of Member for New England		
Information points	Tamworth Regional Council		
interested local individuals	Alan Sinclair		
interested local individuals	Cheryl Porter		
interested local individuals	Tom Woolaston	Peel Water users association	
Labourers/subcontractors	Daniel Perri		
Labourers/subcontractors	Brad Smith		Jonker Hire
Landholder	Derek Hill	Land Owner	
Landholder	Rory and Patricia Murphy	Land Owner	
Landholder	Pete Sackett		
Landholder	Peter Schofield	Land Owner	
Landholder	Rex Tout		
Landholder	RJ Barton		
Landholder	Scott Hobden		

Landholder	Tim and Sabine Bosse		
Landholder	Robyn and George Kightly		
Landholder	Crown Lands		
Landholder	Department Of Sport Recreation & Racing		
Landholder	Essential Energy		
Landholder	Finkpine Pty Limited		
Landholder	Land & Property Management Authority		
Landholder	Mr AJ Fullbrook & Estate of YM Fullbrook		
Landholder	Mr CC Linich		
Landholder	Mr M Fullbrook & Ms WVD Steen		
Landholder	Mr M Meredith & Mrs JL Meredith		
Landholder	Mr MG Shorten & Mrs AM Shorten		
Landholder	Mrs CA Porter		
Landholder	Mrs D Bee		
Landholder	Mrs DM O'Connor		
Landholder	Mrs EM Sipple & Mr LM Sipple		
Landholder	Water Administration Ministerial Corporation		
Landholder and local groups	Andrew Brown		
Local groups	Andrew Galvin		NSW State Emergency Service
Local groups	Brain Allen		Tamworth Local Aboriginal Land Council
Local groups	Fiona Snape	CEO	Tamworth Local Aboriginal Land Council
Local groups	John Vickery		Tamworth Historical Society
Local groups	Mark Austin	CEO	Nungaroo Local Aboriginal Land Council
Local groups	Ron Webster		National Parks Association of NSW Tamworth-Namoi Branch
Local groups	Robert Warren	Chair	Bowling Alley Point Recreation Trust

Local groups	David Maloney		Tamworth fishing club
Local groups	Ken Flemming	Police Officer	Nundle Police
Local groups	Ray Daniels		Nundle Fishing Club
NSW Government	Scott Stanton		Crown Lands
State Water	Emma Foster	Environment	State Water Corporation

Attachment 2:

Australian Government acknowledgement document

Acknowledgement of Australian Government water programme support and funding

Proponents and project partners must receive approval in writing from the Australian Government's Department of the Environment before acknowledging or referring to the Australian Government in any way on communication materials regarding this project. This includes media releases, signage, plaques, websites, speeches and printed publications – reports, flyers, posters etc.

Using due recognition words or a logo

To identify the Australian Government's support for a project there are two options—both are suitable on a variety of communication materials.

1. Due recognition words
2. Australian Government logo (Department of the Environment)

In most cases the due recognition words are the most appropriate way to recognise support from the Australian Government. One or the other should be used - not both. However exceptions do exist. For example, it may be appropriate to use both on formal reports and programme guidelines

Due recognition words

Due recognition words must be used in their entirety without alterations and appear in a way they can be clearly read.

Acknowledgement of Australian Government funding: "This project is jointly funded by the Australian Government's National Water Security Plan for Cities and Towns, the XXXXX and the XXXXX."

Australian Government logo

In all cases, the use of an Australian Government logo must be approved in writing by the Department of the Environment. Separate approvals must be requested for each individual piece of communication material. Approval to use a logo is for single use only and each new product will require a new approval. For example, approval to use a logo on a flyer does not give permission to use the logo on a fact sheet or a website.

The Australian Government logo can only be used to show recognition of the Australian Government's support or funding for a project. It must NOT be used to give the impression that the Australian Government is endorsing a particular private business. It should not be used on any communication materials that do not relate directly to the approved project.

Guidelines for plaques

The Australian Government logo would be expected to go first where the Australian Government has provided the majority of funding. The crest needs to be in the most prominent position (generally top left corner) and it must be a minimum size of 20mm. For more information see www.dpmc.gov.au/guidelines/docs/design_guidelines_pmc.pdf

The name of the Australian Government representative usually goes first, ahead of state ministers, local government officials and industry representatives.

Due recognition words may be used instead of a logo e.g. "The [insert project name] was funded by the Australian Government's National Water Security Plan for Cities and Towns."

Plaque examples

The [insert project name]

was officially opened by

The Hon Simon Birmingham MP

Parliamentary Secretary to the Minister for the Environment

<insert name and title of other representative(s) if applicable>

on 1 October 2013

Dept of Environment logo 2nd logo

OR

The [insert project name]

was officially opened on 1 October 2013

by

The Hon Simon Birmingham MP

Parliamentary Secretary to the Minister for the Environment

<insert name and title of other representative(s) if applicable>

OR

The [insert project name] was jointly funded by the Australian Government's National Water Security Plan for Cities and Towns, the XXXXX and the XXXXX.

Attachment 3:

NSW Government branding guidelines document

NSW NOW and NSW Government Branding Style Guide

FEBRUARY 2014

Contents

Accessing images and fonts

All images contained in this document are available from Strategic Communications, Department of Premier and Cabinet. Images are available in EPS, JPG and PNG formats.

Strategic Communications can also provide details of how to obtain the Gotham font.

Phone 02 9228 3437

Email branding@dpc.nsw.gov.au

Address
Strategic Communications, Department of Premier and Cabinet
Level 11, Bligh House, 4-6 Bligh Street, Sydney NSW 2000

Published by the NSW Government, September 2013.
Please visit www.advertising.nsw.gov.au to ensure you have the latest version of the guide.

SC000094

Introduction

This guide has been produced to assist agencies in the proper and consistent use of the NSW NOW and NSW Government logos.

The NSW NOW logo was introduced in March 2013 as part of an awareness building campaign targeting potential investors in NSW from interstate and overseas. The campaign aims to attract new investment in NSW by showcasing our strengths and demonstrating our competitive position.

The NSW NOW logo should be the primary logo used by agencies to signify the NSW Government's involvement in any project, program, event and announcement that has the potential to drive economic growth and development.

The NSW Government logo represents the corporate identity of the NSW Government and is the primary corporate branding emblem for all NSW Government agencies and entities. This logo is inspired by the floral emblem of NSW, which has significance in Aboriginal history and was adopted as the state flower in 1962.

The primary uses of this logo are for corporate collateral, including stationery and signage for Government clusters and departments.

The NSW NOW Logo

The NSW NOW campaign aims to attract new investment in NSW by showcasing our strengths and demonstrating our competitive position. To be effective, NSW Government agencies need to professionally integrate the NSW NOW brand into all related creative and collateral.

Use of the NSW NOW logo is covered by Premier's Memorandum M2013-02 NSW NOW. It can be viewed at: **www.dpc.nsw.gov.au/announcements/ministerial_memoranda/2013/m2013-02_nsw_now**

The NSW NOW logo should be the primary logo used on all projects, programs and announcements that have the potential to drive economic growth and development, including:

1. Policies and programs that target economic growth and promote confidence in investing in NSW
2. Initiatives that aim to increase the awareness of interstate and overseas investors of the value of investing in NSW
3. Infrastructure projects
4. Major capital works
5. Any other initiative or announcement that aligns with or enhances the NSW NOW campaign message and brand.

See page 9 for examples of projects appropriate for NSW NOW branding.

Approved logo styles

It is understood that the logo is required to be flexible across a range of potential applications and to this end, versions have been provided with varying widths below. Where there is a choice, Style 1 is the preferred option.

Style 1: Single horizontal line

Style 2: Double horizontal line

Style 3: Triple horizontal line

Style 4: Vertical Stack

The logo has been designed for use in colour and in the proportions above. Other than increasing the size of the strapline font to ensure readability, the proportions must not be altered without prior approval from the Strategic Communications branch.

The logo must appear with the strap line 'The new state of business'. Similarly, the logo should appear in colour wherever possible.

Logo colour choice

The colour version of the NSW NOW logo is the preferred style. The logo must appear on a white or light background. Mono and reverse versions of the logo may only be used where colour reproduction is not available.

Logo colours

The colours of the NSW NOW logo match the blue and light red of the NSW Government logo. For colour breakdown in CMYK or RGB, see below.

Blue	RGB	CMYK
	R = 0 G = 38 B = 100	C = 100 M = 85 Y = 5 K = 20

Red	RGB	CMYK
	R = 198 G = 12 B = 48	C = 0 M = 100 Y = 75 K = 4

Design elements

Clear space

Clear space must be maintained around the logo which is no less than the height of the “N” in NSW contained in the namestyle of the logo. (See below).

Minimum size

The minimum size for reproduction of the logo is 10mm (28 pixels) in height for the horizontal versions, or 10mm in width for the portrait version.

Interaction with other logos

The NSW NOW logo is the primary logo used to signify Government involvement in a NSW NOW related project.

The use of the NSW NOW logo alongside the NSW Government corporate logo is not supported.

Where a government or agency logo is required, agencies should give priority to NSW NOW and move the agency logo to a secondary location.

Where a third party or government program logo (that is not a NSW Government corporate logo) is required, agencies should ensure that the NSW NOW logo has equal or greater prominence.

Where only one logo can be used to signify government involvement, the NSW NOW logo replaces the NSW Government corporate logo.

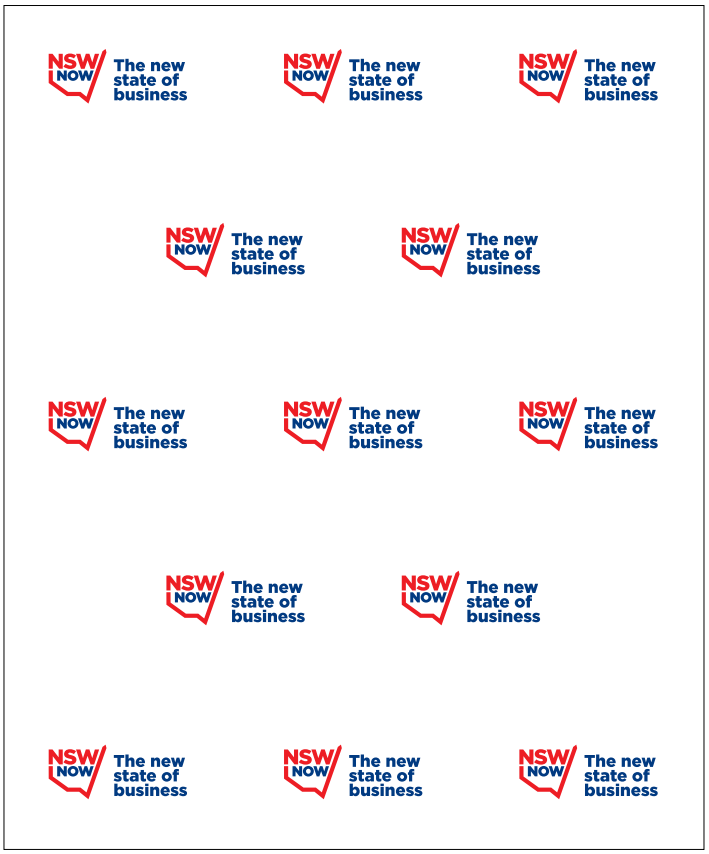
Advertising

Agencies should use the NSW NOW logo when advertising NSW NOW related activities. Wherever possible, the NSW NOW logo should appear in full colour and be integrated into the design of the advertisement.

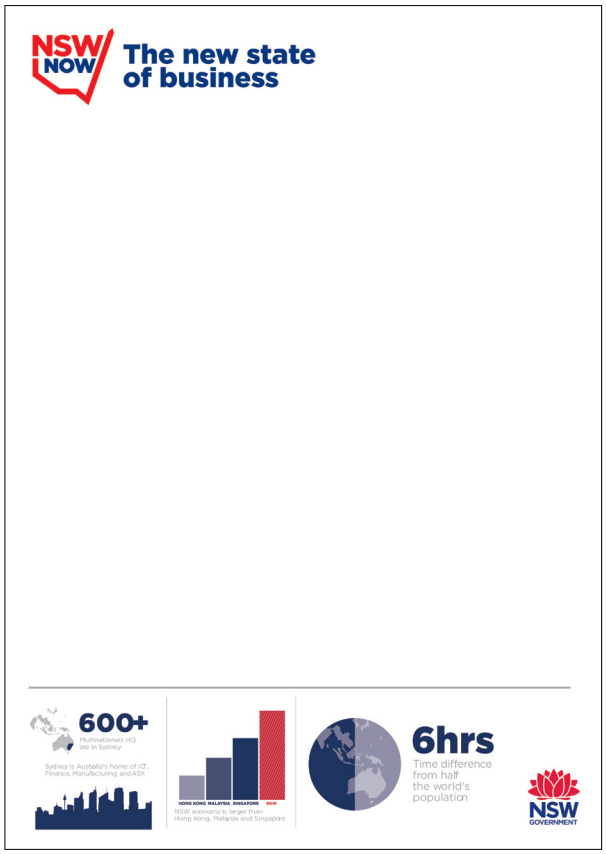
For display advertising up to a half page tabloid newspaper, the logo must be a minimum of 15mm in height. For larger scale and outdoor advertisements, agencies should increase the size of the logo appropriately to ensure that it retains prominence. Wherever other logos appear on an advertisement – for instance, partner or sponsor logos – the NSW NOW logo must be in the most prominent position.

In classified advertising, where the advertisement is in mono, agencies should use the mono version should of the logo at no less than 10mm in height.

Example usage



Media backdrop

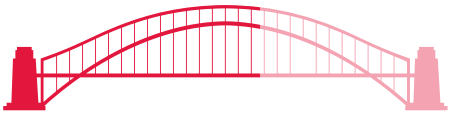


Media release

Large format signage

Infographics

A collection of infographics are available for you to use to promote relevant projects. Each of the infographics represent a specific key element of the NSW NOW story. Electronic versions are also available as required. They may be updated from time to time and users should check to ensure they have the latest version/s (see page 1 for contact details).



55% Of the working age population are tertiary qualified

New rail projects

North West Rail Link

32% Of Sydneysiders speak a second language

NSW economy is larger than Hong Kong, Malaysia and Singapore

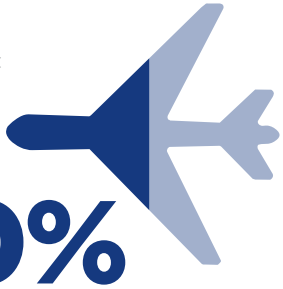
Sydney has cheaper industrial property than Singapore, Hong Kong and Tokyo

600+ Multinationals have their regional HQ in Sydney

WestConnex M4 to Airport

Widening M5

Sydney has Australia's busiest airport



40% Of all Australia's international flights

Examples of projects appropriate for NSW NOW branding

Key initiatives are:

- Trade and investment attraction programs, including websites and NSW Government international offices.
- Transport infrastructure, including the North West Rail Link, Westconnex and Bridges for the Bush program.
- Health infrastructure, including hospital redevelopments.
- Education initiatives and infrastructure, particularly relating to skills and training e.g. TAFE, and international education.
- Arts, culture, sport and recreation initiatives.
- Work identified as part of the Government response to the Industry Action Plans including the Industry Action Plans for International Education and Research and the Visitor Economy.
- Planning reforms
- Changes to private sector industrial relations such as construction industry insolvencies, the Implementation Guidelines to the NSW Code of Practice for Procurement: Building and Construction; and workers compensation.
- Economic announcements including Budget Paper 4.
- Regulatory reform initiatives that target cutting the costs of doing business in NSW and other red tape reduction initiatives.
- Government asset transactions including the sale of ports and electricity generators.
- Significant public-private partnerships, including the Sydney International Convention, Exhibition & Entertainment Precinct redevelopment.

Other initiatives may also be appropriate for the NSW NOW logo such as Government sponsorship of conferences, advertising, and/or branding for international missions.

Maintenance of major capital works will be excluded from NSW NOW logo requirements.

State-owned corporations are encouraged to use the logo wherever appropriate, utilising the same principles outlined above.

The NSW Government Corporate Logo

Gradient colour logo

Two colour logo

Mono logo (black)

Reverse logo (white)

Small logo

This logo is the primary corporate branding emblem for all NSW Government agencies and entities. The logo must have a prominent position on agency corporate communications such as letterheads or licences.

Logo colour choice

- The gradient colour version of the logo is recommended for use in larger format pieces.
- When used at less than 50mm in height, a two colour version of the logo is recommended.
- Colour versions of the logo take precedence over all other versions for agency communications. The colour logo must appear on a white or light background.
- Mono (black) and reverse (white) versions of the logo may only be used where colour reproduction is not available, and should be chosen on the basis of maximum contrast with the background.
- The logo must have a prominent position on agency corporate communications, except where the NSW NOW logo takes precedence. **See page 3.**

Small version

Use this version when the logo is less than 50mm high.
The minimum size for reproduction of the logo is 10mm (28 pixels) high.

It may also be used for printing where limited colours are available.

Colour

The range of colours of the NSW Government corporate logo are identified in this colour palette and backgrounds.

Logo colour chart

The logo appears in red and blue depending on the version.
The two colour version contains blue and the lighter red.
The gradient contains both reds. For colour breakdown in CMYK or RGB, see below.

Colour version of the logo

Blue	RGB	CMYK
	R = 0 G = 38 B = 100	C = 100 M = 85 Y = 5 K = 20

Red	RGB	CMYK
	R = 167 G = 25 B = 48	C = 5 M = 100 Y = 71 K = 22

Single colour (mono) version of the logo

Red	RGB	CMYK
	R = 198 G = 12 B = 48	C = 0 M = 100 Y = 75 K = 4

Mono	RGB	CMYK
	R = 0 G = 0 B = 0	C = 0 M = 0 Y = 0 K = 100

Design colour palette

The design colour palette consists of two mid blues. The complementary colours are provided for design purposes. For colour breakdown in CMYK or RGB, see below.

Complementary colours

Mid blue	RGB	CMYK
	R = 0 G = 161 B = 222	C = 86 M = 8 Y = 8 K = 0

Light blue	RGB	CMYK
	R = 114 G = 199 B = 231	C = 51 M = 0 Y = 1 K = 0

Design elements

Clear space

Clear space must be maintained around the logo which is no less than the height of the “N” in NSW contained in the namestyle of the logo.

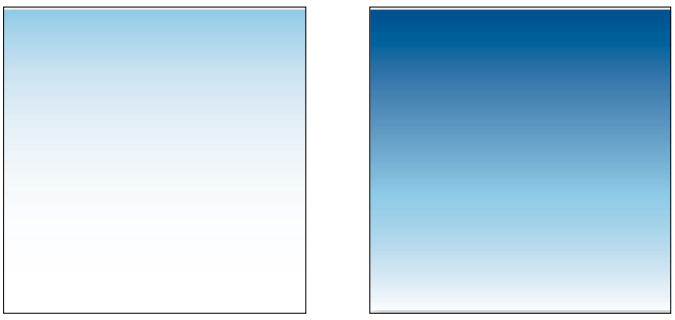
Font

The font used with the NSW Government corporate logo is Gotham. Agencies and business units must use Gotham in their agency logo.

Arial is the preferred font for digital communications.

Backgrounds

Use the gradients below to create a background for agency communications, where appropriate.



Stylised use of the logo

The waratah may be used as a stylised graphic device. Colours should be sourced from the logo colour palette. The minimum that the image may be cropped is shown below. It must not be rotated or reversed.

Watermark

A watermark of the logo is available and should be reproduced to a maximum of 15% on light backgrounds or 75% on dark backgrounds.

Creating agency logos

An agency logo must be presented as a single device with the NSW Government corporate logo on the left and the name of the agency or business unit on the right, divided by a vertical line.

Agency logos must not be rotated, cropped or used as an image holding device.

Part of the business name of an agency, business unit or project may be omitted in the logo for design purposes. This may include “Department”, “Office”, “Ministry”, “NSW” (as it is already a design element of the logo), “State” or “Government” where appropriate.

Agencies should ensure that official communications carry the full agency name and the ABN elsewhere in the publication. The common logo format must include:

- The NSW Government logo at equal or larger height than the name of the entity.
- The baseline of the logo should align with the baseline of the lowest line of type for the name of the entity.
- The width in points of the vertical line which divides the logo and the name of the entity or business unit is 5% of the height of the vertical line. The vertical line has rounded caps.

For colour versions of the logo the vertical line is the dark blue of the logo colour palette, and black for single colour (mono) versions.

The vertical line should align with the logo as shown below and be placed in the centre of the space between the logo and the name of the entity or business unit.

The space between the logo and the name of the agency or business unit is equal to the width of a single waratah petal at the base of the waratah.

Font

Agencies and business units must use Gotham in their agency logo. The font for the name of an agency or business unit is:

Gotham Medium, 26pt

If the name of an agency or business unit contains ‘and’, an ampersand should be used. The font for the ampersand is:

Gotham Light, 26pt

For grouped logos:

Gotham Medium, 26pt

The font for the secondary agency is:

Gotham Light, 19pt

Size

The minimum size for reproduction of the logo is 10mm (28 pixels) in height.

Grouping agency, business unit or projects in a logo

Agencies may wish to develop logos using no more than two names. This does not need to include the super-agency name.

NSW GOVERNMENT | Public Works
Government Architect’s Office

Multi-agency involvement

Agencies are required to use the NSW Government logo for corporate branding.

Agencies must use the NSW Government corporate logo in place of agency logos where there are two or more agencies involved in a publication or advertisement.

For instance, if more than one agency sponsors a project with another state government, only the NSW Government logo should appear with the other state government logo.

Not Acceptable

Acceptable

Using the NSW Government logo with other government jurisdictions, businesses, SOC logos and non-government organisations is acceptable using the following guidelines.

Private Sector, State Owned Corporations and Non-Government Organisations

The logo must be used when interacting with SOC's, businesses and non-government organisations for joint activities. Agency logos should not be used. The logo should be positioned with equal standing to other logos.

Not Acceptable

Acceptable

Recognising the contribution of the NSW Government

Agencies should use the NSW NOW logo when recognising NSW Government contributions to a NSW NOW related activity. See page 3 for details.

For all other activities, agencies can use the logo below to acknowledge government support. The NSW Government corporate logo should take precedence over agency logos.

Supported by the

Advertising

Agencies should use the NSW NOW logo when advertising or promoting NSW NOW related activities. See page 6 for details.

For all other advertising, agencies are required to include the NSW Government corporate logo on all print, outdoor and digital advertising or displays. Wherever possible, the logo should appear in full colour and be integrated into the design and background of the advertisement.

For display advertising up to a half page tabloid newspaper, the logo must be a minimum of 15mm in height. For larger scale and outdoor advertisements, agencies should increase the size of the logo appropriately to ensure that it retains prominence. Wherever other logos appear on an advertisement – for instance, partner or sponsor logos – the NSW Government corporate logo must be in the most prominent position.

In classified advertising, where the advertisement is in mono, agencies should use the mono version should of the logo at no less than 10mm in height.

Who does the NSW Government Corporate Logo apply to?

Agencies, statutory bodies, and other government entities are required to adopt a logo which features the NSW Government corporate logo only, unless exempt. For information about applying for exemptions
see **page 19**.

Government Agencies

The policy applies to all NSW Departments as defined by *Schedule 1, Part 1, Divisions 1 & 2, Public Sector Employment and Management Act 2002*, with the exception of the operational arms of the NSW Police Force, emergency services agencies and NSW Courts and tribunals and lands reserved under the *National Parks and Wildlife Act 1974*.

Statutory Bodies

This policy also applies to all Statutory Bodies as per Schedule 2, Public Finance and *Audit Act 1983* and *Part 2, Public Sector Employment and Management Act 2002*, with the exception of:

- cultural institutions
- parks & venue trusts
- independent regulatory bodies with judicial or quasi-judicial functions
- industry boards
- university boards
- professional registration organisations or
- superannuation and insurance entities.

A list of included Statutory Bodies is on page 20.

Company and Statutory State Owned Corporations

Company and statutory State Owned Corporations should apply the logo and may co-brand with existing logos, in the following circumstances:

- advertising campaigns
- infrastructure and construction works
- building signage
- public education campaigns
- websites.

SOC's are neither required, nor excluded from use of the logo in other circumstances.

Other

Any other entity that is wholly controlled by the NSW Government or subject to ministerial direction with approval of the Secretary, Department of Premier and Cabinet, may use the logo.

Use of the NSW Government logo by a third party (non-government) entity must be authorised by a relevant Government agency prior to its public use.

Exemptions and Omissions

Entities should use the agency logo for all communications unless evidence to support its omission is approved by the Secretary of the Department of Premier & Cabinet. An example of evidence for omission might be market research indicating reduced effectiveness of an advertising campaign targeting young driver safety if the logo were to be used.

Applications for exemption should be made to the Secretary, Department of Premier & Cabinet.

Statutory Bodies covered by NSW Government Corporate Logo Guidelines

Barangaroo Delivery Authority

Cancer Institute

A catchment management authority under the *Catchment Management Authorities Act 2003*

Cobar Water Board

Commission for Children and Young People

A corporation constituted under the *Growth Centres (Development Corporations) Act 1974*

Electricity Assets Ministerial Holding Corporation

Environmental Trust

Fair Trading Administration Corporation (FTAC)

Film and Television Office (Screen NSW)

Forestry Corporation

Government Property NSW

Home Care Service of New South Wales

Independent, Liquor and Gaming Authority

Lifetime Care and Support Authority of NSW

Lord Howe Island Board

Motor Accidents Authority of NSW

Natural Resources Commission

NSW Aboriginal Housing Office

NSW Board of Vocational Education and Training

NSW Dams Safety Committee

NSW Food Authority

NSW Government Telecommunications Authority

NSW Institute of Sport

NSW Land and Housing Corporation

NSW Self Insurance Corporation

NSW Trustee and Guardian

Rental Bond Board

Residual Business Management Corporation

Roads and Maritime Services

Rural Assistance Authority

State Management Council of Livestock Health and Pest Authorities constituted under the *Rural Lands Protection Act 1998*

State Rail Authority Residual Holding Corporation

State Records Authority

State Transit Authority

Sydney Catchment Authority

Sydney Ferries

Sydney Harbour Foreshore Authority

TAFE Commission

Teacher Housing Authority of NSW

Western Sydney Buses

Wild Dog Destruction Board

WorkCover Authority of NSW

Workers' Compensation (Dust Diseases) Board

Statutory Bodies, Courts & Tribunals exempt from the NSW Government Corporate Logo Guidelines

Part A – Courts & Tribunals (all)

- Administrative Decisions Tribunal
- Chief Industrial Magistrate's Court
- Children's Court of NSW
- Children's Court Clinic
- Consumer, Trader and Tenancy Tribunal (CTTT)
- Coroner's Court
- District Court of NSW
- Drug Court
- Dust Diseases Tribunal
- Independent Commission Against Corruption
- Industrial Relations Commission
- Judicial Commission of NSW
- Land and Environment Court
- Local Court of NSW
- Local Government Pecuniary Interest and Disciplinary Tribunal
- Mental Health Review Tribunal
- NSW Caselaw
- NSW Guardianship Tribunal
- NSW Justice Link
- Supreme Court of NSW
- Victims Compensation Tribunal
- Workers Compensation Commission

Part B – Cultural Institutions

- Art Gallery of NSW Trust
- Australian Museum Trust
- Library Council of New South Wales
- NSW Aboriginal Land Council
- Sydney Opera House Trust
- Trustees of the Anzac Memorial Building
- Trustees of the Museum of Applied Arts and Sciences

Part C – Parks & Venue Trusts

- Centennial Park and Moore Park Trust
- Chipping Norton Lake Authority
- Hunter Local Venues Council
- Illawarra Local Venues Council
- Jenolan Caves Reserve Trust
- Luna Park Reserve Trust
- Parramatta Park Trust
- Parramatta Stadium Trust
- Royal Botanic Gardens and Domain Trust
- State Sporting Venues Authority
- Sydney Cricket and Sports Ground Trust
- Sydney Olympic Park Authority
- Taronga Conservation Society Australia (Zoological Parks Board of New South Wales)
- Wentworth Park Sporting Complex Trust
- Western Sydney Parklands Trust
- Lands reserved under the National Parks and Wildlife Act

Part D – Independent Regulatory or Oversight Bodies

- Audit Office of NSW
- Community Relations Commission
- Election Funding Authority of New South Wales
- Environment Protection Authority
- Health Care Complaints Commission
- Independent Pricing and Regulatory Tribunal of NSW
- Independent Transport Safety Regulator
- Information and Privacy Commission
- Office of Transport Safety Investigations
- Professional Standards Council

Statutory Bodies, Courts & Tribunals exempt from the NSW Government Corporate Logo Guidelines, cont.

Part E – Professional Registration Organisation

- Board of Surveying and Spatial Information
- Building Insurers' Guarantee Corporation
- Building Professionals Board
- Legal Profession Admission Board constituted under the *Legal Profession Act 2004*
- Long Service Corporation
- Medical Council of NSW
- NSW Architects Registration Board
- NSW Board of Vocational Education and Training
- NSW Institute of Teachers
- Veterinary Practitioners Board

Part F – Industry Boards

- Agricultural industry services committee constituted by the *Agricultural Industry Services Act 1998*
- Mine Subsidence Board
- Rice Marketing Board constituted under the *Rice Marketing Act 1983*

Part G – University Boards

- Charles Sturt University Council
- Board of Trustees of the University of Western Sydney
- Council of the Southern Cross University
- Council of the University of New England
- Council of the University of New South Wales
- Council of the University of Newcastle
- Council of the University of Technology, Sydney
- Council of the University of Wollongong
- Macquarie University Council
- New South Wales Institute of Psychiatry
- University of Sydney Senate

Part H – Superannuation and Insurance

- Liability Management Ministerial Corporation
- NSW Sporting Injuries Committee
- SAS Trustee Corporation
- Trustees of the Parliamentary Contributory Superannuation Fund

Part I – Other Independent Bodies

- Anti Discrimination Board
- Bureau of Crime, Statistics & Research
- Crown Solicitors Officer (for advices only)
- Internal Audit Bureau
- Legal Aid NSW
- NSW Registry of Births, Deaths and Marriages (for seal only)
- NSW Treasury Corporation
- Public Defenders Office
- Office of the Legal Services Commissioner
- Sheriff of NSW (for uniforms and clothing only)

Definitions

‘Brand’ is the NSW Government brand including logos, symbols, typography, colour and other identification described in this document.

‘Agency’ includes NSW Government agencies, departments, statutory authorities and other entities.

‘Communications’ refers to internal or external communications including stationery, advertising, publications, signage, digital and press.

SC000094

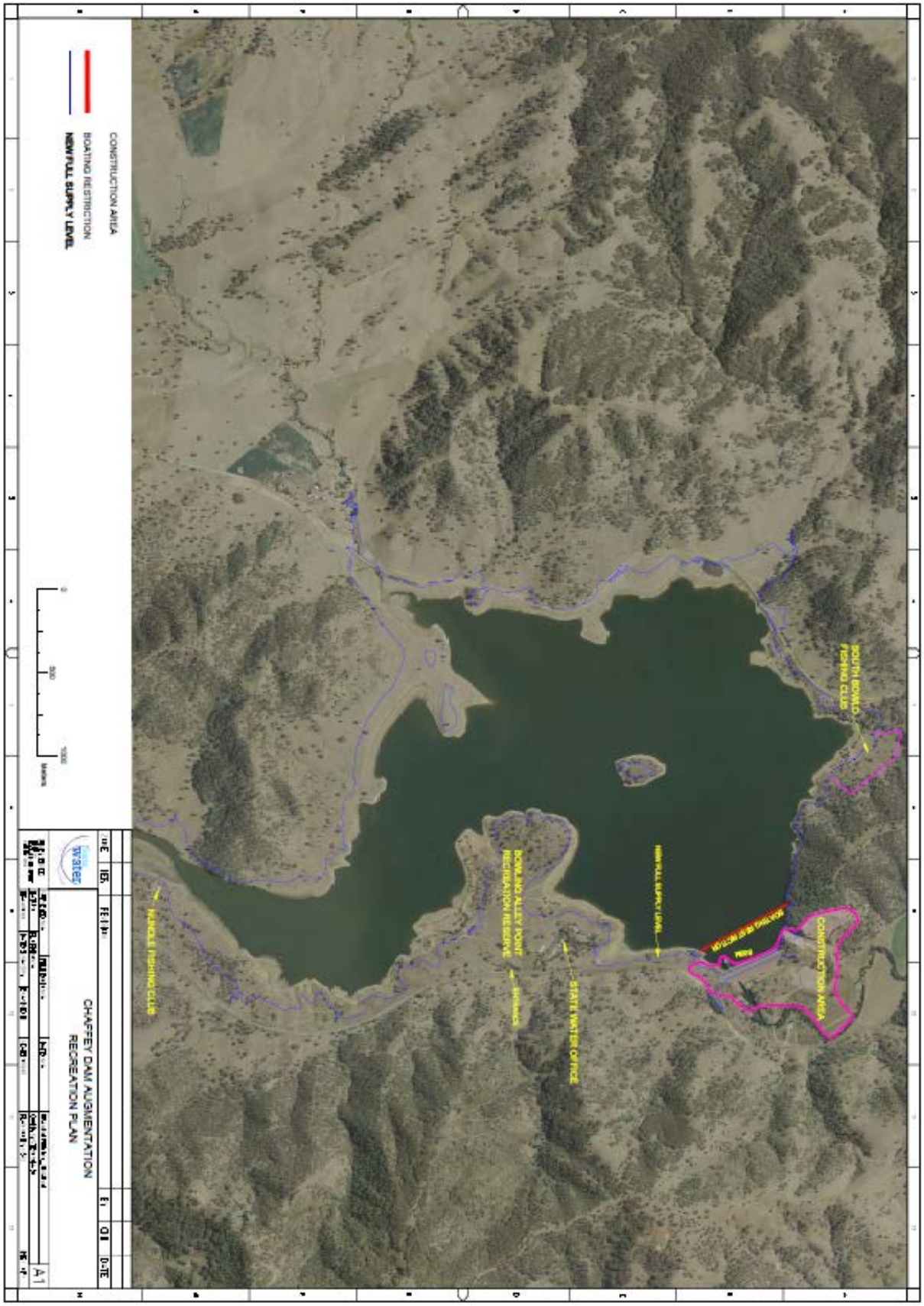
Attachment 4:

Roles, responsibilities and names

Appendix 4: Roles, responsibilities and names

Role	Organisation	Responsibility	Name
Chief Executive Officer	State Water	Minister's office liaison, Board representative	David Harris
Chief Operating Officer	State Water	Oversee all operations	Amit Chanan
Executive Manager Major Projects	State Water	Ultimate responsibility for successful project delivery	Peter English
Manager, Civil Infrastructure	State Water	Oversee successful delivery of all programs and associated projects in the Civil Infrastructure portfolio	Andrew George
Project sponsor	State Water	Asset owner representative	Stephen Farrelly
Program manager	State Water	Oversee all dam safety upgrades	Frank Kinnas
Senior project manager	State Water	Oversee project manager	Glenn Tully
Project manager	State Water	Manage project	Jubrahil Khan
Executive Manager Corporate Affairs	State Water	Oversee liaison with funding partners	Lisa Welsh
NSW Government representative	Office of Water	Represent interests of NSW Government	Bruce Cooper
Australian Government funding representative	Department of Environment	Represent interests/funding decisions of Australian Government through Department of Environment	Rob Miller
Tamworth Regional Council funding representative	Tamworth Regional Council	Represent interests/funding decisions of Tamworth Council	Bruce Logan
Senior Communication Officer	State Water	Community and media relations, Minister's office liaison, internal and external communication	Jane Urquhart
Manager Basin Planning	State Water	Communicate updates on Basin Planning activity impacts	Dan Berry
Project Manager	John Holland	Manage project construction	Tony O'Reilly

Appendix 9 State Water Chaffey Dam Augmentation Recreation Plan


CONSTRUCTION AREA
BOATING RESTRICTION
NEW FULL SUPPLY LEVEL
SOUTH BOWLO FISHING CLUB
CONSTRUCTION AREA
NEW FULL SUPPLY LEVEL
BOWLAND ALLEY POINT RECREATION RESERVE
STATE WATER OFFICE
NEMOLE FISHING CLUB
CHAFFEY DAM AUGMENTATION
RECREATION PLAN
A1