

## **Project: Prosser Plains Raw Water Scheme (PPRWS)**

### **Subject and Project Phase: Twamley Dam Approvals**

# **Construction Environmental Management Plan Requirements**

## **Twamley Dam Site and Surroundings**

### **Current DRAFT Document Purposes :**

- 1. Response to RFFI for EPBC Referral 2017/7927**
- 2. For review by DPIPWE (Div 3 Dam application)**
- 3. For information/input of directly impacted parties**

David A. Burt

Principal

### **Version Control**

Issue 0.6 Draft for inclusion in RFFI response to EPBC – Re-issued 28 June 2018 with minor purpose statement changes and V0.4 edits accepted/deleted as relevant

**NOTE:** This version is suitable for publication with the balance of the RFFI document set as it clearly indicates the planned construction controls and where these are not able to be fully specified yet, the intention to do so either within this document or via future approvals conditions.

## Construction Environmental Management Plan Requirements

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DRAFT

## 1.0 INTRODUCTION -CEMP/R STATUS, SCOPE & APPLICATION

This document is developed in response to Attachment A: Request For Further Information accompanying the letter dated 18 August, 2017 from the Department of Environment and Energy (DoEE), Assessments and Governance Branch to the Glamorgan Spring Bay Council General Manager being the proponent of the Prosser Plains Raw Water Scheme (PPRWS) project. This document outlines and in most cases details or references the current and proposed future environmental protection controls that are required for the compliant construction of the PPRWScheme's Twamley Dam, the site access and interfaces with the immediate work site surroundings. Subsequent CEMP/R versions will include the additional details provided by not yet available approvals and permit conditions. Those later versions will also include more detail about the construction issues and change management control requirements not critical to the immediate EPBC Act RFFI and Div 3 Dam construction permit requirements.

This document is the basis for the PPRWS Construction Environmental Management Plan (CEMP) for the Twamley Dam Site works scope. It's penultimate version will be included in the construction request for tender document set (RFT) to all potential contractors to ensure compliant submissions. This RFT version cannot be finalised until the detailed dam design is completed. The final (issued for construction(IFC)) version will form part of the construction contract with the successful contractor (Contractor). The IFC version of the CEMP will be sourced from the Contractor at the award of the de-forestation and construction contracts when the successful contractors' methodology details are agreed.

### Definitions

At this project stage, defined as Phase 0 – Planning and Approvals, the proposed CEMP is known as the CEMP Requirements (CEMPR) because it is the document that is

- a) part of the PPRWS project proponent's requirements (Principal's Requirements) to be incorporated into the construction tender specification;
- b) not yet finalised as not all approvals have had construction permits/conditions issued at this time.

For reference simplicity, the term "construction" within this document will generally be inclusive of the dam works, site and access preparation, the inundation area de-forestation activities, site rehabilitation and any replacement road/track formation. The document requirements apply to the Contractor(s) from the granting of site possession to handover at practical completion, demobilisation and the following defect liability period (DLP) inclusive of any remedial works. In broader terms, many of the environmental requirements may apply to the project proponent and/or dam owner for the operating life of the project.

The CEMP Requirements document package is inclusive of specific Environmental Protection Requirements (EPR) and also more generic Environmental Protection Guidelines (EPG) where no other prescriptive material or direct reference sources are available. These documents will be included as appendices herein but due to their file size may be separate volumes/electronic files. The major independently produced reports have been called Annexures for clarity.

### Process

This CEMPR forms part of the construction tender's specification details, that the tenderers respond to. The tender clarification process with the potential Contractors ensures that they have the

capability of dealing satisfactorily with (among other criteria) all the project's quality, safety and environmental management issues. The key post-award "Hold Point" prior to site possession being granted to the successful Contractor, is the formal acceptance of the Contractor's final CEMP document by the proponent's Project Manager, as satisfactorily meeting all the Principal's CEMP Requirements. This final CEMP document's statements then becomes enforceable under the construction Contract. It's application will be validated by the proponent using regular audits.

### Project Phase Definitions

**Phase 0 - Planning & Approvals** is the current situation until all Approval conditions/directions are known and defined.

**Phase 1 - Pre-construction** - covers detailed design, additional surveys (including any missing baselines), construction tender and award, establishment of systems, completion of responsibility matrices and balance of documentation with contractors & their sub-contractors.

**Phase 2 - Construction** - covers site preparation, dam footprint and inundation area de-forestation, roading, construction of coffer dam(s), dam keyway, dam embankment to outlet pipe installation, spillway, balance of embankment, site clean-up and preparation for water filling, any rehabilitation requirements, water and environmental monitoring.

**Phase 3 – Operations and Maintenance** - establishment of O&M systems (policies & procedures), covers progressive water filling (1 to 3 years), dam completion and safety sign-offs, Defect Liability Period (DLP) remedial actions, controlled water releases for PPRWS customers and environmental flows, dam & appurtenances maintenance, water movement and surroundings monitoring. Some aspects of the CEMP obligations on the Construction Contractor will extend into the DLP

**Phase 4 - Decommissioning** - The Twamley Dam and associated infrastructure has a 100 year economic design life so it is more likely that regular refurbishment will occur rather than decommissioning of the Scheme infrastructure.

The table of contents (TOC) shows the topics that must be addressed by the Contractor in their CEMP. In this version of the CEMPR, those topics that are relevant to the current EPBC and other approvals concerns (and not addressed elsewhere in the responses to the EPBC or DPIPW) have been addressed with content. This content becomes the project's overall construction and environmental protection requirements.

## 2.0 PURPOSE & SCOPE OF WORKS

The Prosser Plains Raw Water Scheme will provide raw water for aquaculture, tourism, agricultural and town supply purposes across the Buckland, Orford and Triabunna areas. Post approvals, the project is to proceed with two major customer agreements in place with Tassal (Okehampton Bay salmon farm) & Bayport Pty Ltd (Solis integrated 600 lot residential, golf & tourism development), and a commitment with respect to TasWater for their local treated water reticulation. Some balance allocation for agricultural purposes is yet to be determined by validation of run-of-river water transmission losses.

The Project Phase 2 Construction definition above covers the construction scope.

## 3.0 GUIDELINES FOR WORKS & SERVICES

The Contractor shall as a minimum, comply with the requirements of relevant Commonwealth and Tasmanian Legislation, Regulations, Codes of Practice and Environment Policies inclusive of any recent updates. In addition, the Contractor shall abide by the approval permit requirements and conditions as detailed herein. The Contractor's incident and progress reporting systems shall provide for immediate, weekly and monthly responses as appropriate to the various construction and environmental issues proportionate to the issue's criticality levels.

The Contractor is responsible for implementing sound, professional construction and environmental management procedures and practices including the control of their sub-contractors to these same standards. The project proponent's officers will regularly monitor and audit the Contractor's systems and actions to ensure that the construction quality and the environmental outcomes are achieved. The primary reference source for the monitoring and the more formal audits is the Contractor's CEMP (as approved for construction) and its practices in addressing the CEMPR sourced Environmental Protection Requirements (EPRs) and Guidelines (EPGs).

Depending on the circumstances, the type and seriousness of any breach of the construction permit(s) and other construction conditions, either the PPRWS Project Manager or the Contractor's manager will be obligated to report same to the relevant government agency.

The relevant legislative requirements applicable to the Contractor's CEMP include but are not limited to the following:

- Workplace Health and Safety Act, 2012 (TAS) and Regulations;
- Workplace Standards Tasmania guidelines;
- Environmental Management and Pollution Control Act, 1994; (Cth)
- Environmental Management and Pollution Control Amendments Act, 2000 (Cth);
- Environment Protection & Biodiversity Conservation Act, 1999 (Cth) referred to as EPBC Act;
- Land Use Planning and Approvals Act, 1993 (Tas);
- Groundwater Act, 1985 (Tas);
- Water Management Act, 1999 (Tas)
- State policy on Water Quality Management;
- Division 3 Permit Dam Works Code, 2015 (Tas)
- Aboriginal Relics Act, 1975 (Tas);
- Historic Cultural Heritage Act, 1995 (Tas);
- Threatened Species Protection Act, 1995 (Tas) (TSPA);
- Nature Conservation Act, 2002 (Tas) (NCA)
- Weed Management Act, 1999 (TAS).

Some specific components of these generally mandatory statutory requirements and the projects approvals have been detailed in the Appendices as either permit conditions, Environmental Protection Requirements and/or Guidelines.

**Note:** Tenderer's that are third party accredited to AS4801:2001 Safety-, AS9001:2008 Quality-, AS/NZS ISO 14001 Environmental - Management Systems and/or who will apply the requirements of these systems within their CEMP will be favourably credited in the tender evaluation.

## 4.0 ORGANISATIONAL STRUCTURE & RESPONSIBILITIES

The Contractor is to provide a project organisation/management structure clearly showing lines of responsibility for both on-site, office and sub-contractor responsibilities down to the level of front line supervisor. The structure is to also show clearly the/those officer(s) relating to the PPRWS Project Manager who sits on and reports directly to the project proponent's PPRWS Project Steering Committee.

The diagrammatic structure of the Contractor's officers must be show their names and title applicable to their project role and if different, also their title within the Contractor's structure. The

primary contact officer for and role of any sub-contractor must be included on this organisation structure.

The project proponent may request additional details of individuals such as relevant experience and/or C.V.s to be supplied (refer to the information to be supplied with tender). This detail will also be required if a nominated individual is changed.

## 5.0 SYSTEM PROCEDURES

### 5.1 RECORDS & DOCUMENT CONTROL

### 5.2 NON-CONFORMANCES/DEFECTS

## 6.0 RISK MANAGEMENT (SAFETY & ENVIRONMENTAL)

### 6.1 HAZARD IDENTIFICATION

A hazard review shall be undertaken prior to the initial commencement of any works and is to be regularly reviewed. The relevant task documentation must record how the risks associated with the hazards are to be eliminated, isolated, reduced or controlled.

#### **Hazard introduction to and risk control at work sites**

The work site(s) will not remain static in regard to hazards and risks. The risks presented by such hazards must be reduced to an acceptable level by taking appropriate mitigation steps typically as recorded in a JSEA and/or SWMS. The situation and any change in the hazard or its location must be communicated to those authorised to access the work site.

No animals shall be brought onto the properties on which works are undertaken without the permission of the landowner or the lessee.

Some of the common hazards and their risk implications are dealt with in this following section and/or are detailed in the Appendices.

### 6.2 RISK ASSESSMENT

The Contractor shall use an industry acceptable risk assessment system and documentation during the construction period. Refer to next sections – JSEA and SWMS.

### 6.3 JOB SAFETY AND ENVIRONMENTAL ANALYSIS (JSEA)

The Contractor shall

- a) Describe their risk assessment system; and
- b) supply samples of their completed JSEA forms for typical tasks to be undertaken during the scope of works in their tender submission.

Any new JSEA's will also be reviewed by the Principal's Construction or Project Manager at the time of their implementation.

## 6.4 SAFE WORK METHOD STATEMENTS (SWMS)

The Contractor shall supply samples of their completed SWMS for a minimum of two typical tasks to be undertaken during the scope of works in their tender submission. The full set will be reviewed prior to approval of the Contractors CEMP. Any new SWMS will also be reviewed by the Principal's Construction or Project Manager at the time of their implementation.

## 6.5 WEATHER MONITORING & TRIGGERPOINTS

The Contractor shall record the nominated weather and climate data at the worksite everyday that the site is attended. Certain construction activities are conditional to suitable weather and ground conditions. The Contractor shall nominate the minimum weather data that will be collected. In the Contractor's construction methodology statements or this section of the CEMP (and referenced by the SWMS and/or JSEA's) the critical conditions and their trigger points used to change or halt construction activities shall be nominated.

## 6.6 WATER QUALITY MANAGEMENT

Downstream water quality is critical to other users of the Tea Tree Rivulet's water which feeds the Prosser River and hence includes TasWater's Prosser Water Treatment Plant servicing Orford and Triabunna. Turbid water adversely affects the health and biodiversity of aquatic life. The Contractor shall develop and use a water quality monitoring/testing program to assess watercourses impacted by the works activities during the construction period through to practical completion. After practical completion and throughout the defect liability period, a reduced frequency of testing will be agreed proportional to activity intensity and risk. This programme shall also include the collection of pre-construction baseline water quality data to provide suitable reference points for normal and if possible given the limited duration post-award, also flood conditions.

The Contractor's monitoring program and results will be a Hold Point

- a) prior to possession of site being granted ie to be approved by the Principal's Project Manager; and
- b) during construction, should the routine results not be provided and/or the specified trigger levels be exceeded.

The program and results will be managed and responded to in accordance with the appended Water Quality Monitoring Framework (WQMF) and the Turbidity Management Framework.

## 6.7 EROSION CONTROLS

The Contractor shall use the appended SFMES Dam Works Practices Plan (DWPP) as the minimum prescription for dealing with potential erosion and sediment release issues from the de-forestation and salvage activities in the dam footprint and inundation area.



The Contractor shall use the appended JMG report “Sediment and Erosion Control Plan” (SECP) as the minimum prescription for dealing with the potential erosion and sediment release issues from the dam keyway, embankment and spillway works. These prescriptions also apply to the embankment material “borrow pits” planned to be within the adjacent inundation area.

Refer to the previous section for turbidity and water quality management.

The Contractor may need to respond with additional controls/actions depending on the season, weather conditions and other site variables as they arise. In some circumstances (some already defined in the above plans), the temporary halting of certain construction or de-forestation activities may be necessary to avoid either

- a) increasing the environmental damage risk to an unacceptable level; or
- b) the production of a contaminated water/effluent flow from the work site or
- c) other unacceptable incidents.

## 6.8 TRAFFIC MANAGEMENT

The works will generate considerable light and heavy traffic movements relative to that normally experienced in this rural area. Traffic management procedures and actions will be necessary to/from the site to ensure the safe undertaking of the works and delivery of equipment and supplies.

The Contractor is required to ensure that all the necessary precautions and controls are in place to ensure that public and private traffic and/or access is maintained to the standard required by the classification of the crossing (state highway, council feeder road, farm or private). Where any public road traffic is to be interrupted, or managed, then the Contractor shall have prepared a suitable traffic management plan, signed by a responsible and capable officer, and have this plan approved by the appropriate agency if required. Traffic management shall only be undertaken by suitably qualified personnel.

The construction “corridor” may be constrained at or to particular locations (refer to the appended DWPP in particular for stream crossings). The Contractor’s JSEA or work instructions shall address the signage and other management controls applied and how these and any temporary management controls are maintained such that the relevant “notice” of these constraints to the workforce and any site visitors is valid and on-going.

Suitable controls shall be applied to vehicles, drivers and passengers authorised to enter the worksite and particularly so when work areas also have heavy machinery movements.

### **Livestock Control**

#### **Gates**

In accessing farmland it cannot be assumed that no livestock are present or are to be shifted into the paddock crossed. All gates should be left as they are found. Any livestock loss that can be attributed to improper gate latching or not following these rules by the Contractor or his subcontractors, will be claimable by the stock owner from the Contractor.

#### **Fences**

The works may require the cutting of or modification to both internal and boundary fences. This intent and the consequences for stock control must be communicated with the landowner or the lessee in advance of any change implementation. In some cases, adequate temporary fencing may be required to secure or constrain livestock movements.

Dealing with wild animal discovery, intrusion or injury on the worksite is covered elsewhere.

## 6.9 PLANT & EQUIPMENT MANAGEMENT

Unsafe or poorly maintained equipment is not to be operated on the worksite. Operator daily pre-start checks shall be used to validate plant and equipment conditions.

**Weed and Hygiene** - Measures must be adopted to mitigate the potential spread of weed seeds or plant material, chytrid and other pathogens from machinery or soil embedded on/within machinery arriving at the works area (including being washed down with Phytoclean, Trigene or acceptable equivalents). Evidence of compliance with state and local hygiene requirements shall be documented by the Contractor e.g. on a Vehicle Washdown Register. Refer also to Remediation and Maintenance Procedures in regard to a suitable weed and hygiene management plan.

## 6.10 FUEL, LUBRICANT & CHEMICAL STORAGE

The Contractor shall store all fuel, lubricants and chemicals within containment facilities with adequate security protection from unauthorised interference. This/these fuel and chemical storage facilities will be designed to prevent the release of spilt substances into the environment. Where practicable, servicing will be undertaken from these facilities. However, it is acknowledged that 20L containers and sometimes larger fuel trailers/tankers and/or lubricant carrying service vehicles may travel to the job sites to service some engines or heavy machinery. Refer also to the Chemical Spill Management procedure requirements.

## 7.0 TRAINING AND INDUCTIONS

The Contractor shall ensure that all employees, sub-contractor employees and unescorted visitors to the worksite receive adequate inductions and if working on the site, relevant training in all aspects of this CEMP Requirements document. Training Records kept must show the title and a content summary, the date & time(s), the trainer and all the attendees must sign the record of attendance.

## 8.0 EMERGENCY MANAGEMENT PLAN

The worksite is remote from the majority of emergency services and parts of it do not have mobile phone coverage. The Contractor shall ensure that the onsite personnel and resources can safely and adequately deal with the initial response to typical field emergencies until appropriate back-up and/or professional emergency responders are able to reach the worksite.

The Contractor's emergency management plan shall address as a minimum, responses to emergency communications, first-aid, fire and flood events, inclusive of site evacuation protocols.

## 9.0 INCIDENT MANAGEMENT

### 9.1 CHEMICAL/HYDROCARBON SPILL MANAGEMENT

The Contractor shall meet the relevant legislative requirements for notification and remedial action. TBC....

### 9.2 ANIMAL INJURY & PREVENTION

Where possible any native animals injured by the works activities are to be transported to an animal hospital, vet or refuge. If this is not possible, animals are to be dealt with humanely. Entrapment prevention – Other than culverts, the ends of any substantial length of pipe buried, about to be buried or otherwise unable to be inspected once installed, must be closed to ensure that fauna cannot enter the pipe and be trapped. Open excavations should be barricaded and inspected regularly for possible entrapment victims.

## 10.0 AUDITS AND INSPECTIONS

The Principal will conduct...

## 11.0 STAKEHOLDER INTERACTIONS

The Contractor shall...

## 12.0 QUALITY REQUIREMENTS AND RECORDS

The Contractor shall...

## 13.0 CHANGE MANAGEMENT

The Contractor shall...

## 14.0 MATERIALS CONTROL

The Contractor shall apply a system to document the receipt of goods and materials to be used on the site or within the works, such that the source and quality are traceable. This includes any supply of goods and materials by sub-contractors.

## 15.0 WORKS SET OUT & CONTROL

The Contractor shall...

## 16.0 REMEDIATION & MAINTENANCE PROCEDURES

A Rehabilitation and Reinstatement plan for the dam site and areas where clearing/other works have occurred must be submitted for approval – it is to be in accordance with the DWPP, SECP and Dam construction reports.

During the works, the Contractor must ensure that within the worksite and its surroundings, the agreed ground surfaces are maintained such that to the mature “finish” condition expected after Practical Completion is not compromised. Adequate progress on these surface conditions and the site remediation will be required to finalise Practical Completion.

### **Weed and Disease Controls/Management**

The Contractor’s weed and hygiene management plan must be in accordance with DPIPWE (2015) Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania. Disturbance to areas containing identified weed species is to be minimised.

The application of the weed control/eradication actions are inherently seasonal and therefore will apply up to the final inspection at the end of the works Defect Liability Period.

### **Ground Cover Outside the Worksite**

Crops and surfaces outside of the agreed construction zone that are inadvertently impacted by the works shall either be re-cultivated and re-sowed in the appropriate grass type (season dependent) or the appropriate native vegetation.

Remediation satisfaction sign-off by the impacted landowners (and any leasee) will be required to finalise Practical Completion.

### **Topsoil Management**

Applicable to the Dam footprint, borrow pits and their close surroundings for re-application to the downstream face and other rehabilitation target areas.

Topsoil salvage and handling shall optimise the retention of soil characteristics favourable to plant growth:

- The surface of the completed stockpiles will be left “rough” to help promote water infiltration (natural and/or applied) and minimise erosion;
- Topsoil stockpiles should be limited to a nominal 2m height to limit anaerobic conditions developing and compaction issues;
- Topsoil embankment grade should be approximately 1:4 to limit face erosion;
- Any topsoil from weed infected areas is to be isolated from “clean” topsoils.

## 17.0 APPENDICES

Appendix applicability notes for this version of the CEMPR -

**Extant** – placed prior to a reference below means the document is already part of the EPBC 2017/7927 submission and is not physically attached within this CEMPR.

**Future** – placed prior to a reference below means the document is not yet available but is anticipated to have conditions or directions relevant to the CEMPR.

### 17.1 ENVIRONMENTAL & PLANNING APPROVALS PERMITS

Insert future State & Federal documents and/or their approval condition details

#### 17.1.1 DPIPWE WATER LICENCE

**Extant**

#### 17.1.2 DPIPWE WATERCOURSE AUTHORITY

**(Extant** Note obligations to TasWater re water quality);

#### 17.1.3 DPIPWE DAM CONSTRUCTION PERMIT (FUTURE)

(Several supporting documents to this are in later Appendices/Annexures)

#### 17.1.4 AHT PERMIT TO DESTROY (INUNDATE) (FUTURE)

#### 17.1.5 EPBC ACT CONSENT TO CONSTRUCTION (FUTURE)

(Controlled Action requirements to be detailed)

## 17.2 ENVIRONMENTAL PROTECTION REQUIREMENTS

### 17.2.1 EPR1 SFMES, DAM WORKS PRACTICES PLAN (DWPP)

**Extant**

### 17.2.2 EPR2 JMG “SEDIMENT AND EROSION CONTROL PLAN” (SECP);

**Extant**

### 17.2.3 EPR3 - WATER QUALITY MANAGEMENT FRAMEWORK (WQMF)

### 17.2.4 EPR4 - TURBIDITY MANAGEMENT FRAMEWORK

**Extant**

### 17.2.5 EPR5 – HERITAGE UNANTICIPATED DISCOVERY PLAN (UDP)

### 17.2.6 EPR6 – DEN MANAGEMENT PROTOCOLS

Refer NBES EPG 4

## 17.3 ENVIRONMENTAL PROTECTION GUIDELINES

Refer NBES EPG1, 2 & 3

### 17.3.1 DPIPWE (2015) WEED AND DISEASE PLANNING AND HYGIENE GUIDELINES -

- Preventing the spread of weeds and diseases in Tasmania – **Extant** – access via a web link provided here.

## 17.3.2 OTHER – LIST?

## 18.0 ANNEXURES (SUPPLIED INDEPENDENTLY)

## 18.1 HERITAGE SURVEY REPORTS

**Extant** – Stuart Huys, Cultural Heritage Management Australia (CHMA), Twamley Dam and Delivery Pipeline Project Aboriginal Heritage Report FINAL, 02 03 2017

**Note** : Aboriginal Heritage Unanticipated discovery plan (UDP) is contained in Huys pp94 – 95;

**Extant** – Dr. Sophie Collins, Cultural Heritage Management Australia (CHMA), Twamley Dam and Delivery Pipeline Project Historic Heritage Assessment final, 21 02 2017;

Herein follows - Response to the CHMA Report from AHT dated 6 March 2017 (in lieu of anticipated future permit)

**Note** : References to UDP and other anticipated AHT permit conditions highlighted;

**From:** Keating, Claire (Heritage) [mailto:[Claire.Keating@heritage.tas.gov.au](mailto:Claire.Keating@heritage.tas.gov.au)]

**Sent:** Monday, 6 March 2017 3:28 PM

**To:** Stuart Huys <[stuart@chma.com.au](mailto:stuart@chma.com.au)>

**Subject:** AHTP3220 Aboriginal Heritage Investigation Report - Twamley Dam & Transfer Pipeline Project

**RE: ABORIGINAL HERITAGE INVESTIGATION REPORT**

**AHTP3220 - Twamley Dam & Transfer Pipeline Project**

Dear Stuart,

Aboriginal Heritage Tasmania (AHT) has reviewed the Aboriginal heritage investigation report for the proposed Twamley Dam and Delivery Pipeline and can confirm that this report meets the standards set in the *Guide to the Aboriginal Heritage Assessment Process*. AHT's assessment of the consultant's findings and recommendations, as well as additional management requirements are provided below according to the respective development areas (River Run Transfer, Delivery Pipeline Corridor and the Twamley Dam site):

**River Run Transfer:**

AHT acknowledge the findings of the investigation that:

- There are 62 previously recorded Aboriginal heritage sites within 1km the River Run transfer scheme area (for details see CHMA 2017);
- There is no infrastructure installation proposed for the River Run transfer scheme; and
- It is not expected that the process of water transfer will result in water flows that exceed existing natural flow levels. The River Run transfer scheme is therefore expected to have minimal potential impacts on existing Aboriginal heritage sites.

The Consulting Archaeologist's recommendations that:

- Any infrastructure associated with the monitoring of river level fluctuations, such as water flow monitoring stations and access tracks, should be subject to a separate Aboriginal heritage assessment; and
- If previously undetected archaeological sites or objects are located during the course of the Dam or pipeline construction, the provided Unanticipated Discovery Plan (UDP) should be implemented

are considered by AHT to be warranted.

In addition, AHT require that:

- All appropriate measures are implemented to ensure that the River Run scheme does not impact on any Aboriginal heritage sites including:
  1. Ensuring that river level modifications/fluctuations do not impact on AH sites
  2. Determining whether any infrastructure may be required to monitor and manage flow
- A copy of the UDP be kept on site during any ground disturbance works
- A copy of the archaeological consultant's report be kept on site during any ground disturbance works; and
- All on site personnel should be made aware of the UDP and their obligations under the *Aboriginal Relics Act 1975*

#### Delivery Pipeline Corridor:

AHT acknowledge the findings of the investigation that:

- Three new Aboriginal sites (AH13277, AH13278 and AH13279) were identified within the vicinity of the proposed delivery pipeline corridor; and
- The three sites are located just outside of the pipeline corridor and are not under direct threat of impact.

#### The Consulting Archaeologist's recommendations that:

- Prior to works commencing, durable, high visibility temporary barricading should be erected around the grid reference location provided for each site;
- The temporary barricading should incorporate an additional 5m buffer around the grid reference location provided for each site;
- Barricading should be installed under the direction of a qualified archaeologist and an AHO;
- Barricading is to be removed once development works are completed;
- All construction workers are to be made aware of the location of the barricaded sites and informed that these are not to be impacted;
- All on site personnel should attend a site specific cultural heritage induction presentation prior to the commencement of works;
- If it appears that there is the potential that any of these sites may be impacted, the proponent will need to apply for and obtain a Permit to impact the sites, prior to pipeline construction works occurring; and
- If previously undetected archaeological sites or objects are located during the course of the Dam or pipeline construction, the provided Unanticipated Discovery Plan (UDP) should be implemented;

are considered by AHT to be warranted.

In addition, AHT require that:

- A copy of the UDP be kept on site during any ground disturbance works
- A copy of the archaeological consultant's report be kept on site during any ground disturbance works; and
- All on site personnel should be made aware of the UDP and their obligations under the *Aboriginal Relics Act 1975*

#### Twamley Dam Site:

AHT acknowledge the findings of the investigation that:

- Two Aboriginal heritage sites AH13275 and AH13276 will be impacted by the proposed activities; and
- The proposed activities comprise the inundation of the area as part of the dam development

If these impacts cannot be avoided you must apply for a permit under the *Aboriginal Relics Act 1975* (the Act) prior to works proceeding.

To assist you in making your application for a permit under the Act, please visit [www.aboriginalheritage.tas.gov.au](http://www.aboriginalheritage.tas.gov.au) where you will find important information and a permit application form. Please note that an Aboriginal Heritage Council (AHC) Briefing Form will also need to be completed and returned to AHT.



AHT will review your application and notify you in writing of the outcome of the assessment, including either a permit with terms under which it is granted, or a reason the application was refused.

Please be aware that all Aboriginal heritage in Tasmania is protected under the *Aboriginal Relics Act 1975*. If at any stage during development works you suspect Aboriginal heritage may be damaged (aside from those for which a permit has been granted), cease works immediately and contact AHT for advice.

If you have any queries please do not hesitate to contact AHT.

Kind regards,  
Claire Keating

## 18.2 FLORA & FAUNA SURVEY REPORTS

**Extant** – Dr. Philip Barker, North Barker Ecosystem Services (NBES), PPRWS Tea Tree Rivulet Dam Botanical Survey and Fauna Habitat Assessment, 14 March 2017.

## 18.3 CHECK FOR OTHER REPORTS

**Extant** – Entura Aquatic may NOT be relevant once WQMP & turbidity levels are set as EPRs.