Springvale MPPS Water Treatment Facility Water Management Plan (WMP)

1 Revision List

Rev	Date	Revision Comments	Prepared by	Reviewed by	Approved by
0	23/08/17	Draft for internal review	Sean Daykin Jacobs	Elena Ivanova Veolia	
1	25/08/17	Final	Sean Daykin Jacobs	Elena Ivanova Veolia	Huw Thomas Veolia
2	03/10/17	Update following EPA and WaterNSW review	Sean Daykin Jacobs	Elena Ivanova Veolia	Huw Thomas Veolia
3	16/10/17	Update following Energy Australia review	Sean Daykin Jacobs	Elena Ivanova Veolia	Huw Thomas Veolia
4	24/10/17	Update following DP&E review	Sean Daykin Jacobs	Elena Ivanova Veolia	Huw Thomas Veolia
5	27/10/17	Update following DP&E review	Sean Daykin Jacobs	Elena Ivanova Veolia	Huw Thomas Veolia
6	21/09/18	Updated following internal review including: 1. Induction Update 2. WTS testing methodology	Elena Ivanova Veolia	Simon Campbell Veolia	Simon Campbell Veolia
7	12/11/18	Update following DP&E review	Elena Ivanova Veolia	Simon Campbell Veolia	Simon Campbell Veolia
8	30/05/19	Updated following commissioning and operation review	Barbara Pitt Veolia	Jarrod Hodge Veolia	Fabiano Guittis Veolia
9	4/12/2019	Updated following internal review: 1. Commissioning methodology of the WTF 2. SSD7592 MOD3 3. SSD7592 MOD4	Elena Ivanova Arcadis	Jarrod Hodge Veolia	John Battaglia Veolia
10	19/12/2019	Updated to address DPIE comments Published in new document management system - BMS (version 1)	Elena Ivanova Arcadis	Jarrod Hodge Veolia	John Battaglia Veolia
11	17/11/2020	Annual review and update, Centennial Coal feedback (BMS versions 2 and 3)	Updated by Aaron Shultz Veolia	Ramona Bachu Environmental Compliance Manager	Michael Nicholson Operations Manager

Rev	Date	Revision Comments	Prepared by	Reviewed by	Approved by
12	17/12/2020	Updates conducted in accordance with DPIE Request for Additional Information (11/12/2020). Sections 7.7.4 and 11.1 updated to include with short paragraphs summarising each and any relevant process being referred to within a locked external plan.	Updated by Aaron Shultz Veolia	Ramona Bachu Environmental Compliance Manager	Michael Nicholson Operations Manager
13	19/03/2021	Annual Operations Review	Daniel Sanchez Castellanos Veolia	Jarrod Hodge Operations Supervisor	Michael Nicholson Operations Manager
14	03/05/2021	Review Following Environmental Incident (Rivo ID: 14639548)	Jarrod Hodge Operations Supervisor	Ramona Bachu Environmental Compliance Manager	Michael Nicholson Operations Manager
15	15/03/2022	Update prior to Facility Operations Manual Submission. Updated new Modification to SSD 7592 (MOD 6 & MOD 7)	Daniel Sanchez Castellanos Veolia	Jarrod Hodge Operations Supervisor	Michael Nicholson Operations Manager
16	25/11/2022	Review following Environmental Incident (RIVO ID: 18001193) Review following update of new modification to SSD 7592 (MOD 8) Remove obsolete references to commissioning activities	Caitlin Cooper Senior Process Engineer	Michael Nicholson Operations Manager	Michael Nicholson Operations Manager
17	09/08/2023	Insert Appendix A - Consultation Table, Add Appendix B - DPIE Consultation documents, Add Appendix C - Water NSW Consultation documents	Graham Brown Compliance Supervisor	Caitlin Cooper Senior Process Engineer	Michael Nicholson Operations Manager
18	27/02/2025	Scheduled Review and review following Environmental Incident (Rivo ID: 23455557) No changes made	Chantelle Handley Compliance Supervisor	Caitlin Cooper Senior Process Engineer	Shohidul Islam Operations Manager

2 Table of Contents

3 Introduction

3.1 Background

The Springvale and Angus Place Mines are located in the western coalfields of New South Wales near Lithgow. The Springvale Mine is the primary source of coal for Mount Piper Power Station (MPPS), which is the newest and most efficient coal-fired power station in New South Wales.

The Springvale Coal Mine is owned by Springvale Coal Pty Limited (Springvale Coal), a joint venture comprising Boulder Mining Pty Limited and Centennial Springvale Pty Limited.

MPPS is owned and operated by EnergyAustralia NSW Pty Limited (EA), and is a key part of the New South Wales' electricity system, supplying approximately 15% of the State's energy requirements.

In addition to coal, MPPS requires water of low salinity for its cooling water system.

This need is currently supplied from a number of alternate water sources including storage dams owned and operated by EA, which are fed by a combination of local rainfall and discharge water from the Springvale and Angus Place Mines. Freshwater is also sourced from the Fish River scheme and the Thompsons Creek Reservoir (TCR). The Springvale Water Treatment Project was initiated to improve the environmental outcomes and water quality in the Upper Coxs River catchment and to achieve compliance with the water management performance measures required under the Springvale Mine Extension Project (MEP) development consent.

The project received approval on 19 June 2017 for the construction and operation under State Significant Development (SSD 7592) in accordance with section 89(C) of the Environmental Planning and Assessment Act 1979 (EP&A Act).

Implementation of the Springvale Water Treatment Facility (WTF) will eliminate direct mine water discharges from the Springvale Delta Water Transfer Scheme (WTS) into the Coxs River catchment. The WTF involves the transfer of water from existing dewatering facilities on the Newnes Plateau to the new water treatment plant located at the MPPS.

Treated water is used as a priority within the MPPS cooling water system and excess treated water transferred to TCR for storage for subsequent reuse in the power station operations.

3.2 Project Overview

The Project is being delivered using Build Own Operate Transfer delivery method and involves the:

- financing, design, construction, testing and commissioning of a water transfer system to transfer Mine Water from the Springvale and Angus Place Mines to MPPS (Water Transfer System);
- financing, design, construction, testing and commissioning of a water treatment facility including brine treatment systems adjacent to MPPS to enable the beneficial reuse of treated water by MPPS for cooling purposes, and release of surplus treated water to the TCR, transfer of residuals to the residuals emplacement area and mixed salt and lime salt to the ash emplacement area; and

- operation and maintenance of the Water Transfer System (WTS) and the Water Treatment Facility (WTF) (together the Facility) for a term of 15 years.

The high-level commercial structure of the Project is outlined below

3.3 Customer and Project Co

A Project specific company was established to finance, design, construct, and commission and operate the Project. MP Water Pty Limited, which in its capacity as trustee for the MP Water Trust (Project Co) has entered into the Water Treatment Services Contract (WTSC) with:

- Boulder Mining Pty Limited (ABN 85 112 796 308) (Boulder Mining);
- Centennial Springvale Pty Limited (ABN 64 052 096 812) (Centennial Springvale); and
- EnergyAustralia NSW Pty Limited (ABN 75 163 935 635) (EA).

The above three entities are collectively referred to as 'the Customer'.

The obligations and liabilities of each of the Springvale Joint Venture Participants (Boulder Mining and Centennial Springvale) and EA will be in accordance with the participating interests set out in the WTSC.

The overall Project consortium structure is provided in Figure 1.

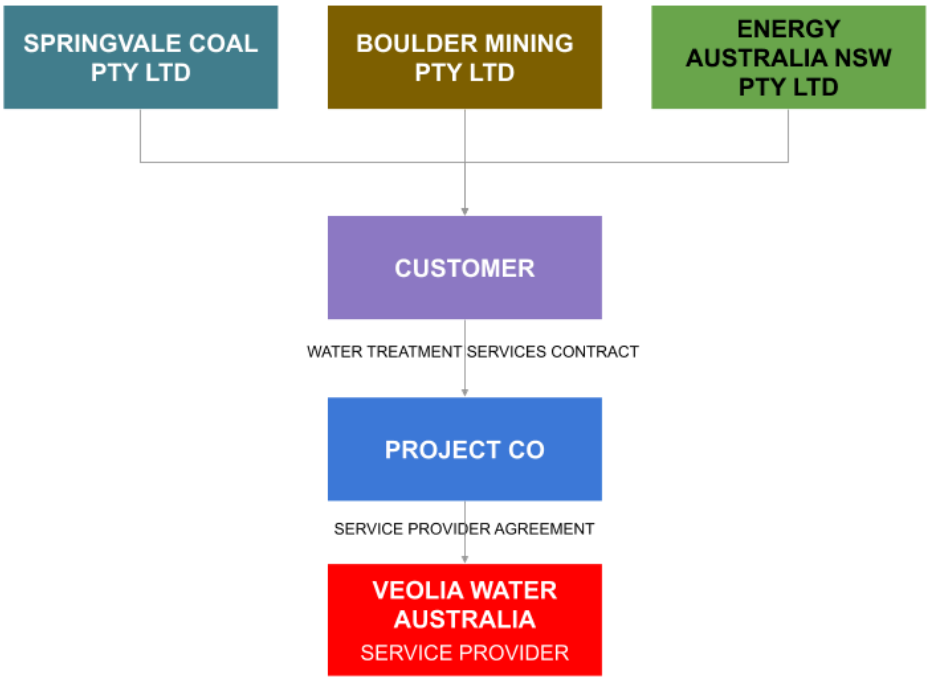

Figure 1 – Consortium Structure

3.3.1 Design and Construct Contract

Veolia was engaged by Project Co to design, construct and commission the Facility under the terms of the Design and Construct Contract (D&C Contract) dated 13 November 2017.

Veolia, in its capacity as Construction Contractor, had responsibility for delivery of the works as defined under the D&C Contract. Veolia engaged key partners to deliver the Project including:

- Veolia Water Solutions & Technologies, who provided engineering design and core process equipment including evaporation and crystallisation technology;
- Abergeldie Complex Infrastructure, who undertook all construction related activities; and
- Jacobs, who provided the balance of plant engineering design.

3.3.2 Services Provider Agreement

Veolia will operate and maintain the Facility for a 15 year Term, under the terms of the Services Provide Agreement dated 13 November 2017.

The overall Project consortium structure of the Facility commissioning and operational interactions is summarised in Figure 2.

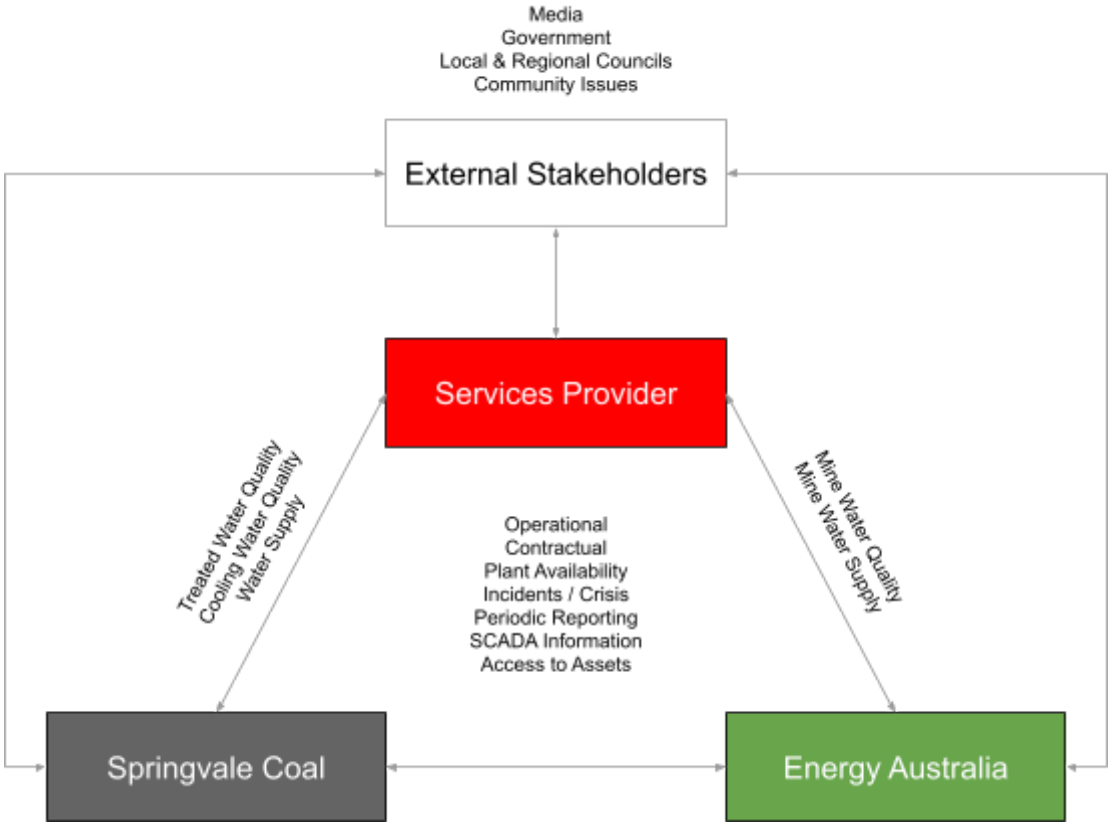

Figure 2 – Operations Interactions Structure

3.4 Objectives of the WMP

The primary objective of this WMP is to manage and minimise the impact of the construction, commissioning and operation of the Project Facility on the local water resources by:

- outlining procedures to ensure adherence to all guidelines and legislative requirements relevant to water management on the Facility;
- addressing the following conditions of the Development Consent (Consent) (DP&E, 2017):
    - Schedule 2. Conditions 1, 5 and 6
    - Schedule 3, Conditions 1, 3 and 4
    - Schedule 4, Conditions 2, 4, 5 and 6
- describing procedures to enable compliance with the water management performance measures detailed in Table 1 of the Development Consent.

The Commissioning and Testing Plan framework also forms part of the operational environmental management framework. This WMP has been developed in accordance with the conditions of the Development Consent (SSD 7592), the Project Environmental Impact Statement (EIS) (GHD, 2016a), the Development Application Amendments and assessments (GHD, 2016b, GHD, 2016c, GHD 2019a, GHD 2019b) and the Springvale Coal Services (known as Western Coal Services). This WMP was developed early on in the Project design phase and has been updated for the commissioning and operation of the Facility.

This Water Management Plan (WMP) also forms a sub-plan of the Springvale MPPS Water Treatment Operational Environmental Management Plan [MAN-3652] (OEMP), which details the operational environmental management framework for the WTF.

NOTE: All document hyperlinks included in this Plan relate to Veolia ANZ's Business Management System (BMS), can only be opened on Veolia's network and can't be accessed by external users. Document codes have been included as a reference where an external user can request from Veolia to provide.

4 Facility Overview

4.1 Facility Extents

The Facility, and hence this WMP, is limited to the following upstream and downstream extents. Water management aspects beyond these extents are addressed by the water management plans associated with Springvale Coal Mine, Springvale Coal Services Site (SCSS) and MPPS.

The approximate location of the Project extents is shown on Figure 3.

4.1.1 Upstream Extent

The upstream extent of the Facility is at the outlet of the booster pump situated on the upstream side of the Newnes Plateau gravity tank. Water management is controlled Downstream of Mine Water Booster Station (WBS002).

4.1.2 Downstream Extents

The Facility has two downstream extents:

- Immediately upstream of the discharge point to TCR. The discharge and TCR is managed by Energy Australia.
- At the end of the pipeline that transfers residual material to the Reject Emplacement Area (REA) on the SCSS. Water management associated with the REA is in accordance with the SCSS Water Management Plan (Springvale Coal Services, 2017).

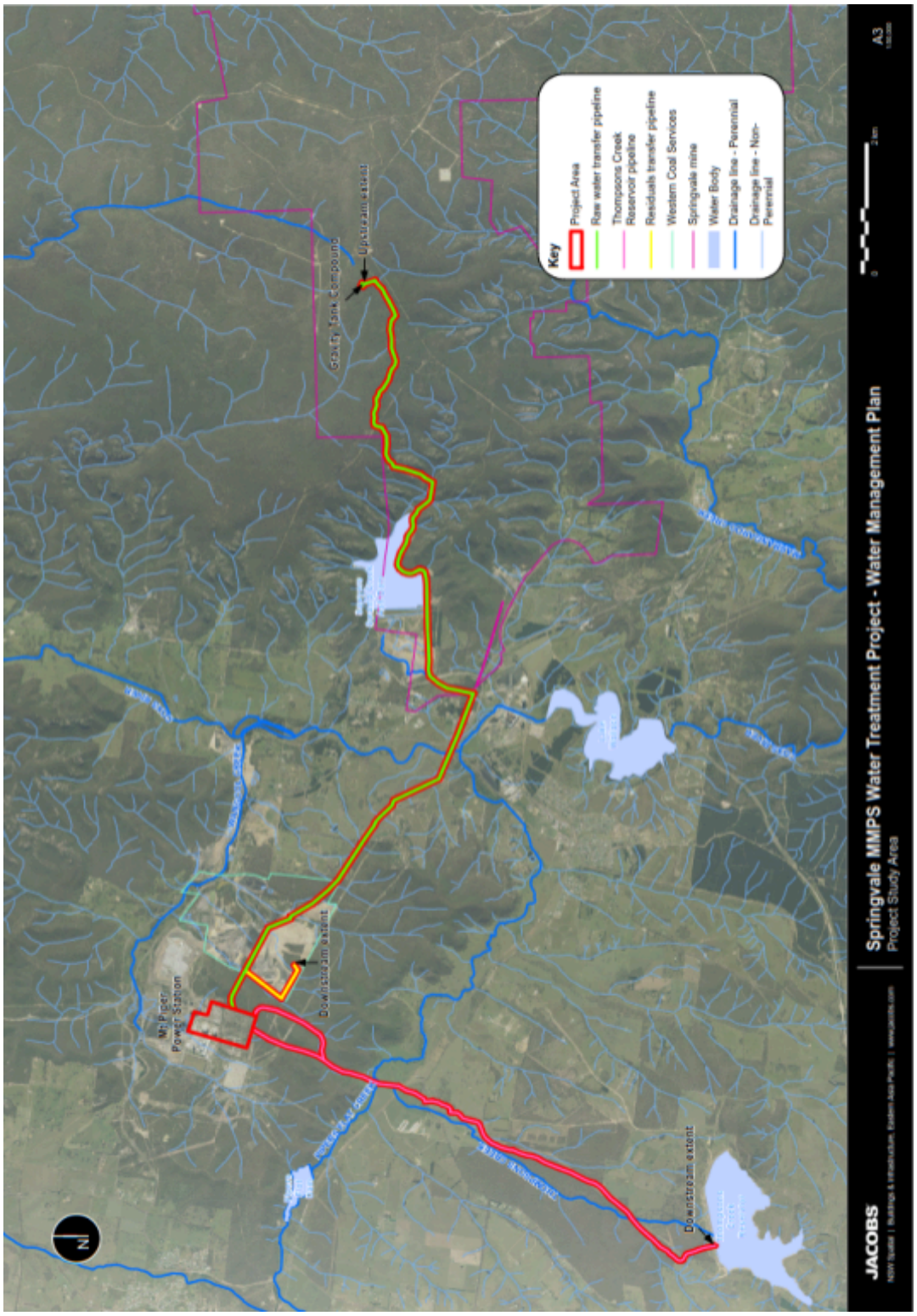

Figure 3 - Project Extents and Location

4.2 Staging of the Facility

Under Schedule 4, Condition 3 of SSD 7592, *the Applicant may submit any strategy, plan or program required by this consent on a progressive basis with the approval of the Secretary.*

Approval to progressively submit the management plans was received on 21 August 2017 from the then NSW Department of Planning and Environment (DP&E) (now NSW Department of Planning, Industry and Environment (DPIE)).

The progressive stages of the project include

- Construction
- Commissioning
- Operation.

4.2.1 Construction

The Water Transfer System (WTS) has been fully constructed and commissioned. between the existing dewatering facilities on the Newnes Plateau to a new water treatment facility located at the MPPS.

Any residual/minor works associated with stormwater management and internal access roads will be undertaken in accordance with the requirements of the *Construction Environmental Management Plan (CEMP) [SMPPS-O-00-M13-00-03].*

4.2.2 Commissioning

The Water Treatment Facility (WTF) has been fully commissioned in accordance with the *Commissioning and Testing Plan [SMPPS-Z-03-M10-00-01].*

The *Commissioning and Testing Plan* outlined the processes to be implemented by the D&C Project Team to ensure that the Facility is commissioned, all acceptance testing has been completed and handed over to the Operator in accordance with the WTSC and to the satisfaction of all parties.

Commissioning occurred 24 hours per day, 7 days per week for approximately six months, with commencement occurring in April 2019.

Commissioning incorporated the following sub-stages:

- **Pre-commissioning:**

  This is the final checking/verification of individual components for correct installation and operation. For each component, the Project commissioning team verified that all required installation and operation checks had been carried out, with acceptable results. These checks were carried out prior to commissioning and recorded on a pre-commissioning checksheet as evidence to confirm acceptable results.

- **Sub-System Commissioning:**

  On completion of the pre-commissioning of Sub-system's components, the equipment within the Sub-system was set to operate in a controlled sequence to properly flush the equipment, confirm correct functionality, optimise all operational parameters and confirm reliable

operation. Each component of the Sub-system was brought online and tested as a Sub-system before each System was tested as an integral process.

- **System commissioning:**

  This involved circulation of water throughout the system and when critical subsystems had been adequately commissioned and ready for start-up, the overall process was brought on-line sequentially.

- **Process Optimisation:**

  On completion of all System commissioning tests, the system underwent process optimisation. The process optimisation ran for a period long enough to allow fine tuning of the system and to demonstrate readiness for Acceptance Testing.

- **Acceptance Testing.**

  The system underwent an Acceptance Test. The Acceptance Test ran for 14 consecutive days to demonstrate the system is able to treat mine water and blowdown water to produce water products that comply with the Water Product Quality Standards.

Site Acceptance Tests had been conducted by the Project Construction and Commissioning team. Checks were generally performed before energisation, by the Construction team, and those after energisation were performed by the Commissioning team.

Onsite equipment performance tests had been conducted during commissioning as they required operating systems to reach duty points. An equipment performance test was used to check that key equipment's actual performance met the supplier guarantee or design criteria.

4.2.3 Operation

Following commissioning and Site Acceptance Testing, operation of the Facility as whole commenced.

5 Statutory Requirements

5.1 Relevant Legislation and Guidelines

Details about the legislation, planning instruments and guidelines considered during development of this plan are listed below, with specific details provided in the Legislation Register within Appendix A2 of the Springvale MPPS Water Treatment Operational Environmental Management Plan (OEMP)(MAN-3652).

- Water Management (WM) Act 2000;
- Water Management (General) Amendment (Aquifer Interference Regulation 2011) under the WM Act 2000;
- State Environmental Planning Policy (SEPP) (Sydney Drinking Water Catchment) 2011;
- Environmental Planning and Assessment (EP&A) Act 1979;
- Protection of the Environment Operations (POEO) Act 1997;

Additional legislation, standards and guidelines applicable to water management are:

- Water Sharing Plan for Greater Metropolitan Region Groundwater Sources and Unregulated River Water Sources (July 2011)
- Managing Urban Stormwater: Soils and Construction (the Blue Book), Volume 1, Volume 2A, Volume 2C and Volume 2E, Mines and Quarries (Landcom 2004);
- National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ 2000);
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000);
- Guidelines for the Assessment and Management of Groundwater Contamination (DECC 2007);
- Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013);
- Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries, 2003);
- Guidelines for Controlled Activities on Waterfront Land (DPI, 2007).

5.2 Development Consent

The NSW Department of Planning and Environment (DP&E) (now the Department of Planning, Industry and Environment – DPIE) assessed the State Significant Development (SSD 7592) in accordance with section 89(C) of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*.

The then DP&E delegated SSD 7592 to the Planning Assessment Commission (PAC) for determination under the Minister's delegation of 14 September 2011. The project was determined by PAC on 19 June 2017.

Following approval, a number of Modification Applications were submitted and approved. These are summarised in Table 1

Table 1 – Summary of Facility Modifications

Modification Number	Description	Date of Determination
SSD 7592 MOD1	The modification included the following: • include an amended brine management process • a change to the pond strategy • additional hydraulic controls • minor changes to the pipeline alignments • an increase in the estimated peak construction workforce.	12 January 2018
SSD 7592 MOD2	Springvale Mine Extension Project. This modification returns the pipeline alignment near Skelly Road approved under SSD 7592 MOD1 to the original designed outlined in the EIS.	29 October 2018
SSD 7592 MOD3	The modification included the following: • An amendment to allow pre-treatment filtration of incoming mine water with sequential bypass of desalination units during progressive commissioning of the water treatment plant; and • The transfer of a maximum of 2,700 ML at up to 24 ML/day of filtered mine water to TCR using existing Coxs River Water Supply System pipeline from TCR to Mount Piper Power Station. The interim water management strategy will provide up to an additional six months flexibility to the delivery program to allow the safe finalisation of construction, commissioning and operation of the water treatment facility. Implementation of the strategy will require minor modifications to the Springvale WTP development consent.	31 May 2019
SSD 7592 MOD4	To increase the interim water storage strategy that was approved by MOD3, by transferring a further 3,060ML (up to a maximum of 5,760 ML) of partially treated mine water to TCR at a rate of up to 36 ML per day, until the end of January 2020	5 November 2019
SSD 7592 MOD5	To transfer up to a maximum of 5,760 megalitres of partially treated mine water to Thompsons Creek Reservoir, until 30 June 2020	31 January 2020
SSD 7592 MOD6*	Updated consent definitions Project application area for the Springvale WTP extended to incorporate Pond D and authorise receipt of up to 2.6 ML/day of mine water from the Angus Place transfer system as part of the Springvale WTP MPPS water management system (incorporating brine concentrators and associated pipeline connections) to treat out of envelope mine water delivered to Pond D. Treated mine water or distillate from the brine concentrators to contribute to make-up water requirements for the power station cooling water system Treatment of generated salt load by Springvale WTF and MPPS blowdown water management system to continue as per the OPUS process with the exception of up to 2.6 ML/day of incoming mine water treated via the brine concentrators	19 March 2021
SSD 7592 MOD7	An extension to the permissible time period for operation of the interim water management strategy outlined in MOD5 from 30 June 2020 to 31 October 2021.	8 June 2021

SSD 7592 MOD 8	An extension to the permissible time period for operation of the interim water management strategy outlined in MOD5 from 31 October 2021 to 31 October 2023.	

*Development consent modification not developed in coordination with Veolia to assess the impact on the operational and water management strategy of the Springvale water treatment facility or any other potential impacts. No consent conditions from MOD 6 have been included on this document and are solely the customer's responsibility.

Conditions relating specifically to the development of the WMP are summarised in Table 2. The table also specifies where these conditions have been addressed within this plan.

The review process of the WMP is detailed in Section 10.5 of this plan.

Table 2 – Development Consent Requirements (as amended)

<table>
<tr><th>Condition #</th><th>Definition</th><th>Document Reference</th></tr>
<tr><td colspan="3">Water Management Performance Measures</td></tr>
<tr><td>3</td><td colspan="2">The Applicant must comply with the performance measures in Table 1 below, to the satisfaction of the Secretary.
<table>
<tr><th>Feature</th><th>Performance Measure</th><th>Doc Ref</th></tr>
<tr><td rowspan="3">General</td><td>Maintain separation between mine water and treated water management systems.</td><td>Section 7.1.1</td></tr>
<tr><td>Minimise the use of clean water on site.</td><td>Section 7.1.2</td></tr>
<tr><td>Design, install, operate and maintain water management systems in a proper and efficient manner.</td><td>Section 7.1.3</td></tr>
<tr><td>Upper Coxs River catchment, including Coxs River, Wangcol Creek, Pipers Flat Creek and Thompsons Creek</td><td>Negligible environmental consequences to surface water resources beyond those predicted in the EIS, including:
• negligible change in surface water flows beyond those predicted;
• negligible change in surface water quality beyond those predicted; and
• negligible impact to other surface water users beyond those predicted.
Maintain or improve baseline channel stability.</td><td>Section 7.2</td></tr>
<tr><td>Construction and operation of infrastructure</td><td>Design, install and maintain erosion and sediment controls generally in accordance with the series Managing Urban Stormwater: Soils and Construction including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads.
Design, install and maintain infrastructure within 40 m of watercourses generally in accordance with the Guidelines for Controlled Activities on Waterfront Land (DPI 2007), or its latest version.
Design, install and maintain any creek crossings generally in accordance with the Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013) and Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003), or their latest versions.</td><td>Section 7.3.1
Section 7.3.4
Section 7.3.5</td></tr>
<tr><td>Brine and residual waste</td><td>Minimise the production and transfer of brine and residual waste from the development.
Ensure that any brine and residual waste that is transferred from the development complies with the relevant development consents for the Ash Emplacement Areas and the Western Coal Services Site.</td><td>Section 7.6</td></tr>
<tr><td>Chemical and hydrocarbon storage</td><td>Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards.</td><td>Section 7.7</td></tr>
</table></td></tr>
<tr><td colspan="3">Water Management Plan</td></tr>
<tr><td>4</td><td>Prior to the commencement of construction, the Applicant must prepare a Water Management Plan for the project, in consultation (Appendix A, B & C)</td><td>Water Management Plan</td></tr>
</table>

	with EPA and WaterNSW, and to the satisfaction of the Secretary. This plan must:	(MAN-3659) - This Plan
4 (a)	be prepared by suitably qualified and experienced person/s whose appointment has been approved by the Secretary; and	The then DP&E endorsed Sean Daykin (Jacobs) on 21/08/2017
4 (b)	• Detailed baseline data on surface water flows and quality in the watercourses that could potentially be affected by the proposal	Section 6.1.6 & Section 6.2
4 (b)	• A program to augment the baseline data over the life of the development	Section 10.2
4 (b)	• A detailed description of measures to ensure that the Applicant complies with the water management performance measures (Table 1);	Section 7.3
4 (b)	• A program to monitor and report on the performance measures	Table 9
4 (b)	• Reporting procedures for the results of the monitoring program	Section 12 & Table 9
4 (b)	• A plan to respond to any exceedances of the performance criteria, and mitigate any adverse surface water impacts of the proposal	Section 9 & Section 11
4	The Applicant must implement the approved Water Management Plan for the development	The Plan
Brine and Residual Waste Disposal Plan		
5	Prior to the commissioning of the Water Treatment Plant, the Applicant must prepare a Brine and Residual Waste Disposal Plan, in consultation (Appendix A, B & C) with WaterNSW and the EPA, and to the satisfaction of the Secretary. This plan must:	Doc No. 115344_Rev1 Approved 14/5/19 by Steve O'Donoghue
Schedule 4 – Management Plan Requirements		
2	The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:	
2 (a)	detailed baseline data	Section 6.1 & Section 6.2
2 (b)	a description of: • the relevant statutory requirements (including any relevant approval, licence or lease conditions);	Section 5
	• any relevant limits or performance measures/criteria;	Section 7
	• the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures	Section 7
2 (c)	a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria	Section 6.2
2 (d)	a program to monitor and report on the:	Section 6.2

	• impacts and environmental performance of the development;	Section 7
	• effectiveness of any management measures (see c above)	Section 12
2 (e)	a contingency plan to manage any unpredicted impacts and their consequences	Section 11
2 (f)	a program to investigate and implement ways to improve the environmental performance of the development over time	Section 6.2
2 (g)	a protocol for managing and reporting any: • incidents;	Section 12.2 & Section 11.4
	• complaints;	Section 12.4
	• non-compliances with statutory requirements; and	Section 12.3
	• exceedances of the criteria and/or performance criteria; and	Section 9
2 (h)	a protocol for periodic review of the plan.	Section 12.5

5.3 Permits and Licenses

5.3.1 Water Access Licences

The Facility will use TCR as both a water supply storage and release point for excess treated water.

The current Water Access Licences (WALs) in place for the operation of the Coxs River water supply system were reviewed for the operation of the Facility. The WAL conditions and combined approval issued to EA authorises the take and use of water from the Coxs River for power generation purposes and includes Lilyvale Dam (Lake Lyell), Wallerawang Dam (Lake Wallace) and TCR.

These licence conditions define EA's water access rights and obligations and regulate the operation and management of its water management works. There are no proposed changes to the current WALs held by EA.

5.3.2 Environmental Protection Licence

Following consultation (Appendix A, B & C) with the Environment Protection Authority (EPA) it was considered that the operation of the Facility will not require an Environmental Protection Licences (EPL).

5.4 Roles and Responsibilities

EA holds EPL 13007 for the operation of MPPS. Energy Australia and Springvale Coal applied for the Project jointly however; Springvale Coal is listed as holding the Development Consent.

Veolia is responsible for the operation of the Facility, which will take place on the leased premises of EA.

The roles and responsibilities matrix is shown in Table 3. All parties have confirmed their commitments. In terms of Roles and Responsibilities, the Customer is NSW EnergyAustralia Pty Ltd and Springvale Coal Pty Ltd.

Table 3 – Roles and Responsibilities

Areas of Management	Veolia Responsibilities	Springvale Coal (Customer) Responsibilities	Springvale Coal Services (Customer) Responsibilities	Energy Australia (Customer) Responsibilities
EA Environmental Protection Licence (EPL 13007) for Mount Piper Power Station operations	To comply with requirements set up in the Contract between Veolia and Project Co.	Nil	Nil	To comply with the EPL requirements
Development Consent (SSD 7592) for the Springvale Water Treatment Project	To operate in accordance with the Development Consent as part of its responsibilities under the Contract between Veolia and Project Co.	Responsible for the Development Consent notifications to DPIE when made aware by the Customer via MP Water via Veolia	Nil	Nil
Thompson Creek Reservoir (TCR)	To comply with treated water performance standards for discharge of excess water to TCR (Table 6) and requirements set up in the Contract between Veolia and the Project Co. Do not adversely affect the current riparian water releases or water quality procedures that currently exist at TCR. Abide by the Licence discharge requirement as applied by the EPA.	Nil	Nil	To operate TCR and manage any associated riparian water releases in accordance with the existing water management scheme To regulate water levels in the TCR in accordance with the existing emergency response scheme
Residuals Emplacement Area (REA) (Development Consent SSD 5579 MOD 1)	To comply with residuals performance standards for discharge of residuals to REA (Table 7) and Comply with requirements set up in the Contract between Veolia and Project Co	Nil	To operate REA in accordance with relevant requirements of the Brine and Residuals Waste Disposal Plan and in accordance with the Development Consent (SSD 5579 MOD 1). Approved 14/5/19 by DPIE	Nil
Ash Repository (Ash and Brine Disposal Area)	To comply with relevant requirements of the Brine and Residuals Waste	Nil	Nil	To operate the existing Ash Repository management system

	Disposal Plan and requirements set up in the Contract between Veolia and Project Co.			in accordance with relevant requirements of the Brine and Residuals Waste Disposal Plan. Approved 14/5/19 by DPIE

6 Implementation

6.1 Existing Environment

The existing environment is described in GHD (2016a, 2016b, 2016c) and RPS (2014) and as follows:

6.1.1 Topography

The MPPS site is located within the gently undulating Coxs River valley immediately adjacent to the SCSS. The local topography at the MPPS site is however relatively steep as the site is situated on a slope with a nor easterly aspect.

The dominant landforms in the region include the wooded hills and slopes of the Ben Bullen State Forest which occupies the catchment divide and surrounds the MPPS site and dominates all parts of the Project site that have not been impacted by the MPPS or SCSS developments.

6.1.2 Climate

The climate of the region is considered to be cool-temperate, with mild summers and cold winters.

The local climate is influenced by topography, altitude, and aspect. Monthly mean maximum temperatures typically range between 12°C and 28°C.

6.1.3 Rainfall

Daily rainfall data was obtained from SILO for the Lithgow (Birdwood St) station (Bureau of Meteorology (BoM) station number 63224). The average annual rainfall for the area is 867.8 mm.

This station is approximately 13 km south-east of the centre WTP site. The data period for this site was taken from January 1889 to July 2017.

The monthly average rainfall observed is summarised in Figure 4. The distribution of the rainfall throughout the year is relatively uniform; however, rainfall is generally slightly higher during the warmer months (October through to March). The maximum monthly average occurs in January of 94.2 mm and the minimum monthly average occurs in September of 57.4 mm. Rainfall intensity is locally affected by the influence of the Great Dividing Range

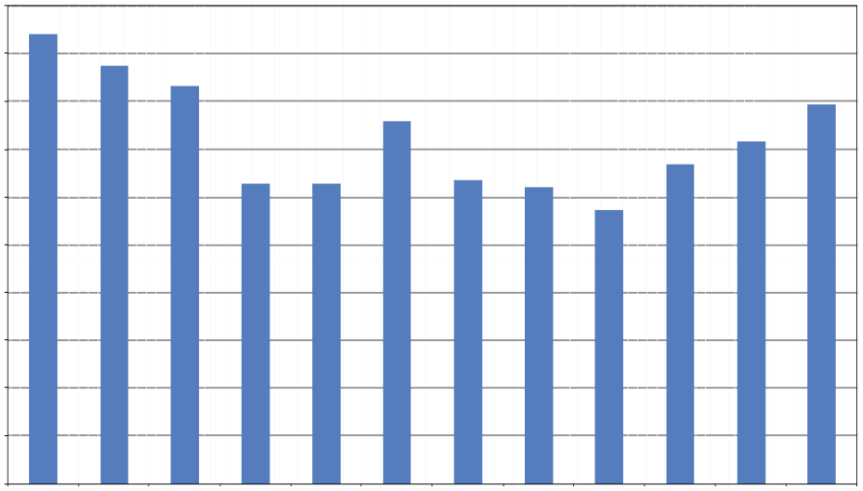

Figure 4 - Monthly Average Rainfall (063224)

6.1.4 Evaporation

Daily pan evaporation data from the Bathurst Agricultural Station (BoM station 63005) from 1966 to July 2017, is presented in Figure 5. This station is the closest rainfall station, which records the daily evaporation. This data was used to derive average monthly evaporation rates. The average daily pan evaporation for the period is 3.7 mm/day.

The evaporation is higher in the summer months (December to February) and lower in the winter months (June to August). The maximum average evaporation rate of 6.7 mm/day occurs in January and the minimum average evaporation rate of 1.1 mm/day occurs in June.

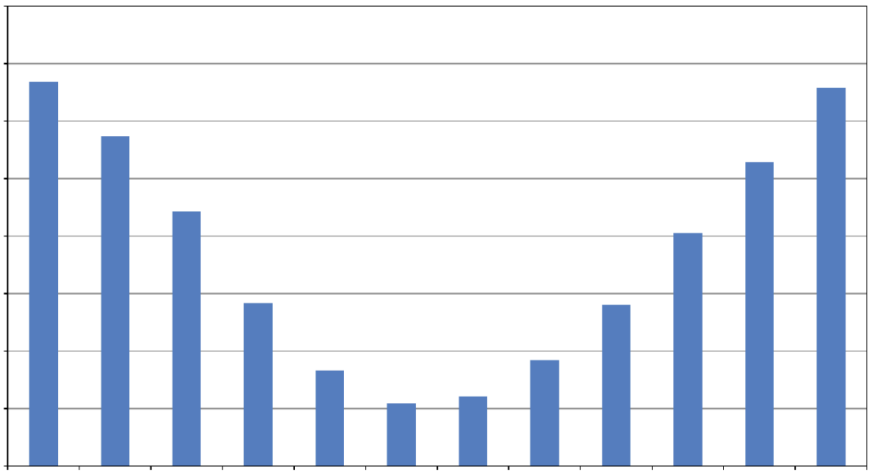

Figure 5 - Daily Average Evaporation (063005)

6.1.5 Geology

The Facility area is underlain by Permian rocks of the Shoalhaven group, with occurrences of early Triassic rocks of the Narrabeen group on top of ridges. The Shoalhaven group is overlain by the Illawarra Coal Measures in the vicinity of MPPS.

6.1.6 Surface Water Environment

The Facility (WTS and WTF) is situated in the Upper Coxs River Sub-catchment, which is within the Blue Mountains Western Catchment managed by the Hawkesbury-Nepean Catchment Management Authority (HNCMA).

The MPPS WTF site is located primarily south of Wangcol Creek and the WTS runs alongside Sawyers Swamp Creek and Sawyers Swamp Creek Ash Dam and will then cross the Coxs River via a horizontal directionally drilled bore.

Wangcol Creek

Wangcol Creek is a perennial stream that joins the Coxs River north of Lidsdale village at "Blue Lake", an old open cut mine void. A portion of Wangcol Creek lies near the Castlereagh Highway and its condition in the river valley varies from partly vegetated to cleared and degraded land.

A number of smaller tributaries enter Wangcol Creek that have headwaters in cleared land, mining areas, or the Ben Bullen State Forest. The dominant land use in the upstream catchment of Wangcol Creek is largely forestry with other land uses occupying a relatively small portion of the catchment area.

Coxs River

The Coxs River is a perennial river that drains a catchment area of approximately 1,700 km2 and is part of the greater Hawkesbury/Nepean catchment. The river rises within the Ben Bullen State Forest east of Cullen Bullen and flows generally in a south-east direction through the Blue Mountains World Heritage Area and into Lake Burragorang (impounded by Warragamba Dam), which is the primary reservoir for drinking water supply to Sydney.

6.2 Aspects, Impacts, Risks and Predictions

The key findings and predictions that are relevant to this WMP have been taken from the Amended Springvale Water Treatment Project Water Resources Impact Assessment (GHD, 2016b).

The assessment of water resources was undertaken to determine the potential impact of the Facility on the surface water environment in the context of the local water cycle, surface water quality, the fish community within TCR, stream health and downstream water users.

Predicted impacts are summarised in the following sections.

6.2.1 Wangcol Creek

The results of the water and salt balance modelling indicated that, for the 50% power generation scenario, the amended Facility is predicted to increase the flow in Wangcol Creek at the confluence with the Coxs River by up to 2% on average compared to existing conditions, and by up to 4% compared to the do nothing scenario.

The electrical conductivity (EC) in Wangcol Creek was predicted to increase as a result of the discharges from the SCSS, by up to 16% compared to the do nothing scenario. However, future changes in the water management system at SCSS are shown to mitigate this increase, with only a 1% increase in EC compared to existing conditions.

6.2.2 Coxs River

For the results for the proposed conditions modelled in the 50% power generation scenario, inflows to Lake Wallace, Lake Lyell and Lake Burragorang from the Coxs River were predicted to decrease compared to existing conditions and the do nothing scenario.

The EC of inflows to the major reservoirs within the Coxs River was also predicted to decrease compared to both existing and do nothing scenarios, with a 47% to 48% reduction in salinity of flows into Lake Lyell and Lake Wallace. This occurs as a result of the desalination of mine water make, compared to the modelled discharge of untreated mine water to Sawyers Swamp Creek in the do nothing scenario.

6.2.3 Thompsons Creek Reservoir

The water and salt balance modelling results indicated that, for 0% and 25% power generation scenarios, the use of TCR to store excess treated water is not sustainable over the life of the Project.

A 50% power generation scenario is considered to best represent the operation of MPPS. The assessment of the 50% power generation scenario indicated that the operating level within TCR would need to be reduced to hold excess water during the peak supply of mine water. The reduction in water level would be approximately 1.2 m below the current operating level. This predicted change is within the historical fluctuation level of TCR.

The assessment of the 75% and 100% power generation scenarios indicated that the current operating level of TCR could be maintained (±0.1 m). This is largely due to the fact that 100% of the water supplied by the Facility will be consumed by MPPS over the operational life of the Facility. A power generation requirement of 61% at MPPS was predicted to be the lower limit to maintain the current operating level of TCR (±0.1 m).

The assessment of operational scenarios for emergency storage of excess treated water considered the maximum potential supply of 42 ML/day. The assessment indicated that to accommodate a five or ten day emergency storage of excess treated water would require an approximately 0.4 m and 0.6 m reduction in the operating water level in TCR respectively.

The treated water from the WTP is predicted to be considerably less saline than the water in TCR, with a neutral pH and low concentrations of metals and nutrients. Any effect on the water quality of TCR will be that of dilution, though minimal change is predicted due to the large volume of TCR and the improbability of a sustained, high-volume discharge of treated water to the reservoir.

Interim Water Management Strategy

An interim water management strategy for the commissioning stage of the Facility was assessed under SSD 7592 MOD 3, MOD4, MOD5, MOD7 and MOD 8.

Springvale Coal committed to eliminating mine water discharges from LDP009 to the Coxs River catchment by 30 June 2019 in accordance with the Springvale MEP consent.

The interim water management strategy had therefore been developed to provide a contingency for the scenario where the Facility had not been fully commissioned by the time mine water discharges are required to cease through LDP009.

The interim water management strategy involved the transfer of mine water from dewatering facilities on Newnes Plateau to the WTF. The strategy managed a total of 5,760 ML of mine water at inflows of up to 24 ML/day during the progressive commissioning of the WTF until 30 June 2020, under MOD 5. Under MOD 8, the operation of the interim water management plan has been extended to 31 October 2023.

The interim water management strategy for the WTF included the following procedure:

- Pre-treatment of incoming mine water including filtration to remove solids;
- Bypass of desalination system during the progressive commissioning of reverse osmosis treatment modules;
- Transfer of filtered mine water to TCR for storage and subsequent reuse within MPPS.

Quantitative modelling was undertaken by GHD (March and September 2019) for scenarios assuming a total of 5,760 ML of untreated mine water being transferred to TCR. This modelling was based on a series of conservative assumptions relating to the existing water quality in TCR, the mixing of the transferred water, and the speciation of metals in the reservoir following the transfers.

The assessment indicated that the transfers would not result in any exceedances of the default guideline values for water and sediment quality that are not currently observed under baseline conditions. It also demonstrated negligible electrical conductivity and flow volume changes within the greater Coxs River catchment, including those flowing into Lake Burragorang. These changes were within natural variability and the uncertainty of the model.

The modelling report concluded that the risk of impacts to environmental values within TCR and the receiving environments of Pipers Flat Creek and Coxs River (as compared to existing, or baseline conditions) are considered negligible from the proposed activity.

TCR Downstream Environment and Water Users

Negligible change to the water quality in the downstream receiving environments of Thompsons Creek and Pipers Flat Creek is predicted. Site specific guideline values (SSGVs) were derived based on the historical water quality monitoring record for Pipers Flat Creek. No exceedances of these SSGVs are predicted as a result of the Facility.

The Facility will not significantly alter downstream water users with respect to quality, however some users may experience an increased variation in surface water flow due to either the removal of constant flow rates or a greater dominance of natural catchment contributions.

TCR Fish Community

It is considered unlikely that the Facility will have an impact on the fish community. The temperature and the low hardness of the proposed release have the potential to be outside the ranges of trout tolerance, however these factors are not likely to affect the fish community given the size and depth of the impoundment.

The distribution of trout species within TCR is predicted to change in response to changes in water level and changes in the availability of preferred habitat, however this is not predicted to result in any mortality or reduction in survival of the species. The treated water releases are not predicted to be toxic to any of the fish species in TCR.

The responsibility for the management of TCR will remain with EA and is not considered part of the operation of the Facility.

Water Supply to TCR from SMWTP

Water balance modelling was undertaken as part of the Response to Submissions on Modification 4 indicated that spilling or additional riparian flow releases from Thompsons Creek Reservoir will not be required during the period of operation throughout the Interim Water Management Strategy ending 31st of January 2020 and extended to. Also, the potential for additional flow releases in the short to

medium term is also considered to be very low as the Coal supply from Springvale returned to MPPS in early November 2019.

The risk of spilling from Thompsons Creek Reservoir is a function of MPPS make-up water demand, mine water transfer volumes and climate.

The primary factor influencing the likelihood for the reservoir to spill is MPPS make-up water demand, which is influenced by power generation capacity and the availability of a coal supply to the power station.

Delays to the final commissioning of the water treatment facility unfortunately coincided with coal supply issues at the power station during the Modification 4 application to the Consent. This highlighted a concern by the Environmental Protection Agency on a potential risk to TCR under the modified bypass around the Reverse Osmosis system in the water treatment facility allowing the transfer of filtered mine water. This modification showed a minimal influence on the potential for TCR to spill as it was and is currently under the TCR's low operating level.

Following submission of Modification 4 considerable progress has been achieved in delivery of the water treatment facility and managing coal supply including:

1. Construction and commissioning of the reverse osmosis units resulting in the transfer of treated water with average EC of 439 since mid September, 2019.
2. Construction of the brine management units and initial commissioning activities completed.
3. Coal supply resumed mid November has enabled MPPS to return to normal operations.

Although Modification 4 to SSD7592 has provided flexibility to allow the ongoing commissioning and testing of the brine management stream it is extremely unlikely that the volume of 3,060 ML of filtered water will be required as at 5/12/19 on only 2050ML of MOD3 have been utilised. MOD4, MOD5, MOD 7 and MOD 8 have been requested to extend the time for the original MOD3 to be utilised. MOD 8 was required until 31 October 2023 with a total of 2612ML of filtered water used by the end of the MOD 7 allowance.

Condition 6 of Schedule 2 of SSD7592 states "The Applicant" must transfer all excess treated water via the Coxs River Water Supply Pipeline to the Thompsons Creek Reservoir, except during emergency situations, subject to approval from the Secretary." It is noted in the condition that "An emergency situation may include any event where overtopping of Thompsons Creek Reservoir is likely to occur".

The existing consent includes provisions for situations which may lead to a potential overtopping of Thompsons Creek Reservoir which is covered in a Trigger Action Response Plan (TARP) which is captured in the Incident and Emergency Response Management Plan (IERMP) (MAN-3651).

TCR Operating Protocol

Thompson Creek Reservoir is a prescribed dam under the Dam Safety Act 2015 (DS Act) and is managed in accordance with the Dam Safety Regulations 2019 (DS Regulations). The DS Act and DS Regulations require an Operation and Maintenance Plan and Emergency Plans (Operating Protocols) to be developed for all prescribed dams. EnergyAustralia has developed and implemented the operating protocols for TCR as required under the DS Act and DS Regulations.

In the unlikely event that the operation of the SMWTP and the transfer of filtered water causes TCR to breach its operating protocols then water would stop being transferred to TCR. EnergyAustralia will ensure TCR is managed in accordance with its existing approved operating protocols at all times.

6.2.4 Groundwater

The Springvale Water Treatment Project Water Resources Impact Assessment (GHD, 2016b) documents the baseline groundwater condition. No likely impacts to the groundwater environment have been identified as a result of the operation of the Facility. The Baseline Site Condition Report is updated annually to identify any deterioration or shortfall in the conditions of the site.

7 Performance Measures

The following Section details the measures that will be taken to comply with the performance measures set out in Table 1 of Schedule 3, Condition 3 of the Development Consent (SSD 7592).

7.1 General

7.1.1 Maintain separation between mine water and treated water management systems

The mine water system including storage and transfer infrastructure is kept separate from the treated water at all times. The separation is maintained through a variety of design measures, which are themselves maintained by a comprehensive asset management process.

The Water Project Operating Protocol [MAN-3648], prepared by Veolia, describes a protocol for coordination between EA and the Customer Group, Project Co and Veolia for the integrated commissioning and operation of the WTF, MPPS, Springvale Mine and Angus Place Mine.

It sets out the operational interfaces and control philosophy for the various flows between each party's facility, including flow management under normal and abnormal operation requirements. It also describes the general communication protocol and process between the parties for coordination of maintenance activities and in the case of emergency situations.

The asset management process is detailed in the Operational Management Plan (MAN-3649) and includes conditions, inspections, routine performance assessment and a maintenance program.

7.1.2 Minimise the use of clean water onsite

Approximately 671 m3/day of treated mine water will be used as service water for the WTF equipment as required by technological processes.

Water for site use will be delivered by truck to meet demands.

7.1.3 Design, install, operate and maintain water management systems in a proper and efficient manner

The installation, operation and maintenance of water management systems will be carried out with adherence to the relevant procedures and standards as detailed in the Operational Management Plan (MAN-3649).

The following key elements relating to asset management demonstrate adherence with this condition.

Asset Management Strategy

Veolia's Asset Management Strategy [STA-311] seeks to achieve the following asset management specific high-level objectives:

- maintain the level of service (LOS), as detailed in the Operation Management Plan, delivered over the duration of the contract term;
- manage asset risks and the efficient delivery of services to ensure lowest lifecycle costs;

- continuously improve the asset management portfolio of services to achieve best value for Veolia and their clients.

Veolia will implement an asset management system, as per Asset Management Plan (MAN-3691) to enable the physical assets for the Facility to be maintained, repaired, rehabilitated and replaced in such a way as to ensure the following outcomes:

- no drop in LOS delivered over the duration of the contract;
- optimum equipment performance, reliability and availability;
- minimum total cost of ownership of each asset over its lifecycle;
- minimum business risks to all stakeholders;
- compliance with all statutory and contractual requirements.

The corporate Asset Management Policy [POL-12] details the business commitment to this outcome.

Veolia uses an integrated approach to asset management which considers all aspects of the asset's lifecycle including safety, operational performance, level of service, contractual requirements, maintenance requirements and the asset's whole of life costs.

Asset Management System

A Computerised Maintenance Management System (CMMS) will be used for scheduling, recording and analysing all maintenance activities.

The CMMS comprises an inventory of all managed assets. It includes performance and condition grading of all asset components, and other relevant data such as capacity, size and age. The information allows trending of asset condition and performance over the operating period.

The system is also used to capture data relating to all inspection and maintenance activities.

Summary of Relevant Assets and Treatment Process

The following assets are relevant to the water management system and will be managed in accordance with the asset management system:

- **Mine Water Receipt Points** – receive mine water;
- **Water Transfer System (WTS)** – transfer mine water to the WTF;
- **Mine Water Buffer Pond** – receives various streams from the MPPS mixed waters receipt point and blowdown receipt point 2 before treatment of these streams at the WTF;
- **Water Treatment Facility (WTF)** – treats mine water;
- **Water Product Delivery Points** – transfers the treated water to the MPPS treated water Delivery Point (TWDP1) and any volumes that exceed the prevailing treated water demand of MPPS to the Clean Water Pond Delivery Point (TWDP3), and if the clean water pond is unable to receive that water, transfers all remaining treated water as stabilised treated water to the TCR Delivery Point (TWDP2);
- **OPUS Treatment Plant** – treats combined blowdown brine from the Cooling Towers and mine water brine from the WTF at the Brine Treatment Facility (BTF);
- **Brine Crystalliser Plant** – the mixed salt crystalliser is the final component of the brine concentration process. The Crystalliser will receive OPUS Reverse Osmosis (RO) concentrate from the crystalliser feed tank and deliver brine concentrates to the brine waste ponds for subsequent disposal to the Ash Mixing Facility at delivery point BDP1;
- **Mixed Salt Storage and Transfer System** – delivers mixed salt from the Brine Crystalliser to the Ash Emplacement Delivery Point (SDP1);

- **Lime Salt Storage and Transfer System** – delivers lime salt from the OPUS Treatment Plant to the Ash Emplacement Delivery Point (SDP2).

7.2 Surface Water Resources

The performance measures relating to surface water resources specified in the Development Consent (as amended by MOD 1-5) require that there is no more than negligible changes beyond those predicted in the EIS (GHD 2016a & 2016b) to the following:

- surface water flows;
- surface water quality;
- other surface water users;
- channel stability.

Compliance with the performance measures will be assessed through a continuation of the current monitoring programs conducted by Springvale Coal and EA. Data will be assessed against the Contingency Plan (Section 11) and the documented actions will be taken in the event of a performance measure exceedance.

The existing data collection sites and monitoring data relevant to assessing the Project performance against the predictions made in the Project EIS are detailed in Section 10.1.

7.3 Operation of Infrastructure

7.3.1 Erosion and sediment control

Excessive sedimentation may occur as a result of erosion of exposed soils migrating into drainage channels and watercourses particularly due to rainfall events. Sedimentation has the potential to affect the natural flow regime by altering flow rate and direction and decreasing the depth of channels, which can lead to an increased risk of flooding. It may also affect water quality and conditions for flora and fauna.

Progressive Erosion and Sediment Control Drawings (PESCD) had been developed for use as a practical guide to manage risks to soil and water associated with construction activities.

The PESCDs defined erosion and sediment controls for implementation by all employees and subcontractors, whilst undertaking works associated with the construction and commissioning stages of the Facility.

All design installation and maintenance of erosion and sediment controls are in general accordance with the latest version of the series Managing Urban Stormwater: Soils and Construction (Landcom, 2004) (also known as the "Blue Book"). The latest version of the Blue Book is available at: http://www.environment.nsw.gov.au/stormwater/publications.htm.

Selection of erosion and sediment control measures involve the following steps:

- identifying of the problem to be managed – erosion or sedimentation;
- in the case of erosion, differentiate between raindrop impact and concentrated flow;
- in the case of sedimentation, identifying if sediment is conveyed by sheet or concentrated
- flow;

- selecting the appropriate techniques as outlined in Appendix F of the Managing Urban Stormwater: Soils and Construction, Volume 2e.

The Project was divided in six construction zones based upon construction activities and land management and the PESCDs were prepared for each construction zone to show the site layout.

The WTS installation (Zone 1 – Zone 6) has been completed and rehabilitated by the Construction Contractor. Maintenance and monitoring of the rehabilitated areas of the WTS are being undertaken in accordance with the Biodiversity Management Plan [MAN-3654].

The following control measures are currently being adopted in WTF (Zone 0):

- clean water diversions around the site;
- sediment fencing around the site;
- controlled site access location, with existing access routes are being utilised where possible;
- sediment dam constructed to collect 'dirty' water runoff from the WTF site;
- rolled erosion control products reduce erosion by completely covering the disturbed area;
- 'clean' stormwater from site is being diverted into the existing water management system present at MPPS; and
- rehabilitation of the WTF site will be undertaken using rock mulching material or concrete. Those areas not associated with the plant will be revegetated.

The PESCDs apply to all construction activities that disturb material or have the potential to result in environmental harm as a result of the migration of material from its original location. The plan endeavours to comply with conditions stated on development approvals, permits, licenses, sediment control plans and environmental impact assessments.

As a minimum requirement during construction, the maintenance of erosion and sediment controls include the following:

- general site inspections of construction works undertaken weekly and following significant
- rainfall events. During these inspections, water management and sediment control
- structures are inspected for capacity, structural integrity, effectiveness and level of sediment within structures, with the results recorded and reported on where appropriate;
- maintenance of the sediment and erosion control measures when visual defects are observed;
- maintenance of groundcover in areas of rehabilitation;
- sediment trapped behind fences is to be cleaned out and appropriately stockpiled;
- the maintenance of all erosion and sediment control measures are required until disturbance activities and site rehabilitation is complete.

7.3.2 Soils

The following summary of soil information has been taken from the Project EIS (GHD, 2016a). The soil landscapes which apply to the project area (incorporating both the WTF and WTS sites) and associated characteristics are detailed in Table 4.

Table 4 – Soil Landscapes and Characteristics (GHD, 2016b)

Site	Soil Landscape	Typical Terrain	Soil Characteristics
WTS	Hassans Walls	Cliff and steep slopes / open forests and woodlands	Rock fall hazard, steep slopes, extreme water erosion, mass movement, localised shallows soils, high run on, non-cohesive soils.
	Cullen Bullen	Hill crests	Dispersibility, erodibility, hard setting surface, acidity, low fertility, low wet bearing strength.
	Newnes Plateau	Gently undulating wide crests and ridges	Acidity, high permeability, low fertility, aluminium toxicity, localised shallow soils.
	Deanes Creek	Narrow low lying valley swamps along drainage lines and open woodlands	High water tables, permanent water logging, acid soils, low fertility, high run on.
	Mount Sinai	Narrow undulating crests and steep side slopes	Extreme water erosion, rock, outcrop, steep slopes, acidity, highly permeable soils, low fertility.
	Lithgow	Lower slopes and poorly drained areas	Hard setting surface, acidity, aluminium toxicity, low fertility, high run on, permanent high water table, water logging, foundation hazard, acidity, low fertility.
	Pipers Flat	Alluvial areas	Low organic matter, erodibility, hard setting surface, low permeability, acidity, aluminium toxicity, low fertility, low wet bearing strength.
WTF	Lithgow	Lower slopes and poorly drained areas	Hard setting surface, acidity, aluminium toxicity, low fertility, high run on, permanent high water table, water logging, foundation hazard, acidity, low fertility.

The majority of the WTF site is located in an area of disturbed terrain. The Soil Landscapes of the Wallerawang 1:100,000 Sheet map and report (1993), classifies the disturbed terrain as follows:

- Landscape: made land on various geologies (unconsolidated);
- Soils: Dominated by Anthroposols in disturbed areas. Here most of the original soil has either been removed, buried or greatly disturbed. In gravel pits and quarries bedrock is often exposed whilst in landfill areas of transported earths, sediment and industrial, building and household wastes are found. These areas may be artificially topsoiled or covered by concrete and bitumen.

7.3.3 Acid Sulfate Soils

A review of the Lithgow Local Environmental Plan 2014 indicated that there are no known occurrences of Acid Sulfate Soils (ASS) within and/or adjacent to the WTF and WTS sites.

No ASS were detected in the Baseline Contaminated Site Investigation, undertaken by Jacobs in August 2017. Additionally, no suspected ASS was observed in the material excavated during construction of WTF and WTS.

7.3.4 Controlled activities on waterfront land

Construction activities within 40 m of watercourses are regulated by DPI Water under the Water Management Act (2000).

A Controlled Activity Approval was not required, as the proposed works were assessed in the original EIS (GHD, 2016b).

7.3.5 Waterway crossings

The WTS involved crossing ephemeral drainage channels on the Newnes Plateau and the Coxs River. Potential risks to surface water and groundwater values associated with the WTS included:

- erosion of exposed soils within the construction area and transport of sediment into drainage channels and watercourses particularly as a result of rainfall events;
- disruption to the groundwater and/or surface water flow regime;
- contamination due to spills and leaks.

All creek crossings were designed and installed in accordance with the Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013) and Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries, 2003) or their latest versions.

The PESCDs were prepared prior to commencement of the waterways crossing construction works and were provided to WaterNSW four weeks beforehand for their review and comment.

The waterway crossing were as follows:

Ephemeral Channels

Construction across the ephemeral drainage lines within the Newnes Plateau was undertaken using the following methodology:

- temporary diversion of the creek (if flowing) around the crossing site;
- emplacement of a culvert within the existing creek channel (culvert sizing to be finalised
- during Project design);
- construction of the pipeline over the culvert;
- removal of temporary diversion and reinstatement of the creek in the original channel with the installed culvert.

Cox's River

The Cox's River waterway crossing was achieved through Horizontal Directional Drilling techniques (HDD) of one bore approximately 1.2 km long. The bore was drilled from east of Wolgan Road and crossed beneath Wolgan Road, the Castlereagh Highway, the Cox's River and Bray's Lane.

The HDD of a bore did not intercept a water table and as a result of this no mitigation measures were triggered to minimise the interaction with groundwater.

7.3.6 Uncontrolled Discharge

The WTS design was undertaken to include methods to eliminate leakage and provide units for rapidly detecting leakage if it would occur.

The pipeline is flexible to accommodate any minor ground movements and oversized to accommodate excess flow. In addition, air vent valves installed along the WTS to discharge air during operations, have spill prevention systems. These valves are positioned at low points in the pipeline to allow easy control and transfer of water from section to section of the WTS as required.

Any loss of pipeline pressure due to leakage will be detected by flow meters installed on the upstream and downstream ends of the pipeline.

The shutdown of the vent valve will occur in approximately 15 minutes, which will isolate the area where the leakage is detected.

Once the isolation has been confirmed, the section of the pipeline that requires maintenance can be drained by pumping the mine water upstream and/or downstream. The mine water flows will be contained within the WTS, excluding any losses.

Preventive and corrective maintenance will be conducted throughout the operation of the Facility to minimise the risk of potential pipeline rupture.

An emergency response team will be set up prior to the commencement of operation and will be available 24/7.

An integrated emergency response plan will be developed in consultation with Springvale Coal and EA to ensure all Facility personnel have the required awareness and training to adequately deal with emergencies.

7.4 Hydrostatic Testing

A hydrostatic test was completed following the WTS installation to prove the integrity of the pipeline. Hydrostatic testing of the pipeline involved water being pumped into completed sections of the pipeline to a pressure of at least 125% of the maximum allowable operating pressure.

The WTS testing was broken up into a number of stages to account for the varied sections of the WTS along the approximately 14km stretch.

A Hydrostatic Testing Methodology was developed and involved:

- the source and quantity of water to be used;
- the pressure range/s for which the hydrostatic testing will be undertaken;

- a program; and
- detailed methodology including a leak response protocol.

The hydrostatic test water was retained in the WTS (pipe) and treated at the WTF during the commissioning phase. No hydrostatic test water was discharged to the environment during hydrostatic testing.

7.6 Brine and Residual Waste

A brine and residual waste disposal plan was approved prior to commissioning of the WTF in accordance with Schedule 3, Condition 5 of the Development Consent (SSD 7592).

7.7 Chemical and Hydrocarbon Management

All chemical and hydrocarbon management will be undertaken as follows and in accordance with Australian Standard AS1940-2004 and other relevant Australian standards as applicable.

7.7.1 Chemical delivery and transfer

All tankers delivering chemicals to site will conform to the relevant standard, and follow the Australian Dangerous Goods Code requirements (where applicable).

Chemical Deliveries will be managed in accordance with a developed work instruction describing the unloading and recording of bulk chemical deliveries.

7.7.2 Chemical storage

Bulk storage areas for chemicals are contained within purpose-built impervious bunds to retain any spills and prevent contamination of stormwater run-off.

Large capacity spill kits will be provided around the chemical storage area. Any spillage will be immediately contained and/or absorbed with a suitable absorbent material as far as practicable.

Storage systems are designed to ensure that incompatible materials are kept separate. Safety in design principles have been applied during the design of the plant to ensure that systems do not allow any dangerous mixing of incompatible chemicals.

All site staff will be trained in chemical handling and spill management.

A copy of the site manifest and chemical Safety Data Sheets (SDS) will be kept in a cabinet at the entry to site. Chemical SDS will be stored and accessible at the chemical storage areas.

7.7.3 Chemical dosage

Dosage is controlled by the Supervisory Control and Data Acquisition (SCADA) system and is described in the relevant Functional Description Specification (FDS).

7.7.4 Chemical handling

Chemical Deliveries are managed in accordance with Uploading and Recording Chemical Deliveries Work Instruction [WIS-10535]. This Work Instruction outlines the equipment, procedure, safety and quality systems associated with bulk chemical delivery for the Water Treatment Facility.

7.7.5 Chemical quality management

The quality of chemicals used on site complies with specifications provided by the chemical suppliers and further Certificates of Analysis (CoA) can be required from the suppliers. Further checks and laboratory analysis can also be performed upon delivery of the chemicals to confirm their quality.

8 Site Water Balance

The site water balance is shown in Figure 6

8.1 Inputs and outputs

A summary of the predicted inputs and outputs of the system is shown in Table 5 are generally in accordance with the EIS and Development Application Amendment.

Table 5 – Water Balance Summary Predicted Inputs and Outputs

Inputs	**Predicted Daily Volume (ML/d)**
Mine dewatering facilities	0 – 42
Thompsons Creek Reservoir	0 – 42
Direct rainfall onto storages	<0.1
Total	0 – 42.1
Outputs	**Predicted Daily Volume (ML/d)**
Thompsons Creek Reservoir	0 – 42
Evaporation from cooling water system	0 – 38
Residuals to REA	0 – 0.43
Brine co-disposal	~ 0.2
Total	0 – 42.63

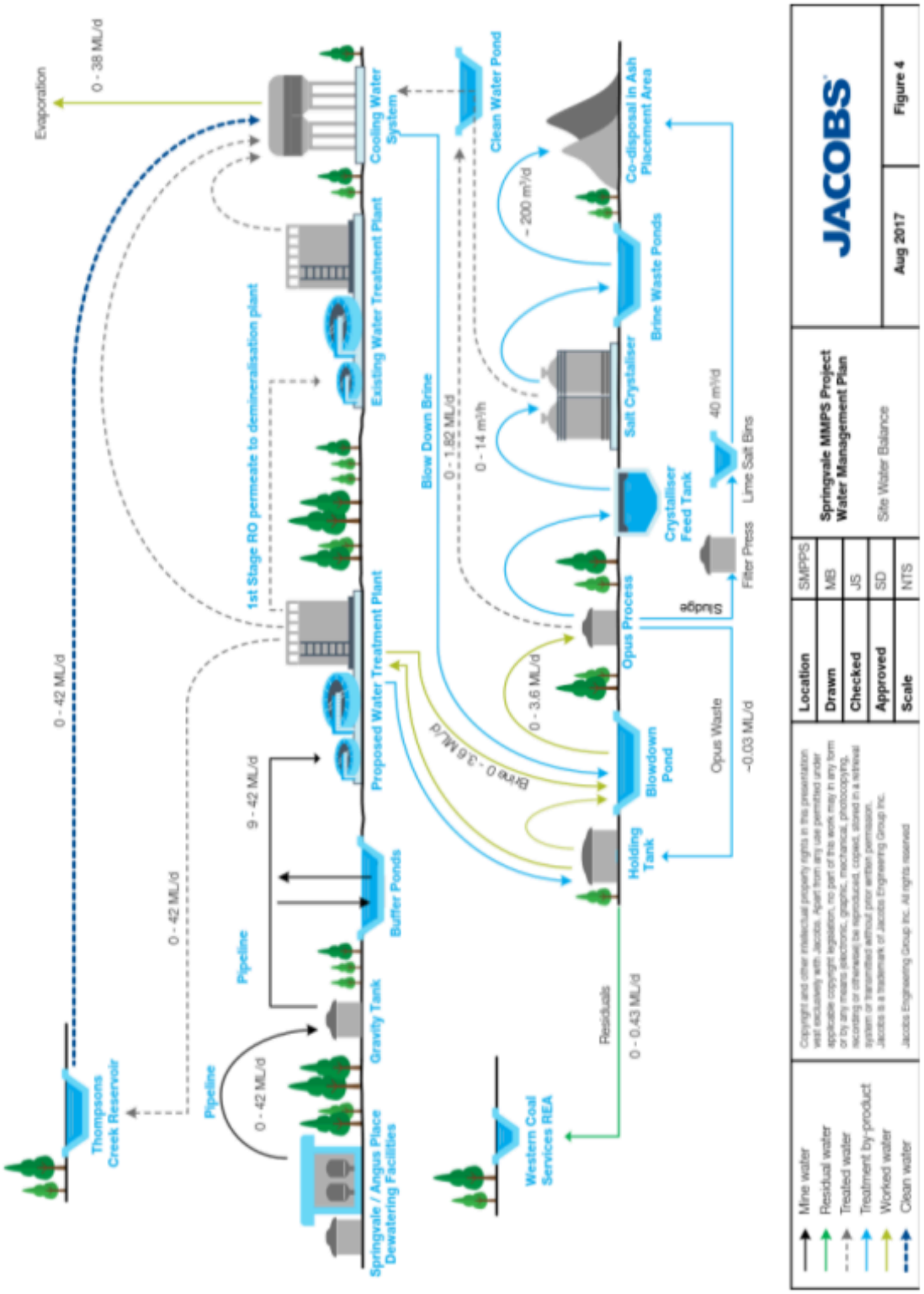

Figure 6 – Site Water Balance

9 Performance Standards

The operation of the Facility has the potential to impact the environment through the quantity and quality of treated water being discharged into TCR and the quantity and quality of residuals being transferred to the REA.

A Trigger Action Response Plan (TARP) has been developed to address these aspects. The TARP is provided in the Incident and Emergency Response Management Plan (IERMP)(MAN-3651).

9.1 Quality of water from the WTF to the TCR

The Treated Water performance standards are presented in Table 6. The electrical conductivity requirement has been corrected to a reference temperature of 25°C.

Table 6 – Treated Water Performance Standards (Veolia, 2017a)

Water Product Quality Parameter	Unit	Water Product Target Standard – From Services Commencement Date		
		50 %ile	95%ile	Maximum
Salinity	µS/cm	300[1]	500[1]	900[1]
Total Suspended Solids	mg/L			10
pH[2]	pH Unit			Refer to note 2 below
Aluminum (total)	mg/L			0.08
Arsenic III	mg/L			0.024
Arsenic V	mg/L			0.01
Cadmium (total)	mg/L			0.0004
Copper (total)	mg/L			0.0018
Cobalt (total)	mg/L			0.0018
Nickel (total)	mg/L			0.013
Zinc (total)	mg/L			0.015
Iron (total)	mg/L			0.05
Boron (total)	mg/L			0.37
Manganese (total)	mg/L			0.5
Lead (total)	mg/L			0.001
Mercury (total)	mg/L			0.0006
Chromium (total)	mg/L			0.0005
Selenium (total)	mg/L			0.005
Langelier Saturation Index[3]			> -0.5	<1.0

1. Salinity corrected to 25°C
2. pH of the Treated Water must be between 6.5 and 8.5

3. Langelier Saturation Index only applies to Stabilised Treated Water delivered to the TCR Delivery Point (TWDP2).

The WTF has been tailored to accommodate a specific mine water quality envelope. Where the quality of incoming mine water is materially out of the water quality envelope, a mechanism is in place to manage the conditions and maintain the treated water performance standards shown in Table 6.

An overview of this mechanism is as follows.

- 24 hours written notice to request a reduction in flow to a specified rate;
- assessment of the requirement for additional pre-treatment of incoming water;
- assessment of the requirement for re-treatment if treated water performance standards have not been met;

Complete details are provided in the Operational Management Plan (MAN-3649) and the relevant actions and responses are shown in the Incident and Emergency Response Management Plan (IERMP)(MAN-3651).

The operation of the TCR and any associated discharges will be under the management of EA in consultation with the WTF operations.

9.2 Quantity and Quality of Residuals from the WTF to the REA

The performance standards regarding quantity and quality of discharge to the SCSS REA are shown in Table 7.

Table 7 – Residuals Performance Standards (Veolia, 2017a)

Water Product Quality Parameter	Unit	Water Product Target Standard	
		Minimum	Maximum
Flow (daily)[1]	m3/d	0	430[1]
Flow (annual average)[2]	m3/d	0	350[2]
pH	-	6.5	8.5
Temperature	°C		40
Electrical Conductivity[3]	µS/cm		2,500[3]

1. Maximum flow limit applies to the total flow inclusive of all wastes and flushing water on a daily basis
2. Maximum flow limit applies to the total flow inclusive of all wastes and flushing water on a 12-monthly basis
3. Electrical Conductivity corrected to 25°C

The electrical conductivity requirement has been corrected to a reference temperature of 25°C.

The transfer of residuals to the REA is predicted to lead to increased discharge from LDP006, which is managed by EPL3607 and the SCSS Water Management Plan.

9.3 Quality Parameters Compliance Monitoring

A frequency of quality monitoring and sampling collection to be undertaken is outlined in Table 8.

A rationality of the treated water compliance monitoring will be assessed based on results from the treated water monitoring undertaken and if necessary, compliance monitoring parameters will be revised.

Table 8 – Quality Parameters Compliance Monitoring and Sampling (Veolia, 2017a)

Monitoring Point	Quality Parameters	Monitoring Frequency Program
Treated Water at the Thompsons Creek Reservoir Delivery Point	• Conductivity uS/cm • Turbidity • pH	Continuous online
	• Total Suspended Solids mg/L • Aluminium (total) mg/L • Arsenic III mg/L • Arsenic V mg/L • Cadmium (total) mg/L • Cobalt (total) mg/L • Nickel (total) mg/L • Zinc (total) mg/L • Copper mg/L • Iron (total) mg/L • Boron (total) mg/L • Manganese (total) mg/L • Lead (total) mg/L • Mercury (total) mg/L • Chromium (total) mg/L • Selenium (total) mg/L	Weekly
Residuals at the Residuals Delivery Point	• Conductivity uS/cm • Temperature deg • pH	Continuous online

Quality of Partially Treated Water to Thompson Creek Reservoir

The approved MOD3, MOD4, MOD 5, MOD 7 and MOD 8 allows transfers of partially treated mine water to TCR until the end of October 2023 only.

Monitoring will be conducted in accordance with Table 10.

10 Monitoring Program

10.1 Existing Monitoring Program and Baseline Data

With respect to addressing Schedule 3, Condition 4b of the Development Consent; the baseline datasets and continued monitoring considered relevant to assessing the predictions made in the Project EIS (GHD, 2016b) are shown in Table 9 and Figure 6.

Following consultation (Appendix A, B & C) with DPIE it was considered that the collection and reporting of data that is also undertaken as part of the commitments of EA and Springvale Coal would not be required under this WMP.

The upstream and downstream extents of the project are described in Section 4.1. The monitoring sites required to assess the predictions made in the Project EIS (GHD, 2016a & 2016b) are beyond these extents. Table 9 details the monitoring sites and which entity will be collecting and reporting on the relevant data.

The monitoring commitments under this WMP pertain to the quantity and quality of treated water and residuals being transferred from the WTF to TCR and the REA respectively. These commitments are detailed in Section 10.

Table 9 – Baseline Data Collection Sites and Current Monitoring Programs

Watercourse	Monitoring Sites	Data Owner	Current Monitoring Program
N/A	LDP006	Western Coal Services	Volume and quality Daily, monthly and quarterly during discharge
Wangcol Creek	Wangcol Creek Gauge	Western Coal Services	Monthly water quality sampling
Wangcol Creek	Wangcol Creek Upstream (US)	Western Coal Services	Monthly water quality sampling
Wangcol Creek	Wangcol Creek Downstream (DS)	Western Coal Services	Monthly water quality sampling
Wangcol Creek	Wangcol Creek Far Downstream (DS)	Western Coal Services	Monthly water quality sampling
Coxs River	Coxs River (Delta Site) Downstream of Lake Wallace	Springvale Coal	Biannual water quality sampling 1
Thompsons Creek Reservoir	TC1	Energy Australia	Monthly / Weekly water quality sampling 2
Thompsons Creek	Confluence Thompsons Creek and Pipers Flat Creek	Energy Australia	One event prior to the Project EIS At least quarterly water quality sampling recommended
Pipers Flat Creek	PFup	Energy Australia	Monthly / Quarterly water quality sampling Biannual aquatic ecology monitoring
Coxs River	CR5	Springvale Coal	Biannual aquatic ecology monitoring

1. Minimum frequency of historical data (GHD, 2016b)
2. Frequency increased from Monthly to weekly in May 2016 (GHD, 2016b)

Monitoring locations have been shown in Figure 7 below.

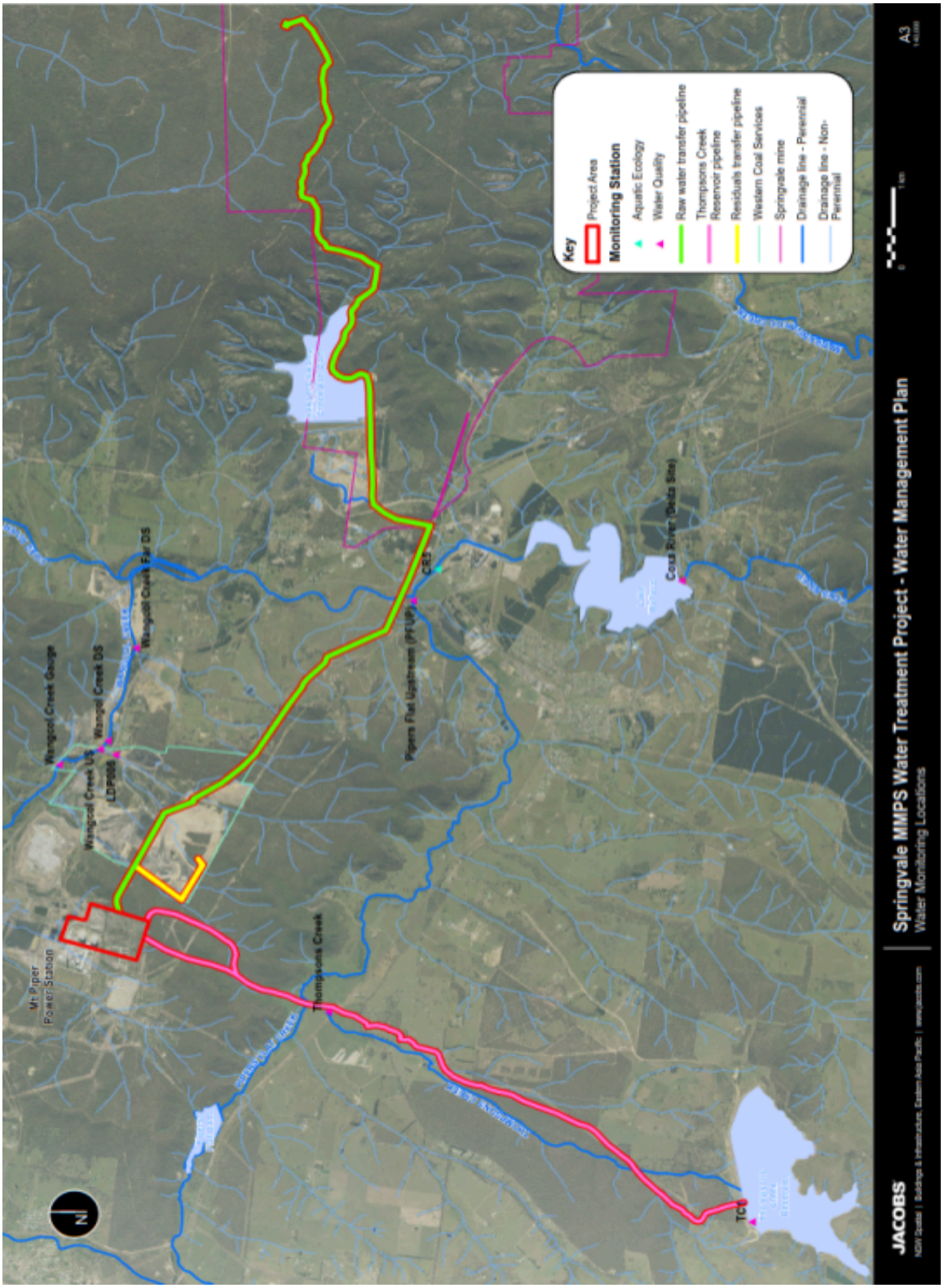

Figure 7 – Monitoring Locations

10.2 Program to Augment Baseline Data

Given the comprehensive data collection already underway in the Upper Coxs River Catchment it is considered that the current monitoring programs conducted by Springvale Coal and EA continue and that data from the sites shown in Table 9 is used to augment the baseline data and allow early detection of changes to those watercourses beyond that predicted in the Project EIS (GHD, 2016a & 2016b).

Water quality monitoring will be conducted on at least a quarterly basis at the Thompsons Creek monitoring site by EA at the confluence of Thompsons Creek and Pipers Flat Creek.

The relevant data owner will provide the baseline data to Veolia on request.

10.2.1 Water and Salt Balance Update

The salt and water balances within the potentially impacted local and regional waterways are dependent upon the operation of the MPPS and the Facility within the relevant time period considered. Where MPPS is operating at a higher capacity for longer periods of time, a higher proportion of the treated water output from the Facility will be used by MPPS and a smaller proportion will be discharged into TCR.

The EIS and Development Application Amendment included predictions of salt and water balance for a variety of potential operational scenarios for the MPPS.

The predictions in the EIS and Development Application Amendment will be assessed as detailed in Table 10, by the Customer.

Table 10 – Water and Salt Balance Review

Frequency	Trigger	Action
Annually **Using data collected on MPPS and Facility operations, as well as water quality and flow information, the salt and water balances will be compared against the EIS and Development Application Amendment predictions.** **These comparisons will be presented in the Annual Report (See Section 10.1)**	**If salt or water balances are negatively impacted by 25% or greater in one of more waterways, further investigations into the cause of differences will be implemented.** **For positive impacts (eg. lower salt loads) no further investigations will be required.**	Based upon the investigations the following actions may be implemented: • Changes in the operation of the mine. MPPS, Project or other infrastructure element to reduce or eliminate impacts • Recalculate salt and water balance predictions based upon new actual data.
Every three years **Using data collected on MPPS and Facility operations, as well as water quality and flow information, the salt and water balances will be recalculated and also compared against the EIS and Development Application Amendment predictions**	**Every three years**	• Recalculate salt and water balance predictions based upon new actual data.

11 Incidents, Emergencies and Contingency

11.1 Incident and Emergency Response

The occurrence of incidents at the Project, and the surrounding area, can potentially impact on other Project activities.

Notification, reporting, responses, corrective actions and reviews associated with Environmental Water incidents, emergencies and/or crises are conducted in accordance with the Incident and Emergency Response Management Plan (IERMP)(MAN-3651).

The IERMP outlines the management and response elements to ensure Environmental Water incidents or emergencies are appropriately and effectively responded to. A flow chart of the IERMP response has been shown in Figure 8 and section reference provided below:

- Reporting of the incident - outlines the immediate onsite reporting requirements associated with incidents. It also includes all hours contact details of key site personnel who are to be contacted in the event of any incident, their roles and responsibilities.
- Classification of the incident - outlines how an incident is to be classified and provides a classification matrix (e.g. No Impact, Minor, Moderate, Major or Crisis) in order to score and then action the relevant further notification and additional response required.
- Stakeholder notification - outlines the stakeholder notification requirements and timeframes based on initial incident classification. It also includes all hours contact details of key stakeholders and entities required to be notified in the event of an Environmental Water incident.
- Responding to the incident - outlines immediate response procedures associated with Environmental Water emergencies or crises as well as response requirements associated with any original incident classification. This includes general, emergency, environmental, water, water quality and unplanned incident response procedures. Specific notification and reporting requirements are defined in emergency and crisis response procedures.
- Escalation - outlines emergencies, crises or certain incident classifications that warrant escalation within the management structure and stakeholders. This includes crisis or incident management team (IMT or CMT) assembling, working methods and quality system definition.
- Incident Investigation - outlines the level of incident investigation and record requirements based on Environmental Water incident classification. Includes references to basic, general and ICAM investigation requirements, response and management.
- Incident Management System - outlines Veolia's incident management and reporting database (Rivo) and procedures on how to use it.
- Incident or Emergency Termination - outlines the requirements, specifications and responsibilities of when an incident can be closed/terminated or emergency is over.
- Evaluation and Review - outlines the steps and response required after an incident, crisis or emergency. This includes completion of records and reviews/updates to relevant Plans, Procedures and Registers.

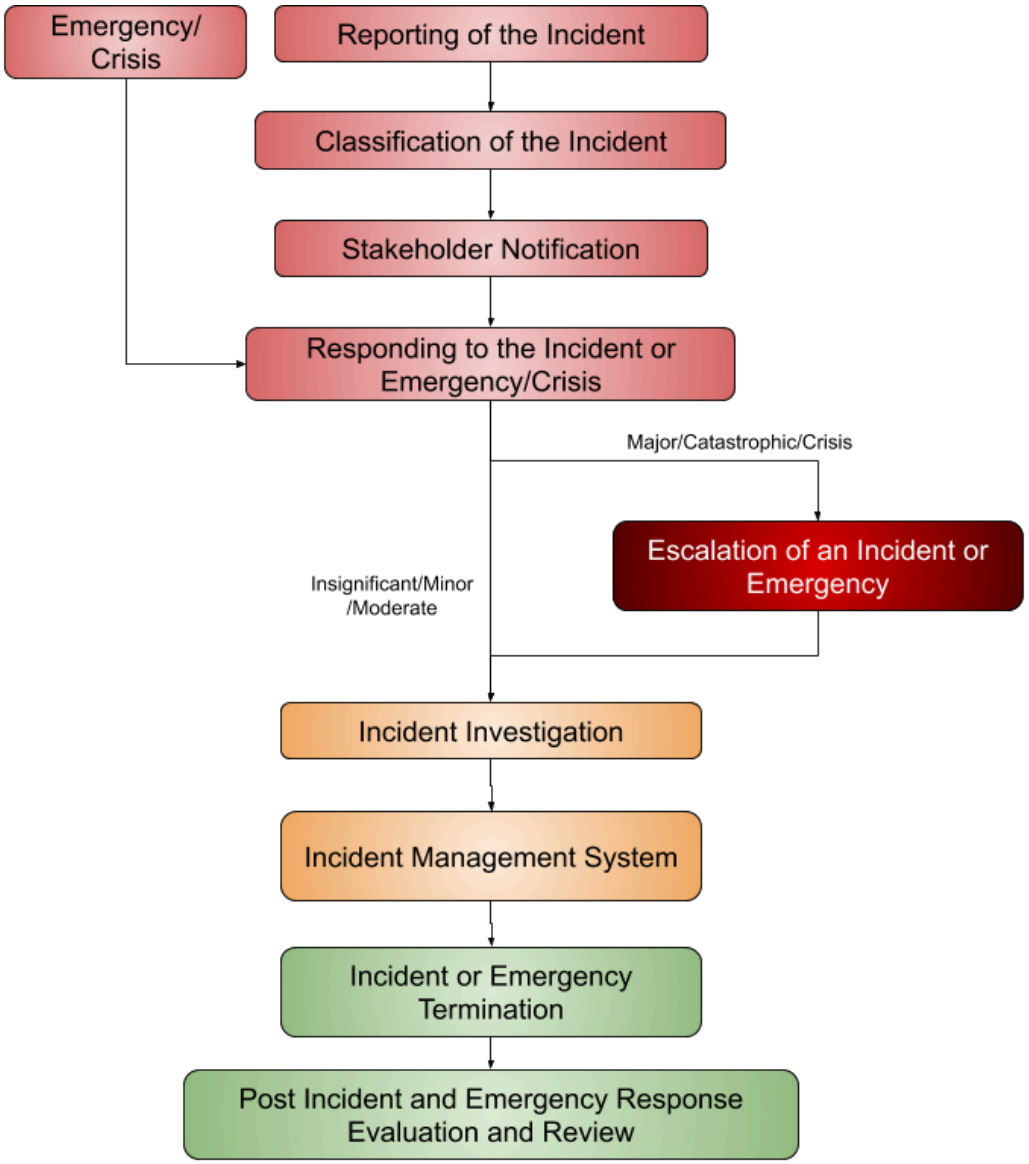

Figure 8 - Incident and Emergency Flow Chart

The IERMP also describes and outlines other relevant incident and emergency response requirements, including:

- Regulatory and contractual references;
- Governance, Roles and Responsibilities;
- Incident and Risk Management Framework;
- Incident Prevention and Preparedness;
- External Communication Protocols;
- Training;
- Audits; and
- Document Control and Records.

11.1.1 Stakeholder Incident Notification

Figure 9 outlines the stakeholder incident notification process which is followed in the event of a potential Environmental Water incident, emergency or crisis. It is also captured in the Incident and Emergency Response Management Plan (IERMP)(MAN-3651).

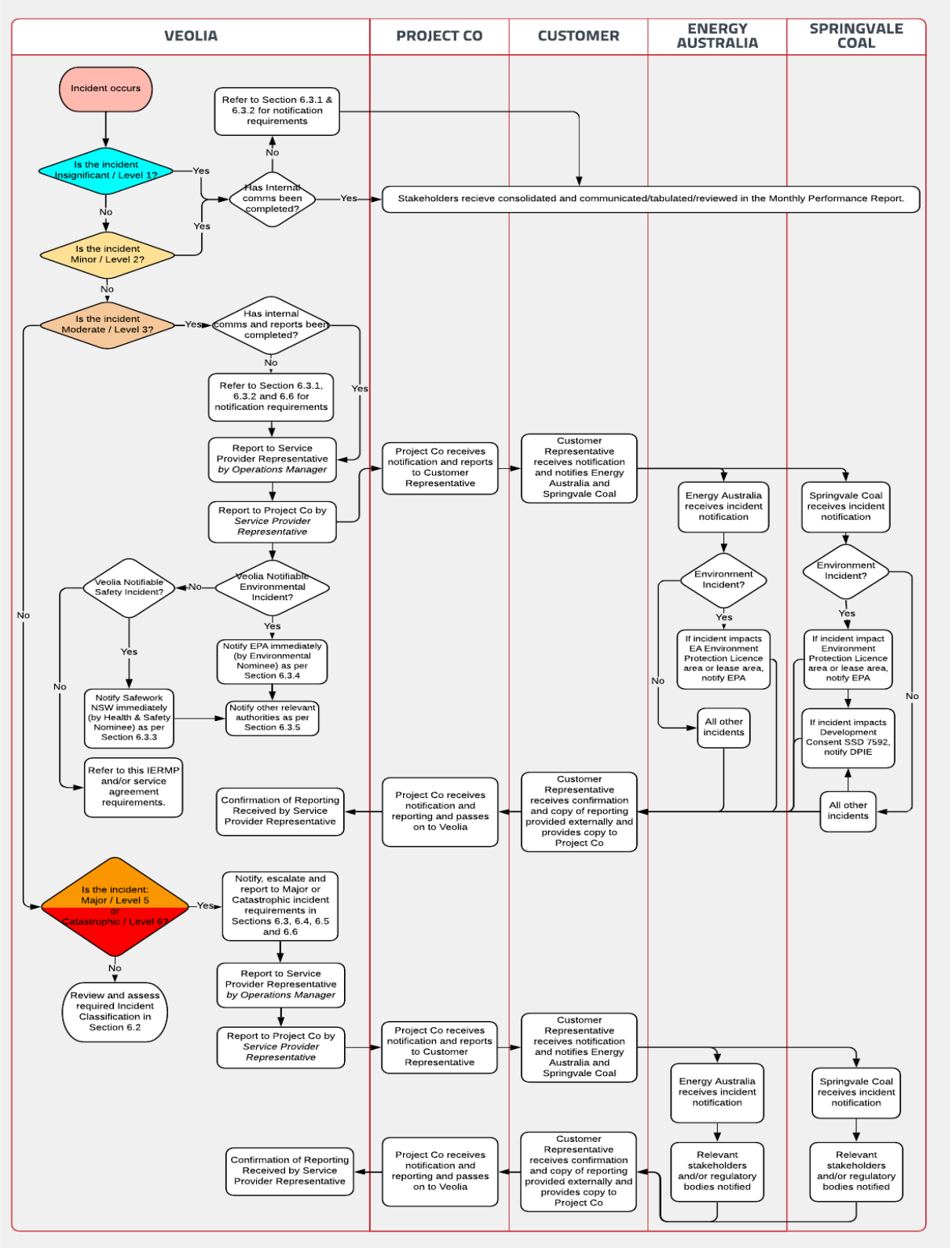

Figure 9. Stakeholder Incident Notification Flowchart

11.2 Contingency Systems

A variety of contingency measures have been considered as part of the Facility design to accommodate unforeseen circumstances relating to water management. This includes pipeline rupture and leakage that may occur as a result of general wear and tear, bush fire, falling branches etc. Such measures are included in an Operational Management Plan (MAN-3649), which is reviewed and updated routinely to support Facility operation.

The following design measures were implemented on the WTS to reduce the risk of such occurrences:

The following design measures were implemented on the facility to reduce the risk of such occurrences:

- there are no valves installed on the residuals pipeline (residuals waste) due to the water quality. An above ground hydraulic standpipe (9m high) has been installed to discharge air regularly during operation, which will prevent any spills;
- air vent valves have been installed along the mine water pipeline to discharge air regularly during operation; these air vent valves will have a spill prevention system;
- a trenched installation has been utilised where necessary to reduce the risks of vandalism, bushfire damage and mechanical damage from falling branches. The buried depth was optimised to allow access whilst providing sufficient thermal protection from bushfire;
- any loss of pressure due to leakage will be detected by flow meters installed on the upstream and downstream ends of the pipeline.
- The automatic shutdown of the vent valve will occur in approximately 15 minutes, which will isolate area where leakage is occurring; and
- the pipeline is flexible to accommodate any minor ground movement and is oversized to accommodate excess flow..

The buffer pond has a capacity of 103 ML and will provide storage to manage water during WTF plant maintenance activities. The following process will be followed:

- Incoming mine water will typically flow directly to the Actiflos as part of the water treatment process.
- A hydraulic standpipe will be configured to allow the flow to be split between the clarifiers and the buffer storage.
- Any overflows from the clarifiers, filters and filtered water tank will also be diverted directly to the buffer pond.
- Water temporarily stored in the buffer pond will be pumped back to the water treatment plant for subsequent treatment when capacity is available in the treatment system.

12 Reporting and Review

12.1 Annual Review

Schedule 4, Condition 5, of the Development Consent stipulates that by the end of March each year, the Applicant must submit a review of the environmental performance of the development for the previous calendar year to the satisfaction of the Secretary.

Results from the surface water monitoring undertaken in accordance with this WMP will be reported in the Annual Review, as discussed in Section 4.11 of the CEMP (Veolia, 2017c) and Operational Management Plan (MAN-3649).

12.2 Incident Reporting

A detailed environmental incident reporting and response procedure is provided in the Incident and Emergency Response Management Plan (IERMP)(MAN-3651).

12.3 Non-compliances

A non-compliance as defined in Development Consent SSD 7592 is *"An occurrence, set of circumstances or development that is a breach of this consent"*.

Suspected non-compliances with the Development Consent can be identified by anyone and should be reported to the Customer via Project Co and Veolia.

Non-compliance with the Development Consent will be recorded and addressed in accordance with the Operational Environmental Management Plan (OEMP) (MAN-3652) and the Incident and Emergency Response Management Plan (IERMP) (MAN-3651).

12.4 Complaints

Complaints will be managed in accordance with the Complaints Management System outlined in the Operational Management Plan [MAN-3649] and the Handling Complaints Procedure [PRO-3690].

Information about complaints will be recorded and shall include the location of any complaint, the time(s) of occurrence and the perceived source. Complaints will be responded to in a timely manner and the action taken will be recorded.

If Veolia is unable to resolve the complaint, it will be escalated in accordance with the Complaints Management Procedure [PRO-3690], which outlines the complaint handling, recording, reviewing, escalation procedures and training requirements.

12.5 Review of the WMP

This WMP and associated TARP was developed at the beginning of the Project design phase and has been updated to address operation of the Project.

Review and revision of this WMP must be done in accordance with the Schedule 4, Condition 4 of the Development Consent which states:

The Applicant must:

- *update the strategies and plans required under this consent to the satisfaction of the Secretary prior to carrying out any decommissioning activities on site; and*
- *review and, if necessary, revise the strategies and plans required under this consent to the satisfaction of the Secretary within 1 month of the:*
    - *submission of an incident report under Condition 5 below; or*
    - *o any modification to the conditions of consent.*

Any formal requests to update Development Consent management plans will be conducted in accordance with Section 6.3.3 of the Incident and Emergency Response Management Plan (IERMP)[MAN-3651], which details the management plan review and approval procedure.

13 Definitions and Acronyms

Table 12 – Definitions and Acronyms

Term	Definition
ASS	Acid Sulfate Soils
BoM	Bureau of Meteorology
CoA	Certificates of Analysis
DO	Dissolved Oxygen
DPIE	Department of Planning, Industry and Environment (previously DP&E)
DP&E	Department of Planning and Environment
DPI	Department of Primary Industries
EA	Energy Australia
EC	Electrical Conductivity
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
ESCMP	Erosion and Sediment Control Management Plan
FDS	Functional Description Specification
HDD	Horizontal Directional Drilling
HNCMA	Hawkesbury-Nepean Catchment Management Authority
LDP	Licensed Discharge Point
LOS	Level of Service
MEP	Springvale Mine Extension Project
MPPS	Mount Piper Power Station
OEMP	Operational Environmental Management Plan
PEMP	Project Environmental Management Plan

POEO	Protection of the Environment Operations
REA	Reject Emplacement Area
SCSS	Springvale Coal Services Site
SCADA	Supervisory Control and Data Acquisition
SSGV	Site Specific Guideline Values
TARP	Trigger Action Response Plan
TCR	Thompsons Creek Reservoir
TSS	Total Suspended Solids
VANZ	Veolia Australia New Zealand
WAL	Water Access Licences
WRIA	Water Resources Impact Assessment
WTF	Water Treatment Facility
WTS	Water Transfer System

14 References

References
• DP&E, 2017. Development Consent. Springvale Water Treatment Project SSD 7592. Dated 19 June 2017. • DPI Water, 2012. Aquifer Interference Policy. Published by the NSW Department of Primary Industries, a division of NSW Department of Trade and Investment, Regional Infrastructure and Services. Publication number: 11445 • DPI, 2013. Policy and Guidelines for Fish Habitat Conservation and Management. Published by the NSW Department of Primary Industries, a part of the Department of Trade and Investment, Regional Infrastructure and Services. Policy Number: TI-O-138 • GHD, 2016a. Springvale Water Treatment Project State Significant Development 7592 Environmental Impact Statement. Prepared by GHD Pty Ltd. Dated September 2016 • GHD, 2016b. Springvale Water Treatment Project Amendment to Development Application. Prepared by GHD Pty Ltd. Dated December 2016 • GHD, 2016c. Western Coal Services Project Modification 1 Water Resources Impact Assessment. Prepared by GHD Pty Ltd. Dated November 2016. • GHD, 2017. Western Coal Services Water Management Plan. Prepared by GHD Pty Ltd. Dated September 2017 • GHD, 2019a. Springvale Water Treatment Project Modification 3. Modification Report. Prepared by GHD Pty Ltd. Dated March 2019 • GHD, 2019b. Springvale Water Treatment Project Modification 4. Modification Report. Prepared by GHD Pty Ltd. Dated September 2019; • Landcom, 2004. Managing Urban Stormwater: Soils and Construction. 4th Edition • NSW Fisheries, 2003. Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings • RPS (2014) Centennial Western Coal Services Water Management Plan. Prepared RPS. Dated 04 August 2014. Document Reference S167I/011e • Veolia, Operational Management Plan (MAN-3649). Prepared by Veolia

Appendix A - Consultation Table

Description of Consultation	How Addressed in Management Plan	Reference
Letter to EPA 18 August 2017		
Seeking the Secretaries endorsement of suitably qualified experts to prepare management plans. (letter not found, ref.P & E letter 21 August 2017)		
Letter from Planning & Environment 21 August 2017		
Advising that the Secretary had endorsed the appointment of Mr Sean Daykin of Jacobs to prepare the Water Management Plan		
Letter to EPA 28 August 2017		
Water Management Plan (WMP) is provided with letter via email		
Letter from EPA 13 September 2017 and reply Letter to EPA 17 October 2017		
The EPA considers it would be beneficial to include a section in the Plan that transparently explains the roles and responsibilities of the various parties involved with the Project. For example, Energy Australia holds Environment Protection Licence 13007 (EPL) for the operation of Mt Piper. The project was originally applied for jointly by Energy Australia and Springvale Coal Pty Ltd, however, only Springvale Coal Pty Ltd is listed as holding the development consent.	New section 10.5 has been included to the WMP to detail the responsibilities of the three parties involved.	Section 10.5 of the WMP
Section 1.1.2 Please clarify the Licensed Discharge Point (LOP) referred to as one of the downstream extents	Please be noted that no evidence is found to confirm that TCR has an LDP. Section 1.1.2 has been amended to include the following: Immediately upstream of the discharge point where discharge is occurring to TCR. The LDP and TCR will continue to be managed by Energy Australia.	Section 1.1.2 of the WMP

Section 2.2.1 With reference to Thompsons Creek Reservoir (TCR) as 'a water supply storage and release point for excess treated water; the EPA understands that there is no provision to release excess water from TCR to Pipers Flat Creek beyond the current Water Access Licences (WALs) of 0.8 ML/day during September April and 0.3 ML/day during May August, or in emergency situations. Can you please confirm if the EPA's understanding is correct?	Please be advised that project does not consider releasing any excess water from TCR to Pipers Flat Creek beyond the current Water Access Licences (WALs), or in emergency situations.	
Section 2.2.2 The EPA is aware that the WTP will be constructed on a premises currently licensed by the EPA through EPL 13007. As part of the review of the Plan, the EPA has checked the premises description on EPL 13007 and determined that TCR is not listed as part of the licenced premises. As TCR is currently part of the water management operations at Mt Piper, it should be included on the premises. The EPA is aware that Appendix 1: Schedule of Land, in the consent conditions of the Springvale Water Treatment Project (SSD 7592) includes Lots and DPs over some sections of land occupying TCR. As such the EPA will contact the licensee separately to address this issue. Once TCR is part of the licenced premises, it may not need a discharge point to regulate the discharge of water within the premises. The EPA however, considers it would be prudent to require monitoring of the discharge of treated water into TCR as a Monitoring and Recording Condition on the EPL. This would allow a transparent assessment of the operational integrity of the plant and assist the EPA and water users of TCR to understand discharge volumes, quality and frequency	Noted. Please be advised that the EPL (13007) holder will consult with the EPA separately to discuss required amendments of the EPL (13007). The project discharge of excess treated water to TCR will be undertaken in accordance section 9.1 of the WMP.	
Section 3.4.2 The EPA understands that the flow in the Coxs River is 'not regulated by the TCR, only riparian releases	Please note that a potential error has occurred in the Environmental Impact Statement for	Section 3.4.2

are allowed from TCR	the Project. Section 3.4.2 of the WMP has been amended to remove the following: Flow in the Coxs River is regulated by TCR and two other reservoirs, Lake Wallace and Lake Lyell. TCR and Lake Lyell reservoirs supply water for power generation activities at MPPS. Removed text is not material for the WMP.	
Section 4 With reference to the management of water level in TCR, Section 4 indicates that a reduction in water level by approximately 1.2 m below the current operating level would suffice. A power generation requirement of 32%(S predicted to be the lower limit for sustainable use of TCR and in the event the water level of TCR is required to be reduced the preferred option is to transfer to Lake Wallace via the Wallerawang Pipeline. The EPA is seeking clarification on the location and description of the Wallerawang Pipeline?	Please be advised that the Wallerawang Pipeline transfer water from Lake Wallace to TCR only. TCR water level management is discussed in the Energy Australia water management scheme	
Section 6 Indicates that 240m of lime salt and crystalliser waste per day is to be co-disposed with fly-ash; the EPA requests clarification that the licensee has the appropriate planning approvals and that the ash repository can receive the extra volume of material.	Noted. Please be advised that the EPL (13007) holder will consult with the EPA separately to discuss ash repository management.	
Section 9.1 With reference to Table 5 Treated Water Performance Standards', the EPA acknowledges and accepts the limits defined for water product quality parameter to be piped to TCR.	Noted.	

Letter to WaterNSW 28 August 2017		
Water Management Plan (WMP) is provided with letter via email		
Letter from WaterNSW 21 September and Letter to WaterNSW 17 October 2017		
1.The WMP has been prepared to manage the impact on the local water resources of the construction and operation of the 15 kilometre water transfer pipeline system (referred to as the Water Transfer System (WTS)) and the Water Treatment Facility (WTF) (essentially a desalination plant to treat the mine water for use in the MPPS). WaterNSW understands that the WMP has been prepared at this early detailed design stage and will be subject to amendments and updates as the project moves into construction and then operation.	Correct. The WMP will be reviewed and updated prior to commissioning and then prior to operation of the WTF.	Refer to section 10.3 of the WMP
2. WaterNSW supports the amended proposal that proposes the use of the treated mine water at Mount Piper Power Station (MPPS) with discharge of only excess unused treated water to Thompson Creek Reservoir (TCR), thereby eliminating the need to discharge to Wangcol Creek. There is a minor negative impact on Wangcol Creek but the implementation of the SWTP will achieve the overall improvement to the Upper Coxs River catchment by eliminating discharges both at LDP006 on Wangcol Creek and further downstream at LDP009 on the Upper Coxs River. WaterNSW has recommended that the predicted minor deterioration in water quality in the immediate vicinity of Wangcol Creek be addressed by further mitigation measures. WaterNSW notes that the WMP states that a Brine Management Plan will be developed at the WTP prior to commencement of the project. WaterNSW reiterates its earlier suggestion that either lining of the Rejects Emplacement Area (REA) at the WCS site to prevent salts in the residuals	Project impacts to Wangcol Creek have been assessed as part of the Project Environmental Impact Statement (EIS), which is now approved. The WMP addresses the predicted impacts of the approved project description. The brine and residual waste management plan (to be developed prior to project commissioning in accordance with condition 5 of the Development Consent) will include a detailed investigation of the potential impacts of the residual waste disposal at REA as well as additional mitigation measures to reduce the impacts of brine and residuals waste. This plan is required to be developed in consultation with WaterNSW and WaterNSW will have an opportunity to provide recommendation on the proposed	Brine and Residual Waste Management Plan

leaching to the groundwater system or dewatering of sludge prior to disposal to remove excess water from the sludge. WaterNSW recommends regular updating of the water and salt balance at LDP006 once the WTS and WTP commence and actual monitoring data becomes available, and an adaptive approach to managing salt levels and loads in Wangcol Creek.	management controls.	
3. WaterNSW notes that a clearly defined Protocol/Agreement needs to be established for operation management of the proposed water transfer and treatment system between Springvale Mine, Energy Australia and Veolia Water. It is noted that the operation of TCR and any associated discharges will be under the management of Energy Australia while the management of migration of saline water from the Rejects Emplacement Area (REA) via Cooks Dam to LDP006 on Wangcol Creek are managed by Springvale Coal as part of the WCS water management plan. The quality of water that is supplied by the WTF to TCR and the quantity and quality of residuals that are supplied to the WTF to the REA is under the management of the Springvale and Mount Piper Power Station (SMPPS). WaterNSW notes that the performance standards and TARPs for managing the quality of water from the WTF to the TCR and the quality and quantity of residuals from the WTF to the REA are discussed in Section 9 of the WMP. The Protocol/Agreement needs to clearly detail the responsibilities and management actions including contingency measures to meet the performance standards and TARPs. WaterNSW notes that a power generation requirement of 32% at MPPS was predicted to be the lower limit for the sustainable use of TCR to store excess treated water in the event of mine water exceeds power generation demands. While WaterNSW agrees that the likelihood	New section 10.5 has been included to the WMP to detail the responsibilities of the three parties involved. A Trigger Action Response Plan (TARP) has been developed and the TARP will be subject to review and update prior to Project commissioning.	Refer to section 10.5 of the WMP Refer to Appendix C of the WMP

of an extended downturn in power generation below 32% for a constant period greater than two years is highly unlikely, some assurance or commitment from Energy Australia regarding the proposed future life of the MPPS should be clearly stated in the Protocol.		
4. WaterNSW is satisfied that measures detailed in Section 5 of the WMP if implemented will comply with the water management performance measures. WaterNSW notes that the Erosion and Sediment Control Plan provided in Appendix B of the WMP with regards to construction and operation of the WTS and WTP infrastructure is generic in nature. It is assumed that more detailed site specific plans will be developed as the project progresses from the detailed design stage to construction phase particularly for the pipeline crossings across waterways. WaterNSW notes that the Coxs River waterway crossing will be achieved through horizontal directional drilling of the bore approximately 1,530m long. WaterNSW recommends that investigation regarding the water table in this location be confirmed prior to the drilling for the waterway crossing and appropriate measures be taken if necessary.	Noted. Progressive detailed Erosion and Sediment Control plans will be prepared prior to commencement of construction works. Amended sections of the plan relating to the waterways crossing will be provide to WaterNSW four weeks beforehand for their review and comment. If the site investigations prior to drilling determine that the bore will intercept the water table then measures must be taken to minimise the interaction with groundwater such as appropriately weighted drilling muds. It is noted that the installation of pipelines where a WAL is not required is considered a minimal impact aquifer interference activity and therefore does not require assessment in accordance with the Aquifer Interference Policy (DPI Water, 2012).	Refer to section 5.3.3.2 of the WMP
5. The monitoring program and monitoring sites detailed in Section 7 and table 3 is considered adequate to assess the impact on local water resources due to the construction and operation of the WTS and WTP elements of the project. WaterNSW notes that the proposed monitoring involves a reduction of monitoring within Wangcol Creek and increased monitoring Thompsons Creek Reservoir and downstream of Pipers Flat Creek and Lake Wallace (in	Section 7.2 of the WMP has been amended to include the following: Given the comprehensive data collection already underway along Wangcol Creek and Coxs River in the vicinity of the Project it is considered that the current monitoring programs conducted by Centennial Coal and Energy Australia continue and that data from the sites	Refer to section 7.2.1 of the WMP

the event that transfers from the Reservoir to Lake Wallace are required. WaterNSW seeks clarification as to whether the reduction in monitoring at Wangcol Creek is in existing monitoring or monitoring proposed for original project which involved discharge in the vicinity of LDP006.	shown in Table 7.1 is provided to augment the baseline data and allow early detection of any Project related impacts. New section 7.2.1 Water and Salt Balance Update has been included: It is recommended that the water and salt balance for the area encompassing the Project, including Wangcol Creek and LDP006, be periodically updated as operational data becomes available and an assessment is made of predicted versus actual impacts.	
6. The WMP Section 8 Contingency Plan states that contingency plans for the Project construction are documented in a Construction Environmental Management Plan. Is there also an Operational Environmental Management Plan for the operational stage of the Project? The section only discusses design measures to be implemented during operational stage in relation to water management.	Section 8.2 of the WMP has been amended to include the following: Such measures will be included in an Operational Environmental Management Plan (OEMP), which will be provided for review and updated prior to Project commission.	Refer to section 8.2 of the WMP
Email from WaterNSW 18 October 2017		
Advising they were satisfied that all of WaterNSW comments provided on 21 September have been addressed by Veolia		
Email from OEH 18 October 2017		
Advising that there was no need for further clarification.		

Appendix B - Consultation DPIE

NSW GOVERNMENT | Planning & Environment

Planning Services
Resource and Energy Assessments
Contact: Paul Freeman
Phone: 02 9274 6587
Email: paul.freeman@planning.nsw.gov.au

Mr Nick Stokes-Hughes
Project Director
Veolia Environmental Services
Level 4, 65 Pirrama Road
Pyrmont NSW 2009

Dear Mr Stokes-Hughes

Springvale Water Treatment Project (SSD 7592)
Management Plans

I refer to your letter dated 18 August 2017 seeking the Secretary's endorsement of suitably qualified experts to prepare management plans for the Springvale Water Treatment Project.

The Department has reviewed the information you have provided to support your request.

I advise you that the Secretary has endorsed the appointment of Mr Sean Daykin of Jacobs to prepare the Water Management Plan, and Mr Andrew Costell of Jacobs to prepare the Aboriginal Cultural Heritage Management Plan for the project.

if you wish to discuss the matter further please contact Paul Freeman on 9274 6587.

Yours sincerely

21/8/17

Clay Preshaw
Director
Resource and Energy Assessments
as nominee of the Secretary

Ref: SMPPS-O-00-M13-00-13

28 August 2017

ATT: Allan Adams
Regional Operations Unit – Central West
NSW Environment Protection Authority
PO Box 1388, Bathurst, NSW, 2795

Mr. Adams,

Re: Springvale Water Treatment Project (SSD 7592) – Consultation for Preparation of Water Management Plan

With reference to the Development Consent for the Springvale Water Treatment Project (SSD 7592) which was approved by the Planning Assessment Commission on 19 June 2017. Veolia Australia and New Zealand (Veolia) has been selected as the specialist Water Service Company to finance, design, construct, commission and operate the Springvale Water Treatment Project (Project).

As part of its responsibilities under the contract, Veolia is required to prepare, obtain approval and implement environmental management systems and plans as defined under the Conditions of the Development Consent (Consent).

In accordance with condition 4, schedule 3 of the Consent, a Water Management Plan (WMP) detailing water management measures for the Project are to be developed in consultation with the NSW Environment Protection Authority (EPA) .

Veolia understands that the EPA was invited to provide comments as part of the Project assessment process, including the Environmental Impact Statement, and the Submission Report. Consequently, we would like to request feedback from the EPA for any additional considerations in preparation of the WMP.

The WMP (electronic copy) is provided with this letter via email (allan.adams@epa.nsw.gov.au).

We look forward to your consideration of this request. Please do not hesitate to contact myself or Environmental Planning Lead, Elena Ivanova (+61 (0) 415 556 620; elena.ivanova@veolia.com) should you have any questions or if any item requires discussion.

Yours sincerely,

Nick Stokes-Hughes

Project Director - Veolia Australia and New Zealand

M: +61 (0) 428 672 115 | E: nicholas.stokeshughes@veolia.com

Your reference :
Our reference : SF16/23773; DOC17/450460-01
Contact : Mr Allan Adams; (02) 6332 7610

Nick Stokes-Hughes
Project Director
Veolia Australia and New Zealand
Cnr Unwin and Shirley Streets
Rosehill NSW 2142

Attn: Ms Elena Ivanova

13 September 2017

Dear Mr Stokes-Hughes

Re: Springvale Water Treatment Project (SSD 7592) – Water Management Plan

I refer to your letter dated 28 August 2017 requesting comments on the Springvale Water Management Plan (the Plan). As per your letter, the Environment Protection Authority (EPA) acknowledges that Veolia Australia and New Zealand (Veolia) has been selected as the company to finance, design, construct, commission and operate the Springvale Water Treatment Project (the Project). The EPA also acknowledges that Veolia has a contract with the licensee of the project, and that Conditions of the Consent – Condition 4, Schedule 3 requires a Water Management Plan to be developed in consultation with the EPA.

The EPA considers it would be beneficial to include a section in the Plan that transparently explains the roles and responsibilities of the various parties involved with the Project. For example, Energy Australia holds Environment Protection Licence 13007 (EPL) for the operation of Mt Piper. The project was originally applied for jointly by Energy Australia and Springvale Coal Pty Ltd, however, only Springvale Coal Pty Ltd is listed as holding the development consent. Veolia is responsible for the design, construction and operation of the project; however, this activity will take place on the existing licenced premises of Energy Australia. The EPA confirms that the licensee, Energy Australia will remain primarily responsible for compliance with licence conditions including project activities undertaken by Veolia on the premises which will include the construction and operation of the Water Treatment Plant (WTP).

Management tools and programs should assist the licensee in meeting their commitment to statutory compliance and wider environmental management and where appropriate should be integrated with other operational or management plans. The EPA recommends that such plans be audited to an industry standard or certified to the ISO 14001 standard (if applicable) as part of any overall environmental management systems.

The EPA encourages the development of Environmental Management Plans and Programs to ensure that licensees have determined how they will meet their statutory obligations and environmental objectives as specified by the Conditions of Consent and/or the conditions of environment protection licence 13007. However, the EPA does not review these plans/programs (unless in circumstances deemed necessary) as the role of the EPA is to establish and regulate against environment protection and management criteria. As such, the EPA does not become directly involved in the development of strategies to comply with such conditions/criteria.

The EPA has reviewed the plan and provides the following comments, and requests clarification on several matters:

PO Box 1388 Bathurst NSW 2795
Level 2, 203 – 209 Russell Street Bathurst NSW 2795
Tel: (02) 6332 7600 Fax: (02) 6332 7630
ABN 43 692 285 758
www.epa.nsw.gov.au

- **Section 1.1.2**: Please clarify the Licensed Discharge Point (LDP) referred to as one of the downstream extents.
-
- **Section 2.2.1**: With reference to Thompsons Creek Reservoir (TCR) as "a water supply storage and release point for excess treated water"; the EPA understands that there is no provision to release excess water from TCR to Pipers Flat Creek beyond the current Water Access Licences (WALs) of 0.8 ML/day during September – April and 0.3 ML/day during May – August, or in emergency situations. Can you please confirm if the EPA's understanding is correct?

- **Section 2.2.2**: The EPA is aware that the WTP will be constructed on a premises currently licensed by the EPA through EPL 13007. As part of the review of the Plan, the EPA has checked the premises description on EPL 13007 and determined that TCR is not listed as part of the licenced premises. As TCR is currently part of the water management operations at Mt Piper, it should be included on the premises. The EPA is aware that Appendix 1: Schedule of Land, in the consent conditions of the Springvale Water Treatment Project (SSD 7592) includes Lots and DPs over some sections of land occupying TCR. As such, the EPA will contact the licensee separately to address this issue. Once TCR is part of the licenced premises, it may not need a discharge point to regulate the discharge of water within the premises. The EPA however, considers it would be prudent to require monitoring of the discharge of treated water into TCR as a Monitoring and Recording Condition on the EPL. This would allow a transparent assessment of the operational integrity of the plant and assist the EPA and water users of TCR to understand discharge volumes, quality and frequency.

- **Section 3.4.2**: The EPA understands that the flow in the Coxs River is 'not' regulated by the TCR, only riparian releases are allowed from TCR.

- **Section 4**: With reference to the management of water level in TCR, Section 4 indicates that a reduction in water level by approximately 1.2 m below the current operating level would suffice. A power generation requirement of 32% is predicted to be the lower limit for sustainable use of TCR, and in the event the water level of TCR is required to be reduced the preferred option is to transfer to Lake Wallace via the 'Wallerawang Pipeline'. The EPA is seeking clarification on the location and description of the Wallerawang Pipeline?

- **Section 6**: Indicates that 240m^3 of lime salt and crystalliser waste per day is to be co-disposed with fly-ash; the EPA requests clarification that the licensee has the appropriate planning approvals and that the ash repository can receive the extra volume of material.

- **Section 9.1**: With reference to 'Table 5 – Treated Water Performance Standards', the EPA acknowledges and accepts the limits defined for "water product quality parameter" to be piped to TCR.

The EPA acknowledges that Veolia is undertaking work in a complex regulatory arrangement and would be happy to meet at the premise to discuss any concerns you or the project team have. Should you have any further enquiries in relation to this matter please contact Mr Allan Adams at the Central West (Bathurst) Office of the EPA by telephoning (02) 6332 7610.

Yours sincerely

A Adams.

ALLAN ADAMS
A/Head Central West Unit
Environment Protection Authority

17 October 2017 Ref: SMPPS-O-00-M13-00-35

Mr Allan Adams
A/Head Central West Unit
Environment Protection Authority
PO Box 1388, Bathurst, NSW, 2795

Mr. Adams,

Re: Springvale Water Treatment Project (SSD 7592) – Consultation for Preparation of the Water Management Plan

Veolia Australia and New Zealand (Veolia) refers to correspondence received on 14 September 2017 via email form The EPA with queries pertaining to the draft Water Management Plan (WMP) for the Springvale Water Treatment Project.

Veolia also hereby provides a response to recommendations provided by the EPA as outlined in the table below.

EPA Comments	Clarification / Response	References
Water Management Plan		
The EPA considers it would be beneficial to include a section in the Plan that transparently explains the roles and responsibilities of the various parties involved with the Project. For example, Energy Australia holds Environment Protection Licence 13007 (EPL) for the operation of Mt Piper. The project was originally applied for jointly by Energy Australia and Springvale Coal Pty Ltd, however, only Springvale Coal Pty Ltd is listed as holding the development consent.	New section 10.5 has been included to the WMP to detail the responsibilities of the three parties involved.	Section 10.5 of the WMP
Section 1.1.2 Please clarify the Licensed Discharge Point (LOP) referred to as one of the downstream extents	Please be noted that no evidence is found to confirm that TCR has an LDP. Section 1.1.2 has been amended to include the following: Immediately upstream of the discharge point where discharge is occurring to TCR. The LDP and TCR will continue to be managed by Energy Australia.	Section 1.1.2 of the WMP
Section 2.2.1 With reference to Thompsons Creek Reservoir (TCR) as 'a water supply storage and release point for excess treated water; the EPA understands that there is no provision to release excess water from TCR to Pipers Flat Creek beyond the current Water Access Licences (WALs) *of 0.8 ML/day during September April and 0.3 ML/day during May August,* or in emergency situations. Can you please confirm if the EPA's understanding is correct?	Please be advised that project does not consider releasing any excess water from TCR to Pipers Flat Creek beyond the current Water Access Licences (WALs), or in emergency situations.	
Section 2.2.2 The EPA is aware that the WTP will be constructed on a premises currently licensed by the EPA through EPL 13007. As part of the review of the Plan, the EPA has checked the premises description on EPL 13007 and determined that TCR is not listed as part of the licenced premises. As TCR is currently part of the water management operations at Mt Piper, it should be included on the premises. The EPA is aware that Appendix 1: Schedule of Land, in the consent conditions of the Springvale Water Treatment Project (SSD 7592) includes Lots and DPs over some sections of land occupying TCR. As such the EPA will contact the licensee separately to address this issue. Once TCR is part of the licenced premises, it may not need a discharge point to regulate the discharge of water within the premises. The EPA however, considers it would be prudent to require monitoring of the discharge of treated water into TCR as a	Noted. Please be advised that the EPL (13007) holder will consult with the EPA separately to discuss required amendments of the EPL (13007). The project discharge of excess treated water to TCR will be undertaken in accordance section 9.1 of the WMP.	

EPA Comments	Clarification / Response	References
Monitoring and Recording Condition on the EPL. This would allow a transparent assessment of the operational integrity of the plant and assist the EPA and water users of TCR to understand discharge volumes, quality and frequency		
Section 3.4.2 The EPA understands that the flow in the Coxs River is 'not regulated by the TCR, only riparian releases are allowed from TCR	Please note that a potential error has occurred in the Environmental Impact Statement for the Project. Section 3.4.2 of the WMP has been amended to remove the following: Flow in the Coxs River is regulated by TCR and two other reservoirs, Lake Wallace and Lake Lyell. TCR and Lake Lyell reservoirs supply water for power generation activities at MPPS. Removed text is not material for the WMP.	Section 3.4.2
Section 4 With reference to the management of water level in TCR, Section 4 indicates that a reduction in water level by approximately 1.2 m below the current operating level would suffice. A power generation requirement of 32%(S predicted to be the lower limit for sustainable use of TCR and in the event the water level of TCR is required to be reduced the preferred option is to transfer to Lake Wallace via the Wallerawang Pipeline. The EPA is seeking clarification on the location and description of the Wallerawang Pipeline?	Please be advised that the Wallerawang Pipeline transfer water from Lake Wallace to TCR only. TCR water level management is discussed in the Energy Australia water management scheme.	
Section 6 Indicates that 240m of lime salt and crystalliser waste per day is to be co-disposed with fly-ash; the EPA requests clarification that the licensee has the appropriate planning approvals and that the ash repository can receive the extra volume of material.	Noted. Please be advised that the EPL (13007) holder will consult with the EPA separately to discuss ash repository management.	
Section 9.1 With reference to Table 5 Treated Water Performance Standards', the EPA acknowledges and accepts the limits defined for water product quality parameter to be piped to TCR.	Noted.	

The updated WMP (electronic copy) is provided with this letter via email (allan.adams@epa.nsw.gov.au).

Should you wish for further clarification, please do not hesitate to contact myself or Environmental Planning Lead, Elena Ivanova (+61 415 556 620; elena.ivanova@veolia.com).

Yours sincerely,

Nick Stokes-Hughes
Project Director - Veolia Australia and New Zealand
M: +61 (0) 428 672 115 | E: nicholas.stokeshughes@veolia.com

VEOLIA Veolia Ref: SMPPS-O-07-M13-00-14 **Ivanova, Elena <elena.ivanova@veolia.com>**

RE: HPE CM: Fwd: Veolia - Springvale Water Treatment Project (SSD 7592) - Consultation

1 message

Allan Adams <Allan.Adams@epa.nsw.gov.au> 25 October 2017 at 14:35
To: "Ivanova, Elena" <elena.ivanova@veolia.com>
Cc: Rebecca Scrivener <Rebecca.Scrivener@epa.nsw.gov.au>

Dear Elena

With regards to your questions below, the EPA has determined that Veolia will not require a new EPL for the construction and operation of the Springvale Water Treatment Project.

In addition, as stated in the EPA letter to Veolia on 13 September 2017, with reference to 'Table 5 – Treated Water Performance Standards' (Table 5), the EPA accepts the limits defined for "water product quality parameter" to be piped to TCR. Further, the EPA confirms no additional monitoring parameters of treated water to be released to Thompson Creek Reservoir are required beyond what is proposed in Table 5 of the Water Management Plan.

Thanks

Allan

Allan Adams

Regional Operations Officer – Central West

South Branch, NSW Environment Protection Authority

(02) 6332 7610 - 0438 598 680

allan.adams@epa.nsw.gov.au www.epa.nsw.gov.au @EPA_NSW

Report pollution and environmental incidents 131 555 (NSW only) or +61 2 9995 5555

NSW EPA

Please send official electronic correspondence to **central.west@epa.nsw.gov.au**

From: Ivanova, Elena [mailto:elena.ivanova@veolia.com]
Sent: Tuesday, 24 October 2017 2:58 PM
To: Allan Adams <Allan.Adams@epa.nsw.gov.au>
Subject: Fwd: HPE CM: Fwd: Veolia - Springvale Water Treatment Project (SSD 7592) - Consultation

Hi Allan,

With reference to our recent phone conversation, could you please re-confirm the following:

- a new EPL is not required for the Project construction and operation;

- no additional monitoring parameters of treated water to be released to Thompson Creek Reservoir would be required to what is proposed in section 9.1 of the Water Management Plan.

I have attached the EPA letter with comments on the Water Management Plan (WMP) for your reference.

As you know we are in the process of finalising the WMP which shall be submitted to Department of Planning and Environment on 25.10.2017 for approval. I would appreciate if you could provide a response at your earliest convenience

Thanks in advance.

Best Regards,

Elena Ivanova
Project Manager
HEAD OFFICE

cell: +61 415 556 620
Level 4, 65 Pirrama Road / Pyrmont NSW 2009 Australia
www.veolia.com/anz

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---------- Forwarded message ----------
From: **Allan Adams** <Allan.Adams@epa.nsw.gov.au>
Date: 13 September 2017 at 16:26
Subject: RE: HPE CM: Fwd: Veolia - Springvale Water Treatment Project (SSD 7592) - Consultation
To: "Ivanova, Elena" <elena.ivanova@veolia.com>

Dear Ms Ivanova

Attached is EPA letter commenting on Springvale MPPS Water Treatment Project

Thanks

Allan

Allan Adams

A/Head Regional Operations Unit – Central West

South Branch, NSW Environment Protection Authority

(02) 6332 7610 - 0438 598 680

allan.adams@epa.nsw.gov.au www.epa.nsw.gov.au @EPA_NSW

Report pollution and environmental incidents 131 555 (NSW only) or +61 2 9995 5555

Please send official electronic correspondence to **central.west@epa.nsw.gov.au**

From: Ivanova, Elena [mailto:elena.ivanova@veolia.com]
Sent: Tuesday, 29 August 2017 12:07 PM
To: Allan Adams <Allan.Adams@epa.nsw.gov.au>
Cc: Darryl Clift <Darryl.Clift@epa.nsw.gov.au>
Subject: HPE CM: Fwd: Veolia - Springvale Water Treatment Project (SSD 7592) - Consultation

Good morning Allan,

As you may already be aware that Veolia has been selected as specialist water services company to finance, design, construct and operate the Springvale Water Treatment Project (SSD 7592).

As part of its responsibilities under the contract , Veolia is required to prepare, obtain approval and implement management system and plans as defined under the Conditions of the Development Consent (SSD 7592).

We would like to request feedback from the EPA for any additional consideration in preparation of a Water Management Plan, a draft of the plan is attached for your reference.

Should you have any enquiries or require further information please feel free to contact me.

Best Regards,

Elena Ivanova
Project Manager
HEAD OFFICE

off: +61 2 8571 0194 / cell: +61 415 556 620
Level 4, 65 Pirrama Road / Pyrmont NSW 2009 Australia
www.veolia.com/anz

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Any views expressed in this email are those of the individual sender except where the sender expressly and with authority states them to be the views of the Environment Protection Authority.

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL

Appendix C - Consultation Water NSW

Ref: MPPS-O-00-M13-00-12

28 August 2017

ATT: Peter Dupen
Manger, Mining
WaterNSW
Level 4, 2-6 Station St,
Penrith, NSW, 2750

Mr. Dupen,

Re: Springvale Water Treatment Project (SSD 7592) – Consultation for Preparation of Water Management Plan

With reference to the Development Consent for the Springvale Water Treatment Project (SSD 7592) which was approved by the Planning Assessment Commission on 19 June 2017. Veolia Australia and New Zealand (Veolia) has been selected as the specialist Water Service Company to finance, design, construct, commission and operate the Springvale Water Treatment Project (Project).

As part of its responsibilities under the contract, Veolia is required to prepare, obtain approval and implement environmental management systems and plans as defined under the Conditions of the Development Consent (Consent).

In accordance with condition 4, schedule 3 of the Consent, a Water Management Plan (WMP) detailing water management measures for the Project are to be developed in consultation with WaterNSW.

Veolia understands that WaterNSW was invited to provide comments as part of the Project assessment process, including the Environmental Impact Statement, and the Submission Report. Consequently, we would like to request feedback from the WaterNSW for any additional considerations in preparation of the WMP.

The WMP (electronic copy) is provided with this letter via email (peter.dupen@waternsw.com.au).

We look forward to your consideration of this request. Please do not hesitate to contact myself or Environmental Planning Lead, Elena Ivanova (+61 (0) 415 556 620; elena.ivanova@veolia.com) should you have any questions or if any item requires discussion.

Yours sincerely,

Nick Stokes-Hughes

Project Director - Veolia Australia and New Zealand

M: +61 (0) 428 672 115 | E: nicholas.stokeshughes@veolia.com

17 October 2017 Ref: SMPPS-O-00-M13-00-34

ATT: Peter Dupen
Manger, Mining
WaterNSW
Level 4, 2-6 Station St,
Penrith, NSW, 2750

Mr. Dupen,

Re: Springvale Water Treatment Project (SSD 7592) – Consultation for Preparation of the Water Management Plan

Veolia Australia and New Zealand (Veolia) refers to correspondence received on 21 September 2017 via email form WaterNSW with queries pertaining to the draft Water Management Plan (WMP) for the Springvale Water Treatment Project.

Veolia also hereby provides a response to recommendations provided by WaterNSW as outlined in the table below.

WaterNSW Comments	Veolia's Response / Clarification	Reference
draft Water Management Plan (WMP)		
1.The WMP has been prepared to manage the impact on the local water resources of the construction and operation of the 15 kilometre water transfer pipeline system (referred to as the Water Transfer System (WTS)) and the Water Treatment Facility (WTF) (essentially a desalination plant to treat the mine water for use in the MPPS). WaterNSW understands that the WMP has been prepared at this early detailed design stage and will be subject to amendments and updates as the project moves into construction and then operation.	Correct. The WMP will be reviewed and updated prior to commissioning and then prior to operation of the WTF.	Refer to section 10.3 of the WMP
2. WaterNSW supports the amended proposal that proposes the use of the treated mine water at Mount Piper Power Station (MPPS) with discharge of only excess unused treated water to Thompson Creek Reservoir (TCR), thereby eliminating the need to discharge to Wangcol Creek. There is a minor negative impact on Wangcol Creek but the implementation of the SWTP will achieve the overall improvement to the Upper Coxs River catchment by eliminating discharges both at LDP006 on Wangcol Creek and further downstream at LDP009 on the Upper Coxs River. WaterNSW has recommended that the predicted minor deterioration in water quality in the immediate vicinity of Wangcol Creek be addressed by further mitigation measures. WaterNSW notes that the WMP states that a Brine Management Plan will be developed at the WTP prior to commencement of the project. WaterNSW reiterates its earlier suggestion that either lining of the Rejects Emplacement Area (REA) at the WCS site to prevent salts in the residuals leaching to the groundwater system or dewatering of sludge prior to disposal to remove excess water from the sludge. WaterNSW recommends regular updating of the water and salt balance at LDP006 once the WTS and WTP commence and actual monitoring data becomes available, and an adaptive approach to managing salt levels and loads in Wangcol Creek.	Project impacts to Wangcol Creek have been assessed as part of the Project Environmental Impact Statement (EIS), which is now approved. The WMP addresses the predicted impacts of the approved project description. The brine and residual waste management plan (to be developed prior to project commissioning in accordance with condition 5 of the Development Consent) will include a detailed investigation of the potential impacts of the residual waste disposal at REA as well as additional mitigation measures to reduce the impacts of brine and residuals waste. This plan is required to be developed in consultation with WaterNSW and WaterNSW will have an opportunity to provide recommendation on the proposed management controls.	Brine and Residual Waste Management Plan

Veolia Environmental Services Australia ABN: 20 051 316 584 Onyx Group NZ NZBN: 94 290 383 38623
Veolia Energy Australia ABN: 46 064 584 587 Veolia Energy Technical Services NZ NZBN: 94 290 379 39007
Veolia Water Australia ABN: 99 061 161 279 Veolia Water Services NZ NZBN: 94 290 381 34586
A: Level 4, 65 Pirrama Rd Pyrmont, NSW, 2142
Tel: +61 (2) 8571 0000 F: +61 (2) 8572 0313 W: **www.veolia.com/anz**

WaterNSW Comments	Veolia's Response / Clarification	Reference
3. WaterNSW notes that a clearly defined Protocol/Agreement needs to be established for operation management of the proposed water transfer and treatment system between Springvale Mine, Energy Australia and Veolia Water. It is noted that the operation of TCR and any associated discharges will be under the management of Energy Australia while the management of migration of saline water from the Rejects Emplacement Area (REA) via Cooks Dam to LDP006 on Wangcol Creek are managed by Springvale Coal as part of the WCS water management plan. The quality of water that is supplied by the WTF to TCR and the quantity and quality of residuals that are supplied to the WTF to the REA is under the management of the Springvale and Mount Piper Power Station (SMPPS). WaterNSW notes that the performance standards and TARPs for managing the quality of water from the WTF to the TCR and the quality and quantity of residuals from the WTF to the REA are discussed in Section 9 of the WMP. The Protocol/Agreement needs to clearly detail the responsibilities and management actions including contingency measures to meet the performance standards and TARPs. WaterNSW notes that a power generation requirement of 32% at MPPS was predicted to be the lower limit for the sustainable use of TCR to store excess treated water in the event of mine water exceeds power generation demands. While WaterNSW agrees that the likelihood of an extended downturn in power generation below 32% for a constant period greater than two years is highly unlikely, some assurance or commitment from Energy Australia regarding the proposed future life of the MPPS should be clearly stated in the Protocol.	New section 10.5 has been included to the WMP to detail the responsibilities of the three parties involved. A Trigger Action Response Plan (TARP) has been developed and the TARP will be subject to review and update prior to Project commissioning.	Refer to section 10.5 of the WMP Refer to Appendix C of the WMP
4. WaterNSW is satisfied that measures detailed in Section 5 of the WMP if implemented will comply with the water management performance measures. WaterNSW notes that the Erosion and Sediment Control Plan provided in Appendix B of the WMP with regards to construction and operation of the WTS and WTP infrastructure is generic in nature. It is assumed that more detailed site specific plans will be developed as the project progresses from the detailed design stage to construction phase particularly for the pipeline crossings across waterways. WaterNSW notes that the Coxs River waterway crossing will be achieved through horizontal directional drilling of the bore approximately 1,530m long. WaterNSW recommends that investigation regarding the water table in this location be confirmed prior to the drilling for the waterway crossing and appropriate measures be taken if necessary.	Noted. Progressive detailed Erosion and Sediment Control plans will be prepared prior to commencement of construction works. Amended sections of the plan relating to the waterways crossing will be provide to WaterNSW four weeks beforehand for their review and comment. If the site investigations prior to drilling determine that the bore will intercept the water table then measures must be taken to minimise the interaction with groundwater such as appropriately weighted drilling muds. It is noted that the installation of pipelines where a WAL is not required is considered a minimal impact aquifer interference activity and therefore does not require assessment in accordance with the Aquifer Interference Policy (DPI Water, 2012).	Refer to section 5.3.3.2 of the WMP
5. The monitoring program and monitoring sites detailed in Section 7 and table 3 is considered adequate to assess the impact on local water resources due to the construction and operation of the WTS and WTP elements of the project. WaterNSW notes that the proposed monitoring involves a reduction of monitoring within Wangcol Creek and increased monitoring Thompsons Creek Reservoir and downstream of Pipers Flat Creek and Lake Wallace (in the event that transfers from the Reservoir to Lake Wallace are required. WaterNSW seeks clarification as to whether the reduction in monitoring at Wangcol Creek is in existing monitoring or monitoring proposed for original project which involved discharge in the vicinity of LDP006.	Section 7.2 of the WMP has been amended to include the following: Given the comprehensive data collection already underway along Wangcol Creek and Coxs River in the vicinity of the Project it is considered that the current monitoring programs conducted by Centennial Coal and Energy Australia continue and that data from the sites shown in Table 7.1 is provided to augment the baseline data and allow early detection of any	Refer to section 7.2 of the WMP

WaterNSW Comments	Veolia's Response / Clarification	Reference
	Project related impacts. New section 7.2.1 Water and Salt Balance Update has been included: It is recommended that the water and salt balance for the area encompassing the Project, including Wangcol Creek and LDP006, be periodically updated as operational data becomes available and an assessment is made of predicted versus actual impacts.	Refer to section 7.2.1 of the WMP
6. The WMP Section 8 Contingency Plan states that contingency plans for the Project construction are documented in a Construction Environmental Management Plan. Is there also an Operational Environmental Management Plan for the operational stage of the Project? The section only discusses design measures to be implemented during operational stage in relation to water management.	Section 8.2 of the WMP has been amended to include the following: Such measures will be included in an Operational Environmental Management Plan (OEMP), which will be provided for review and updated prior to Project commission.	Refer to section 8.2 of the WMP

The updated WMP (electronic copy) is provided with this letter via email (peter.dupen@waternsw.nsw.gov.au).

Should you wish for further clarification, please do not hesitate to contact myself or Environmental Planning Lead, Elena Ivanova (+61 415 556 620; elena.ivanova@veolia.com).

Yours sincerely,

Nick Stokes-Hughes
Project Director - Veolia Australia and New Zealand
M: +61 (0) 428 672 115 | E: nicholas.stokeshughes@veolia.com

Veolia ref: SMPPS-O-07-M13-00-16

Ivanova, Elena <elena.ivanova@veolia.com>

RE: Veolia - Springvale Water Treatment Project (SSD 7592) - Consultation

1 message

Ravi Sundaram <ravi.sundaram@waternsw.com.au> 18 October 2017 at 17:11
To: "Ivanova, Elena" <elena.ivanova@veolia.com>
Cc: Peter Dupen <Peter.Dupen@waternsw.com.au>, Girja Sharma <Girja.Sharma@waternsw.com.au>

Hello Elena

Thank you for the detailed response to WaterNSW's comments and amended version of the WMP.

I have reviewed the response and relevant sections of the amended WMP (including 10.5, Appendix C, 7.2 and 8.2) and am satisfied that all of WaterNSW comments provided on 21 September have been addressed by Veolia.

Please feel free to call me if you wish to discuss.

Regards.

Ravi

From: Ivanova, Elena [mailto:elena.ivanova@veolia.com]
Sent: Tuesday, 17 October 2017 12:34 PM
To: Ravi Sundaram
Cc: Peter Dupen; Girja Sharma
Subject: Re: Veolia - Springvale Water Treatment Project (SSD 7592) - Consultation

Good day Ravi,

Please find the attached Veolia's letter response to WaterNSW comments dated 21.09.2017 and a revised Water Management Plan for the Project.

Should you have any enquiries or require further information please feel free to contact me.

Best Regards,

Elena Ivanova
Project Manager
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On 21 September 2017 at 12:22, Ravi Sundaram <ravi.sundaram@waternsw.com.au> wrote:

Hi Elena

I have reviewed the Veolia Springvale MPPS Water Treatment Project Water Management Plan (WMP) and its recommendations with regards to the amended proposal and Response to submissions for Springvale Water Treatment Project. The following comments are provided as part of the review:

1. The WMP has been prepared to manage the impact on the local water resources of the construction and operation of the 15 kilometre water transfer pipeline system (referred to as the Water Transfer System (WTS)) and the Water Treatment Facility (WTF) (essentially a desalination plant to treat the mine water for use in the MPPS). WaterNSW understands that the WMP has been prepared at this early detailed design stage and will be subject to amendments and updates as the project moves into construction and then operation.

2. WaterNSW supports the amended proposal that proposes the use of the treated mine water at Mount Piper Power Station (MPPS) with discharge of only excess unused treated water to Thompson Creek Reservoir (TCR), thereby eliminating the need to discharge to Wangcol Creek. There is a minor negative impact on Wangcol Creek but the implementation of the SWTP will achieve the overall improvement to the Upper Coxs River catchment by eliminating discharges both at LDP006 on Wangcol Creek and further downstream at LDP009 on the Upper Coxs River. WaterNSW has recommended that the predicted minor deterioration in water quality in the immediate vicinity of Wangcol Creek be addressed by further mitigation measures. WaterNSW notes that the WMP states that a Brine Management Plan will be developed at the WTP prior to commencement of the project. WaterNSW reiterates its earlier suggestion that either lining of the Rejects Emplacement Area (REA) at the WCS site to prevent salts in the residuals leaching to the groundwater system or dewatering of sludge prior to disposal to remove excess water from the sludge. WaterNSW recommends regular updating of the water and salt balance at LDP006 once the WTS and WTP commence and actual monitoring data becomes available, and an adaptive approach to managing salt levels and loads in Wangcol Creek.

3. WaterNSW notes that a clearly defined Protocol/Agreement needs to be established for operation management of the proposed water transfer and treatment system between Springvale Mine, Energy Australia and Veolia Water. It is noted that the operation of TCR and any associated discharges will be under the management of Energy Australia while the management of migration of saline water from the Rejects Emplacement Area (REA) via Cooks Dam to LDP006 on Wangcol Creek are managed by Springvale Coal as part of the WCS water management plan. The quality of water that is supplied by the WTF to TCR and the quantity and quality of residuals that are supplied to the WTF to the REA is under the management of the Springvale and Mount Piper Power Station (SMPPS). WaterNSW notes that the performance standards and TARPs for managing the quality of water from the WTF to the TCR and the quality and quantity of residuals from the WTF to the REA are discussed in Section 9 of the WMP. The Protocol/Agreement needs to clearly detail the responsibilities and management actions including contingency measures to meet the performance standards and TARPs. WaterNSW notes that a power generation requirement of 32% at MPPS was predicted to be the lower limit for the sustainable use of TCR to store excess treated water in the event of mine water exceeds power generation demands. While WaterNSW agrees that the likelihood of an extended downturn in power generation below 32% for a constant period greater than two years is highly unlikely, some assurance or commitment from Energy Australia regarding the proposed future life of the MPPS should be clearly stated in the Protocol.

4. WaterNSW is satisfied that measures detailed in Section 5 of the WMP if implemented will comply with the water management performance measures. WaterNSW notes that the Erosion and Sediment Control Plan provided in Appendix B of the WMP with regards to construction and operation of the WTS and WTP infrastructure is generic in nature. It is assumed that more detailed site specific plans will be developed as the project progresses from the detailed design stage to construction phase particularly for the pipeline crossings across waterways. WaterNSW notes that the Coxs River waterway crossing will be achieved through horizontal directional drilling of the bore approximately 1,530m long. WaterNSW recommends that investigation regarding the water table in this location be confirmed prior to the drilling for the waterway crossing and appropriate measures be taken if necessary.

5. The monitoring program and monitoring sites detailed in Section 7 and table 3 is considered adequate to assess the impact on local water resources due to the construction and operation of the WTS and WTP elements of the project. WaterNSW notes that the proposed monitoring involves a reduction of monitoring within Wangcol Creek and increased monitoring Thompsons Creek Reservoir and downstream of Pipers Flat Creek and Lake Wallace (in the event that transfers from the Reservoir to Lake Wallace are required. WaterNSW seeks clarification as to whether the reduction in monitoring at Wangcol Creek is in existing monitoring or monitoring proposed for original project which involved discharge in the vicinity of LDP006.

6. The WMP Section 8 Contingency Plan states that contingency plans for the Project construction are documented in a Construction Environmental Management Plan. Is there also an Operational Environmental Management Plan for the operational stage of the Project? The section only discusses design measures to be implemented during operational stage in relation to water management.

Please call me if you wish to discuss any of the above matters discussed.

Regards.

Ravi

Dr Ravi Sundaram

Mining Catchment Specialist

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From: Ivanova, Elena [mailto:elena.ivanova@veolia.com]
Sent: Tuesday, 29 August 2017 12:09 PM
To: Peter Dupen
Subject: Fwd: Veolia - Springvale Water Treatment Project (SSD 7592) - Consultation

Good day Peter,

As you may already be aware that Veolia has been selected as specialist water services company to finance, design, construct and operate the Springvale Water Treatment Project (SSD 7592).

As part of its responsibilities under the contract , Veolia is required to prepare, obtain approval and implement management system and plans as defined under the Conditions of the Development Consent (SSD 7592).

We would like to request feedback from WaterNSW for any additional consideration in preparation of a Water Management Plan, a draft of the plan is attached for your reference.

Should you have any enquiries or require further information please feel free to contact me.

Best Regards,

Elena Ivanova
Project Manager
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