MAULES CREEK COAL MINE

WHC_PLN_MCC_WATER MANAGEMENT PLAN_OVERVIEW

Edition	Rev.	Comments	Author	Authorised By	Date
1	0.	Initial Draft WMP	WRM	Daniel Martin	September 2013
1	1	Final Draft incorporating client comments	WRM	Craig Simmons	December 2013
1	2	Revisions addressing regulator comments	WRM	Craig Simmons	April 2013
1	3	Address SEWPaC Comments	WRM	Craig Simmons	May 2013
1	4		WRM	Daniel Martin/ Authorised By DPE	March 2014
2	0	Draft for stakeholder consultation following the 2013 Annual Review	WRM/AGE	Daniel Martin	October 2014
2	1	Administrative update	WHC	WHC/ Approved DPE 21/3/19	2019
3	0	Update incorporating Regulator comments	Resource Strategies	WHC/ Approved DPE 6/4/23	March 2023
3	1	Update to include Regulator Comments	WHC/Hydrobalance	WHC	24 March 2025
3	2	Update to address DEECCW Comments	WHC/Hydrobalance	WHC	December 2025

CONTENTS

1 INTRODUCTION

The Maules Creek Coal Mine (MCCM) is located in the Gunnedah Coal Basin, approximately 18 km north-east of Boggabri in New South Wales (NSW) (Figure 1). The MCCM is currently owned by Maules Creek Coal Pty Limited (MCCPL), a joint venture between Aston Coal 2 Pty Limited (75%) (a wholly owned subsidiary of Whitehaven Coal), ITOCHU Coal Resources Australia Maules Creek (15%) and J-Power (10%).

Project Approval (PA) 10_0138 was granted to Aston Coal 2 Pty Limited by the Planning Assessment Commission of NSW, as delegate of the Minister for Planning and Infrastructure under section 75J of the Environmental Planning and Assessment Act 1979 (EP&A Act) on 23 October 2012. PA 10_0138 allows for the development of a 21 year open cut coal mining operation and associated surface infrastructure, extracting coal at up to 13 Million tonnes per annum of run of mine (ROM) coal.

The MCCM PA 10_0138 has been modified on eight occasions briefly described as follows:

- Mod 1: to include the construction of and operation of the high voltage transmission lines and associated switching station in addition to a minor extension of an 11 kilovolt transmission line.
- Mod 2: to include a revised optimised design, alignment and arrangement of an existing approved water pipeline to the Naomi River and the rearrangement of the associated pump installation.
- Mod 3: to revise traffic management conditions and allow for a shuttle bus service to facilitate transportation and construction of local employees to the site.
- Mod 5: to include the continued use of Olivedene Water Supply and associated infrastructure.
- Mod 6: to include the continued use of the existing water supply pipeline and associated infrastructure.
- Mod 7: to amend the final landform design and enable changes to water management infrastructure.
- Mod 8: to include the disposal of end of life mine tyres and operation of mobile crushing units.
- Mod 9: to refine the biodiversity offset strategy and to specify commitments under the strategy.

1.1 PURPOSE AND SCOPE

This Water Management Plan (WMP) has been developed by Whitehaven Coal to satisfy the requirements of Condition 40, Schedule 3 of PA 10_0138.

This WMP applies to all employees and contractors of Whitehaven Coal that are responsible for the management of water within the project boundary of the MCCM. Water management at MCCM will continue in accordance with this WMP for the remainder of the currently approved mine life until 31 December 2034, and the conditions of EPBC 2010/5566 for the remained of the EPBC approval (31 December 2053). As required under Condition 5 schedule 2, MCCM will continue to comply with the WMP (excluding mining operations) beyond the mine life until rehabilitation works have been completed to the satisfaction of both the Secretary and Resources Regulator.

The WMP provides details of the management of surface water and groundwater related impacts associated with the construction and operation of the MCCM. This includes, but not limited to, the

management of sediment, the site water balance, water intake in accordance with licences and flooding.

The WMP will be reviewed and revised (to the satisfaction of the NSW Planning Secretary) in accordance with the requirements of Schedule 5, Condition 5 of PA 10_0138. In accordance with approval EPBC 2010/5566 Condition 36 MCC will submit a revised version of the WMP to the Federal Minister for written approval. The varied activity will not commence until the Minister has approved the revised plan in writing.

1.2 PREVIOUS VERSIONS

The WMP was first reviewed and approved in 2013 to satisfy the requirements of PA 10_0138. Since the implementation of the WMP, PA 10_0138 has been modified on five occasions. These modifications however did not require revisions of the WMP. In March 2019 the WMP was revised to incorporate necessary administrative updates. The WMP was updated again in March 2023 to reflect the changes to the water management system at the time, including the implementation of the eastern clean water management system and the highwall dams.

1.3 CURRENT VERSION

The current version of the WMP has been revised to align with ongoing development of the mine and maintain a high standard of water management protocols, procedures and practice at MCCM.

1.4 STRUCTURE OF THE WATER MANAGEMENT PLAN

The WMP comprises the following documentation in accordance with Condition 40 Schedule 3 of PA 10_0138 (further detailed in Table 1):

- An overarching WMP (this document)
- Site Water Balance (SWB) (Appendix A);
- Surface Water Management Plan (SWMP) (Appendix B); and
- Groundwater Management Plan (GWMP) (Appendix C).

1.5 CONSULTATION

Consultation has taken place with the NSW government in development of the various versions of the WMP, which have been reviewed by the NSW Department of Climate Change, Energy, Environment and Water (DCCEEW) (formerly DPIE) on numerous occasions. Updates to prepare this current version of the WMP have been undertaken in consultation with representatives of the NSW Office of Environmental Heritage (OEH), DCCEEW Water, North West Local Land Services (NWLLS) (formerly Namoi Catchment Management Authority) and the Department of Climate Change, Energy, the Environment and Water Cth (Cth DCCEEW).

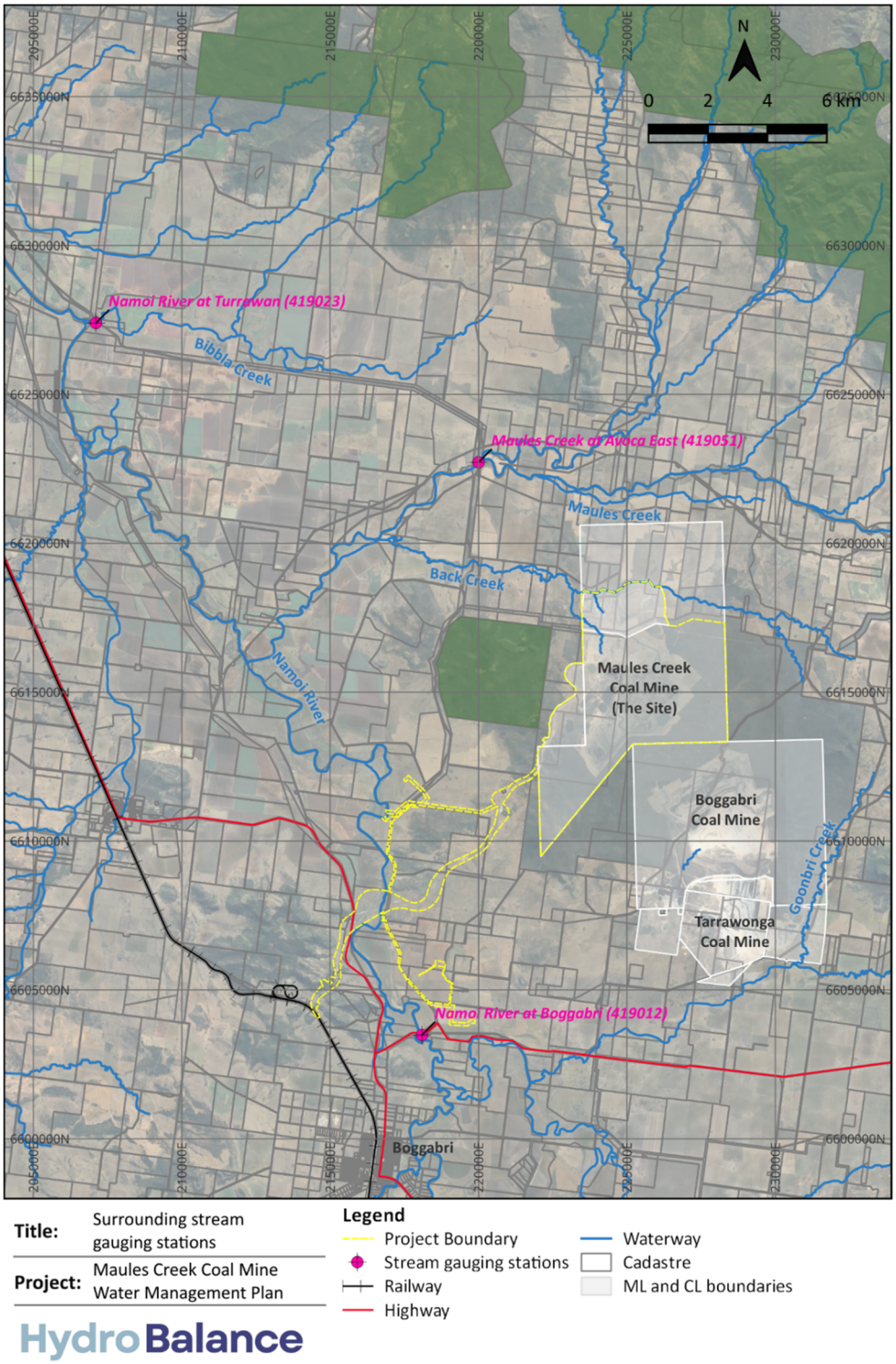

Figure 1: Locality Map

Table 1: WMP Documentation

Document	Description/Scope
WMP	Describes the statutory obligations to the WMP (section 2) and provides an overview of the MCCM Water Management System (section 3). Section 4 outlines the review and improvement of environmental performance while section 5 describes the management and reporting of incidents, complaints and non-compliances.
Appendix A – Site Water Balance	Details the inputs and outputs of the mine water management system. This includes details of the site water management system and describes storage and use of water to maintain safe and optimal operations in accordance with existing water access licences (WALs), Environmental Protection Licence (EPL) 20221 and Australian New Zealand Guidelines (2018) ANZG.
Appendix B – Surface Water Management Plan	Provides information on baseline surface water data, as well as design objectives, performance criteria, trigger levels and monitoring requirements for surface water management at the mine.
Appendix C – Groundwater Management Plan	Describes the management of groundwater at MCCM. This includes details of the GWMP, predicted impacts and compliance with relevant PA 10_0138 conditions.

Declaration of accuracy

In making this declaration, I am aware that section 491 of the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) makes it an offence in certain circumstances to knowingly provide false or misleading information or documents to specified persons who are known to be performing a duty or carrying out a function under the EPBC Act or the Environment Protection and Biodiversity Conservation Regulations 2000 (Cth). The offence is punishable on conviction by imprisonment or a fine, or both. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed _____

Full name (please print) _____

Organisation (please print) _____

Date _____/_____/_____

2 STATUTORY OBLIGATIONS

The statutory obligations of MCCM relating to water management are contained in project-specific approvals, as well as relevant legislation. Project approvals relevant to water management at MCCM include:

- PA 10_0138 (as modified);
- Commonwealth Approval 2010/5566 (as modified);
- relevant licences and permits (including EPL 20221) and mining and coal leases (Mining Lease (ML) 1701, ML 1719, CL 375).

Water management must also comply with general legislative requirements under:

- Environmental Planning and Assessment Act 1979 (NSW).
- Protection of the Environment Operations Act 1997 (NSW).
- Water Management Act 2000 (NSW).

2.1 PROJECT APPROVAL 10_0138

2.1.1 Water Management Plan Requirements

Table 2 describes the requirements under Condition 40, Schedule 3 of PA 10_0138 and indicates where these are addressed within this WMP.

Table 2: Water Management Requirements in PA 10_0138

Schedule 3	
• The Applicant must prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with BCS, DCCEEW Water and North West Local Land Services (LLS), by suitably qualified and experienced person/s whose appointment has been approved by the Secretary for approval prior to the commencement of construction. In addition to the standard requirements for management plans (see condition 3 of schedule 5), this plan must include:	
Condition	**WMP report section**
Site Water Balance, that, includes details of: • water use on site; • water management on site; • sources and security of water supply, including contingency for future reporting periods; • any off-site water discharges; • reporting procedures, including the preparation of a site water balance for each calendar year; • a program to validate the surface water model, including monitoring discharge volumes from the site and comparison of monitoring results with modelled predictions; and	**Appendix A** Section 4 Section 3 Section 5.3 Section 8 Section 8 and 9 Section 6.3

• describes the measures that would be implemented to minimise clean water use on	
a Surface Water Management Plan, which includes:	**Appendix B**
○ detailed baseline data on surface water flows and quality in the water-bodies that could potentially be affected by the project;	Section 3
○ detailed baseline data on hydrology across the downstream drainage system of the Namoi River floodplain from the mine site to the Namoi River;	Section 3
○ a detailed description of the water management system on site, including the:	
○ clean water diversion system;	Section 4.3
○ erosion and sediment controls (dirty water system);	Section 4.9
○ mine water management systems;	Section 4
○ discharge limits in accordance with EPL requirements;	Section 6.3
○ water storages;	
○ mine access road and Maules Creek rail spur line;	Section 4.2 Section 4.4
○ detailed plans, including design objectives and performance criteria for:	
○ design and management of final voids;	Section 4.7
○ design and management for the emplacement of reject materials, sodic and dispersible soils and acid or sulphate generating materials;	Section 4.6
○ design and management for construction and operation of the rail spur line and mine access road;	Section 4.4
○ reinstatement of drainage lines on the rehabilitated areas of the site; and	Section 4.5
○ control of any potential water pollution from the rehabilitated areas of the site;	Section 4.5 and 4.9
○ performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the project:	
○ the water management system;	
○ downstream surface water quality;	Table B8
○ downstream flooding impacts, including flood impacts due to the construction and operation of the rail spur line and mine access road, and flooding along Back Creek; and	Table B9 Table B11
○ stream and riparian vegetation health, including the Namoi River;	Section 6.4
○ a program to monitor:	
○ the effectiveness of the water management system;	Section 7
○ surface water flows and quality in the watercourses that could be affected by the project; downstream flooding impacts; and	Section 6.6
○ reporting procedures for the results of the monitoring program;	Section 7
	Overview

○ a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project; and	Section 5 and 6
a Groundwater Management Plan, which includes: ○ detailed baseline data of groundwater levels, yield and quality in the region, and privately-owned groundwater bores including a detailed survey/schedule of groundwater dependent ecosystems (including stygo-fauna and Melaleuca riparian forest communities), that could be affected by the project; ○ the monitoring and testing requirements specified in the PAC recommendations for groundwater management as set out in Appendix 6; ○ detailed plans, including design objectives and performance criteria, for the design and management of: • the proposed final void; and • coal reject and potential acid forming material emplacement; ○ groundwater assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts; ○ a program to monitor and assess: • groundwater inflows to the open cut mining operations; • the seepage/leachate from water storages, emplacements, backfilled voids and the final void; • interconnectivity between the alluvial and bedrock aquifers; • background changes in groundwater yield/quality against mine-induced changes; • the impacts of the project on: - regional and local (including alluvial) aquifers; - groundwater supply of potentially affected landowners; - groundwater dependent ecosystems (including potential impacts on stygofauna and Melaleuca riparian forest communities) and riparian vegetation; ○ a program to validate the groundwater model for the project, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions; and ○ a plan to respond to any exceedances of the performance criteria;	**Appendix C** Section 3, 5 and 7 Section 12.1 Section 12 Section 12 Section 8.1, 8.2 and 8.3 Section 5.4 and 6.3 Section 4 Section 4 Section 4 Section 4 Section 4 Section 4 Section 10 Section 8.3
Leard Forest Mining Precinct Water Management Strategy that has been prepared in consultation with other mines within the Precinct to: ○ minimise the cumulative water quality impacts of the mines;	**BTM Complex WMS** Section 1.1 Section 1.1, 3 and 4.3

○ review opportunities for water sharing/water transfers between mines; ○ co-ordinate water quality monitoring programs as far as practicable; ○ undertake joint investigations/studies in relation to complaints/exceedances of trigger levels where cumulative impacts are considered likely; and ○ co-ordinate modelling programs for validation, re-calibration and re-running of the groundwater and surface water models using approved mine operation plans.	Section 1.1 and 6.2 Section 1.1 and 8 Section 4

2.1.2 Management Plan (General) Requirements

Condition 3 of Schedule 5 of PA 10_0138 outlines the general management requirements that are relevant to this WMP.

Table 3: Water Management Requirements in Project Approval 10_0138

MCCM Project Approval 10_0138	Relevant WMP Section
• The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:	
a. detailed baseline data;	Appendix B & C
b. a description of: – the relevant statutory requirements (including any relevant consent, licence or lease conditions); – any relevant limits or performance measures/criteria; – 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 2 Appendix B & C Appendix B & C
c. a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	Section 3 and Appendix A, B & C.
d. a program to monitor and report on the: – impacts and environmental performance of the project; – effectiveness of any management measures (see c above);	Appendix B & C
e. a contingency plan to manage any unpredicted impacts and their consequences;	Appendix B & C
f. a program to investigate and implement ways to improve the environmental performance of the project over time;	Section 4 and Appendix B & C
g. a protocol for managing and reporting any: – incidents; – complaints; – non-compliances with statutory requirements; and – exceedances of the impact assessment criteria and/or performance criteria; and	Section 5
h. a protocol for periodic review of the plan.	Appendix B & C

36. The Applicant must ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations on site, to match its available water supply to the satisfaction of the Planning Secretary.	Appendix B
37. The Applicant must provide a compensatory water supply to any landowner of privately-owned land whose water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the project, in consultation with DCCEEW Water, and to the satisfaction of the Planning Secretary. The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the project. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified. If the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Planning Secretary for resolution. If the Proponent is unable to provide an alternative long-term supply of water, then the Proponent shall provide alternative compensation to the satisfaction of the Planning Secretary.	Appendix C
Surface Water Discharges 38. The Applicant must ensure that any surface water discharges of mine water from the site:	
a. are of equal or better quality than the receiving waters; and	Appendix A Section 6.1
b. comply with the discharge limits (both volume and quality) set for the project in any EPL.	Appendix B Section 5
Operating Conditions 39. The Proponent shall:	
c. ensure that coal reject or any potentially acid forming interburden materials are not emplaced at elevations within the pit shell or out of pit emplacement areas where they may promote acid or sulphate species generation and migration beyond the pit shell or out of pit emplacement areas;	Appendix B
(d) ensure that no water can drain from an out of pit emplacement area to any watercourse or to any land beyond the lease boundary;	Appendix A
(f) design, install and maintain any new infrastructure within 40 metres of watercourses in accordance with the guidance series for Controlled Activities on Waterfront Land (DPI Water, 2012 or latest version;	Section 2.4.6

2.2 EPBC ACT CONTROLLED ACTIONS DECISION

The Commonwealth Approval Environmental Protection and Biodiversity Conservation (EPBC) 2010/5566 for MCCM was granted on 11 February 2013. This has since been varied with latest notice of variation received on 24 March 2021. Conditions 20 to 23 of the Commonwealth Approval relate to water management. However, these conditions have not been varied since the original approval in 2013.

The Water Management Plan will be submitted to the Minister for the Environment and Water of Australia (Cth DCCEEW's) for approval in alignment with condition 36 of EPBC 2010/5566 approval.

Table 4 details the surface water and groundwater management conditions of EPBC Approval 2010/5566.

Table 4: Water Management Requirements EPBC Approval

MCCM EPBC 2010/5566	Relevant WMP Section
20. The person taking the action must provide to the **Minister** for approval, the *surface and groundwater management plans* as identified in condition 40 of the NSW state government Project Approval dated 23 October 2012 (application number 10_0138). The *surface and groundwater management plans* must be approved by the **Minister** prior to commencement of construction.	Appendix B & C
21. The *surface and groundwater management plans* must be consistent with the **National Water Quality Management Strategy.**	Appendix B & C
22. The person taking the action must, prior to **commencement of construction** a description of in collaboration with the proponent to develop and operate the Boggabri Extension (EPBC 2009/5296) and any other approved mines within 20 kilometres (km) of the project area, provide written advice to the Minister demonstrating how the NSW government approved surface water and groundwater management plans (condition 20), addresses the cumulative impact of groundwater drawdown as a result of mining and how this may impact on the consequence health of the remnant native vegetation in the Leard State Forest, the Leard State Forest Conservation Area and surrounding areas. In particular the advice must address the following matters: a. Maximum amount of allowable drawdown in the alluvial aquifer. b. Drawdown in hard rock. c. Trigger levels pertaining to drawdown in the alluvial aquifer when corrective actions will be required to be undertaken. d. Identify the depth of root zone of the native vegetation. e. Monitoring to assess the ongoing quality and quantity of both surface and groundwater to identify impacts on the native vegetation.	Appendix C & BTM Complex WMS
23. The person taking the action must within 6 months of this approval, or such other timeframe specified by the **Minister**, provide to the **Minister** a report on: a. any updated modelling of surface and groundwater impacts that has been undertaken in preparing the *surface and groundwater* management plans. b. how the *surface and groundwater management* plans addressed groundwater and surface water impacts on matter of national environmental significance.	Addressed in separate document to SEWPaC (now DCCEEW)

2.3 LICENCES, PERMITS AND LEASES

Water management at MCCM is conducted in accordance with the following licences and permits as required under the *Water Management Act, 2000,* NSW *Protection of the Environmental Operations Act, 1997*, the NSW *Mining Act*:

- Water Access Licences (WALs).
- EPL 20221.
- ML 1701, ML 1719 and CL 375.
- Forward Plan

2.3.1 Water Access Licences

Existing MCCM WALs used to account for passive take into the mine workings are detailed in Table 5. Table 5 shows MCCM has sufficient WALS (with carry over) to account for the predicted maximum passive take over the LOM as per the BTM complex Groundwater Model.

Table 5: Maules Creek Current Water Access Licences – Passive take

Water Source	WAL No.	Total Entitlement (units)	Predicted Maximum take and year
Upper Namoi Zone 4, Namoi Valley (Keepit Dam to Gin's Leap) Groundwater Source	36548	36	144 ML - FY30
	27385	38	
	12613	50^	
Upper Namoi Zone 11, Maules Creek Groundwater Source	12479	78 (39)*	15 ML - FY35
Gunnedah – Oxley Basin MDB Groundwater Source (Gunnedah – Oxley Basin MDB [Other] Management Zone)	29467	306	956 ML - FY24
	36641	800	
	36576	600	

*shared with Tarrawonga Coal Mine (39 ML each mine), which has a predicted maximum take of 9 ML

Application to assign miscellaneous works approval with WaterNSW

Existing MCCM WALs used to account for licensed extraction from an approved river pump or bore are detailed in Table 6. In addition to these WALs, MCCM has obtained temporary trades (through water allocation assignment trading) to allow for additional Zone 4 and Zone 5 groundwater to be extracted from the Roma, Brighton and Olivedene bores. Temporary trades are common in Zone 4 (78 trades totalling 7,231 units in Financial Year (FY) 2019) and hence offer a reliable market for MCCM to obtain temporary allocation of groundwater to meet any additional demand.

Table 6: Maules Creek Current Water Access Licences – Extraction

Water Source	WAL No.	Total Entitlement (units)	Extraction location
Lower Namoi Regulator River Water Source (High Security)	13050	3,000	Namoi River - 90WA801901
Maule's Creek Water Source (Maule's Creek Tributaries Management Zone)	41585	30	HWD10 and HWD11
Upper Namoi Zone 4, Namoi Valley (Keepit Dam to Gin's Leap) Groundwater Source	12722	77	Roma Bore - 90CA807023
	12718	102	Brighton Bore - 90CA807012
Upper Namoi Zone 5, Namoi Valley (Gin's Leap to Narrabri) Groundwater Source	12811	135	Olivedene Bore - 90CA807230
	12791	112	
Upper Namoi Zone 11, Maules Creek Groundwater Source	12480	215	Not in use
	12491	77	
	12473	241	
	12482	77	
	12486	77	
	12489	28	
Maules Creek Unregulated Water Source (Maules And Horsearm Creeks Management Zone	32474	302	

2.4 OTHER LEGISLATION AND REQUIREMENTS

2.4.1 Water Management (WM) Act 2000

The WM Act 2000 provides for various types of approval for land-based activities that affect the quality and quantity of the State's water resources:

- Water use approval (section 89 of the WM Act) which authorises the use of water at a specific location for a particular use, for up to 10 years.
- Water management work approval (section 90 of the WM Act).
- Controlled activity approval (section 91 of the WM Act) which is a type of controlled activity approval that authorises the holder to conduct activities that affect an aquifer such as approval for activities that intersect groundwater, other than water supply bores and may be issued for up to 10 years.

Water access licences are required to be held under the relevant water sharing plan (WSP) for any water take that occurs as a result of the Project on the various water sources neighbouring the mine.

The WSPs relevant to MCCM include:

- Upper and Lower Namoi Regulated River Water Sources WSP (Namoi Regulated WSP);
- Namoi Unregulated and Alluvial Water Sources WSP 2012 (Namoi Unregulated WSP);
- Upper and Lower Namoi Groundwater Sources WSP (Namoi Groundwater WSP); and
- MDB Porous Rock Groundwater Sources WSP (MDB Porous Rock WSP).

2.4.2 Licensing of storages

Water captured by all storages at MCCM will be appropriately licensed under the *WM Act 2000* based on the location and purpose of each storage. Further details of site storages and their licence status is provided in Appendix A (SWB).

2.4.3 Maximum Harvestable Rights Dam Capacity

MCCM's maximum harvestable right dam capacity (MHRDC) has been assessed based on the project lease area.

The MHRDC is calculated by multiplying the project area (3,641 hectares (ha)) by the landholding area multiplier of 0.065 from the Water NSW Maximum Harvestable Right Calculator, giving a total MHRDC of 236.7 ML. The capacity of dams licensed under harvestable rights is provided in Appendix A (SWB).

2.4.4 National Water Quality Management Strategy/ANZG (2018) Guidelines

The National Water Quality Management Strategy is a national approach to protecting the nations water resources by maintaining and improving water quality, while supporting dependent aquatic and terrestrial ecosystems, agricultural and urban communities. In 2018 the Australian & New Zealand (2000) water guidelines were superseded by the ANZG (2018) as an online resource. These guidelines provide a framework for long-term management strategies that protect community values of waterways.

The ANZG (2018) guidelines have been considered, where applicable, in the SWB (Appendix A), Surface Water Management Plan (SWMP) (Appendix B), Groundwater Management Plan (GWMP) (Appendix C) and BTM Complex WMS.

2.4.5 Aquifer Interference Policy

The *Aquifer Interference Policy* (AIP) clarifies the requirements for obtaining water licenses for aquifer interference activities under NSW water legislation (i.e. WM Act 2000). It establishes and objectively defines considerations in assessing and providing advice on whether more than minimal impacts might occur to a key water-dependent asset. The AIP applies throughout the state of NSW and allows for take activities to be accounted for in the state water budget through the appropriate licencing of water taken by aquifer interference activities. The AIP also forms the basis of assessment at various stages of an assessment under the EP&A Act.

The AIP has been considered in the preparation of the SWB (Appendix A), SWMP (Appendix B), GWMP (Appendix C) and BTM Complex WMS.

2.4.6 Controlled Activities on Waterfront Land

According to the NSW DCCEEW fact sheet *Controlled activity approval exemptions,* Clause 42 and Clause 18 of Schedule 4 of the WM Act state any kind of controlled activity carried out in accordance with any lease, licence or permit under the Mining Act 1992 is exempt from the controlled activities approval. Despite this exemption, any ancillary activities that occur as part of the mining operation that are within 40 m of waterfront land will be undertaken in accordance with the guidelines.

3 WATER MANAGEMENT OVERVIEW

3.1 SURFACE DRAINAGE NETWORK

MCCM is located within the catchment of Back Creek, a tributary of Maules Creek, which in turn is a tributary of the Namoi River. The mine access road and rail corridor, located to the west of the mine, drain to minor tributaries of the Namoi River. Figure 2 shows site catchment boundaries, water storages and land use across the site for financial year 2023/2024 (FY24).

3.2 WATER MANAGEMENT SYSTEM AND SITE WATER BALANCE OVERVIEW

The water management strategy for the Mine is based on targeted management of water from different sources based on anticipated water quality. Water on the site is categorised as either:

- clean water – water from areas not disturbed by mining;
- mine water – groundwater inflows and surface runoff in mining areas that is likely to come into contact with coal; or
- sediment laden water – runoff from areas disturbed by stripping or placement of overburden material.

Details of site storages for the management clean water, mine water and sediment laden water, as well as a full water balance of the MCCM water management system, are provided in Appendix A. The main storages on the site include:

- Mine Water Dam which is the primary storage for recycled mine water that is the primary supply source for the major site water demands;
- Raw Water Dam which is a holding dam for clean water imported to the site from external sources; and
- sediment dams which collect runoff from overburden emplacements and recycled to the Mine Water Dam for reuse on the site to reduce external water demands in accordance with NSW DCCEEW guidelines (DECC, 2008) and the project conditions of consent. In the event the water is not required, MCCM may treat and release to receiving watercourses (in accordance with EPL requirements).

Key water demands include:

- CHPP water usage;
- haul road dust suppression; and
- miscellaneous water usage (i.e. stockpile water usage and vehicle washdown).

The first priority source for meeting site demands is the Mine Water Dam which collects water from the following sources:

- Passive groundwater inflows to the open cut mine.
- Runoff captured from the footprint of the mine disturbance area in accordance with appropriate water acquisition rights.
- Fine rejects bleed water captured from the Fines Emplacement Area.

In the event there is insufficient mine water stored on site to meet operational demands, external water is imported from the Namoi River. Importing water from the Namoi River occurs in accordance with operational TARPs, developed using the site water balance model (WBM). The objective of the site WBM is to maximise the use and recycling of mine water prior to importing water from the Namoi River. Importation of water from the Namoi River shall only occur when approval is provided from WaterNSW via a water order.

In the event no water is available in the Namoi River, or WaterNSW denies a water order, MCCM will import water from the Olivedene, Roma and Brighton bores. All external water extractions will be undertaken in accordance with the associated approved water supply networks in accordance with water access licences.

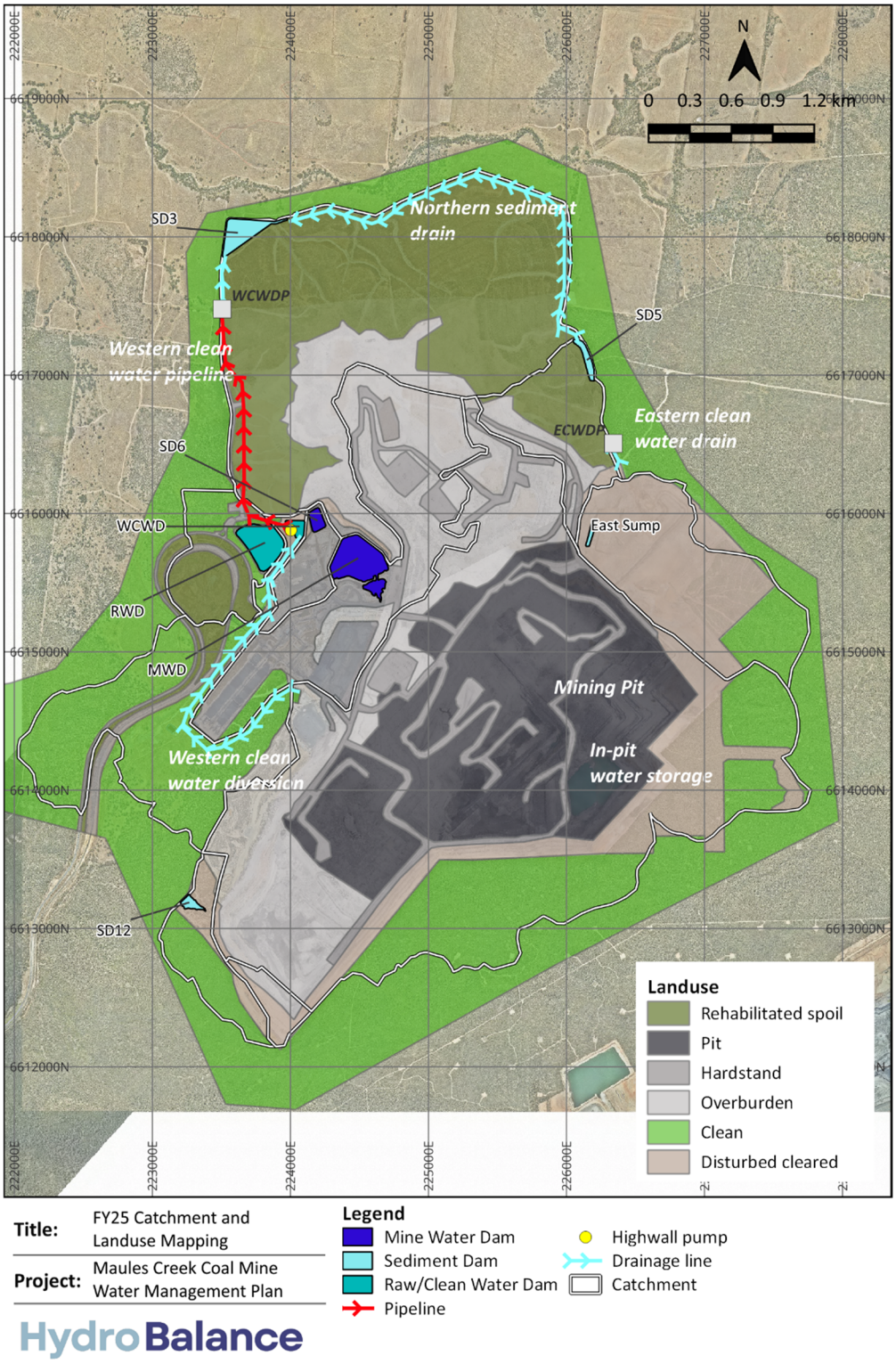

Figure 2: Site catchments, storages and land use – FY25

3.3 GROUNDWATER

Details of the groundwater system in the vicinity of MCCM are provided in the Groundwater Management Plan (GMP) (Appendix C).

3.4 BTM COMPLEX OVERVIEW

The BTM Water Management Strategy details the cumulative water management approach taken by the Boggabri, Tarrawonga and Maules Creek mines to monitor and collectively manage the surface water and groundwater impacts of their operations. The Water Management Strategy details the relevant water resources, the potential cumulative impacts on those water resources, and the cumulative water management protocols within the BTM Complex.

A brief overview of the Boggabri Coal Mine (BCM) and Tarrawonga Coal Mine (TCM) is provided below.

3.4.1 Boggabri Coal Mine

BCM is an existing open cut mine that consists of an open cut pit, overburden dump, infrastructure area including coal processing facilities, water management structures, and a rail spur. BCM obtained NSW State Government approval on 18 July 2012, and Commonwealth Government approval on 11 February 2013. These approvals (as modified) allow operations at BCM to extend until December 2033 at a rate of 8.6 Mtpa of ROM coal. The project approval for BCM provides for operation of existing ancillary equipment; construction and operation of a new coal handling and preparation plant (CHPP); 17 km rail spur line; bridges over the Namoi River and Kamilaroi Highway; a rail load-out facility located at the mine; upgrade of the overburden and coal extraction haulage fleet (with an option for a drag-line); upgrade of electricity transmission lines; and establishment of a water supply borefield and other ancillary infrastructure.

3.4.2 Tarrawonga Coal Mine

TCM is an existing open cut coal mine located immediately south of BCM. TCM initially had approval to extract 2 Mtpa of ROM coal until 2017. TCPL submitted an application in July 2011 under Part 3A of the *Environment Planning and Assessment Act, 1979* (EP&A Act) for an extension of open cut mining operations to 3 Mtpa of ROM coal for a further 17 years. This application was approved by the NSW State Government on 22 January 2013.

TCM have modified Project Approval 11_0047 on a number of occasions since then, with the most recent being in October 2023. Project Approval 11_0047 allow operations at TCM until 2030 at a rate of 3.5 Mtpa of ROM coal.

4 REVIEW AND IMPROVEMENT OF ENVIRONMENTAL PERFORMANCE

4.1 ANNUAL REVIEW

In accordance with Schedule 5, Condition 4 of PA 10_0138, MCCM will submit by the end of March each year (or other such timing as agreed by the Planning Secretary) an Annual Review for the previous calendar year to the NSW Planning Secretary, which will fulfil the reporting requirements listed in that condition. The review will include:

- Review of the monitoring results (Appendix D and E of the Annual Review) and complaints records of the development over the past year, which includes a comparison of these results against the:
  - relevant statutory requirements, limits or performance measures/criteria;
  - monitoring results of previous years; and
  - relevant predictions in the EIS.
- Validation of the calibration parameters of the water balance model to ensure that the model adequately simulates observed conditions on site (Section 7 of the Annual Review);
- Identification of any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance (Section 7 of the Annual Review);
- Identification of any trends in the monitoring data over the life of the development (Appendix E and D of the Annual Review);
- Identification of any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
- Description of measures that will be implemented over the next year to improve the performance of the water management system.

MCCM annual review documentation is publicly available on the MCCM website at https://whitehavencoal.com.au/our-business/our-assets/maules-creek-mine/ in accordance with Condition 12, Schedule 5 of PA 10_0138.

Section 7 of the Annual Review will address the matters outlined above. The corresponding monitoring results for the reporting period are provided in Appendix D (Surface Water) and Appendix E (Groundwater) of the Annual Review.

4.2 REVISION OF WMP

As detailed in Schedule 5, Condition 5 of PA 10_0138, the WMP will be reviewed and revised (to the satisfaction of the Secretary of the NSW DCCEEW), within three months of the submission of the following documentation:

- Annual Review (Condition 4, Schedule 5);
- Incident Report (Condition 8, Schedule 5);
- Audit (Condition 10, Schedule 5); and
- Any modification to the conditions of the approval PA 10_0138.

As part of the WMP review process, MCCM will provide a report to the Minister (or their delegate) administering the EPBC Act 1999, on any updated water modelling that has been undertaken and how the WMP addresses groundwater and surface water impacts on matters of national environmental significance in accordance with approval EPBC 2010/5566 Condition 23.

In accordance with condition 36 of EPBC 2010/5566 revised Water Management Plans will also be submitted to the Federal Minister for the Environment and Water of Australia for approval.

In accordance with Condition 40c of PA 10_0138 a program is in place to validate the groundwater model for the project, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions. The latest revision of this model occurred in 2025.

5 REPORTING SYSTEMS

In accordance with Condition 3(g) Schedule 5 of PA 10_0138, MCCM has developed protocols for the management and reporting of any:

- incidents;
- complaints;
- non-compliances with statutory requirements; and
- exceedances of the impact assessment criteria and/or performance criteria.

These protocols are described in the Maules Creek Pollution Incident Response Management Plan (Available on the Whitehaven Coal website)

In accordance with Schedule 5, Condition 8 of PA 10_0138, MCCM shall notify the Planning Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment at the earliest opportunity, and shall notify of any other incident as soon as practicable. The Planning Secretary will be notified in writing through the Major Projects Portal.

In the event of a non-compliance the Planning Secretary must be notified in writing via the Major Projects website within seven days after MCC becoming aware of any non-compliance. A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

MCC will provide regular reporting on the environmental performance of the mine, this will occur through Community Consultative Committee (CCC) reports and Annual Reviews on Whitehaven's website and any reporting arrangements in accordance with any plans or programs approved under the conditions of PA 10_0138.

MCCM will report on the operation of the clean water management system quarterly from June 2022, as per the Enforceable Undertaking entered into with the NSW Department of Natural Resources Access Regulator (NRAR). Documentation will be publicly available on the MCCM website at https://whitehavencoal.com.au/our-business/our-assets/maules-creek-mine/

6 ACRONYMS

Table 7: Water Management Plan Acronyms

Acronym	Meaning
BTM	Boggabri, Tarrawonga and Maules Creek
CCC	Community consultative Committee
CHPP	Coal Handling and Preparation Plant
CRD	Cumulative rainfall deficit
DCCEEW	Department of Climate Change, Energy, Environment and Water (replaces DPHI)
EC	electrical conductivity
EPL	Environmental Protection License
ESC	Erosion and sediment control
FD	Farm Dam
FVMCP	Final Void and Mine Closure Plan
FY	Financial Year
GDE	Groundwater Dependant Ecosystem
GWMP	Groundwater Management Plan
HWD	High Wall Dam
LDP	Licenses Discharge point
LOM	Life of Mine
MCCM	Maules Creek Coal Mine
MDB	Murray Darling Basin
MIA	Mine Infrastructure Area
ML	Mega Litre or Mine Lease
MOV	Maximum Operating Volume
MWD	Mine Water Dam
NRAR	the NSW Department of Natural Resources Access Regulator
NWLLS	DPE Water and North West Local Land Services
OEA	Overburden Emplacement Area
OEH	NSW Office of Environmental Heritage
PA	Project Approval

PAC	Planning and Assessment Commission
ROM	Run of Mine
RWD	Raw Water Dam
SD	Sediment Dam
SW	Surface water
SW Storage	South West Storage
SWMP	Surface water Management Plan
TARP	Trigger, Action and Response Plan
TDS	Total Dissolved solid
TSS	Total suspended solids
WAL	Water Access License
WBM	Water Balance Model
WCWD	Western Clean Water Dam
WMP	Water Management Plan
WMS	Water Management System

7 REFERENCES

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NSW Planning Assessment Commission. (2012, October 23).	Project Approval 10_0138 – Maules Creek Coal Project (Part 3A approval with conditions).* Sydney, NSW: NSW Government.

APPENDIX A SITE WATER BALANCE

APPENDIX B SURFACE WATER MANAGEMENT PLAN

Appendix C Groundwater Management Plan