

ENV-WAT-PLN-001 Water Management Plan

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1.0 INTRODUCTION

1.1 Project Description

This Water Management Plan (WMP) has been developed for Boggabri Coal Operations Pty Ltd (BCOPL) who operates the Boggabri Coal Mine (BCM) on behalf of Idemitsu Australia Pty Ltd (IA) and a joint venture partner.

BCM is an open cut coal mine located 15km north-east of the township of Boggabri in North-Western New South Wales (NSW). Mining activities at BCM commenced in 2006. The mine currently operates under State Significant Development (SSD) Project Approval (SSD09_0182), which allows BCOPL to produce 8.6 Million tonnes per annum (Mtpa) of run-of-mine (ROM) coal from BCM until the end of 2036. Approval was granted by the NSW Planning Assessment Commission (PAC) under Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act) on 18 July 2011 and has been subject to several modifications.

1.2 Purpose

The purpose of this WMP is to provide a framework for water management at BCM. As is referred to in the Project Approval (Schedule 3, Condition 38), this WMP is an overarching document that pulls together water management aspects of the following documents:

- BTM Complex Water Management Strategy (WMS)
- Surface Water Management Plan (SWMP)
- Groundwater Management Plan (GWMP)
- Site Water Balance (SWB) report

This WMP also satisfies the standard requirements for management plans (outlined in Schedule 5, Condition 3 of the Project Approval).

Table 1–1 lists the relevant plan and strategy documents referred to in this WMP. Given the overarching intent of the WMP, these documents should be read in conjunction with the WMP where appropriate, particularly where detail on the subject matter is sought (e.g. for groundwater monitoring refer to the GWMP). The WMP document hierarchy is shown in **Figure 1-1 Document Hierarchy**.

Table 1-1 Water Management Documents

Document	Description
BTM Complex Water Management Strategy	Regional strategy prepared in consultation with Tarrawonga Coal Pty Ltd (TCPL) and Maules Creek Coal Project (MCCM)
Water Management Plan (WMP)	Overarching document setting out water management framework, statutory requirements and procedural requirements
Surface Water Management Plan	Surface water baseline data, performance criteria, monitoring program, response plan, water management system description, erosion and sediment controls
Groundwater Management Plan	Groundwater baseline data, performance criteria, monitoring program, response plan, groundwater model validation program
Site Water Balance report	Mine water balance modelling methodology, assumptions and results, mine water management system operating philosophy

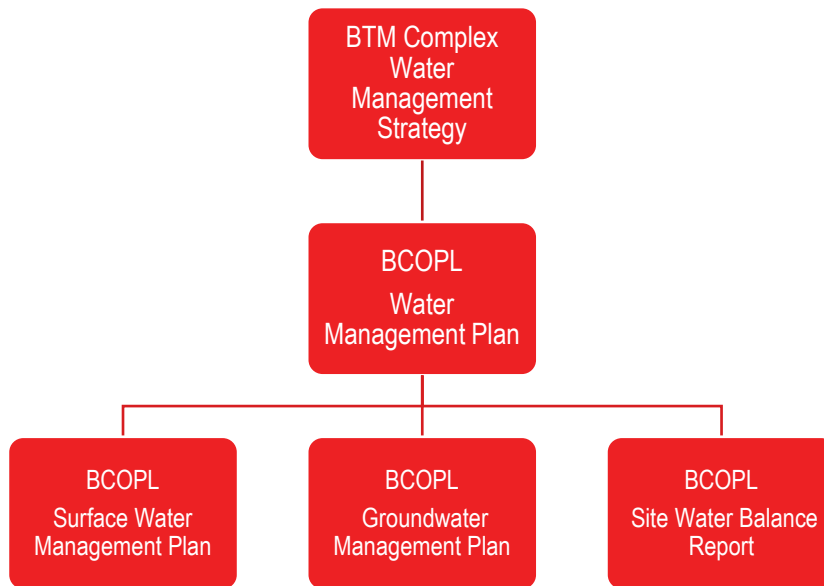


Figure 1-1 Document Hierarchy

1.3 Water Management Overview

1.3.1 Surface Water

BCM is largely contained within the catchment of an unnamed ephemeral drainage line commonly known as 'Nagero Creek'. **Figure 1-2 Locality Plan** shows the study catchment areas in relation to BCM. The catchment consists predominantly of woodland upstream of the site and cleared farmland downstream. The creek flows approximately 8 km to the Namoi River. A small area to the south of the mine infrastructure area (MIA) is located within the catchment of Bollol Creek. Nagero Creek and Bollol Creek are both small tributaries of the Namoi River, which is part of the Barwon-Darling River system.

The Namoi River is the main watershed for the region, and is part of the Murray Darling Basin system and is managed under the following Water Sharing Plans (WSPs):

- WSP for the Namoi Unregulated and Alluvial Water Sources
- WSP for the Upper Namoi and Lower Namoi Regulated River Water Sources
- WSP for the Upper and Lower Namoi Groundwater Sources
- WSP for the NSW Murray-Darling Basin (MDB) Porous Rock Groundwater Sources

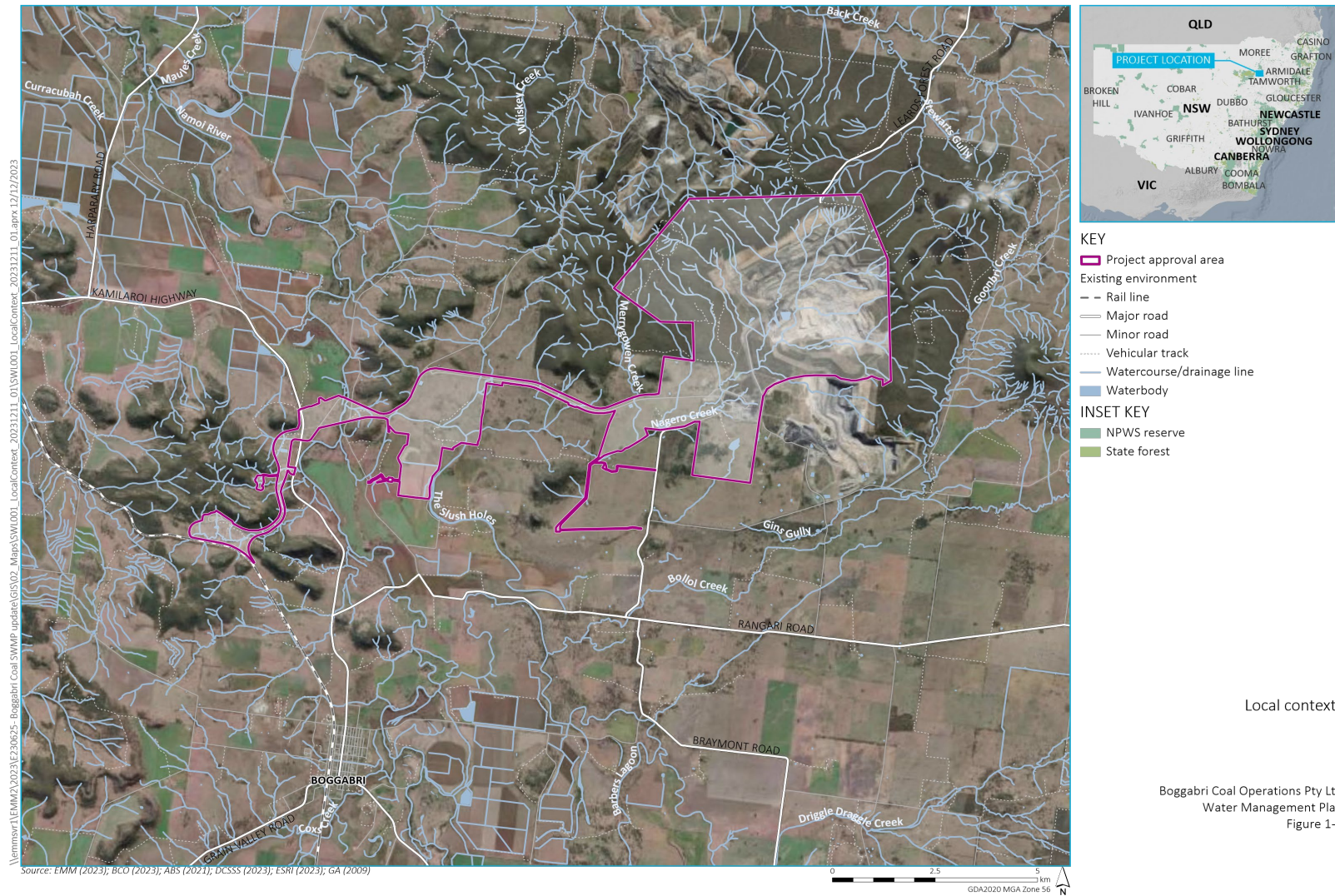


Figure 1-2 Locality Plan

1.3.2 Groundwater

BCM is located within the Maules Creek Sub-Basin, which forms a part of the larger Gunnedah Basin. BCM is situated within a Permian outcrop to the east of the Boggabri Ridge at the western edge of the Maules Creek Sub-Basin where coal seams are present relatively close to the surface and are therefore suitable for open cut mining.

Alluvial plains that surround the Permian outcrop include:

- Alluvial aquifers: comprising alluvial deposits associated with the Namoi River and its tributaries including:
 - Maules Creek alluvium to the north of BCM
 - Alluvial deposits associated with Bollol, Drigggle Draggie and Barneys spring Creek to the South of BCM; and
 - Namoi River alluvium to the west of BCM
- The Maules Creek Formation aquifer; the major transmissive units are within the coal seams, in particular the Merriown Seam; and
- Minor colluvium associated with weathered Boggabri Volcanics

Further details around the hydrology approximate to BCM is provided in the Groundwater Management Plan (GWMP).

1.4 Purpose

1.5 Responsibilities

BCOPL is responsible for compliance with the WMP and sub-plans: SWMP, GWMP, SWB Report and jointly for the BTM Complex Water Management Strategy (WMS) with Tarrawonga Coal Mine and Maules Creek Coal. Monitoring, reporting and management are undertaken by BCOPL in accordance with the guidance provided in the sub-plans and Environment Protection Licence 12407 (the EPL), MOP and various Project Operational Environmental Management Plans (EMPs).

1.6 Agency Consultation

Previous versions of this WMP have been prepared in consultation with representatives from the NSW Environment Protection Authority (EPA) (formerly Office of Environment and Heritage), DPI Water (DPIW), North West Local Land Services (NWLLS) (formerly Namoi Catchment Management Authority) and the Community Consultative Committee (CCC).

Non-administrative revisions of this WMP have been prepared by suitably qualified persons approved by the DP&E to undertake this work. Draft versions of this WMP have been reviewed by stakeholders in accordance with PA09_1082 Schedule 3, Condition 38 and comments have been addressed.

The final WMP has been updated to incorporate feedback from regulators, stakeholders, and the CCC, and a link to the final copy sent to DCCEE and placed on the company website. Evidence of consultation is presented in Appendix A.

2.0 PLANNING AND STATUTORY REQUIREMENTS

Statutory requirements include any Commonwealth, State or local requirements under any provisions of relevant acts and regulations, environmental planning instruments and any other relevant guidelines relevant to mine water management.

The statutory requirements associated with water management discussed in the following sections have been considered during the development of this WMP. Further details relating to water management statutory requirements, policy and guidelines are provided in the SWMP and GWMP.

2.1 Commonwealth

2.1.1 Controlled Action Approvals

Commonwealth approvals for the BCM Project and MOD 8 to SSD 09_0182 were granted on 11 February 2013 and 19 December 2024 (EPBC 2009/5256 and EPBC 2021/8875 respectively). The EPBC Act protects Matters of National Environmental Significance (MNES). Based on the known and potential impacts on MNES, the BCM constitutes a controlled action which required approvals under the EPBC Act.

Specific approval conditions under EPBC 2009/5256 and EPBC 2021/8875 that are related to this WMP, and related plans are included in Section 2.3..

2.1.2 National Water Quality Management Strategy

The National Water Quality Management Strategy (NWQMS) (Department of Agriculture and Water Resources, 2018) is a joint national approach to improving water quality in Australian and New Zealand waterways. The NWQMS aims to protect the nation's water resources, by improving water quality while supporting the businesses, industry, environment and communities that depend on water for their continued development.

The process for water quality management is based on national guidelines that are implemented at State, regional and local levels. The national water quality guidelines are the basis for development of the State and local plans and objectives. The ANZECC water quality guidelines (water quality benchmarks) have been used to assess baseline water quality used in the Groundwater Management Plan and Surface Water Management Plans..

2.2 NSW Legislation

State statutory requirements associated with mine water management during the operation and rehabilitation phase of the Boggabri Coal Project have been considered during the development of this WMP and are outlined below.

2.2.1 Project Approval

SSD 09_0182 for the Project was granted on 18 July 2012 pursuant to the former Section 75J of the EP&A Act by the then Planning and Assessment Commission of NSW as the delegate of the Minister for Planning. Specific project approval conditions related to the preparation of the WMP, and related plans are included in Section 2.3.

2.2.2 Mining Lease Approval Under the Act 1992

The objectives of the Mining Act 1992 are to encourage and facilitate discovery and development of mineral resources having regard to the need to encourage ecologically sustainable development. In relation to water, the Act requires that BCOPL ensure effective rehabilitation of disturbed land and water and to ensure mineral resources are identified and developed in ways that minimise impact to the environment. IA and its joint venture partners hold Coal Lease (CL) 368, Mining Lease (ML) 1755 and ML1883 under the Mining Act to conduct mining operations in respect of the BCM. Authorisation (A) 355 and A 339 are also held under the Mining Act which facilitates the right to conduct exploration activities. A339 will not be renewed in 2025.

2.2.3 Water Management Act 2000 and Water Act 1912

The Water Management Act 2000 regulates water use and works that affect surface and groundwater covered by a Water Sharing Plan (WSP) in NSW and the Water Act 1912 generally regulates the use of water not covered by a water sharing plan.

The objectives of the Water Management Act 2000 (WM Act) are to provide for the sustainable and integrated management of the water sources of NSW for the benefit of present and future generations.

Where an area is covered by a gazetted WSP under the WM Act, an access licence must be obtained under the WM Act to obtain access to a specified share of water, to take water at a specified time, at a specified rate or at a specified area within a specified location. Different types and categories of access licence exist for different purposes.

The Project is within water sharing plan areas, and BCOPL holds existing licences under the WM Act for the extraction of both surface water and groundwater. The GWMP and SWMP provides further details of the relevant plans and licence requirements.

The WM Act establishes a regime for the protection and improvement of certain rivers and foreshores and the prevention of erosion of lands by non-tidal and tidal water. A controlled activity approval under the WM Act is required for certain types of developments and activities that are carried out in or near a river, lake or estuary.

The WM Act provides for the following types of approval:

- Water use approval (Section 89) which authorise the use of water at a specified location for a particular purpose;
- Water management work approval (Section 90);
- Controlled activity approval (Section 91); and
- Aquifer interference activity approval (Section 91) authorising the holder to conduct activities that affect an aquifer such as approval for extractive industries that intersect groundwater, other than water supply bores.

In accordance with Section 4.41 of the EP&A Act, the above approvals (1 to 3) under the WM Act do not apply to the BCM as an SSD as it is authorised by a Development Consent under the EP&A Act. BCOPL will manage its operations, and the potential impacts associated with the take of groundwater and surface water through the management measures detailed within the WMP's.

2.2.4 Protection of the Environment Operations Act 1997

The Protection of the Environment Operations Act 1997 aims to protect, restore and enhance the quality of the environment in NSW by rationalising, simplifying and strengthening the regulatory framework for environment protection. The Act and associated Regulations are administered by the NSW EPA.

The Protection of the Environment Operations Act 1997 regulates emissions to air, water pollution, noise pollution and waste management through a single integrated licence. BCOPL holds Environment Protection Licences (EPL) No: 12407 under this Act. The conditions of the EPL are further discussed within the SWMP and GWMP.

2.3 Project Approval Conditions

Table 2-1 Commonwealth Government Project Approval Conditions of EPBC 2009/5256 Approvallis the Commonwealth Government Project approval conditions relating to water management set out in approval EPBC 2009/5256 granted on 11 February 2013.

Table 2-2 Commonwealth Government Approval Conditions of EPBC 2021/8875 outlines the Commonwealth Government Project approval conditions relating to water management set out in approval EPBC 2021/8875 granted on 19 December 2024.

Table 2-3 State Project Approval Conditions Under the EP&A Act outlines the NSW EP&A Act Project approval conditions applicable to water management, as listed in Schedule 3 and Schedule 5 of the Project Approval.

Table 2-4 Water Related Mining Lease Conditions Under the NSW Mining Act outlines Mining Lease conditions under the NSW Mining Act, as they relate to water management.

Other approval conditions are associated with:

- *Water Management Act 2000* licence(s) to extract surface water and groundwater. The conditions are specified on the individual licences and in the relevant applicable water sharing plans;
- Controlled activity approvals under the *Water Management Act 2000*. The conditions are specified on the individual approvals.

Table 2-1 Commonwealth Government Project Approval Conditions of EPBC 2009/5256 Approval

Applicable conditions	Requirement	Addressed in following document
15	The person taking the action must provide to the Minister for approval, the surface and groundwater management plans as identified in condition 38 of the NSW state government Project Approval dated 18 July 2012 (application number 09_0182). The surface and groundwater management plans approved by the Minister must be implemented prior to the commencement of new mining operations.	Refer to SWMP and GWMP
16	The surface and groundwater management plans must be consistent with the National Water Quality Management Strategy.	Refer to SWMP and GWMP
17	<p>The person taking the action must within 6 months of this approval, in collaboration with the person taking the action to develop and operate the Maules Creek Coal Project (EPBC 2010/5566) and any other approved mines within 20 km of the mine site provide written advice to the Minister demonstrating how the approved surface and groundwater management plans (specified in condition 15), addresses the cumulative impact of groundwater drawdown as a result of mining and how this may impact on the consequent health of the remnant native vegetation in the Leard State Forest, the Leard State Conservation Area and surrounding areas. In particular, the advice must address the following matters:</p> <ul style="list-style-type: none"> a) maximum amount of allowable drawdown in the alluvial aquifer b) drawdown in hard rock aquifer 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. 	<p>Refer to BTM Complex Water Management Strategy along with</p> <ul style="list-style-type: none"> a) GWMP section 5.1.2 b) GWMP section 3.5.1 c) GWMP section 5.1.2 d) GWMP section 3.5.3 e) SWMP section 6 and GWMP 4.1.8
18	<p>The person taking the action must within 6 months of the date of this approval, or such other timeframe specified by the Minister, provide to the Minister a report on:</p> <p>any updated modelling of surface and groundwater impacts that has been undertaken in preparing the surface and groundwater management plans</p> <p>how the surface and groundwater management plans addressed groundwater and surface water impacts on native vegetation</p>	Refer to SWMP and GWMP
19	A risk-based assessment of the disposal of mine water by irrigation on soils must be undertaken. The assessment must include the risk of metal and salinity accumulation in soils.	Refer to SWB*

* Planned increases to mine water storage capacity are considered adequate and there is no current planned mine water disposal via irrigation.

Table 2-2 Commonwealth Government Approval Conditions of EPBC 2021/8875

Applicable conditions	Requirement	Addressed in following document
4	Prior to the commencement of coal extraction from below the Merriown Seam, the approval holder must publish on the website a copy of the Water Management Plan approved by the NSW Planning Secretary (the Approved Water Management Plan) and notify the department of its publication, with a link to the website. The Approved Water Management Plan must remain published on the website until the expiry of this approval.	Section 4
5	<p>If the Minister is not satisfied that the Approved Water Management Plan is sufficient to protect water resources, the Minister may direct the approval holder to include specific measures in the Approved Water Management Plan. If the Minister directs the approval holder to include specific measures, the approval holder must update the Approved Water Management Plan with the required measures.</p> <p>a) The approval holder must submit the updated Water Management Plan to the NSW planning Secretary for approval within 30 days of receiving the minister's direction</p>	Section 4
6	<p>The approval holder must notify the department within 10 business days of submitting a request to have a revised version of the Approved Water Management Plan approved by the NSW Planning Secretary. If a revised version of the Approved Water Management Plan is approved by the NSW Planning Secretary:</p> <p>a) document specifying what changes have been made from the previous version (including by supplying a copy with these changes marked in track mode) and a description of any implications of the changes for water resources must be provided to the department within 20 business days of the revised plan being approved, and</p> <p>b) the approval holder must publish the revised version of the Approved Water Management Plan on the website within 20 business days of the revised plan being approved.</p>	Section 4
7	<p>If, at any time until the end date of this approval, the approval holder detects the exceedance of a performance criteria in the Approved Water Management Plan, the approval holder must:</p> <p>a) notify the department of the exceedance within 10 business days, and</p> <p>b) publish on the website within 3 months a description of the cause of the exceedance, and the corrective actions that have been/will be undertaken.</p>	Refer to SWMP and GWMP
8	Upon receiving notification of an exceedance of a performance criteria under condition 7, the Minister may direct the approval holder to undertake specific corrective actions to minimise impacts to water resources. The approval holder must implement any specific corrective actions to minimise impacts to water resources as directed by the Minister.	Refer to SWMP and GWMP
9	The approval holder must include in each compliance report, a copy of all monitoring reports required by the Approved Water Management Plan.	Section 4.1.3

Table 2-3 State Project Approval Conditions Under the EP&A Act

Applicable conditions	Requirement	Addressed in following document
Sch3,33	Water supply The Proponent shall 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 Director-General.	Refer to SWB
Sch3, 34	Compensatory water supply The Proponent shall 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 NOW, and to the satisfaction of the Director-General. 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 Director-General 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 Director-General.	Refer to GWMP section 6.2
Sch3, 35	Surface water discharges The Proponent shall ensure that any surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.	Refer to SWMP section 4.2.2
Sch3, 36	Operating conditions The Proponent shall: <ul style="list-style-type: none"> (a) Ensure that coal reject or any potentially acid forming interburden materials must not be emplaced at elevations within the Boggabri pit shell where they may promote acid or sulphate species generation and migration beyond the pit shell (b) Ensure that any coal barrier between the final void and any future surrounding mining operations must remain intact in order to impede exchange of any contained groundwaters in the Boggabri pit shell 	Refer to SWMP section 4.5.1 and RMP
Sch3, 37	Flood impacts Boggabri Rail Spur Line and Haul Road The rail spur line, rail spur bridges and any upgrade to the haul road must be designed and constructed to minimise impacts on flooding. Prior to construction of the rail spur line or any upgrades to the haul road, the Proponent shall undertake a flood assessment of the detailed design to confirm there would be minimal impacts as predicted in the EA.	Refer to SWMP section 7.1.2

Applicable conditions	Requirement	Addressed in following document
	This shall include assessment of impacts of the rail spur line embankment and proposed design of stormwater culverts along the rail spur line to the Namoi River to assess changes to localised flood impacts within the Nagero Creek catchment and adjoining Bollol Creek catchment. The assessment must be undertaken in consultation with NOW, Namoi CMA, Council and OEH, to the satisfaction of the Director-General.	
Sch3, 38	<p>Water Management Plan</p> <p>The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with OEH, NOW, Namoi CMA, and CCC, by suitably qualified and experienced persons whose appointment has been approved by the Secretary, and be submitted to the Secretary for approval within 6 months of the date of the approval.</p> <p>In addition to the standard requirements for management plans (Condition 3 of Schedule 5), the plan must include:</p> <p>(a) a Site Water Balance, that:</p> <ul style="list-style-type: none"> includes details of: <ul style="list-style-type: none"> sources and security of water supply, including contingency for future reporting periods; prioritisation strategy for water sources water use on site; water management on site; 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; methodologies used in the preparation of the site water balance, including provision of data sources, measurement type (direct sample / mass balance / engineering calculations / factors) and formulas used for all inflows, processes and outflows; Is supported by an annual improvement program to identify and address deficiencies and improvements within monitoring, measurement and calculation methods; includes an action plan and schedule to implement annual water efficiency initiatives and the recommendations in the Advisian peer review report titled "<i>Peer Review of Site Water Use Aspects of Boggabri Coal MOD 5 Project, 22 July 2016</i>", as set out in Appendix 6A. describes the measures that would be implemented to minimise clean water use on site; <p>(b) a Surface Water Management Plan, which includes:</p> <ul style="list-style-type: none"> detailed baseline data on surface water flows and quality in the water-bodies that could potentially be affected by the project; detailed baseline data on soils within the irrigation management area; 	The SWB, SWMP and GWMP form part of this WMP. Suitability qualified persons have prepared these plans in accordance with this requirement, whose appointment has been approved by the Secretary.

Applicable conditions	Requirement	Addressed in following document
	<ul style="list-style-type: none"> • detailed baseline data on hydrology across the downstream drainage system of the Namoi River floodplain from the mine site to the Namoi River; • a detailed description of the water management system on site, including design objectives and performance criteria for the: <ul style="list-style-type: none"> - clean water diversion systems; - erosion and sediment controls (dirty water system); - mine water management systems including irrigation areas; - discharge limits in accordance with EPL requirements; and - water storages - haul road and Boggabri Rail Spur Line and bridge flood and water diversions; • Detailed plans, including design objectives and performance criteria for: <ul style="list-style-type: none"> - design and management of final voids; - design and management for the emplacement of reject materials, sodic and dispersive soils and acid or sulphate generating materials; - design and management for the construction and operation of Boggabri Rail Spur Line and bridge across the Namoi River floodplain and upstream adjoining Nagero/Bollol Creek catchments; - reinstatement of drainage lines on the rehabilitated areas of the site; and - control of any water pollution from the rehabilitated areas of the site; • performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the project: <ul style="list-style-type: none"> - the water management system; - soils within the irrigation area; - downstream surface water quality; - downstream flooding impacts, including flood impacts due to the construction and operation of the Boggabri Rail Spur Line and rail bridge; and - stream and riparian vegetation health, including the Namoi River; • a program to monitor: <ul style="list-style-type: none"> - the effectiveness of the water management system; - soils within the irrigation area; and - surface water flows and quality in the watercourses that could be affected by the project; and • reporting procedures for the results of the monitoring program; 	

Applicable conditions	Requirement	Addressed in following document
	<ul style="list-style-type: none"> • 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 <p>(c) a Groundwater Management Plan, which includes:</p> <ul style="list-style-type: none"> • 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), that could be affected by the project; • the monitoring and testing requirements specified in the PAC recommendations for groundwater management set out in Appendix 6; • detailed plans, including design objectives and performance criteria, for the design and management of the proposed final void; • groundwater assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts; • a program to monitor and assess: <ul style="list-style-type: none"> - groundwater inflows to the open cut mining operations; - the seepage/leachate from water storages, 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 <ul style="list-style-type: none"> - regional and local (including alluvial) aquifers; - groundwater supply of potentially affected landowners; - aquifers potentially affected by the mine irrigation area; - groundwater dependent ecosystems (including potential impacts on stygo-fauna) 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; and <p>(d) a Leard Forest Mining Precinct Water Management Strategy, that has been prepared in consultation with other mines within the Precinct to:</p> <ul style="list-style-type: none"> • minimise the cumulative water quality impacts of the mines; • 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 	

Applicable conditions	Requirement	Addressed in following document
	<ul style="list-style-type: none"> co-ordinate modelling programs for validation, re-calibration and re-running of the groundwater and surface water models using approved mine operation plans. <p><i>Note that the Leard Forest Mining Precinct Water Management Strategy is being developed in stages and will be subject to ongoing review dependent upon the determination and commencement of other mining projects in the area.</i></p>	
Sch5, 3	<p>Preparation of management plans</p> <p>The Proponent shall ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines and include:</p> <ul style="list-style-type: none"> (a) detailed baseline data; (b) a description of: <ul style="list-style-type: none"> 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; (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria (d) a program to monitor and report on the: <ul style="list-style-type: none"> impacts and environmental performance of the project; effectiveness of any management measures (see c above) (e) a contingency plan to manage any unpredicted impacts and their consequences; (f) a program to investigate and implement way to improve the environmental performance of the project over time; (g) a protocol for managing and reporting any: <ul style="list-style-type: none"> incidents; complaints; non-compliances with statutory requirements; and exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan. 	<p>Refer to the SWB, SWMP and GWMP and WMP. Suitability qualified persons have prepared these plans in accordance with this requirement.</p>
Sch5, 6	<p>Management of cumulative impacts</p> <p>In conjunction with the owners of the nearby mines in the Leard Forest Mining Precinct, the Proponent shall use its best endeavours to minimise the cumulative impacts of the project on the surrounding area to the satisfaction of the Director-General.</p>	<p>Refer to WMS</p>

Applicable conditions	Requirement	Addressed in following document
Sch 5, 8	Incident Reporting The Proponent must notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent must notify the Secretary and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	Section 6.1.1.1
Sch 5, 9	Regular Reporting The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.	Section 5.1
Sch 5, 14	Incident Notification The Proponent must immediately notify the Department and any other relevant agencies after it becomes aware of an incident. The notification must be in writing via the Department's Major Projects Website and identify the development (including the application number and name) and set out the location and nature of the incident.	Section 6.1.1.1
Sch 5, 15	Non-Compliance Notification Within seven days of becoming aware of a non-compliance, the Proponent must notify the Department of the non-compliance. The notification must be in writing via the Department's Major Projects Website and identify the development (including the application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the noncompliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	Section 6.2

Table 2-4 Water Related Mining Lease Conditions Under the NSW Mining Act

Applicable conditions	Regulating Authority	Requirement	Addressed in following document
11 (b) ii & iii	Department of Industry - Resources and Energy (DRE)	The registered holder shall...submit for the Ministers approval an environmental management plan relating to the operation of the registered holder on the subject area. (b) the plan shall describe the methods to be used to protect the environment, including the methods used to – (ii) minimise air, noise and water pollution; (iii) minimise erosion;	EMS
22	DRE	Settling dams or other dams constructed or to be constructed on the subject area shall be constructed, maintained and sealed to the satisfaction of the Minister.	SWMP
23	DRE	The registered holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contaminated waters discharging or escaping from the subject area onto the surrounding areas and shall comply with any written directions given or which may be given in this regard by the Minister.	SWMP
25	DRE	The registered holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent the contamination, pollution, erosion or saltation of any stream or watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction which may be given by the Minister with a view to protecting or minimising the contamination, pollution, erosion or saltation of any stream, watercourse or catchment area, or any undue interference to fish or their environment.	SWMP
29	DRE	The registered holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the registered holder shall observe and perform any instruction which may be given by the Minister or the Director General with a view to minimising or preventing soil erosion.	SWMP and RMP
32	DRE	The registered holder shall ensure that the runoff from any disturbed area including the overflow from any depression or ponded area is discharged in such a manner that it will not cause erosion.	SWMP

3.0 WATER MANAGEMENT

3.1 Water Management Overview

The primary objective of this WMP is to provide a framework for water management at BCM. Broadly the aim of water management throughout the BCM is to:

- where feasible, use contaminated and dirty water from runoff and input seepage on site
- where feasible, divert clean water upstream of BCM around the operational footprint
- ensure any discharges to streams are compliant with the conditions of the EPL
- identify, quantify and account for impacts on other water users in the local catchment and groundwater system
- minimise impacts on and changes to flood flows
- minimise impacts on water dependent environments
- establish monitoring regimes to inform the above objectives
- have effective management responses to water and related issues
- provide reporting of water information and management outcomes

3.2 Surface Water Management Overview

The focus of surface water management at Boggabri Coal Mine is to assess, manage, monitor and mitigate impacts to the surface water system.

The objective of the SWMP is to facilitate compliance with Schedule 3 Condition 38(b) of the Project Approval and relevant conditions of the EPBC Approval and applies to the activities within the 'Project Approval' area as defined in the Project Approval.

Clean water consisting of runoff from undisturbed catchments located upslope of the BCM are where feasible intercepted and diverted around the operations. Dirty water consists of runoff from disturbed areas of the mining site, has a high sediment load and is typically captured in sediment dams prior to reuse or release. Contaminated water consists of runoff generated from coal stockpiles and the pit void, have a moderate to high sediment load and may contain other contaminants and are captured, stored and recycled for site operations such as dust suppression.

Further details of surface water management system are provided within the SWMP and SWB.

3.3 Groundwater Management Overview

The focus of the GWMP is to assess, monitor and where required manage impacts to the groundwater regime where identified to be a result of BCM activities. The objective of the GWMP is to facilitate compliance with Schedule 3 Condition 38 of the Project Approval and relevant conditions of the EPBC Approval and applies to the activities within the 'Project Approval' area as defined in the Project Approval. Operation of contingency bores (subject of MOD 5) is not covered by the GWMP because it is not intended to utilise them as production bores at this time. If the contingency bore are used as production bores in the future, the GWMP will be updated accordingly.

Further details of the groundwater management system are provided within the GWMP and SWB.

3.4 Site Water Balance Overview

The objective of the site water balance is to facilitate compliance with Schedule 3 Condition 38(a) of the Project Approval.

Key climatic and environmental parameters for the BCM include rainfall and evaporation data and runoff potential for different land uses. Water demands for the BCM include potable water needs, dust suppression and water required for any industrial processing such as coal washing. Site generated water supplies refer to water intercepted, stored and recycled within the BCM such as surface runoff from contaminated areas and surface water or groundwater entering the pit. Off-site water supplies refer to licensed surface water or groundwater supplies that are managed and potentially drawn upon by BCOPL where a water deficit is predicted and where appropriate water allocations are available from the licensing authority.

Further details of the site water balance are provided within the SWB.

3.5 BTM Complex Water Management Strategy Overview

The objective of the BTM Complex Water Management Strategy is to facilitate compliance with Schedule 3 Condition 38(d) of the Project Approval to.

- minimise potential cumulative water quality impacts associated with the BTM Complex
- review opportunities for water sharing/water transfers within the BTM Complex
- co-ordinate water monitoring and management strategies between BTM Complex operations as far as practicable
- undertake joint investigations/studies between BTM Complex operations in response to complaints/exceedances of trigger levels where cumulative impacts are considered likely
- co-ordinate modelling programs between BTM Complex operations for validation, re-calibration and re-running of the groundwater and surface water models using approved mine operation plans.

4.0 ROLES AND RESPONSIBILITIES

A definition of the key responsibilities for the site contacts are provided in **Error! Reference source not found.**

Table 4-1 Roles and Responsibilities

Role	Responsibility
BCOPL General Manager	Providing sufficient environment resources to ensure the effective implementation of the requirements, as outlined in this Water Management Plan (WMP)
BCOPL Mining Manager	Mining and water management is to be undertaken in accordance with this WMP
BCOPL CHPP Manager	Mining and water management is to be undertaken in accordance with this WMP
BCOPL Environment and Community Manager	Providing sufficient environment resources to ensure the effective implementation of the requirements, as outlined in this Water Management Plan (WMP)
BCOPL Environmental Superintendent	<p>Liaising with regulatory authorities regarding surface water management obligations as detailed in this WMP</p> <p>Coordinating reviews and revisions of this WMP</p> <p>Ensuring all employees and contractors are aware of their environment management obligations in accordance with this WMP</p> <p>Engaging specialists to undertake specific monitoring and environmental management activities in accordance with the commitments outlined in this WMP</p> <p>Communicating the surface water and ground water requirements outlined in this WMP to responsible parties at BCM</p>
Mining Contractor's Project Manager	<p>Implementing the surface water management obligations in accordance this WMP</p> <p>Undertaking inspections and monitoring of surface water management measures</p> <p>Developing and implementing specific procedures for the employees and subcontractors under their responsibility as required to ensure compliance with this WMP</p> <p>Ensuring all employees and subcontractors under their responsibility are aware of their environmental management obligations in this WMP</p> <p>Providing relevant environment data to assist BCOPL with environmental reporting</p>

5.0 REPORTING

5.1 Regular Reporting

Regular reporting on requirements relevant to the WMP will be conducted in accordance with Schedule 5 Condition 9 of SSD09_0182. Reporting requirements relevant to the WMP are described below:

5.1.1 Annual Return

The EPL contains conditions that require BCOPL supply the EPA with an annual return. The annual return must be in approved form and comprise the following:

- a Statement of Compliance
- a Monitoring and Complaints Summary
- the Statement of Compliance must be certified, and the Monitoring and Complaints Summary must be signed by the licence holder, or by a person approved in writing by the EPA to sign on behalf of the licence holder.

The Annual Return is required to be submitted no later than 60 days after the end of each reporting period (Due 10 March)

5.1.2 Annual Review

BCOPL prepares and submits an Annual Review in respect of the environmental performance of the development to relevant agencies.

The Annual Review must be submitted by the end of March each year in accordance with condition 4, schedule 5 of the Project Approval.

The Annual Review will include a:

- Summary of water monitoring results including;
 - Assessing the effectiveness of the programs
 - Assessing against performance criteria, including any exceedances
 - Analysing long term trends
- Summary of discharges
 - Including background sampling undertaken during discharge events
- Summary of Site Water Balance Report validation
- Details of water usage
- Table of Water taken during the previous water year
- Summary of stream and riparian health monitoring
- Identifying any improvements and initiatives

Results from the Environmental Monitoring Programme measuring BCOPL's environmental performance and compliance are set out in the Annual Review.

5.1.3 Annual Compliance Report

BCOPL is required to prepare an Annual Compliance Report as required under EPBC 2009/5256 & EPBC 2021/8875. The report will be submitted by 3 May each year and will cover the previous Annual Compliance Report Period (ACR Period). The Annual Compliance Report will provide a summary of:

- Surface and Groundwater monitoring results (as required by the GWMP & SWMP); including.
 - Assessing against performance criteria & trigger levels
 - Identify any exceedances to performance criteria
- Summary of Groundwater Dependent Ecosystem function
- Responses undertaken during the reporting period to mitigate any adverse effects

6.0 INCIDENT, NON-COMPLIANCE AND COMPLAINT MANAGEMENT

6.1 Incidents Identification and Notification

6.1.1.1 State Project Notification Conditions (SSD 09_0182)

Development Consent SSD 09_0182 defines an 'incident' as a set of circumstances that:

- Causes or threatens to cause material harm to the environment; and
- Breaches or exceeds the limits or performance measures/criteria in this approval.

An investigation of the incident will be completed to identify BCM operations at the time of the exceedance and to determine whether the exceedance was the result of the BCM or not.

In line with Schedule 5, Condition 14 of Development Consent SSD 09_0182, BCOPL will immediately notify the DPHI and any other relevant agencies after it becomes aware of an incident that was as a result of the BCM. The notification will be made in writing via DPHI's Major Projects Website and will identify the development (including the application number and name) and set out the location and nature of the incident.

6.1.1.2 Commonwealth Notification Conditions (EPBC 2021/8875)

In accordance with EPBC 2021/8875, an incident means any:

- event which has the potential to, or does, harm any protected matter,
- potential non-compliance with these conditions, including the administrative requirements,
- actual non-compliance with these conditions, including the administrative requirements, and/or
- actual non-compliance with one or more commitment made in a plan.

In accordance with Condition 34 and 35 of EPBC 2021/8875, BCOPL will notify DCCEEW within two business days of becoming aware of any incident and will specify the following information:

- The condition or commitment made in any plan required by EPBC 2021/8875 that has not been, or may not have been complied with;
- A brief description of the incident; and
- The location, date and time of the incident.

Within 12 business days of becoming aware of the incident, BCOPL are required to provide DCCEEW with the following information:

- Potential impacts of the incident;
- Corrective measures and investigations undertaken to address the incident;
- The method and timing of any corrective measures implemented; and
- Any variation to the conditions or a management plan or strategy required under EPBC 2021/8875.

6.2 Non-compliance Notifications

A non-compliance occurs where BCOPL has not complied with the statutory requirements of which BCM falls under. In accordance with Schedule 5, Condition 15 of the Development Consent SSD 09_0182, within seven days of becoming aware of a non-compliance, BCOPL will notify DPHI of the non-compliance. The notification will be in writing via DPHI's Major Projects Website and will:

- Identify the development (including the application number and name);
- Set out the condition of Development Consent SSD 09_0182 that the development is non-compliant with;
- State why it does not comply and give the reasons for the non-compliance (if known); and
- Detail what actions have been, or will be, undertaken to address the non-compliance.

As noted in Development Consent SSD 09_0182, a non-compliance which has been notified as an incident will not also be notified as a non-compliance.

6.3 Complaints

A complaints management system is currently in place and is managed by BCOPL. BCOPL maintains a Community Complaints Line and online contact via the BCM website for the purpose of receiving community complaints, or enquiries.

Investigations into complaints will generally commence within 24 hours of receipt, or as soon as practical. The cause of the complaint will be analysed and actions to attempt to address the complaint taken as soon as reasonably possible. In complex cases where resolution will take more than 48 hours, BCOPL will commit to updating the community member throughout the investigation.

A summary of complaints for each operational year is available on the Idemitsu website¹. The summaries detail the date of the complaint, details of the complaint, and actions taken by BCOPL to investigate the matter. BCOPL will continue to maintain the complaints log which will be updated monthly in accordance with Schedule 5, Condition 12, of Development Consent SSD 09_0182.

¹ <https://idemitsu.com.au/mining/operations/boggabri-coal/approvals-plans-reports/>

7.0 REVISION

Review of the of the WMP will be undertaken by BCOPL in accordance with Project Approval schedule 5 condition 5, within 3 months of submitting the following:

- annual review under Schedule 5, condition 4 of the Project Approval;
- incident report under Schedule 5, condition 8 of the Project Approval;
- independent audit under Schedule 5, condition 10 of the Project Approval; and
- any relevant modification to the Project Approval.

Where this review results in revisions to any such document, then within 4 weeks of the completion of the revision, unless the Secretary agrees otherwise, the revised document will be submitted to the Secretary for approval.

In accordance with EPBC 2021/8875, BCOPL will notify DCCEEW as noted in Condition 6 of Table 2-2.

7.1 Document Control

This WMP and associated sub-plans relate to Years 1 to 24 of mining (up to the end of December 2036). Previous revisions and updates made to this WMP are summarised on Page 2.

8.0 ABBREVIATIONS

Abbreviation	Definition
BCM	Boggabri Coal Mine
BCOPL	Boggabri Coal Operations Pty Limited
BTM Complex	Boggabri-Tarrawonga-Maules Creek Complex
CCC	Community Consultative Committee
CHPP	Coal Handling and Preparation Plant
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DPE	NSW Department of Planning and Environment
DPHI	NSW Department of Planning, Housing and Infrastructure
EA	Environmental Assessment
EPA	NSW Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
EPL	Environment Protection Licence under the POEO Act
Km	Kilometre
MCCM	Maules Creek Coal Mine
MOP	Mining Operations Plan
Mt	Million Tonnes
Mtpa	Million Tonnes Per Annum
OEH	NSW Office of Environment and Heritage
PAC	NSW Planning Assessment Commission
Part 3A	Part 3A of the EP&A Act
POEO Act	Protection of the Environment Operations Act 1997 (NSW)
ROM	Run of Mine

Appendix A

Record of Consultation

Leticia Tolson
Environmental Operation Superintendent
Boggabri Coal Pty Limited
Leard State Forest 386
Leards Forest Road
Boggabri, NSW, 2382

19/09/2025

Boggabri Coal – Water Management Plan

Dear Ms. Tolson

Thank you for submitting the overarching Water Management Plan in accordance with Condition 38, Schedule 3 of the consent for the Boggabri Coal (MP09_0182). I also acknowledge your response to the Department's review comments and request for additional information.

I note the Water Management Plan contains the information required by the conditions of approval.

Accordingly, as nominee of the Planning Secretary, I approve the revised overarching Water Management Plan (Rev. 9.2, September 2025).

You are reminded that if there are any inconsistencies between the Plan and the conditions of approval, the conditions prevail.

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Charissa Pillay on 02 99955944.

Yours sincerely

A handwritten signature in black ink, appearing to be "S O'Donoghue".

Stephen O'Donoghue
Director
Resource Assessments

As nominee of the Planning Secretary