

13 February 2020

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via email

Department of Planning, Industry and Environment
Resource Assessments
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Attn: Mr. Matthew Sprott. Director Resource Assessments

RE: Request for Approval of Suitably Qualified Person - Water Management Plan- SSD 6300.

Dear Matthew,

Bloomfield Collieries Pty Limited received approval of the Rix's Creek South Continuation of Mining Project SSD 6300 on 12 October 2019.

In accordance with Schedule 2, Condition B41, Bloomfield Collieries submits details of a water specialist for consideration by Planning Secretary of being a suitably qualified person to prepare the Water Management Plan in accordance with requirements of SSD6300.

An existing, detailed Water Management Plan (WMP) is in place for Rix's Creek Mine, approved very recently by DPIE on 24 May 2019. It is proposed that Dianne Munro at Hansen Bailey will author the required revisions to the WMP to meet requirements of Condition B41 with expert assistance from Paul Ryall at Australasian Groundwater and Environmental Consultants.

A copy of the proposed specialists curriculum vitae's are attached to this letter.

If you require any further information please do not hesitate to contact this office.

Yours sincerely



Chris Knight
Environment Manager
The Bloomfield Group

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Paul Ryall

Senior Hydrogeologist

Education

- Bachelor of Science (Hydrology and Water Resources), James Cook University

Employment history

September 2019	Australasian Groundwater and Environmental Consultants Pty Ltd Senior Hydrogeologist
2016 – 2019	R. W Corkery & Company, Brooklyn NSW Senior Environmental Consultant
2011 – 2016	AECOM Australia, Townsville QLD Water Resources Scientist

Skills

Paul is a Hydrologist/Hydrogeologist with experience in the feasibility, planning, approvals, and operational monitoring and management at various coal mining, metalliferous mining and quarrying sites (proposed and active) in NSW and Queensland. Paul is conversant with the various legislation and guidance documentation relevant to the NSW and Queensland planning and approvals process, particularly those related to water management and environmental protection.

Paul also has experience in hydrology, hydraulics, developing water balances, water management plans, monitoring programs (design, implementation and assessment) including installation of groundwater bores, as well as managing monitoring databases, numerical modelling, and conducting groundwater monitoring programs.

Areas of expertise and selected project experience

Paul's project exposure has required that, in order to deliver optimal project outcomes for his clients, he possesses the management skills required to coordinate programs in order to meet project milestones on time and within budget as well as managing a diverse technical team.

Paul has managed groundwater impact assessment studies and reporting to support environmental approvals for mines and quarries in NSW. Paul's attention to detail has ensured that these reports have been prepared to the necessary technical and written standards such that they can be scrutinised by a regulator, member of the public and/or other third party.

Areas of expertise and selected project experience (continued)

Some examples of his project experience include:

- Bowdens Silver Project: managed key elements of assessment program for proposed 2Mt/year metalliferous mine including:
 - groundwater impact assessment;
 - baseline groundwater monitoring program;
 - coordinated design of the waste rock emplacement and capping and closure system to mitigate seepage risk to shallow groundwater system;
 - regulatory and community stakeholder engagement; and
 - final void pit lake modelling.
- Ardlethan Tin Mine Tailings Re-processing and Rehabilitation Project: managed environmental assessment program for rehabilitation of legacy mine site, reprocessing of tailings and deposition in former open cut void including:
 - groundwater impact assessment;
 - response to submissions and additional hydrogeological field campaign design; and
 - regulatory stakeholder engagement.
- Sutton Forest Quarry Project: managed key elements of assessment program for proposed 1Mt/year sand quarry including:
 - groundwater impact assessment;
 - regulatory and community stakeholder engagement; and
 - response to submissions and additional hydrogeological data collection program design.

Groundwater management and monitoring program design and review

Paul has conducted a number of programs relating to the monitoring, management and assessment of impacts to groundwater resources in the vicinity of areas disturbed by mining or heavy industry. These studies have included:

- confidential clients: AMD characterisation and options assessments for the management of impacts to shallow groundwater as the result of historic mining operations;
- confidential client: groundwater characterisation and conceptual hydrogeology to support tailings storage facility decommissioning;
- confidential client: groundwater remediation action plan review, including borefield rehabilitation and installation program;
- Townsville City Council: receiving environment monitoring program; and
- Townsville Airport: receiving environment monitoring program.

Training

- First Aid and CPR (current); and
- 4WD advanced driver training (PMASUP236).

Employment History ***HANSEN BAILEY, Singleton (January 2005 – present)***
Principal Environmental Scientist

Project Manager Environmental Planning Approvals

- Bowmans Creek Wind Farm EIS (current)
- Glendell Pipeline Modification (current)
- Rix's Creek South – Modification 9 Extension of Time (current)
- Rix's Creek South Continuation – Determination Assistance (current)
- Wallarah 2 Coal Project EIS and Ecological Offsets Strategy to develop a longwall coal mine at Wyong for 28 years (2018)
- Dartbrook Mine Open Cut Pre-Feasibility Studies (2018)
- Bengalla Mine Modification 3 and 4 (2017 & 2018)
- Glendell Mine MOD 3 132 kV Powerline Realignment EA (2016)
- Bengalla Mine MOD 3 Infrastructure Amendment SEE (2016)
- Russell Vale Colliery Underground Expansion Project Part 3A and EPBC Referral determinations (2016)
- Wongawilli Colliery Five Year Mine Life Extension Section 75W (2015)
- Russell Vale Colliery Longwall 6 Section 75W Modification and EPBC Referral determinations (2015)
- Watermark Coal Project (2014-15) Responses to Residual Matters, Post approvals and Determination assistance
- Bengalla Continuation of Mining Project EIS and Ecological Offsets Strategy to continue open cut coal mining west of Muswellbrook for 24 years at 15 Mtpa and 900 employees, infrastructure relocation and Dry Creek realignment (2013-15)
- Bylong Coal Project EIS and 'Gateway Application' to develop a Greenfield open cut and longwall coal mine (2014)
- Maules Creek Modification to Development Consent (2013) for minor changes to infrastructure
- Coalpac EA to consolidate and extend open cut coal mining operations (withdrawn)
- Boggabri Coal 2 Year Life Extension EA to continue mining under the existing approval until 21 Year Project Approval granted (2012)
- Moolarben Coal Preferred Project Report (2011) to amend the Stage 2 Project to avoid ecology and other outstanding issues from EA (prepared by others)
- Maules Creek Coal Mine EA for development of Greenfield open cut operation near Boggabri for up to 21 years (2011)
- Mount Arthur Coal Consolidation Project EA to allow an extension of the mine footprint, an increase in coal production to 36 Mtpa and final landform height, manning to 2,100 associated fleet levels (2009)
- Idemitsu Environmental Prefeasibility Study (2012)
- Anglo Coal Projects Environmental Prefeasibility Studies (2009)
- Xstrata Coal Project Environmental Prefeasibility Study (2009)

**Employment
History (cont.)**

- Cullen Valley SEE for increase in coal production and highwall mining (2009)
- Muswellbrook Coal MOD SEE infrastructure relocation and landform (2009)
- Mangoola Coal (Anvil Hill) Modification to Project Approval to allow early works and alternate site entry EA (2008)
- Centennial Mandalong MOD EA to increase production, modify infrastructure and rationalise development consent (2008)
- West Muswellbrook Open Cut Coal Project Prefeasibility Study (2008)
- Newstan Colliery Longwall Panel Extension REF for SMP (2008)
- Bengalla Mining Company MOD EA (including Bengalla Link Road) (2008)
- Drayton Mine EA for extension of open cut operation to 7 Mtpa (2007)
- Newstan Colliery SEE to gain planning approval for additional longwall underground panels and consultation program (2007)
- Bengalla MOD SEE, consultation program and post-consent approvals (2006)
- Bengalla Explosives Storage Facility SEE (2006)

Environmental, Water & Compliance Audits

- Baalbone Colliery DPIE Closure Independent Environmental Audit (IEA) 2020
- Hunter Valley Operations Coal Mine IEA (2020)
- Wolgan Valley One&Only Resort – DPIE Noise Compliance Audit (2019)
- Mangoola Coal Mine – DPIE Compliance Audit (2019)
- Abel Coal Mine – DPE Compliance Audit (2018)
- White Rock Wind Farm DPE IEA (2019)
- Abel Underground Mine IEA (2019)
- Mt Owen Complex IEA (2018)
- Duralie Mine IEA (2018)
- Stratford Mine IEA (2018)
- Wambo Coal IEA (2017)
- StoneCo Timor Limestone Quarry – Upper Hunter Council IEA (2017)
- Ulan Coal Mine – IEA (2016)
- Ravensworth Operations – IEA (2015)
- Charbon Colliery – IEA (2015)
- Tahmoor Colliery – IEA (2015)
- Wambo Coal Mine – IEA (2015)
- Wilpinjong Coal Mine – NSW Office of Water Licensing Audit (2014 & 15)
- Lamberts Gully Mine – DP&I Audit (2013)
- Ulan Coal Mine – DP&I Audit (2013)
- Liddell Coal – DP&I Audit (2012)
- Lamberts Gully Mine – DP&I Audit (2011)
- Yancoal – Internal Environmental Review (2010)
- Coalpac – Internal Environmental Review (2010)

Employment History (cont.)

- JT Boyd – Environmental Component of two Due Dilligence Audits QLD and NSW Assets (2010 and 2012)
- Xstrata Coal NSW – Internal Regulatory Compliance Audits (2009)
- Liddell Coal NSW – Department of Planning (DoP) Audit (2009)
- Oceanic Coal Limited – Westside Mine DoP Regulatory Audit (2009)
- Ashton Coal Operations Pty Ltd – Ashton Coal Mine Internal Regulatory Compliance Audit (2008)
- Xstrata Coal NSW – Tahmoor Colliery Department of Primary Industries - Mineral Resources (DPI) End of Panel Report LW24B Audit (2008)
- Centennial Coal – Newstan Colliery & Tahmoor Colliery DoP regulatory compliance audits (2007)
- Newpac Colliery Internal Environmental Compliance Audit (2007)
- Xstrata Coal – DoP audits of three mines and internal regulatory compliance audits of seven mines (2005-06)
- Various strategic and planning approvals advice for NSW clients
- Various confidential due diligence audits incorporating assessment of environmental and community components in QLD in NSW

Other Environmental Documents

- Rix's Creek Mine – revise and contemporise 12 management plans (2020)
- Dartbrook Mine – ES04 DRG Exploration Approvals and water licences (2018)
- Bengalla Mine – all post-approvals associated SSD5170 with including 14 management plans (2013-18)
- Australian Rail Track Corporation – various environmental advices (2014-16)
- Wongawilli Colliery End of Panel Report (2015)
- Goonbri Coal Exploration REF (2012)
- Cockatoo Coal Exploration REF (2011)
- Moolarben Coal Exploration REF (2011)
- Mt Owen Complex Annual Environmental Management Reports (AEMR) (2009-10)
- Cullen Valley Mine – Management Plans & Monitoring Program (2009)
- Anvil Hill Coal Mine – various post-approvals and advices (2007-08)
- Awaba Colliery Spontaneous Combustion Management Plan (2007)
- Dartbrook Coal AEMR (2006-07)
- Bengalla Mine AEMR (2006-07, 2015)
- Wambo Coal Pty Limited Post Development Consent Approvals (2005)
- Centennial Coal (NSW) – Stakeholder consultation for Awaba Open Cut Project with over 150 individuals and government (2005)

**Employment
History (cont.)*****AECOM Australia Pty Ltd (January 2010 – July 2010)****Principal Environmental Scientist***Project Manager Environmental Assessments**

- Myuna Coal EA to enable continuation of bord and pillar coal extraction for 21 years and contemporise project approval (2010)
- National Ceramic Industries Expansion EA to enable doubling of capacity of tile production at Rutherford, NSW facility (2010)

Auditing and Post Approvals

- Hunter Valley Operations West Pit DoP Compliance Audit (2010)
- Hunter Valley Operations South Pit DoP Compliance Audit (2010)
- Review of Mangoola Coal Environmental Monitoring Program
- Review of Ashton Coal Environmental Management Plans & SMPs

RIO TINTO COAL AUSTRALIA – COAL & ALLIED (2004 – 2005)*Hunter Valley Operations Environmental Coordinator, Singleton Hunter Valley*

- Management of all site environmental monitoring and reporting
- Maintenance of Coal & Allied EMS and Mapinfo maintenance
- Address community complaints to resolution
- Organisation of and presentations to Community Consultative Committee
- Development of environmental procedures and reporting
- Development and delivery of environmental training to workforce & contractors
- Contractor management, risk assessment and environmental site inductions

RIO TINTO COAL AUSTRALIA – COAL & ALLIED (2003 – 2004)*Bengalla Mine Environmental Officer – Muswellbrook, Upper Hunter Valley*

- Maintenance of all real time and static environmental monitoring systems
- Address community complaints to resolution
- Contractor management, risk assessment & inductions
- Management of monitoring data and reporting
- Five year revision and approval of management plans
- MapInfo systems maintenance for all environmental issues
- Collation of Annual Environmental Management Report 2003

RIO TINTO COAL AUSTRALIA - COAL & ALLIED (2001 – 2003)*Environmental Officer – Licences & Approvals*

- Advising on regulatory compliance issues across CNA
- Assisting with gaining all necessary approvals and licences for CNA
- Developing and gaining approval of post-consent required documentation
- Maintenance of the CNA EMS

- Organising and supervising field surveys for environmental assessments
- Reporting for Business: Corporate, EPA Annual Returns, HRSTS, NPI
- Developing CNA archaeological and environmental Mapinfo database
- Budget management for licensing & approvals for CNA

NSW DEPARTMENT OF MINERAL RESOURCES (2000 – 2001)*Technical Officer*

- Collation of derelict mines sites' report
- Preparation of Arcinfo Database for NSW derelict mines sites
- Assessment of contaminated mine sites
- Preparation of REF assessments
- Aid Derelict Mines' Co-ordinator

BENGALLA MINING COMPANY (1996-1997)*Assistant to Environmental Manager*

- Collation and analysis of environmental monitoring data
- Assistance with the preparation of the Annual Environmental Management Report 1996, Newsletters and stakeholder correspondence

VARIOUS ADMINISTRATIVE APPOINTMENTS (1995-2000)

- Completed various temporary roles in the Hunter Valley and northern suburbs of Sydney