Tyler Tinkler BE (CIVIL)/BE (ENVIRONMENTAL) (HONS1)

Senior Water Engineer

Location

Newcastle, NSW, Australia

Experience

6 years

Qualifications/Accreditations

– BE (Civil)/BE (Environmental) (Hons1), University of Newcastle, 2014

Key technical skills

– Mine site water balance
– Water security and licensing
– Drainage and flooding assessment
– Pipeline and civil design

Relevant experience summary

Tyler has over five years' experience in water resources assessment, design and management, particularly in the mining sector. Tyler has a thorough understanding of the regulatory requirements and implications for water management infrastructure, including metalliferous and coal tailings dams. This experience has been developed through the entire project life cycle from specialist impact assessments and detailed design, through to management plans and compliance reporting.

Glendell Continued Operations Project - Surface water impact assessment

Role: Water Engineer
Client: Glencore
Location: Hunter Valley, NSW, Australia
Date(s): 2019 - 2020

Technical lead for a surface water impact assessment for a major open cut coal mine extension, involving water balance and hydrology modelling and technical review of flood modelling. Provided concept water management input to ongoing feasibility design.

Newstan Mine Extension Project - Surface water impact assessment

Role: Water Engineer
Client: Centennial Newstan
Location: Lake Macquarie, NSW, Australia
Date(s): Various stages from 2017 to present

Developed a site wide continuous rainfall water balance model to support various environmental assessment and management plans. Latest iteration of the model used to demonstrate regulatory compliance for management of water volumes between surface and underground storages in disused mining voids. Overall assessment involved complex surface water and groundwater interactions with water quality and discharge water quality.

Wambo Coal Mine – Independent Environmental Audit

Role: Technical Specialist
Client: Peabody
Location: Hunter Valley, NSW, Australia
Date(s): 2019

Reviewed approvals and management plans and assessed compliance based on site audit, managing complex overlapping and transitional approvals.

Baal Bone Colliery - Rehabilitation and closure plan

Role: Water Engineer
Client: Glencore
Location: Cullen Bullen, NSW, Australia
Date(s): Aug 2017 – present (ongoing construction support)

Developed closure site water balance model to estimate groundwater recovery in longwall goaves and drainage on reject emplacement areas and the final void. Assessment also included hydrologic model to inform the design of the Ben Bullen Creek rehabilitation and the final landform. Developed a water and salt balance model, with interaction with groundwater model, to estimate long term water and salinity levels within the final voids.

Hera Mine - Water management plan

Role: Water Engineer
Client: Hera Mine
Location: Nymagee, NSW, Australia
Date(s): March 2019 – present

Developed a site wide continuous rainfall water balance model to support various environmental assessment and management plans. Used to develop sizing for a storage dam augmentation for excess water from the central depositions gold tailings storage facility.

Rixs Creek Mine – Independent Environmental Audit

Role: Technical Specialist
Client: Bloomfield
Location: Hunter Valley, NSW, Australia
Date(s): 2019

Reviewed approvals and management plans and assessed compliance based on site audit, managing complex overlapping and transitional approvals.

Tomingley Gold Project - Water resources impact assessment

Role: Water Engineer
Client: Tomingley Gold Mine
Location: Dubbo, NSW, Australia
Date(s): Various projects 2017 - 2021

Adapted a probabilistic water balance model for environmental assessment, carried out hydraulic design of surface water diversion channels and assisted in preparation of water resources assessment report. Assisted in design of and assessed surface water and groundwater interaction of part of water impact assessment of in-pit tailings modification.

McPhee Iron Ore Project – Water resources assessment

Role: Water Engineer
Client: Atlas Iron
Location: Newman, WA, Australia
Date(s): Jan 2020 – Oct 2021

To support an EIS, prepared a water balance model to assess the potential impacts of dewatering of a proposed open cut iron mine. Concept design of a treatment and discharge regime to mitigate the potential environmental impacts.

Toms Gully Mine - Environmental impact statement

Role: Water Engineer
Client: Toms Gully Mine
Location: Mount Bundy, NT, Australia
Date(s): Jan 2019 – Oct 2019

To support an EIS, prepared a water balance and coupled acid and metalliferous drainage model to assess the potential impacts of dewatering of an existing open cut pit and underground mine.

Designed a treatment and discharge regime to mitigate the potential environmental impacts.

Woolgoolga to Ballina Pacific Highway upgrade – Independent Environmental Audit

Role: Technical Specialist
Client: Transport for NSW
Location: North Coast, NSW, Australia
Date(s): 2021

Reviewed approvals and management plans and assessed compliance based on site audit, managing complex overlapping and transitional approvals.

Hunter Valley Operations - Pipeline feasibility design

Role: Water Engineer
Client: Glencore
Location: NSW, Australia
Project value: $15 million
Date(s): March 2020 – Jun 2020

Lead the feasibility design of 22 km of DN560/630 pipelines, three electric pump stations and crossings of major creek and road crossings.

Coordinated a multidisciplinary team to provide a design to inform a Class 3 cost estimate.

Interacted with multiple approvals and business planning constraints.

Career history

2015 - present	GHD, Water Engineering
2011 - 2015	Port Waratah Coal Services, Undergraduate Environmental Engineer