

Curriculum Vitae



Bryan Chadwick

Technical Director

Areas of Experience

- Mine Approvals and Closure Management
- Groundwater Resource Exploration, Assessment, Monitoring and Management
- Contaminant and Environmental Hydrogeology
- Wellfield Feasibility/Design and Implementation

Career Summary

Bryan Chadwick is a hydrogeologist with over 24 years' experience in environmental aspects relating to mining projects and other industrial facilities. His area of expertise is in leading programs to assess impacts from proposed greenfield sites to closure of existing facilities.

Bryan's primary area of expertise is in hydrogeology and regularly provides expert advice and evidence in a range of mine site settings with regards impacts to groundwater systems.

Bryan's experience has given him thorough knowledge and understanding of regulatory/stakeholder consultation and the level of assessment and certainty necessary for a range of mine site settings. He has managed feasibility and closure studies in a variety of geological and geographical settings for a range infrastructure and mining projects and technically lead contaminated groundwater investigations and designed groundwater remediation systems.

Career Details

Examples of Relevant Mining Projects

- Bendigo Mine (Unity Mining) – 2013 - Directed the development of detailed closure plan for three sites, including: process site, box-cut, tailings facility, waste water disposal site (Woodvale) and water treatment site.
- Cost of Closure (DPI) – 2012 - Managed the detailed costing estimates for the closure of three large coal mine and power station sites.
- Bond Calculator (DPI) – 2010 - provided support in the development of DPI's bond calculator for the Victorian regulatory setting.
- Big Hill Project (SGM) – 2012 to present – Directed the referral and EES project for the approvals needed for Big Hill. Project included managing integration between technical studies, mine designers and regulators.
- Stockman Project (IGO) – 2013 to present – Managing all approvals for the project post EES. Includes development of the overall water management strategy for the mine, including underground, water supply (400ML/year) and impact assessment. Involved in the development of rehabilitation bond and post closure liability assessment.
- Stawell Gold Mine – 2011 to present - Developed a groundwater management strategy for their TSF, as well and closure costs and program for whole of site.
- Costerfield (Mandalay Resources) – 2006 to 2014 - Developed whole of site

Qualifications

MSc
Hydrogeology
BSc Geology

Bryan Chadwick. *Technical Director*

groundwater management plan, underground dewatering and disposal program and various regulator approvals and closure plan.

- Alcan Gove – NT – 2008 - Project Manager on the EIS for G3Expansion relating to water supply. Specifically working on the assessment, impacts assessment and design of expanding the wellfield from 9,000 to 14,000 ML/an. Included the assessment of logistical, financial and environmental impacts from a number of wellfield design scenarios. Works also included modelling and scoping additional and undertaking field investigations.
- Hancock Prospecting, Hope Downs – Pilbara, Western Australia – Project Manager and Field Manager for the groundwater investigation program at the Hope Downs prospect. Investigations were aimed at assessing the feasibility and environmental impacts from a wellfield and pipeline to conduct large scale dewatering. Works included supervising a number of exploration rigs to delineate the various aquifers, installation of test dewatering bores, conducting aquifers tests, analysis, reporting and development of site conceptual model for the numerical modellers.
- Perseverance, Stawell Gold Mines –Victoria – Preparation of a mine closure strategy and plan. Works included site wide assessment and preparation of detailed closure costs for all aspects of the mine site.
- Perseverance, Fosterville Gold Mines –Victoria – Mine dewatering program for their underground operation. Included monitoring review, bore design and installation and ongoing advice for mine management and regulatory compliance.
- Alcan Gove, NT – Ongoing wellfield review and management for the mine and refinery water supply. Works include regular wellfield reviews and advice for mine management and regulatory compliance.
- Iluka Resources, Victoria – Project Director for the groundwater resource project at their Douglas Mine. Works included exploration geophysics, preliminary exploration drilling, aquifer assessment, wellfield design, installation and commissioning, and final regulatory and other stakeholder liaison to final approval.
- Iluka Resources, Victoria – Current ongoing advice in relation to updating the mine plan's water management. Looking at better management practices and potential long terms impacts from site water use and closure issues.
- Yallourn Energy, Gippsland, Victoria – General advice relating to environmental impact assessment on the dewatering wellfield of East Field, including assessment on the optimisation of depressurisation and monitoring bore network.

Examples of Groundwater Impact Assessments

- VicRoads – Various projects assessing the dewatering and groundwater management strategies for road cuttings, bridge designs and tunnels.
 - CWW – Assessment of 4 sites for potential MAR scheme. Completed Entry Level, Level 1 and 2 risk assessments as part of the approval process.
 - Confidential Client – West Melbourne. Lead a large scale (16km²) assessment into groundwater quality impacts with determination on the practicability of clean-up and long term management of residual impacts.
 - Alphington Sewer, Victoria – 2015 - Lead assessment into groundwater management during temporary works in the re-alignment of trunk sewer. Provided design, and costing solutions for tender team.
 - Greenvale Dam, Victoria – Assessment of potential groundwater impacts up-grade construction works. Included conceptual and detailed design elements.
 - Stockyard Hill Wind farm – 2013 - Involved as groundwater expert for the EES looking at all the potential issues related to groundwater, including water supply, GDE impacts, construction and regulatory/stakeholder consultation
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- Power Station EES, Confidential Client – Development of assessment into potential groundwater impacts from construction and operation of a power station. Included scoping field studies, assessment, preparation of EES documentation and appearance at a panel hearing.

Water Resource Projects

- Barwon Water – Geelong, Victoria – Project Manager for a range hydrogeological services relating to groundwater resources in southwest Victoria. Contract included wellfield assessment and supervision of two new production bores, each of 110 L/sec duty to a target depth of 600m.
- GWMWater – Wimmera, Victoria – Project Director for a wide range of projects. Including the following:
 - Assessment, site selection and bore design for Emergency Water Supply Bores throughout the Wimmera region
 - Investigation, design and installation of a 6ML/day wellfield to supply the town of Horsham. Also includes government liaison seeking approval and stakeholder discussions.
 - Assessment and upgrade of two 1ML/day wellfields which supply stock and domestic users throughout the southern region of the Grampians
- Confidential Client - Assistance in expert witness and litigation of failed large groundwater supply bore. Involved with looking at reasons for failure and options for rehabilitation or decommissioning
- Numerous clients, Victoria – Mineral Spring resource assessments, both on a regional and local scale. Objective to find and assess sites for potential commercial bottle groundwater supplies and monitoring reviews for regulatory reporting/compliance.

Professional History

AECOM Services Pty Ltd, Technical Director, 2015 to present

URS Australia Pty Ltd, Principal Hydrogeologist, 1999 to 2015

AGC Woodward-Clyde Pty Limited, Hydrogeologist, 1993 to 1999

AGC Woodward-Clyde Pty Limited, Field Technician, 1991.

Education and Training

BSc. (Hons) Geology. University of London, England. 1990.

M.App.Sc. Groundwater Management and Hydrogeology. University of New South Wales, Sydney, Australia. 1992.

St Johns Senior First Aid – Level 2

Defensive driving and FWD course

24 hr AGC Woodward-Clyde Health and Safety Course.

Publications

Details available upon request