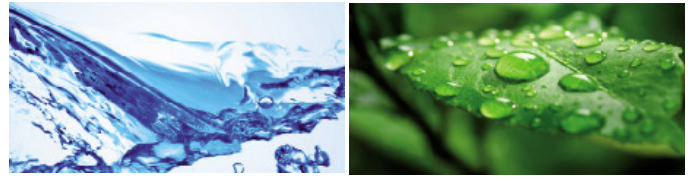


Curriculum vitae



Dr Philip Towler

Associate Director

Philip joined EMM in 2011. He has 15 years experience managing environmental programs, including the preparation of environmental and social impact assessments and environmental management plans around Australia and internationally. He has expertise in project management; environmental chemistry; environmental auditing and due diligence reviews; legal defence and business management.

Fields of competence

- Environmental and social impact assessments
- Environmental investigations
- Environmental reviews and audits (due diligence, corporate and IFC compliance)
- Environmental risk assessment
- Water and sediment quality impact assessment
- Stakeholder analysis and strategy
- Tailing geochemistry and ecotoxicology test work programs
- Corporate environmental reporting
- Mine closure planning

Key industry sectors

- Mining and gas
- Energy and utilities

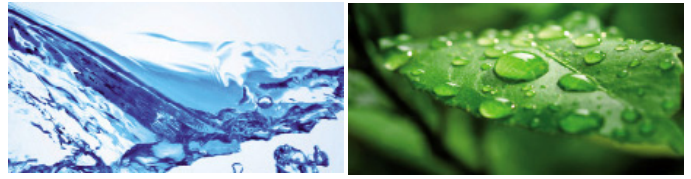
- Infrastructure

Education

PhD (environmental chemistry), University of Melbourne

Bachelor of Science (Hons) (chemistry major)
University of Melbourne

Curriculum vitae



Dr Philip Towler

Associate Director

Selected Key Projects

Environmental Approvals

- AGL Energy Limited, Newcastle Gas Storage Facility Project, NSW (Part 3A Environmental Assessment).
- Downer EDI/Australian Rail Track Corporation, NSW Passing Loops Project, NSW (reviews of environmental factors).
- Jemena Limited, Emu Plains Pressure Reduction Station and Pipeline Project, NSW (review of environmental factors).
- CBH Resources, Rasp Project, NSW (review of Part 3A Environmental Assessment prepared by another party and strategic advice).
- Felix Resources, Moolarben Coal Project Stage 2, NSW (Part 3A Environmental Assessment update).
- Centennial Coal, Charbon Colliery, NSW (review of environmental approvals).
- Donald Mineral Sands, Donald Mineral Sand Project, Victoria (Environment Effects Statement).
- Iluka Resources Limited, Murray Basin Stage 2 Project, Victoria (Environment Effects Statement, Work Plan and Works Approval).
- South Australian Government, Department for Environment and Heritage, Wellington Weir Project, South Australia (input on aquatic impacts to EPBC referral).
- Murray Basin Titanium, Prungle Mineral Sands Project, NSW (Environmental Impact Statement).
- Compass Resources NL, Browns Oxide Project, Northern Territory (assistance with preparation of Public Environment Report).
- Australian Bulk Minerals, Savage River Iron Ore Mine, Tasmania (Development Proposal and Environmental Management Plan).
- Rio Tinto, Peak Gold Mine, NSW (socio-economic assessment report; New Cobar Project Environmental Impact Statement).

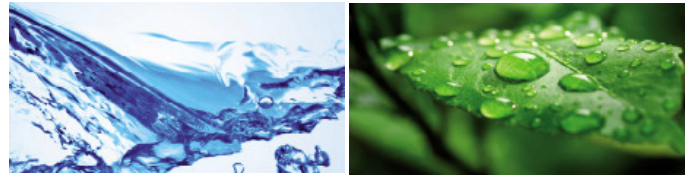
Environmental Management Plans and Reporting

- Ramu NiCo Management (MCC) Limited, PNG (Operations Environmental Management Plan).
- Sherritt, Moa Bay Nickel, Cuba (Marine Environmental Monitoring Plan).
- Iluka Resources Limited, Murray Basin Stage 2 Project, Victoria (Environmental Management Plan).
- Exxon-Mobil, PNG-Queensland Gas Project, PNG (advice regarding requirements for waste management facilities).
- Allegiance, Avebury Nickel Project, Tasmania (development plan and environmental management plan).
- Aurion, Henty Gold Project, Tasmania (Annual Environmental Report).

Environmental Assessment Programs

- Crew, Nalunaq Gold Project, Greenland (environmental tailing test work program).
 - Sherritt, Moa Bay Nickel, Cuba (environmental tailing test work program).
 - Harmony, Morobe Gold Project, PNG (water and sediment quality program).
-

Curriculum vitae



Dr Philip Towler

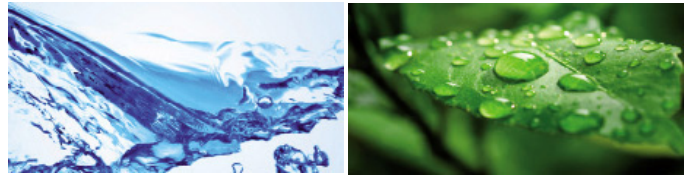
Associate Director

- Moneo, Moneo Nickel and Cobalt Project, New Caledonia (environmental tailing test work program).
- Falconbridge, Koniambo Nickel Project, New Caledonia (environmental tailing test work program).
- Afrika Maharishi Gold Project, Tanzania (mercury and arsenic in humans baseline).
- Lihir Gold Mine, PNG (marine water quality program).
- Highlands Pacific Limited, Ramu Project, PNG (water quality and sediment program; toxicity identification and evaluation program).
- BHP Billiton, Newcastle Coal Export Terminal, NSW (assistance with Definition Study).
- ChevronTexaco, PNG–Queensland Gas Pipeline Project (offshore environment assessment).
- Australian Bulk Minerals, Savage River Iron Ore Mine, Tasmania (baseline stream monitoring).
- Rio Tinto, Peak Gold Mine, NSW (Social and Environmental Report brochure).
- Durban Roodepoort Deep, Tolukuma Gold Mine, PNG (Sustainable Development Framework, Environmental Review, Annual Environmental Reports and Conceptual Mine Closure Report).
- Placer Dome Asia Pacific, Project Salty Daug, PNG (stakeholder analysis, overview of environmental issues and environmental program recommendations).
- Nautilus Minerals, Solwara Project, PNG (approvals strategy and advice on deepsea characterisation).
- Goldstar Resources NL, Walhalla Project, Victoria (environmental approvals section of scoping study for bulk sampling and mining).
- Globe Uranium, Malawi Uranium Exploration Project (review of baseline sampling report).
- National Iranian Copper Industries Company, Sar Cheshmeh Copper Complex, Iran (scoping study for environmental impact assessment of upgraded tailing and water management system).
- Lane Xang Minerals Limited, Sepon Gold and Copper Mine, Laos (review of aquatic monitoring programs).
- Queensland Energy Resources Limited, Stuart Shale Oil Project, Queensland (environmental monitoring program recommendations). Victorian Government, Victoria (dredging sediment investigations).
- BHP Billiton, PT Gag Nikel, Indonesia (water quality program, hydrographic surveying, environmental tailing test work program).
- Victorian Channels Authority, Victoria (sediment investigations, water quality during dredging).
- ABN Amro, Darwin City Waterfront Redevelopment, Northern Territory (environmental program).
- Rio Tinto Limited, Australia-wide (review of Rio Tinto water booklet).
- Allegiance, Avelbury Nickel Project, Tasmania (development plan and environmental management plan, water quality impact assessment).

Environmental Auditing, Reviews and Risk Assessments

- PNG Sustainable Energy Limited, Stanley Power Project, PNG (assessment for lenders' report including compliance with PNG legislation and the Equator Principles).
- Australian underground/open cut mine, NSW (confidential due diligence).
- Open cut mine, Brazil (confidential due diligence).
- Lane Xang Minerals Limited, Sepon Gold and Copper Mine, Laos (environmental risk assessment).
- BHP Billiton (confidential research to inform BHP Billiton discussions).
- Crew, Nalunaq Gold Project, Greenland (environmental risk assessment).
- Rio Tinto, Peak Gold Mine, NSW (external environmental audit).

Curriculum vitae



Dr Philip Towler

Associate Director

- BHP Billiton, Australia (review of WMC Closure Plans prior to merger).

Legal

- Freehills, Rocky Point Environmental Investigation, Queensland (review of evidence, review of independent experts' reports, provision of scientific overviews and advice during court sessions).
 - BHP Billiton, Australia (confidential review of environmental issues at selected sites).
 - Ramu NiCo Management (MCC) Limited, PNG (expert witness).
-