

# PHILIPPINES

## EIS AND ENVIRONMENTAL INVESTIGATIONS



### OUR EXPERIENCE

Hydrobiology has provided expert scientific assistance to three major resource operations in the Philippines: Marcopper, Atlas and the Tampakan project.

#### MARCOPPER TAILINGS SPILL

Phil Whittle from our WA office held the position as onsite environmental supervisor following the discovery of the major tailings spill:

- Hydrobiology's Ross Smith rapidly mobilised and undertook several extensive survey campaigns
- Water quality (groundwater and surface water), sediment quality, sedimentation, hydrologic, geomorphic, meteorologic and biological monitoring in marine, estuarine and riverine systems
- Heavily involved in development of mitigation and remediation options, negotiations with government agencies.

#### ATLAS FISH KILL INVESTIGATIONS

Hydrobiology staff undertook a major Fish Kill investigation for the Philippines Senate VP Pro Tempore. This led on to substantial involvement in Closure Studies for the Tanon Strait Commission.

Our focus was on aquatic ecology and our staff held the role of Ecosystem (Aquatic and Terrestrial) Impact Assessment Coordinator. The study area included all mine infrastructure, down the Sapangdaku River and in the estuary.

#### TAMPAKAN PROJECT

Responsible for extensive baseline field survey and impact assessment for project components including:

- Port development and marine environment
- Freshwater creek and riverine ecology, water quality and sediment quality characterisation
- Fluvial geomorphology
- Lake Buluan ecology and limnological investigations
- Capacity building
- Compiled the water quality, sediment quality and aquatic ecology chapters of the project EIA

Hydrobiology has worked extensively with the Philippine legislative requirements, approvals system and cultural sensitivities across several geographically diverse regions. This has included liaising closely with mining, government and community stakeholders to achieve best-practice outcomes.

### ACTIVITIES & OUTCOMES

- Port development – baseline oceanographic and environmental studies
- Best-practice baseline water quality, sediment quality and aquatic ecology datasets
- Environmental Impact Assessment and mitigation measures for major mine developments
- River hydrology and sediment transport studies (geomorphic)
- Catchment rehabilitation and management studies and planning
- Risk assessment for prioritisation of works to recover degraded river/marine systems