

## Ecology



The EMM ecology team provides expert advice to best meet client needs. We recognise the importance of a common-sense approach to ecological assessment and management. We provide socially and environmentally responsible advice, with a focus on practical project outcomes.



Biodiversity offset surveys near Singleton, Hunter Valley NSW.

EMM's team of ecological experts assess, manage and monitor terrestrial and aquatic flora and fauna. We lead ecological assessments for a diverse range of projects and market sectors, from small urban developments to large-scale major infrastructure and resource projects. The team has a thorough understanding of NSW and Commonwealth environmental legislation, biodiversity offsets and has multiple accredited Biobanking assessors.

We establish open and constructive relationships with our clients, built on respect, professionalism and responsiveness. We work closely with our clients to achieve practical and environmentally responsible project outcomes.

### EMM's ECOLOGY SERVICES

- Ecological advice for all stages of development, from feasibility to completion
- BioBanking and Commonwealth offset assessments
- Ecological monitoring
- Ecological impact assessment
- Independent peer review
- Pre-clearance ecological surveys
- Biodiversity management plans
- Groundwater dependent ecosystem assessment and monitoring
- Bushfire hazard analysis and mapping
- Fauna-sensitive road design



EMM's ecology team provides high-quality, practical advice and services for complex biodiversity issues. Our depth of knowledge and experience will minimise project risk throughout the approvals process.

## OUR PEOPLE

The ecology team of professionals is led by:

### **Katie Diver BSc, MSc – Ecology Services Manager**

Katie has provided ecological assessment, monitoring and management services to the mining, extractive, infrastructure and property industries and government for over a decade. Katie is highly skilled in biodiversity impact assessment and offsetting, regulator consultation and providing expert advice.

Katie is an accredited BioBanking assessor, and has led and authored biodiversity assessments for major projects across NSW. She also has a detailed understanding of the EPBC Act Environmental Offsets Policy and calculator developed through her major project experience. Katie has working relationships with regulators at the Office of Environment and Heritage, Department of Planning and Environment, and Commonwealth Department of Environment and Energy.

Katie has provided expert ecological advice on several projects. She has acted as an expert ecological witness in the NSW Land and Environment Court, and has completed independent peer reviews of biodiversity assessments and offset packages for small and major projects.

### **Eugene Dodd BSc, MRes – Senior Ecologist**

Eugene Dodd has a strong technical background in terrestrial and aquatic impact assessment, vegetation mapping, biodiversity monitoring and habitat survey, and is an accredited BioBanking assessor.

Eugene is involved with a wide variety of industry sectors including mining, oil and gas, wind energy, hydropower, and linear infrastructure such as road and utility projects. This experience extends throughout NSW, South Australia, Northern Territory, Queensland, Victoria and remote regions of Papua New Guinea.



#### SYDNEY

Ground floor, Suite 01, 20 Chandos Street  
St Leonards, New South Wales, 2065  
T 02 9493 9500 F 02 9493 9599

#### NEWCASTLE

Level 1, Suite 6, 146 Hunter Street  
Newcastle, New South Wales, 2300  
T 02 4907 4800 F 02 4907 4899

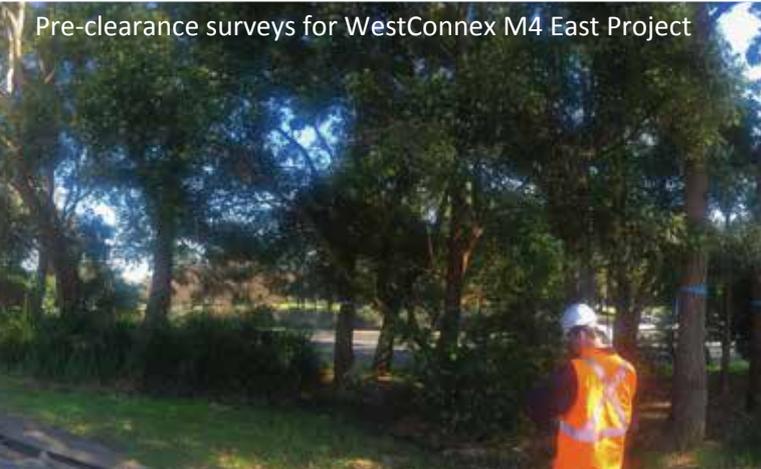
#### BRISBANE

Level 4, Suite 01, 87 Wickham Terrace  
Spring Hill, Queensland, 4000  
T 07 3839 1800 F 07 3839 1866

#### ADELAIDE

Level 1, 70 Pirie Street  
Adelaide, South Australia, 5000  
T 08 8232 2253

Pre-clearance surveys for WestConnex M4 East Project



## PROJECT EXAMPLES

### HVO State-approved mining project

Client: Rio Tinto Coal Australia (RTCA)

EMM assisted RTCA with securing Commonwealth approval the HVO State-approved mining project. EMM authored the Commonwealth referral and an assessment by preliminary documentation for the Commonwealth Department of Environment and Energy. EMM has also provided various post-approval services to the project including development of the Commonwealth biodiversity offset strategy, vegetation clearance plan, operational biodiversity management procedures and pre-clearance surveys.

### Westconnex M4 East Project

Client: CPB Samsung John Holland Joint Venture

EMM has performed the role of project ecologist on the M4 East Project since construction commenced in early 2016. During this time, EMM ecologists have conducted pre-clearance surveys to identify vegetation and fauna habitats that would require management during construction, and provided

fauna rescue services during clearing operations. As part of the project, EMM reviewed the Construction Flora and Fauna Management Plan and has completed several consistency reviews for minor modifications to the project.

### NorthConnex

Client: Lend Lease

EMM designed a program to monitor potential groundwater dependent ecosystems on the NorthConnex project, in response to project approval conditions. EMM completed a desktop analysis to identify areas of groundwater activity (ie springs), streams and vegetation that may be dependent on the presence of groundwater, that could be impacted by tunnelling for the project. EMM established a number of monitoring sites during the baseline monitoring event, that have been monitored quarterly since December 2014. Riparian vegetation condition, spring and stream flow is assessed during each monitoring event to determine if any impacts have occurred.

### Western Sydney Airport EIS Biodiversity Assessment – Independent Review

Client: Western Sydney Regional Organisation of Councils (WSROC)

EMM conducted an independent review of the biodiversity assessment for the Western Sydney Airport EIS. The focus of the review was determining the adequacy of the assessment against guidelines developed by the Commonwealth government specifically for the EIS, the validity of underlying assumptions, data, proposed mitigation and biodiversity offset strategy, and the level of uncertainty regarding biodiversity impacts and risks. The review assisted WSROC in the preparation of their EIS submission.