

Appendix V

Curriculum Vitae – PD Authors and Reviewers



Simon Hodgkison PHD, MSc, BSc

Senior Fauna Ecologist



Location

Brisbane, QLD, Australia

Experience

20 years

Qualifications/Accreditations

- PhD in Ecology, Griffith University, 2005
- Masters of Science in Tropical Ecology, James Cook University, 1998
- Graduate Diploma of Science in Tropical Ecology, James Cook University, 1996
- Bachelor of Science, University of Adelaide, 1995.

Key technical skills

- Ecological assessment and field surveys
- Impact and risk assessment
- Threatened species monitoring

Relevant experience summary

Simon is an ecologist with over 20 years' experience in ecological research and consulting. Simon has extensive field experience in North Queensland having undertaken research at James Cook University into the ecology of rainforest frogs of the Wet Tropics. Simon has skills in the survey of birds, reptiles, mammals and frogs with experience undertaking targeted surveys for threatened species throughout Queensland. Simon has extensive local project experience having led ecological assessments for numerous impact assessments in the Townsville region and broader North Queensland. This has provided strong understanding of the ecology of local species including the koala, black-throated finch (southern) and bare-rumped sheathtail bat and their impact assessment under State and Commonwealth legislation. Simon will be responsible for leading the ecological and bird and bat utilisation field surveys and preparing the Flora and Fauna Ecological Assessment Report, MNES Ecological Report, Preliminary Fauna Management Plan and Preliminary Bird and Bat Management Plan.

Project experience

Stuart Rail Project

Lead Ecologist | Aurizon | Townsville

Lead ecologist on baseline flora and fauna surveys for a proposed material change of use for the decommissioning and sale of Aurizon land at Stewart. The project involved targeted surveys for the black-throated finch, squatter pigeon and koalas and preparation of an Offsets Area Management Plan for the management of impacts on the black-throated finch (southern) and bare-rumped sheathtail bat.

Haughton Pipeline Stage 2

Lead Fauna Ecologist | Townsville City Council | Townsville

Lead fauna ecologist on baseline surveys for stage 2 of the proposed Haughton water pipeline Project. The project involved targeted surveys for the black-throated finch, squatter pigeon and koala and preparation of MNES report for the Department of Agriculture, Water and the Environment and High Risk SMP to manage impacts on breeding places under the NC Act.

Copper String Project

Lead Fauna Ecologist | Copper String | Mt Isa to Townsville

Lead fauna ecologist on seasonal baseline surveys and reporting for a proposed 850 km transmission line between Mt Isa and Townsville. This involved targeted surveys for conservation significant species including the Julia Creek dunnart, night parrot, ghost bat and red goshawk.

Oak Valley Black-throated Finch Management Plan

Senior Fauna Ecologist | Townsville

Senior fauna ecologist on the preparation of a Black-throated finch Management Plan for the Oak Valley Development, Townsville.

Townsville Eastern Access Rail Corridor

Senior Ecologist | Aurizon | Townsville

Senior ecologist undertaking targeted surveys for the black-throated finch (southern) and general baseline fauna surveys to inform the route selection and constraints analysis for the Townsville Eastern Access Rail Corridor Project.

Collinsville Coal Mine Biodiversity Monitoring

Project Manager / Lead Ecologist | Glencore Coal | Collinsville

Project Manager and lead ecologist undertaking compliance monitoring of terrestrial flora and fauna values of the Collinsville Coal Mine in 2015 and 2019. This involved undertaking field surveys and preparing reporting in 2015 and project management and technical review of deliverables in 2019.

Black-throated finch targeted surveys and baseline assessments

Senior Ecologist | Alligator Creek | Townsville

Senior ecologist undertaking targeted surveys for the black-throated finch (southern) as part of baseline flora and fauna assessments for a proposed housing development at Alligator Creek in southern Townsville.

Burdekin Falls Hydro Detailed Business Case

Lead Fauna Ecologist | Stanwell | North Queensland

Simon was the lead fauna ecologist on the Burdekin Hydro Scheme for the Detailed Business Case. He was involved in targeted surveys for key species along the transmission line and the proposed hydro-station.

Wangetti Trail Ecological Assessment

Lead Fauna Ecologist | World Trails | Cairns

Lead fauna ecologist on baseline ecological assessments for a proposed new shared use hiking and mountain-biking trail between Cairns and Port Douglas in Far North Queensland. Simon led field surveys and undertook technical reviews on reporting

Carmichael Coal Mine EIS

Lead Fauna Ecologist | Adani Mining | North Queensland

Lead fauna ecologist on the EIS baseline ecology surveys for the proposed Carmichael coal mine and rail project in the Galilee Basin. This involved targeted surveys for conservation significant species and predictive habitat modelling to inform the constraints analysis, impact assessment and offsetting. The project included the preparation of a management plan for the black-throated finch including measures to mitigate impact through the construction and operation phase.

Cooroy to Curra Section D Koala Offsets

Lead Fauna Ecologist | DTMR | 2019 – 2022 | Queensland

Lead fauna ecologist on the existing Bruce Highway between Woondum and Curra. Senior fauna ecologist on the development of an offset strategy and management plan for the koala and black-breasted button quail, baseline biocondition assessments and the provision of advice on the location of glider poles to facilitate movement of the greater glider.

Alpha Rail EIS

Lead Fauna Ecologist | Hancock Prospecting | North Queensland

Lead fauna ecologist undertaking baseline ecology surveys to support the EIS for the proposed Alpha Rail project between the Alpha mine and Abbot Point. This involved baseline surveys, targeted surveys for conservation significant species including the black-throated finch and predictive habitat mapping to streamline survey effort and inform impact assessment and offsetting.

Urannah Dam EIS

Senior Fauna Ecologist | Urannah Dam Water Scheme | Urannah to Collinsville

Senior fauna ecologist undertaking ecological surveys for the EIS baseline for a proposed new dam at Urannah, pipelines between Moranbah and Proserpine and a proposed new irrigation area near Collinsville. Simon led field surveys and undertook technical reviews on baseline reporting.

Julia Creek Dunnart Monitoring

Lead Ecologist | Dalgonally Cropping Project | Australian Agricultural Corporation | Dalgonally

Lead ecologist undertaking targeted surveys for the Julia Creek dunnart at a proposed intensive cropping project at Dalgonally in western Queensland. This involved successfully trapping Julia Creek dunnart and developing an impact assessment and management plan to support the EPBC referral.

Oaky Creek Coal Mine Biodiversity Monitoring

Project Manager / Lead Ecologist | Glencore Coal | Oaky Creek

Project Manager and lead ecologist undertaking compliance monitoring of terrestrial flora and fauna values of the Oaky Creek Coal Mine in 2014. This involved designing and undertaking field surveys and preparing reporting.

Aurukun Bauxite Mine

Senior Fauna Ecologist | Chalco | Aurukun Cape York Peninsula

Senior fauna ecologist undertaking baseline fauna surveys to support the EIS for the proposed Aurukun bauxite mine. This involved targeted surveys for conservation significant species and preparation of supporting Ecological Assessment Reports.

Targeted Little Pied Bat Surveys and High Risk SMP

Lead Fauna Ecologist | Sunwater | Moranbah

Lead fauna ecologist undertaking targeted surveys of roosting habitat of the little pied bat and preparation of a High Risk Species Management Program for the development of the Moranbah pumping station.

Lower Fitzroy River Infrastructure Project

Lead Fauna Ecologist | Sunwater and Gladstone Area Water Board | Rockhampton

Lead fauna ecologist undertaking seasonal baseline fauna surveys for a proposed weir infrastructure project in the Fitzroy River catchment west of Rockhampton.

Abbot Point MCF EIS

Lead Fauna Ecologist | North Queensland Bulk Ports | Bowen

Lead Fauna Ecologist undertaking baseline flora and fauna surveys to support the EIS for the expansion of the Abbot Point Multi-cargo facility. This involved targeted surveys for threatened species and development of predictive habitat mapping for conservation significant species.

Davenport Downs Bilby Monitoring Project

Lead Ecologist | Carpentaria Gas Project | APA Group | Western Queensland

Lead ecologist in an ongoing 10-year monitoring program of a population of the greater bilby (*Macrotis lagotis*) adjacent to a new gas compressor station at Davenport Downs on the Carpentaria Gas Pipeline, western Queensland

Narrows Crossing Project

Lead Ecologist | QGC | Gladstone

Lead ecologist in the design and implementation of monitoring of a population of the water mouse (*Xeromys myoides*) potentially impacted by adjacent gas pipeline at the Narrows Crossing corridor for the Queensland Curtis LNG Project, Gladstone, Queensland.

Teresa Coal Mine EIS

Lead Ecologist | Linc Energy | Emerald Queensland

Lead ecologist on baseline fauna surveys for an EIS for a proposed new underground coal mine north of Emerald, central Queensland.

Northern Missing Link Coal Rail Project

Senior Ecologist | CoalConnect | North Queensland

Senior ecologist undertaking fauna and flora surveys for the EIS for an extension to the Goonyella Rail Line in North Queensland. This included targeted surveys

and mapping of habitat for species including the squatter pigeon, ornamental snake and black-throated finch.

Port of Weipa Environmental Constraints Analysis

Project Manager / Ecologist | North Queensland Bulk Ports | Cape York Peninsula

Project Manager and ecologist for an analysis of environmental constraints to inform the master planning for the upgrade of the Port of Weipa. This involved coordinating assessment of contaminated lands, ecology, cultural heritage and social constraints and leading ecology field surveys.

Gulf Province Gas Project

Senior Fauna Ecologist | InterOil | Purari River Papua New Guinea

Senior fauna ecologist on the EIS for a proposed gas pipeline in the Purari River Catchment, Papua New Guinea. This involved three seasonal baseline surveys and preparation of Ecological Assessment Reports to support the EIS.

Career history

2006 - present	GHD, Senior Ecologist
2000 – 2006	Griffith University, PhD candidate and tutor at School of Environmental Science
1999 - 2000	Griffith University, Research Assistant at the School of Environmental Science
1996 - 1998	James Cook University, Masters of Science candidate and Research Assistant at the CRC for Tropical Rainforest Ecology and Management

Publications

- Hodgkison and Hero, 2000. Daily behaviour and microhabitat use by the waterfall frog *Litoria nannotis* in Tully Gorge. *Journal of Herpetology* 35, 116-120.
- Hodgkison and Hero 2001. Seasonal behaviour of *Litoria nannotis*, *Litoria rheocola* and *Nyctimystes dayi* in Tully Gorge, North Queensland Australia. In Natrass A. (ed) *Frogs in the community*, Proceedings of the Brisbane Symposium, Brisbane Frog Society.
- Hodgkison and Hero, 2003. Seasonal, sexual and ontogenetic variations in the diet of the 'declining' frogs *Litoria nannotis*, *Litoria rheocola* and *Nyctimystes dayi*. *Wildlife Research* 30, 345–354.
- Warnken, Hodgkison, Wild and Jones, 2004. The localised environmental degradation of protected areas adjacent to bird feeding stations: a case study of the Australian brush-turkey *Alectura lathami*. *Journal of Environmental Management* 70: 109-113.
- Hodgkison, Hero and Warnken 2007. The conservation value of suburban golf courses in a rapidly urbanising region of Australia. *Landscape and Urban Planning* 79:323-337
- Cristescu, Ellis, de Villiers, Lee, Woosnam-Merchez, Frere, Banks, Dique, Hodgkison, Carrick, Carter, Smith and Carrick 2011. North Stradbroke Island: An ark for Queensland's koala population? *Proceedings of the Royal Society of Queensland*. 117, 309-334.



Megan Ward PHD (BIOLOGICAL SCIENCES)

Senior Flora Ecologist



Location

Brisbane, QLD, Australia

Experience

20 years

Qualifications/Accreditations

- PhD (Biological Sciences), University of Queensland, 2012
- First Class Honours (Ecology and Conservation Biology) University of Natal, 2003
- Bachelor of Science (Botany) University of Natal, 2002

Key technical skills

- Threatened species and vegetation survey
- Ecological risk and impact assessments
- Environmental approvals and permits

Memberships

- Scientific reviewer for Heredity, Oecologia, Acta Oecologia, Austral Ecology, Annals of Botany, Journal of Plant Biology

Relevant experience summary

Megan is a botanical ecologist with twenty years of experience in the research and consultancy sectors. Megan has applied her ecological skills in a diversity of projects, and her areas of experience include vegetation characterisation and mapping; targeted flora species searches and habitat assessment; ecological constraints analysis; and ecological legislation and approvals. With a wealth of field survey experience, Megan has vegetation community and flora species identification skills across an array of vegetation communities including terrestrial, freshwater wetlands and marine plants. Megan is a 'suitably qualified person' under the State's Flora Survey Guidelines.

Project experience – Terrestrial Ecology

Confidential Project, Acciona

Megan was responsible for preparing the flora components of the preliminary documentation under the EPBC Act for a windfarm proposed for construction.

Wangetti Trail Project, Department of Tourism and Innovation

Megan was the Technical Lead for the terrestrial studies for the Wangetti trail project in North Queensland required under the EPBC Act. Responsibilities included field survey planning, team coordination, and technical reviews.

Inland Rail Calvert to Kagaru, ARTC

Megan was the Technical Lead for the terrestrial and aquatic flora and fauna studies for the Calvert to Kagaru section of the Inland Rail project which traverses Ipswich City Council and Scenic Rim Regional Council. Responsibilities included field survey planning and design, team coordination, leading field surveys, and report preparation.

Protected Plant Assessments, Brisbane City Council

Megan was the Project Manager and Technical Lead for numerous protected plant assessments for various Council infrastructure projects located within high risk flora survey trigger areas, including bridge replacements, road upgrades, and bikeway construction. Tasks completed by Megan included ecological field surveys, preparation of associated reporting and permit applications, and development of impact management plans.

Wivenhoe Advanced Offsets Assessment, Seqwater

Megan was the Project Manager and Technical Lead for a study that identified and prioritised opportunities to register Seqwater's estate at Wivenhoe Dam as an advanced environmental offset. This included a desktop analysis; ecological surveys of flora and fauna habitat values and condition; and preparation of associated technical reporting. Management plans were also developed that addressed weed management, revegetation and bushfire management. Following successful completion of this project, we were awarded a subsequent package to assess four other Seqwater estates

Mount Crosby Bridge Replacement, Seqwater

Megan undertook a protected plant assessment and prepared technical reporting for the proposed replacement of the Mount Crosby Bridge.

Baseline Ecological Assessments and Rehabilitation Monitoring, Arrow Energy

Megan was the Project Manager and Senior Ecologist responsible for delivering two packages of work for Arrow Energy, including pre-clear ecological assessments and rehabilitation monitoring.

Bushfire Management Plan, Bundaberg Regional Council

Megan was the Project Manager and Senior Ecologist responsible for delivering a Bushfire Management Plan for Bundaberg Regional Council. Responsibilities included management of the project team, delivery of workshops, and technical review of reporting.

Mooloolah River Interchange, TMR

Megan undertook field surveys and technical reporting for the Mooloolah River Interchange project on behalf of the Queensland Department of Transport and Main Roads. This included a protected plant assessment within a high risk trigger area and a marine plant assessment.

Various Ecological Assessments, Telstra

Megan undertook numerous ecological assessments to document ecological values within potential disturbance areas for NBN infrastructure installation at various locations across the Brisbane, Gold Coast and Moreton Bay local government areas. This included protected plant assessments within high risk trigger flora survey trigger areas, verification of Regional Ecosystem mapping and assessment of marine plant communities, together with preparation of associated technical reporting, environmental approval documentation and management plans.

Cloncurry Rail Yard Ecological Assessment, Aurizon

Megan was the Flora Lead for ecological field surveys and technical reporting for an assessment of the Cloncurry Rail Yard, including an Ecological Assessment Report, Invasive Plant Assessment Report and Property Map of Assessable Vegetation application.

River Heads Carpark Upgrade, Fraser Coast Regional Council

Megan undertook a flora survey in accordance with the *Flora Survey Guidelines* for the proposed carpark expansion at River Heads. Technical reporting included a Flora Survey Report; Impact Management Plan; and Fauna Habitat Assessment Report.

North West Transport Corridor, TMR

Megan was the Technical Lead for an ecological assessment of the North West Transport Corridor in the northern suburbs of Brisbane. Responsibilities included a field survey to assess vegetation communities, flora species, waterways, and cultural heritage values. Technical reporting included identification of environmental approval requirements.

Gold Coast Rail Duplication, Golding Contractors

Megan undertook ecological assessments to support environmental approvals for the Coomera to Helensvale Rail Duplication project. This included general ecological assessments together with a protected plant assessment within a high risk flora survey trigger area, a koala assessment, a marine plant assessment, and waterway assessments. Reporting included documents to support environmental approval applications and development of a rehabilitation monitoring plan.

Published

- Ward, M. and Johnson, S.D. and Zalucki, M.P. (2013) Generalised pollination systems for three invasive milkweeds in Australia. *Plant Biology* 15: 566-572.
 - Ward, M., Johnson, S.D. and Zalucki, M.P. (2013) When bigger is not better: intraspecific competition for pollination increases with population size for three invasive milkweeds. *Oecologia* 171: 883-891.
 - Ward, M., Johnson, S.D. and Zalucki, M.P. (2012) Modes of reproduction in three invasive milkweeds are consistent with Baker's Rule. *Biological Invasions* 14:1237–1250.
 - Ward, M., Dick, C.W., Gribel, R., and Lowe, A.J. (2005) To self or not to self... A review of outcrossing and pollen-mediated gene flow in neotropical trees. *Heredity* 95: 246-254.
 - Ward, M. and Johnson, S.D. (2005) Pollen limitation and demographic structure in small fragmented populations of *Brunsvigia radulosa* (Amaryllidaceae). *Oikos* 108: 253-262.
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Recognised

- Smart Women Smart State Award (Postgraduate Science), 2007.
 - Finalist for Natural Resources, GHD Chairman's Award for Technical Excellence, 2019.
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Dr Jeremy Simmonds BSc, MENVM, PhD

Technical Director-Terrestrial Ecology



Location

Brisbane, QLD, Australia

Experience

13 years

Qualifications/Accreditations

- Doctor of Philosophy (Landscape Ecology and Conservation Science)
The University of Queensland, 2017
- Master of Environmental Management (Natural Resource Management)
The University of Queensland, 2008
- Bachelor of Science (Zoology), The University of Queensland, 2005

Key technical skills

- Biodiversity offsetting and application of the mitigation hierarchy
- Ecological, conservation and sustainability science – theory and practice
- Environmental law, policy, and regulation – Queensland, Australia and international
- Threatened species management
- Spatial mapping and analysis using ArcGIS
- Statistical analysis using coding software

Memberships

- IUCN Commission on Ecosystem Management: founding member of global 'Ecological Compensation and Impact Mitigation Thematic Group'
- BirdLife Australia
- Ecological Society of Australia

Relevant experience summary

Jeremy is an environmental scientist with 13 years' experience in consulting and academia. His diverse career to date has equipped him with a holistic and detailed understanding of the policy and practice of sustainable planning and development. Jeremy has led or input into numerous EIS and EPBC Act (referral, preliminary documentation) assessments, and is currently acting as biodiversity lead on several such assessments for major infrastructure projects in Australia. He has a comprehensive understanding of the regulatory frameworks that overarch infrastructure development, not least of all relating to biodiversity offsetting – a field in which he is a globally-recognised thought leader. With a PhD in landscape ecology, and vast research and consulting experience in threatened species management and policy, Jeremy is well positioned to advise on managing the impacts of development on protected matters in Australia and beyond.

Jeremy has published 15 peer-reviewed papers in international scientific journals on the topics of biodiversity offsetting, net outcomes for nature and environmental policy (e.g. EPBC Act; Convention on Biological Diversity). In 2020, Jeremy co-founded a global community of practice centred on biodiversity offsetting, under the International Union for Conservation of Nature (IUCN). His scientific outputs have informed biodiversity offsets policy in countries including Malaysia and Mozambique, while he has played a key advisory role (2020-2022) to the Northern Territory Government as they develop their first biodiversity offsets policy.

Through his consulting experience, and research interactions with a diversity of stakeholders, Jeremy is well attuned to the needs and expectations of clients interacting with biodiversity offsetting policy and other safeguards for sustainable investment and development.

Project experience – environmental and planning policy including offsetting

Coral Management Plan

Offsets technical review |

Qatargas | Qatar | Feb 2022 – present

Provision of technical guidance and review of management of unavoidable impacts to nearshore corals, including through biodiversity offsetting. Jeremy helped frame this plan in best practice protocols – namely, the International Finance Corporation's Performance Standard 6 – and advised on how it

could be aligned with the United Nations Convention on Biological Diversity.

Urannah Water Scheme EIS

**Biodiversity Lead |
Bowen River Utilities | QLD, Australia |
Jan 2022 – present**

Lead of assessment of impacts to matters of national environmental significance under EPBC Act and matters of state environmental significance under Queensland legislation. Upon identification of significant residual impacts, Jeremy is leading the development of an offsets strategy for this large project (proposed dam and water distribution pipeline, pumped hydroelectric scheme, irrigated agriculture precinct).

Haughton Pipeline Stage 2A EPBC Act Preliminary Documentation

**Biodiversity assessment |
Townsville City Council | QLD, Australia |
Mar 2022 – present**

Lead of assessment of impacts to matters of national environmental significance under EPBC Act and matters of state environmental significance under Queensland legislation.

Southeast Queensland Koala Regulations and Offsetting Review

**Technical Lead |
Queensland Government | QLD, Australia |
Jan 2022 - May 2022**

Review of the effectiveness of the Queensland Government's koala conservation regulations, including spatial and temporal trends in the application of biodiversity offsets.

A new approach to biodiversity offsetting – target-based ecological compensation

**Lead Researcher |
Science for Nature and People Partnership | Global working group |
Jul 2017 – Dec 2021**

Jeremy led a team of 25 scientists from some of the world's biggest research centres, NGOs (e.g. IUCN, The Nature Conservancy), private sector consultancies and project financiers (e.g. International Finance Corporation) to develop a smarter and simpler way to deliver biodiversity offsets. This work is now informing new environmental legislation and policy in several nations (e.g. Australia, Mozambique, Malaysia).

Conservation, Mitigation and Biodiversity Offsets (COMBO) Program

Researcher – Biodiversity Offsetting |

Multiple African Governments | Guinea, Madagascar, Mozambique, Uganda |

Jul 2017 - Dec 2020

Jeremy provided scientific input to the COMBO program – a multistakeholder research initiative funded primarily by the French Government – as it worked alongside governments of four African nations to develop biodiversity safeguards. A novel approach to offsetting, that Jeremy co-designed, was adopted by the government of Mozambique for their new environmental impact assessment policy.

Northern Territory Biodiversity Offsets Policy

**Scientific Advisor – Biodiversity Offsetting |
Northern Territory Government | NT, Australia |
Jan 2020 – Feb 2022**

Jeremy provided detailed scientific guidance to the Northern Territory Government as they developed a biodiversity offsets policy under new legislation. A novel approach to offsetting, that Jeremy co-designed, was adopted by the government for their new policy.

National Environmental Science Program – Development in Northern Australia

**Lead Researcher |
Commonwealth Government | NT, Australia |
Jul 2019 – Dec 2021**

Jeremy led a multi-stakeholder team that compiled a detailed assessment of the legislative framework that regulates development in northern Australia. The project focused on Indigenous engagement in development, the assessment of cumulative impacts, and the application of biodiversity offsetting.

Selected research outputs – national and international environmental policy

Simmonds, J.S., von Hase, A., Quétier, F., Brownlie, S., Maron, M., Possingham, H., Souquet, M., zu Ermgassen, S.O.S.E., Costa, H. & Sonter, L. (2021). Aligning ecological compensation policies with the Post-2020 Global Biodiversity Framework to achieve real net gain in biodiversity. *Conservation Science and Practice*.

Watson, J.E.M., **Simmonds, J.S.**, Narain, D., Ward, M., Maron, M. & Maxwell, S.L. (2021). Talk is cheap: Nations must act now to achieve long-term ambitions for biodiversity. *One Earth*, 4, 897-900.

Dyer, A.B. & **Simmonds, J.S.** (2021) Incomplete surveys for environmental impact assessments jeopardise threatened species recovery. *Pacific Conservation Biology*.

Mello, K.d., Fendrich, A.N., Sparovek, G., **Simmonds, J.S.**, Maron, M., Tavares, P.A., Brites, A.D., Rodrigues, R.R., Joly, C.A. & Metzger, J.P. (2021). Achieving private conservation targets in Brazil through restoration and compensation schemes

without impairing productive lands. *Environmental Science & Policy*, 120, 1-10.

Simmonds, J.S., Sonter, L.J., Watson, J.E.M., Bennun, L., Costa, H.M., Dutson, G., Edwards, S., Grantham, H., Griffiths, V.F., Jones, J.P.G., Kiesecker, J., Possingham, H., Puydarrieux, P., Quétier, F., Rainer, H., Rainey, H., Roe, D., Savy, C.E., Souquet, M., ten Kate, K., Victurine, R., von Hase, A. & Maron, M. (2020), Moving from biodiversity offsets to a target-based approach for ecological compensation. *Conservation Letters*, e12695.

Simmonds, J.S., Reside, A.E., Stone, Z., Walsh, J.C., Ward, M.S. & Maron, M. (2020), Vulnerable species and ecosystems are falling through the cracks of environmental impact assessments. *Conservation Letters*, e12694.

Williams, B.A., Watson, J.E.M., Butchart, S.H.M., Ward, M., Butt, N., Bolam, F.C., Stuart, S.N., Brooks, T.M., Mair, L., McGowan, P.J.K., Hilton-Taylor, C., Mallon, D., Harrison, I. & **Simmonds, J.S.** (2020), A robust goal is needed for species in the Post-2020 Global Biodiversity Framework. *Conservation Letters*, e12778.

Maron, M., **Simmonds, J.S.**, Watson, J.E.M., Sonter, L.J., Bennun, L., Griffiths, V.F., Quétier, F., von Hase, A., Edwards, S., Rainey, H., Bull, J.W., Savy, C.E., Victurine, R., Kiesecker, J., Puydarrieux, P., Stevens, T., Cozannet, N. & Jones, J.P.G. (2020), Global no net loss of natural ecosystems. *Nature Ecology & Evolution*, 4, 46-49.

Sonter, L.J., **Simmonds, J.S.**, Watson, J.E.M., Jones, J.P.G., Kiesecker, J., Costa, H., Bennun, L., Edwards, S., Grantham, H.S., Griffiths, V.F., Jones, K., Sochi, K., Puydarrieux, P., Quétier, F., Rainer, H., Rainey, H., Roe, D., Musnanda, S., Soares-Filho, B.S., Starkey, M., ten Kate, K., Victurine, R., von Hase, A., Wells, J.A. & Maron, M. (2020), Local conditions and policy design affect whether ecological compensation can achieve No Net Loss of biodiversity and ecosystem services. *Nature Communications*, 11, 2072.

zu Ermgassen, S.O.S.E, Maron, M., Corlet Walker, C.M., Gordon, A., **Simmonds, J.S.**, Strange, N., Robertson, M. & Bull, J.W. (2020). The hidden biodiversity risks of increasing flexibility in biodiversity offset trades. *Biological Conservation*, 252, 108861.

Simmonds, J.S. & Watson, J.E.M. (2019), All threatened species habitat is important. *Animal Conservation*, 22, 324-325, 33, 1438-1447.

Ward, M.S., **Simmonds, J.S.**, Reside, A.E., Watson, J.E.M., Rhodes, J.R., Possingham, H.P., Trezise, J., Fletcher, R., File, L. & Taylor, M. (2019), Lots of loss with little scrutiny: the attrition of habitat critical for threatened species in Australia. *Conservation Science and Practice*, 1, e117.

Sonter, L.J., Gordon, A., Archibald, C., **Simmonds, J.S.**, Ward, M., Metzger, J.P., Rhodes, J.R. & Maron, M. (2019), Offsetting impacts of development on biodiversity and ecosystem services. *Ambio*, 49, 892-902.

Fraser, H.S., **Simmonds, J.S.**, Kutt, A.S. & Maron, M. (2018), Systematic definition of functionally important and threatened fauna communities is critical to their future conservation. *Diversity and Distributions*, 25, 462-477.

Maron, M., **Simmonds, J.S.** & Watson, J.E.M. (2018), Bold nature retention targets are essential for the global environment agenda. *Nature Ecology & Evolution*, 2, 1194-1195.

Career history

2022 - present	GHD, Technical Director-Terrestrial Ecology
2017 – 2021	The University of Queensland, Lecturer and Research Fellow
2013 - 2016	The University of Queensland, PhD candidate
2008 - 2013	GHD, Ecologist



Emma Rothwell BENVMAN (HONS1)

Environmental Approvals



Location

Brisbane, QLD, Australia

Experience

15 years

Qualifications/Accreditations

- Bachelor of Environmental Management, Sustainable Development Hons1

Key technical skills

- Environmental Assessment
- Environmental Management
- Environmental Legislation and Regulation
- Environmental Approvals

Relevant experience summary

Emma has 15 years environmental management and impact assessment experience, with thorough knowledge of environmental legislation and permitting which she actively applies to identification of approvals and application documents. Emma has managed numerous projects requiring the identification of environmental values, environmental influence on design and been an active member on a number of Environmental Impact Assessment teams.

Emma's field experience is particularly beneficial during the development of EMPs. Emma managed the environmental impact assessment for the Beaudesert Water Supply Zone Project, which involved coordinating multiple disciplines to assess the potential impacts from a linear project (pipeline) and static site (water treatment plant). Emma identified environmental approvals triggered and sought applications where applicable to meet project timeframes.

Emma has broad experience working on water projects including Leslie Harrison Dam, South West Pipeline Project, Western Corridor Recycled Water Project, Ewen Maddock Dam, Cressbrook Dam, Cooby Dam, Paradise Dam, Somerset Dam, Rookwood Weir, Mt Crosby Weir and Emu Swamp Dam. Additionally, Emma has experience across a range of sectors including working with environmental authorities for the gas and mining industry.

Project experience

South West Pipeline Project

**EIA Lead |
Seqwater | QLD, Australia |
\$95 million | Jun 2018 – May 2019**

Emma managed an Environmental Impact Assessment for a 27 km pipeline and water treatment plant. The scope included all ecological investigations including, noise, soils, surface water and ground water investigations, risk assessment, mitigation strategies and approval under the EPBC Act.

The project also involved identification and application of required environmental approvals, including Operational Work for Vegetation Clearing and NC Act clearing approval.

Emma has thorough knowledge of the Project and environmental issues requiring management.

Western Corridor Recycled Water Project

**Environmental Officer |
Eastern Pipeline Alliance | QLD, Australia |
\$33 million | 2007 - 2010**

Appointed as Environmental Officer for the project. Emma was involved in the construction environmental management for the Eastern Pipeline Alliance including rehabilitation, contractor management, site risk assessments, environmental approvals, liaison with government agencies, site audits, cultural heritage liaison, environmental training and awareness, erosion and sediment control plans, water quality monitoring, acid sulphate soil management, and contaminated land sampling. Emma was the environmental manager for the close out phase of the project. This involved close liaison with the alliance members and the client, practical completion documentation and implementation of the reinstatement program.

Cooby and Cressbrook Dam upgrades

**Technical Lead |
Toowoomba Regional Council | QLD, Australia |
\$1.4 million | 2020 - ongoing**

Emma is leading the environmental assessment of two dam upgrades for TRC. This includes the coordination of ecological surveys, assessment of significant impacts, an approvals assessment and facilitating discussions with DAF regarding fishways. Emma previously delivered a Review of Environmental Factors for the two dam upgrades.

Leslie Harrison Dam Upgrade

**Environmental Manager |
Seqwater | QLD, Australia |
\$24 million | Apr 2018**

GHD was engaged to undertake the Environmental Review and Approvals for the Leslie Harrison Dam upgrade, which included the characterisation of environmental values and the identification of approval triggers under Commonwealth, State and local government legislation. Emma was involved in producing an approvals scoping table within the project's environmental review that provided advice to the GHD engineering design team with regard to environmental and planning approval obligations and requirements associated with the dam upgrade and expansion works during concept and detailed design phases. Emma also prepared the approvals applications for the Dam Upgrade including waterway barrier works, prescribed tidal works, marine plants disturbance and a Natural Assets Local Law permit.

Paradise Dam Preliminary Business Case

**Environmental Manager |
Sunwater | QLD, Australia |
\$3.2 million | Oct 2018 – Sept 2020**

Environmental assessment of concept options and costing for the development of a preliminary business case to Building Queensland guidelines for improvement works at a dam.

Ewen Maddock Dam Upgrade

**Technical Input |
Seqwater | QLD, Australia |
\$1.75 million | 2019**

Emma identified required approvals for the dam upgrade particularly potential offsets and the associated legislative requirements.

Mt Crosby Weir Upgrade

**Environmental Manager/Technical Input |
Seqwater | QLD, Australia |
\$655 thousand | Aug 2018 – Dec 2019**

Emma was involved in preparing an environmental assessment report to identify potential impacts, recommend mitigation and management measures

and identify approval and offset requirements for an upgrade to Mt Crosby Weir. Other scope was working with Seqwater to scope and gain approvals for a new bridge at the Mount Crosby Weir. This role involved managing and coordinating ecological assessments to support required approvals and inform detailed design and construction stages. The role also included the preparation a flora survey report and exempt clearing notification for an area mapped high-risk trigger area.

Lower Fitzroy River Infrastructure Project (LFRIP)

**Technical Input |
Sunwater/GAWB | QLD, Australia |
\$11.8 million | 2019**

Emma assisted with the compilation of chapters for the Environmental Impact Statement (EIS). Emma conducted the Matters of National Environmental Significance study and compiled the chapter for EIS. Preparation of a Construction Environmental Management Plan (CEMP) for a geotechnical works program.

Rookwood Weir

**Technical input |
GAWB and Building Qld | QLD, Australia |
\$86 thousand | 2019**

Preparation of a detailed business case for the Rookwood weir, including the reference project, environmental impact assessment and input into the social impact evaluation.

Bridge Replacements

**Environmental Manager |
Scenic Rim Regional Council | QLD, Australia |
\$1.1 million | 2019**

Emma prepared a Review of Environmental Factors for seven bridge upgrades. This included identification of environmental values, a risk assessment, identification of mitigation measures, approvals identification and an offsets assessment. The project also included a number of operational work for waterway barrier work applications for the bridge replacements.

Capital Roadworks Project

**Environment Manager |
South Burnett Regional Council | QLD, Australia |
\$170 thousand | 2018**

Emma prepared environmental and cultural heritage assessments for numerous capital roadworks projects for the SBRC. This work included identifying approval requirements and preparing Environmental Assessment Reports and Planning and Construction Environmental Management Plans for each site.

East & West Creek Culvert Upgrades, Warrego Highway

**Environmental Technical Lead |
TMR | Toowoomba, QLD, Australia |
\$1.2 million | Apr 2019 – Oct 2019**

Emma undertook a review of environmental and cultural heritage approval requirements and provided advice on any changes. Emma provided environmental requirements/approvals input into the Detailed Design Report and Contract documentation.

A Cultural Heritage Risk Assessment was prepared by GHD and signed off by TMR. The site was in a built up area with many sensitive receptors that were able to be managed through mitigation measures.

Dawson Parade & Settlement Road Dawson Road - Wynnum Road / Manly Road intersection

**Environmental Technical Lead |
Brisbane City Council | Keppera, QLD, Australia |
\$296 thousand | Apr 2019 – Dec 2019**

Emma was the environmental technical lead and conducted a site visit and produced a Preliminary Environmental Assessment to identify environmental values and potential impacts as well as legislative triggers associated with the project works for multiple BCC road upgrades. The road upgrades presented different challenges to overcome including management around waterways and vegetation clearing.

Somerset Dam Upgrade Upstream Impacts Report

**Environmental Manager/Technical Input |
Seqwater | QLD, Australia |
\$10 thousand | Sept 2015 – November 2015**

Emma conducted a study to show the upstream inundation impacts from a proposed dam upgrade on property and infrastructure.

Santos Gladstone Liquefied Natural Gas (GLNG) Upstream Project

**Secondment |
Fluor | QLD, Australia |
| Aug 2012 – Jan 2013**

Emma was seconded to Fluor for three months to implement a construction approvals management program for the upstream Santos GLNG works for EPC Contractor Fluor. This program involved establishing an approvals strategy and then identifying environmental approvals required for each construction work package and establishing a register and workable schedule that was integrated into the Fluor Environmental Management System. A compliance and commitments register was produced to manage approvals received and document compliance.

Arrow secondment

**Secondment |
Arrow Energy | QLD, Australia |
Feb 2015 – Jul 2015**

Emma was seconded to Arrow Energy to update and maintain an approvals compliance management system utilising CMO software. This involved providing a system to allow bulk upload of approval conditions to ensure condition changes are available to all staff in an efficient and timely manner. The key challenge was to develop a system to assign actions for each approval condition to ensure compliance. The solution involved working with Arrow team members to develop an effective system to assign actions and allow the system to be maintained efficiently in the future.

Energex secondment

**Secondment - ENERGEX Environment Advisor |
ENERGEX | Brisbane |
Jan 2009 – Dec 2009**

Emma was seconded to ENERGEX to support the in-house Environment Team in assessing the environmental impacts of major electricity infrastructure projects ranging from substations, new distribution and transmission lines, and supporting infrastructure through project delivery. Key roles and responsibilities included preparing environmental documentation to support the delivery of projects from planning and concept design through to detailed design, construction and operations.

Liaising with a wide range of stakeholders including ENERGEX project teams, local Councils, the Department of Environment and Resource Management, various consultants and local catchment and community groups.

Conducting site assessments and providing onsite environmental advice during construction and operational works.

Referee

Colin Thompson | Senior Project Manager
Seqwater
T: 07 3035 5740
M: 0421 500 708
E: colin.thompson@seqwater.com.au

Steven Cox | Environmental Approvals Coordinator
Seqwater
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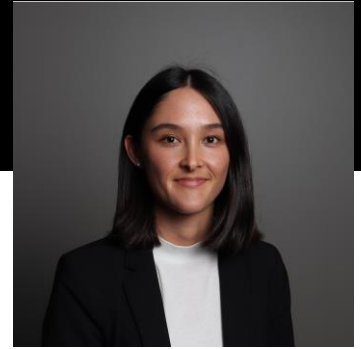
Career history

2006 - present	GHD, Senior Environmental Consultant
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Pascale Lin BSc

Environmental scientist



Location

Brisbane, Queensland, Australia

Experience

4.5 years

Qualifications/Accreditations

- Bachelor of Science, 2014

Key technical skills

- Environmental reporting
- Threatened species surveys
- Environmental impact assessments

Relevant experience summary

Pascale has over four years' experience in environmental consultancy. In this time, she has been closely involved in the field work and subsequent ecological impact assessment aspect of numerous large-scale proposed infrastructure projects (including weirs, dams, pipelines, wind farms etc) involving EPBC Act referrals and Environmental Impact Statements (EIS). Of recent, Pascale has been the primary ecology resource for a large, proposed project involving three Environmental Impact Statements (EIS), which involved assessing the project's significant residual impact and losses specific to a list of threatened species and ecological communities, and implementation of the mitigation hierarchy including offsets, to achieve demonstrable gains for impacted matters. In the field, Pascale is experienced in undertaking baseline and targeted ecological surveys across Queensland utilising Queensland and Commonwealth survey guidelines for threatened species. She is proficient in the preparation of environmental assessments to support Commonwealth and State approvals, and understands the importance of processes relating to environmental approvals.

Urannah Project EIS

Client: Bowen River Utilities
Location: Central Queensland
Date(s): 2022

Environmental impact statements x 3

The Urannah project that include the following proposed components: dam, pipeline, irrigation and pumped hydro-electricity scheme, that would provide reliable source of water to industries and communities in central Queensland. Pascale is a key resource for the preparation of numerous technical reports, MNES reports and chapters for the ecology impact assessment for the Urannah project. The Urannah project has involved significant impact assessment for over 20 threatened species and communities (Commonwealth and State listed). During this process, the application of the mitigation hierarchy including proposed offsets have been key in reducing significant residual impacts to threatened species and ecological communities.

Haughton Pipeline Duplication Project

Client: Townsville City Council
Location: Clare, QLD
Date(s): 2021-2022

EPBC referral, MNES reporting, HR SMP

Pascale has been closely involved in the proposed Haughton pipeline project, including undertaking targeted field surveys to assess the presence of conservation significant species and their habitat including key species such as the koala, black-throated finch (southern), bare-rumped sheath-tail bat and *Eucalyptus raveretiana*. Pascale has been a key resource in the preparation and finalisation of key deliverables including MNES report, high-risk SMP and EPBC referral and subsequent RFIs for the project. Her involvement has included impact assessments to determine potential significant residual impacts for threatened species and implementation of the mitigation hierarchy.

Wind farm project

Client: Confidential client

Location: Queensland

Date: 2020-2021

EPBC referral, MNES reporting, HR SMP

Pascale has been involved in the MNES reporting for the EPBC referral and subsequent adequacy process with DAWE for a proposed wind farm project involving three development areas. Pascale was involved in undertaking significant impact assessment as per the EPBC significant impact guide 1.1. The project involved significant residual impacts to a number of threatened flora and fauna species subsequent to the implementation of the mitigation hierarchy. Pascale also assisted in the preparation of two High Risk SMPs for the project. The SMPs applied to ten listed species assessed as having the potential to be directly or indirectly tampered with during works for the Project.

Oman Australia Cable

Client: SUB.CO

Location: Perth, Australia to Cocos (Keeling) Island

Date(s): 2020 - 2021

Oman Australia cable

Pascale prepared and submitted EPBC referral (including undertaking the impact assessment and applying mitigation measures), Marine Parks license and ACMA applications to support the OAC marine cable installation from Perth, Australia to Cocos (Keeling) Island.



Daniel Willis BE (MECH) (HONS1) RPEQ

Technical Director Water



Location

Townsville, QLD, Australia

Qualifications/Accreditations

- Bachelor of Engineering (Mechanical) (Hons1), 2002

Key technical skills

- Mechanical engineering
- Pumping and piping design
- Project Management
- Contract administration

Experience

20 years

Memberships

- Registered Professional Engineer Queensland

Relevant experience summary

Daniel is a RPEQ qualified mechanical engineer with 20 years' experience in design, planning and project management of government municipal water and wastewater systems, industrial, wet fire and Defence infrastructure projects. Daniel's experience extends from concept and strategic planning through to detailed design, tendering, tender assessment, contract administration and construction supervision for a range of projects including the construction phase delivery of \$45M of water treatment plants. Daniel has experience in managing multi-disciplinary design teams and taking the lead role for project delivery.

Haughton Pipeline Stage 2

Project Design Manager | Townsville City Council | Townsville, QLD | \$274M

Project design manager for stage 2 of the TCC Haughton Pipeline project. This project will see the extension of stage 1 to the Burdekin River and comprises of 28.5km of DN1800 pipeline and a new in-river pumpstation with a transfer capacity of 365ML/day. The pipeline includes pipejacking beneath an operational irrigation channel and creek crossing, enveloped crossings of TMR state controlled roads and local roads, and above ground crossing of exiting irrigation siphons. The pipeline is a hybrid of glass reinforced pipe (GRP) and mild steel cement lined (MSCL) with a test pressure of 2,000kPa. Works include project planning, pipeline alignment assessments, pump station configuration options assessments, procurement of pipework as a principal supplied item, access and haulage plans, external stakeholder consultation, development application approvals, EPBC referral and environmental assessment reporting, cost estimates, facilitation of workshops with an early contractor involvement process (40 participants), survey (lidar, feature survey and potholing), geotechnical investigations (test pits, bore holes, geophysical) and handover-takeover planning. The project is currently in construction procurement phase.

Haughton Pipeline Duplication Stage 1

Lead Designer | Townsville City Council | Townsville, QLD | \$200M

Lead pipeline and pumpstation designer engineer for the new bulk raw water supply scheme to transfer 234 ML/day (2700 L/s) of raw water from the Upper Haughton Irrigation Channel (UHIC) to the head of the Ross River Dam (RRD), to contribute to meeting the bulk water supply for Townsville. The project included new box-in-bank intake structure with submersible pumps, 36.5km of DN1800 PN20 glass reinforced pipeline (GRP), DN2100 underbore beneath TMR and QR corridor, transient analysis (water hammer modelling) and head control towers for surge control and long-term preservation of the pipeline joints. Member of the tender evaluation panel for pipeline construction contracts and underbore construction contract. Construction phase site inspections to verify construction quality against the design documentation and manufactures installation requirements.

Water Infrastructure Upgrade Project

Project Design Manager | Charters Towers Regional Council | Charters Towers, QLD | \$21M

Project definition, planning, detailed design, procurement and delivery of \$21M of water infrastructure upgrades to increase the quality, capacity and reliability of Charters Towers' potable

water supply system including; upgrade of raw water pumping infrastructure and capacity, water treatment plant augmentations and upgrade to increase production capacity to 22ML/day, SCADA plant automation upgrades, condition assessments of old asbestos cement A.C pipework, 7ML steel reservoir refurbishment and re-chlorination system to improve water quality. Daniel was the lead design engineer and project manager responsible for the overall project delivery and interfacing with Council.

Whitsunday Regional Council Water Treatment Plants | \$45M

Superintendent's Representative | Whitsunday Regional Council | Whitsundays, QLD

Superintendents Representative and construction phase services for two water treatment plants, 14ML/day plant for Proserpine and a 16.5ML/day plant for Bowen, with a construction value of \$45M. Both water treatment plants use a similar process with chemical dosing for oxidation and conditioning of the water prior to filtration. The treatment process removes suspended solids, colour and manganese and iron from the untreated water. The Bowen WTP has a lamella plate clarifier which removes most suspended solids created in the treatment process prior to the filtration. The Proserpine WTP plant has an aerator tower which removes excess carbon dioxide from the untreated water to reduce the amount of soda ash chemical required in the treatment process. The filtration system at each plant has four dual media filters. Sludge management is via four clay lined sludge drying beds. The plants include fluoridation systems, treated water pumping systems and 3.6km of pressure mains. Daniel was responsible for administering the contract, undertaking mechanical and structural inspections, managing design and construction changes and coordinating commissioning activities.

Bowen Pipeline 300ML/day Intake & Pump Station Feasibility Assessment

Water Designer | Bowen Pipeline Company | Ayr, QLD

Feasibility and site suitability assessment for a proposed intake and pump station on the Burdekin River to transfer 300ML/day of raw water for the 93km pipeline transfer system. The assessment included qualitative and quantitative assessment of the site morphology, flow channel, depths, scour potential, accessibility and site categorisation to determine the most suitable intake system and pumpstation for the proposed site. A concept design was developed for a fixed intake submersible pump station (box-in-bank).

Mt Louisa Pump Station 1,900kW Pump Upgrade

Lead Designer | Townsville City Council | Townsville, QLD

Lead design engineer for upgrade of the Mt Louisa Pump Station. The existing Mount Louisa pump station was designed and commissioned in the late 1990s to deliver water to the Mount Louisa Reservoirs from the Douglas Water Treatment Plant clear water tanks. The upgrade works include new duty/standby vertical split case pumps with a capacity of 1,500 L/s at 100m head (1,900kW). Particular challenges with his project is the plant arrangement is space constrained by the existing pump station layout and requires construction staging strategy to enable operation of an existing pump for water supply reliability. The works follow on from the Capacity investigations carried out by GHD (authored by Daniel) in 2012 that identified that the pump station required capacity increase to meet near term peak demands in a fully redundant configuration.

Western Outfall Pressure Main Upgrade

Project Manager and Mechanical Engineer | Townsville City Council | Townsville, QLD

Project Manager and Mechanical Engineer for design and documentation for the replacement of three above ground creek crossing pipeline sections with DN900 MSCL pipework on the Western Outfall Pressure Main (WOPM). The WOPM is an existing DN900 sewage pressure main which delivers flows from the numerous pump stations located in the western and southern sewerage catchments to the Cleveland Bay Purification Plant. The existing fibreglass reinforced pipework at the creek crossings pipework had deteriorated and required replacement.

DN500 and DN375 Pressure Mains

Mechanical Engineer

Whitsunday Regional Council | Whitsundays, QLD

Mechanical Engineer for the design, documentation and construction management for 3.6km of new DN500 PE100 and DN375 uPVC raw water and treated water pressure mains for the Proserpine Water Treatment Plant.

Colette Hayes
Principal Environmental Planner
Independent Peer Reviewer – HPS2 Project

Qualifications

Bachelor of Planning, James Cook University

Career History

Colette is a Principal Planner and Project Manager with twelve years professional experience as a consultant. Colette leads the Impact Assessment and Permitting team for North Queensland. Colette has a diverse experience in the fields of land use planning and environmental planning.

Colette has a range of experience in developing and implementing approvals strategies and successfully obtaining many approvals under the Queensland and Commonwealth legislation. Her project experience includes electricity infrastructure, renewable energy, road and rail infrastructure, ports, airports, industrial, municipal and mining Projects.

Colette has managed a number of impact assessment projects involving coordination of multidisciplinary teams to deliver Commonwealth, State and Local approvals and impact assessments.

Environmental Impact Assessment Experience

AECOM Australia Pty Ltd

– Principal Environmental Planner

- Powerlink Queensland Kidston Connection Project (2018 - Present) – Project Manager and Approvals lead for EPBC Act Approval, Ministerial Infrastructure Designation under the *Planning Act 2016*, High-Risk Species Management Program *Nature Conservation Act 1992*, and associated detailed impact assessment studies.
- Ross River Dam (RRD) to Douglas Water Treatment Plan (DWTP) (2020 – Present) – Approvals Lead facilitating all environmental approvals, including detailed ecological and cultural heritage assessment for EPBC Act, Defence approval and *Nature Conservation Act 1992* approvals.
- Department of Defence ASMTI Greenvale Training Area Concept Design (2020-2021), Environment Lead.
- Kidston Renewable Energy Hub Projects (2017 – Present) for Genex Power Limited – Facilitation of a range of Local, State and Commonwealth approvals, including Coordinated Project Approval under the *State Development and Public Works Organisation Act 1971*, EPBC Act Approval and a range of Development Permits under the *Planning Act 2016*.
- Bohle Renewable Energy Precinct (2017-Present) Economic Development Queensland – EPBC Act Approvals including detailed ecological studies and offset management.
- Rockhampton Ring Road for Department of Transport and Main Roads (2019-2020) Approval's lead facilitating approvals strategy and a range of detailed ecological and environmental impact assessments.
- South Rockhampton Flood Levee (2018 – present) Rockhampton Regional Council – Approvals lead including facilitation and execution of approvals strategy and impact assessments, including EPBC Act Approval and Ministerial Infrastructure Designation under the *Planning Act 2016*.
- Gold Coast Cruise Ship Terminal (2017) Gold Coast City Council – Initial Advice Statement.
- Port of Townsville Port Expansion Project (2015) – Supplementary Report for the Environmental Impact Statement.
- Rolleston Coal Expansion Project (2014) - Environmental Impact Statement under a Bilateral Agreement.
- Boundary Hill South Project (2013) - Environmental Impact Statement under a Bilateral Agreement.
- Port of Townsville Port Expansion Project (2013) - Development of an Environmental Impact Statement under the regulations of the *State Development and Public Works Organisations Act 1971*, *Environmental Protection and Biodiversity Conservation Act 1999* and *Great Barrier Reef Marine Park Act 1975*.
- Cattle to Frances Upgrade Project (2016) Department of Transport and Main Roads – Development Permits under the *Sustainable Planning Act 2009* and *Fisheries Act 1994* and Environmental Authority under the *Environmental Protection Act 1994*.
- Effluent Reuse Scheme (2018 - Present), Townsville City Council – Planning and approvals lead.
- Cleveland Bay Purification Plant Outfall Upgrade (2016 - 2018) Townsville City Council – Planning and Environment Lead.
- Mt St John Waste Water Treatment Plant Outfall Discharge Drain (2015 - Present) for Townsville City Council, Environment and Approvals lead.
- Townsville City Council South Suburbs Diversion Pump Station and Pressure Main (2015 - 2020), Environment and Approvals Lead – Stage 2 Development Application and Environmental Management Plan.

Professional History

AECOM Australia Pty Ltd

2021 – Present

Principal Environmental Planner

AECOM Australia Pty Ltd

2019 – 2021

Team Leader – Impact Assessment and Permitting Northern Queensland

AECOM Australia Pty Ltd

2017 – Present

Senior Planner

AECOM Australia Pty Ltd

2012 – 2016

Planner

Everson Town Planning

December 2009 – May 2012

Planner