



Capability Statement

Mining
and Minerals

Exceptional Outcomes

About Us



JBS&G, A Geosyntec Company is Australia's leading innovative environmental consultancy with offices across Australia. With one of the largest teams of engineers, scientists and occupational hygienists, we are always client and outcomes focused, providing independent and defensible advice, demanded by regulators and the community alike. We work closely with our clients to identify and reduce risk throughout the project life cycle.

Our Services

- Contaminated Land Management
- Water Treatment and Remediation
- Hygiene and Hazardous Materials
- Strategic Landfill
- Auditing and Compliance
- Assessment and Approvals
- Fire Management Planning
- Ecology
- ESG and Sustainability
- Digital and Creative Solutions
- Corporate Affairs, Stakeholder Engagement, and Public Relations

Mining and Minerals

Our national team of regulatory approvals experts have extensive hands-on experience delivering major mining and associated infrastructure projects across Australia. This is a complex area of work with many financial, political, reputational and schedule risks that have the ability to impact budget and schedule if not managed appropriately.

Areas of Expertise

Environmental Assessment, Planning and Approvals

- Approvals strategies and planning
- Environmental and social due diligence
- Project scoping and site and route selection
- Fatal flaw analysis
- Environmental assessments and approvals, including specialist study management and document delivery
- Government liaison and negotiations
- Communications and risk management
- Environmental management and monitoring
- Auditing and compliance
- Closure and decommissioning

Engagement and Communications

- Engagement and communication strategies, planning and implementation
- Stakeholder mapping and sentiment analysis
- Landholder engagement and access negotiation
- Media liaison, monitoring & analysis, and crisis management
- Social media strategy, planning and implementation
- Government and regulator relations
- Public relations services including press releases, brand strategy and event management
- Facilitation, negotiation, and issues management
- Internal organisational communication
- Digital design and communications including animations, film, virtual reality, project web design, interactive mapping, and social media

Contaminated Land and Groundwater Assessment and Remediation

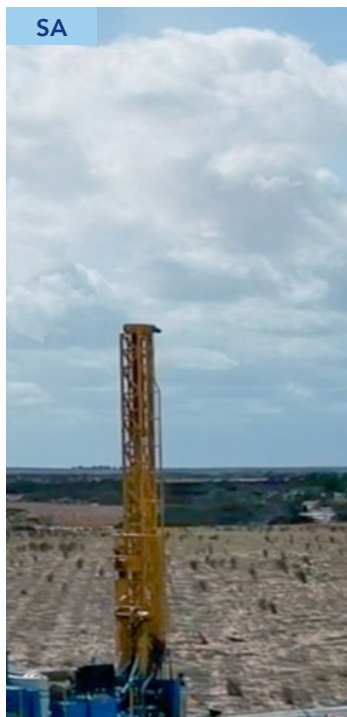
- Preliminary and detailed site investigations
- Soil and groundwater sampling and analysis
- Design, build and operation of remediation systems
- Baseline contamination assessments/ due diligence
- Human health and ecological risk assessments
- Remedial action plans/ site management plans
- Waste classification and immobilisation approvals
- Environmental management planning

Digital and Creative Solutions

- Geo-spatial mapping and portals
- Data analytics and reporting
- Graphic design
- Creative content
- Online learning and training
- Virtual reality
- Animation and film
- Virtual engagement rooms and on-line environmental impact statements

Case Studies

SA



Sivour Graphite Project

Renascor Resources Pty Ltd (2018 - ongoing, Capital ~\$150 M)

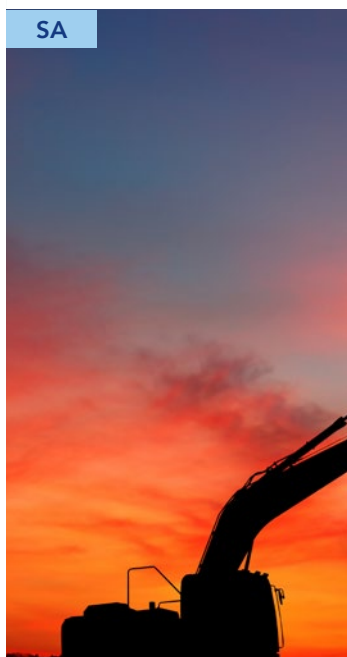
JBS&G supported Renascor Resources with environmental and mining approvals for their graphite operation on the Eyre Peninsula, including preparing the Mining Lease Proposal (MLP), Program for Environment Protection and Rehabilitation (PEPR), and a Development Application for a power transmission line.

Key achievements included:

- Facilitating a risk workshop and managing pre-tenure activities
- Providing strategic advice on approvals and stakeholder engagement
- Overseeing technical sub-consultants and ensuring approval-ready documentation
- Obtaining Mining Lease approval in seven months and Development Approval in three months.

JBS&G continues to assist Renascor with approvals for their downstream processing facility in Adelaide and a coastal desalination plant near Sivour. In addition, JBS&G assisted Renascor with the successful approval of their downstream processing facility in Adelaide and a coastal desalination plant near Sivour.

SA



Olympic Dam Resource Development Strategy (OD-RDS)

BHP (2018 -2019, Capital Value \$3.5 billion)

BHP engaged JBS&G to commence all required approvals processes to increase production at Olympic Dam from 200,000 tonnes per annum (tpa) to 350,000 tpa of copper and associated products. This included the preparation of an application for Major Development status, a Development Application and an Environment Impact Statement (EIS).

BHP sought JBS&G's assistance early in the strategy phase of the OD-RDS, commencing with seeking Major Development status from the South Australian Government. JBS&G worked with the BHP team to define the scope of the Project, scope up technical studies, manage technical sub-consultants and to prepare the Development Application. The JBS&G team worked closely with BHP to prepare a robust EIS, coordinating sub-consultants to prepare technical reports, all in accordance with Guidelines issued by the State Planning Commission. JBS&G also assisted BHP in the development of its EPBC Act referral and provided advice and review on EPBC related matters.

The EIS was largely completed, ready for submission to the state government. The project was subsequently placed on hold by BHP in 2019.

SA



Prominent Hill PEPR

OZ Minerals Pty Ltd (2017)

JBS&G were engaged by OZ Minerals to develop its updated Prominent Hill Mine PEPR to align with legislative changes.

JBS&G assisted OZ Minerals in finalising the Prominent Hill PEPR. This involved review of the 2015 PEPR in addition to a number of Mining and Rehabilitation Programs (MARPs) for the site to develop a consolidated PEPR consistent with the relevant Ministerial Determination (MD005). JBS&G reviewed outcomes and compliance criteria along with previous environmental and technical studies and provided expert advice and revision of documentation to meet Department of State Development requirements.

JBS&G aided in the preparation of the 2017 PEPR which was submitted to Department of Premier and Cabinet in April 2017 and was subsequently approved.

Case Studies

SA



Central Eyre Iron Project

Iron Road Limited (2013 – 2017, Capital Value \$4.5 billion)

JBS&G were engaged by Iron Road to manage preparation of the Mining Lease Proposal (MLP) and Environmental Impact Statement (EIS) for a 21.5 Mtpa iron ore mine and associated infrastructure on the Eyre Peninsula including an infrastructure corridor from the mine site to the Spencer Gulf, borefield, power transmission line, long-term accommodation village and deep-sea port at Cape Hardy. This involved JBS&G subcontracting Jacobs to lead the technical inputs for the MLP and EIS as well as working together on the EPBC referral and PEPR for the project.

JBS&G took a strategic partnership approach to working with Iron Road across all levels of delivery – from defining approvals and regulatory strategy, to managing project approvals and broader risks and opportunities, to managing the entire approvals process and government and stakeholder engagement. This included overseeing the preparation of the technical reports and supplementary reports from specialist sub-consultants to address government (DEM and (former) DPTI) guidelines. JBS&G also developed the EPBC referrals for the mine and port and provided advice on all EPBC related matters.

The EIS and MLP received favourable approval from the South Australian Government in May 2017, with EPBC Act approval for the deep-sea port granted in March 2018. Successful and extensive stakeholder engagement programs were delivered, resulting in reasonable approval conditions and strong support for the project from the Eyre Peninsula community.

JBS&G is currently working with Iron Road in order to secure further approval for Cape Hardy to become a multi-user port (e.g. options for grain, iron ore and other minerals, and hydrogen export).

SA



Carrapateena Copper Project (includes associated infrastructure)

OZ Minerals Pty Ltd (2015 -2018, Capital Value ~\$3 billion)

A number of JBS&G staff were seconded within the OZ Minerals team to work on various activities relating to the Carrapateena Copper Project, a 4.25Mtpa copper gold project in South Australia. JBS&G provided ongoing assistance for the development of the Carrapateena Mining Lease Proposal and Miscellaneous Purposes Licences. This included strategic advice regarding approvals strategy, application of assessment framework, writing and reviewing key chapters and appendices for the approvals applications, and review of technical reports. JBS&G team members also wrote / contributed to key technical reports.

JBS&G also assisted OZ Minerals in the preparation of the EPBC Referral for the Carrapateena Project and a Management Plan for the associated airstrip, accommodation facilities and other ancillary infrastructure. In addition, JBS&G staff developed a range of policies and procedures to assist with internal and external environmental and cultural requirements throughout operation of other Carrapateena-related activities.

JBS&G has also provided ongoing assistance with the stakeholder engagement and value creation required for Carrapateena and in developing critical communications materials (including MLP Executive Summary).

Carrapateena MPLs and MLP submitted to DEM within tight deadlines. New Assessment Methodology designed and successfully applied to MPL and MLP. Key communications materials and stakeholder engagement activities delivered effectively within tight time frames.

Case Studies

SA



Mindarie Mineral Sands Project, Mercunda Strandline

Murray Zircon

Murray Zircon engaged JBS&G to undertake all environmental approvals for the Mindarie Mineral Sands Project located in the Murray Mallee region. JBS&G have assisted with the Program for Environment Protection and Rehabilitation (PEPR) for the mineral sands operation and also EPBC Act referrals.

JBS&G work collaboratively with the Murray Zircon team to obtain all mining approvals within required time-frames and approved budgets. We have also assisted with change in operations applications and strategic advice in relation to regulator and stakeholder engagement as well as land access agreements. Attendance at regulator meetings, assistance with onsite stakeholder engagement activities and preparation of a Community Engagement Plan were all part of JBS&G's scope of work. JBS&G's engagement by Murray Zircon is ongoing to provide support with their continuing operations and further approvals required.

SA



Great White Kaolin Project

Andromeda Metals (2019 - 2023, \$233 M)

Andromeda Metals engaged JBS&G to undertake all environmental approvals for the Great White Kaolin Project located near Poochera on the Eyre Peninsula. Works included the preparation of a primary approvals being a Mining Lease Proposal (MLP) and Management Plans (MPs) for two Miscellaneous Purposes Licences (MPLs), in support of a proposed high grade halloysite-kaolin operation with an associated water pipeline and access road, as well as secondary approvals, including the subsequent Program for Environment Protection and Rehabilitation (PEPR) outlining the detailed operation of the aforementioned assets.

JBS&G worked with the Andromeda team early in the process to develop a strategic approach to approvals and communications for the Project. The team prepared the MLP and MPs for the proposed mine, access road and water pipeline. This included the scoping and management of technical specialist studies and associated reporting, liaising with regulators from a range of government agencies, and the preparation and lodgement of all approvals documentation.

JBS&G's strategic advisory and corporate affairs arm, Consentium, oversaw the development of a range of communications tools and materials, including a complete overhaul of the company's website. This included developing a film and variety of communication assets.

The Mining Lease and MPLs were granted in December 2021. JBS&G have subsequently prepared the PEPR, which was submitted to the DEM for assessment in early August 2022 and currently pending final approval from the Department for Energy and Mining.

Case Studies

WA



North Star Extension

Fortescue

Fortescue Iron Bridge (Aust) Pty Ltd (Fortescue) operates the existing North Star Magnetite Project, located approximately 110 kilometres (km) southeast of Port Hedland in the Pilbara region of Western Australia.

Fortescue is seeking an extension to its existing North Star Magnetite Project (the Approved Proposal), with the proposed mining to supply the ore required to improve Project's overall product quality through ore blending.

The North Star Magnetite Project Extension was referred to the DCCEEW under the EPBC Act in January 2023. On 9 November 2023, a delegate to the Minister for the Environment and Water, decided that the proposed action is a controlled action under the EPBC Act and that it will be assessed by Public Environment Report.

JBS&G has prepared the PER in line with the Commonwealth Guidelines for the Proposed Action, reviewing relevant documents and spatial data for both projects including but not limited to project design information and site layout, PFS report, stakeholder engagement records, baseline environmental survey reports, section 38 referral, ERD and response to submission.

The North Star Extension involves an increase in disturbance footprint by a total of 606.9 ha within the 1,453.7 ha extension, to support ongoing mining operations and comprises the development of new mine pits (180.7 ha), an extension of the Waste Rock Dump (WRD) (334.5 ha) and ancillary infrastructure (91.7 ha). This, combined with the disturbance footprint of the existing mine, will result in a revised disturbance footprint of 4,099.6 ha for the North Star Magnetite Mine Project.

WA



Ongoing Environmental Support

Fortescue Resources – MMO and Irwin Hills Project

Fortescue Resources own and operate the Murrin Murrin Nickel-Cobalt project (MMO), located 60 km east of Leonora. Fortescue has environmental approval to mine and process 4 Mtpa (million tonnes per annum) of ore, producing approximately 45000 tpa of nickel, 3000 tpa of cobalt, and 145000 tpa of ammonium sulphate across the Murrin Murrin East ore bodies located 45 km southeast of the current project area, Murrin Murrin North and South ore bodies across a development envelope of 20,172 hectares. JBS&G has provided environmental support to MMO and the Irwin Hills Project since 2020; obtaining the environmental approvals and listed below:

- Irwin Hills Project NVCP Southern Grade Control Drilling (2020).
- Irwin Hills Project s38 Referral Southern Grade Control drilling and EPBC significance assessment (2021).
- Murrin Murrin s45C MS 506 (reallocation of disturbance from MME to MMN and MMS) (2021).
- Murrin Murrin Mining Proposal Triennial Review (2021).
- Murrin Murrin Inpit Tailings Storage Facility Mining Proposal and Works Approval (2021).
- Murrin Murrin s45C revision MS 506 and response to regulator comments (2023).
- Irwin Hills Stage 2 approvals (2021 – 2023):
 - Approvals strategy, gap analysis, draft referral document and supporting studies

Case Studies

WA



Mulga Iron Ore Project

Hanroy

Hancock Prospecting and Roy Hill (HanRoy) is proposing to develop a greenfield iron ore mine and Hub and Rail Spur at Mulga Downs located in the Fortescue River valley and on the flanks of the adjacent Chichester Range. The Proposals are approximately 210 km south of Port Hedland and 180 km north-west of Newman in the Pilbara Region of Western Australia.

JBS&G was appointed by HanRoy, in July 2018 to deliver the primary (Commonwealth, State) for the proposed Mulga Downs Iron Ore Project and Hub and Rail. JBS&G has been and is responsible for the scoping, management and technical review of all baseline and targeted environmental surveys. The work completed includes consultation with Commonwealth and State regulators, the development of detailed scope of works in accordance with current regulatory guidance, commercial assessment of proposals, project management of all sub-consultant teams, site work, safety management, the technical review of all environmental scientific reports and drafting of the ERD, PER and relevant management plans for the projects.

JBS&G is also currently responsible for the development secondary (State) environmental approvals including Native Vegetation Clearing Permits, Mine Development and Closure Proposals, Works Approvals and Prescribed Premises Licence applications.

WA



Rhodes Ridge Iron Ore Project

Rio Tinto

Rio Tinto is proposing the development of several iron ore deposits within the Rhodes Ridge locality in the Pilbara region of Western Australia.

The Rhodes Ridge Project was referred under both the EP Act and EPBC Act in January 2024. The Proposal is not undergoing an accredited assessment and will be subject to separate assessment and approval

The following are the key environmental factors to be address in the ERD: Flora and Vegetation, Terrestrial Fauna, Subterranean fauna, Terrestrial Environmental Quality, Landforms, Inland Waters, Greenhouse Gas Emissions and Social Surroundings.

The Proposal was determined to be a Controlled Action by DCCEEW with potential impacts to protected matters - 'Threatened Species and Ecological Communities'. The Proposal Development Envelope includes habitat for Ghost Bat, Pilbara Olive Python, Pilbara Leaf-nosed Bat and Northern Quoll. In addition, potential impacts as a result of the Proposal to the Greater Bilby, Grey Falcon, Night Parrot, Princess Parrot and Southern Whiteface are required to be assessed. The Level of Assessment was set to be assessed by PER.

JBS&G was appointed by Rio Tinto in March 2025 to deliver the primary environmental approvals (Commonwealth and State) for the proposed Rhodes Ridge Project. JBS&G's role includes reviewing all relevant technical baseline reports to assess compliance with current EP Act and EPBC Act guidance, reviewing and commenting on technical appendices, identifying information gaps and proposing effective mitigation measures, reviewing spatial data, preparing a section 43A and 156A application for changes to the proposal, preparing the ERD and PER to support approvals under the EP Act and EPBC Act, developing relevant Environmental Management Plans, and providing strategic advice on the Proposal.

Case Studies

WA



South Ironcap Pathway to Mine

IGO

IGO's South Ironcap Project has the necessary approvals for exploration and drilling, including for follow-up drilling at South Ironcap East. JBS&G is currently working with IGO to progress land access work, including flora, fauna, and heritage surveys, to enable further drilling in FY26 at the broader Forrestania Project, which includes the South Ironcap prospect. JBS&G has managed the following studies and assessments:

- Desktop review of existing environmental studies.
- Advice on requirements and suitability of current and future baseline environmental studies to assess the existing environment at the project site.
- Significance assessment to determine likely referral triggers under State and Commonwealth legislation.
- Developed recommended approval pathway and timeline for securing the relevant environmental approvals under State and Commonwealth legislation taking into consideration the available data and associated risks of the project.

WA



Earl Grey Lithium Mine

Covalent Lithium

Covalent Lithium Pty Ltd was approved (Ministerial Statement 1118) to develop pegmatite-hosted lithium deposit at the abandoned Mt Holland Mine Site. The area is located approximately 105 kilometres southeast of Southern Cross, in the Shire of Yilgarn and consisted of conventional open-cut mining of the existing Earl Grey pit, and development of associated mine infrastructure. In accordance with Section 38 of the EP Act 1986, Covalent Lithium submitted a Referral of proposed changes (variation to air strip width, change in the tailings management methodology and more) as a 'Revised Proposal' for the purpose of an environmental assessment. An Environmental Review Document was prepared to support the environmental assessment process for the Revised Proposal with identification of the biological surveys completed, an assessment of the potential environmental effects, and an outline the proposed environmental management approach.

JBS&G drafted the referral documentation and project-managed many of the supporting studies (October 2021). Following referral, the EPA requested additional information in November 2021. JBS&G assisted Covalent with drafting an Environmental Review Document submitted on 9 May 2022. Ministerial Statement MS1199 was issued on 23 November 2022. JBS&G are currently assisting Covalent with the revisions of various management plans and offset strategies to meet the requirements of MS1199. JBS&G has now also prepared and submitted a referral for the Life of Mine Proposal, which is currently under assessment on referral information.

The Life of Mine Proposal involves new clearing of up to 1,885 ha of native vegetation, and use of existing cleared/disturbed land, infrastructure including a mine pit, waste rock landforms, tailings storage facility, processing plant, airstrip, accommodation village, water storage facilities, power generation infrastructure and associated infrastructure.

Case Studies

QLD



Cape Project Optimisation Environmental Authority Amendment

Metro Mining Limited

Metro Mining are seeking to optimise resource recovery within their existing mining lease area, with an amendment to the existing site Environmental Authority was required to facilitate this optimisation.

JBS&G was engaged to prepare the Environmental Authority amendment application material including technical review and assessment, preparation of the supporting Environmental Assessment Report and pre-lodgement engagement with the Department of Environment Science and Innovation (DESI) including response to Agency feedback. The EA amendment application was approved in late 2024.

QLD



Environmental Program Support

Bowen Coking Coal Limited

Bowen Coking Coal (BCC) were seeking environmental management support to meet operational and corporate compliance requirements during a period of staff transition.

JBS&G were approached and engaged by BCC to provide a range of operational and corporate level support to the business over a 6-month period including operational compliance review and advice, statutory reporting support to both State and Commonwealth requirements, project and contractor management associated with both active mining leases and care and maintenance assets. In addition, JBS&G was engaged by BCC to provide senior executive with support and facilitate the recruitment process for BCC to fill inhouse environmental roles.

QLD



Due Diligence Assessments

Confidential Client

Our client was seeking assistance on two mining projects in Queensland including a due diligence assessment to inform a potential acquisition of an existing open cut mine and a proposed underground mine expansion, as well as a technical review and approvals strategy for a greenfield open cut mine.

JBS&G delivered both projects for our client within constrained timeframes to meet their internal review and governance processes. Our due diligence assessment covered tenure, environmental, approvals and legislative aspects and impacts. JBS&G developed a comprehensive approvals strategy report for the greenfield mine project which considered existing studies, a desktop environmental assessment, legislative review and risk assessment. The Report provided guidance to the client on approval requirements, timeframes, study inputs, risks and opportunities.

Case Studies

QLD



Goonyella Riverside Approvals Support

BHP Mitsubishi Alliance

BHP Mitsubishi Alliance (BMA) is progressing the development of the Goonyella Complex Asset and had commissioned a number of technical studies and an approvals pathway report to consider the status of existing approvals and requirements to start the project.

JBS&G were engaged to develop a project specific approvals strategy and pathway framework document for the preferred investment alternative (PIA) leveraging the work undertaken to date and in consideration of existing approvals and contemporary legislative requirements and changes since the original approvals were obtained.

QLD



Exploration Environmental Management and Compliance Support

Stanmore Resources

JBS&G were engaged to provide support to the exploration program and delivery teams with respect to environmental management and compliance process development and implementation. Specifically, JBS&G have developed and implemented a permit to disturb process in close collaboration with the Exploration Team to ensure compliance with internal and external requirements prior to the commencement of exploration activities.

VIC



Bendigo Creek Reclamation and Rehabilitation Project

Bendigo Creek (2020 - ongoing)

JBS&G is managing environmental approvals for this project involving reprocessing of historical mine tailings at Huntly, approximately 6 km north of Bendigo. These tailings were generated by over 2,000 puddling machines that operated in the Bendigo Creek in the 1850s resulting in up to 4 metres depth of sludge being deposited over the floodplain in the area now known as the Huntly Streamside Reserve. By removing and reprocessing this sludge, the project will restore the natural surface of the floodplain. JBS&G's role includes managing specialist sub-consultants, liaising with government agencies, overseeing preparation of an Environment Effects Statement and managing a multi-disciplinary approach to restoration of the Huntly Streamside Reserve to achieve cultural, hydrological, ecological and social benefits.

VIC

**EARTH
RESOURCES**

Earth Resources Regulation: Assistance with work plan assessments

Earth Resources (2017-2022)

Mining, extractive industry and exploration projects in Victoria require approval of a work plan by Earth Resources Regulation before any works can commence. Since 2017, JBS&G has provided assistance to the regulator by assessing work plans submitted by proponents against the requirements of the Mineral Resources (Sustainable Development) Act 1990, the Regulations and relevant guidelines. This included reviewing environmental risk assessments, preparing documentation for referral authorities and drafting briefing material for the decision-maker.

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