



**Creating enduring value**

## SGME VALUES

Honest



Trust



Innovation



Safety



## Health, safety and environmental risk management

The concept of risk management forms the foundation of effective health, safety and environmental management. The identification, analysis, evaluation and treatment of risk enables organisations to better anticipate and mitigate the consequences of unwanted events while recognising opportunities for improvement or previously unidentified benefits. The risk management process also allows organisations to better understand and optimise their own internal processes while demonstrating legal, regulatory and organisational compliance.

The established risk framework can then be used in the development of an effective management system which outlines policies, processes and procedures for organisations to meet stated objectives. Two commonly used systems within the mining industry are the Safety and Health Management System (SHMS) and Environmental Management System (EMS). Both the SHMS and EMS use a common process to establish and maintain effective management systems.

The plan-do-check-act process is a simple tool used in the development and continuous improvement of management systems. A summary of the process involves:

Plan — establish objectives and required processes

Do — implement processes

Check — measure and monitor performance

Act — take action to improve performance

It is not common for most systems to be built from the ground up. Previously implemented and proven systems are often used as a starting point for system development placing a lot of emphasis on the 'Check' and 'Act' stages. An effective method for evaluating these processes is through external auditing. Audits provide on-site verification of an individual process or a whole system to ensure compliance to requirements. These requirements may be regulatory (compliance) or internal (company policies or contract commitments).

SGME is focused on assisting organisations with the development of management systems or the auditing and evaluation of existing systems. Our experienced team led by Justin Vohland (lead auditor) offers our clients an honest, systematic and constructive evaluation of environmental and safety and health systems and processes.

## KEY CONSIDERATIONS IN ENVIRONMENTAL MANAGEMENT & APPROVALS

1. Ensure risk management processes are developed and continually reviewed / updated
2. Ensure compliance with regulatory and internal requirements
3. Regularly review processes and systems to ensure effectiveness
4. Review the adequacy of systems and processes against changing legislation and standards
5. Ensure process or system audits have a clearly defined scope and context



## OUR APPROACH

**At SGME we will guide you through the process of developing or evaluating management systems using a risk-based approach. We will help you to understand the unique risks that face your mine and provide you with innovative solutions that reduce your risk to acceptable levels while not compromising on regulatory and community expectations.**

### Past projects

- 1 Lady Annie Mine, environmental authority audit, Qld (Austral Resources)
- 2 Dugald River Mine, closure cost calculator audit and review, Qld (MMG)
- 3 Dugald River Mine, risk assessment development (as part of Progressive Rehabilitation and Closure Plan (PRC plan)), Qld (MMG)
- 4 Isaac River Coal Project, risk assessment development (as part of PRC plan), Qld (Coking Coal One Pty Limited)
- 5 Burton Mine, annual audit and gap analysis of SHMS against legislation and internal standards (Peabody)
- 6 Peabody sites, audit and gap analysis of Peabody sites SHMS against legislation and internal standards, Qld (Peabody)
- 7 Caballo, Rawhide and NARM Mines, environmental compliance audits, USA (Peabody)
- 8 Burton Mine, development of SHMS following transition of contractor to owner operator, Qld (Peabody)
- 9 Burton Mine, transition operational SHMS to Care, Maintenance and Rehabilitation phase as site SSE, Qld (Peabody)
- 10 Burton Mine, facilitation of risk assessments and development of registers, management plans, SOP's, procedures, SWI's, PHMP's, inspections etc. for effective HSET management

### Working with SGME

We are highly experienced and leaders in the fields of soil science, geochemistry and mine closure. At SGME we support you to achieve your objectives in ways that contribute to a sustainable outcome:

- Our director and technical leaders are 'on the tools'. We will not waiver from this commitment as it is critical to your success
- We have a practical, solution focussed work ethic
- We are cost-effective, without the overheads of larger competitors
- We maintain the appropriate competencies and qualifications required by industry



#### Justin Vohland

Justin is an environmental scientist and mining professional specialising in environmental management, mine closure and rehabilitation. He has actively managed closure and rehabilitation activities from an environmental and health and safety perspective for over 10 years in the Bowen Basin and now provides consulting services from SGME's Mackay office.

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