

CASE STUDY

PROJECT

Pre-mining ecology flora and fauna assessment

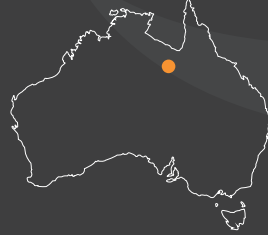
SECTOR

Ecology Site Surveys

COMMODITY

Coal

LOCATION



ISO

9001:2015 | 14001:2015 | 45001:2018





SGME was engaged to do a terrestrial flora and fauna assessment for a mining lease application.

Site description

The mine is an open cut thermal coal operation located in the Surat Basin in Queensland, between the towns of Dalby and Chinchilla 250 kilometres west of Brisbane.

The problem

The mine's expansion plan requires an ecological assessment as part of its amendment application to extend operations. The expansion area adjoins a state forest and encompasses diverse Regional Ecosystems (REs), prompting the need for flora and fauna ecological assessments. These assessments are crucial for determining species presence and assessing the ecological health of the area.

SGME solution

SGME followed a systematic process to deliver the ecological assessment for the mine's expansion plan. The project started with an initial consultation to understand the objectives and regulatory requirements. This phase involved identifying key areas of focus, such as sensitive habitats, at-risk species, and potential ecological impacts.

Next, SGME designed a site-specific survey plan outlining the scope, methodology, and data collection techniques. This plan included detailed strategies for flora and fauna surveys, habitat assessments, and ecological function analyses. Fieldwork was then done using appropriate methods like transect surveys, quadrat sampling, and habitat assessments to gather data on species presence, habitat quality, and ecosystem functions.

The collected data was analysed to evaluate potential impacts on biodiversity, habitats, and ecological processes. SGME also conducted risk assessments to identify sensitive areas and species, informing the management plans.

Engaging SGME for ecological site surveys delivers outcomes for informed decision-making and environmental stewardship. Our comprehensive approach includes baseline assessment, examining biodiversity, soil quality, and hydrology to identify rare or endangered species requiring conservation. Working within the framework of our approach enable us to include in-depth vegetation and fauna analysis, uncovering crucial insights into ecosystem health. Evaluating ecosystem services and sensitivities reveals hidden potentials and risks, guiding sustainable development. Our actionable recommendations steer impactful mitigation measures and sustainable practices.