ERIC
RESOURCE APPLICATIONS

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MINING

INTRODUCTION

ERIC provides business and environmental solutions for mineral exploration and mining companies. The products and services address requirements for mineral exploration and environmental compliance and management.

APPROACH

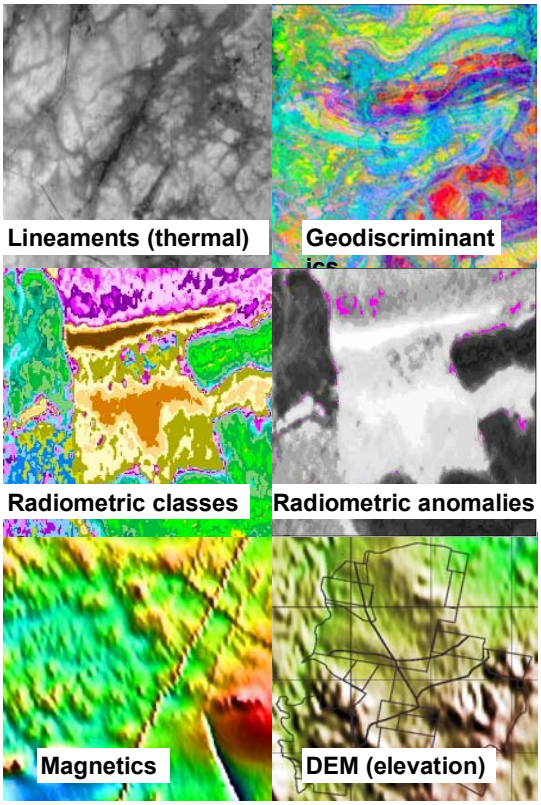
The approach involves:

- Provision of a comprehensive suite of products and services to allow tailoring to clients needs.
- Development of new detailed information using numerical analysis of remotely sensed data.
- Delivery of information using GIS with provision of ongoing support to ensure effective application.

PRODUCTS & SERVICES

ERIC develops map products on natural resources using numerical analysis of remotely sensed imagery. The resources include vegetation, soils and water. The images include all forms of satellite and airborne optical, radar, elevation and geophysical data. The information addressed developed includes subsurface structure and surficial mineralogy. The geophysical information developed address issues such as:

- Identification of lineaments



- Identification of anomalies
- Geodiscriminant mapping
- Chemical dispersion mapping

For environmental applications the natural resource information is combined with maps of climate, spatial infrastructure and social information to address environmental management and compliance.

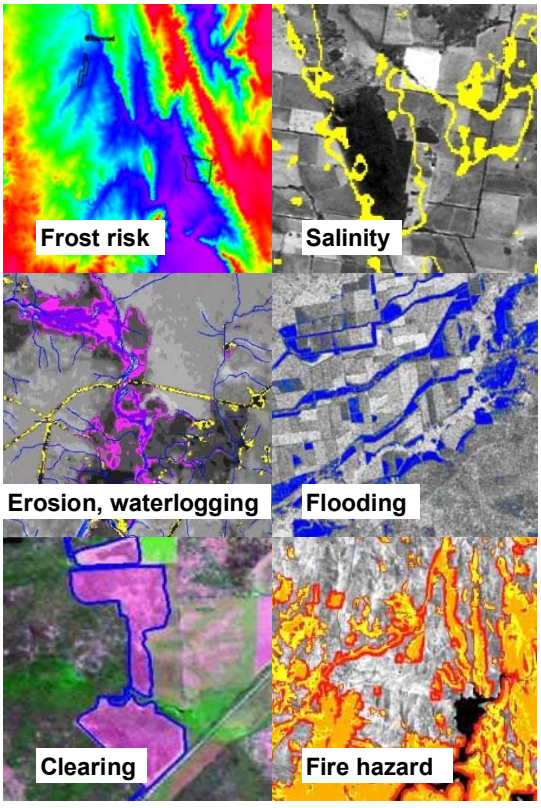
Services include integration of information in GIS, risk management, environmental impact assessment, and environmental planning that incorporates monitoring against defined objectives to achieve continuous improvement in performance.

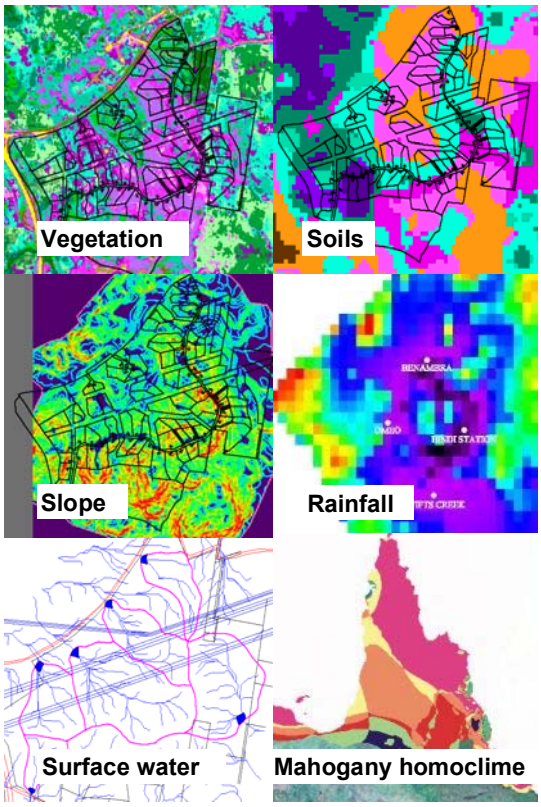
Planning

The Generic Environment Management Methodology GEMM® provides an integrated system for applying information to address business and environmental outcomes. It incorporates the ISO 14000 principles for environmental management in providing a feedback loop in objective setting and performance monitoring to achieve continuous improvement in performance.

The risk assessment methodology provides a statistical measure of performance and is used to assess and monitor performance. It identifies deficiencies to prioritise actions in the development of remediation plans. It allows for self assessment.

The environmental impact assessment methodology provides an efficient means of identifying potential constraints to development, and of comparing different development options. It allows screening of options before undertaking detailed studies.





APPLICATIONS

Geophysical applications include:

- Development of maps to assist geochemical sampling from radiometrics and satellite imagery
- Lineament analysis in satellite and airborne imagery
- Identification of structural and geochemical anomalies
- Development of elevation maps from aerial photography.
- Groundwater bore location

Environmental applications include:

- Mapping and monitoring of vegetation.
- Surface water mapping, particularly floods.
- Climate analysis for plant variety selection.
- Soil property mapping for plant site selection and engineering works.
- Terrain analysis for water and cold air drainage.

PRESENTATION OF RESULTS

The resource information is developed as discrete data layers in GIS and can be reliably used in modeling. The information layers have attached databases that identify the characteristics of the features.

The comprehensive services include acquisition of software and hardware, installation and maintenance, training of personnel, and provision of online support. Project management coordinates the conduct of activities and transfer results and facilitates application.

BENEFITS

Benefits provided by the ERIC approach relate to improved detail and reliability of information, and cost effectiveness. Numerical processing provides information that cannot otherwise be obtained and presents it in a form that allows effective integration with existing information.

The environmental information is used to support business operations to reduce costs and risks. The benefits include:

- Support for business operations, promoting profitability and sustainability.
- Identification of cost-effective options for development and remediation.
- Identification of risks and prioritization of actions.
- Addresses environmental requirements together with business outcomes.