

PROGRESSIVE REHABILITATION AND CLOSURE PLAN (PRCP)



MARKET SECTORS



Resource



Government

WHAT CAN EPIC DO?

Epic's team of multi-disciplinary consultants have extensive knowledge of integrated mine rehabilitation and closure planning, including associated regulatory requirements. This is backed up with extensive experience delivering greenfield and transitional progressive rehabilitation and closure plans (PRCPs) across a range of commodities and project scales.

Our team works collaboratively with clients and stakeholders to determine closure risks and opportunities. We evaluate alternative rehabilitation options to identify the 'best for project outcomes' considering operational, environmental and compliance drivers. The team has a keen focus on the development of robust, achievable and measurable milestone criteria that are benchmarked against industry standards to ensure the PRCP schedule is realistic and achievable.

LEGISLATIVE CONTEXT

The enactment of the *Mineral and Energy Resources (Financing Provisioning) Act 2018*, accompanied by amendments to the *Environmental Protection Act 1994*, introduced progressive rehabilitation and closure plan requirements in Queensland. All existing approved mines are required to prepare a PRCP through 'transitional' arrangements and all new 'greenfield' mines must prepare a PRCP as part of the approvals process.

The approaches taken have evolved as the sector has responded to the roll out. Epic's team has a mature understanding of the common pitfalls and hurdles in developing PRCPs. We use the growing number of approved PRCPs on the public register as a tool, conducting regular checks of current trends in study detail and milestone criteria. This allows us to recalibrate our approach as we strive to achieve the best possible outcomes.

OPERATIONAL MINE PLANNING AND PRCP

The PRCP consists of three parts:

- Rehabilitation planning part (RPP)
- PRCP schedule
- Spatial information

The RPP provides the details of the operation, the proposed rehabilitation and closure strategy. It includes a description of environmental values, conditions, post-mine land uses, community consultation and how rehabilitation and closure risks have been assessed and addressed.

The PRCP schedule is approved by the administering authority and includes maps of final rehabilitation and closure outcomes, time and area based milestones for achieving each post-mine land use and a set of milestone criteria to be met. When approved, the PRCP schedule includes enforceable conditions that will be regularly audited by the Department of Environment and Science (DES).

Therefore, it is critical that the schedule milestones and milestone criteria are realistic and achievable. For mature operations, the preparation of the PRCP is an opportunity to re-evaluate rehabilitation outcomes and old acceptance or completion criteria that may have hampered progress or prevented rehabilitation certification.

It is inevitable that there will be gaps in the information required to prepare the PRCP. Epic works with clients to identify these as early as possible to allow timely commissioning of supporting technical studies.



OUR EXPERIENCE

Epic has experience in conducting gap analyses or preparing PRCPs across a range of commodities including, precious metals (gold), base metals (copper), industrial minerals (limestone, silica sand, mineral sands) and critical minerals (vanadium, tungsten and cobalt).

- **Multicom Resources - Saint Elmo Vanadium Project** - Preparation of Environmental Impact Statement and supporting approvals, including the development of the first greenfield PRCP approved in Queensland.
- **Jubilee Metals Limited - Croydon Gold Mine Project** – Preparation of a transitional PRCP for Jubilee’s historical gold mine at Croydon.
- **Graymont Pty Ltd / Graymont (Calliope) Pty Ltd** – Epic prepared two transitional PRCPs for Graymont’s Calliope and Riverton limestone quarry operations, accompanied by ongoing approvals support to address legacy issues from historical mining.
- **North Queensland Tungsten - Watershed Project** - Development of a Properly Made PRCP for future mining operations.
- **Sibelco Australia Pty Ltd - Vance Project** - Development of a PRCP for a post-operational silica sand mine. Epic is also providing on-going strategic technical advice for Sibelco’s Minerals Sands Project PRCP.
- **True North Copper - North Queensland Operations** - Epic was engaged by True North Copper to undertake a gap analysis of existing studies against the PRCP guideline for two of their copper cobalt operations in North Queensland.

OUR PRCP SERVICES

- PRCP Gap analyses and works programs
- Rehabilitation and closure risk assessments
- Post-mine land use options analyses
- Development or review of rehabilitation and closure strategies
- Revegetation strategies
- GIS, spatial data analysis and mapping
- Conducting or managing environmental and engineering technical studies required to meet the requirements of the PRCP guidelines
- Hydrological and flooding risk assessments
- Hydrogeological assessments
- Water balance modelling (e.g. GoldSimm)
- Soil survey and soil quality assessments
- Assisting with developing realistic operational mine plans to support final landform design
- Estimated Rehabilitation Cost calculations
- Community consultation
- Updating existing environmental management plans
- Environmental Authority amendments
- Liaison and negotiation with regulatory authorities

