

Expectations and Future Direction of MOP Guidelines

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NSW Objectives for Mine Closure & Rehabilitation

- To ensure a sustainable minerals industry
- Streamline regulatory frameworks
- Create greater transparency
- Provide greater regulatory stability
- Improve rehabilitation outcomes

Performance-Based Regulation

- Subject to amendments to REMP provisions of the Mining Amendment Act 2008, DRE's role is shifting towards performance-based regulation
- The key focus is to foster performance-based outcomes that enables the uptake of best practice and leading edge solutions
- Reference in legislation to a Rehabilitation Environmental Management Plan will be changed to Rehabilitation Management Plan (RMP)

Performance-Based Regulation cont.

- Secretary will have power to direct compliance with, and an amendment to, an RMP if a satisfactory outcome is unlikely
- RMPs will need to be prepared in accordance with Guidelines, issued by the Secretary
- Guidelines will define auditing for performance and compliance as well as reporting
- An RMP will need to be in place before mining activities can commence
- Scope of an RMP will include off-title impacts (e.g. remediation of surface subsidence)

Integrated Government Approach to Mining

- Key projects involving DRE include:
 - development of Mine Design Guidelines, which promote a triple bottom line approach to sustainable mine design
 - standardising Director General Requirements (now Standard Environmental Assessment Requirements) for environmental assessments to facilitate effective integration of closure planning into mine design
 - strengthening DRE's role in review of proposed rehabilitation and closure strategies

Factoring Closure & Rehabilitation in Mine Design

- Natural landform design
- Integration of drainage system on post-mining landform with receiving water catchments
- Final voids
- Management of hostile geochemical materials
- Life-of-mine tailings management strategies
- Final land use and land capability

Benefits to Industry & Community

- Facilitates an adaptive management approach to rehabilitation to meet changing mine conditions as well as adopt evolving best practice standards
- Clarify the roles of the various regulators and reduce duplication
- Enables DRE to strengthen its role on regulating on-the-ground rehabilitation performance

MOP vs RMP

- The MOP guidelines were released as a precursor to the RMP, which will be required following commencement of the Mining Act Amendments (Part 11) – date to be determined
- Subject to fine-tuning as well as industry feedback, it is anticipated that RMP guidelines will be reflective of 2013 MOP guidelines
- The role of Principal Officer – Rehabilitation Standards is to coordinate finalisation of RMP Guidelines

MOP/RMP Objectives

- Outlines process for monitoring and managing rehabilitation towards successful outcomes
- Industry to identify risks and associated controls in order to achieve successful rehabilitation outcomes
- Industry to adopt the “SMART” objectives and criteria for rehabilitation
- Requires the provision of more targeted information to strengthen capacity of DRE to regulate rehabilitation/environmental performance and accurately determine security liabilities

Mine Rehabilitation as Biodiversity Offsets

- Under NSW Biodiversity Offsets Policy & Upper Hunter Strategic Assessment, ecological mine rehabilitation can be used to generate biodiversity credits as part of an overall biodiversity offset
- Ecological mine rehabilitation to meet an offset requirement will be regulated under a MOP/RMP
- It is the expectation that industry will need to adopt best practice rehabilitation in order to meet the associated rehabilitation objectives and completion criteria

DRE Expectations for MOPs/RMPs

Mining proponents to provide greater confidence on rigour being applied throughout all phases of rehabilitation

- Mine planning – objectives and criteria; how rehabilitation is being integrated into day to day mine planning
- Pre-clearance – salvage of biological resources for use in rehabilitation etc.
- Active Mining – materials characterisation and management; waste management; rejects & tailings disposal; landform establishment

DRE Expectations for MOPs/RMPs cont..

- Rehabilitation – covers; drainage & erosion control; substrate amelioration; vegetation & habitat establishment
- Rehabilitation Monitoring & Maintenance – details of monitoring programs (initial establishment and long term); how is rehabilitation tracking towards completion criteria; outcomes of trials; intervention & adaptive management; how is rehabilitation being actively managed and maintained
- Rehabilitation Sign-Off – timing and processes for achieving progressive sign-off

DRE Expectations for MOPs/RMPs cont..

- Address ALL requirements of the MOP Guidelines
 - so if it asks for it - submit it. i.e. Stakeholder engagement – don't just submit that CCC is undertaken, proponent has to "describe" expectations & agreements
- Be specific and detailed and not conceptual
- RMP must be consistent with the Development Consent (DC) and Environmental Assessments (EA)
- Need to ensure maps are drawn up in accordance with RMP Guidelines
- Maintain records

DRE Expectations for MOPs/RMPs cont..

- More discussion required on identification and management of risks related to rehabilitation and associated activities:
 - Spontaneous combustion;
 - Acid Mine Drainage (AMD);
 - Overburden and waste rock handling;
 - ROM Stockpiles and Overburden emplacements; and
 - Capping and rehabilitation of tailings dams.

DRE Expectations for MOPs/RMPs cont..

- Environmental management information specific to rehabilitation and final land use / closure should be imbedded in the RMP and not referenced to other management plans
- Other indirectly related management plans such as water etc. can be referred to as appendices

Transition to RMP under Mining Act Amendments

Key issues to be resolved as part of finalisation of RMP include:

- Revision to rehabilitation metrics (Table 6), including definitions of rehabilitation phases
- Definition of how to define rehabilitation domains and determine necessity for provision of domain specific metrics (Table 7)
- Consistency of spatial data requirements versus Survey and Drafting Directions
- Definition of rehabilitation phases (e.g. Ecosystem Establishment vs Ecosystem Development)

Transition to RMP under Mining Act Amendments cont..

- Re-work of AEMR guidelines to provide more specific detail of reporting requirements:
 - Rehab progress (actual vs predicted)
 - 12 month rehab forecast (potentially against production rate)
 - Long term trajectory and reasons for deviation
 - Outcomes of research, trials and monitoring – feedback loop for improvement/knowledge transfer
- Triggers for submission of Rehabilitation Cost Estimation

Industry & Community Feedback

- Comments and feedback welcome