

Rehabilitation Options and Scenarios for the Latrobe Valley

**Draft Framework following Discussion at Project
Management Meeting 19 November 2007**

Report for DPI

**Project Management Committee
(included within document)**

Prepared by GHD Pty Ltd

Executive Summary

Contents:

1. Objective of Rehabilitation

Proposed from DPI:rehabilitation of land subject to mining, to return it back to an agreed long term sustainable use for other agreed purposes.....

And from the High Level Objectives in ANZ Minerals and Energy Council & Minerals Council of Australia Strategic Framework for Mine Closure viz:

Stakeholder Involvement – To enable all stakeholders to have their interests considered during the mine closure process.

Planning – To ensure the process of (progressive rehabilitation and) closure occurs in an orderly, cost-effective and timely manner.

Financial Provision - To ensure the cost of (rehabilitation and mine) closure is adequately represented in company accounts and that the community is not left with liability

Implementation – To ensure there is a clear accountability, and adequate resources, for the implementation of the mine closure plan

Standards – To ensure a set of indicators which will demonstrate the successful (progressive and) completion of the closure process

Relinquishment – To reach a point where the company has met agreed completion criteria (for progressive rehabilitation and mine closure requirements) to the satisfaction of the Responsible Authority

2. Introduction

2.1 Background

2.2 Context

notes: -Provide an overview of the Latrobe Valley coal resources, coal mining and rehabilitation. Put life cycles of operation and rehabilitation and closure into context. Discuss how the current rehabilitation policies in the LV were developed in the 1990's by public consultation and the resulting policy outcome (as best as we can find it) and Aim is to review current rehabilitation, possible future mining situations and potential sustainable uses of the final landform and to develop a framework of principles and rehabilitation options that can be used for future rehabilitation studies on a mine or on a regional basis.

2.3 Regulatory setting

2.4 Project Scope

- Analyse existing rehabilitation plans of current mines
- Assess rehabilitation issues for future deeper mines and those which merge into super pits
- Identify associated environmental issues with regards to mine rehabilitation
- Identify mine rehabilitation options
- Suggest potential role of Government to implement rehabilitation options
- Carry out stakeholder consultation

3. Existing Mine Rehabilitation in the Latrobe Valley

3.1 Outline of current licence conditions and mine constraints

Notes: Not all the mines have current rehabilitation work plans so review of EES requirements will also be necessary. .

3.2 Status update of rehabilitation of existing mines

3.3 Examples of completed rehabilitation

Notes: Progressive rehabilitation in exiting mines, Yallourn North, YNX, wetlands etc.

3.4 Current rehabilitation practice

Notes: - Discuss normal rehabilitation practice, mine life cycle, progressive rehabilitation etc. . Financial provisions (use public information to show the cost/commitment to mine rehabilitation). Also outline the involvement of the community in rehabilitation issues (ERC) and monitoring and reporting of progress.

4. Latrobe Valley Rehabilitation Planning Considerations

4.1 Overview of the Latrobe Valley landscape and land-use

Notes:- broad overview of the varied landscape (steep and rolling hills, flat lands etc. and diverse nature of land-use and industry

4.2 External dumps, progressive rehabilitation and backfilling mines

4.3 Long Term Mine Stability and Maintainability

4.4 Groundwater Aquifers

- Separation from surface waters, dumps and rehabilitation
- Aquifer pressure and stability balance
- Interrelationship of aquifer pumping from a number of mines

4.5 Regional subsidence

4.6 Issues with Stored Water Quantity and Quality

4.7 Consideration of rehabilitation on untapped coal resources

4.8 Rehabilitation for mines which may merge or have potential extensions

4.9 Consideration of the use of rehabilitation for regional gains (e.g. relocating rivers or roads, protective bunds etc.)

4.10 Progressive rehabilitation towards developing a self sustaining solution for Closure and Handover

5. Environmental Rehabilitation Considerations

- 5.1 Backfilling Materials and required precautions
- 5.2 Groundwater Aquifers
- 5.3 Soil Preservation and Planting
- 5.4 Visual Impacts
- 5.5 Air Quality
- 5.6 Fire hazards
- 5.7 Public Safety
- 5.8 Waste Reduction, Energy and Water Conservation
- 5.9 Water Quality
- 5.10 Biodiversity
- 5.11 Potential to design particular environments for endangered species
- 5.12 Community Engagement
- 5.13 Evaluation and Monitoring

6. Principles for Rehabilitation

To be established

7. Identification of Rehabilitation Options

7.1 Analysis of other regulatory examples of regional rehabilitation plans

7.2 Identified Options

- ▶ Flooded Mine (fresh and salt water)
- ▶ Lowered Land Surface
- ▶ Other

7.3 Alternative productive land use systems

- ▶ Water storage
- ▶ Farming
- ▶ Aquaculture
- ▶ Forestry
- ▶ Industrial and commercial
- ▶ Housing
- ▶

7.3 Options for Mine Sequencing

- ▶ interconnection of mines
- ▶ recovering deeper coal seams
- ▶ use of rehabilitation for future infrastructure requirements

- ▶

7.4 Options for Future Mines

- ▶ shared dump space
- ▶ water storage

8. Analysis of Rehabilitation Options for Current and Future Mines

Analysis and discussion on the feasibility, opportunities, issues and situations where identified rehabilitation options could be utilised.

9. Findings

9.1 Summary

Notes: qualitative assessment using matrix

9.2 Gaps

9.3 Implications for Government and other Stakeholders

10. Suggested Next Steps

10.1 implementation of new guidelines

10.2 Using the framework to evaluate regional rehabilitation

11. Table 1 Timeframes (Reworked for Project Management Meeting)

Description	Date
Milestone 1 – Finalisation of Draft Report Structure	30 November 2007
Review existing mine rehabilitation plans, discussions with Mine Reps (subject to their availability)	14 December 2007
Review super-pits and deep mining rehabilitation	21 December 2007
Review Environmental Issues	21 December 2007
Develop Rehabilitation Options (in house workshop)	25 January 2008
Develop 1st draft Rehabilitation Principles	31 January 2008
Review of Vic government policy, legislative implications, water requirements	15 February 2008
Consider possible pathways for government & industry to work together to modify current rehabilitation plans (if required) to meet Rehab Principles	29 February 2008
Issue prepared notes for discussion at Working Meeting	7 March 2008
Working Meeting with Project Co-ordination Group to discuss Rehabilitation Options, government issues , consultation paper and key stakeholders to involve in stakeholder workshop	21 March 2008
Finalisation of Draft Consultation Paper for DPI review	31 March 2008
Complete DPI comments on Draft Consultation Paper	11 April 2008
Submission of Consultation Paper to Key Stakeholders	18 April 2008
Stakeholder Workshop	30 April 2008
Milestone 2 – Draft Report Submitted	15 May 2008
Complete comments from DPI	30 May 2008
Milestone 3 – Final Report Submitted *(pdf version ready for printing)	30 June 2008