

# Appendix F

## Research



Northern Energy Corporation Limited



## RESEARCH

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During construction and operation, ongoing monitoring of the Project will be conducted in accordance with Environmental Authority (EA) conditions set out in Section 5 Environmental Management Plan (EM Plan). In addition to the EA conditions the Project components, discussed below, will be further evaluated to improve environmental management strategies on site throughout the life of the mine.

### **Horse Creek Diversion**

The diversion of Horse Creek will occur in four distinct stages all of which are to be completed in the first six years of mine operations. The performance of the temporary and permanent diversion channels will be continually monitored with improvements to be made if required throughout the life of the mine.

### **Rehabilitation Trials**

The Project is committed to undertaking progressive rehabilitation throughout the life of the mine. The progressive rehabilitation strategy will target areas as soon as they become available for rehabilitation aiming to minimise the total disturbance existing at any point in time during the life of the mine. This will also allow for practical trials and refinement of rehabilitation techniques.

It is anticipated that trials will be run to determine ideal seeding rates and seed blends. The species provided in the EIS are intended as a guide only and may be modified as trials show more appropriate blends.

### **Tailings Management**

The Project proposes sub-aerial deposition of tailings initially in out-of-pit Tailing Storage Facilities (TSFs) and subsequently within a mining void. Further work is proposed to better define the parameters involved in the deposition of these tailings and to reduce water usage and improve water recovery at the Coal Handling and Preparation Plant (CHPP). Trials will be undertaken during operations to confirm that the cycling approach proposed is feasible and effective. The capacity of the cycling strategy to incorporate the in-pit TSF from year ten, so as to cycle tailings between all TSFs thereby further reducing the rate of rise in the individual facilities, improving supernatant water recovery and improving desiccation-induced consolidation, will be investigated during the staging of the development.

### **Surface, Sediment and Groundwater Quality**

Monitoring programs for surface, sediment and groundwater quality throughout all phases of the Project; construction, operation and decommissioning will be undertaken. The monitoring aims to collect data that will assist in monitoring impacts on receiving environments, provide data for the review of the surface water management system and provide data to assess the performance of groundwater management strategies.

Once a statistically robust and representative sample of data is developed, site specific trigger levels will be developed.

### **Greenhouse Gas Management**

Taroom Coal is committed to adopting and implementing the best practice measures and policies available to encourage a reduction in the Project's greenhouse gas emissions throughout the life of the Project. As the Project is still in the design phase, Taroom Coal proposes to incorporate a number of



features into the Project to reduce the greenhouse gas emissions from the outset of the Project. Through a Greenhouse Gas Management Plan (GGMP) contained in the EIS, Taroom Coal will ensure that all opportunities to reduce the Project's emissions are pursued.

