

COPPABELLA COAL MINE

EROSION AND SEDIMENT CONTROL (ESC) IMPLEMENTATION FOR HIGHWIRE ROAD AND FDUMP

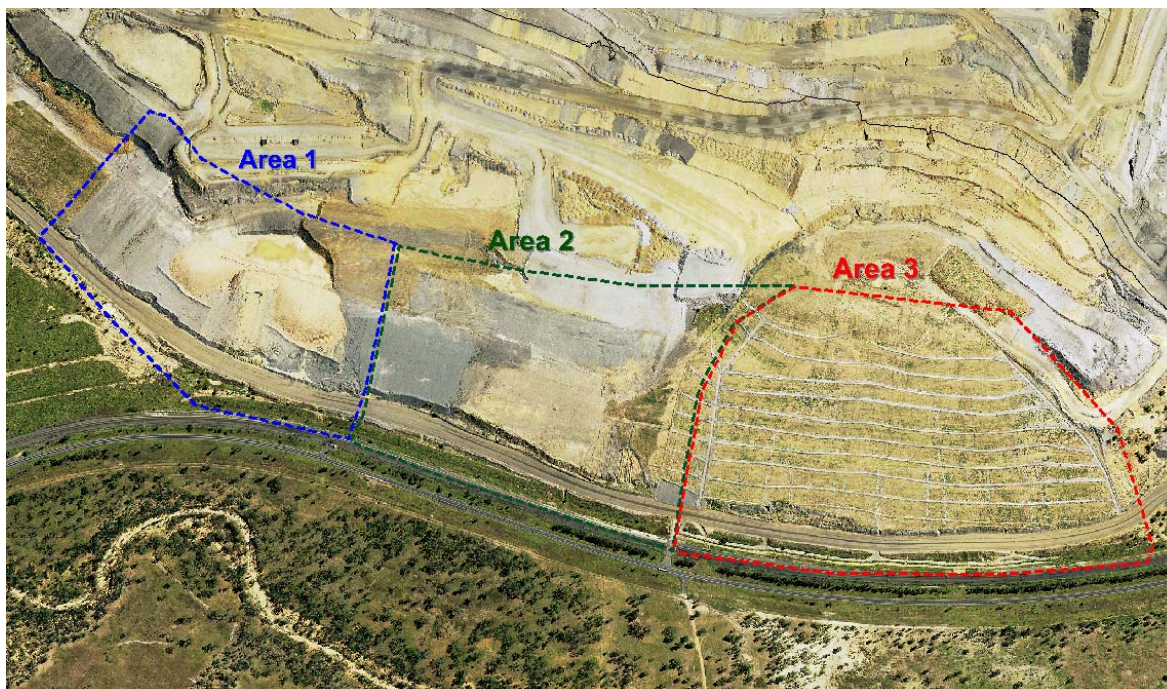
May 2015

Table of Contents

1	INTRODUCTION.....	3
1.1	Area 3: F-Dump Rehabilitation Maintenance Works - Completed.....	4
1.2	Area 2 & 3: High-Wire Road and FDump Toe Drainage Sediment Control - Ongoing.....	6
1.3	Area 1: Radio Hill Reshaping & Permian Capping – Completed	7

1 Introduction

The High-Wire Road and F-Dump Drainage Area Erosion and Sediment Control (ESC) Plan was submitted by Coppabella Mine, to the Adminstrating Authority on 31st October 2014. This plan segregated the High-Wire and F-Dump Drainage Area into 3 key areas (Figure 1 below) and focused on a combination of erosion, sediment and drainage controls specifically for that area.



The implementation timeline, from the ESC Plan, which outlines key activities for the individual work areas, has been provided below.

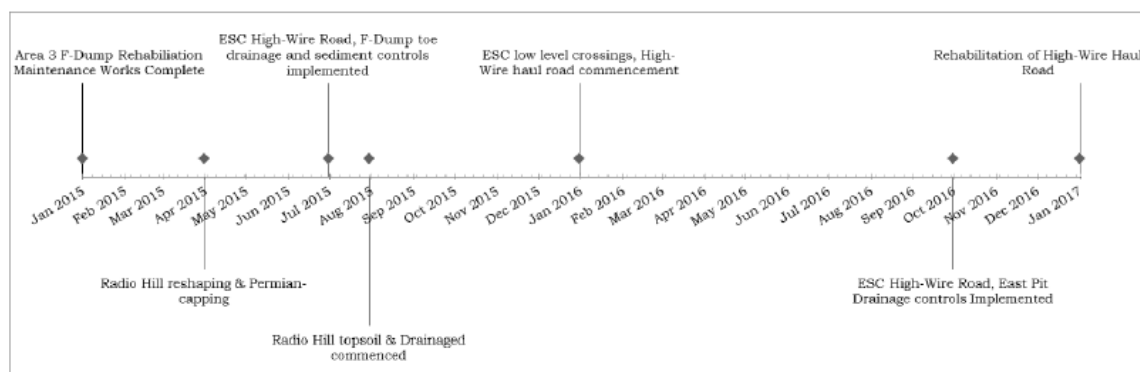


Figure 5 – Timeline of ESC works and Rehabilitation

The following report provides evidence demonstrating the completion of these key activities to date, in line with the ESC Implementation Plan timeline. These have been individually addressed within the report in order of completion date.

1.1 Area 3: F-Dump Rehabilitation Maintenance Works - Completed.

F-Dump Rehabilitation maintenance works included the removal of existing erosion scours, the installation of contour banks, rock verges, rock-lined down drains with sediment chain mesh fences at 50m intervals and deep ripping of the entire landform. The below images show constructed contour banks and rock down drains on the F-Dump landform and the overall landform drainage design. This works was completed in December 2014.



Figure 1: Contour Banks



Figure 2: Rock-lined Down Drain with Sediment Fences



Figure 3: Remediated F-Dump Landform

Through this remediation works the sediment load reporting to the bottom of the landform has been significantly reduce. Inspections and maintenance of this landform and its drainage structures will occur as stated in the ESC Plan for this area.

1.2 Area 2 & 3: High-Wire Road and FDump Toe Drainage Sediment Control - Ongoing

A road located along the bottom of the F-Dump landform has restricted this area from being completed to final landform. The recent construction of an in-pit haul road has now reduced the need to utilise this portion of the haul road and allows for closure of this road to occur. The reshaping and where able, Permian capping, of this area has prepared the landform for rehabilitation (including drainage structure installation) which is scheduled to commence in June 2015.

Figure 4, is an overview image, showing the area which has been closed.



Figure 4: Area reshaped for ESC.

In addition, images of the reshaped and Permian capped F-Dump lower tier have been provided below for reference.

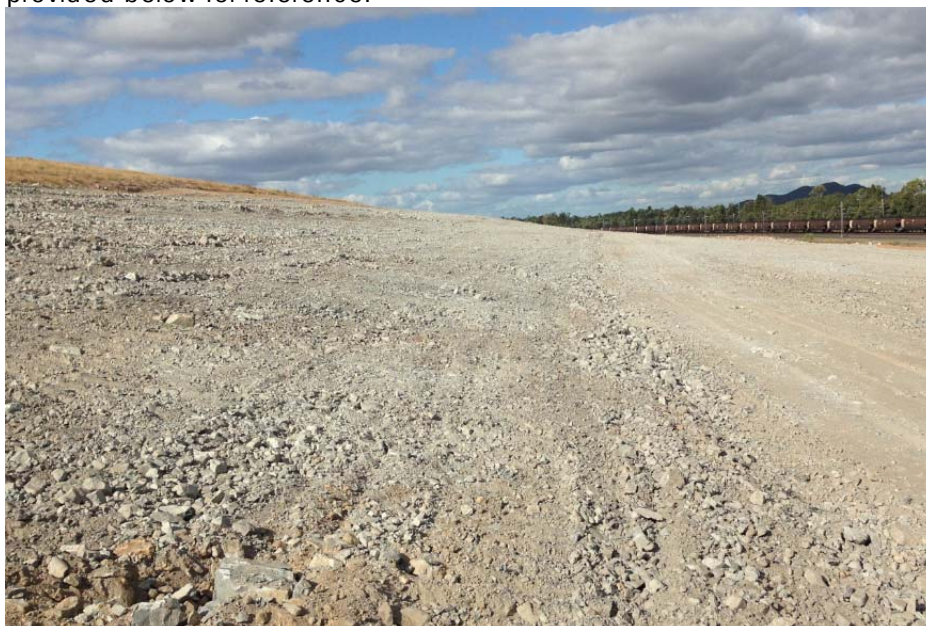


Figure 5: F-Dump Reshaped and Permian Capped Landform - Lower Tier (East)



Figure 6: F-Dump Reshaped and Permian Capped Landform - Lower Tier (West)

The remaining portion of the haul road, which will continue to be utilised until mine closure, has also been reduced in size to assist in mitigation of offsite impacts. The slope bordering the road has been reshaped and Permian capped and has been scheduled to be seeded in the 2015 rehabilitation program.

1.3 Area 1: Radio Hill Reshaping & Permian Capping – Completed

Radio Hill reshaping and Permian capping works consisted of the reshaping of dumped tertiary material and layering of competent Permian material on top of these reshaped slopes for erosion protection.

It has been recognised that the tertiary material excavated from in-pit at Coppabella Mine, is highly dispersive and prone to high levels of erosion. Due to these characteristics, trials were undertaken to utilise the Permian material also excavated from in-pit and cap the tertiary landform for greater erosion control and to reduce sediment run off. The success of these trials has now lead to the practice of capping all tertiary dumps with competent Permian material, at a 0.5m – 1m depth, prior to the implementation of drainage structures.

Images below show the reshaped and Permian capped landform of Radio Hill (Area 1).



Figure 7: Radio Hill Reshaped and Permian Capped Landform - Upper Tier (West)



Figure 8: Radio Hill Reshaped and Permian Capped Landform - Upper Tier (East)



Figure 9: Radio Hill Reshaped and Permian Capped Landform - Lower Tier (West)



Figure 10: Radio Hill Reshaped and Permian Capped Landform - Lower Tier (East)

The lower tier of this landform has been scheduled for rehabilitated (including the installation of drainage structures) commencing June 2015. Inspections and maintenance of this landform and its drainage structures will occur as stated in the ESC Plan for this area.