ENERGY SAVINGS ACTION PLAN

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ACRONYMS USED THROUGHOUT THIS DOCUMENT

DEUS	-	Department of Energy, Utilities and Sustainability
ESAP	-	Energy Savings Action Plan
NMPL	-	Namoi Mining Pty Ltd
PA	-	Project Approval

1 INTRODUCTION

This Energy Savings Action Plan (ESAP) has been prepared in accordance with Condition 3(42) of Project Approval (PA) 06_0308 for the Sunnyside Coal Project (Sunnyside). Sunnyside is operated by Namoi Mining Pty Ltd (NMPL), a subsidiary company of Whitehaven Coal Limited. Mining operations at Sunnyside were suspended in late November 2012 and recommenced in late 2017. This document considers the area of land corresponding to the project site boundary for Sunnyside, referred to as the “mine site”.

As illustrated in Figure 1, Sunnyside is located approximately 15km west of Gunnedah. The project layout is shown in Figure 2.

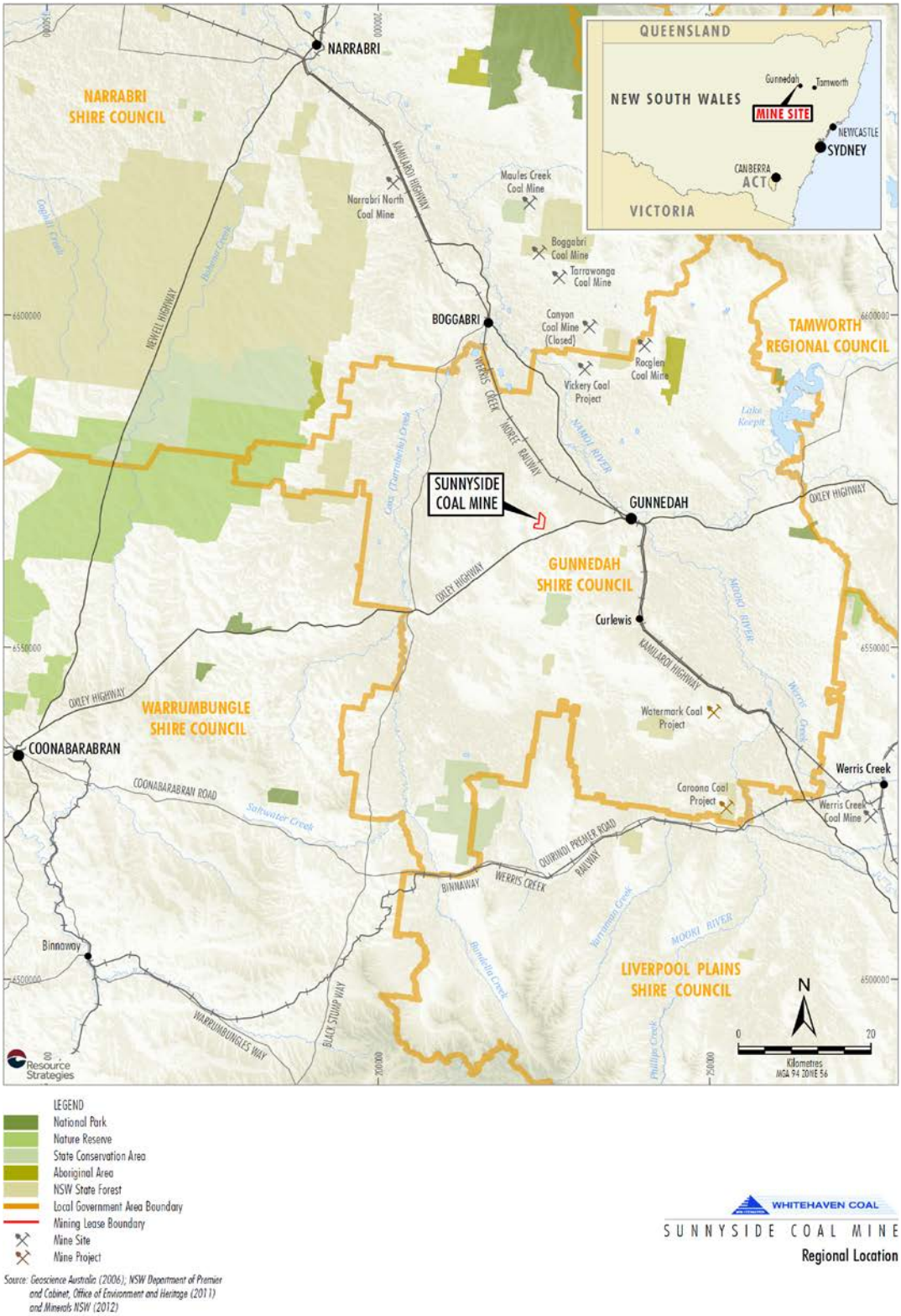

Figure 1 - Regional Location

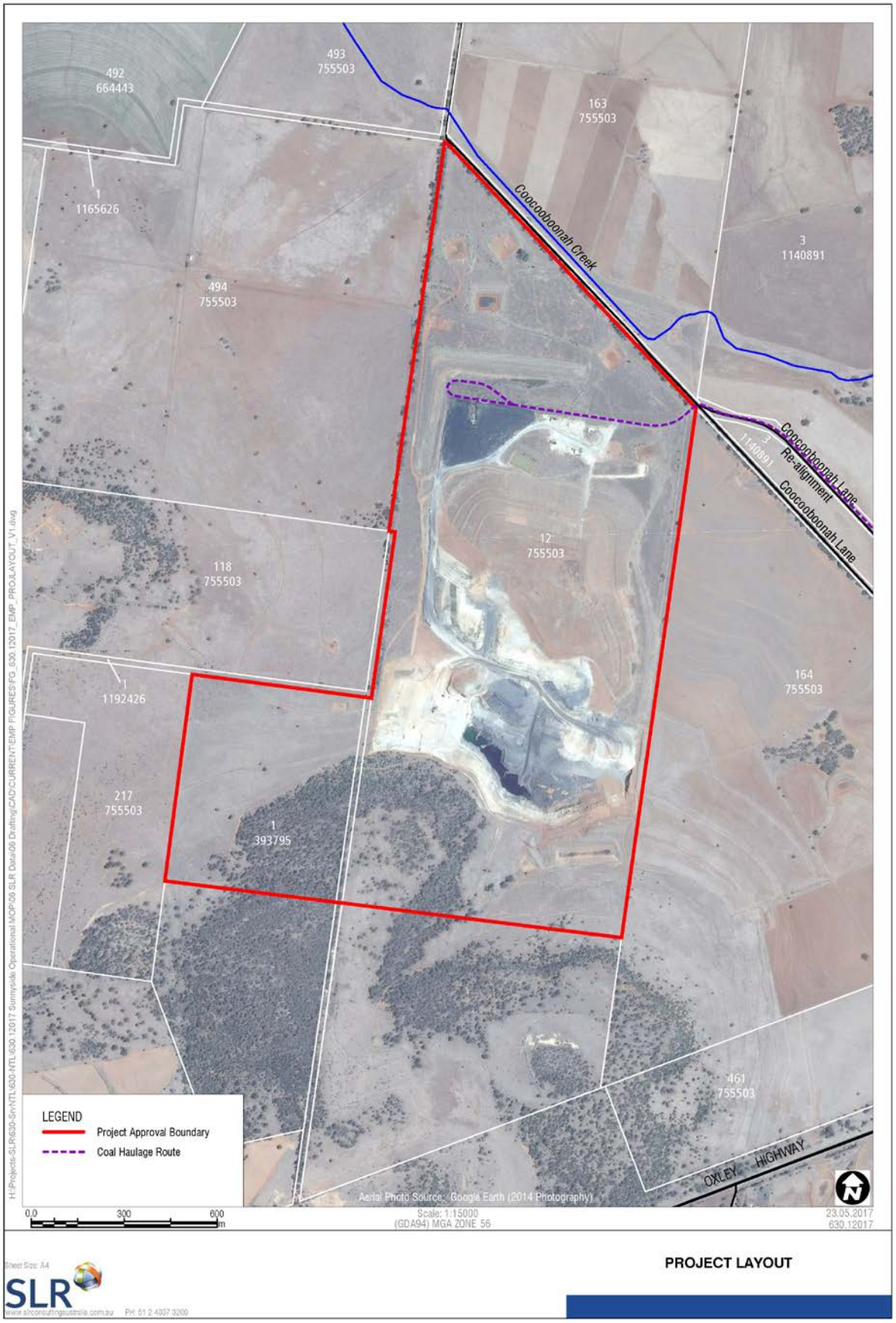

Figure 2 - Project Layout

2 STATUTORY REQUIREMENTS

This ESAP has been prepared in accordance with Condition 3(42) of PA 06_0308, which states:

GREENHOUSE GAS

Energy Savings Action Plan

42. The Proponent shall prepare and implement an Energy Savings Action Plan for the project to the satisfaction of the Secretary. This plan must:

(a) be prepared in accordance with the Guidelines for Energy Savings Action Plans *(DEUS, 2005), or its latest version;*

(b) include consideration of energy use by mobile equipment;

(c) be submitted to the Secretary for approval within 3 months of this approval; and

(d) include a program to monitor the effectiveness of measures to reduce energy use on site.

The following requirements from the Guide Notes were considered during preparation of the initial ESAP.

- Basic Information About the Site and its Operation;
- Estimated Energy Usage;
- Integrating the Plan;
- Estimated Baseline Energy Usage Data;
- Management Review;
- Provisional Technical Review (Energy) including an assessment of potential energy savings measures that could be implemented; and
- Summary and Recommendations.

It is noted that development of ESAPs in accordance with the *Guidelines for Energy Savings Action Plans (DEUS, 2005)*, or a contemporary equivalent, are no longer mandatory. Further, it was identified at the time of preparation of the original ESAP that Sunnyside did not trigger the threshold for reporting requirements of DEUS 2005.

3 BASELINE ENERGY USE

The original ESAP estimated baseline energy use for production rates similar to the approved maximum production rate. As the approved maximum production rate remains the same, the original baseline estimate is still relevant. Two examples, to show a range of production, are provided in Table 1. The outcome of the initial ESAP assessment, in terms of key energy uses, is shown in Figure 3 and Figure 4.

Table 1 - Baseline Energy Statistics

Baseline Energy Use (GJ) (Sunnyside Mine Site)	121,406	173,741
Greenhouse Emissions (tonnes CO_2-e)	8,492	12,153
Is baseline representative of normal energy use?	No	Yes
Business Activity Indicator	tonnes ROM produced	tonnes ROM produced
Quantity of Site Business Activity (tonnes)	498,000	992,050
Baseline Energy Key Performance Indicator (KPI)	244	175
Baseline KPI units	MJ/tonne ROM	MJ/tonne ROM
Summer Peak Electrical (kVA)	N/A	N/A
Winter Peak Electrical (kVA)	N/A	N/A
Estimated diesel use (litres)	3,145,227	4,501,052

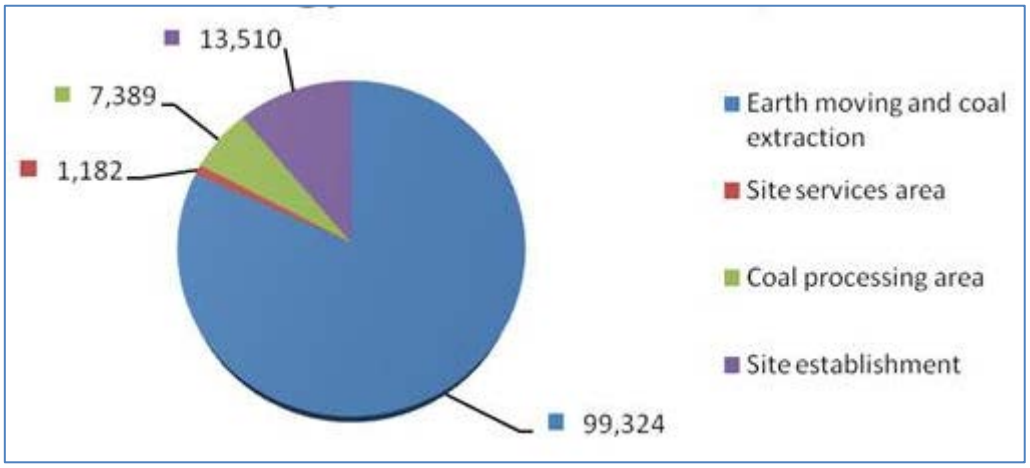

Figure 3 - Estimated Energy Balance (498,000 tonnes pa)

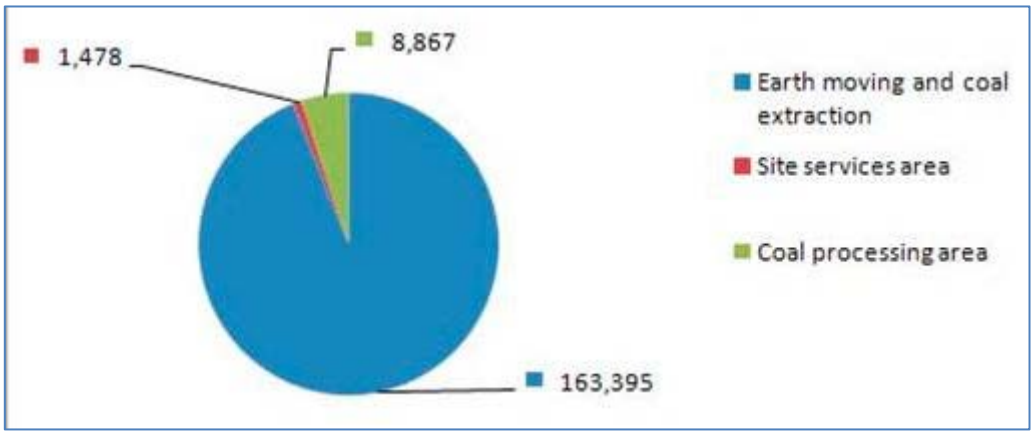

Figure 4 - Estimated Energy Balance (992,050 tonnes pa)

4 ENERGY MANAGEMENT REVIEW, EFFICIENCY OPPORTUNITIES AND ENERGY SAVINGS

Energy management and efficiency opportunity reviews were undertaken during preparation of the initial ESAP. As noted in the original ESAP, the site is small and compact with the site and equipment powered by diesel. The most effective way therefore to manage energy use is to ensure equipment is switched off when not required. Further, the site will operate with a fleet size appropriate for the site.

Sunnyside forms part of the Whitehaven Group's National Greenhouse and Energy Reporting Scheme (NGERS) reporting requirements. The scheme's legislated objectives are to:

- Inform policy-making and the Australian public;
- Meet Australia's international reporting obligations; and
- Provide a single national reporting framework for energy and emissions reporting.

Diesel use by plant and equipment is recorded and energy use will be monitored via NGERS reporting requirements.

Following the end of the first financial year of operations, the site will assess recorded energy use and determine whether there are any opportunities for improvement.

5 DOCUMENT REVIEW

This document will be reviewed in accordance with the requirements of Condition 5(5A) of PA 06_0308.