

Proposed Ethanol Production Facility at Condobolin

Preliminary Assessment Report

Australian Ethanol Limited

September 2006

www.erm.com



Approved by:	Kelly Pearsall
Position:	Project Manager
Signed:	u.Kll
Date:	12 September, 2006
Approved by:	Andrew Cook
Position:	Project Director
Signed:	al Cal.
Date:	12 September, 2006

0051752Condobolin

www.erm.com

This report was prepared in accordance with the scope of services set out in the contract between Environmental Resources Management Australia Pty Ltd ABN 12 002 773 248 (ERM) and the Client. To the best of our knowledge, the proposal presented herein accurately reflects the Client's intentions when the report was printed. However, the application of conditions of approval or impacts of unanticipated future events could modify the outcomes described in this document. In preparing the report, ERM used data, surveys, analyses, designs, plans and other information provided by the individuals and organisations referenced herein. While checks were undertaken to ensure that such materials were the correct and current versions of the materials provided, except as otherwise stated, ERM did not independently verify the accuracy or completeness of these information sources

FINAL REPORT

Australian Ethanol Limited

Proposed Ethanol
Production Facility at
Condobolin
Preliminary Assessment
Report

September 2006

Environmental Resources Management Australia

Building C, 33 Saunders Street Pyrmont, NSW 2009 Telephone +61 2 8584 8888 Facsimile +61 2 8584 8800 www.erm.com

CONTENTS

1	INTRODUCTION	
1.1	Purpose of the Report	1
1.2	AUSTRALIAN ETHANOL LIMITED	3
1.3	ETHANOL FUEL PRODUCTION OVERVIEW	3
1.4	CONSULTATION	4
1.5	STRUCTURE OF PRELIMINARY ASSESSMENT	5
2	SITE SETTING	
2.1	LOCATION	7
2.2	SITE DESCRIPTION	7
3	PROJECT DESCRIPTION	
3.1	SITE LAYOUT	13
3.2	PROPOSED ETHANOL PRODUCTION PROCESS	17
3.3	PROPOSED PLANTATION	22
3.4	Proposed Water Recycling	22
4	STATUTORY CONTEXT	
4.1	STATE ENVIRONMENTAL PLANNING INSTRUMENTS	25
4.1.1	ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979	2 5
4.1.2	STATE ENVIRONMENTAL PLANNING POLICY (MAJOR PROJECTS) 2005	2 5
4.1.3	STATE ENVIRONMENTAL PLANNING POLICY NO. 11 - TRAFFIC	
	GENERATING DEVELOPMENTS	26
4.1.4	STATE ENVIRONMENTAL PLANNING POLICY NO 33 -HAZARDOUS	2
4.4.5	AND OFFENSIVE DEVELOPMENT	26
4.1.5	PROTECTION OF THE ENVIRONMENT OPERATIONS ACT 1997	27
4.1.6	WATER ACT 1912	27
4.1.7	WATER MANAGEMENT ACT 2000	27
4.1.8	ROADS ACT 1993	28
4.2	LOCAL ENVIRONMENTAL PLANNING INSTRUMENTS	29
4.2.1	LACHLAN LOCAL ENVIRONMENTAL PLAN 1991	29
4.3	SUMMARY OF PERMITS, LICENCES AND APPROVALS	30
5	ENVIRONMENTAL ASSESSMENT	
5.1	GEOLOGY SOILS AND LANDFORM	31
5.1.1	CONDOBOLIN TOPOGRAPHY	31
5.1.2	CONDOBOLIN GEOLOGY AND SOIL LANDSCAPES	31
5.2	SURFACE WATER	32
5.3	GROUNDWATER	33
5.4	AIR QUALITY AND ODOUR	34
5.5	Noise	35

CONTENTS

5.5.1	OPERATIONAL NOISE	35
5.5.2	CONSTRUCTION NOISE	35
5.5.3	ACOUSTIC ASSESSMENT	36
5.6	TRAFFIC AND TRANSPORT	37
5.6.1	SURROUNDING ROAD NETWORK	37
5.6.2	VEHICLE MOVEMENTS	37
5.7	VISUAL IMPACTS	38
5.7.1	EXISTING LANDSCAPE	38
5.7.2	PROPOSED LANDSCAPE	39
5.7.3	POTENTIAL VISUAL IMPACTS	39
5.8	HERITAGE	41
5.8.1	EUROPEAN HERITAGE	41
5.8.2	ABORIGINAL HERITAGE	41
5.9	ECOLOGY	43
5.10	Infrastructure	45
5.11	HAZARDS AND RISKS	45
5.12	SOCIO-ECONOMIC IMPACTS	46
5.13	ECOLOGICALLY SUSTAINABLE DEVELOPMENT	46
6	CONCLUSION	
	LIST OF FIGURES	
Figure 1	REGIONAL LOCATIONS OF THE THREE PROPOSED PLANT SITES	2
FIGURE 2	AERIAL PHOTO OF PROPOSED PLANT AND SURROUNDING AREA - CONDOBOLIN	10
FIGURE 3	INDICATIVE ETHANOL PRODUCTION PLANT LAYOUT (SWAN HILL PLANT)	15
FIGURE 4	LOCATION OF ABORIGINAL SITES (REGISTERED ON AHIMS DATABASE) WITHIN 5 KM OF STUDY AREA	42
FIGURE 5	THREATENED SPECIES PREVIOUSLY RECORDED WITHIN 10KM OF CONDOBOLIN SITE	44

LIST OF PHOTOGRAPHS

PHOTOGRAPH 1	CONDOBOLIN SITE, VIEW WEST FROM EASTERN BOUNDARY.	11
Рнотодгарн 2	ENTRANCE TO SITE VIA MICABIL ROAD	11
Рнотодгарн 3	RESIDENCE LOCATED TO EAST OF SITE BOUNDARY	11
Рнотодгарн 4	MICABIL ROAD ON SOUTHERN BOUNDARY OF SITE	12
Рнотодгарн 5	GUM BEND LAKE	12
PHOTOGRAPH 6	EXISTING PUMPING STATION ADJACENT TO THE LACHLAN RIVER	12
PHOTOGRAPH 7	PHOTOGRAPH OF SIMILAR ETHANOL FACILITY IN UNITED STATES, INDICATIVE OF CURRENT PROPOSAL	16

1 INTRODUCTION

1.1 Purpose of the Report

Environmental Resources Management Australia Pty Ltd (ERM) has been engaged by Australian Ethanol Limited to prepare a preliminary environmental assessment for the construction and operation of three ethanol production facilities in Condobolin, Coleambally and Oaklands New South Wales (NSW).

Figure 1 shows the regional locations of the three proposed facilities.

The ethanol production facilities will be capable of processing a range of cereal grains (such as corn, wheat, barley and sorghum), which are grown in the Central West Region of NSW, to produce up to 200 ML of ethanol products annually.

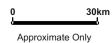
A number of holding dams and effluent treatment and recycling areas will also be incorporated into each facility, while a portion of each site will be dedicated as forestry plantations to provide carbon sequestration for the facilities by-products.

Australian Ethanol Limited seeks project approval for the development of an ethanol production facility and associated plantation at Condobolin, under Part 3A of the *Environmental Planning and Assessment Act, 1979* (EP&A Act). The facility will have a development cost exceeding \$30 million and therefore the proposal will be determined by the Minister for Planning.

This report is the preliminary environmental assessment for the Condobolin facility. It has been prepared in order to gain the Director-General's requirements under Clause 75(F) of the EP&A Act for the preparation of an environmental assessment report (EAR).

The preliminary assessment report sets out the likely environmental issues associated with the project to facilitate the preparation of the Director-General's requirements.





Plant Sites