PROJECT SEA DRAGON
STAGE 1 LEGUNE GROW-OUT FACILITY
DRAFT ENVIRONMENTAL IMPACT STATEMENT

VOLUME 1 - PROJECT OVERVIEW
CHAPTER 2 - INTRODUCTION

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1 PROJECT OVERVIEW

1.1 PROJECT SEA DRAGON

Project Sea Dragon Pty Ltd (the proponent), a wholly owned subsidiary of Seafarms Group Limited (Seafarms) (ASX: SFG), proposes to develop Project Sea Dragon, a large-scale, integrated, land-based prawn aquaculture project in northern Australia. Project Sea Dragon is designed to produce high-quality, year-round reliable volumes for export markets for black tiger prawns (*Penaeus monodon*).

Project Sea Dragon is a staged development of up to 10,000 hectares (ha) of production ponds, comprising a number of facilities across northern Australia (Figure 1), including:

- The Grow-out Facility - proposed to be located at Legune Station in the Northern Territory (NT).
- Quarantine, Founder Stock Facility and Back-up Breeding Centre - located at Exmouth in Western Australia (WA).
- Breeding Program (Core Breeding Centre and Broodstock Maturation Centre) - proposed to be located at Point Ceylon at Bynoe Harbour (NT).
- Hatchery Site - proposed to be located in the Darwin environs (NT).
- A Processing Plant - proposed to be located near Kununurra (WA).
- Export Facilities – proposed to be located at either or both Wyndham (WA) and Darwin (NT).

The Project Sea Dragon Stage 1 Legune Grow-out Facility is a component of the larger Project Sea Dragon, and is:

- the first stage of the development of the Grow-out Facility and
- the subject of this Draft Environmental Impact Statement (EIS).

1.2 STAGE 1 LEGUNE GROW-OUT FACILITY

The Project Sea Dragon Stage 1 Legune Grow-out Facility (herein referred to as the Project) is proposed to be located at Legune Station, approximately 106 km north-east of Kununurra on the western border of the Northern Territory. The Project will comprise approximately 1,080 ha of prawn farming capacity and at full production will produce nominally 14,000 tonnes of prawns per annum. Key Project components include:

- Grow-out centre: seawater intake pump station, seawater intake channel, settlement and maintenance pond, main feeder channel, freshwater supply, freshwater channel, grow-out farms, internal farm recycling ponds, main discharge channel, environmental protection zone and outfall.
- Supporting infrastructure: farm roads, farm services, central facilities, accommodation village, Central Service Road and Legune Access Road.

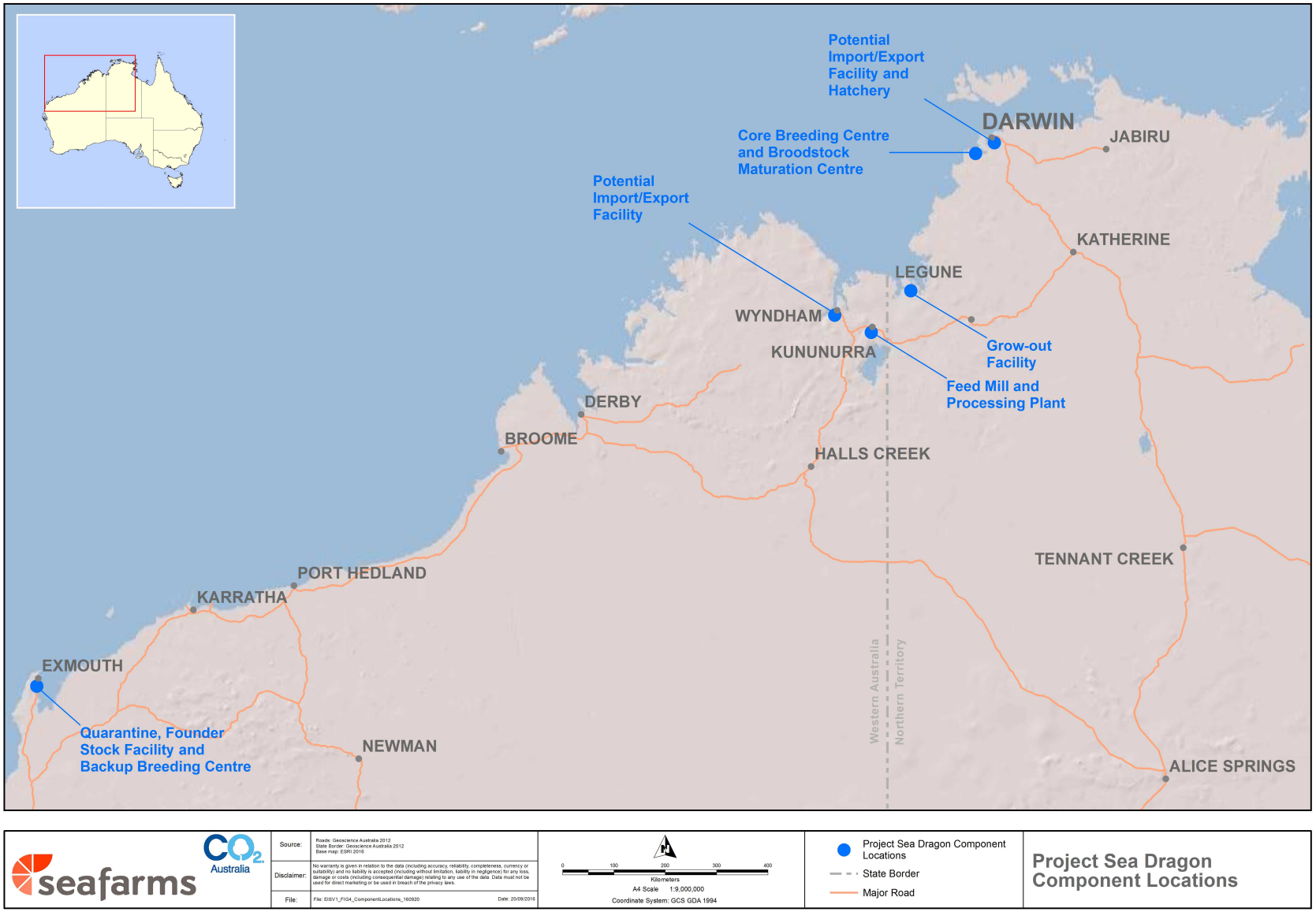

FIGURE 1 PROJECT SEA DRAGON COMPONENT LOCATIONS

2 ENVIRONMENTAL ASSESSMENT PROCESS

2.1 REFERRAL TO NORTHERN TERRITORY AND AUSTRALIAN GOVERNMENTS

A Notice of Intent (NOI) for the Project was submitted to the Northern Territory Environment Protection Authority (NT EPA) on 15 July 2015 for consideration under the NT *Environmental Assessment Act* (EA Act). The Project was also referred to the Australian Government under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 20 July 2015.

On 31 August 2015, a delegate of the Commonwealth Minister for the Environment decided that the proposed action was a controlled action and, as such, required assessment and approval under the EPBC Act. The controlling provisions included the likely significant impact on:

- listed threatened species and communities (sections 18 & 18A)
- listed migratory species (sections 20 & 20A).

On 14 September 2015, the NT EPA decided that the Project required assessment under the EA Act at the level of an EIS. The NT EPA decision was based on the following:

- Potential to impact on threatened, marine and migratory species listed under the EPBC Act and the Territory Parks and Wildlife Conservation Act (TPWC Act). Risks to biodiversity values could arise from habitat clearing, poor weed hygiene, downstream impacts from discharge of nutrient-rich water and extraction of large volumes of freshwater.
- Potential to impact on the Legune coastal floodplain site of conservation significance, which is host to migratory birdlife aggregations of international significance, and includes Turtle Point, a highly significant nesting beach for the flatback turtle (*Natator depressus*; listed as vulnerable under the EPBC Act).
- Potential impacts from the discharge of waste from the prawn farming activities into receiving waters considered to be of high environmental value.
- The significant management requirements for solid and liquid waste and the potential detrimental effects of inappropriate management practices.
- Potential impacts on the local amenity and the environment from third-party access to the area for recreational fishing, camping and hunting. The proposed action would establish all-weather access, which could unintentionally provide entry to previously inaccessible areas.
- The implications of predation by birds on prawn stock held in ponds, both on the project feasibility and on bird aggregations.
- The need for consideration of decommissioning of the site in the event of unplanned closure.
- Potential economic, social and cultural impacts on the region and the Northern Territory, including the risks of the Project not realising its projected economic and social benefits.

The NT EPA decision notice also advised that the Project was to be assessed under the assessment bilateral agreement between the Australian and Northern Territory Governments (made under Section 45 of the EPBC Act).

On 6 November 2015, the NT EPA issued the 'Terms of Reference for the Preparation of Environmental Impact Statement' (ToR). This draft EIS has been prepared to address the ToR and inform the Northern Territory and Australian Government's approval decision.

2.2 PUBLIC EXHIBITION OF THE DRAFT EIS

This draft EIS will go on public exhibition for a minimum of eight weeks to provide an opportunity for the public and government advisory bodies to comment on the Project or specific issues of concern. Issues raised during the public exhibition will be addressed in the form of a supplement to this draft EIS.

2.3 DECISION PROCESS

Following the submission of the supplement, the NT EPA Environmental Assessment Unit will prepare a draft assessment report and recommendations for consideration by the NT EPA. The assessment report will then be provided by the NT EPA Minister to the responsible Minister (i.e. the Minister of the Department of Primary Industry and Fisheries) for consideration and final determination as to whether or not an approval will be issued, and if so, the conditions that may be applied. Under the bilateral agreement with the Australian government, the NT EPA will also provide the assessment report to Commonwealth Department of the Environment and Energy for consideration and approval under the EPBC Act.

3 DRAFT EIS FOR THE STAGE 1 LEGUNE GROW-OUT FACILITY

In accordance with the Project's ToR, the proponent has prepared this draft EIS to provide an assessment of the potential risks of the Project during both construction and operation, including a detailed assessment of the proposed mitigation, management and monitoring measures.

As outlined in Table 1 the EIS contains five volumes:

- Volume 1 - provides an overview of the Project including a detailed Project description and risk assessment.
- Volume 2 - documents the outcomes of the environmental assessment process for land, water, flora, fauna, air, climate and noise.
- Volume 3 - presents the social, economic and cultural aspects of the assessment.
- Volume 4 - outlines the results of the cumulative impact assessment and provides the environmental management plan for the Project.
- Volume 5 - includes a number of key documents as appendices, including the technical reports prepared as part of the EIS process.

TABLE 1 STRUCTURE OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

EIS Section	Title
Volume 1: Project Overview	
Chapter 1	Table of Contents
Chapter 2	Introduction
Chapter 3	Project Description
Chapter 4	Project Alternatives
Chapter 5	Water Balance
Chapter 6	Approvals, Conditions and Agreements
Chapter 7	Ecologically Sustainable Development
Chapter 8	Risk Assessment
Volume 2: Environmental Assessment	
Chapter 1	Geology, Geomorphology and Soils
Chapter 2	Marine and Estuarine Water
Chapter 3	Freshwater
Chapter 4	Groundwater
Chapter 5	Terrestrial Flora
Chapter 6	Terrestrial Fauna and Avifauna
Chapter 7	Estuarine and Marine Ecology
Chapter 8	Freshwater Ecology
Chapter 9	Waste Management
Chapter 10	Air Quality
Chapter 11	Climate and Local Meteorology
Chapter 12	Climate Change Assessment
Chapter 13	Noise and Vibration
Volume 3: Social, Economic and Cultural Assessment	
Chapter 1	Socio-economic
Chapter 2	Historic and Cultural Heritage
Chapter 3	Human Health and Safety
Chapter 4	Traffic and Transport
Chapter 5	Amenity

EIS Section	Title
Volume 4: Cumulative Impact Assessment, Environmental Management and References	
Chapter 1	Cumulative Impacts
Chapter 2	Environmental Management System
Chapter 3	Environmental Management Plan
Chapter 4	References
Volume 5: Appendices	
Appendix 1	Terms of Reference
Appendix 2	Cross Reference to Terms of Reference
Appendix 3	EIS Team
Appendix 4	Abbreviations, Acronyms and Glossary
Appendix 5	Commitments
Appendix 6	Australian Prawn Farming Manual
Appendix 7	Soil Investigations
Appendix 8	Coastal Assessment and Hydrodynamic Modelling
Appendix 9	Estuarine and Marine Water Quality and Ecology
Appendix 10	Forsyth and Alligator Creek Bank Erosion Assessment
Appendix 11	Floodplain Modelling
Appendix 12	Freshwater Water Quality and Ecology
Appendix 13	Groundwater Data
Appendix 14	Flora and Vegetation Assessment
Appendix 15	Terrestrial Fauna Assessment
Appendix 16	Biosecurity Assessment
Appendix 17	CSIRO Assessment of the Legune Station suitability for Project Sea Dragon
Appendix 18	Air Quality Assessment
Appendix 19	Noise Assessment
Appendix 20	Social Impact Assessment
Appendix 21	Economic Impact Assessment
Appendix 22	Biting Insect Assessment
Appendix 23	Traffic Assessment