PROJECT SEA DRAGON (PSD) – EXPRESSION OF INTEREST (EOI)

Project Overview:	Project Sea Dragon Pty Ltd (PSD), a wholly-owned subsidiary of Seafarms Group Ltd (Seafarms) is developing Project Sea Dragon - a large-scale, integrated, land-based prawn aquaculture project in northern Australia. It is a staged development of up to 10,000 hectares (ha) of production ponds at Legune Station in the Northern Territory (NT), with supporting facilities across Western Australia (WA) and the NT. A process plant to process prawns is to be built 15km north of Kununurra. Project Sea Dragon is designed to produce high-quality, year-round reliable volumes for export markets for Australian Black Tiger prawns.
Package Title:	**Wastewater Treatment and Freshwater Treatment Systems and Commissioning (separable packages) for PSD Prawn Processing Plant**
Reference	**PSD081**
Package Description:	This package of works is for the detailed design, supply and installation & commissioning of: ▪ a wastewater treatment system to meet treated effluent discharge requirements ▪ evaporation ponds to support wastewater and waste product management in accordance with the Works Approval. ▪ a fresh water treatment system to bring bore water to potable standards The capacity of the processing plant is up to 16,000 tonnes of prawns per annum with a design throughput of 3.2 tonnes to 4 tonnes of prawns per hour. The plant will operate up to 20 hours a day with about 4hours per day for cleaning. Wastewater will be generated from three sources: 1. Water from the tubs containing saline ice slurry, in which the prawns are transported to the processing plant. 2. Water from washing the prawns, and cleaning and washing equipment. 3. Brine water from the prawn cooking and cooling processes The process wastewater treatment system needs to treat the above plant water (which excludes sewage which will be managed separately).

- **Wastewater-** is expected to have the following characteristics:

Parameters	Untreated Plant Waste Water	Parameters Required for Environmental Discharge of waste water
Peak Flow	306 kL/day	
Total Dissolved Solids (TDS)	16,932 mg/L	800.00 mg/L
Total Suspended Solids (TSS)	119.1 mg/L	2.0 mg /L
Total Nitrogen (TN)	222.7 mg/L	5.0 mg/L
Total Phosphorus (TP)	16.0 mg/L	0.5 mg/L
Biological Oxygen Demand	1,310.0 mg/L	5.0 mg/L

Parameters	Chiller Brine
Peak Flow	5.14 kL/day
Annualised flow	2.25 kL/day
Total Dissolved Solids (TDS)	290,000 mg/L
Total Suspended Solids (TSS)	195 mg/L
Total Nitrogen (TN)	404 mg/L
Total Phosphorus (TP)	45 mg/L
Biological Oxygen Demand	2,500 mg/L

Treated wastewater, not meeting discharge requirements is to be stored in lined evaporation ponds, with ponds to be covered in the wet season.

- **Freshwater**

Freshwater will be supplied from an existing production bore within 100 m of the plant. Freshwater from the bore must be treated to potable water quality.

Up to 4 litres of freshwater per kilogram of product is required for the purpose of washing prawns and for cleaning and washing down equipment.

The annual volume of prawns through the plant will be 16,000 tonnes. Additionally water is required for amenities for up 100 staff. The plant is expected to operate 312 days per year (52 weeks x 6 days).

- **Timing**

Construction of the process plant is scheduled to commence in Q3 2020 with the waste water and fresh water treatment systems supply & installation in Q2/Q3 2021, and commissioning in December 2021

	In accordance with the Seafarms commitments to building local and Indigenous capacity in the region, the tender evaluation will include a weighting for utilising local regional businesses in the Northern Territory/Kimberley region.
Key Information to be provided with the Respondents EOI	To be considered for this package respondents must provide: ▪ Examples of similar water /wastewater treatment systems and other operations and sites, particularly in northern Australia ▪ A technical description of your proposed treatment systems, and equipment ▪ Technical details of what makes your proposed solution the best compared to other options and competitors ▪ details of quality accreditation and quality assurance ▪ proposed installation methodology including use of local sub-contractors ▪ evidence that the proposed treatment process will meet the required water quality parameters
Key Milestones	Target Contract for Design Award Date: 30 April 2020 Target Completion Date: 30 April 2021
Expression of Interest	Companies are invited to express an interest in this package by registering on the NT ICN Gateway on line platform. Please ensure your ICN company profile is up to date before registering your expression of interest.
EOI Closing Date:	18 October 2019
Contact:	Peter Stubbs peter.stubbs@projectseadragon.com.au
Project URL's:	www.seafarms.com.au
Disclaimer	This package description and target award date is indicative only and subject to change. It is intended to provide only a brief outline of certain works that may be required for the proposed Project Sea Dragon and should be read in conjunction with Project Sea Dragon project description on ICN Gateway