EXECUTIVE SUMMARY

"Cadangan Kerja-kerja Pengerukan Pasir Laut dari Tanjung Aru, Labuan ke Menumbok, Sabah"

INTRODUCTION

Project involves the following activities:-

- Sand dredging/mining from coast of Tanjung Aru (Labuan) to Menumbok (Sabah);
- Main dredging area is 1 km wide with 500 m shoulder one each side;
- Area to be dredged to 9 m depth;
- Approximate dredging volume 43.1 M m^3 ;
- Estimated dredge spoil 500,000 m^3 ;
- Dredged sand will be exported;
- Dredging will be conducted using CSD and Three-in One Dredger

PROJECT PROPONENT

Faica Bina Sdn. Bhd.
E-13A-10, Plaza Mont Kiara,
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Contact Person:
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(Chief Executive Officer)
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EIA CONSULTANTS

L I Environmental Consultants Sdn Bhd
723 V2, Vanda Business Park
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Contact Person :
Dato' Dr. Zubir bin Din
(Managing Director, DOE Registration C0011)
Tel. : 04 373 9320
Fax. : 04 373 9321

ENVIRONMENTAL LEGISLATIVE REQUIREMENT

First Schedule

Item 8: Sand Mining

(b) Sand mining on land/river/coastal area/territorial waters not exceeding 3 nautical miles measured from low-water line, involving area of 20 hectares or more.

Item 15: Dredging

(a) *Capital dredging*

(b) Disposal of dredged material

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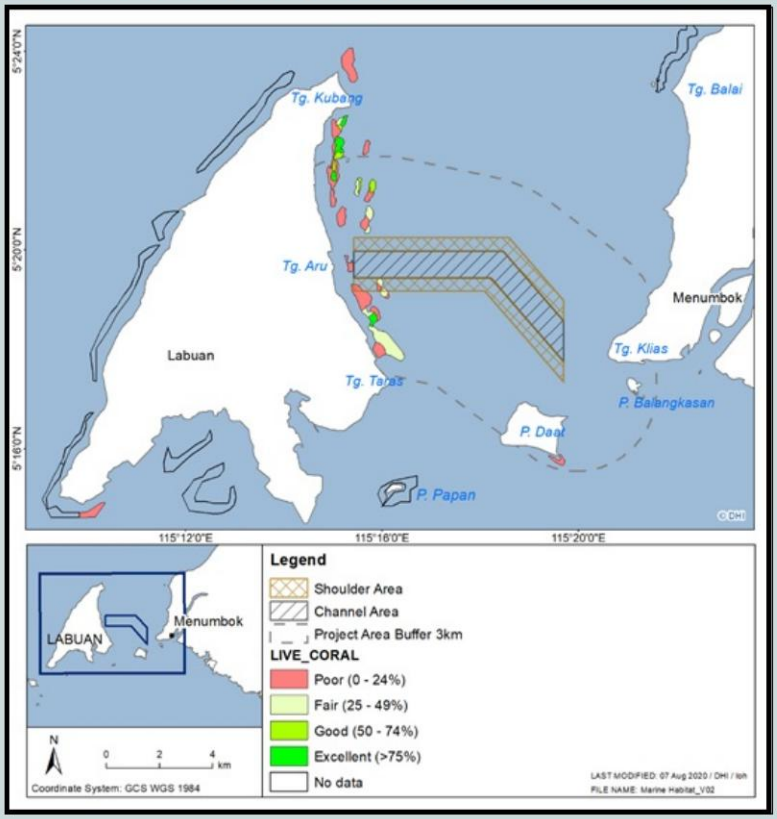
STATEMENT OF NEED

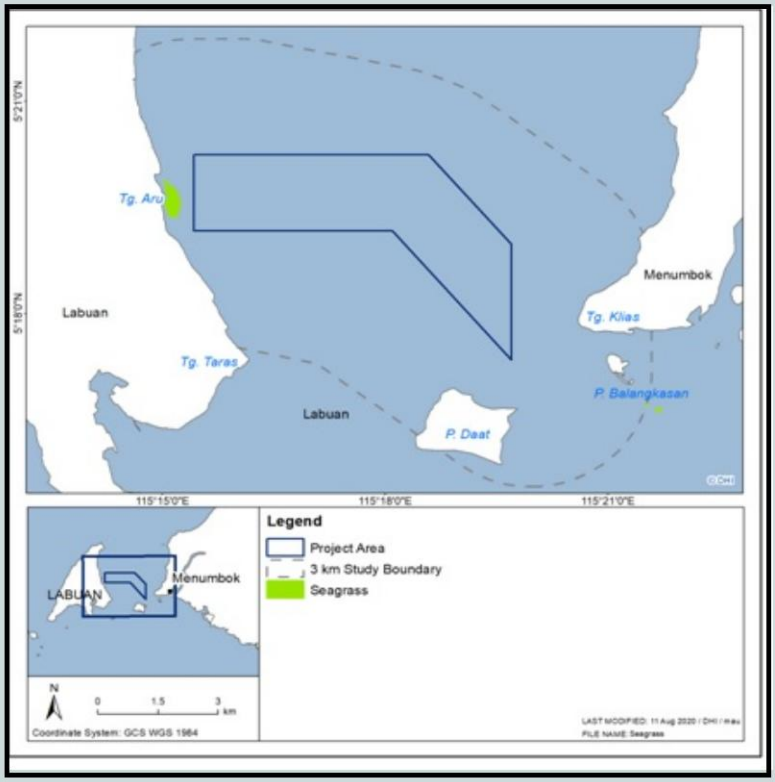
The proposed sand dredging project is expected to generate income for both the federal government as well as for WP Labuan, particularly in the form of royalty to be collected by Pejabat Tanah dan Galian WP Labuan. Some of the proceeds from the export of sand, may in the future, be used to fund development project/s for WP Labuan. The details of these proposals will be discussed with the relevant authorities upon completion of the dredging operation.

The alignment of the dredging area has been approved by Jabatan Laut Malaysia and the sand concession has been conditionally approved by Pejabat Tanah dan Galian WP Labuan. The Approved Permit (AP) for the export of the sand has also been obtained from Kementerian Air, Tanah dan Sumber Asli.

"Cadangan Kerja-kerja Pengerukan Pasir Laut dari Tanjung Aru, Labuan ke Menumbok, Sabah"

PROJECT LOCATION





Project location between Tanjung Aru (Labuan) and Menumbok (Sabah) showing location of coral reefs (above) and seagrass (below).

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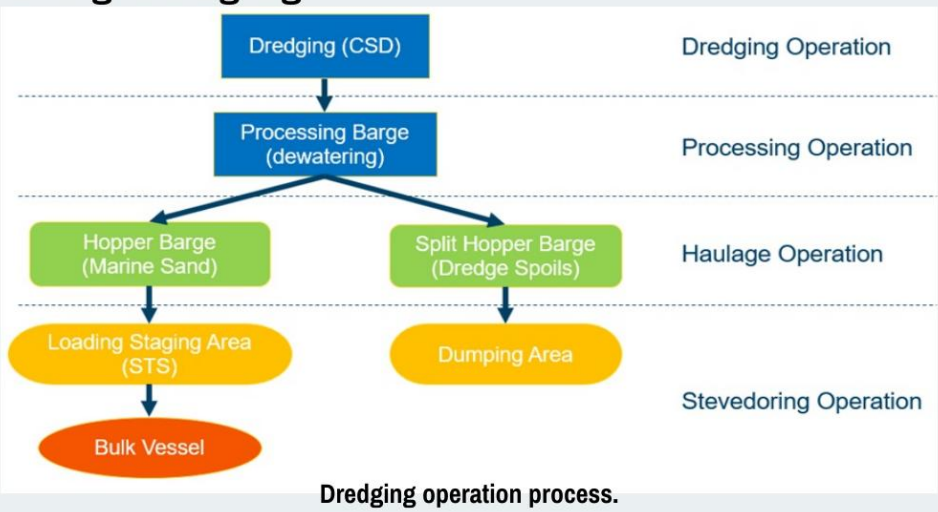
PROJECT ACTIVITIES

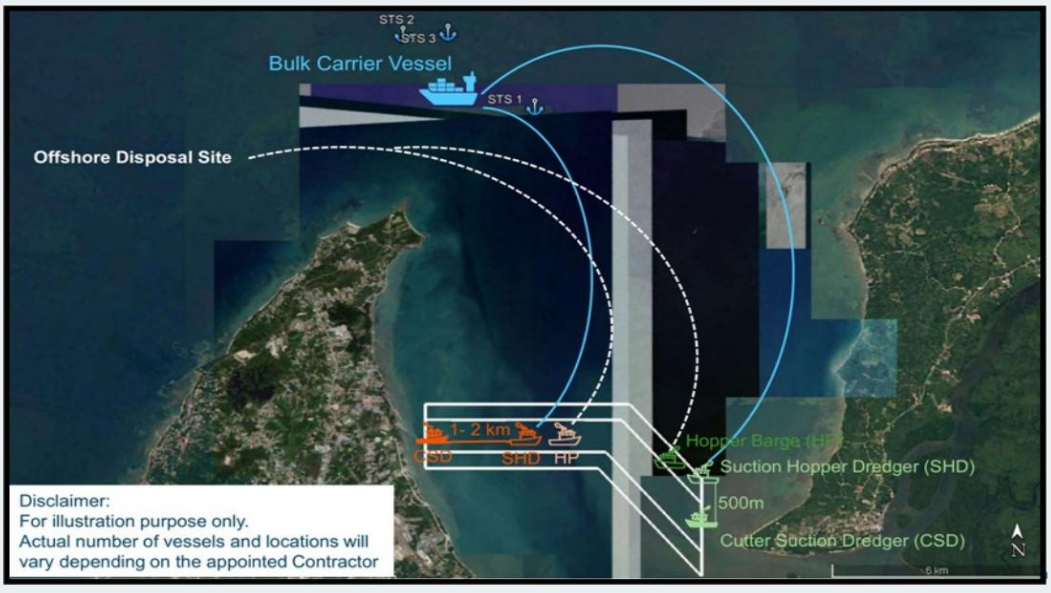
Pre-dredging

- Site investigation including hydrographic and geotechnical survey;
- Environmental assessment including EIA study, Marine Risk Assessment (MRA);
- Channel design, including the incorporation of all Marine Department requirements and approval of design; and
- Identification of STS points and offshore disposal site.

During dredging



Dredging operation process.



Schematic of dredging and spoil disposal process.

Post dredging

Upon completion of the dredging activities, the dredging machinery and associated marine equipment will be demobilised. No fixed structures will be established at the site and hence there will be no demolition works required and no associated generation of waste materials.

EXECUTIVE SUMMARY

"Cadangan Kerja-kerja Pengerukan Pasir Laut dari Tanjung Aru, Labuan ke Menumbok, Sabah"

EXISTING ENVIRONMENT

Physico-chemical

- Water depth 0.5 to 17 m
- Estimated dredging volume = 43 M m^3
- Sea condition mainly associated with SW, NE and inter-monsoon periods

Marine Traffic

- Present traffic primarily to Labuan Port using southern approach;
- Some ferry services pass project area;
- Marine traffic not very heavy

Water Quality

- Good water quality– most parameters lower than Class II (MMWQS);
- TSS around 10 mg/L;

Socio-economy & Fisheries

- Only recreational fisheries around project site;
- SE survey found that most locals not aware of Project
- Most fishing communities support project

Biological

- Coral reefs within and in proximity of project area;
- Seagrass 360 m from project site;
- Mangrove along coast of Tanjung Aru

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POTENTIAL IMPACTS & MITIGATION MEASURES

POTENTIAL IMPACT	MITIGATION MEASURES
CORAL REEF Negative impacts on coral reefs	Western boundary of channel moved eastward to be at least 300 m from the nearest coral reefs.
COASTAL EROSION Increase coastal erosion along coast of Tanjung Aru	Same mitigation measure as above where boundary is at least 1.5 km from the lowest tide level.
WATER QUALITY Slight decline water quality	• Use of cutter suction dredger and Three-in-One Dredger; • Overflow from dredger directed below the water surface, • Overflow discharge point around 1 km away from the coral reefs; • Maintain good housekeeping
MARINE TRAFFIC Increase in marine traffic	• Meeting/s with relevant stakeholders prior to commencement; • Follow all proposals as suggested in MRA; • Dredging area clearly demarcated
FISHERIES Decline in fisheries activities	• Meetings with relevant stakeholders; • Proper assessment of loss of income by affected fishermen. • Compensation where appropriate.
DOMESTIC WASTE Increase in domestic wastes	• Domestic wastes collected and dispose on land; • No disposal of solid wastes at sea; • Management of solid wastes by all vessels involved shall be regularly monitored

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MONITORING PROGRAMME

COMPLIANCE MONITORING

ISSUES	MONITORING TARGET	PARAMETERS	FREQUENCY
Water Quality	Compliance to Class III Malaysian Marine Water Quality Standard	pH, DO, BOD, TSS, O&G, Nitrate, Ammonia, Fecal Coliform and the metals Lead, Copper, Nickel, Cadmium and Chromium.	Monthly basis

PERFORMANCE MONITORING

ISSUES	MONITORING TARGET	FREQUENCY
Coastal Erosion	Impacts of dredging on coastal erosion	Every 6 months during dredging and 1 year after completion
Macroinfauna	Recovery of macroinfauna populations	Every 6 months for 2 years after completion of dredging activities
Corals	Impacts of dredging activities on coral habitats	First survey 3 months after commencement of dredging. Thereafter every 6 months
Fishery Resources	Fish catches and recreational fisheries at nearby fish landing jetties	As need for information
Job Opportunities	Fishing communities benefiting from dredging activities	As and when needed
Marine Traffic	Marine Safety	As need for information