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Agriculture, Fisheries and Conservation Department

Consultancy Ref.: AFCD/FIS/02/19 Consultancy Service for Environmental Impact Assessment Study for Designation of New Fish Culture Zones

Sediment Monitoring Plan for Establishment of Fish Culture Zone at Mirs Bay

April 2024

Project No.: 0549925

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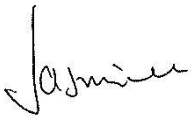
Sediment Monitoring Plan for Establishment of Fish Culture Zone at Mirs Bay



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Agriculture, Fisheries and Conservation Department

Environmental Permit No. EP-627/2023
Establishment of Fish Culture Zone at Mirs Bay
Environmental Certification Sheet

Reference Document/Plan

~~Document~~/Plan to be Certified/ Verified:	Sediment Monitoring Plan
Date of Report:	17 April 2024
Date prepared by ET:	17 April 2024
Date received by IEC:	18 April 2024

Reference EP Requirement

EP Condition: Condition No 2.7

The Permit Holder shall no later than 3 months before the commencement of construction of the Project submit 2 hard copies and 1 electronic copy of the Sediment Monitoring Plan to the Director for approval. The Plan shall identify appropriate locations for sediment monitoring by grab samples based on modelling simulations for tracking the particles flow, and propose monitoring parameters and frequency with a view to monitoring any potential impacts on sediment quality of the seabed due to sediment deposits caused by the Project.

ET Certification

I hereby certify that the above referenced ~~document/~~plan complies with the above referenced condition of EP-627/2023.

Mr Raymond Chow,
Environmental Team Leader:  Date: 17 April 2024

IEC Verification

I hereby verify that the above referenced ~~document/~~plan complies with the above referenced condition of EP-627/2023.

Prof. Wang Wen-xiong,
Independent Environmental Checker:  Date: 04/22/2024

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1. INTRODUCTION

1.1 Background

Marine fish culture has been an important activity for fisheries production in Hong Kong over decades. Mariculture activities are required to operate under licence in designated Fish Culture Zones (FCZs) under the *Marine Fish Culture Ordinance (MFCO) (Cap. 353)*. In view of the environmental impact resulting from mariculture, there has been a moratorium on the issue of new marine fish culture licences (MFCLs) and licensed raft area extensions in the existing FCZs since 1990, as well as on the designation of new FCZs, except for a limited number of forced re-sites necessitated by public works. Given the technical advancement in mariculture techniques and strengthening of regulatory measures, together with the changes in the operation of the sector over the years, the environment of FCZs and marine environment in the vicinity have improved significantly in the past two decades.

In 2010, the Committee on Sustainable Fisheries (CSF), which was established by the Government to study the long-term goals, direction and feasible options for the sustainable development of local fisheries industry, recommended a review of the moratorium to facilitate fishermen to switch from capture fisheries to mariculture. Mariculture is considered a practical alternative for capture fishermen to make a living as their knowledge on marine environment and fish would be useful in farming marine fish.

To pave the way for facilitating the sustainable development of the local mariculture sector, the Agriculture, Fisheries and Conservation Department (AFCD) proposed to lift the moratorium by designating new FCZs and issuing new MFCLs. In 2014, the AFCD commissioned a consultancy study to explore suitable sites as new FCZs on the basis of a list of social and environmental criteria with reference to the latest international fish culture practices (1). Relevant stakeholders, including Government bureaux / departments and mariculture representatives, have been consulted to gauge their views on site selection. The mariculture sector in general supported the designation of new FCZs and agreed that the sector should be modernised. Four locations have been shortlisted as potential sites for the designation of new FCZs, including Wong Chuk Kok Hoi FCZ, Outer Tap Mun FCZ, Mirs Bay FCZ and Po Toi (Southeast) FCZ. The Chief Executive announced in the 2018 Policy Address that the Government would recommend designating new FCZs at suitable locations, which would create room for the mariculture sector to grow further, including allowing capture fishermen to switch to this sustainable mode of operation, making it possible for the development of newer type of deep-water mariculture in the open sea, and attracting new entrants.

Mirs Bay FCZ (hereafter referred to as “the Project”) has been identified as one of the FCZ Sites and the location plan of the Project is shown in ***Figure 1.1***.

The Environmental Impact Assessment (EIA) Report for the Project was submitted to the Environmental Protection Department (EPD) of the HKSAR Government in October 2022. The EIA Report (EIAO Register No. AEIAR-247/2023) was approved by EPD in March 2023 and the associated Environmental Permit (EP) (EP-627/2023) was issued in May 2023.

1.2 Purpose of the Sediment Monitoring Plan

This ***Sediment Monitoring Plan*** (“the Plan”) was prepared in accordance with Condition 2.7 of the Environmental Permit (EP No. EP-627/2023) to identify appropriate locations for sediment monitoring by grab samples based on modelling simulations for tracking the particles flow, and propose monitoring parameters and frequency with a view to monitoring any potential impacts on sediment quality of the seabed due to sediment deposits caused by the Project.

The Plan contains the following information:

(1) Consultancy Ref. AFCD/FIS/01/14 Consultancy Services for Identification of New Fish Culture Zones in Hong Kong – Feasibility Study

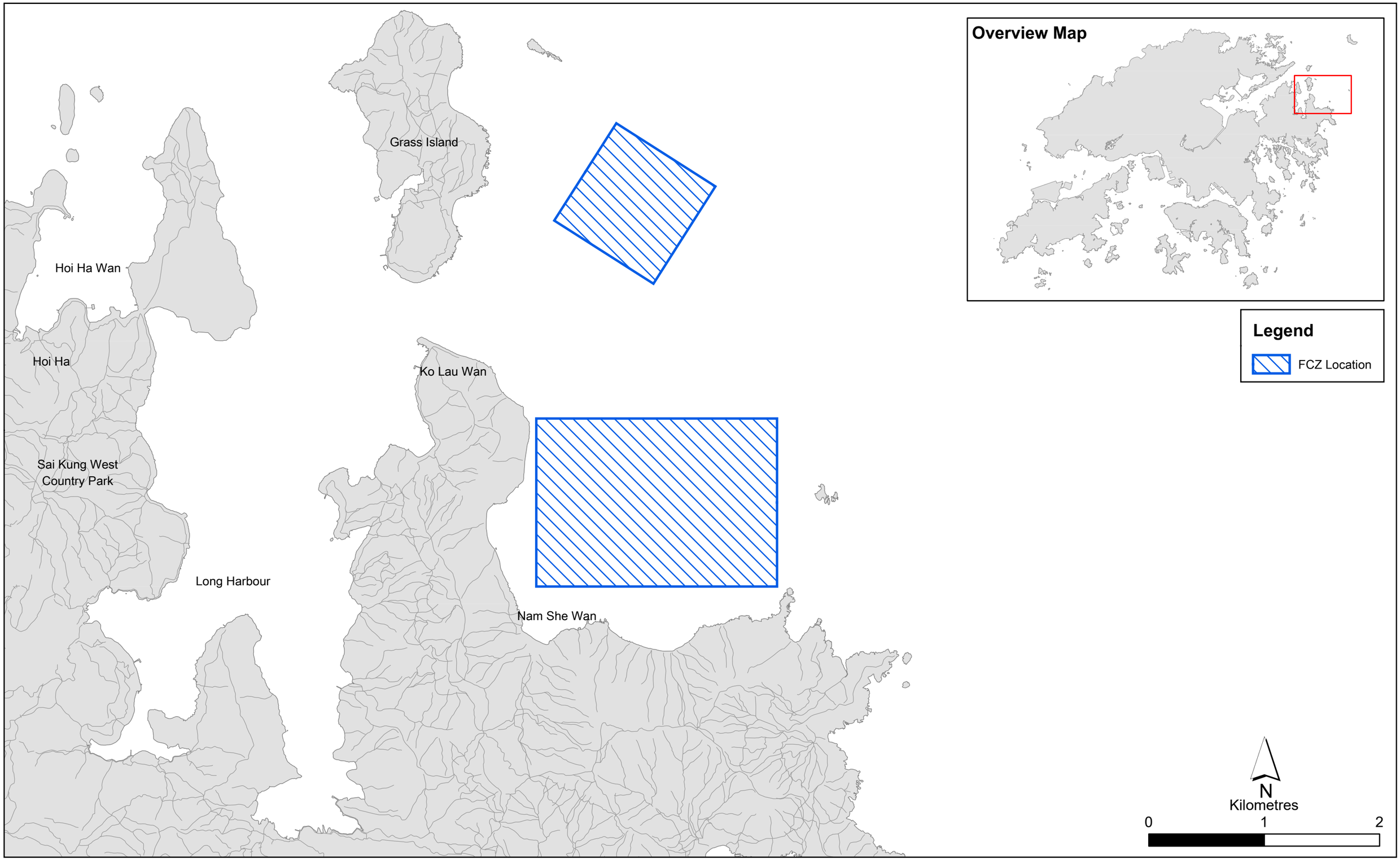

Figure 1.1

Location Plan for the Establishment of Fish Culture Zone (FCZ) at Mirs Bay

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- Review of modelling simulations from the EIA study to identify appropriate locations for sediment monitoring;
- Proposed methodology for the sediment monitoring, including monitoring parameters, frequency, field, laboratory and analytical procedures, details on quality assurance and quality control, and approach to data analysis; and
- Proposed reporting requirements.

1.3 Structure of the Plan

The remainder of the Plan is set out as follows:

- ***Section 2*** presents the review of modelling simulations from the EIA study to identify appropriate locations for sediment monitoring;
- ***Section 3*** sets out the proposed methodology for sediment monitoring; and
- ***Section 4*** describes the reporting requirements.

2. REVIEW OF MODELLING SIMULATIONS AND IDENTIFICATION OF LOCATIONS FOR SEDIMENT MONITORING

2.1 Findings from Modelling Simulations in the Approved EIA Report

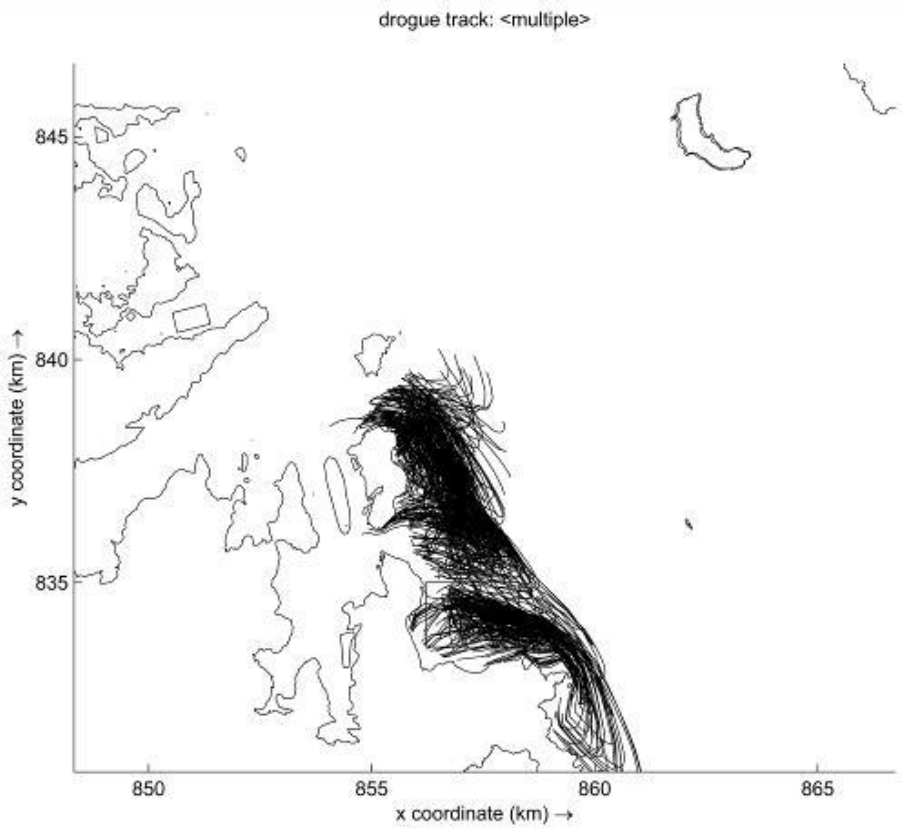
Water quality modelling was conducted in the approved EIA Report to determine the carrying capacity of the Project site, as well as the change in water quality in the ambient water from the Project site operating at its carrying capacity. A review of modelling simulations for particle flows was conducted based on two approaches, drogue tracking for floating particles and sedimentation flux analysis for sinking particles as discussed below.

2.1.1 Drogue Tracking

Drogue tracking simulation, which is a kind of simulation tracking particles flow, was conducted. Detailed settings for the drogue tracking modelling are presented in ***Appendix 3B*** of the approved EIA Report. In the drogue track study conducted under the EIA Study, drogues were released at 2-hour intervals from near the boundary and corners of the Project site for a period of 15 days. The drogue tracks results reflect the indicative direction any particles released from the Project site (such as wasted feed, fouling organism washed off from the raft, fish excreta) tends to flow.

As shown in ***Figure 2.1***, drogue tracks from the Mirs Bay FCZ typically drift southward in dry season and move both to the north and to the south quite evenly in wet season. The predicted drogue tracks were quite long within a tidal cycle because of the open water and higher current speed where the Mirs Bay FCZ would be located. Drogue tracks could be up to 6 - 7 km away from the FCZ.

Dry Season



Wet Season

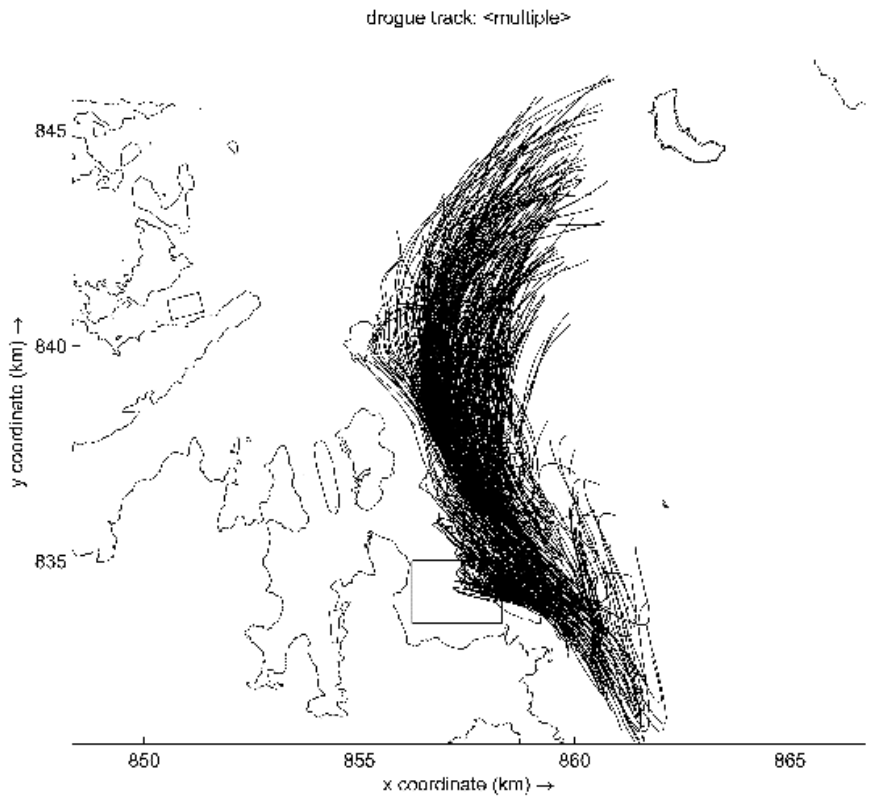
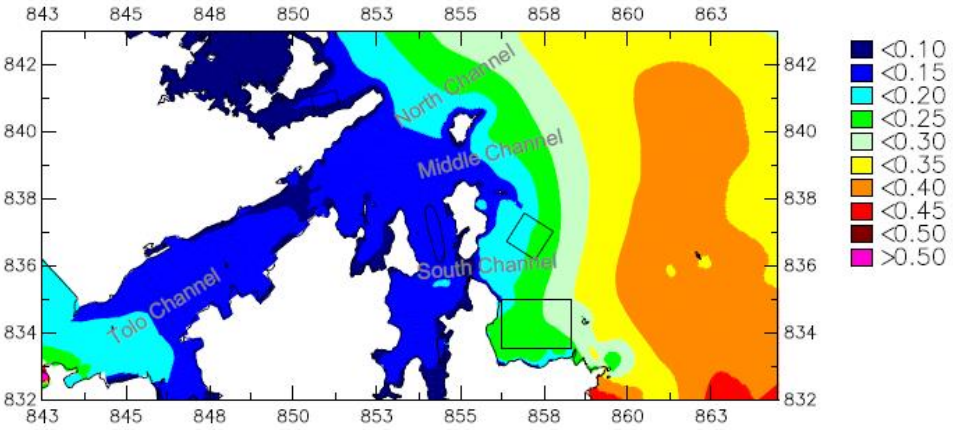


Figure 2.1 Drogue Tracks for Release from the Mirs Bay FCZ

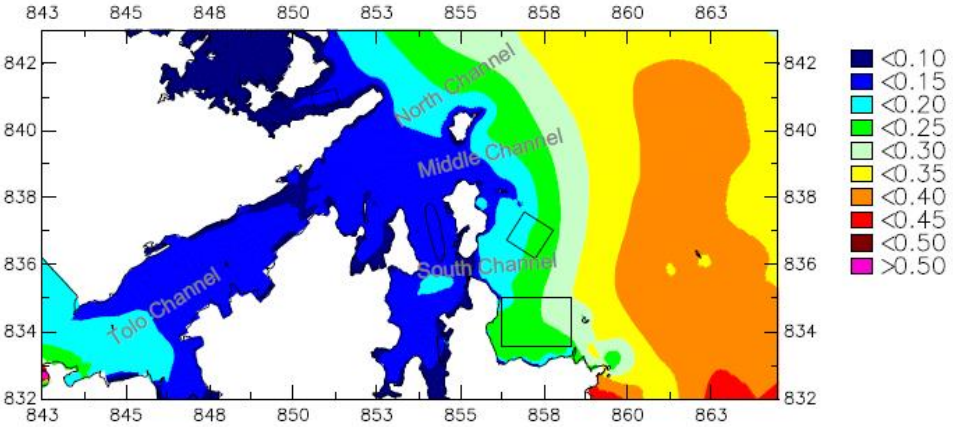
2.1.2 Sedimentation Flux Analysis

Water quality simulation has been conducted to evaluate the change in water quality from the mariculture operation at the Project site. The estimated pollution load (including suspended solids (SS)) from the mariculture operation has been taken into account in the modelling exercise. The increased SS, together with other increased settleable content in the water column, would eventually settle to the seabed, resulting in increased sedimentation flux at the seabed level. The mean sedimentation flux prediction at the surrounding has been retrieved and analysed for both the baseline and project scenarios from the modelling results presented in the approved EIA Report, and the difference of the predicted sedimentation flux is presented below in ***Figure 2.2*** and ***Figure 2.3*** to illustrate the hotspot for increased sedimentation. The results were retrieved from the same output period, i.e. one whole modelling year, as that of the modelling exercise presented in the approved EIA Report.

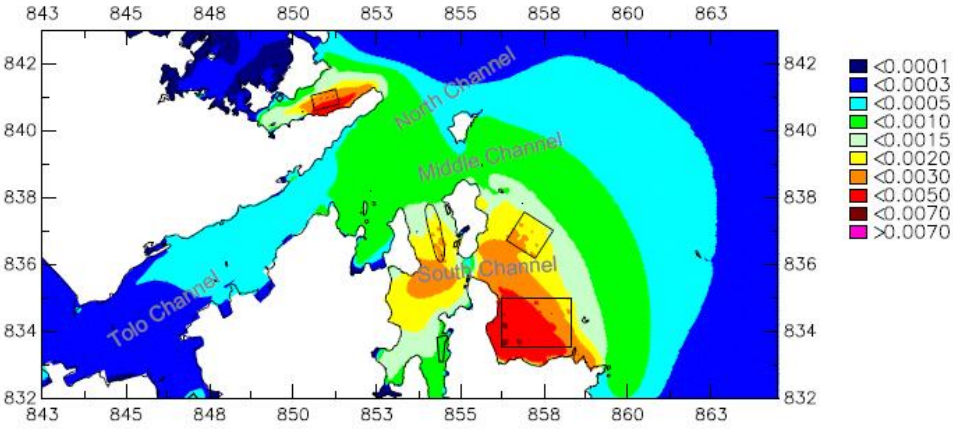
Baseline Scenario



With Project Scenario



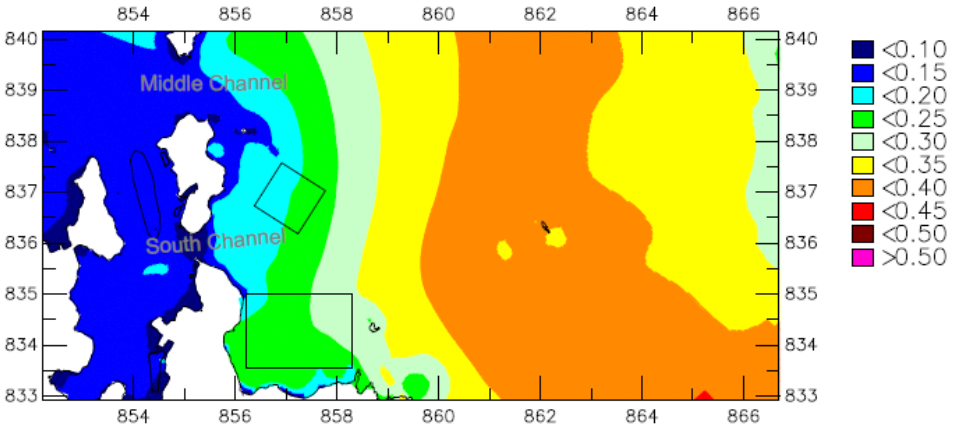
Changes between 'With Project' and 'Without Project' Scenarios



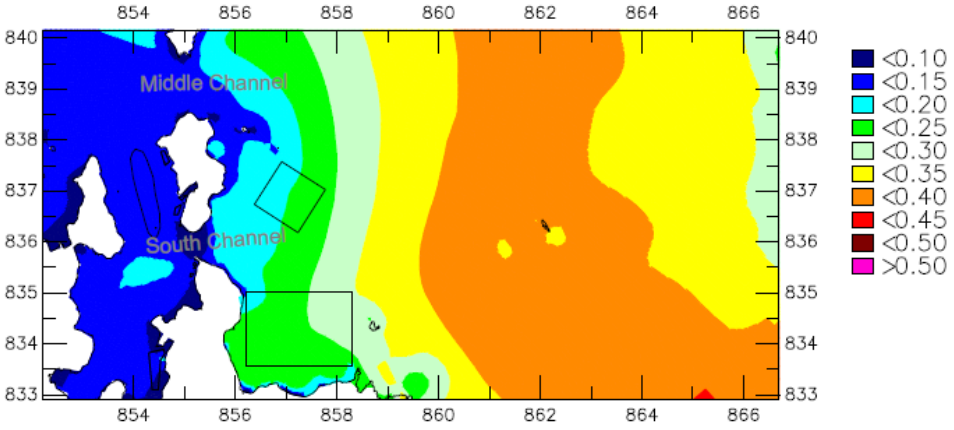
Note: The concurrent operation of the Wong Chuk Kok Hoi FCZ, Outer Tap Mun FCZ and Mirs Bay FCZ were considered under the 'with Project' scenario.

Figure 2.2 Predicted Change in Sedimentation Flux (g/m^2/day) from the Concurrent Operation of the Wong Chuk Kok Hoi FCZ, Outer Tap Mun FCZ and Mirs Bay FCZ– Overview

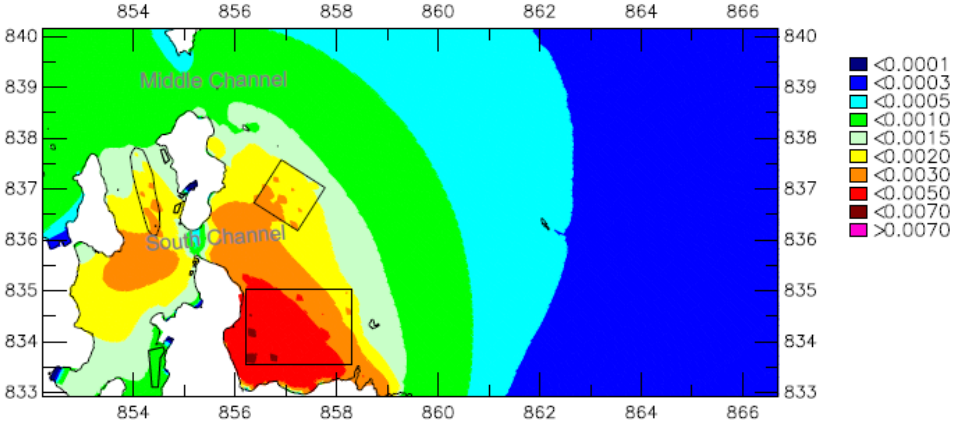
Baseline Scenario



With Project Scenario



Changes between 'With Project' and 'Without Project' Scenarios



Note: The concurrent operation of the Wong Chuk Kok Hoi FCZ, Outer Tap Mun FCZ and Mirs Bay FCZ were considered under the 'with Project' scenario.

Figure 2.3 Predicted Sedimentation Flux (g/m^2/day) under Baseline and Project Scenarios, as well as the Changes from the Concurrent Operation of the Wong Chuk Kok Hoi FCZ, Outer Tap Mun FCZ and Mirs Bay FCZ - Close up at Mirs Bay

As shown, the increased sedimentation flux is localized around the Project site, and dissipates very quickly outside the sheltered embayment. The relatively fast current outside the embayment would quickly dilute the increased settleable content. Furthermore, such settleable content would eventually be settled in much wider area, resulting in thinner sediment layer. As shown, the sedimentation flux around the Mirs Bay FCZ would be at most 0.0061 g/m^2/day. Assuming sediment density of 750 kg/m^3, the annual deposition thickness is estimated to be:

$$0.0061 g/m^2/day \times 365\ day \div 750 kg/m^3 = 2.2265 g/m^2 \div 750 kg/m^3 = 2.97 \times 10^{-6} m$$
$$= 2.97 \times 10^{-3} mm$$

It is expected that the annual deposition of sediment would be below 1 mm, which is considered to be very limited and negligible.

In view of the review of findings from drogue tracks and sedimentation flux, it is understood that the Project operation at full scale would unlikely to impact sediment quality at a wider area significantly. As a conservative approach, it is recommended that the sediment monitoring locations should be chosen based on the following criteria:

- The monitoring locations should be set along the dominant particle flow directions;
- The monitoring locations along each dominant flow direction should be set at various distances from the Project to allow spatial comparison of sediment quality (i.e. near field, mid field and far field);
- The monitoring locations should be within maximum distance traveled by drogue track within one tidal cycle; and
- The monitoring locations shall be situated away from principal fairways, subsea utilities and structures and away from other pollution sources, as far as practicable.

2.2 Proposed Locations for Sediment Monitoring

Based on the above analysis of drogue track and sedimentation flux prediction, three monitoring locations for each dominant flow direction, labelled as near field, mid field and far field stations, are proposed. In addition, one station located away from the drogue tracks was selected as a control station. The proposed locations of the monitoring stations for the sediment quality monitoring are presented in ***Figure 2.4*** and the coordinates are shown in ***Table 2.1***. In case of any changes to the monitoring locations, the ET shall propose with justification in consultation with the IEC and seek approval from EPD before commencement of monitoring.

Table 2.1 Coordinates of Sediment Quality Monitoring

Monitoring Stations	Monitoring Station ID	Easting	Northing	Distance from Project Site (m)
Monitoring Station at the eastern edge of the Project site (near field station)	MB-E1	858320	833841	0
Monitoring Station between MB-E1 and MB-E3 (mid field station)	MB–E2	859241	833453	940
Monitoring Station at further east of the Project (far field station)	MB–E3	860163	833064	1920
Monitoring Station at the western edge of the Project site (near field station)	MB–W1	856917	837576	0
Monitoring Station between MB-W1 and MB-W3 (mid field station)	MB–W2	856304	838366	540
Monitoring Station at further west of the Project (far field station)	MB–W3	855691	839157	1960
Monitoring Station at the northern edge of the Project site (near field station)	MB–N1	858312	835010	0
Monitoring Station between MB-N1 and MB-N3 (mid field station)	MB–N2	858312	837010	1000
Monitoring Station at further north of the Project (far field station)	MB–N3	858312	839010	2000
Control Station	C	852768	839669	4623

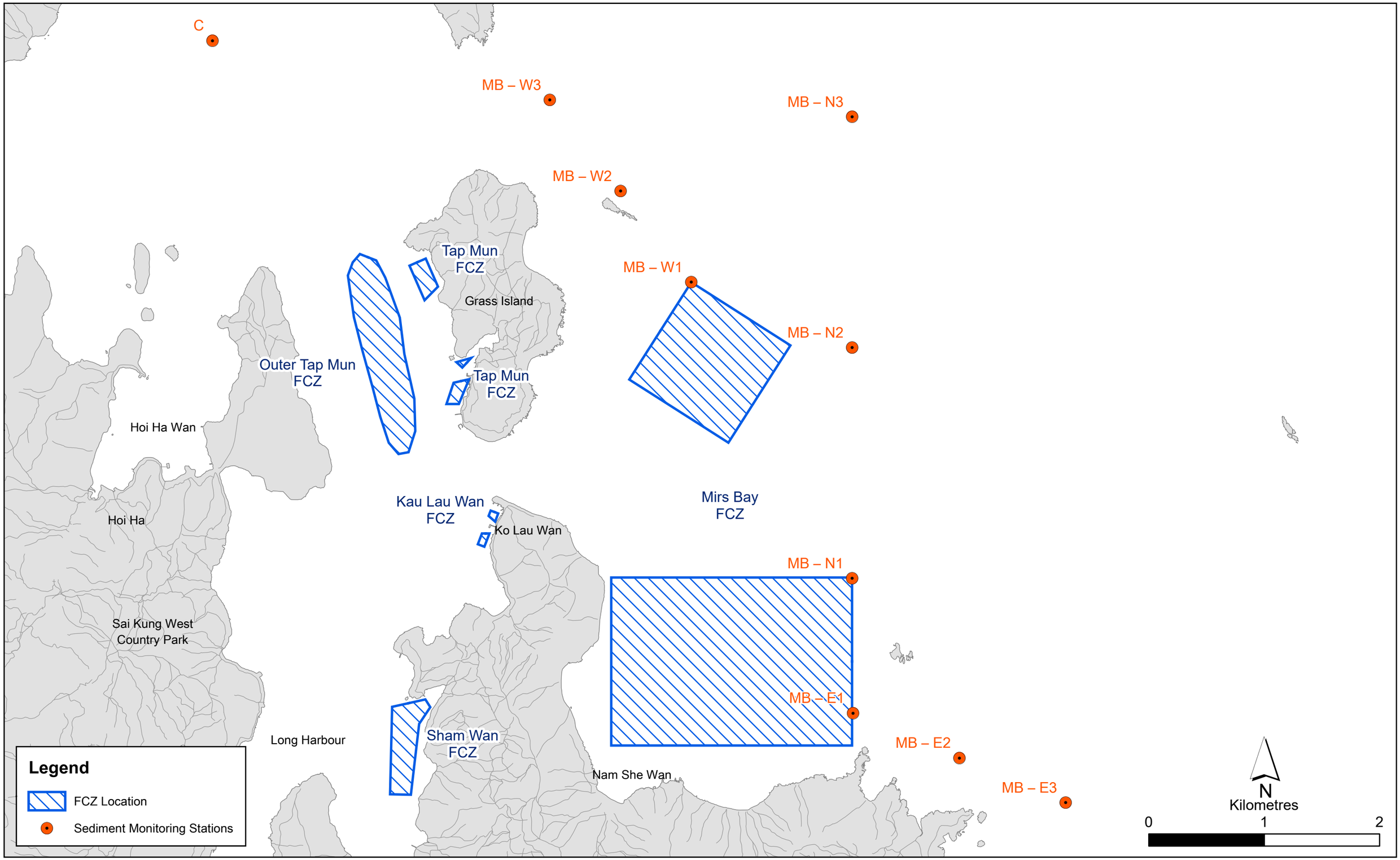


Figure 2.4

Sediment Monitoring Stations for the Mirs Bay FCZ

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3. PROPOSED METHODOLOGY FOR SEDIMENT MONITORING

3.1 Introduction

The proposed sediment monitoring will form part of the environmental monitoring and audit (EM&A) programme. The organization and structure of the EM&A have been presented in the EM&A Manual of the Project. The proposed methodology for sediment monitoring is discussed below.

3.2 Monitoring Parameters

According to Section 4.11 of Appendix 3A of the approved EIA Report, sources of water quality pollution from mariculture operation include wasted feed or nutrients leached from feed, faecal matter and excretion from fish. These streams of organic waste are characterized by their high organic carbon (measured as total organic carbon (TOC) and chemical oxygen demand (COD)), nitrogen (measured as total Kjeldahl nitrogen (TKN) and ammonia nitrogen (NH_3-N)) and phosphorus (measured as total phosphorus (TP)) content. When such waste settles out of the water column, they accumulate in the bottom sediment and micro-organisms start consuming these nutrients and oxygen in respiration. As more and more oxygen get consumed, the electrochemical potential is reduced in the sediment. When the availability of oxygen becomes too low to sustain respiration, micro-organisms switch to use dissolved sulphate as the electron acceptor in respiration, and odorous sulphurous compounds (measured as acid volatile sulphide (AVS)) start to accumulate in sediment, leading to potential odour and toxicity in sediments.

The monitoring parameters as presented in ***Table 3.1*** should be measured at all proposed monitoring locations. These parameters were selected to cover different chemical aspects of the sediment that concerns pollution sources from mariculture operation, such as organic loading (TOC, COD, electrochemical potential), nutrients (TKN, NH_3-N, TP), and odour / toxicity (AVS). Total Solid is also proposed to be measured for characterising general physical properties of the sediment. These proposed parameters for monitoring are the aggregate of various nutrient / waste contents from the mariculture operations and their derivatives once settled in the sediment. Specifically:

- **Total Organic Carbon (TOC), Total Carbon (TC), Chemical Oxygen Demand (COD) and Electrochemical Potential:** TOC is a measurement on the amount of organic carbon that could have originated from mariculture activities. COD measurement indicates the amount of organic contents which are oxidizable. Electrochemical Potential represents whether sediment would be oxidized / reduced in the presence of such organics;
- **Total Kjeldahl Nitrogen (TKN), Ammonia Nitrogen (NH_3-N) and Total Phosphorus (TP):** Organic nitrogen forms part of macro nutrients and therefore organic and NH_3-N (combined as TKN) would therefore be part of the wasted feed, excretion, or excrement. The same apply to TP;
- **Total Sulphide (TS) and Acid Volatile Sulphide (AVS):** Oxidized sulphide in form of (mainly) sulphate and sulphite ion is highly abundant in seawater. In case the sediment is enriched with organic matters and become anoxic (low dissolved oxygen level), microorganisms may switch their mode of respiration to use sulphate as electron receiver (instead of oxygen). As a result, hydrogen sulphide (H_2S) as well as its organic derivatives starts build up in the sediment. TS measurement could indicate this build up, while AVS measures the part of such sulphide that is of particular concern because of its high correlation with odour generation / toxicity.

Table 3.1 Monitoring Parameters for Sediment Monitoring

Parameters	Unit	Standard Method	Detection Limit	Reference
Total Organic Carbon (TOC)	% w/w	APHA 5310B	0.1	Recorded under EPD's Routine Marine Sediment Quality Monitoring.
Total Carbon (TC)	% w/w	APHA 5310B	0.1	The same testing method as TOC which provides insight on the proportion of organic load.
Chemical Oxygen Demand (COD)	mg/kg	ASTM D1252-00 Test method A (open reflux)	2	Recorded under EPD's Routine Marine Sediment Quality Monitoring; provides insight on organic load.
Total Kjeldahl Nitrogen (TKN)	mg-N/kg	APHA 18ed. 4500-N org B & NH3 E	0.5	Recorded under EPD's Routine Marine Sediment Quality Monitoring; provides insight on organic nitrogen load.
Ammonia Nitrogen (NH_3-N)	mg-N/kg	ASTM D3590-11 Test method B	0.05	Recorded under EPD's Routine Marine Sediment Quality Monitoring; provides insight on nitrogen load.
Total Phosphorus (TP)	mg-P/kg	APHA 17ed. 4500-P B & E	0.2	Recorded under EPD's Routine Marine Sediment Quality Monitoring; provides insight on phosphorus load.
Total Sulphide (TS)	mg S^{2-}/kg	APHA 20ed 4500-S2- A&D	0.2	Recorded under EPD's Routine Marine Sediment Quality Monitoring.
Acid Volatile Sulphide (AVS)	mg S^{2-}/kg	USEPA (EPA-821-R-91-100)	5	Measured under various prior sediment quality studies, including: (1) DIR-191/2009 Sediment Removal at Yim Tin Tsai, Yim Tin Tsai (East) Fish Culture Zones and Shuen Wan Typhoon Shelter (2) Agreement No. CE 4/2004 (TP) South East Kowloon Development Comprehensive Planning and Engineering Review Stage 1: Planning Review Situation Provides indication on the potential of generation of odorous and toxic hydrogen sulphide gas.
Total Solid	% w/w	APHA 20ed 2540G (weighing)	0.1	Recorded under EPD's Routine Marine Sediment Quality Monitoring.
Electrochemical Potential	mV	Instrumental	1	Recorded under EPD's Routine Marine Sediment Quality Monitoring; provides indication on anoxic condition of the sediment.

In addition to the sediment quality parameters, other relevant data will also be measured and recorded in monitoring logs, including the location of the monitoring stations, water depth, time, weather conditions, sea conditions, tidal state, special phenomena and work activities undertaken around the monitoring that may influence the monitoring results.

3.3 Monitoring Frequency

To allow comparison of sediment quality before and after operation of the Project, sediment monitoring would be conducted before construction of the Project and during operation of the Project as detailed below.

3.3.1 Baseline Sediment Monitoring

Baseline sediment monitoring would be conducted before commencement of construction of the Project, once in wet season (April to October) and once in dry season (November to March). No construction activities of the Project shall be on-going in the vicinity of the stations during the baseline monitoring. At each monitoring location, two replicates of sediment samples will be collected.

3.3.2 Sediment Monitoring during Operation

Sediment monitoring during operation would be conducted when any of the following situations occur:

- When mariculture operation of the FCZ is expected to achieve a standing stock of 75% of the estimated carrying capacity, i.e. 5683.5 ton x 75% = 4262.6 ton, in a fish farming cycle.
- When mariculture operation of the FCZ is expected to achieve a standing stock of 95-100% of the estimated carrying capacity, i.e. 5399.3 – 5683.5 ton, in a fish farming cycle.

A set of sediment monitoring shall consist of a 1-year monitoring at a frequency of twice a year taking into account seasonal variation of sediment quality in the vicinity of the Project. AFCD and EPD will review whether it is necessary to conduct further sediment monitoring during operation after completion of a set of sediment monitoring during operation. Suspension of Sediment Monitoring for Operation Phase shall only be considered upon demonstration of no adverse sediment quality impact due to the Project at both situations.

3.4 Sampling Procedure and Equipment

All samples should be collected by an experienced sampling team, deployed on a survey boat equipped with fully calibrated sampling equipment and precision navigational instruments. All vessel positioning should be accomplished with a Global Positioning System (GPS), ensuring station location accuracy to < ± 5 m (95% confidence), with sample position automatically logged and mapped by the navigation computer.

At each sampling station the seabed sediment should be collected using a grab sampler which is designed to work effectively in soft sediment. The grab should be deployed at each of the monitoring locations. Each sediment sample shall be labelled, double-bagged and stored in an ice chest cooled to a temperature of 4°C with ice packs. The sediment sampler and all other utensils should be rinsed with seawater after each sample has been collected to avoid cross contamination between samples. On completion of the survey, all samples should be promptly transported, in chilled containers, to the testing laboratory for analysis.

3.4.1 Laboratory Measurement and Analysis

All laboratory work shall be carried out in a Hong Kong Laboratory Accreditation Scheme (HOKLAS) accredited laboratory or equivalent. Prior to sampling, the HOKLAS laboratory responsible for analysis should be consulted for the particular sample size for the required laboratory analysis as well as the preservation procedures that are necessary for each chemical analysis.

The sediment samples collected for testing shall be inventoried and logged on chain of custody forms for transportation. All samples will be double bagged and labelled internally and externally with indelible ink. Chain of custody forms will detail all information relevant to the samples including sample location, date and time of sampling. Samples will be delivered to a laboratory, whose chemical and biological tests have been accredited by HOKLAS, as soon as possible after collection.

Samples will be stored at 4°C in the dark during transportation and at the laboratory storage prior to testing.

Samples for laboratory testing shall be extracted and analysed within 14 days from the date of sampling. The laboratory shall ensure that the laboratory testing results are ready as soon as possible after the sampling finished.

3.4.2 QA/QC

The following quality assurance/quality control (QA/QC) requirements should be conducted by the HOKLAS laboratory or equivalent for each batch of samples.

- Method Blank: the acceptable results shall be less than method detection limit (MDL);
- Duplicate (one for every 20 samples): the acceptable results shall be within ±25% of the mean of duplicate results; and
- Matrix Spike (one for every 20 samples): the acceptable results shall be within ±25% of the recovery of spike concentration.

3.5 Data Analysis

Descriptive statistics for the measured monitoring parameters, including sum, mean value and standard deviation, will be analysed for the survey locations as appropriate. Upon completion of a set of sediment monitoring during operation, data analysis will be conducted to compare the sediment monitoring results spatially (between stations at various distances of each flow direction against the Project site) and temporally (between baseline and operation). Sediment monitoring data from other sources, e.g. EPD long-term monitoring data on marine sediment quality, AFCD regular sediment monitoring data, will be referenced as appropriate to assess whether there would be unacceptable change in sediment quality due to the operation of the Project.

4. REPORTING

4.1 General

Upon agreeing the format with EPD, reports as well as monitoring data (including the coordinates of the monitoring location (in WGS84 format), date and time of sampling, and laboratory testing results of each parameter) can be provided in an electronic medium to be made available through a dedicated internet website under the EM&A programme.

Types of reports to be submitted include baseline sediment monitoring report and sediment monitoring report for operation. In accordance with ***Annex 21*** of the ***EIAO-TM***, copies of the monitoring reports will be made available to the Director of Environmental Protection.

4.2 Baseline Sediment Monitoring Report

The ET will prepare and submit a Baseline Sediment Monitoring Report no less than 1 month after completion of the baseline sediment monitoring as described in ***Section 3.3.1***. The report shall be certified by the ET Leader and shall be verified by the IEC. Copies of the Baseline Sediment Monitoring Report will be submitted to the following: the AFCD, IEC and EPD as appropriate. The ET will liaise with the relevant parties on the exact number of copies required.

The Baseline Sediment Monitoring Report will include at least the following:

(1) Up to half a page executive summary.

(2) Brief project background information.

(3) Drawings that show the location of the baseline monitoring stations.

(4) Sediment monitoring results (in both hard and electronic copies) together with the following information:

- monitoring methodology;
- name of laboratory, types of equipment used;
- parameters monitored;
- monitoring locations;
- monitoring date, time, frequency and duration; and
- quality assurance (QA) / quality control (QC) results and detection limits.

(5) Details on influencing factors, including:

- major activities, if any, being carried out on the site during the period;
- weather conditions during the period; and
- other factors which might affect the results.

(6) Comments, recommendations and conclusions.

4.3 Sediment Monitoring Report for Operation

Upon completion of one set of sediment monitoring during operation, the ET will prepare and submit an Sediment Monitoring Report for Operation to EPD within a month after completion of the set of sediment monitoring during operation. The report will present the data obtained in the sediment monitoring during operation, conduct data analysis as described in ***Section 3.5*** and conclude the environmental acceptability of the Project. The report shall be certified by the ET Leader and verified by the IEC. The Sediment Monitoring Report for Operation will contain at least the following information:

(1) Up to half a page executive summary.

(2) Brief project background information.

(3) Drawings that show the location of the monitoring stations.

(4) Sediment monitoring results (in both hard and electronic copies) together with the following information:

- monitoring methodology;
- name of laboratory and types of equipment used;
- parameters monitored;
- monitoring locations;
- monitoring date, time, frequency and duration;
- data analysis as described in ***Section 3.5***;
- graphical plots of trends of monitored parameters at key stations over the monitoring period; and
- quality assurance (QA) / quality control (QC) results and detection limits.

(5) Details on influencing factors, including:

- major activities, if any, being carried out on the site during the period;
- weather conditions during the period; and
- other factors which might affect the results.

(6) Comments, recommendations and conclusions.

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