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18 October 2019

Drainage Services Department

Environmental Impact Assessment (EIA) Ordinance, Cap. 499
Application for Variation of an Environmental Permit

Project Title: Expansion of Sha Tau Kok Sewage Treatment Works
(Application No. VEP-567/2019)

I refer to your above application received on 25 September 2019 for variation of an environmental permit under Section 13(1) of the EIA Ordinance.

Pursuant to Section 13(5) of the EIA Ordinance, we have amended the Environmental Permit (EP-517/2017). I attach the Environmental Permit as amended (No. EP-517/2017/A) for your use.

Under Section 15 of the EIA Ordinance, the amended Environmental Permit will be placed on the EIA Ordinance Register. It will also be placed on the EIA Ordinance website (<http://www.epd.gov.hk/eia/>).

Please note that if you are aggrieved by any of the conditions imposed in this Permit, you may appeal under Section 17 of the EIA Ordinance within 30 days of receipt of this Permit.

Should you have any queries on the above application, please contact my colleague Mr Lawrence LIU at 2835 1142.

Yours sincerely,

(Stanley C. F. LAU)

Acting Principal Environmental Protection Officer
for Director of Environmental Protection

ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE
(CHAPTER 499)
SECTIONS 10 and 13
環境影響評估條例
(第 499 章)
第 10 條及 13 條

ENVIRONMENTAL PERMIT TO CONSTRUCT AND OPERATE
A DESIGNATED PROJECT
建造及營辦指定工程項目的環境許可證

PART A (MAIN PERMIT)
A 部 (許可證主要部分)

Pursuant to Section 10 of the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection (the Director) granted the Environmental Permit No. EP-517/2017 to the **Drainage Services Department** (hereinafter referred to as the “Permit Holder”) on 15 February 2017. Pursuant to Section 13 of the EIAO, the Director amends the Environmental Permit (No. EP-517/2017) based on the Application for Variation of Environmental Permit (No. VEP-567/2019). The amendments, described below, are incorporated into this Environmental Permit (No. EP-517/2017/A). This Environmental Permit as amended is for the construction and operation of the designated project described in **Part B** subject to the conditions specified in **Part C**. The issue of this Environmental Permit is based on the documents, approvals or permissions described below:

根據《環境影響評估條例》(環評條例) 第 10 條的規定，環境保護署署長(署長)於 2017 年 2 月 15 日將環境許可證(編號 EP-517/2017)批予渠務署(下稱“許可證持有人”)。根據環評條例第 13 條的規定，署長因應更改環境許可證的申請(編號 VEP-567/2019)修訂環境許可證(編號 EP-517/2017)。以下修訂已包含在本環境許可證內(編號 EP-517/2017/A)。本經修訂的環境許可證作為建造及營辦 **B 部** 所說明的指定工程項目，但須遵守 **C 部** 所列明的條件。本環境許可證是依據下列文件、批准或許可而簽發：

Application No. 申請書編號：	VEP-567/2019
Document in the Register: 登記冊上的文件：	<p>(1) Expansion of Sha Tau Kok Sewage Treatment Works (Register No. AEIAR-207/2017) :</p> <ul style="list-style-type: none">- Environmental Impact Assessment (EIA) Report (August 2016) [Hereafter referred to as “the EIA Report”]- Environmental Monitoring and Audit (EM&A) Manual (August 2016) [Hereafter referred to as “the EM&A Manual”]- Executive Summary (August 2016) <p>沙頭角污水處理廠擴建工程 (登記冊檔號：AEIAR-207/2017):</p> <ul style="list-style-type: none">- 環境影響評估報告 (2016 年 8 月) [下稱“環評報告”]- 環境監察及審核手冊(2016 年 8 月) [下稱“環監手冊”]- 行政摘要(2016 年 8 月) <p>(2) Application for Environmental Permit submitted on 29 June 2016 (Application No. AEP-517/2016) [Hereinafter referred to as the “Application”]</p> <p>於 2016 年 6 月 29 日 提交的環境許可證申請文件 (申請書編號: AEP-517/2016) [下稱「申請書」]</p> <p>(3) The Director’s letter of approval of the EIA Report dated 14 February 2017, (Ref. () in EP 2/N7/F/77)</p> <p>署長於 2017 年 2 月 14 日發出環評報告的批准信，(檔案編號: () in EP 2/N7/F/77)</p>

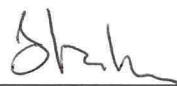


	<p>(4) Environmental Permit No. EP-517/2017 issued on 15 February 2017 於 2017 年 2 月 15 日簽發的環境許可證 (編號 EP-517/2017)</p> <p>(5) Application for Variation of Environmental Permit including all attachments submitted by the Permit Holder on 25 September 2019 (Application No. VEP-567/2019) 許可證持有人於 2019 年 9 月 25 日提交的更改環境許可證申請包括所有附件(編號 VEP-567/2019)</p>
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Application No. 申請書編號	Date of Application 申請日期	List of Amendments Incorporated into this Environmental Permit 已包含在本環境許可證內的修訂項目	Date of Amendments 更改日期
VEP-567/2019	25 September 2019 2019 年 9 月 25 日	- Vary condition 2.11 in Part C of Environmental Permit No. EP-517/2017 - 更改環境許可證編號 EP-517/2017, C 部的第 2.11 項條件	18 October 2019 2019 年 10 月 18 日

18 October 2019
2019 年 10 月 18 日

Date
日期



(Stanley C. F. LAU)

Acting Principal Environmental Protection Officer
for Director of Environmental Protection

環境保護署署長
(署理首席環境保護主任 劉志輝 代行)



PART B (DESCRIPTION OF DESIGNATED PROJECT)

B 部 (指定工程項目的說明)

Hereunder is the description of the designated project mentioned in Part A of this environmental permit (hereinafter referred to as the “Permit”):

下列為本環境許可證 (下稱“許可證”) A 部 所提述的指定工程項目的說明:

<p>Title of Designated Project 指定工程項目的名稱</p>	<p>Expansion of Sha Tau Kok Sewage Treatment Works [This designated project is hereafter referred to as “the Project”] 沙頭角污水處理廠擴建工程 [本指定工程項目下稱“工程項目”]</p>
<p>Nature of Designated Project 指定工程項目的性質</p>	<p>(i) Sewage treatment works with an installed capacity of more than 5,000 m³ per day; and a boundary of which is less than 200m from the nearest boundary of an existing or planned residential area; place of worship; educational institution; or health care institution (ii) An activity for the reuse of treated sewage effluent from a treatment plant (iii) A submarine sewage outfall (i) 污水處理廠，而其裝置的污水處理能力超過每天 5,000 立方米；及其一條界線距離一個現有的或計劃中的住宅區；禮拜場所；教育機構；健康護理機構的最近界線少於 200 米 (ii) 對從處理廠流出並經處理的污水進行再使用的活動 (iii) 海底污水渠口</p>
<p>Location of Designated Project 指定工程項目的地點</p>	<p>The location of the Project is shown in <u>Figure 1</u> of this Permit 工程項目的位置載於本許可證圖 1</p>
<p>Scale and Scope of Designated Project 指定工程項目的規模和範圍</p>	<p>Major components of the Project include –</p> <ul style="list-style-type: none"> - A temporary sewage treatment plant (TSTP) with treatment capacity of not more than 2,500 m³ / day at Average Dry Weather Flow (ADWF) to maintain the sewage treatment service during the construction and before the commencement of operation of the expanded Sha Tau Kok Sewage Treatment Works (STKSTW); - Expansion of STKSTW to a treatment capacity of not more than 10,000 m³/day at ADWF; - A 1.7km long new submarine outfall; - Demolition of the Sha Tau Kok Sewage Pumping Station (STKSPS) and decommissioning of the associated rising main; - A 520m long new gravity sewer to replace the rising main between the existing STKSPS and STKSTW; and



	<ul style="list-style-type: none">- Production of reclaimed water (maximum 50 m³/day) from treated effluent for non-potable use within the STKSTW. <p>工程項目的主要組成部分包括</p> <ul style="list-style-type: none">- 一個不多於每日 2,500 立方米處理量(以平均旱季流量計算)的臨時污水處理廠，以便在沙頭角污水處理廠擴建工程期間及投入運作之前，維持污水處理服務；- 擴建沙頭角污水處理廠至提供不多於每日 10,000 立方米的處理量(以平均旱季流量計算)；- 興建長 1.7 千米的新海底排放管；- 拆卸沙頭角污水泵房並解除運作該加壓污水管；- 興建長 520 米的新引力污水渠，以取代連接現有沙頭角污水泵房至沙頭角污水處理廠的加壓污水管；以及- 在沙頭角污水處理廠範圍內以經處理的污水生產再造水(最大設計流量為每日 50 立方米)，供作非飲用用途。
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PART C (PERMIT CONDITIONS)

1. General Conditions

- 1.1 The Permit Holder and any person working on the Project shall comply with all conditions set out in this Permit. Any non-compliance by any person may constitute a contravention of the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) and may become the subject of appropriate action being taken under the EIAO.
- 1.2 The Permit Holder shall ensure full compliance with all legislation from time to time in force including, without limitation to, the Air Pollution Control Ordinance (Cap. 311), Waste Disposal Ordinance (Cap. 354), Water Pollution Control Ordinance (Cap. 358) and Noise Control Ordinance (Cap. 400). This Permit does not of itself constitute any ground of defence against any proceedings instituted under any legislation or imply any approval under any legislation.
- 1.3 The Permit Holder shall make copies of this Permit together with all documents referred to in this Permit and the documents referred to in Part A of the Permit readily available at all times for inspection by the Director or his authorised officers at all sites/offices covered by this Permit. Any reference to the Permit shall include all documents referred to in the Permit and also the relevant documents in the Register.
- 1.4 The Permit Holder shall give a copy of this Permit to the person(s) in charge of the site(s) and ensure that such person(s) fully understands all conditions and all requirements incorporated in the Permit. The site(s) refers to site(s) of construction and operation of the Project and shall mean the same hereafter.
- 1.5 The Permit Holder shall display conspicuously a copy of this Permit on the Project site(s) at all vehicular site entrances/exits or at a convenient location for public's information at all times. The Permit Holder shall ensure that the most updated information about the Permit, including any amended Permit, is displayed at such locations. If the Permit Holder surrenders a part or the whole of the Permit, the notice he sends to the Director shall also be displayed at the same locations as the original Permit. The suspended, varied or cancelled Permit shall be removed from display at the Project site(s).
- 1.6 The Permit Holder shall construct and operate the Project in accordance with the project description in Part B of this Permit.
- 1.7 The Permit Holder shall ensure that the Project is designed, constructed and operated in accordance with the information and recommendations described in the approved EIA Report (Register No: AEIAR-207/2017); the application document for environmental permit; the information or mitigation measures described in this Permit; mitigation measures to be recommended in submissions that shall be deposited with or approved by the Director as a result of permit conditions contained in this Permit, and mitigation measures to be recommended under on-going surveillance and monitoring activities during all stages of the Project; and other relevant documents in the Register. Where recommendations referred to in the documents of the Register are not expressly referred to in this Permit, such recommendations are nevertheless to be implemented unless expressly excluded or impliedly amended in this Permit.
- 1.8 All submissions, as required under this Permit, shall be rectified and resubmitted in accordance with the comments, if any, made by the Director within one month of the receipt of the Director's comments or otherwise as specified by the Director.



- 1.9 All submissions to the Director, all submissions deposited without comments by the Director, and all submissions rectified in accordance with comments by the Director under this Permit shall be construed as part of the permit conditions described in Part C of this Permit. Any variation of the submissions shall be approved by the Director in writing or as prescribed in the relevant permit conditions. Any non-compliance with the submissions may constitute a contravention of the Environmental Impact Assessment Ordinance (Cap. 499). All submissions or any variation of submissions shall be certified by the Environmental Team (ET) Leader and verified by the Independent Environmental Checker (IEC) referred to in Conditions 2.1 and 2.4 below before submitting to the Director under this Permit.
- 1.10 The Permit Holder shall release all finalised submissions as required under this Permit to the public by depositing copies in the Environmental Impact Assessment Ordinance Register Office, or in any other places, or any internet websites as specified by the Director, or by any means as specified by the Director, for public inspection. For this purpose, the Permit Holder shall provide sufficient copies of the submissions.
- 1.11 All submissions to the Director required under this Permit shall be delivered either in person or by registered mail to the Environmental Impact Assessment Ordinance Register Office (currently at 27/F, Southorn Centre, 130 Hennessy Road, Wanchai, Hong Kong). Electronic copies of all finalised submissions required under this Permit shall be prepared in Hyper Text Markup Language (HTML) (version 4.0 or later) and in Portable Document Format (PDF version 1.3 or later), unless otherwise agreed by the Director and shall be submitted at the same time as the hard copies.
- 1.12 The Permit Holder shall notify the Director in writing the commencement dates of construction and operation of the Project no later than one month prior to the commencement of construction and operation of the Project. The Permit Holder shall notify the Director in writing immediately if there is any change of the commencement dates of the construction and operation.
- 1.13 For the purpose of this Permit, “commencement of construction” does not include works related to site clearance and preparation, or other works as agreed by the Director.

2. Special Conditions

Submissions and Measures Before or During Construction of the Project

Employment of ET

- 2.1 A single ET shall be employed by the Permit Holder no later than one month before the commencement of construction of the Project. The ET shall be directly supervised by the Engineer’s Representative of the Permit Holder (ER) and shall not be in any way an associated body of the Contractor or the IEC for the Project. The Permit Holder shall provide a site office to the ET for use. The ET shall be headed by an ET Leader and supported by relevant specialists including Ecologist and Registered Landscape Architect. The ET Leader shall be a person who has at least 7 years of experience in environmental monitoring and auditing (EM&A) or environmental management. The minimum on-site time for the ET Leader and ET, and the qualifications of the specialists in the ET shall be proposed with justifications for the approval of the Director.



- 2.2 The ET and the ET Leader shall be responsible for:
- (i) implementing the EM&A programme in accordance with the EM&A requirements as contained in the EM&A Manual of the Project as mentioned in Condition 3.1 below;
 - (ii) certifying the environmental acceptability of permanent and temporary works, relevant plans and submissions required in the EM&A Manual and under this Permit;
 - (iii) carrying out site inspections to audit the Contractor's site practice and work methodologies with respect to environmental mitigation measures contained in the EM&A Manual of the Project and to take pro-active actions to pre-empt environmental problems;
 - (iv) notifying the IEC within one working day of the occurrence of each and every instance or circumstance or change of circumstances, which may affect the compliance with the recommendations of the approved EIA Report (Register No. AEIAR-207/2017) and this Permit; and
 - (v) keeping a contemporaneous log-book of any such instance or circumstance or change of circumstances. The log-book shall be kept readily available for inspection by all persons assisting in supervision of the implementation of the recommendations of the approved EIA Report (Register No. AEIAR-207/2017) and this Permit or by the Director or his authorized officers.
- 2.3 Failure to maintain records in the log-book, failure to discharge the duties of the ET Leader as defined in the EM&A Manual or failure to comply with this Condition would entitle the Director to require the Permit Holder by notice in writing to replace the ET Leader. Failure by the Permit Holder to make replacement, or further failure to keep contemporaneous records in the log-book despite the employment of a new ET Leader may render the Permit liable to suspension, cancellation or variation.

Employment of IEC

- 2.4 A single IEC with a supporting team shall be employed by the Permit Holder no later than one month before the commencement of construction of the Project. The IEC and his / her team shall not be in any way an associated body of the ER, the Contractor or the ET for the Project. The IEC shall be approved by the Director before appointment by the Permit Holder. The Permit Holder shall provide a site office to the IEC and the supporting team for use. The IEC shall be a person who has at least 7 years of experience in EM&A or environmental management. The minimum on-site time for the IEC and his / her team shall be proposed with justifications for the approval of the Director.
- 2.5 The IEC shall report directly to the Director on matters relating to the EM&A programme and environmental impacts from the Project and shall submit to the Director for approval, no later than one month before the commencement of the construction of the Project, a proposal on the reporting mechanism covering the approaches for the IEC and the team to report to the Director on:



- (i) how to discharge all the duties specified under the EM&A programme and this Permit, taking into account the construction activities and programme of the Project;
- (ii) how to handle each and every change of circumstances, emergency events relating to violation of environmental legislation (such as illegal dumping relating to the Project) or non-compliance (including suspects of non-compliance) with the recommendations (such as construction methods, mitigation measures, and environmental standards) of the approved EIA Report (Register No. AEIAR-207/2017), the EM&A Manual and this Permit, which might affect the monitoring or control of adverse environmental impacts from the Project; and
- (iii) how to keep proper records in order to respond to questions and enquiries from the Director on the EM&A programme and duties discharged by the IEC.

2.6 The IEC shall be responsible for duties defined in the EM&A Manual and this Permit, including but not limited to the following:

- (i) to audit the overall EM&A performance, including the implementation of all environmental mitigation measures and monitoring activities on site;
- (ii) to verify the environmental acceptability of permanent and temporary works, relevant plans and submissions required in the EM&A Manual and under this Permit;
- (iii) to verify the log-book(s) mentioned in Condition 2.2(v);
- (iv) to notify the Director by fax or email, within one working day of receipt of notification from the ET Leader, or identification by the IEC and his / her team, of each and every change of circumstances and emergency events mentioned in Condition 2.5(ii);
- (v) to liaise closely with the Director;
- (vi) to accompany the Director in carrying out site inspections and attending meetings when requested;
- (vii) to offer objective and professional advice on environmental issues, when requested, and to respond to questions and enquiries from the Director on the EM&A programme and duties discharged by the IEC, with the support of relevant information, documents and records as appropriate; and
- (viii) to allocate adequate resources, including any necessary specialist support, for discharging the duties required in this Permit and the EM&A Manual.

2.7 If the Director considers the IEC fails to discharge the duties of the IEC as defined in the EM&A Manual or in this Permit, the Director may require the Permit Holder by notice in writing to replace the IEC. Failure to replace the IEC as directed or further failure to so notify the Director despite employment of a new IEC may render the Permit liable to suspension, cancellation or variation. Notification by the Permit Holder is the same as notification by the IEC for the purpose of this Condition.



Submission of Management Organizations

- 2.8 The Permit Holder shall, no later than one month before the commencement of construction of the Project, inform the Director in writing with the following information which shall include at least an organization chart, names of responsible persons and their contact details:
- (i) the management organization of the main construction companies and / or any form of joint ventures associated with the construction of the Project;
 - (ii) the management organization of the ET; and
 - (iii) the management organization of the IEC and the supporting team.

Submission of Demolition Noise Mitigation Measures Plan (DNMMP)

- 2.9 The Permit Holder shall submit a Demolition Noise Mitigation Measures Plan (DNMMP) no later than one month before the commencement of the demolition of the existing structures in the Sha Tau Kok Sewage Treatment Works (STKSTW) and Sha Tau Kok Sewage Pumping Station (STKSPS). The DNMMP shall include the use of low-noise technology and equipment to minimize demolition noise impact on the nearby noise sensitive receivers. Measures in the DNMMP shall be fully implemented.

Measures To Minimize Construction Impacts

- 2.10 To minimize construction dust and noise impacts, the section of gravity sewer near Tin Hau Temple as shown in Figure 1 of this Permit shall be constructed by trenchless method to minimize impact to the Tin Hau Temple.
- 2.11 To minimize water quality impact from the marine construction works, the Permit Holder shall, no later than 2 months before the commencement of construction of the submarine outfall, submit 5 hard copies and 1 electronic copy of a Method Statement for Construction of Submarine Outfall (Method Statement) to the Director for approval. The Method Statement shall include detailed description of the construction methodology of the submarine outfall, a package of necessary mitigation measures having regard to the expected impacts, and a review of the environmental monitoring and audit requirements during the construction of the submarine outfall. The following shall form part of the package of mitigation measures to be proposed in the Method Statement:
- (i) The submarine outfall in Starling Inlet shall be constructed by trenchless method such as Horizontal Directional Drilling or equivalent such that the seabed (except at the diffuser location) will not be disturbed; and
 - (ii) Cofferdam shall be installed at the receiving pit of the diffuser of submarine outfall. Excavation of sediment and construction of the diffuser shall be conducted in dry condition within the fully-drained cofferdam.

The Method Statement shall be certified by the ET Leader and verified by the IEC referred to in Conditions 2.1 and 2.4 before submitting to the Director. The construction methodology, mitigation measures and environmental monitoring and audit requirements recommended in the approved Method Statement shall be fully implemented during construction of the submarine outfall.



- 2.12 To minimise potential construction impact on the Night Roosting Site for Great Egret (hereinafter referred to as “Night Roosting Site”) as shown in Figure 2 of this Permit, the Permit Holder shall undertake a pre-construction survey to reconfirm the usage of the Night Roosting Site by Great Egrets or other ardeids species; and shall deposit to the Director the pre-construction survey report no later than one month before the commencement of any construction / demolition works within 100m of the Night Roosting Site. If the pre-construction survey report shows the Night Roosting Site is used by Great Egrets or other ardeids species, then no work shall be undertaken within 100m from the Night Roosting Site from 16:00 to 07:00 of the following day. The pre-construction survey report shall be certified by the ET Leader and the Ecologist referred to in Condition 2.1 and verified by the IEC.

Submissions and Measures Before or During Operation of the Project

Measures to Minimize Operation Noise Impact

- 2.13 To minimize operation noise of the Project, the following mitigation measures shall be implemented for the Temporary Sewage Treatment Plant (TSTP) and the expanded STKSTW:

Measures for the TSTP

- (i) Pumps and air blowers shall be enclosed within tank and acoustic enclosure respectively;
- (ii) Mechanical raked screen shall be within steel casing; and
- (iii) Deodourization fan shall be enclosed inside deodourization unit with the exhaust facing away from the noise sensitive receivers .

Measures for the expanded STKSTW

- (i) All the equipment shall be enclosed inside building structure; and
- (ii) Exhaust fans shall be fitted with acoustic louvre / siliencer.

Submission and Measures to Minimize Operation Odour Impact

- 2.14 To minimize odour impact during operation of the Project, the following mitigation measures shall be implemented:

- (i) No concurrent operation of the TSTP and the expanded STKSTW;
- (ii) All process equipment of the TSTP shall be enclosed; and all process equipment of the expanded STKSTW shall be confined inside building substructure / superstructure;
- (iii) The TSTP and the expanded STKSTW shall be equipped with deodourizing facility using activated carbon filters and / or biotrickling filters to attain odour removal efficiency of no less than 99.5% at exhaust;
- (iv) Sewage sludge shall be removed off-site regularly to avoid accumulation of odourous materials on site. Trucks transporting sludge shall be fully enclosed;



and

- (v) The holding area of the dewatered sludge and the loading operation of the sludge onto trucks shall be within enclosed area of the STKSTW with deodourization unit.
- 2.15 The Permit Holder shall, no less than one month before the commencement of operation of the TSTP and of the expanded STKSTW respectively, deposit 5 hard copies and 1 electronic copy of Commissioning Test Report to the Director to demonstrate compliance with the odour removal efficiency as described in Condition 2.14(iii) above. Any measure(s) as recommended in the Commissioning Test Report shall be fully implemented.

Submission and Measures to Minimize Operation Water Quality Impact

- 2.16 The following precautionary measures shall be implemented during the operation of the TSTP and of the expanded STKSTW to minimize risk of discharge of untreated or incompletely-treated sewage into marine water under emergency situation:
- (i) Routine / regular checking of the equipment, provision of dual power supply and backup generator, provision of standby equipment for all treatment units, 24-hour monitoring of the operation of the TSTP and the expanded STKSTW, remote control and monitoring system; and
 - (ii) Provision of on-site storage of raw sewage for the TSTP and the expanded STKSTW, with storage volume of at least 625 m³ and 2,500 m³ respectively.
- 2.17 The Permit Holder shall submit an Emergency Response Plan (ERP) no later than one month before the commencement of operation of the TSTP and of the expanded STKSTW respectively (2 ERPs shall be submitted i.e. 1 ERP for TSTP, 1 ERP for expanded STKSTW), for approval by the Director. Each of the ERPs shall include, but not limited to, the following:
- (i) Locations of sensitive receivers in the vicinity of the emergency discharge outlet;
 - (ii) List of bodies to be informed or involved;
 - (iii) List of mariculturists to be informed;
 - (iv) Reporting procedures;
 - (v) Responsibilities and procedures for clean-up of the affected water body / sensitive receivers; and
 - (vi) Investigation arrangement of incidents that affect nearby fish culture zone, including water sampling, assessing of the impact, investigating the cause of any fish kill / loss of fishery, and the relevant departments to be consulted .

All measure(s) as recommended in ERPs shall be fully implemented in case of emergency discharge.

Submission and Measures to Minimize Operation Landscape and Visual Impact

- 2.18 The Permit Holder shall submit a detailed Landscape and Planting Plan (LPP), no



later than one month before the commencement of the implementation of planting and landscape works, for approval by the Director. The LPP shall include tree planting, rooftop and vertical greening to facilitate the STKSTW structures of the Project to harmonize with the surrounding natural environment; and the use of native tree and plant species compatible with the STKSTW structures of the Project to provide better screening effect and to mitigate the landscape and visual impacts especially when viewing from the Starling Inlet. The LPP shall be certified by the ET Leader and the Registered Landscape Architect referred to in Condition 2.1 and verified by the IEC.

Measures to Mitigate Impact from the Reuse of Treated Effluent

- 2.19 The following measures for reusing treated effluent from the Project as reclaimed water shall be implemented:
- (i) Quality of the reclaimed water, which shall be for non-potable uses only, shall meet the following requirements;

Water Quality Parameter	Unit	Reclaimed Water Quality of this Project
pH	n/a	6 – 9
Turbidity	NTU	≤ 2
Total Suspended Solids	mg / L	≤ 10
Biochemical Oxygen Demand (BOD5)	mg / L	≤ 10
Colour	Hazen Unit	≤ 20
Ammonia Nitrogen	mg / L	≤ 1
Threshold Odour Number	T.O.N	≤ 100
Synthetic Detergents	mg / L	≤ 5
<i>Escherichia coli</i>	cfu / 100ml	Not Detectable
Dissolved Oxygen	mg / L	≥ 2
Residual Chlorine	mg / L	≥ 1 (For cleansing and toilet flushing) ≤ 1 (For landscape irrigation)

- (ii) The reclaimed water pipeline shall be a separate system and shall not be connected with the potable water pipeline system. To avoid cross-connection of the reclaimed water supply to the potable water supply, the Permit Holder shall specially arrange the pipes for the reclaimed water to differentiate them from that of the potable water pipe, by clear labels, warning signs and notices, colour-coding, and / or using different pipe sizes; and
- (iii) To minimize the formation of aerosol from reclaimed water, high pressure jetting / cleansing equipment shall not be allowed during ground and facility washing and landscape irrigation using the reclaimed water.

3 ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

- 3.1 The Permit Holder shall implement the EM&A programme in accordance with the procedures and requirements as set out in the EM&A Manual. Any changes to the



programme shall be justified by the ET Leader and verified by the IEC as conforming to the information and requirements contained in the EM&A Manual before submission to the Director for approval.

- 3.2 The Permit Holder shall take samples, measurements and necessary remedial actions in accordance with the requirements of the EM&A Manual by:
- (i) conducting baseline environmental monitoring;
 - (ii) conducting impact monitoring;
 - (iii) carrying out remedial actions described in the Event/Action Plans of the EM&A Manual in accordance with the time frame set out in the Event/Action Plans, or as agreed by the Director, in case where specified criteria in the EM&A Manual are exceeded; and
 - (iv) logging and keeping records of the details of (i) to (iii) above for all parameters within 3 working days of the collection of data or completion of remedial action(s), for the purpose of preparing and submitting the monthly EM&A Reports and to make available the information for inspection on site.
- 3.3 The Permit Holder shall submit 4 hard copies and 1 electronic copy of relevant Baseline Monitoring Reports to the Director at least 2 weeks before the commencement of construction of the Project. The submissions shall be certified by the ET Leader and verified by the IEC as having complied with the requirements as set out in the EM&A Manual before submission to the Director. Additional copies of the Baseline Monitoring Reports shall be provided upon request by the Director.
- 3.4 The Permit Holder shall submit 4 hard copies and 1 electronic copy of Monthly EM&A Reports for the construction stage of the Project to the Director, within 2 weeks after the end of the reporting month. The monthly EM&A Reports shall include an executive summary of all environmental audit results, together with actions taken in the event of non-compliance (exceedances) of the environmental quality performance limits (Action and Limit Levels), complaints received and emergency events relating to violation of environmental legislation (such as illegal dumping). The submissions shall be certified by the ET Leader and verified by the IEC as having complied with the requirements as set out in the EM&A Manual before submission to the Director. Additional copies of the Monthly EM&A Reports shall be provided upon request by the Director.
- 3.5 All environmental monitoring and audit data submitted under this Permit shall be true, valid and correct.
- 3.6 To ensure a high degree of transparency regarding the monitoring data and results in view of the public concern about the Project, all environmental monitoring and audit data and results and all submissions and all performance test data and results required by this Permit shall be made available by the Permit Holder to the public through a dedicated website to be set up by the Permit Holder under Condition 4.2 below, in the shortest practicable time and in no event later than 2 weeks after such information is available.

4. **ELECTRONIC REPORTING OF EM&A INFORMATION**

- 4.1 To facilitate public inspection of the Baseline Monitoring Report and Monthly EM&A Reports via the EIAO Internet Website and at the EIAO Register Office, electronic copies of these Reports shall be prepared in Hyper Text Markup Language (HTML) (version 4.0 or later) and in Portable Document Format (PDF version 1.3 or later), unless otherwise agreed by the Director and shall be submitted at the same time



as the hard copies as described in Conditions 3.3 and 3.4 above. For the HTML version, a content page capable of providing hyperlink to each section and sub-section of these Reports shall be included in the beginning of the document. Hyperlinks to all figures, drawings and tables in these Reports shall be provided in the main text from where the respective references are made. All graphics in these Reports shall be in interlaced GIF, JPEG or PDF format unless otherwise agreed by the Director. The content of the electronic copies of these Reports must be the same as the hard copies.

- 4.2 The Permit Holder shall, within 6 weeks after the commencement of construction of the Project, set up a dedicated Internet website and notify the Director in writing the Internet address where the environmental monitoring data and project information is to be placed. All environmental monitoring data described in Condition 4.1 above shall be made available to the public via the abovementioned dedicated Internet website in the shortest possible time and in any event no later than 2 weeks after the relevant environmental monitoring data are collected or become available, unless otherwise agreed with the Director. All finalized submissions and plans shall be made available to the public via the dedicated Internet website in the shortest possible time and in any event no later than 2 weeks after the submissions and plans are approved by or deposited with the Director, unless otherwise agreed with the Director. The Permit Holder shall maintain the dedicated website for public access of the environmental monitoring data and reports throughout the entire construction period and during the first 3-year period of operation of the Project, or otherwise as agreed by the Director.
- 4.3 The Internet website as described in Condition 4.2 above shall enable user-friendly public access to the environmental monitoring data and project information including the Project Profile and this Permit. The Internet website shall have features capable of:
- (i) providing access to all environmental monitoring data of this Project collected since the commencement of construction;
 - (ii) searching by date;
 - (iii) searching by types of monitoring data; and
 - (iv) hyperlinking to relevant monitoring data after searching

or otherwise as agreed by the Director.

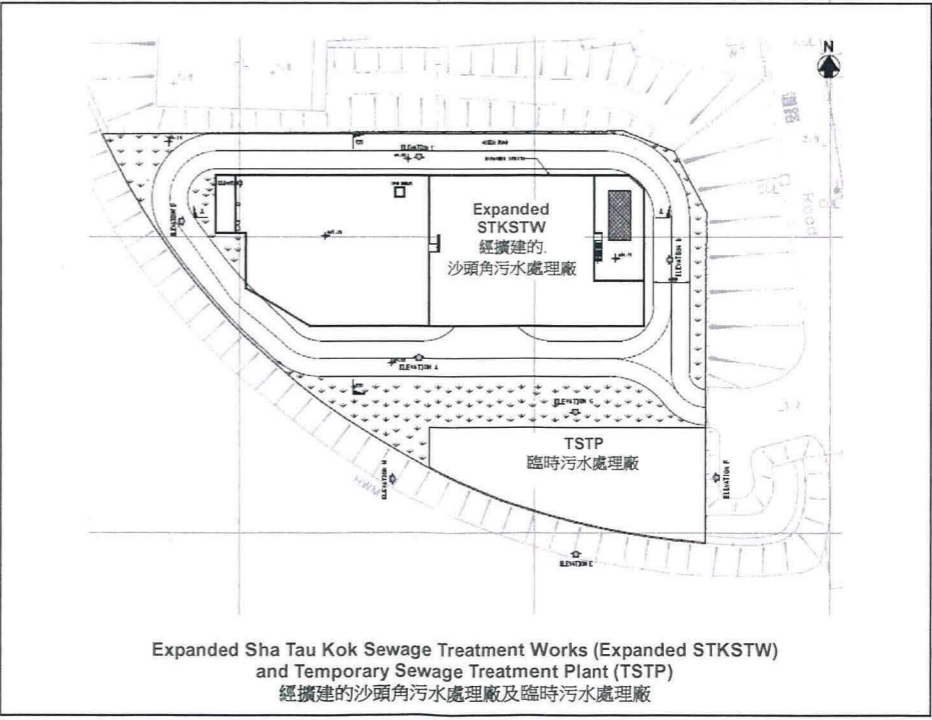
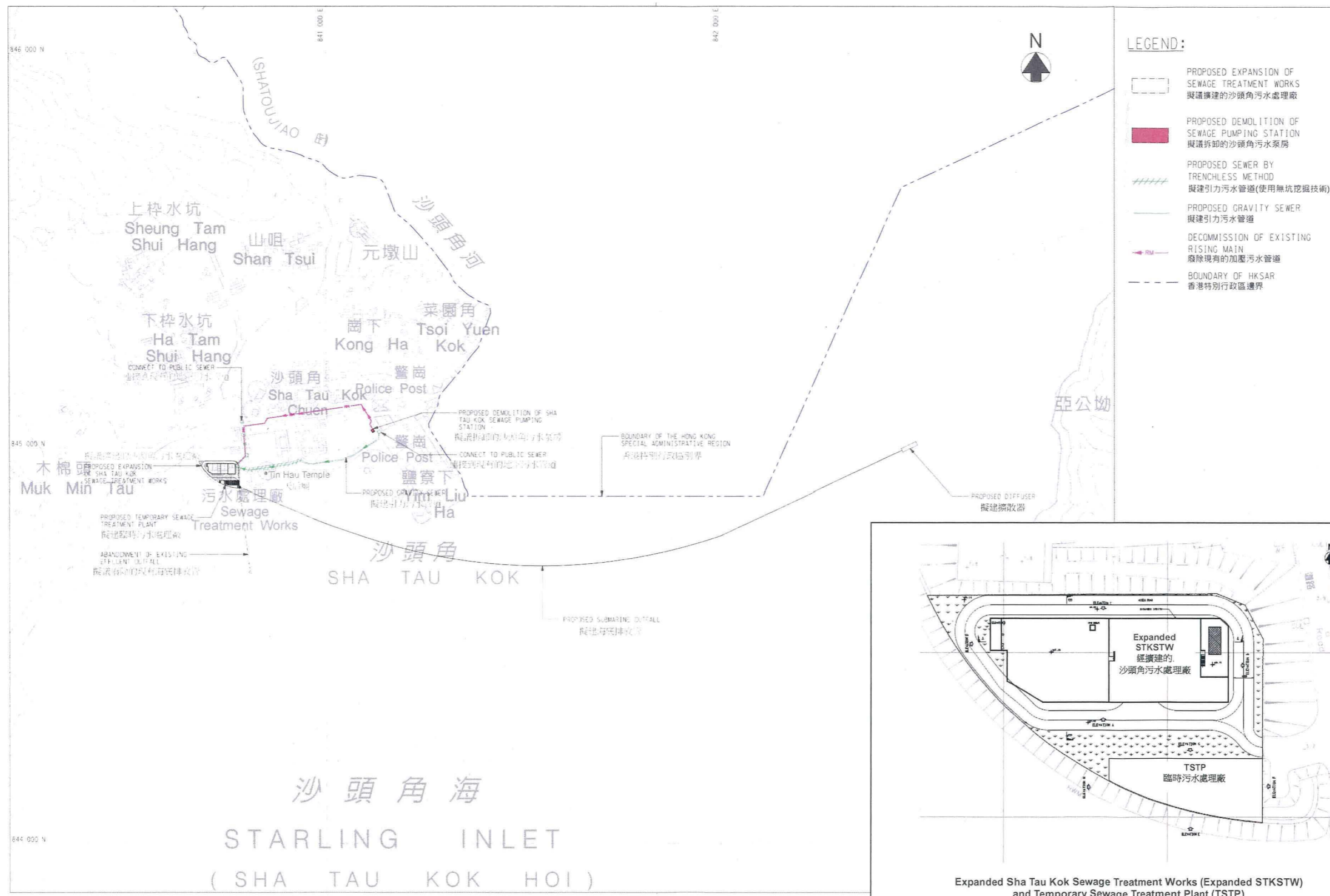


Notes:

1. This Permit consists of three parts, namely, Part A (Main Permit), Part B (Description of Designated Project) and Part C (Permit Conditions). Any person relying on this permit should obtain independent legal advice on the legal implications under the EIAO, and the following notes are for general information only.
2. If there is a breach of any condition of this Permit, the Director or his authorized officer may, with the consent of the Secretary for the Environment, order the cessation of associated work until the remedial action is taken in respect of the resultant environmental damage, and in that case the Permit Holder shall not carry out any associated works without the permission of the Director or his authorized officer.
3. The Permit Holder may apply under Section 13 of the EIAO to the Director for a variation of the conditions of this Permit. The Permit Holder shall replace the original permit displayed on the Project site by the amended permit.
4. A person who assumes the responsibility for the whole or a part of the Project may, before he assumes responsibility of the Project, apply under Section 12 of the EIAO to the Director for a further environmental permit.
5. Under Section 14 of the EIAO, the Director may with the consent of the Secretary for the Environment, suspend, vary or cancel this Permit. The suspended, varied or cancelled Permit shall be removed from display at the Project site.
6. If this Permit is cancelled or surrendered during construction or operation of the Project, another environmental permit must be obtained under the EIAO before the Project could be continued. It is an offence under Section 26(1) of the EIAO to construct or operate a designated project listed in Part I of Schedule 2 of the EIAO without a valid environmental permit.
7. Any person who constructs or operates the Project contrary to the conditions in the Permit, and is convicted of an offence under the EIAO, is liable:
 - (i) on a first conviction on indictment to a fine of \$2 million and to imprisonment for 6 months;
 - (ii) on a second or subsequent conviction on indictment to a fine of \$5 million and to imprisonment for 2 years;
 - (iii) on a first summary conviction to a fine at level 6 and to imprisonment for 6 months;
 - (iv) on a second or subsequent summary conviction to a fine of \$1 million and to imprisonment for 1 year; and
 - (v) in any case where the offence is of a continuing nature, the court or magistrate may impose a fine of \$10,000 for each day on which he is satisfied the offence continued.
8. The Permit Holder may appeal against any condition of this Permit under Section 17 of the EIAO within 30 days of receipt of this Permit.
9. The Notes are for general reference only and that the Permit Holder should refer to the EIAO for details and seek independent legal advice.

Environmental Permit No. EP-517/2017/A
環境許可證編號 EP-517/2017/A





Project Title
工程項目名稱

Figure 1
圖一

Expansion of Sha Tau Kok Sewage Treatment Works
沙頭角污水處理廠擴建工程

Location Plan [This figure was prepared based on Figure 2.1b and Figure 2.4b of the EIA Report (Register No.: AIAR-207/2017)]
位置圖 [本圖是根據已批准的環評報告 (登記冊編號: AEIAR-207/2017) 圖 2.1b 及圖 2.4b 編制]

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Legend:

- Project Site
工程項目工地
-  Night Roosting Site for Great Egret
大白鷺夜間棲息地
-  100 m Boundary from the Night Roosting Site of Great Egret
大白鷺夜間棲息地外圍的 100 米範圍

Project Title
工程項目名稱

Expansion of Sha Tau Kok Sewage Treatment Works
沙頭角污水處理廠擴建工程

Figure 2
圖二

100m Boundary from the Night Roosting Site of Great Egret
大白鷺夜間棲息地外圍的 100 米範圍

[This figure was prepared based on Figure 7.2 of the EIA Report (Register No.: AIAR-207/2017)]
[本圖是根據已批准的環評報告 (登記冊編號: AEIAR-207/2017) 圖 7.2 編制]

Environmental Permit No.: EP-517/2017/A
環境許可證編號: EP-517/2017/A

