



DRAINAGE SERVICES DEPARTMENT
THE GOVERNMENT OF THE HONG KONG
SPECIAL ADMINISTRATIVE REGION

PWP Item 354DS
Outlying Islands Sewerage, Stage 2
Upgrading of Cheung Chau and Tai O Sewage Collection,
Treatment and Disposal Facilities

Project Profile for
Upgrading of Tai O Sewage Collection,
Treatment and Disposal Facilities

AECOM

December 2009

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1 BASIC INFORMATION

1.1 Project Title

1.1.1 Upgrading of Tai O Sewage Collection, Treatment and Disposal Facilities (hereinafter referred to as the “Project”).

1.2 Purpose and Nature of the Project

1.2.1 The purpose of the Project is to upgrade the sewerage collection, treatment and disposal facilities in Tai O in order to cater for the projected ultimate population and planned developments in Tai O to meet the increased demand and to achieve more stringent effluent quality standards.

1.2.2 The key elements of the proposed works for the Project will include as follows:

- a) expansion of the sewage treatment capacity and upgrading of the treatment level of the existing Tai O Sewage Treatment Works (Tai O STW) to secondary treatment level;
- b) site formation works (including reclamation, seawall and berthing area) to provide additional land for the upgraded Tai O STW;
- c) construction of a new submarine outfall for the upgraded Tai O STW;
- d) construction of approximately 4 km long village sewerage to unsewered areas in Tai O, including Hang Mei, Wang Hang Tsuen, Leung Uk Tsuen, Nam Chung Tsuen, Fan Kwai Tong, some minor unsewered areas scattered in Shek Tsai Po and Tai O Town, or other locations if necessary; and
- e) construction of 2 nos. sewage pumping stations at Hang Mei and Fan Kwai Tong.

1.3 Name of Project Proponent

1.3.1 Consultants Management Division, Drainage Services Department (DSD).

1.4 Location and Scale of Project

Sewage Treatment Works

Upgrading of the existing Tai O Sewage Treatment Works

- 1.4.1 Existing Tai O STW is located to the west of Kau San Tei (see **Drawing No. 60043655/PP/2001**). It is currently a preliminary treatment works (an imhoff tank) with design average dry weather flow of 1,200 m³/day.
- 1.4.2 Upon completion of the Project, the Tai O STW can cater for a daily average dry weather flow of 2,700 m³/day.
- 1.4.3 The treatment process is designed to provide secondary treatment level. The preferred secondary treatment option will be determined in the subsequent detailed design stage.
- 1.4.4 It is reported that the existing submarine outfall of the imhoff tank is in poor condition and it is not sufficient to cater for the projected flows. Therefore a new submarine outfall about 200m long will be provided, discharging beyond the secondary contact recreation zone. The exact alignment of the new outfall is subject to further review during the detailed design stage.
- 1.4.5 In order to provide sufficient space for the abovementioned upgrading works, an additional area of approximately 2,300 m² (0.23 ha) will be required to be reclaimed, which will be located to the west of the existing Tai O STW, with new seawall of approximately 100m to be constructed from the coastline

of the new reclamation. The expected total dredging volume will be approximately 13,000m³. The exact dredging volume for the reclamation works will be further reviewed during the detailed design stage when marine ground investigation results are available. Other alternatives of expansion options to minimize/avoid reclamation will also be considered and further investigated during the detailed design stage.

1.4.6 In addition, the STW upgrading works will be considered to include facilities to reuse portion of the treated sewage effluent for non-potable uses within STW, e.g. toilet flushing, irrigation, vehicle washing and chemical mixing, etc. The additional effluent reuse facilities will consist of sand filter and chlorination tank. Due to the small size of the STW, it is expected that only about less than 2% of the effluent can be reused for internal non-potable use. The need for adopting the effluent reuse facilities in the STW will be further investigated and confirmed during the detailed design stage based on the flow demand of effluent reuse, the land availability for the additional facilities and the anticipated life cycle cost for producing and reusing a small quantity of effluent reuse.

1.4.7 The scope of works will comprise:

- Site formation works (including reclamation, seawall and berthing area)
- Construction of new submarine outfall
- Construction of new fine screen and grit removal facility;
- Construction of new storm tank;
- Construction of new secondary treatment units;
- Construction of disinfection facilities, if required;
- Construction of effluent reuse facility for internal non-potable use, if required;
- Construction of new sludge treatment units (including sludge thickening, digestion and dewatering);
- Construction of new odour control units;
- Construction of other ancillary facilities; and
- Demolition of part of the existing structures.

Sewage Pumping Stations

Construction of Sewage Pumping Stations

1.4.8 Two small-scale sewage pumping stations will be required at Hang Mei and Fan Kwai Tong to lift flows from a low-lying area into the main gravity sewerage network. The design pumping capacity of the Hang Mei and Fan Kwai Tong SPSs will be approximately 690 and 1380 m³/d.

1.4.9 The tentatively proposed sites for the Hang Mei SPS and Fan Kwai Tong SPS will be located in vegetation areas near Wang Hang Village and Nam Chung Tsuen respectively (see **Drawing No. 60043655/PP/2001** for locations),

Sewers

Construction of Village Sewerage

1.4.10 Approximately 4 km long proposed village sewers and rising mains will be constructed to serve for the unsewered areas as mentioned in Section 1.2.2. The sizes of the proposed village sewers and rising mains are in the range of 100mm to 225mm diameter. Majority of the proposed pipelines will be laid along existing footpaths and constructed by conventional open cut method.

1.4.11 Two sections of the proposed rising main near Tai O Road to be laid across existing watercourses will be proposed to be constructed by trenchless methods underneath the existing watercourses in order to minimize the water quality impacts.

1.4.12 In addition, a section of proposed village sewer, about 100m long, will be laid along the major footpath of Nam Chung Tsuen, which is narrow and adjacent to a mangrove replanting area. Due to limited working space and conflict with underground utilities, construction of the proposed sewerage

works may have to slightly encroach into the mangrove replanting area. However, it is anticipated that only minor works will be involved on a short-term basis.

- 1.4.13 The preliminary layout of the proposed village sewers and rising mains is shown in **Drawing No. 60043655/PP/2001**. The proposed sewerage alignments are preliminary for indicative purpose only and are subject to further review in the subsequent detailed design stage.

1.5 Number and Type of Designated Project

- 1.5.1 A new submarine sewage outfall is proposed to be constructed for the upgraded Tai O STW for replacement of the existing outfall. As such, the upgraded Tai O STW constitutes a Designated Project (DP) under Item F.6, Part 1 of Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (i.e. a sewage treatment works with a submarine sewage outfall).

1.6 Name and Telephone Number of Contact Person(s)

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2 OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

2.1 Project Implementation

2.1.1 Environmental Protection Department (EPD) is the client department and DSD is the works agent. DSD will carry out the design and construction supervision of the Project. DSD will operate and maintain the completed works.

2.1.2 Planning and design of the proposed works has been in process since February 2008. Construction is tentatively scheduled to commence in 2013 for completion in 2017.

2.2 Interface with Other Projects

2.2.1 Below are the major projects in the vicinity of the Project with overlapping implementation programme that might cause significant environmental impacts due to cumulative effects:

- “Improvement Works for Tai O Facelift“, undertaken by Civil Engineering and Development Department;
- “Replacement and Rehabilitation of Water Mains, Stage 2 – Mains on Lantau Island West and Cheung Chau“, undertaken by Water Supplies Department (WSD);
- Replacement and Rehabilitation of Water Mains, Stage 3 – Mains on Hong Kong and Islands“, undertaken by WSD; and
- “Replacement and Rehabilitation of Water Mains, Stage 4 – Mains on Hong Kong and Islands“, undertaken by WSD.

3 POSSIBLE IMPACTS ON THE ENVIRONMENT

3.1 Upgrading of the Existing Tai O Sewage Treatment Works

Construction Phase

Air Quality

- 3.1.1 Dust would be generated from construction activities such as earthworks, excavation, and construction of concrete structures and demolition of the existing structures.

Water Quality

- 3.1.2 Potential impacts would be arised from the reclamation work, construction of new seawall, surface runoff and erosion of exposed soil, earthworks and stockpiles during storm events. Dredging works of laying new submarine outfall and new seawall construction may impact the marine water quality, as sediments may release from the disturbed seabed, leading to the increase of suspended solids. Silty water may also be generated from the construction activities such as dust suppression sprays, dewatering during excavation and washing of construction equipment.

Noise

- 3.1.3 Noise would be generated from construction activities through the use of conventional construction plant and equipment.

Waste Management

- 3.1.4 Construction and demolition (C&D) material such as excavated spoil (soil and rock), unusable concrete and grout, wood, metal scraps, equipment parts and packaging materials would be generated.

Ecology

- 3.1.5 The main potential impacts identified are associated with deterioration of water quality, as a result of sediment surface runoff into watercourses, intertidal areas and marshes in proximity to the works areas, as well as potential noise impact on the Tai O Egret. In addition, water quality arising from the dredging and reclamation works may impact the marine ecology.

Fisheries

- 3.1.6 In view of the need of marine works such as submarine outfall, reclamation and dredging, fisheries may be adversely affected due to increase in suspended solid, and temporary or permanent loss of fishing ground. Potential fishery resources that may receive adverse impacts include fishing ground in the West Lantau waters, spawning grounds of commercial fisheries species in North Lantau waters, and Sha Chau and Lung Kwu Chau Marine Park.

Landscape and Visual

- 3.1.7 Reclamation work is required for the provision of additional site area for Tai O STW, there may be a loss of visual quality and landscape at the site and its surrounding areas.

Cultural Heritage

- 3.1.8 No impacts on historic monuments or buildings are expected during the construction phase. There is no recorded marine archaeological site located in the vicinity of the proposed submarine outfall. Areas of potential offshore marine deposits of archaeological interest, which have not been investigated and/or adequately studied previously, may be affected.

Cumulative Effects

- 3.1.9 As the Project programme may overlap with those other major projects mentioned in **Section 2.2**, there is a potential for magnification of the environmental impacts due to cumulative effects at the locations of Project interface.

Operation Phase

Air Quality

- 3.1.10 The potential odour sources in the upgraded Tai O STW are the preliminary treatment facilities, the screening / grit handling area, biological tanks and sludge treatment units.

Water Quality

- 3.1.11 Implementation of the Project would enhance the water quality of the project area. It is anticipated that the project would not cause any adverse water quality impact during normal operation. Under emergency situation, such as prolonged power failure, sewage overflow via the emergency overflow bypass into the local receiving waters may be resulted. If effluent reuse is implemented in the upgraded Tai O STW, it is anticipated that there will be a small percentage of reduction of the volume of STW effluent requiring discharge to the marine waters, thus slightly reducing the pollution loading to the environment. Regarding the quality of effluent discharge, it should remain the same and meet the discharge standards of the upgraded Tai O STW.

Noise

- 3.1.12 The sewage / sludge pumps, mechanical screens, air blowers, exhaust fans of ventilation systems and emergency generator set (if required) are potential noise sources during operation of the upgraded Tai O STW.

Waste Management

- 3.1.13 Solid wastes are arising from grit removal at detritors, screenings at fine screens and sludge. Additional solid wastes will be generated due to the increase in sewage flow to be handled by the Tai O STW.

Ecology

- 3.1.14 Potential impacts may arise in the event of emergency sewage overflow leading to water quality impact on marine habitat.

Fisheries

- 3.1.15 Potential impact on fisheries may include discharge of effluent, temporary or permanent loss of fishing ground, as well as discharge of untreated sewage during an event of emergency sewage overflow.

Hazard

- 3.1.16 If effluent reuse is implemented in the upgraded Tai O STW, a small amount of sodium hypochlorite required for the chlorination process will be stored on site. It is expected that sodium hypochlorite solution of concentration 11%-15% will be used. The solution is a poisonous substance classified as Category 4 dangerous goods item. The Fire Services Department's requirements for bulk storage will be properly followed. It is anticipated that the use of sodium hypochlorite for the chlorination process will not constitute a potentially hazardous installation and thus no hazard impact will arise.

Landscape and Visual

- 3.1.17 Reclamation work is required for the provision of additional site area for the upgraded Tai O STW, there may be a loss of visual quality and landscape at the site and its surrounding areas.

Cultural Heritage

- 3.1.18 No impacts on historic monuments or buildings or sites of marine archaeological interest are expected during the operation phase.

4 MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

4.1.1 The Tai O STW is located to the west of Kau San Tei. **Drawing No. 60043655/PP/2002** shows the surrounding environment of the upgrading of Tai O STW. The existing and planned sensitive receivers are summarised in **Table 4.1**.

Table 4.1 Representative Sensitive Receivers in the Vicinity of the Project

Description	Nature of Sensitive Receiver	Type of Sensitive Receiver
Upgrading of the existing Tai O STW		
Camp Site of Christian Zheng Sheng Associated Limited	Residential	ASR & NSR
Tai O Egrettry	Recreational	ESR
Tai O Creek & Tai O River	Recreational	WSR & ESR
Leung Uk marsh	Recreational	WSR & ESR
Mangrove stand along Tai O Creek	Recreational	WSR & ESR
Sheltered boat anchorage	Recreational	WSR
Secondary contact recreation subzones in Tai O	Recreational	WSR

Note:

(i) ASR: Air Sensitive Receiver. NSR: Noise Sensitive Receiver. WSR: Water Sensitive Receiver. ESR: Ecological Sensitive Receiver.

5 ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN AND FURTHER ENVIRONMENTAL IMPLICATIONS

5.1 Upgrading of the Existing Tai O Sewage Treatment Works

Construction Phase

Air Quality

- 5.1.1 The extent of dust generation from the construction works is expected to be insignificant with the implementation of dust suppression measures as stipulated in the Air Pollution Control (Construction Dust) Regulation of Air Pollution Control Ordinance (APCO). These measures would be incorporated into the specifications for the works contract.
- 5.1.2 The current odour mitigation measures adopted for existing STW would be maintained throughout the entire construction period. The construction sequence of the proposed upgrading works for the STW would also be formulated in such a way to avoid any additional odour emissions from the operation of the STW during the construction stage. No additional odour emission is expected during construction phase.

Water Quality

- 5.1.3 The construction activities would include reclamation, excavation, earthworks and general civil building works. For reclamation that involves dredging activity, silt curtain should be installed and dredging method and works should be carefully planned to minimize the marine water quality impact. Necessary silt removal facilities will be provided so as to remove any silt before discharge of site runoff into the nearby stormwater drains. The mitigation measures would be provided prior to the commencement of excavation. The design of temporary on-site drainage and silt removal facilities would follow the guidelines stipulated in EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). The above measures would be incorporated into the specifications of the works contract. With the adoption of such mitigation measures, no adverse impacts on water quality are expected during construction phase.

Noise

- 5.1.4 Mitigation measures including noise barriers, quiet construction plant and scheduling of works will be recommended and follow the guidelines stipulated in EPD's Practice Note for Professional Persons, Noise from Construction Activities - Non-statutory (ProPECC PN2/93), to minimize the construction noise impact.

Waste Management

- 5.1.5 During design stage, consideration will be put on minimizing the generation of C&D material by maximizing the re-use of public fill. The inert C&D material such as the concrete arising from the construction of the Project, will be sorted on-site. The Contractor would be required to sort all C&D material and waste into different categories for reuse on site and disposal at public filling, landfills, or recycling facilities as appropriate. For the management and handling of dredged marine sediment from reclamation activity, ETWB TCW No.34/2002 should be followed for seeking approval to dredge sediment and the management framework for marine disposal of dredged sediment.

Ecology and Fisheries

- 5.1.6 Mitigation measures should be implemented in order to reduce the impact on terrestrial and marine ecology, as well as fisheries during the reclamation and dredging works.

Landscape and Visual

- 5.1.7 There will be potential landscape and visual impacts due to the expansion and upgrading works. Mitigation measures should be implemented in order to reduce the impact on landscape and visual qualities during construction works.

Cultural Heritage

- 5.1.8 No cultural heritage impact is expected during the construction phase, no mitigation measure is necessary. Geophysical survey will be conducted to assemble field data of the affected seabed to establish the marine archaeological potential of the site and identify adequate mitigation measures during the EIA prior to the construction works.

Operation Phase

Air Quality

- 5.1.9 Odour impact assessment will be conducted to identify the sources and impact to nearby sensitive receivers. The potential odour generating units will be enclosed/ covered. Current odour emission control measures should be maintained and reviewed in order to meet the emission control after the upgrading works. Mitigation measures, such as containment of the major odour sources, providing adequate ventilation and odour removal system (at least 90% odour removal efficiency), may be implemented to reduce the odour impact.

Water Quality

- 5.1.10 To minimize potential impacts on water quality arising in the event of temporary sewage overflow, dual power or ring main supply or emergency generators will be provided as far as practicable to reduce the risk of power failure. Water quality assessment will be conducted to analyze the impacts to the nearby sensitive receivers due to the additional discharge from the upgraded Tai O STW into marine water.

Noise

- 5.1.11 In order to minimize the potential noise impacts from operation of the upgraded Tai O STW, all pumps, mechanical screens, air blowers and emergency generator set (if required) will be enclosed. Exhaust fans will be located away from the sensitive receivers as far as practicable.

Waste Management

- 5.1.12 The screenings and grits collected from the treatment works would be stored in enclosed containers and transported to landfill for disposal regularly. The waste packaging would be conducted inside the structures/ buildings.

Ecology and Fisheries

- 5.1.13 Mitigation measures to reduce ecological and water quality impact should be implemented in order to reduce the impact on terrestrial and marine ecology, as well as fishery resources.

Hazard

- 5.1.14 No potential adverse hazard impact related to the operation of the upgraded Tai O STW is identified and thus no mitigation measure is required.

Landscape and Visual

- 5.1.15 There will be potential landscape and visual impacts due to the expansion and upgrading works. Landscape and aesthetics would be incorporated into the design of the upgraded Tai O STW. Landscaping work and greening will be provided to enhance the outlook of the upgraded Tai O STW. In addition, architectural aspects including colour scheme, types of external finishing and layout of the infrastructures will be designed so as to achieve a visual harmony between the upgraded Tai O STW and the surrounding environment.

Cultural Heritage

- 5.1.16 No cultural heritage impact is expected during the operation phase, no mitigation measure is necessary.

5.2 Summary of Potential Environmental Impacts and Mitigation Measures

5.2.1 The potential environmental impacts and proposed mitigation measures to be incorporated into the design and construction of the proposed works are summarised in **Table 5.1**.

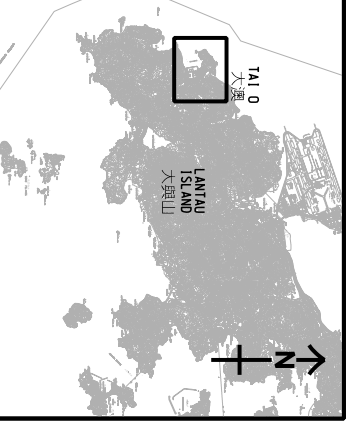
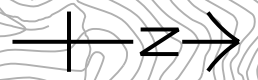
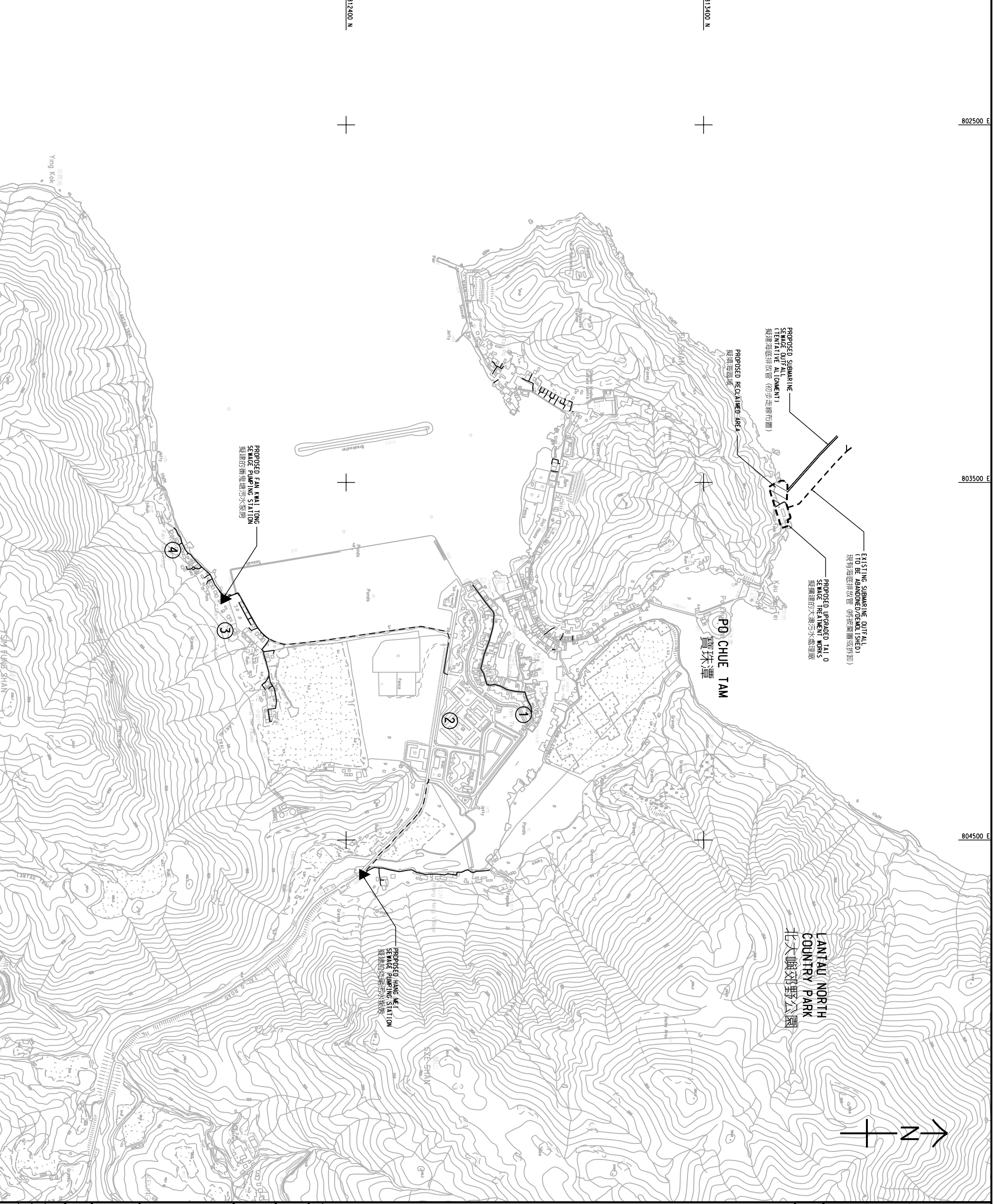
Table 5.1 Summary of Environmental Impacts and Mitigation Measures during the Construction and Operation Phases of the Upgrading of Tai O STW

Potential Environmental Impact	Mitigation Measures	Relevant Section in the Project Profile
Construction Phase		
Air Quality	(1) Control measures stipulated in the Air Pollution Control (Construction Dust) Regulation; (2) Control by contract specifications; and (3) Maintain existing odour mitigation measures.	5.1.1 & 5.1.2
Water Quality	(1) Control of construction surface run-off as stipulated in the measures stipulated in the ProPECC PN 1/94 (Construction Site Drainage); and (2) Control by contract specifications.	5.1.3
Noise	(1) Control measures stipulated in the Practice Note for Professional Persons: Noise from Construction Activities – Non-statutory (ProPECC PN2/93).	5.1.4
Waste Management	(1) Maximize the re-use of public fill C&D material during design stage; (2) C&D material and waste would be sorted on site; (3) C&D material would be disposed of at public fill; (4) Control by contract specifications; and (5) ETWB TCW No.34/2002 should be followed for handling of dredged marine sediments.	5.1.5
Ecology and Fisheries	(1) Mitigation measures to reduce water quality impact should be implemented.	5.1.6
Landscape and Visual	(1) Mitigation measures should be implemented in order to reduce the impact on landscape and visual qualities during construction works.	5.1.7
Cultural Heritage	(1) Geophysical survey will be conducted to assemble field data of the affected seabed to establish the marine archaeological potential of the site and	5.1.8

Potential Environmental Impact	Mitigation Measures	Relevant Section in the Project Profile
	identify adequate mitigation measures prior to the construction works.	
Operation Phase		
Air Quality	(1) Containment of odour sources; and (2) Provide adequate ventilation and odour removal system (at least 90% odour removal efficiency).	5.1.9
Water Quality	(1) Dual power or ring main supply or emergency generators will be provided as far as practicable; and (2) Water quality assessment will be conducted to analyze the impacts to the nearby sensitive receivers.	5.1.10
Noise	(1) The pumps, mechanical screens, air blowers and emergency generator set (if required) will be enclosed; and (2) Exhaust fans will be located away from the sensitive receivers.	5.1.11
Waste Management	(1) Screenings and grits would be stored in enclosed containers and transported to landfill for disposal regularly; and (2) Waste packaging would be conducted inside the structures/ buildings.	5.1.12
Ecology and Fisheries	(1) Mitigation measures to reduce water quality impact should be implemented.	5.1.13
Hazard	(1) No adverse impact is identified; no mitigation measure is required.	5.1.14
Landscape and Visual	(1) Incorporation of Landscape and aesthetics aspects in the design (2) Using landscaping works and greening make the STW and the surrounding in harmony.	5.1.15
Cultural Heritage	(1) No mitigation measure is necessary.	5.1.16

6 USE OF PREVIOUSLY APPROVED EIA REPORTS

- EIA-096/2004 – Peng Chau Sewage Treatment Works Upgrade;
- EIA-091/2003 – Outlying Islands Sewerage Stage 1, Phase II Package J – Sok Kwu Wan Sewage Collection, Treatment and Disposal Facilities;
- EIA-079/2002 – Ngong Ping Sewage Treatment Works and Sewerage;
- EIA-065/2001 – 132kV Supply Circuit from Pui O via Chi Ma Wan Peninsula via Sea Crossing towards Cheung Chau.



KEY PLAN 位置圖
比例 SCALE 1:200000

LEGEND:

- PROPOSED SEWER 擬建污水管
- PROPOSED RISING MAIN 擬建壓力管
- ▲ PROPOSED SEWAGE PUMPING STATION 擬建污水泵房
- ① YIM TIN 鹽田
- ② LUNG TIN ESTATE 龍田邨
- ③ NAM CHUNG TSUEN 南涌村
- ④ FAN KWAI TONG 番鬼灣

REV	DESCRIPTION	DATE	BY

DRAINAGE SERVICES DEPARTMENT
THE GOVERNMENT OF THE HONG KONG
SPECIAL ADMINISTRATIVE REGION
渠務總局 行政區政府渠務處

AGREEMENT NO. CE 31/2007(OS) UPGRADING OF
SEWERAGE SYSTEMS AND
TREATMENT AND DISPOSAL FACILITIES
同意合約編號: CE 31/2007(OS)
昂門及大嶼污水收集、處理及排放改善工程

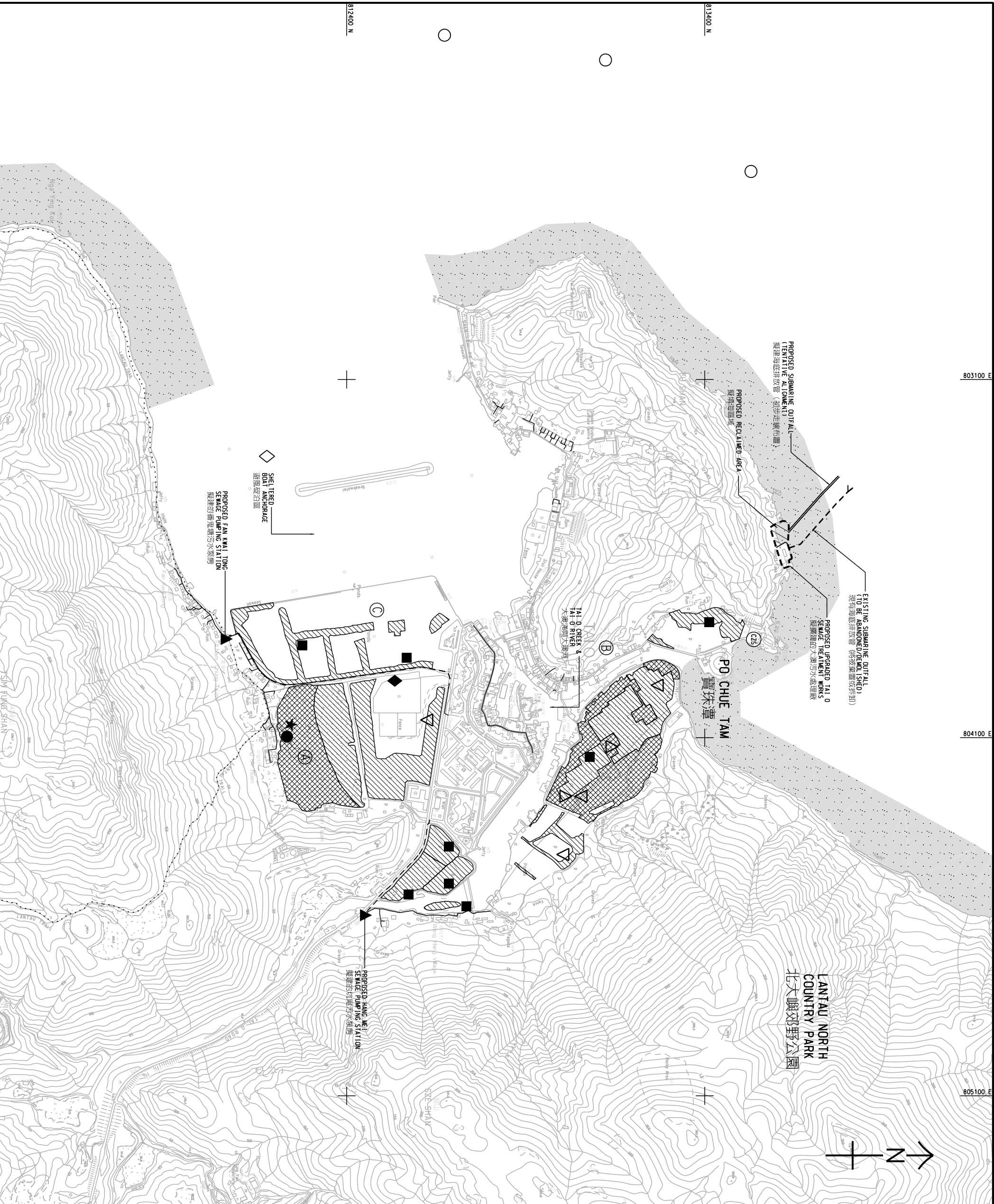
KEY SEWERAGE WORKS
- LAYOUT PLAN (TAI O)
主要渠務工程 - 位置圖 (大嶼)



URANO 60043655/PP/2001

PROJECT NO.	60043655/PP/2001
SCALE	A1 1 : 5000
DATE	

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LEGEND:
圖例

- PROPOSED SEWER
擬建污水管
- - - PROPOSED RISING MAIN
擬建壓力管道
- ▲ PROPOSED SEWAGE PUMPING STATION
擬建污水泵房
- A LEUNG UK MARSH
梁國嶼地
- B TAI O EGRET
大澳鸕鶿林
- C MANGROVE REPLENTING AREA
紅樹林移植區
- LANTAU TRAIL
龍運徑
- ▨ MANGROVE
紅樹林
- ▩ MARSH/REEDBED
濕地/蘆葦林
- ◇ CHINESE WHITE DOG PHIN
中華白海豚
- ◇ HORSESHOE CRAB
扇形蟹
- ◇ COMMON BIRDWING
雙面蝶
- ◇ COMMON TIGER
虎斑蝶
- ◆ PHEASANT - TAILED JACANA
水雉
- LITTLE EGRET
小白鷺
- GREY HERON
蒼鷺
- ▽ GREAT EGRET
大白鷺

AIR AND NOISE SENSITIVE RECEIVERS
空氣及噪聲敏感受體

- Ⓢ CAMP SITE OF CHRISTIAN ZHENG
基督教正生營地
- TAI O CREEK & TAI O RIVER
大澳涌與大澳河
- SECONDARY CONTACT RECREATION
次級接觸康樂活動分區

DRAINAGE SERVICES DEPARTMENT
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香港特別行政區政府渠務署

AGREEMENT NO. CE 31/2007(OS) UPGRADE/ING OF
SEWERAGE TREATMENT AND DISPOSAL FACILITIES
昂大渠及大澳污水收集、處理及排放改善工程

**INDICATIVE LOCATIONS OF
KEY ENVIRONMENTAL SENSITIVE
RECEIVERS (TAI O)**
主要環境敏感受體指示位置 (大澳)



URANO 60043655/PP/2002

Project No. 60043655/PP/2002

Scale: A1 1 : 5000

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