



渠務署

Drainage Services Department

污水收集整體計劃

Sewerage Master Plans

香港位於珠江口的東南面。在五十年代，本港大部分的污水都是未經處理便直接排放出海。由於有大量的潮汐水流沖擦，由人們生活所產生的水污染問題在當時並不嚴重。隨着六十年代本港的人口快速增長，加上都市擴展，污水排放造成了污染問題。因此我們制定了兩項污水處理策略：

- 在維多利亞港附近一帶的地區 – 提供附設海底排放管的初級污水處理設施；及
- 在污水排入內陸及內海水域的地區 – 設置二級污水處理廠。

然而，我們明白這兩項污水處理策略並未能解決在八十年代初日益嚴重的水污染問題。為了保障公眾健康及保護生態和海洋環境，我們必須將現時的污水處理策略再作檢討。

Hong Kong is located at the southeast of the Pearl River Estuary. In 1950's, most sewage was discharged directly to sea without treatment. Due to the flushing effects of strong tidal current, water pollution arising from human activities at that time was not a serious problem. With the rapid population growth and urban expansions in 1960's, the direct discharge of untreated sewage caused pollution. Two sewage treatment strategies were then formulated:

- For discharge into Victoria Harbour – through submarine outfalls after preliminary treatment; and
- For discharge into inland and enclosed coastal waters – after secondary treatment.

It was however recognized that the two sewage treatment strategies were no longer able to address the worsening water pollution problem in early 1980's. The sewage treatment strategies had to be reviewed to safeguard public health and protect the ecosystem and marine environment.

我們的抱負 Our Vision

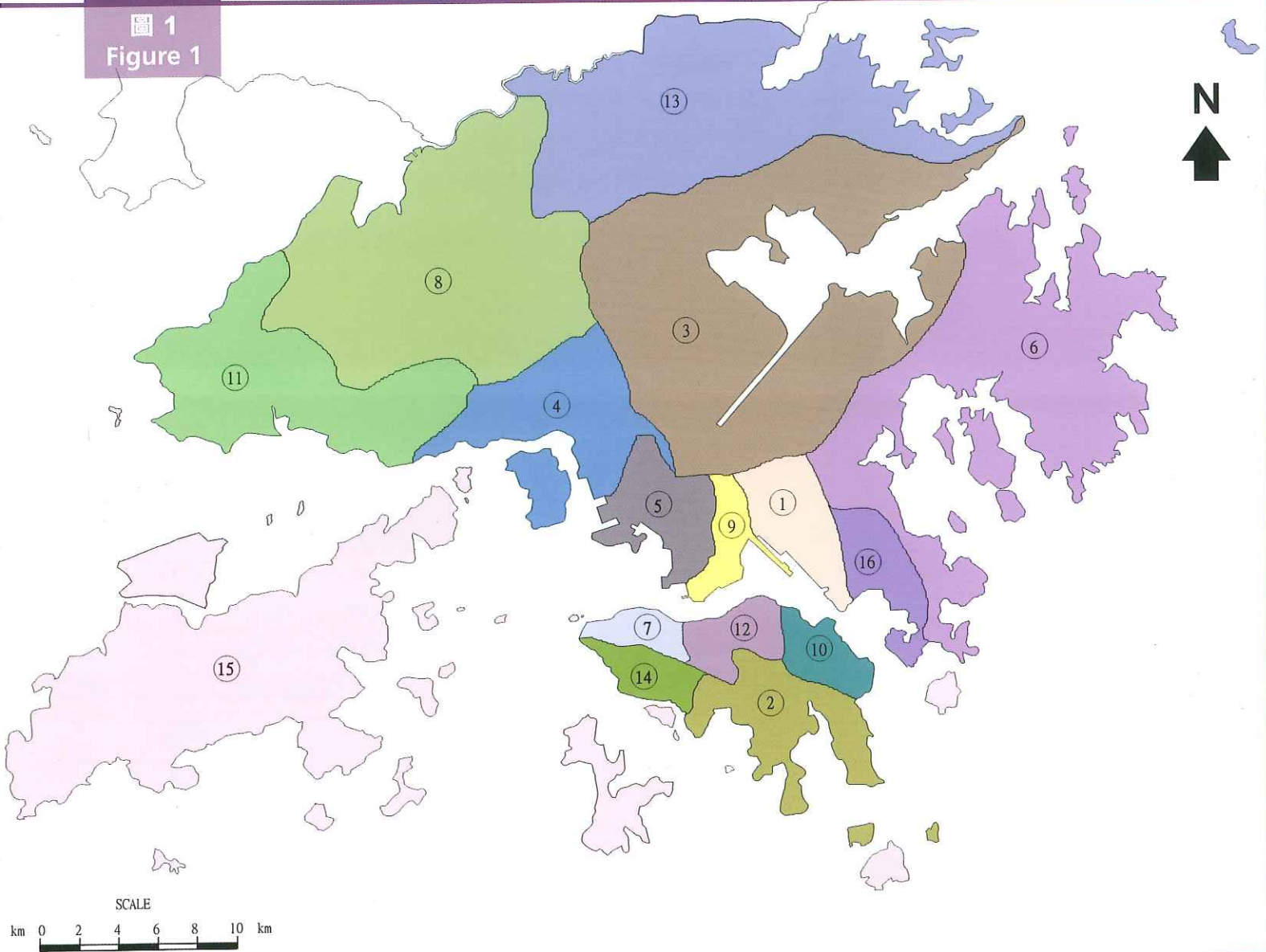
提供世界級的污水和雨水處理排放服務，以促進香港的可持續發展。

To provide world-class wastewater and stormwater drainage services enabling the sustainable development of Hong Kong.

污水收集整體計劃

環境保護署(環保署)在一九八六年成立，除了肩負與環境保護有關的職責外，還負責策劃和制訂本港的污水處理基礎建設。環保署展開了污水策略研究，以制定全港性的污水收集、處理及排放的長遠策略。該研究建議推行兩項污水處理基礎策略，包括(i)策略性污水排放計劃(後改稱為淨化海港計劃)，為位於維港兩岸一帶的市區提供污水收集、處理及排放系統，以及(ii)區域/地區性污水收集整體計劃。在區域/地區層面將全港劃分為16個集水區，從而定出共16個污水收集整體計劃。污水收集整體計劃研究(圖1)在一九八六年展開，在一九九六年完成。污水收集整體計劃為每個集水區所需的污水收集及處理設施提供了發展藍圖。

圖 1
Figure 1



Sewerage Master Plans

The Environmental Protection Department (EPD) was established in 1986 and responsible for, among others, the planning and development of sewage infrastructures. EPD commissioned the Sewage Strategy Study to establish a long term strategy for collection, treatment and disposal of wastewater for the whole territory. The Study recommended two sewage infrastructure strategies which comprised : (i) the Strategic Sewage Disposal Scheme (later renamed as Harbour Area Treatment Scheme), which provided a sewage collection, treatment and disposal system for the urban areas located on both sides of Victoria Harbour, and (ii) Sewerage Master Plans (SMPs) at the regional/district level across the territory. At the regional/district level, the entire territory was divided into 16 catchments and thus 16 SMPs. Studies on the SMPs (Figure 1) commenced in 1986 and were completed in 1996. The SMPs provided blueprints of the sewerage infrastructure required for sewage collection and treatment on a catchment-by-catchment basis.

污水收集整體計劃 Sewerage Master Plan

- | | |
|--|--|
| 1 東九龍
East Kowloon | 9 北九龍及南九龍
North & South Kowloon |
| 2 港島南
Hong Kong Island South | 10 柴灣及筲箕灣
Chai Wan & Shau Kei Wan |
| 3 吐露港
Tolo Harbour | 11 屯門
Tuen Mun |
| 4 荃灣、青衣、葵涌及深井
Tsuen Wan, Tsing Yi, Kwai Chung
& Sham Tseng | 12 灣仔東及北角
Wan Chai East & North Point |
| 5 西北九龍
North-West Kowloon | 13 北區
North District |
| 6 牛尾海
Port Shelter | 14 香港仔、鴨脷洲及薄扶林
Aberdeen, Ap Lei Chau & Pok Fu Lam |
| 7 中區、西區及灣仔西
Central, Western & Wan Chai West | 15 離島
Outlying Islands |
| 8 元朗及綿田
Yuen Long & Kam Tin | 16 將軍澳
Tseung Kwan O |



每個污水收集整體計劃研究的目標包括：

The objectives of each SMP Study included the following:

檢討未來的污水流量及荷載；

Review future sewage flows and loads;

評估現有污水收集系統及設施的成效及其數量是否足夠；

Assess the performance and adequacy of the existing sewerage systems and facilities;

調查和找出接駁不當的污水渠及地下水流入/滲入的情況；

Investigate and identify expedient connections and inflow/infiltration;

為現有及擬議的污水收集系統設立電腦數據庫和水力模型；及

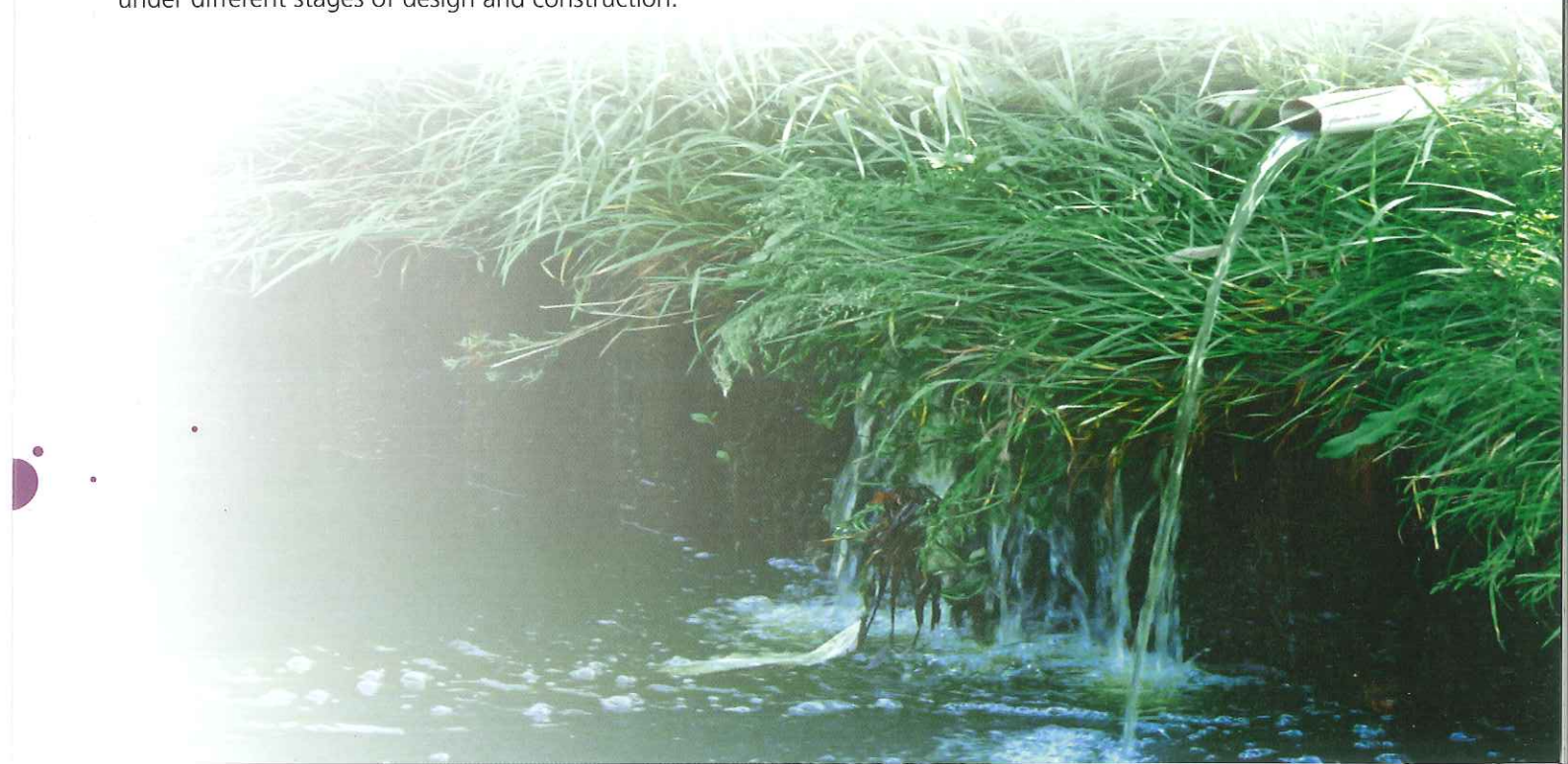
Set up computer database and hydraulic models for the existing and proposed sewerage system; and

制訂污水收集整體計劃，用作污水收集系統的規劃及推行。

Develop the SMP for sewerage planning and implementation.

每個污水收集整體計劃就改善和擴建污水渠、泵房及污水收集設施提出建議，用以收集、處理和排放在集水區內所產生的污水，目的是為應付目前及未來的發展需要。港島南、柴灣及筲箕灣和東九龍污水收集整體計劃建議的工程項目已相繼完成。而餘下的十三個污水收集整體計劃和各污水收集整體計劃檢討研究建議的工程項目則分別處於不同階段的設計和建造中。

Each SMP made recommendations on upgrading and extension of sewers, pumping stations and sewage treatment facilities for collection, treatment and disposal of the sewage generated within the catchment, aiming to cope with the present and future development needs. Three SMPs, namely the Hong Kong Island South, Chai Wan/Shau Kei Wan and East Kowloon SMPs were completed. The other 13 SMPs, together with further works identified from SMP Reviews, are under different stages of design and construction.

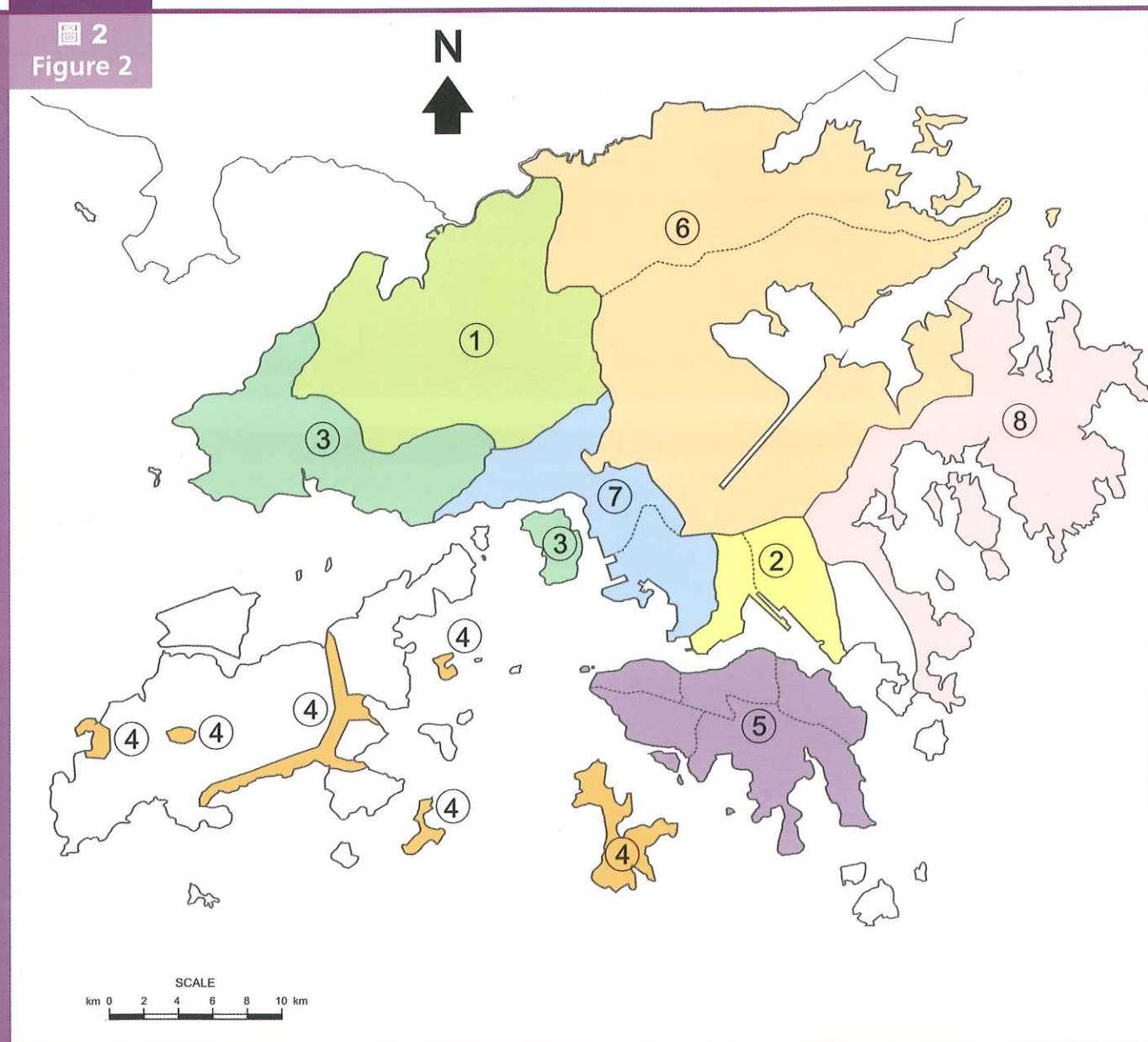


污水收集整體計劃檢討

為確保這16個污水收集整體計劃所建議的污水收集系統工程能應付社會急促的發展，因此該16個污水收集整體計劃須重組為8個區域，以進行污水收集整體計劃檢討(圖2)。檢討目的是根據本港的發展及人口轉變，研究是否有需要將新的污水基建工程納入工務計劃內。

環保署在一九九五年開始檢討污水收集整體計劃。現已完成六個污水收集整體計劃檢討，另有一個污水收集整體計劃檢討正在進行中。完成污水收集整體計劃檢討後，環保署會更新擬議污水收集系統工程的原有規模，並重訂次序，以配合最新的發展需要。環保署就污水收集整體計劃檢討提出各項工程建議，而渠務署則負責執行擬議的污水收集系統工程。

圖 2
Figure 2





Sewerage Master Plan Reviews

In view of the new and changing development proposals and the latest population forecasts, to ensure that the scope of sewerage works proposed under the 16 SMPs was able to cope with the rapid changes, the 16 SMPs were re-grouped into 8 areas for conducting SMP Reviews (Figure 2). The SMP Reviews examined the proposed works recommended in the SMPs in the light of changing developments and populations and identified any new sewerage infrastructure required for inclusion into the Public Works Programme.

EPD started reviewing the SMPs in 1995. Six SMP Reviews were completed and one SMP Review is still in progress. After the completion of SMP Reviews, the original scope of proposed sewerage works were updated and re-prioritized to suit the latest development programme. Various projects have been proposed by EPD under the SMP Reviews, and Drainage Services Department is responsible for the implementation of these proposed sewerage works.

污水收集整體計劃檢討研究 Sewerage Master Plan Review Study		開始日期 Start Date	完成日期 Comp. Date
1	元朗及錦田 Yuen Long and Kam Tin	12/95	3/99
2	中九龍及東九龍 Central and East Kowloon	2/99	8/03
3	屯門及青衣 Tuen Mun and Tsing Yi	2/99	1/03
4	離島 Outlying Island	2/99	2/02
5	香港島 Hong Kong Island	3/00	12/03
6	北區及吐露港 North District and Tolo Harbour	6/00	3/02
7	西九龍及荃灣 Tsuen Wan and West Kowloon	2/07	2009年中
8	牛尾海及將軍澳 Port Shelter & Tseung Kwan O	(見附註) (See Note)	

附註：環境保護署認為在牛尾海及將軍澳區內逐步落實的污水設施足以應付該區發展所需。因此，牛尾海及將軍澳的污水收集整體計劃檢討研究將不需要進行。

Note: SMP Review for Port Shelter & Tseung Kwan O is considered not necessary as indicated by EPD. The sewerage facilities to be implemented are generally adequate to serve the existing and planned developments.