



# Drainage Services Department in brief 2024-25



渠務署

Drainage Services Department

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## Vision and Mission

### Vision

We enable a future-ready, climate resilient Hong Kong with our world-class wastewater and stormwater drainage services, leveraging innovation and technology

### Mission

Embracing innovation and technology

Supporting Hong Kong's sustainability goals

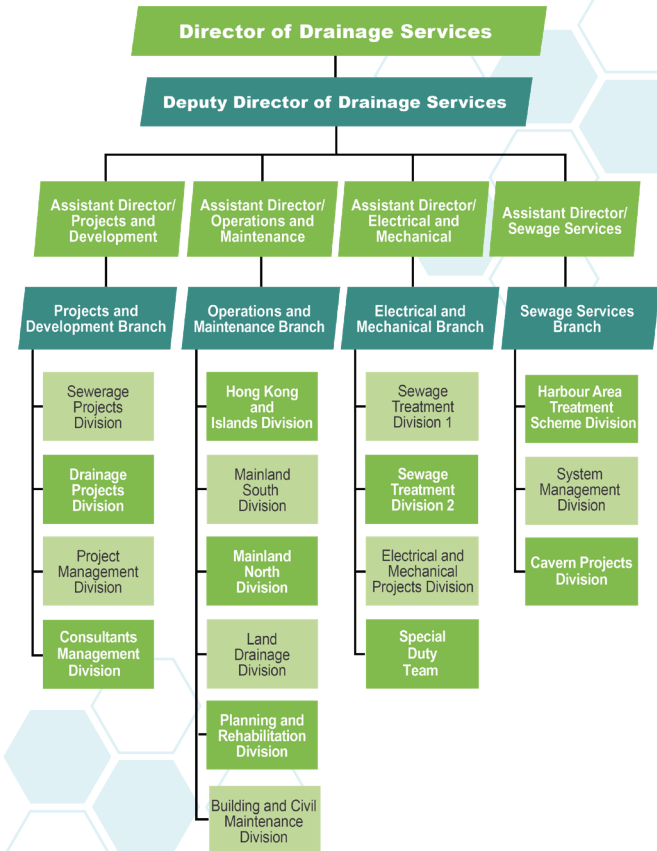
Powering excellence through partnerships

Forging a high-calibre team

Making every resource count

## Organisation

### Organisation Chart



## Organisation

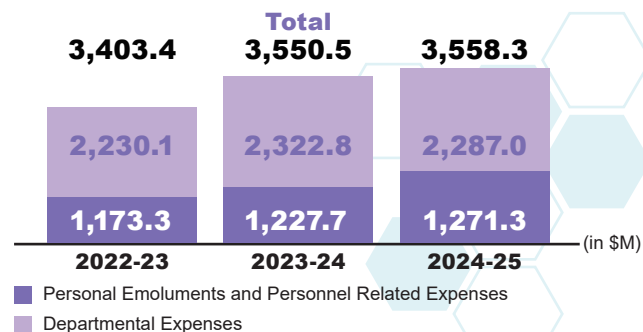
### Staff Establishment

<b>Directorate</b>	<b>19</b>
<b>Professional</b>	<b>377</b>
Engineer	289
Geotechnical Engineer	2
Electrical & Mechanical Engineer	56
Electronics Engineer	3
Building Services Engineer	1
Architect	1
Shift Charge Engineer	2
Quantity Surveyor	1
Land Surveyor	2
Landscape Architect	4
Environmental Protection Officer	3
Forestry Officer	1
Chemist	12
<b>Technical &amp; Site Supervisory</b>	<b>980</b>
<b>General &amp; Common Grades</b>	<b>530</b>
<b>Model Scale I</b>	<b>133</b>

**Total 2039**

## Financial Data

### Operating Expenditure



### Sewage Services Operating Cost Recovery Rate

	2022-23	2023-24	2024-25
Revenue of Sewage Charge and Trade Effluent Surcharge (\$M) <sup>(1)</sup>	1,051.2	1,252.5	1,520.7
Expenditure (excluding depreciation) of Sewage Charge and Trade Effluent Surcharge (\$M)	2,903.8	3,087.0	3,089.5
Operating Cost Recovery Rate (%) <sup>(2)</sup>	36.2	40.6	49.2

1. The figures represent the net amounts of revenue after deduction of concessions on the Sewage Charge and the Trade Effluent Surcharge. The concessions of Sewage Charge and Trade Effluent Surcharge have ended on 31 July 2023 and 31 December 2023 respectively

2. The figures have reflected concessions on the Sewage Charge and Trade Effluent Surcharge. The Operating Cost Recovery Rates without calculation of the concessions in 2022-23, 2023-24 and 2024-25 are 55.3%, 50.3% and 49.3% respectively

## Financial Data

### ● Sewage Services Charges

The sewage services charges are composed of Sewage Charge and Trade Effluent Surcharge. There are currently 27 trades required to pay the Trade Effluent Surcharge. Since 1 April 2017, the unit rate of Sewage Charge per cubic metre of water supplied remains at \$2.92.

<b>Number of Accounts</b> (in thousand, as at December 31 of each year)	<b>2022</b>	<b>2023</b>	<b>2024</b>
Sewage Charge Account	2 959	2 999	3 043
Trade Effluent Surcharge (TES) Account	34	35	35

### ● Project Estimates for Capital Works Projects

<b>Projects in hand</b>	<b>Sewage Treatment</b>		<b>Flood Prevention</b>		<b>Total</b>	
	<b>No.</b>	<b>Cost (\$B)</b>	<b>No.</b>	<b>Cost (\$B)</b>	<b>No.</b>	<b>Cost (\$B)</b>
Under Construction <sup>(3)</sup>	31	55.8	16	17.6	47	73.4
Under planning or design <sup>(4)</sup>	42	71.4	16	19.2	58	90.6
<b>Total</b>	<b>73</b>	<b>127.2</b>	<b>32</b>	<b>36.8</b>	<b>105</b>	<b>164.0</b>

3. Money-of-the-day prices

4. September 2024 prices

## Work Overview

### ● Sewage Treatment

Services for sewage treatment include operation and maintenance of sewage treatment facilities, upgrading the existing facilities and building new facilities.



Sha Tin Sewage Treatment Works

### Sewerage Master Plan Studies

The regional sewerage infrastructures are mainly proposed under the 16 “Sewerage Master Plans (SMPs)” and the subsequent 8 “SMP Reviews”.

### Improvement of Village Sewerage

As at March 2025, we have laid public sewers for about 300 villages. At present, the works for around 40 villages are underway.

## Work Overview

### ● Sewage Treatment

#### Harbour Area Treatment Scheme

Harbour Area Treatment Scheme (HATS) is one of the most important infrastructure programme undertaken by the Government to improve the water quality of Victoria Harbour. We will keep reviewing the performance of the HATS system and assessing the operational condition of different system components for enhancing the sustainable development of Hong Kong.



#### Harbour Area Treatment Scheme Stage 1

##### Project Scope:

- Constructing Stonecutters Island Sewage Treatment Works (SCISTW) at a footprint of about 10 hectares and a design treatment capacity of 1.7 million m<sup>3</sup> per day
- Constructing about 23-km-long deep tunnel to convey the sewage from Kowloon and the north-eastern part of Hong Kong Island to SCISTW for chemically enhanced primary treatment (CEPT)
- Upgrading a total of 7 existing Preliminary Treatment Works (PTWs) in Tsing Yi, Kwai Chung, To Kwa Wan, Kwun Tong, Tseung Kwan O, Shau Kei Wan and Chai Wan and constructing Northwest Kowloon Sewage Pumping Station

**Commissioning Date:**  
December 2001

**Project Cost:**  
About \$8.2B

## Work Overview

### ● Sewage Treatment

#### Harbour Area Treatment Scheme Stage 2A



Stonecutters Island Sewage Treatment Works

##### Project Scope:

- Enhancing the design treatment capacity of SCISTW to 2.45 million m<sup>3</sup> per day and constructing additional chemical disinfection facilities
- Constructing about 21-km-long deep sewage tunnel to convey the sewage from the northern and south-western parts of Hong Kong Island to SCISTW for CEPT
- Upgrading a total of 8 existing PTWs in North Point, Wan Chai East, Central, Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau

**Commissioning Date:**  
December 2015

**Project Cost:**  
About \$17.5B

#### Harbour Area Treatment Scheme Stage 2B

The project scope of HATS Stage 2B involves construction of biological sewage treatment facilities on Stonecutters Island for all HATS flow. It is kept under review taking into account the water quality situation and the latest technological development in biological treatment.

## Work Overview

### ● Sewage Treatment

#### Relocation of Sha Tin Sewage Treatment Works to Caverns



Sha Tin Sewage Treatment Works and Future Cavern Sewage Treatment Works

#### Project Scope:

Relocating the secondary sewage treatment works at Sha Tin to caverns inside Nui Po Shan with design sewage treatment capacity 340 000 m<sup>3</sup> per day. The existing site will then be vacated and developed for other beneficial uses to meet the public's needs.

#### Project Progress:

Stage 1 Works including site preparation and access tunnel construction commenced in February 2019 and completed in April 2022. Stage 2 Works including main caverns construction and upstream sewerage works commenced in July 2021. Stage 3 Works including ancillary buildings, cavern ventilation system and associated works commenced in August 2023. The remaining works, which mainly include the construction and installation of sewage treatment facilities inside caverns, commenced in the 3<sup>rd</sup> quarter of 2025. The whole project is expected to be completed by 2031.

**Project Cost of Stage 1 Works :** About \$2.08B

**Project Cost of Stage 2 Works :** About \$14.08B

**Project Cost of Stage 3 Works :** About \$3.12B

**Project Cost Estimate of the Remaining Works :** About \$15.6B

## Work Overview

### ● Sewage Treatment

#### Yuen Long Effluent Polishing Plant



Illustration of the Completed Yuen Long Effluent Polishing Plant

#### Project Scope:

- Increasing the treatment capacity of existing Yuen Long Sewage Treatment Works from 70 000m<sup>3</sup> to 150 000m<sup>3</sup> per day in phases
- Upgrading the sewage treatment level from existing secondary to tertiary to enhance the water quality in Shan Pui River and Deep Bay
- Improving environmental performance of the existing plant, including odour control and landscaping works

#### Project Progress:

The upgrading works will be implemented in 2 stages. The construction of Stage 1 Works commenced in November 2020 for completion in 2027.

#### Project Cost of Stage 1 Works:

About \$6.9B

## Work Overview

### ● Sewage Treatment

#### Shek Wu Hui Effluent Polishing Plant



Illustration of the Completed Shek Wu Hui Effluent Polishing Plant

#### Project Scope:

- Reconstructing the existing Shek Wu Hui Sewage Treatment Works to increase the treatment capacity from 105 000m<sup>3</sup> to 190 000m<sup>3</sup> per day in phases
- Upgrading the sewage treatment level from existing secondary to tertiary in order to enhance the water quality in Ng Tung River and Deep Bay
- Improving environmental performance of the existing plant, including odour control and landscaping works

#### Project Progress:

The Advance Works commenced in Q2 2015 and completed in Q4 2019. The Main Works are implemented in three phases with Phase 1 commenced in Q3 2019 for completion of the final phase by 2034.

#### Project Cost:

About \$500M (for Advance Works, Investigation and Design)  
About \$13.2B (for Main Works)

## Work Overview

### ● Sewage Treatment

#### Expansion of Sha Tau Kok Sewage Treatment Works, Phase 1



Illustration of the Completed Phase 1 Sha Tau Kok Sewage Treatment Works

#### Project Scope:

- Reconstructing the existing secondary sewage treatment works at Sha Tau Kok to increase its capacity to 5 000m<sup>3</sup> per day
- Constructing approximately 1.7km of new submarine outfall with diameter 450mm
- Replacement of existing sewage pumping station and rising mains by new gravity sewers

#### Project Progress:

The works commenced in November 2018 and the new sewage treatment works was put in operation at the end of 2024

#### Project Cost :

About \$2.04B

## Work Overview

### ● Sewage Treatment

#### Upgrading of Cheung Chau Sewage Treatment and Disposal Facilities



Illustration of the Completed Cheung Chau Sewage Treatment Works

#### Project Scope:

- Upgrading of the existing Cheung Chau Sewage Treatment Works to increase its treatment capacity to 9 800m<sup>3</sup> per day and to upgrade its treatment standard to secondary level to improve the effluent quality
- Upgrading of the existing Pak She Sewage Pumping Station
- Ancillary works including deodourisation facilities, rainwater harvesting system, architectural and landscaping works

#### Project Progress:

The works commenced in November 2020 and targeted to complete in 2026

#### Project Cost:

About \$2.61B

## Work Overview

### ● Flood Prevention

Stormwater drainage services include planning and implementation of drainage improvement works, operation and maintenance of stormwater drains and associated facilities.

#### Drainage Master Plan (DMP) 2.0

The DSD has completed a series of DMP 2.0 Studies, which are summarised as follows:



## Work Overview

### Flood Prevention

#### Integrated Flood Management Strategy

In coping with extreme weather, the Drainage Services Department has developed a forward-looking "Integrated Flood Management Strategy", to combat the impacts brought by climate change. This strategy aims to integrate Adaptation, Resilience and Management to enhance Hong Kong's overall flood preparedness in face of climate change.

#### Adaptation

Implementing drainage improvement works in an orderly manner by adopting the Progressive Adaptive Approach to reduce flooding impact. In addition to the on-going projects, the DSD is proactively planning drainage improvement works across various districts. These projects will take into account the existing topography, flood risks and impacts on surrounding areas, drainage capacity of existing drainage system, technical feasibility and cost-effectiveness, etc. The drainage improvement works will be implemented by batches in an orderly manner to mitigate the flood risks at mid-century.



Kwun Tong Promenade Stormwater Storage Scheme

#### The 16 nos. of Drainage Improvement Works carried out by the DSD in 2024 - 2025

##### No. Projects

- 1 Rehabilitation of Underground Stormwater Drains Stage 2
- 2 Rehabilitation of Underground Stormwater Drains - Remaining Works
- 3 Drainage Improvement in Southern Hong Kong Island - package 2B
- 4 Drainage Improvement Works at Yuen Long - Stage 2
- 5 Drainage Improvement Works in Tsim Sha Tsui
- 6 Drainage Improvement Works in Kwun Tong - Phase 1
- 7 Drainage Improvement Works in Eastern District - Phase 1
- 8 Drainage Improvement Works at North District - Phase 1
- 9 Drainage Improvement Works in Sha Tin and Sai Kung - Phase 1
- 10 Drainage Improvement Works in Wong Tai Sin
- 11 Drainage Improvement Works in Mong Kok - Phase 1
- 12 Drainage Improvement Works in Kwun Tong - Phase 2
- 13 Drainage Improvement Works in Tai Po - Phase 1
- 14 Improvement of Yuen Long Town Nullah (Town Centre Section)
- 15 Yuen Long Barrage Scheme
- 16 Drainage Improvement Works in Kowloon City

## Work Overview

### Flood Prevention

#### Resilience

Adopting temporary or non-structural measures, including blue-green drainage infrastructure and flood barrier measures, to control flood risk or reduce flooding impact for speedy society recovery. Floodable area, as an element in blue-green drainage infrastructure, primarily utilises public spaces and recreational facilities for temporary stormwater storage during extreme rainfall events, achieving benefit of "single site, multiple use". Other blue-green elements such as green roof, rainwater harvesting system and rain garden can reduce surface runoff during rainfall events and relieve pressure on the drainage system. Regarding flood barriers, the DSD will promote the adoption of the new generation of various types of flood barriers including electrical auto flip-up barrier, water filled tube barrier, doorway barrier, etc., to enable rapid and efficient deployment of temporary flood barriers in diverse settings, hence minimising flood risks due to water ingress.



Hydrodynamic Auto Flip-up Barrier



Water Filled Tube Barrier



Demountable Flood Barrier

## Work Overview

### Flood Prevention

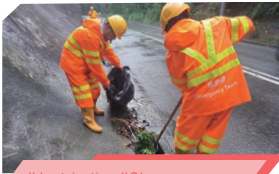
#### Management

Strengthening emergency preparedness, leveraging innovative technologies, enhancing information dissemination with a view to raising public awareness of flood prevention, reviewing and timely updating guidelines/ standards. The DSD is continuously enhancing multi-faceted measures by strengthening the "just-in-time" clearance, leveraging innovative technologies and reinforcing information dissemination. These measures include increasing number of emergency response teams and emergency support stations, introducing powerful pumping robots, piloting artificial intelligence-based flood monitoring systems and new types of flood monitoring sensors such as Flood Monitoring Device, disseminating real-time water level information and publishing list of flood prone areas, etc.

Moreover, in order to comprehensively review the impacts of sea level rise, storm surges and waves on coastal locations under extreme weather and climate change, the Government completed the "Coastal Hazards Study" and the "Shoreline Management Plan Study", which has identified 26 higher-risk coastal low-lying or windy residential areas for formulation of the coastal improvement works and management measures to safeguard public safety. Please visit the DSD website for the list of "Coastal Low-lying or Windy Areas"



Artificial Intelligence(AI)  
Flood Monitoring System



"Just-in-time" Clearance



Powerful Pumping Robot

## Work Overview

### Flood Prevention

#### Stormwater Storage Schemes



Happy Valley Underground Stormwater  
Storage Scheme

	Tai Hang Tung Stormwater Storage Scheme	Sheung Wan Stormwater Storage Scheme	Happy Valley Underground Stormwater Storage Scheme	On Sau Road Stormwater Storage Tank	Anderson Road Quarry Stormwater Storage Tank
Project Cost	About \$290M	About \$200M	About \$1.07B	About \$60M	About \$420M
Commissioning Date	2004	2009	2017	2018	2024
Capacity	100 000m <sup>3</sup>	9 380m <sup>3</sup>	60 000m <sup>3</sup>	18 000m <sup>3</sup>	60 000m <sup>3</sup>
Design Pumping Capacity	1.9m <sup>3</sup> /s	6.0m <sup>3</sup> /s	1.5m <sup>3</sup> /s	By Gravity	By Gravity
Plan Area	17 680m <sup>2</sup>	1 580m <sup>2</sup>	24 000m <sup>2</sup>	4 700m <sup>2</sup>	10 800m <sup>2</sup>
Average Internal Depth	7.5m	5.9m	3m	4.6m	11.3m
Other Features	240m long overflow weir in total	2 bypass penstocks	15 nos. of 3m long movable overflow weir	3 nos. of 5m long overflow weir	3 nos. of outlet pipe and 1 no. of overflow pipe

## Work Overview

### Flood Prevention

#### Drainage Tunnels



Lai Chi Kok Drainage Tunnel

	Kai Tak Transfer Scheme	Hong Kong West Drainage Tunnel	Lai Chi Kok Drainage Tunnel	Tsuen Wan Drainage Tunnel
<b>Project Cost</b>	About \$380M	About \$3.38B	About \$1.67B	About \$1.49B
<b>Commissioning Date</b>	2004	2012	2012	2013
<b>Length</b>	1.5km	10.5km	3.7km	5.1km
<b>Diameter</b>	4.4m	6.25m to 7.25m	4.9m	6.5m
<b>Other Features</b>	Transferring stormwater flow from the decked nullah at Waterloo Road to Kai Tak River	<ul style="list-style-type: none"> <li>• 34 intake structures</li> <li>• Outfall at Cyberport</li> </ul>	<ul style="list-style-type: none"> <li>• 6 intake structures</li> <li>• 1 stilling basin</li> <li>• Outfall at near Stonecutters Island coastal area</li> </ul>	<ul style="list-style-type: none"> <li>• 3 intake structures</li> <li>• Outfall at Yau Kom Tau</li> </ul>

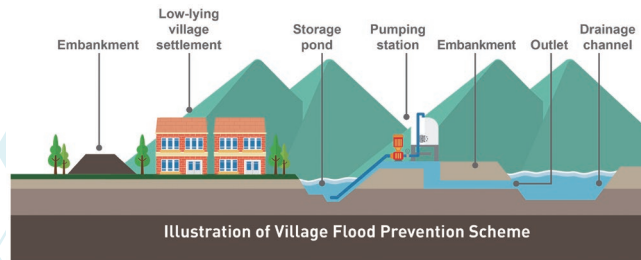
## Work Overview

### Flood Prevention

#### Village Flood Protection Schemes

27 Village Flood Protection Schemes in operation

District	Village	District	Village
Yuen Long	Kau Hui (Nam Pin Wai)	Kam Tin	Sha Po Tsuen
	Ma Tin Tsuen	Ngau Tam Mei	Pok Wai
	Shui Pin Wai		Chuk Yuen Tsuen and Ha San Wai
	Wang Chau Village	San Tin	Chau Tau
	Shui Pin Tsuen		Mai Po Lo Wai and Mai Po San Tsuen
	Tai Kiu		San Tin
Tin Shui Wai	Lo Uk Tsuen	Sheung Shui	Sheung Shui Tsuen
	Sik Kong Tsuen	Sha Tin	Tai Tau Leng and Tsung Pak Long
	Sik Kong Wai		Tsang Tai Uk
	Kiu Tau Wai	Tai Po	Fo Tan
	Ha Mei San Tsuen	Tuen Mun	Shui Wai
	Sheung Cheung Wai	Lantau Island	Tsing Chung Koon
	Fung Shui Lane		Tai O Wing On Street
			Tai O Tai Ping Street



## Work Overview

### ● Flood Prevention

#### Drainage Improvement Works in Tsim Sha Tsui



Illustration of in-situ re-provisioned garden after completion of the stormwater storage tank

#### Project Scope:

- Constructing an underground storage tank of about 20 300m<sup>3</sup> in volume and pumping station with 8m<sup>3</sup>/s at Urban Council Centenary Garden (UCCG)
- Construction of approximate 700m of stormwater drains of diameters ranging from 600mm to 1 800mm at Chatham Road South, Granville Road, Granville Square and Cameron Road
- Ancillary works including reinstatement of the UCCG and associated facilities

#### Project Progress:

The works commenced in August 2022 for completion in 2027

#### Project Cost:

About \$950M

## Work Overview

### ● Flood Prevention

#### Drainage Improvement Works in Kwun Tong – Phase 1 Sau Nga Road Stormwater Storage Scheme



Illustration of the Re-provision and Enhancement of Sau Nga Road Playground

#### Project Scope:

- Construction of an underground stormwater storage tank with a capacity of about 64 000m<sup>3</sup> at Sau Nga Road Playground in Kwun Tong
- Construction of stormwater drains of about 185m in the nearby roads including Hip Wo Street
- Re-provision and enhancement of Sau Nga Road Playground
- Carrying out ancillary works

#### Project Progress:

The works commenced in September 2022 for completion in 2028

#### Project Cost:

About \$940M

## Work Overview

### Flood Prevention

#### Drainage Improvement Works at North District – Phase 1



Illustration of Sha Tau Kok Underground Stormwater Storage Tank and Stormwater Pumping Station

#### Project Scope:

- Construction of an underground stormwater storage tank of about 10 000m<sup>3</sup> and a stormwater pumping station at Kong Ha and Sha Tau Kok Town
- Construction of stormwater drains and drainage channels with a total length of about 4km at Kong Ha, Sha Tau Kok Town, Shek Kiu Tau, Hang Tau, Kai Fong Garden and Kwu Tung Road
- Construction of flood walls with a total length of about 1.9km at Sha Tau Kok Town, Shek Kiu Tau, Kai Fong Garden and Tin Ping Shan Tsuen

#### Project Progress:

The works commenced in August 2023 for completion in 2028

#### Project Cost:

About \$950M

## Work Overview

### Flood Prevention

#### Yuen Long Barrage and Nullah Improvement Schemes



Illustration of the Barrage Scheme

#### Project Scope:

- Construction of an automatic flood barrier of about 60m long and 6m high, a stormwater pumping station, a master control centre and the associated electrical and mechanical facilities
- Construction of a dry weather flow (DWF) interception system, including a pumping station with designed capacity of about 18 000m<sup>3</sup> per day, 3.6km of underground pipelines, and DWF interceptors
- Revitalisation of a section of the Yuen Long Nullah of about 2km between Shap Pat Heung Road and the location of the proposed barrage

#### Project Progress:

The works commenced in May 2023 for completion in 2030

#### Project Cost:

- About \$3.78B (Yuen Long Barrage Scheme)
- About \$860M (Improvement of Yuen Long Town Nullah (town centre section))

## Work Overview

### ● Flood Prevention

#### Drainage Improvement Works in Mong Kok – Phase 1



Illustration of the Shek Kip Mei Stormwater Storage Scheme

#### Project Scope:

- Construction of an underground stormwater storage tank with a capacity of about 49 000m<sup>3</sup> and the associated above ground structure at Shek Kip Mei Park
- Re-provision and enhancement of part of Shek Kip Mei Park
- Construction of stormwater drains of about 530m long with diameters ranging from 225mm to 1.2m at Cornwall Street, Tai Hang Tung Road and Embankment Road
- Carrying out ancillary works

#### Project Progress:

The works commenced in August 2024 for completion in 2029

#### Project Cost:

About \$1.24B

## Work Overview

### ● Flood Prevention

#### Drainage Improvement Works in Eastern District – Phase 1



Drainage Improvement Works at Yee Fung Street, Chai Wan

#### Project Scope:

- Construction of stormwater drains of about 1.8km long with diameters ranging from 300mm to 1.6m at Kam Hong Street and Java Road in North Point, Yee Shun Street and Kam Yuen Lane in Chai Wan, Mount Parker Road in Quarry Bay, Wang Wa Street, Shau Kei Wan Main Street East and A Kung Ngam Road in Shau Kei Wan
- Carrying out ancillary works

#### Project Progress:

The works commenced in August 2024 for completion in 2028

#### Project Cost:

About \$268M

## Work Overview

### ● Flood Prevention

#### Drainage Improvement Works in Kowloon City



Illustration of the Re-provision and Enhancement of Part of Argyle Street Playground

#### Project Scope:

- Construction of an underground stormwater storage tank with a capacity of about 75 000m<sup>3</sup>, a stormwater pumping station and the associated above ground structure at Argyle Street Playground in Kowloon City
- Re-provision and enhancement of Argyle Street Playground
- Construction of stormwater drains of about 1.1km long with diameters ranging from 600mm to 2.1m and single cell stormwater box culverts of about 500m long with inner widths ranging from 3m to 3.6m and heights ranging from 1.3m to 1.6m at Olympic Avenue, Kowloon City Road, Ma Tau Kok Road in To Kwa Wan, and Baker Street, Lo Lung Hang Street, Bulkeley Street and Dock Street in Hung Hom
- Carrying out ancillary works

#### Project Progress:

The works commenced in August 2024 for completion in 2030

#### Project Cost:

About \$1.96B

## Work Overview

### ● Flood Prevention

#### Drainage Improvement Works in Wong Tai Sin



Illustration of the Re-provision and Enhancement of Part of Morse Park

#### Project Scope:

- Construction of an underground stormwater storage tank with a capacity of about 47 000m<sup>3</sup> and the associated above ground structure at Morse Park in Wong Tai Sin
- Re-provision and enhancement of part of Morse Park
- Construction of stormwater drains of about 1.4km long with diameters ranging from 1.2m to 2.5m at Wing Chuk Street, Chuk Yuen Road, Ma Chai Hang Road, Fung Mo Street, Wong Tai Sin Road and Po Kong Village Road in Wong Tai Sin
- Rehabilitation of stormwater drains of about 560m long at Po Kong Village Road in Wong Tai Sin
- Carrying out ancillary works

#### Project Progress:

The works commenced in August 2024 for completion in 2029

#### Project Cost:

About \$1.54B

## Work Overview

### ● Flood Prevention

#### Drainage Improvement Works in Kwun Tong – Phase 2



Illustration of the Re-provision and Enhancement of Part of Kwun Tong Promenade

#### Project Scope:

- Construction of an underground stormwater storage tank with a capacity of about 25 000m<sup>3</sup> and the associated above ground structure at Kwun Tong Hoi Bun Road Park, and an underground stormwater pumping station and the associated above ground structure at Kwun Tong Promenade
- Re-provision and enhancement of part of Kwun Tong Hoi Bun Road Park and Kwun Tong Promenade
- Construction of stormwater drains of about 3.4km long with diameters ranging from 225mm to 2.4m in the vicinity of Kwun Tong Road, Ngau Tau Kok Road, Hang Yip Street, Wai Yip Street and Hoi Bun Road
- Carrying out ancillary works

#### Project Progress:

The works commenced in August 2024 for completion in 2029

#### Project Cost:

About \$1.22B

## Work Overview

### ● Flood Prevention

#### Drainage Improvement Works in Sha Tin and Sai Kung – Phase 1

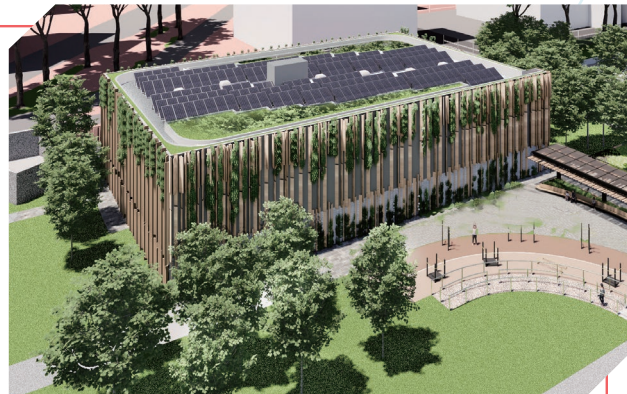


Illustration of the Re-provision and Enhancement of Part of Sha Tin Park

#### Project Scope:

- Construction of an underground stormwater storage tank with a capacity of about 8 600m<sup>3</sup>, a stormwater pumping station and the associated above ground structure at Sha Tin Park
- Re-provision and enhancement of part of Sha Tin Park
- Construction of stormwater drains of about 1.6km long with diameters ranging from 375mm to 2.2m at Pak Hok Ting Street, Sha Tin Centre Street, Yi Ching Lane and Tai Po Road – Sha Tin in Sha Tin, and Po Lo Che Road in Sai Kung
- Improvement of existing drainage channels of about 90m long by increasing the height by 1m at Wong Chuk Yeung Village in Sha Tin
- Construction of flood walls of about 1.8km long and about 1m tall along Shing Mun River and at Kau To Hang in Sha Tin
- Carrying out ancillary works

#### Project Progress:

The works commenced in August 2024 for completion in 2029

#### Project Cost:

About \$0.71B

## Work Overview

### ● Flood Prevention

#### Drainage Improvement Works in Tai Po – Phase 1



Illustration of the Re-provision and Enhancement of Part of Tai Po Old Market Playground

#### Project Scope:

- Construction of an underground stormwater storage tank with a capacity of about 25 000m<sup>3</sup>, a stormwater pumping station and the associated above ground structure at Tai Po Old Market Playground
- Re-provision and enhancement of part of Tai Po Old Market Playground
- Construction of stormwater drains of about 1.9km long with diameters ranging from 300mm to 3.2m at Ting Kok Road, Tai Po Tai Wo Road, Chui Lok Street, Chui Wo Lane, Kau Hui Chik Street, Mei Sun Lane and Po Nga Road in Tai Po, and San Uk Pai Tsuen in Lam Tsuen Valley
- Improvement of existing drainage channels of about 200m long by increasing the width from 4m to 6m at Sha Pa in Lam Tsuen Valley
- Construction of flood walls of about 1.2km long and about 1m tall along Lam Tsuen River in Tai Po
- Carrying out ancillary works

#### Project Progress:

The works commenced in August 2024 for completion in 2029

#### Project Cost:

About \$1.29B

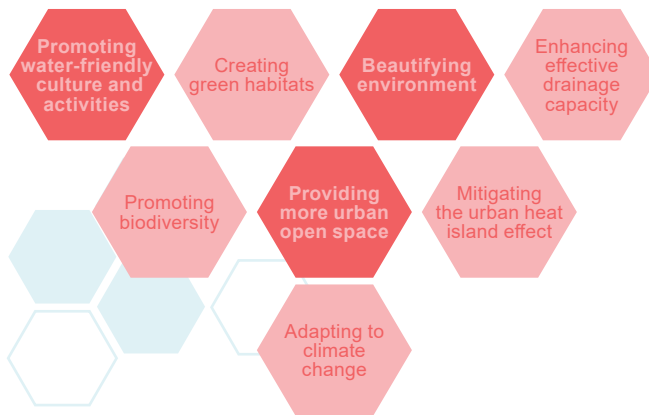
## Work Overview

### ● River Revitalisation



Jordan Valley Channel after revitalisation

**Aim to promote river revitalisation projects so the public can enjoy river facilities and multiple benefits from liveable environment**



## Work Overview

### ● River Revitalisation

#### Revitalization of Tsui Ping River



Tsui Ping River

#### Project Scope:

- Revitalising the existing 1km long King Yip Street Nullah alongside King Yip Street, King Yip Lane and Tsui Ping Road
- Installing a smart water gate that can adjust itself with tides at the downstream near Hung To Road to regulate the water level
- Providing riverside water-friendly features such as engineered wetland, landscaped decks and a floating pontoon
- Beautifying the adjoining walkways, enhancing connectivity and walkability by means of provision of walkways and landscaped decks beside the river to create public leisure spaces centred on the river

#### Project Progress:

The project was completed in September 2024 and opened for public in December 2024

#### Project Cost:

About \$1.34B

## Work Overview

### ● Operations and Maintenance



Clearing the blockage of the stormwater drains

Apart from conducting regular inspections and repairs of stormwater drains and sewers, the DSD promptly cleans up the pipes as necessary to keep them clear. During the period of 2024-25, the DSD cleared about 841km of stormwater drains and about 830km of sewers over the territory. Our Drainage Hotline received about 40 000 cases and followed up over 99% within 24 hours after receipt of the case. Over 99% of the public were satisfied with our services.

Whenever a flooding report is received, whether it involves public or private channels, the DSD usually attends the scene as soon as possible for clearing the blockage and take appropriate flood relieving measures in order to reduce the impact of flooding on the public. During severe weather, the DSD would activate an Emergency Control Centre to co-ordinate and respond to unexpected incidents.

## Work Overview

### ● Rehabilitation and Replacement of Stormwater Drains and Sewers

#### Rehabilitation of Underground Stormwater Drains and Sewers (Stage 2)

**Project Scope:**

- Conducting condition survey for about 133km underground stormwater drains over the territory
- Rehabilitating about 11km underground stormwater drains and 6km underground sewers in Tsuen Wan, Kwai Tsing, Sham Shui Po, Yau Tsim Mong, Kowloon City and Wong Tai Sin Districts

**Project Progress:**

Works commenced in September 2020 and completed in January 2025

**Project Cost:**

About \$820M (for Stage 2 works)

#### Rehabilitation of Underground Stormwater Drains (Stage 3)

**Project Scope:**

Rehabilitating about 19km underground stormwater drains in Central & Western, Wan Chai, Eastern, Southern, Islands, Tuen Mun, Yuen Long, North, Tai Po, Sha Tin, Kwun Tong and Sai Kung Districts

**Project Progress:**

Works commenced in June 2021 for completion by the end of 2025

**Project Cost:**

About \$700M

#### Rehabilitation of Underground Sewers (Stage 4)

**Project Scope:**

Rehabilitating about 5km underground sewers in Central & Western, Wan Chai, Eastern, Southern, Islands, Tuen Mun, Yuen Long, North, Tai Po, Sha Tin, Kwun Tong and Sai Kung Districts

**Project Progress:**

Works commenced in September 2023 for completion in 2027

**Project Cost:**

About \$300M



Rehabilitation of Pipe using Semi-Automated Pipe Jacking Method

## Work Overview

### ● Rehabilitation and Replacement of Stormwater Drains and Sewers

#### Rehabilitation of Underground Stormwater Drains and Sewers (Package 1A)

**Project Scope:**

Rehabilitating about 2.6km underground stormwater drains and 2.4km underground sewers in Central and Western, Wan Chai, Eastern, Yau Tsim Mong and Sham Shui Po Districts

**Project Progress:**

Works commenced in November 2023 for completion in 2028

**Project Cost:**

About \$410M

#### Rehabilitation of Underground Stormwater Drains and Sewers (Package 1B)

**Project Scope:**

Rehabilitating about 4.7km underground stormwater drains and 1.4km underground sewers in Kowloon City, Wong Tai Sin, Kwun Tong and Sai Kung Districts

**Project Progress:**

Works commenced in March 2023 for completion in 2027

**Project Cost:**

About \$360M

#### Rehabilitation of Underground Stormwater Drains and Sewers (Package 1C)

**Project Scope:**

Rehabilitating about 2.5km underground stormwater drains and 3.4km underground sewers in Kwai Tsing, Tsuen Wan, Sha Tin, Tai Po and North Districts

**Project Progress:**

Works commenced in January 2025 for completion in 2029

**Project Cost:**

About \$410M

#### Framework Contract for Structural Improvement of Sewers and Stormwater Drains in Mainland South Districts (Contracts F1-F4)

**Project Scope:**

Replacing and rehabilitating about 19.2km underground sewers and 22.7km underground stormwater drains in Kowloon and New Territories South

**Project Progress:**

The works are scheduled to commence in August 2025. The Framework Contracts will have a duration of 36 months.

**Project Cost:**

About \$630M

## Utilisation of Renewable Energy

With the goal of gradually reducing dependence on fossil fuels, the DSD is committed to promoting the application as well as research and development of renewable energy (RE). Through deepening the implementation of renewable energy projects and energy saving measures, the DSD aims to continue enhancing the department's energy performance.

Renewable Energy Systems	Generation Capacity (kW) <sup>(5)</sup>		
	2022-23	2023-24	2024-25
Biogas Combined Heat and Power Generators, Waste Heat Recovery Power Generation Systems and Boilers <sup>(6)</sup>	11 404	10 682	10 367
Photovoltaic (PV) Systems	2 213	2 827	3 754
Hydro-turbine Generators	95	95	95
<b>Total</b>	<b>13 712</b>	<b>13 604</b>	<b>14 216</b>

5. The generating capacities of the boilers refer to their thermal generating capacities, while the generating capacities of other systems refer to their electricity generation capacities  
 6. In 2024-25, an old micro-turbine was decommissioned

	2022-23	2023-24	2024-25
<b>Total Generated Renewable Energy</b>	27.5	22.3	16.8 <sup>(8)</sup>

(in million units of electricity<sup>7</sup>)

7. 1 unit of electricity equals to 1 kilowatt-hour  
 8. The decrease in annual renewable energy generated in 2024-25 was due to breakdown of part of the electrical and mechanical facilities, as necessary repair works were being carried out, affecting the systems' availability

## Utilisation of Renewable Energy

### Generation of Renewable Energy from Biogas at Tai Po Sewage Treatment Works

#### Background:

The biogas produced in the course of sewage sludge treatment is a renewable energy source. It is converted to electricity and heat by biogas-fuelled combined heat and power (CHP) generators for in-house use in the sewage treatment works. For instance, there are three biogas-fuelled CHP generators at the Tai Po Sewage Treatment Works, with an installed generation capacity of approximately 630 kilowatts each.

#### Environmental Benefit:

- Renewable energy generated by the three CHP units, which is supplied to facilities inside the sewage treatment works, can be as much as 7.2 million units of electricity annually
- Annual reduction of carbon dioxide emission can reach about 5 040 tonnes

### Solar Farm at Siu Ho Wan Sewage Treatment Works

#### Background:

The solar farm, comprising over 4 200 photovoltaic panels, has an installed generation capacity of 1 100 kilowatts

#### Environmental Benefit:

- Electricity generated by the solar farm, which is supplied to facilities inside the treatment works via the internal power distribution network, can be as much as 1.1 million units of electricity annually
- Annual reduction of carbon dioxide emission can reach about 770 tonnes

#### Commissioning Date:

2016

#### Project Cost:

About \$27M



Solar Farm at Siu Ho Wan Sewage Treatment Works

## Key Statistics and Data

### Drainage System under DSD

Sewerage System	
Sewers	1 951.6km
Sewage tunnels	80.5km
Stormwater Drainage System	
Stormwater drains	2 415km
Engineered channels	378km
Drainage tunnels	21.1km
<b>Total</b>	<b>4 846.2km</b>

Plants	
Sewage Treatment Works	67
Preliminary Treatment Works	17
Primary Treatment Works	2
Chemically Enhanced Primary Treatment (CEPT) Works	5
Secondary Treatment Works	42
Tertiary Treatment Works	1
Sewage Pumping Stations	273
Stormwater Pumping Stations	36
<b>Total</b>	<b>376</b>

## Key Statistics and Data

### Volume of Sewage Treated

	2022-23	2023-24	2024-25
<b>Preliminary Treatment</b>	0.18	0.18	0.17
<b>Primary Treatment</b>	3.81	3.72	3.89
<b>Chemically Enhanced Primary Treatment</b>	819.65	831.65	845.80
<b>Secondary Treatment</b>	196.70	197.31	193.80
<b>Tertiary Treatment</b>	0.22	0.24	0.24
<b>Total (in million m<sup>3</sup>)</b>	<b>1 020.56</b>	<b>1 033.10</b>	<b>1 043.90</b>

- Sewerage in Hong Kong is currently serving over 94% of the population (based on the number of domestic water bill accounts with sewage charges levied)
- Daily quantity of sewage sludge generated in 2024-25 is about 1 101.79 tonnes

### Design Capacity of Major Pumping Stations

Major Sewage / Stormwater Pumping Stations	Design Capacity (m <sup>3</sup> /s)
<b>Sewage Pumping Stations</b>	
Stonecutters Island Main Pumping Station	63.3
Cheung Sha Wan Sewage Pumping Station*	14.7
<b>Stormwater Pumping Stations</b>	
San Tin Stormwater Pumping Station	8.0
Yuen Long Chuk Yuen Stormwater Pumping Station	8.0

\*The sewage received by this pumping station is conveyed to North West Kowloon Preliminary Treatment Works

## Key Statistics and Data

### Design Treatment Capacity of Major Sewage Treatment Works

Major Sewage Treatment Works	Design Treatment Capacity(m <sup>3</sup> /day)
<b>Preliminary Treatment Works</b>	
North West Kowloon Preliminary Treatment Works*	450 800
Kwun Tong Preliminary Treatment Works*	333 000
<b>Primary Treatment Works</b>	
Cheung Chau Sewage Treatment Works	4 000
Tai O Imhoff Tank	1 200
<b>Chemically Enhanced Primary Treatment Works</b>	
Stonecutters Island Sewage Treatment Works	2 450 000
Pillar Point Sewage Treatment Works	241 000
San Wai Sewage Treatment Works	200 000
Siu Ho Wan Sewage Treatment Works	180 000
Sham Tseng Sewage Treatment Works	16 800
<b>Secondary Treatment Works</b>	
Sha Tin Sewage Treatment Works	340 000
Tai Po Sewage Treatment Works	120 000
Shek Wu Hui Sewage Treatment Works	105 000
Yuen Long Sewage Treatment Works	35 000
Stanley Sewage Treatment Works	11 600
Sai Kung Sewage Treatment Works	8 000
<b>Tertiary Treatment Works</b>	
Ngong Ping Sewage Treatment Works	1 100

\* The sewage treated by this preliminary treatment works is further conveyed to Stonecutters Island Sewage Treatment Works for chemically enhanced primary treatment

## Public Education

### Visit to DSD Facilities

Schools or organisations are welcome to schedule visits to our sewage treatment facilities and flood prevention facilities through prior application.

Please visit our website for more information



### DSD Outreach Educational Programme

We will visit schools and introduce our work through presentations, videos and Question and Answer session.

Please visit our website for more information



### DSD Facilities Online Tour

Through 360-degree virtual tour and high definition photo albums, the public can explore facilities of DSD anytime and anywhere.

Please visit our website for more information



### DSD Facilities Self-Guided Tour

We provide special visiting routes of designated facilities to tourists and local residents to explore wonderful features of Hong Kong's flood control and sewage treatment.

Please visit our website for more information



## Contact Us



### Drainage Hotline (24 hours)

2300 1110

### Sewage Services Charges Enquiries

2834 9432

### General Enquiries

2877 0660



### E-mail

[enquiry@dsd.gov.hk](mailto:enquiry@dsd.gov.hk)



### Website

<https://www.dsd.gov.hk>

下水 Drainage 



# Drainage Services Department in brief 2024-25



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