可持續發展報告
SUSTAINABILITY REPORT
2021-22

渠務署
Drainage Services Department

城·水·共融
City • Rivers • Communion

目錄 Contents

署長序言
DIRECTOR'S STATEMENT

渠務署一直致力改善香港的雨水排放和污水處理服務，近年更獲得不少國際獎項，成績有目共睹。社會不斷進步，市民要求更美好生活，部門亦不能停留於只做好基本服務的階段。渠務署積極為香港市民締造一個更全面的舒適和健康生活環境，工程設計不斷加入更多以人為本元素，共同將香港打造成可持續的「宜居城市」。

The Drainage Services Department (DSD) has been striving to enhance stormwater drainage and sewage treatment services in Hong Kong. In recent years, we have won many international awards for our remarkable accomplishments. As our society advances with citizens aspiring to have a better life, we cannot stand still. The DSD has been vigorously contributing towards a more thoroughly pleasant and healthy living environment by continuously incorporating people-centric elements into project designs, so as to jointly develop Hong Kong into a sustainable "Liveable City".

河畔城市
Rivers in the City

渠務署藉着推行活化河道項目，以及在規劃新發展區時，加入活化水體設施，利用水體及其帶來的生境，提升香港整體生活環境和市容。「河畔城市」理念集合以往「藍綠建設」和「海綿城市」元素，再以天然河道功能角度設計和管理河道。渠務署透過更積極的視角發掘河道及水體的各種可能性，期望治水防洪之餘，亦能做到以人出發、保育生態、推動實現碳中和等多方面功能。我們亦希望通過活化河道，為城市帶來更健康的水體生態，更親民的公共活動空間，以及更高的藝術享受。

By revitalising rivers and by introducing waterbody rejuvenation facilities during New Development Areas (NDA) planning, the DSD aims to enhance the quality of our living environment and the cityscape with waterbodies and the habitats they provide. The concept of "Rivers in the City" combines existing elements of "Blue-green Infrastructure" and "Sponge City", with the supportive functions of natural rivers being taken into account in the design and management of river channels. Through more active exploration of different possibilities for river channels and waterbodies, the DSD endeavours to achieve flood prevention with a people-oriented approach that also allows ecological conservation, promotion of carbon neutrality, etc. In addition, we hope that these revitalisation works will improve the city's aquatic ecology and provide the general public with highly-accessible recreation areas and beautiful waterscapes.

河道改善
River Improvement Works

渠務署過往已完成多個河道改善工程，例如西貢蠔涌河、大埔林村河上游、啟德明渠（啟德河）等，不但美化環境，亦令河溪生態變得多元化。近年，我們更配合「易行九龍東」的理念，在翠屏河畔建造行人通道、跨河行人通道和園景平台，加強沿河與翠屏河花園等周邊範圍的連繫。工程已經於 2020 年初展開。

Several river improvement works completed by the DSD, including those at Ho Chung River in Sai Kung, Upper Lam Tsuen River in Tai Po and Kai Tak Nullah (Kai Tak River), have successfully beautified the environment and enriched the surrounding biodiversity. In line with the concept of "Walkable Kowloon East", we have, since early 2020, commenced construction of riverside pedestrian walkways, cross-river pathways and landscaped decks to enhance Tsui Ping River's connectivity with the riverbank and surrounding areas including Tsui Ping River Garden.

活化明渠
Nullah Revitalisation

渠務署挑選了三條具高度活化潛力的明渠，分別是佐敦谷明渠、大圍明渠、火炭明渠，提出多重功能活化方案。佐敦谷明渠已於 2022 年 4 月活化成為佐敦谷水道，該活化的最大特色是在水道上新建的「水道花園」，為市民提供一個近水的公共休憩空間，將社區與水體連結起來；大圍明渠現時正進行設計，並研究破天荒將部分河段設置為「河內景觀步道」，讓市民走入河道親近大自然；火炭明渠亦正進行設計，活化的河道不僅可提升附近住宅區至火炭站沿河道的易行度，亦會預留適當空間放置社區藝術品，供市民沿河岸觀賞。

The DSD has identified three nullahs, with high potential for revitalisation, namely Jordan Valley Nullah, Tai Wai Nullah and Fo Tan Nullah, and proposed a multi-purpose approach to their revitalisation. Jordan Valley Nullah has been transformed into Jordan Valley Channel since April 2022. The most distinctive feature of the revitalisation works is the "River Garden" built over the Jordan Valley Channel which provides water-friendly public open space for citizens and connects the community with the waterbodies. The design of Tai Wai Nullah is on-going and we are examining ways to turn some sections of it into a river view trail to parts of the revitalised river, so that members of the public can enter the channel to appreciate nature. The DSD is also carrying out the design of Fo Tan Nullah, with the aim of enhancing walkability of the routes between the nearby residential areas and the Fo Tan MTR Station riverbank and providing suitable space for displaying community works of art which the public can admire along the river.

展望未來
Looking Ahead

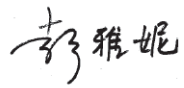
未來渠務署會繼續推進「河畔城市」概念的實現，把活化的河道帶進每個社區，為市民提供優質的公共空間。我們將繼續透過公眾教育及推廣親水活動，讓市民與河道連繫，認識河道的重要生態價值。作為政府部門，渠務署改善市民民生、為市民創造美好生活環境的決心從未改變，我們會與公眾一起共同努力保護河道生態、環境和水資源。

The DSD will continue to push forward with the "Rivers in the City" scheme by bringing revitalised rivers to every community and providing high-quality spaces for the general public. Through our public education campaign and promotion of water-friendly activities, the public will be able to forge a stronger bond with the rivers and understand their ecological significance. As a government department resolutely devoted to the improvement of people's livelihoods and the creation of better public spaces, the DSD is eager to work in collaboration with the community to protect our river ecology, environment and water resources.

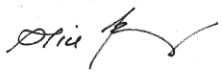
眾志成城
United We Stand

我要再次感謝在各自崗位積極、熱誠工作的同事，渠務署取得的成績全賴同事們的共同努力與信念。未來，我們將繼續與社會各界展開全方位互動與合作，虛心聆聽對我們提出的聲音與建議，為廣大市民提供更加優質的服務，也為香港的可持續發展貢獻自己的綿薄之力。

Once again, I wish to express my heartfelt gratitude to DSD's colleagues for their sense of duty and unending passion for work. The DSD has reaped the fruits of their dedicated efforts and unshakable conviction. We will continue to collaborate and interact on all fronts with every sector of our society, humbly listening to their opinions and suggestions, which will help us provide better services for the community and contribute to the sustainable development of Hong Kong.



彭雅妮
渠務署署長
2022 年 12 月



Ms Alice PANG
Director of Drainage Services
December 2022

關於本報告
About the Report

香港特別行政區政府（「特區政府」）或（「政府」）渠務署（「本署」或「我們」或「渠務署」）欣然發表題為「城 • 水 • 共融」的可持續發展報告2021-22（「本報告」），匯報本署於過去一年在經濟、環境及社會三方面的工作進展及成果。本報告被用作與持份者加強溝通，以及提升可持續發展的透明度，從而讓持份者對本署的工作和對可持續發展的願景和期望有更加深入的理解。

The Drainage Services Department (the "Department", "we" or the "DSD") of the Government of the Hong Kong Special Administrative Region ("HKSAR" or the "Government") issues its Sustainability Report 2021-22 ("this Report"), titled "City • Rivers • Communion", to demonstrate the DSD's work progress and accomplishments on economic, environmental and social fronts throughout the year. This Report is issued with the aim to strengthen our communication with stakeholders and enhance the transparency of our sustainable development, so that stakeholders can develop a deeper understanding of the works, sustainability visions and aspirations of the DSD.

報告簡介
Report Profile

本報告闡述渠務署[1]於 2021 年 4 月 1 日至 2022 年 3 月 31 日財政年度期間（「報告期」）[2]在經濟、環境及社會方面的表現，報告範圍及邊界根據實質性評估結果而定，具體範圍及邊界詳見下節。本署致力在本報告提供準確數據和資訊，惟部分數據和資料由相關機構提供，非我們直接控制。

本報告依照全球報告倡議組織（GRI）出版的《可持續發展報告標準》（「GRI 標準」）的核心選項編製而成，並由獨立核證機構核實本報告的準確度、可靠性和公信力，以確保報告內容符合有關準則規定。獨立核實聲明已載列於本報告中的**驗證聲明**。本報告亦已通過 GRI 標準的「實質性議題審核」，確認本報告按要求標示一般披露 102-40 至 102-49 的位置，以便參閱。同時，本署亦自願參考香港交易所《環境、社會及管治報告指引》（「ESG 報告指引」）的要求作出披露。GRI 標準內容索引及香港交易所《環境、社會及管治報告指引》內容索引已載列本報告中的**附錄三：全球報告倡議組織內容索引**及**附錄四：香港交易所《環境、社會及管治報告指引》**。

本報告以三款文字編製（英文、繁體中文及簡體中文），並以網頁版本、PDF 版本及純文字版本形式發布。此外，本報告備有線上及印刷版本的報告摘要。

我們歡迎閣下就本報告的內容、報告方式及本署的可持續發展表現提供寶貴意見。您的意見不僅有助我們提升報告質素和加強資料披露的相關性，同時亦是本署持續進步的基石。請填妥本報告末端的回應表格，並以電郵、傳真或郵遞方式將之交回本署。

This Report illustrates the DSD's sustainability performance[1] in economic, environmental and social aspects from 1 April 2021 to 31 March 2022 ("reporting period")[2]. The reporting scope and boundaries, details of which are presented in the next section, are defined with reference to results of the materiality assessment. While we make our best endeavours to present accurate data and information in this Report, certain data and information are provided by relevant organisations and thus beyond our control.

This Report has been prepared in accordance with the GRI Standards: Core option issued by the Global Reporting Initiative (GRI). An independent verification agency has verified the accuracy, reliability and credibility of this Report, assuring that its contents comply with the requirements of corresponding standards. The independent verification statement can be found **Assurance Statement** in this Report. This Report has completed the GRI Materiality Disclosures Service, which confirms that the GRI content index is clearly presented and cross references for general disclosures 102-40 to 102-49 are aligned with appropriate sections in the body of the Report. Meanwhile, the DSD makes disclosures with voluntary reference to the requirements of the Environmental, Social and Governance Reporting Guide ("ESG Reporting Guide") of the Hong Kong Stock Exchange. The GRI Content Index and the ESG Reporting Guide Content Index can be found on **Appendix III: GRI Content Index** and **Appendix IV: Hong Kong Stock Exchange Environmental, Social and Governance Reporting Guide** in this Report.

This Report is composed in three languages (English, traditional Chinese and simplified Chinese) and provided online with web-based HTML, PDF and text-only versions. An executive summary is available online and in printed form.

We value your comments and suggestions on the report contents, reporting approach as well as our sustainability performance. Your opinions are important to help us further enhance report quality and relevance of our disclosures. They are also the bedrock for our continuous improvement. Kindly complete and return the feedback form appended to this Report to us by email, fax or mail.

[1] 102-45
[2] 102-50

報告原則
Reporting Principles

本報告的編製遵循 GRI 標準匯報原則，包括持份者包容性、可持續發展背景、實質性及完整性，同時確保報告的準確性、平衡性、清晰度、可比性、可靠性和時效性，以維持報告質素。同時，本報告亦參考 ESG 報告指引中的四大匯報原則：重要性、量化、平衡及一致性。

This Report has been prepared in accorcance with the reporting principles of the GRI Standards, including Stakeholder Inclusiveness, Sustainability Context, Materiality, and Completeness. It also strives to maintain high reporting quality by ensuring Accuracy, Balance, Clarity, Comparability, Reliability and Timeliness. In addition, this Report follows the reporting principles of Materiality, Quantitative, Balance and Consistency in the ESG Reporting Guide.

報告範圍及邊界
Reporting Scope and Boundary

為確定報告範圍及邊界，本署每年均會進行全面的實質性評估。我們委託了獨立顧問協助本署根據 GRI 標準進行評估，以識別對本署及持份者影響較大的經濟、環境和社會議題，並將之融入報告內容當中，以提升本署可持續發展報告的針對性。本報告的實質性評估由以下主要元素組成：

The DSD conducts a comprehensive materiality assessment every year to define the scope and boundaries of our sustainability report. An independent consultant is engaged to assist us in conducting the assessment based on GRI Standards to identify the material economic, environmental and social topics that pose greater impacts on the DSD and its stakeholders. We would incorporate these topics in our reports to enhance the focus of report contents. The materiality assessment for this Report comprises the following major components:

主要持份者識別
Identification of Key Stakeholders

本署重視與持份者保持常態化的溝通渠道，從而了解他們關注的可持續發展議題以及對本署未來發展的期望。故此，我們一直定期透過不同渠道與各持份者保持良好的溝通，詳情請參閱本報告中的**第七章 － 持份者參與**。為了能有效地識別主要持份者，除了參考往年實質性評估的持份者名單，亦有參考 AA1000 的《持份者參與標準 2015》，分別從依賴程度、壓力、影響程度和多元觀點這五個角度重新審視和整理持份者名單。以下為年內已識別的主要持份者[3]：

The Department places great importance on maintaining regular communication with stakeholders, so as to understand their sustainability issues of concern and expectations of the DSD's future development. Therefore, we have maintained effective communication with all stakeholders on a regular basis through various channels. For details, please refer to **Chapter 7 – Stakeholder Engagement** in this Report. To effectively identify the key stakeholders, we sought reference from the list of stakeholders in materiality assessments in previous years as well as the AA1000 Stakeholder Engagement Standard 2015. The list of stakeholders is redefined following the principles of dependency, responsibility, tension, influence and diverse perspective. Below are the identified stakeholders of the year[3]:

[3]102-43
[4]102-40, 102-42

實質性評估
Materiality Assessment

今年我們根據國際標準和行業議題更新了可持續發展議題庫作實質性評估，當中新增了 7 個議題，分別是清潔能源使用、環保設計及建築、社區參與和發展支持、僱員關係、多元化與平等機會、供應鏈管理及技術研發與應用，並且我們更新了防止強迫勞動議題為防止強迫勞動及童工。

本署透過獨立顧問於 2022 年 5 月至 6 月舉行焦點小組會議、訪談及問卷調查，當中問卷調查邀請了588 位持份者（包括 417 位外部及 171 位內部持份者），就與本署工作性質相關的可持續發展議題進行意見調查，議題涵蓋社會責任及人權保障、員工福利及發展、環保及營運四大範疇。各持份者透過問卷調查對潛在實質性議題評分，及後由獨立顧問協助進行分數統計並經過本署內部核實後釐定實質性議題。同時，我們邀請了員工進行焦點小組會議以及邀請綠色團體進行訪談，針對員工相關議題和環保議題進行了深入討論和溝通。我們從中了解持份者對相關議題的關注度，以及收集其對本署可持續發展工作的意見及建議。此外，除了為預備本報告所舉行的持份者參與活動，本署於日常營運中亦與持份者恆常溝通和交流，有關詳情請參閱本報告中的**第七章 — 持份者參與**。

我們根據焦點小組會議、訪談及問卷調查的結果分析各可持續發展議題對持份者及對本署可持續發展的實質性，從而繪製實質性矩陣，並將相關議題進行優先排序，以確立報告範圍和邊界。

In the year under review, we updated our sustainability topics for materiality assessment based on international standards and topics of the industry's concern. Seven new topics were added, including use of clean energy, green design and construction, community engagement and development support, employee relations, diversity and equal opportunities, supply chain management and technology development and application. In addition, "prevention of forced or compulsory labour" was revised to "prevention of forced or compulsory labour and child labour".

An independent consultant was commissioned to organise focus group meetings, interviews and questionnaire surveys between May and June 2022. The questionnaire surveys invited a total of 588 stakeholders (including 417 external and 171 internal stakeholders) to provide feedback on sustainability topics relevant to the nature of the DSD's operations. Relevant topics cover four major aspects, including social responsibility and human rights protection, staff welfare and development, environmental protection, and operation. Stakeholders rated the materiality of potential material topics in the questionnaire. Material issues were identified upon score calculation by the independent consultant and then internal confirmation by the DSD. Meanwhile, we engaged employees in focus group meetings and invited green groups for interviews, which conducted in-depth discussions and communication on employee-related topics and environmental topics. These exchanges shed light on stakeholders' level of concern towards relevant issues and provided comments and suggestions on the sustainability performance of the DSD. In addition to launching stakeholder engagement activities during the preparation of this Report, we maintain close communication with all stakeholders in the course of daily operations. For details, please refer to **Chapter 7 – Stakeholder Engagement** in this Report.

We analysed the materiality of various sustainability topics to stakeholders and the DSD's sustainable development based on the results of focus group meetings, interviews and questionnaire surveys, and formulated a materiality matrix. Identified material topics were prioritised to define the scope and boundaries of this Report.

實質性矩陣
Materiality Matrix

我們以矩陣圖的方式展示相關議題對持份者及對本署可持續發展的實質性，較重要的議題列於矩陣圖的右上方。

The materiality of identified topics to stakeholders and the DSD's sustainable development is presented in the form of a materiality matrix. The most material topics are presented in the top right corner of the matrix.

1 防止貪污 Anti-corruption
2 遵守社會、經濟方面法規 Social-economic Compliance
3 反歧視 Non-discrimination
4 保障集體談判的權利 Collective Bargaining Rights
5 尊重原居民權利 Respecting Indigenous Rights
6 匯報可持續發展進程 Reporting on Sustainable Development Agenda
7 投訴機制 Grievance Mechanism
8 防止強迫勞動及童工 Prevention of Forced or Compulsory Labour
9 社區參與和發展支持 Community Engagement and Development Support
10 員工培訓及發展 Employee Training and Education
11 職業安全及健康 Occupational Safety and Health
12 內部溝通渠道 Internal Communication Channel
13 員工政策及員工比例 Employment Policy and Employee Ratio
14 僱員關係 Employee Relations
15 多元化與平等機會 Diversity and Equal Opportunities
16 遵守環境法規 Environmental Compliance
17 生態保育 Ecological Conservation
18 能源管理 Energy Management
19 廢物處理 Waste Treatment
20 氣味管理 Odour Control
21 水資源及污水管理 Water Resources and Effluent Management
22 氣體排放 Air Emissions
23 物料使用 Use of Materials
24 評估供應商的環境表現 Supplier Environmental Assessment
25 減緩及適應氣候變化 Climate Change Mitigation and Adaptation
26 清潔能源使用 Use of Clean Energy
27 環保設計及建築 Green Design and Construction
28 財務表現 Economic Performance
29 採購政策 Procurement Policy
30 間接經濟影響 Indirect Economic Impacts
31 服務質素標準 Service Quality Standards
32 保持公共資金和資產管理的透明度 Transparency on Public Funds and Assets Management
33 供應鏈管理 Supply Chain Management
34 技術研發與應用 Technology Development and Application

基於實質性評估的結果，以及渠務署高級管理層和可持續發展報告工作小組的建議，我們確立共 29 個優先處理及報告的實質性議題。與去年度可持續發展報告相比，當中清潔能源使用、環保設計及建築、技術研發與應用、社區參與和發展支持、僱員關係、多元化與平等機會、供應鏈管理及保障集體談判的權利是新加入的實質性議題。

綜合所收集的意見，各持份者組別同樣高度關注本署的環保表現，當中以氣味管理、水資源及污水管理、能源管理、氣體排放、清潔能源使用及廢物處理為最備受關注的環保議題。本署除了於本報告披露相關資訊，同時在日常營運中與持份者保持緊密溝通，以積極回應其關注點。

以下為本報告涵蓋的實質性議題及邊界，共展示 29 個實質性議題（按實質性排序）中對各持份者的影響範圍，方格內標記的顏色越深色代表影響程度較大，顏色越淺色代表影響程度較少。

Based on the findings of the materiality assessment as well as recommendations of the DSD senior management and the Taskforce on Sustainability Reporting, 29 material topics were prioritised for the DSD to address and report on. Compared with the previous sustainability report, use of clean energy, green design and construction, technology development and application, community engagement and development support, employee relations, diversity and equal opportunities, supply chain management and collective bargaining rights are newly added material topics.

Concluding the views of all stakeholders, we note that all stakeholder groups are highly concerned about the environmental performance of the DSD. In particular, odour management, water resources and effluent management, energy management, air emissions, use of clean energy, and waste treatment are the top environmental concerns. In addition to disclosing relevant information in this Report, the DSD maintains close communication with stakeholders in the course of daily operations to ensure prompt responses to their concerns.

Following pages list the material topics and topic boundaries in this Report, illustrating the scope of impact to stakeholders of the 29 material topics (in descending order of materiality): the darker the colour of the marking in the grid, the greater the impact, and vice versa.

議題邊界[6] Topic Boundaries[6]

實質性議題[7] Material Topics[7]（實質性由高至低）(in descending order of materiality)	管理層 Management	公眾 Public	本署員工 Staff	環保團體 Green Groups	承辦商 / 顧問 Contractors/ Consultants	學術組織 / 專業團體 Academia/ Professional Bodies	立法會及區議會議員 Legislative and District Councillors	供應商 Suppliers	其他政府部門 Other Government Departments
1. 氣味管理 Odour Control	■	■	■	■	■	■	■	■	■
2. 水資源及污水管理 Water Resources and Effluent Management	■	■	■	■	■	■	■	■	■
3. 能源管理 Energy Management	■	■	■	■	■	■	■	■	■
4. 氣體排放 Air Emissions	■	■	■	■	■	■	■	■	■
5. 清潔能源使用 Use of Clean Energy	■	■	■	■	■	■	■	■	■
6. 廢物處理 Waste Treatment	■	■	■	■	■	■	■	■	■
7. 減緩及適應氣候變化 Climate Change Mitigation and Adaptation	■	■	■	■	■	■	■	■	■
8. 生態保育 Ecological Conservation	■	■	■	■	■	■	■	■	■
9. 評估供應商的環境表現 Supplier Environmental Assessment	■	■	■	■	■	■	■	■	■
10. 服務質量標準 Service Quality Standards	■	■	■	■	■	■	■	■	■
11. 環保設計及建築 Green Design and Construction	■	■	■	■	■	■	■	■	■
12. 物料使用 Use of Materials	■	■	■	■	■	■	■	■	■

[5] 102-46

[6] 議題邊界指本報告實質性議題涵蓋的範圍，包括渠務署辦事處及轄下設施，以及渠務署主要工程顧問和承辦商的運作。
Topic boundaries are scopes of material topics covered by this Report, including the DSD offices and facilities as well as major project consultants and contractors.

[7] 102-44, 102-47

議題邊界[5,6] Topic Boundaries[5,6]									
實質性議題[7] Material Topics[7] (實質性由高至低) (in descending order of materiality)	管理層 Management	公眾 Public	本署員工 Staff	環保團體 Green Groups	承辦商 / 顧問 Contractors/ Consultants	學術組織 / 專業團體 Academia/ Professional Bodies	立法會及區議會議員 Legislative and District Councillors	供應商 Suppliers	其他政府部門 Other Government Departments
13. 匯報可持續發展進程 Reporting on Sustainable Development Agenda									
14. 技術研發與應用 Technology Development and Application									
15. 保持公共資金和資產管理的透明度 Transparency on Public Funds and Assets Management									
16. 財務表現 Economic Performance									
17. 遵守環境法規 Environmental Compliance									
18. 職業安全及健康 Occupational Safety and Health									
19. 社區參與和發展支持 Community Engagement and Development Support									
20. 採購政策 Procurement Policy									
21. 僱員關係 Employee Relations									
22. 多元化與平等機會 Diversity and Equal Opportunities									
23. 間接經濟影響 Indirect Economic Impacts									

議題邊界[5,6] Topic Boundaries[5,6]									
實質性議題[7] Material Topics[7] (實質性由高至低) (in descending order of materiality)	管理層 Management	公眾 Public	本署員工 Staff	環保團體 Green Groups	承辦商 / 顧問 Contractors/ Consultants	學術組織 / 專業團體 Academia/ Professional Bodies	立法會及區議會議員 Legislative and District Councillors	供應商 Suppliers	其他政府部門 Other Government Departments
24. 內部溝通渠道 Internal Communication Channels									
25. 投訴機制 Grievance Mechanism									
26. 供應鏈管理 Supply Chain Management									
27. 員工培訓及發展 Employee Training and Development									
28. 遵守社會、經濟方面法規 Social-economic Compliance									
29. 保障集體談判的權利 Collective Bargaining Rights									

河畔城市
Rivers in the City

渠務署大力推進「河畔城市」的概念，並將此與強調活化水體的「藍綠建設」概念互相配合，為現有和將來的河道工程定下嶄新的策略。在「河畔城市」的推進下，我們不但會持續提升河道的排洪能力，同時亦藉推行活化河道項目加入活化水體設施，為公眾提供高質素的公共空間，加強河岸與社區的連繫性及推動近水文化。

The DSD has been promoting the concept of "Rivers in the City". It dovetails with the concept of "Blue-Green Infrastructure" that underlines the revitalisation of water bodies to form a novel strategy for existing and future river engineering projects. To implement "Rivers in the City", we will not only continue to improve the drainage capabilities of river channels, but also incorporate river revitalisation projects into water revitalisation facilities, thereby providing high-quality public areas for citizens, strengthening river-community connection, and promoting a water-friendly culture.

從混凝土渠道到生態河道：河道的發展和變化

Transformation from Concrete Channels to Ecological River: Development and Change of River Channels

隨著城市的廣泛發展，土地用途的改變，鄉郊急速城市化，香港各區在1970 年代至 1990 年代期間不斷經歷水浸威脅。為減緩水浸風險，其中的解決方案是將現有的天然河道拉直、擴闊和挖深，並建造成矩形或梯形混凝土的渠道，以提高排水能力。

雖然有效的排水優化工程改善了各區水浸情況，但混凝土渠道影響生態環境，導致整體生物多樣性下降，也減少公眾親近水體的機會，使公眾未能感受自然資源帶來的好處。

1990 年代後期，渠務署本著可持續雨水排放的理念，以達至更高標準的環境和生態保育的願景，隨後本署更採用「藍綠建設」的概念，開始在排水改善工程中應用活化河道元素，例如元朗排水繞道、林村河上游河道改善工程及啟德河改善工程，以改善水道的生態。

With extensive developments of the city, changes in land use and rapid urbanisation in rural areas, Hong Kong experienced continuous flooding in various areas from the 1970s to the 1990s. To alleviate the flood risk, one of the solutions was to straighten, widen and deepen the existing natural rivers, and construct such rivers to rectangular or trapezoidal concrete channels in order to enhance the drainage capacity.

Although the flooding situation in the districts was improved through effective drainage improvement works, the concrete channels brought environmental and ecological impacts, causing decline in overall biodiversity, as well as discouraging the public from getting close to the water bodies and enjoying benefits from the natural resources.

In the late 1990s, with a vision of elevating to a higher standard in environmental and ecological preservation, the DSD followed the principle of sustainable stormwater drainage. Afterwards, the DSD adopted the concept of "Blue-Green Infrastructure" and started to apply river revitalisation elements into the drainage improvement works, such as Yuen Long Bypass Floodway, Upper Lam Tsuen River Improvement Works and Ka Tak River Improvement Works, to enhance the ecological performance of the channels.

活化河道的主要元素
Key Elements of River Revitalisation

數十年前，整治河道的政策方向主要按城市化及防洪需要將天然河溪擴闊、拉直和挖深，並且以混凝土將河床及河岸覆蓋成石屎明渠。雖然能大大提升防洪能力，但河流原本的多重功能和價值亦被削弱。直至二千年代開始，我們逐漸在改善河道防洪能力時，趁機加入綠化及生態保育元素，達至河道活化的目的。及後，我們更提倡「藍綠建設」的概念，將河道活化再推進一步，使其成為集自然環境、社區特色和現代化於一身的排水布局。

政府施政報告曾提出在香港發展和推進「河畔城市」的概念。這是一個嶄新的河道管理概念，除了結合「藍綠建設」的既有元素，當中更加入新元素包括推動近水文化和智慧科技管理河道。

除改善河道環境外，我們亦融入社區共享元素，讓市民享用河道設施，並締造舒適宜居的社區環境。為配合政策，渠務署不遺餘力地推行多項活化河道項目，讓河道不僅具有防洪的實用性，亦具備美化環境、維持生物多樣性以及供公眾休憩等功能。過去的河道工程，例如元朗排水繞道、蠔涌河、梧桐河改善工程等，便滲入了保育天然河道、維持生物多樣性的元素。近年，渠務署進行中或規劃中的河道活化工程更加入「河畔城市」的概念。

Decades ago, policies on river improvement were mostly widening, straightening and deepening natural rivers and streams to meet the needs of urbanisation and flood control, with concrete riverbeds and banks to form artificial channels. Despite their effectiveness in flood control, these practices had compromised the manifold functionality and value of rivers. Since the beginning of the 21st century, we have adopted an incremental approach to incorporate greening and ecological conservation into flood prevention improvement works to revitalise rivers. Since then, we have advocated the concept of "Blue-Green Infrastructure" with vigorous efforts to further river revitalisation, thereby building a drainage layout that interweaves the natural environment with community characteristics and contemporary functions.

The Policy Address proposed the development and practice of the "Rivers in the City" concept in Hong Kong. As a new concept of river management, "Rivers in the City" adopts water friendliness and technology-based smart river management elements on top of existing elements in line with "Blue-Green Infrastructure".

We introduce community integration to these waterways in addition to improving river environments for public enjoyment along river facilities and local communities could benefit from more comfortable living environments. To tie in the policy, the DSD has been putting every effort in promoting multiple river revitalisation projects, allowing rivers to serve not only the function of flood prevention, but also purposes of beautifying the environment, maintaining biodiversity as well as providing leisure space for the public. Elements on conserving river's natural habitat and maintaining biodiversity have been permeated in a variety of projects in the past, such as Yuen Long Bypass Floodway, Ho Chung River Improvement Works and Ng Tung River Improvement Works. In recent years, the concept of "Rivers in the City" has been included in river revitalisation projects which are on-going or under planning by DSD.

活化河道 促進生物多樣性
River Revitalisation to Increase Biodiversity

除了關注排水的有效性外，渠務署亦積極將生態保育元素融入河道的改善工程中，包括：

- 在河床及河堤位置採用「草格」，綠化人工河道及締造微生態環境；
- 以「石籠」代替混凝土去穩固河堤；
- 將河道塑造成天然河流，並加入河曲；
- 於淺水池種植水生植物吸引魚類、兩棲動物及水鳥棲息；
- 河床加入魚洞穴、魚梯和導流石吸引雀鳥及魚類停留在河道；及
- 構建人工濕地及蘆葦圃以增加生物多樣性。

In enhancing the biodiversity, the DSD has been incorporating eco-conservatory elements in river improvement projects, including:

- grassed cellular paving at channel beds and riverbanks to create greenery and establish microbial environment;
- replacement of concrete by gabions to stabilise embankments along the river;
- converting channels to natural rivers and addition of meanders;
- shallow ponds with aquatic vegetation to attract freshwater fish, amphibians and water birds;
- bird holes, fish ladders and in-stream boulders at riverbeds to attract birds and fishes; and
- wetland and reed beds to increase biodiversity.

元朗排水繞道
Yuen Long Bypass Floodway

為紓緩元朗市中心的水浸風險，渠務署於 2006 年在元朗市以南，完成興建總長約 3.8 公里、闊 20 多米的元朗排水繞道，以截取元朗集水區內四成的雨水，在不經元朗市的情況下而直接帶至錦田河排放。元朗排水繞道在設計上特別加入了不同的環保元素，包括美化河道和促進生態保育。由於工程對一些魚塘和農地造成影響，為了補償生態上的損失，渠務署將三個荒廢魚塘修建成一片面積達七公頃（即 70,000 平方米，相等於十個標準足球場）的人工濕地，為野生鳥類、兩棲動物（如青蛙）和蜻蜓提供濕地生境。

Yuen Long Bypass Floodway was constructed in 2006 to mitigate flooding risks in Yuen Long Town. As a 3.8-kilometre long, over 20-metre wide drainage channel built at the South of Yuen Long Town, the Bypass Floodway intercepts 40% of the runoff in the Yuen Long catchment. The intercepted flow is diverted away from Yuen Long and discharged to Kam Tin River. The Bypass Floodway has incorporated a series of environmental designs, such as river beautification and ecological conservation. As the works affected some fishponds and agricultural land, the DSD engineered a piece of wetland with an area of seven hectares (i.e. 70,000 square metres, equivalent to ten full-size soccer pitches) from three abandoned fishponds to compensate for the ecological loss, providing wetland habitat to wild birds, amphibians (e.g. frogs) and dragonflies.


元朗排水繞道旁的人工濕地
Engineered Wetland near Yuen Long Bypass Floodway


元朗排水繞道
Yuen Long Bypass Floodway

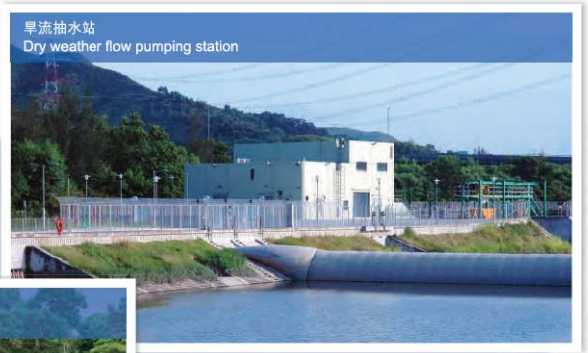
元朗排水繞道下游採用「草格」人工植草方法，河底和河岸斜坡上種植不同品種的草本植物，營造一個具有觀賞和生態價值的天然河道。

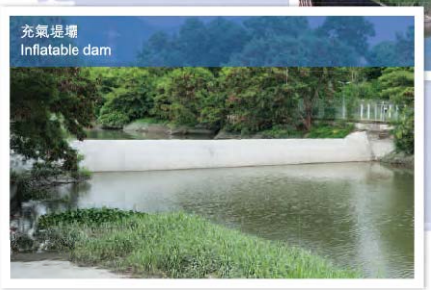
Plant growth was artificially encouraged along the lower stream with grassed cellular paving. The channel bottom and slope are covered by different species of herbaceous plants to provide a natural riverbank with aesthetic and ecological value.


元朗排水繞道的草格
Grassed cellular paving in Yuen Long Bypass Floodway

元朗排水繞道下游尾段，設有旱流抽水站和充氣堤壩，以控制排水繞道的水位和防止下游的河水倒流入排水繞道。

A system of dry weather flow pumping station and inflatable dam is provided at the downstream end to control the water level of the Bypass Floodway and to prevent downstream river water from backflowing into the Bypass Floodway.





持續監察結果顯示，濕地內有超過 130 種植物生長，曾記錄到 115 種鳥類棲息。元朗排水繞道建成至今，除提升排洪能力外，附近地方的整體生境也大大改善。

According to continuous monitoring results, over 130 plant species and 115 bird species were recorded in the engineered wetland. Since its completion, the Yuen Long Bypass Floodway has significantly improved the overall habitats in addition to enhancing the drainage capacity.

蠔涌河改善工程
Ho Chung River Improvement Works

渠務署積極推行河道改善工程，當中包括西貢蠔涌河。在 2009 年，我們完成了該河道的改善工程，擴闊河道以減低區內的水浸風險。同時引入不少生態保育元素，例如河岸牆洞、魚梯及折流堤。這些設施可為動物提供庇蔭，使生境和河溪生態更多元化。

The DSD has been making active efforts to implement river improvement works, including Ho Chung River in Sai Kung. In 2009, we completed improvement works at the river by widening the channel to reduce flood risks in the region, as well as incorporating various ecological conservation features in the project. For instance, holes in river walls, fish ladders and current deflectors were introduced, aiming to offer shade to wild animals and enhance diversity of river habitats and ecology.

林村河上游河道改善工程
Upper Lam Tsuen River Improvement Works

90 年代，林村谷盆地一帶在暴雨期間經常受到洪水威脅。為舒緩水浸風險，渠務署於 2007 年展開「林村河上游河道改善工程」，並於 2012 年竣工。在該項工程中，我們拉直、挖深及擴闊約 2.6 公里的河段，以加強其排洪能力。

林村河上游具有重大生態價值，為多種稀有生物提供棲身地。因此，我們採取了各項保育措施以保留河道的生態價值。在規劃設計階段、施工期間和完成工程後，我們均採取一系列保育措施，維持生物多樣性，將工程對環境及生態的影響減至最低。為營造自然生態環境，我們以有助植物生長的石籠代替混凝土河堤，並加種樹木。

In the 1990s, the Lam Tsuen Valley Basin and surrounding areas were consistently threatened by flooding during heavy rainstorms. To alleviate flooding risks, the DSD started "River Improvement Works in Upper Lam Tsuen River" in 2007 and completed the works in 2012. In the project, 2.6 kilometres of the river were straightened, deepened and widened to improve drainage capabilities.

The upper reaches of Lam Tsuen River are ecologically significant and provide habitats for a number of rare species. Therefore, conservation measures were introduced to maintain the river's ecological value. In the design and construction phases as well as after the completion of the works, the DSD endeavoured to conserve biodiversity and minimise the impact of the works on the environment and ecology through a system of conservation efforts. Gabions were installed to replace the concrete riverbed to encourage plant growth from the cracks and trees were planted.

我們利用原有河床物料鋪設擴闊後的河床，模仿原有天然溪澗深池及淺灘的環境，為河道生物提供棲息空間，促使生物繁衍。工程完成後，除了水質有所改善，河道各物種如魚類、鳥類及蜻蜓的數量亦恢復至工程前水平。至於林村河的原生物種、稀有的香港瘰螈數目更勝從前，令人鼓舞。

The widened riverbed of Upper Lam Tsuen River is restored with original riverbed materials to simulate the natural stream environment with pools and shallow shoals, providing ideal habitats for aquatic species to establish and thrive. After completion of the works, in addition to improved water quality, the numbers of wildlife species including birds, fish and dragonflies return to pre-construction levels. The number of Hong Kong Newts, a rare species native to the Lam Tsuen River, is even higher than before.

改善工程後林村河
Lam Tsuen River after improvement works

林村河上游三條「之」字型魚梯，設置在河床斜度較大之處，讓河道生物往返上下游流域；魚梯上亦設有凹位，供牠們棲息

There are three zig-zag fish ladders in the upper course of Lam Tsuen River. The fish ladders are laid in the reaches with steeper gradient to allow fish and other creatures to swim or leap upstream. The fish ladders also provide recesses for them to rest on during their journey upstream

工程團隊撈捕香港瘰螈遷往工程範圍外的上游河道
Project team captured Hong Kong Newts and rehabilitated them in the upper part of the river unaffected by the works

香港瘰螈腹部橙色的不規則斑紋
The Hong Kong Newt characterised by irregular orange ventral patches

為保護居於林村河的稀有物種，如香港瘰螈，我們於工程進行前將香港瘰螈遷往工程範圍外的上游河道。待工程完成後，河道回復至與以往相若，香港瘰螈自然返回以往的棲息地。

To protect rare species living in Lam Tsuen River, such as Hong Kong Newts, we relocated them out of the site prior to the works and rehabilitated them in the upper part of the river unaffected by the works. Upon completion of the works, as the restored channel environment was very similar to its original state, the Hong Kong Newts re-colonised their former habitats.

啟德河改善工程
Kai Tak River Improvement Works

渠務署於 2018 年完成了啟德河改善工程。該河道為東九龍其中一條主要排洪渠道，我們務求提升啟德河的排洪能力以緩解彩虹道一帶的水浸風險。

The DSD completed Kai Tak River Improvement Works in 2018. The river is one of East Kowloon's major drainage channels. We aimed to improve the drainage capacity of Kai Tak River and hence mitigate flooding risks of Choi Hung Road and surrounding areas.


啟德河現貌
Current view of Kai Tak River

我們藉此機會亦在河道加入各種園境美化及生態元素，將長約 1.1 公里的明渠活化成本港首條市區綠化河道走廊。

We also took the opportunity to incorporate different landscaping and ecological elements to transform the 1.1-kilometre section of the nullah into the first urban green river corridor in Hong Kong.

活化河道 社區共融
River Revitalisation for Community Integration

本署亦聯同土木工程拓展署在新發展區規劃合適的活化水體設施配合該區發展，包括安達臣道石礦場的蓄洪湖、東涌新市鎮擴展計劃的河畔公園等，讓公眾親身感受並了解河道的多元化價值，達到環境保護和公眾教育的目的。

Meanwhile, the DSD would also work together with the Civil Engineering and Development Department in planning suitable water body rejuvenation facilities, including the flood retention lake at Anderson Road Quarry Site and the river park in the Tung Chung New Town Extension, for new development areas to cater to their respective development needs. These facilities enable the public to experience and understand the manifold values of rivers, and in turn support environmental protection and public education.

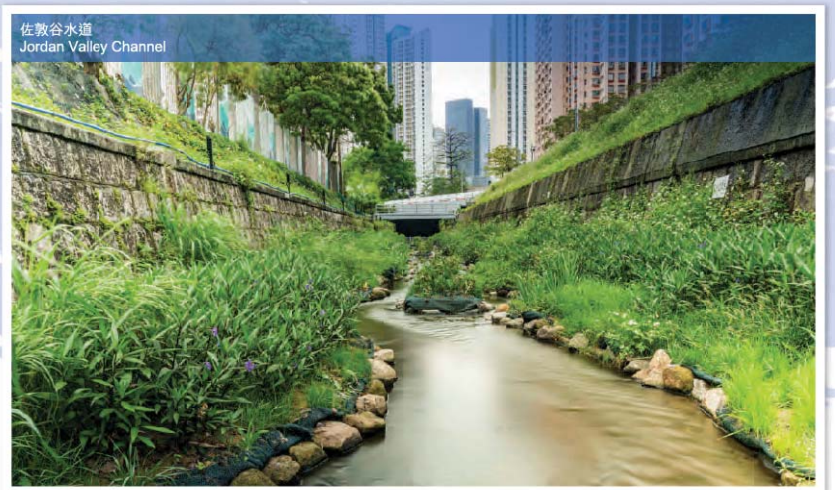
活化明渠
Revitalise Nullahs

除了河道改善工程，渠務署亦致力識別具潛力的明渠並進行活化工程，如火炭明渠、大圍明渠、佐敦谷明渠、石上河及屯門河中段等，期望透過改善水質及園境美化工程提升排水道的生態價值，促進近水文化。

位於佐敦谷明渠的改善工程於 2022 年 4 月完成，本署亦正為火炭明渠（桂地新村至香港體育學院）、大圍明渠（香粉寮至文禮閣）及屯門河中段（屯門港鐵站至兆康港鐵站）制定活化方案，旨在保持明渠排洪能力之餘並善用河道空間，展現水體的多重功能。

Apart from river improvement works, the DSD also identifies nullahs with enhancement potential and conducts revitalisation works. Examples include Fo Tan Nullah, Tai Wai Nullah, Jordan Valley Nullah, Shek Sheung River and Middle Tuen Mun River Channel. It is our aim to upgrade the ecological value of the nullahs and promote water friendliness through improving water quality and conducting landscaping works.

The improvement works at Jordan Valley Nullah completed in April 2022. The Department has also formulated revitalisation schemes for Fo Tan Nullah (from Kwai Tei New Village to Hong Kong Sports Institute), Tai Wai Nullah (from Heung Fan Liu to Man Lai Court) and Middle Tuen Mun River Channel (from Tuen Mun MTR Station to Siu Hong MTR Station), aiming to optimise the use of river spaces and demonstrate the multifunctionality of waterbodies while maintaining the drainage capabilities of these nullahs.

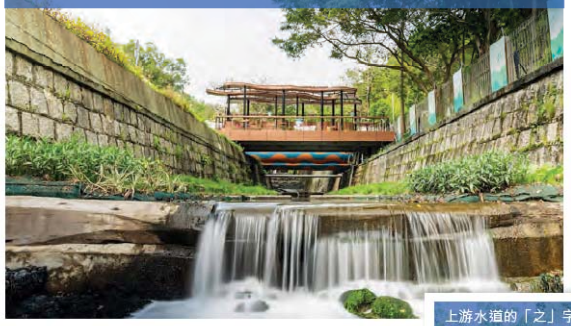

佐敦谷水道
Jordan Valley Channel

佐敦谷水道
Jordan Valley Channel

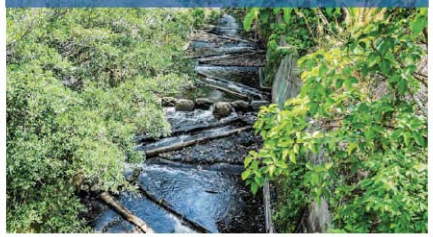
本署已於 2020 年 3 月展開了活化佐敦谷明渠工程，為沈雲山抽水站至佐敦谷游泳池的一段長約 330 米的明渠進行活化。活化後的水道透過模擬天然河曲所產生的不規則水流模式及改良原有堤堰，締造更多不同的生境和促進生物多樣性。工程項目包括綠化上游部分的水道，並加設淺灘和魚梯以提升水道的生態價值、美化下游部分的水道及兩旁環境及在水道上建造觀景平台「水道花園」，為公眾提供休憩空間觀賞水道的綠化園境，將活化後的水道融入社區。工程已於 2022 年 4 月完成。

In March 2020, works commenced to revitalise Jordan Valley Nullah, a 330-metre nullah leading from Shum Wan Shan Pumping Station to Jordan Valley Swimming Pool. In order to create more diversified habitats and thus increase biodiversity, efforts were made to the revitalised channel to simulate the irregular flow patterns of meanders and improve existing bunds. The works include greening the upper section, constructing riffles and fish ladders to enhance the ecological value of the channel, beautifying the lower section and both banks and building "River Garden", a viewing platform over the channel, with a view to provide public open space to enjoy the landscape of the channel and integrate the revitalised channel to the community. The project was completed in April 2022.

建於水道上方的觀景平台「水道花園」
Viewing platform "River Garden" built over the Jordan Valley



上游水道的「之」字型魚梯
Zig-zag fish ladders in the upper channel



活化火炭明渠
Revitalisation of Fo Tan Nullah

針對火炭明渠的活化工程，渠務署於 2022 年完成就桂地新村至香港體育學院之間的一段明渠進行的勘查研究，並將於 2022 年底展開詳細設計。擬議工程包括美化現有明渠、提供旱季截流系統以改善水質及提供公眾休憩處。

In preparation of revitalisation works for Fo Tan Nullah, the DSD completed an investigation study for the nullah section between Kwai Tei New Village and Hong Kong Sports Institute in 2022 and will carry out detailed design by end 2022. The proposed works include beautifying the existing nullah, providing dry weather flow intercepting devices to improve the water quality and providing public amenity areas.

活化火炭明渠構想圖
Photomontage of the revitalised Fo Tan Nullah

活化大圍明渠
Revitalisation of Tai Wai Nullah

除了上述工程，本署亦正研究活化大圍明渠，期望就香粉寮至文禮閣的一段明渠進行活化工程，融入各項改善生態和具可持續性的排水措施，並勘查讓公眾於河道進行親水活動的可行性。勘查研究於 2022 年完成，詳細設計將於 2022 年底展開。

Apart from the above, the Department is considering revitalising Tai Wai Nullah. We are aiming for revitalisation works at a river section from Heung Fan Liu to Man Lai Court where different features for ecological enhancement and sustainable drainage measures will be incorporated. The feasibility of opening the river to the public for water-friendly activities is also being looked into. The investigation study completed in 2022 and detailed design will commence by 2022.


活化大圍明渠構想圖
Photomontage of the revitalised Tai Wai Nullah

活化屯門河中段
Revitalisation of Middle Tuen Mun River Channel

本署在 2021 年年初展開活化河道可行性研究，並評定屯門河中段（指屯門港鐵站至兆康港鐵站之間的一段約 2.3 公里長河道）有活化潛力。活化計劃希望整合河岸周圍環境的連通性，將河岸的空間有效地轉變為舒適的區域，供市民休憩和親近水體。

In early 2021, the DSD commenced a feasibility study for river revitalisation. A section of Middle Tuen Mun River Channel (a 2.3-kilometre river section in between Tuen Mun MTR Station and Siu Hong MTR Station) was identified with potential for revitalisation. The revitalisation scheme aims to integrate the connectivity of surrounding environment and transforming the riverbanks into comfortable areas for public resting, leisure and getting closer to the water bodies.


活化屯門河中段構想圖
Photomontage of the revitalised MiddleTuen Mun River Channel

活化翠屏河
Revitalisation of Tsui Ping River

本署於 2020 年 7 月展開了活化敬業街、敬業里和翠屏道一段長約一公里的敬業街明渠工程，透過加強現有水道的排洪能力、改善環境、生態和景觀，將現有敬業街明渠活化成一條獨特的河道。工程項目包括於下游近鴻圖道設置可根據潮汐升降調節水位的智能水閘、沿河提供各種近水設施，如人工濕地、園景平台及人工浮島。我們亦美化毗鄰行人通道和加強行人通道間的連繫，如增建河畔走廊及園景平台，創造以河道為中心的公共休憩空間。工程預計於 2024 年完成。

In July 2020, the Department commenced works at the King Yip Street Nullah, an approximately one-kilometre nullah at King Yip Street, King Yip Lane and Tsui Ping Road. Through enhancing the flood conveyance capability of the existing waterway, we aim to improve the environment, ecology and landscape and transform today's King Street Nullah into a unique, revitalised river. As part of the works, a smart water gate that can move up and down according to the ebb and flow of the tide will be installed in downstream areas close to Hung To Road. Water-friendly facilities will be set up, such as artificial wetlands, landscaped decks and floating islands. Efforts will also be made to beautify and link up pedestrian walkways, such as adding riverside pedestrian walkways and landscaped decks, in order to create river-centred areas for public leisure. The project is scheduled for completion in 2024.


活化翠屏河構想圖
Photomontage of the revitalised Tsui Ping River

石上河改善工程
Enhancement of Shek Sheung River

本署計劃為石上河（連接梧桐河和雙魚河的一段長約 650 米的河道）進行改善工程，透過園境美化工程提升河道的生態價值，並促進近水文化。工程預計將於 2025 年完成。

The Department is planning to carry out enhancement works for Shek Sheung River (approximately 650-metre long river channel between Ng Tung River and Sheung Yue River), aiming to enhance the ecological value of the river channel and promote water friendliness through conducting landscaping works. The project is scheduled for completion in 2025.

年度大事
Highlight of the Year

在過去第五波的疫情中，本署積極並全方位地參與抗疫工作。我們透過日常污水監測檢測新冠病毒、支持隔離設施公共排污系統建設，並且協助鐵路運輸供港抗疫物資，務求全力配合政府的抗疫工作。同時，本署與學術界及業界保持緊密和深入的交流，致力加強研發工作，讓本港的污水處理及防洪工作一直與國際接軌乃至國際領先水平。我們應用緊湊型沙井內採樣裝置以支援全港污水監測，有效提升工作效率和質量。

During the fifth wave of COVID-19 in Hong Kong, the Department took an active role in fighting the pandemic on all fronts. To contribute to the anti-epidemic efforts of the Government in full force, the Department implemented routine sewage surveillance on the COVID-19 virus, facilitated the construction of public sewerage systems for community isolation facilities, and assisted in the operation of cross-boundary trains carrying supplies from the Mainland. In addition, we maintained close interactions with the academia and industry by dedicating ourselves to research and development, in order that sewage treatment and flood prevention in Hong Kong are on par with and even ahead of international standards. We applied customisable in-manhole sampling robots for sewage surveillance, effectively improving work efficiency and quality.

渠務署「同心抗疫」
DSD's Effort in Combating COVID-19

支援污水系統分析及新冠病毒污水採樣工作
Analysis of Sewerage System in Assisting Sewage Samples Collection


渠務署署長彭雅妮女士探訪前線採樣人員
Ms Alice PANG, Director of Drainage Services, visited frontline sampling staff

新冠病毒污水監測－結合科學研發和應用
Sewage Surveillance on COVID-19 – Integration of Scientific Research and Application

全港污水監測是政府現時對抗新型冠狀病毒病的措施之一。污水監測作為社區疫情爆發開始時的預警系統，在第四波疫情初期（2020 年年底），政府成功利用污水監測結合強制檢測在彩雲（二）邨找到十個隱形患者，成為全球首例。其後，我們亦憑着污水監測的結果，在佐敦、油麻地、深水埗、九龍城等地區找出存在新冠病毒的街區或屋苑，並協助衞生防護團隊展開「圍封強檢」和決定其他跟進行動，繼而利用污水監測技術有效檢測污水中新冠病毒的變種。第五波疫情爆發後（時至 2022 年初），政府因應持續檢測呈陽性的污水樣本，按實際情況及需要對牽涉區域採取行動，包括進行「圍封強檢」、發出「污水強檢公告」，強制要求居民在指定時限內進行鼻咽拭子測試，或派發快速檢測套裝予市民、前線清潔人員及物業管理員工自行進行檢測，達至「早發現、早隔離、早治療」。該做法令香港污水監測緊密結合了科學研發和應用，與世界上的其他地方比較，這是香港污水監測的獨特之處。

The sewage surveillance implemented by the Government is an integral part of the anti-epidemic strategy and control measures fighting COVID-19. The sewage surveillance began as an early warning system to monitor the outbreak of the epidemic in the community. At the beginning of the fourth wave of the pandemic in end 2020, the Government made use of the sewage surveillance results and in collaboration with the compulsory testing, successfully identified 10 asymptomatic patients in Choi Wan (II) Estate; this being the first example of its kind in the world. Later on, with the results of sewage surveillance, the presence of coronavirus was found in the streets/estates of Jordan, Yau Ma Tei, Sham Shui Po, Kowloon City, etc. This helped the health protection team to implement the Restriction-Testing Declaration (RTD) and decide on other follow-up actions. The sewage surveillance was applied further to identify variants of coronavirus effectively. With the outbreak of the fifth wave of the pandemic in early 2022, the Government based on the continuous positive results in sewage surveillance as well as actual circumstances and needs took actions against the concerned community areas, including RTD, Compulsory Testing Notice (CTN) and distribution of Rapid Antigen Test (RAT) kits to residents, frontline cleansing and property management staff for coronavirus tests so as to achieve the objective of early identification, early isolation and early treatment. This integration of scientific research and application for control measures fighting COVID-19 is a unique practice in Hong Kong in comparison with other parts of the world.

污水監測流程
Sewage Surveillance Process

由 2020 年中開始，從幾個污水處理廠抽取樣本檢測新型冠狀病毒作先導測試，發展成今天的污水監測計劃，目的為協助找出社區內的隱形患者。計劃由環境及生態局（環境局）帶領，環境保護署（環保署）負責採樣策略和綜合數據分析，而渠務署負責提供抽取污水樣本技術和行動支援。污水監測團隊由渠務署與環境局、環保署聯同香港大學張彤教授領導的跨學科團隊組成。除上述工作外，渠務署亦在各區同步進行實地沙井考察作取樣部署備用，讓團隊能更緊貼疫情的變化而變陣，在最短時間內可進入鎖定街區進行實地採樣，然後即時運送污水樣本至香港大學或相關化驗室作化驗及分析，有效幫助盡早找出隱形患者和識別及分隔密切接觸者，以截斷病毒傳播鏈。

按一般流程，環保署會在晚上通知渠務署未來一天的採樣地點，渠務署亦每天晚上即時展開相關的準備工作。時至 2022 年年初，每天的採樣地點已超過一百個。由於時間緊迫，渠務署的行動需要分秒必爭，在得知確實地點後隨即分派工作給採樣承辦商，亦需因應每一個採樣地點的環境安排和配置合適的裝備，在有需要時盡快申請臨時交通安排。

Starting in mid-2020, samples were taken from several sewage treatment plants for pilot testing of the surveillance of COVID-19 virus. The practice later evolved into today's sewage surveillance programme, with an aim to assist in identifying asymptomatic patients in the community. The scheme is headed by the Environment and Ecology Bureau (EEB). The Environmental Protection Department (EPD) is responsible for the sampling strategy and overall data analysis whilst the DSD offers operational support for sampling methodology and collecting sewage samples. The Sewage Surveillance Team comprises the DSD, the EEB, the EPD and a cross-disciplinary team led by Professor ZHANG Tong of the University of Hong Kong (HKU). In addition, the DSD conducts site inspections of sewage manholes as standby sampling spots for use as and when necessary. That enables the Sewage Surveillance Team to make changes in deployment promptly according to the development of the epidemic and to take samples at targeted districts within the shortest time. Sewage samples would then be delivered to the HKU or relevant laboratories for testing and analysis to facilitate the identification of asymptomatic patients and the isolation of the close contacts at the earliest time and hence sever the transmission chains.

The DSD's preparation for sewage sampling work could start from every evening when the DSD receives from the EPD the finalised sampling schedule for the next day. As of early 2022, the number of sampling sites is more than 100 per day. In order to meet the tight time frame, the DSD needs to immediately assign the works to the sampling contractors. It is also necessary to arrange and apply proper equipment according to the conditions of each sampling site. If necessary, applications for temporary traffic arrangements have to be made as soon as possible too.

一般而言，採樣承辦商會於早上約6時15分到達採樣地點架設裝備，利用帳篷保護採樣地點周圍的行人和環境。採集污水樣本約在每天早上7時至10時進行，每15分鐘抽取污水樣本一次。由於這時段是洗手間使用的高峰期，所以可以增加我們捕捉病毒訊號的機會。採樣完成後，工作人員會將貼有標籤的樣本瓶密封，蓋好污水沙井蓋並徹底清潔和消毒採樣範圍，同時須於每天下午1時前把所有樣本送到香港大學和相關的化驗所進行污水檢測，以確保當天便能夠得到檢測的結果。

另外，渠務署安排員工協助環保署決定未來一天需要採集污水樣本的地點。環保署亦會參考每天晚上出來的檢測結果和相關的資料來落實未來一天的採樣地點，並通知渠務署。從2020年年底至今，渠務署從未間斷採集每天的污水樣本和協助追蹤感染個案的工作，更一直改善和提升採集污水樣本的效率。

The sampling contractor would arrive at the sampling site at around 6:15 am for necessary setups, such as set up of a marquee which is used for protecting pedestrians and the environment around the sampling site. Sampling is usually conducted during the period from 7 am to 10 am, with samples being taken every 15 minutes. During the period, more people would use the restroom, which would increase the chance of catching the virus signal. After sampling, the contractor would seal the labelled sample bottle, put back the manhole cover, and cleanse and disinfect the sampling area. Most importantly, the sample would be delivered to the HKU or relevant laboratories for testing before 1 pm to ensure that test results could be available on the same day.

Moreover, the DSD would arrange its staff to assist the EPD to prepare the sampling locations for the next day. When the test results of the samples taken in the morning come out in the evening, the EPD would make reference to the test results and other relevant information to finalise the sampling locations of the next day and inform the DSD to arrange for the sampling. Since the end of 2020, DSD has been conducting sewage sampling to help track down the cases of infection. The cycle of sampling work goes on every day and the DSD keeps working on improving its efficiency in taking sewage samples.


前線工作人員進行污水採樣工作
Frontline staff collecting sewage samples

污水採樣地點選擇及分析
Selection and Analysis of Sampling Sites

污水監測有兩個基本的部份，分別是採集污水樣本和檢測污水樣本。完善的公共污水系統是高效進行污水監測的先決條件。在香港，雖然已有百分之九十三的人口接駁公共污水系統，但原本的公共污水系統設計並沒有考慮到用作污水監測，故此污水沙井的位置和數目並不是根據人口數目平均分布，此亦導致選擇採樣地點時面對很大的挑戰。環保署和渠務署需要詳細分析有關污水管網，尋找策略性的位置，然後進行實地考察，確定污水沙井是否適合抽取污水樣本，才能為目標社區或人口尋找合適的採樣地點。

目前，我們在全港已設置超過150個定點污水監測站，範圍覆蓋超過500萬人口。在這些定點污水監測站的上游更設有超過1,500個臨時污水監測點，以期在發現病毒後可盡快安排在上游抽取污水樣本，收窄受感染者身處的區域。為應對第五波嚴峻的疫情，我們每天抽取約110個污水樣本以進行檢測，即每兩天在各定點污水監測站抽取水樣本一次，以及每天抽取約30個臨時污水監測點的污水樣本。

Sewage surveillance consists of two basic parts of work, namely sewage sampling and sewage testing. For the efficient implementation of sewage surveillance, a pre-requisite would be a relatively well-established public sewer system. Take Hong Kong as an example, 93% of the population are living in sewered areas. The original design of most, if not all, sewerage however did not take into account the application of sewage surveillance. Hence, the location and number of sewage manholes are not evenly distributed according to the number of people. This makes it challenging to select sampling locations. In order to select suitable sampling sites for the target community or population, the EPD and the DSD have to conduct detailed sewerage analysis to find out strategic locations, followed by site surveys to verify whether the manholes are feasible for sampling.

Currently, we have set up more than 150 stationary sewage monitoring sites in Hong Kong, covering a population of more than 5 million. More than 1,500 ad hoc sewage monitoring sites have been set up at upstream of these stationary monitoring sites, with a view to arranging for upstream sewage sampling to narrow the area where infected persons are located as soon as the virus is detected. In response to the fifth wave of severe outbreaks, we took about 110 sewage samples for testing every day, that is, sewage samples were taken every two days at each stationary monitoring site and about 30 sewage samples were taken every day at ad hoc sewage monitoring sites.

用於污水監測的緊湊型沙井內採樣裝置－獲頒2022年「日內瓦國際發明展」金獎
A Customisable In-manhole Sampling Robot for Sewage Surveillance – Gold Prize in International Exhibition of Inventions of Geneva 2022

採集污水樣本方面，目前我們使用兩類型的自動採樣器，一種是放在路面上使用及需要工作人員看守的流動自動採樣器，另一種是體積纖巧可便攜並可整個放於污水沙井內使用的緊湊型採樣裝置。如果環境許可，我們會使用緊湊型採樣裝置，它的好處是可整個放在沙井內，抽取污水樣本時不會對路面交通構成影響，亦不需要工作人員全程監察。安裝


於污水井內安裝採樣裝置
Deployment of the sampling robot in manhole

We are now adopting two types of auto-samplers for sewage sampling. The first type is the mobile auto-sampler which is to be placed on the ground and manned during sampling. Another type is the in-manhole sampling robot which can be placed completely inside the manhole for auto-sampling. If circumstance allows, we would normally use the in-manhole sampling robot. It has the advantage of being installed inside a manhole, thus avoiding the impact on traffic and the manpower involved during sampling. After installation, the sampling robot will

完成後，裝置會自動收集污水樣本，並透過手機應用程式及窄頻物聯網（NB-IoT），實現使用者對樣本採集程序的自訂設置以及對採樣過程的即時監察，令我們可以大幅提升採樣的能力。此項裝置由香港大學土木工程系張彤教授領導的團隊聯同渠務署與環保署合作研發，並於 2022 年獲頒「日內瓦國際發明展」金獎。

collect sewage samples automatically and allow customisable control for sampling activities and real-time feedback collection via Mobile App and Narrowband Internet of Things (NB-IoT) respectively which can increase our sampling capability tremendously. This sampling robot was developed by Professor ZHANG Tong and the team from Civil Engineering of HKU together with the DSD and the EPD and received the Gold Prize in the International Exhibition of Inventions of Geneva 2022.

參與建設社區隔離設施
DSD's Involvement in Establishing Community Isolation Facilities

為應對第五波新冠疫情，發展局成立了一個專責小組，配合內地援建團隊全速推展各個社區隔離及治療設施，當中渠務署為多個社區隔離設施建設公共排污系統。

To cope with the fifth wave of the COVID-19 epidemic, the Development Bureau (DEVB) set up a task force to cooperate with the Mainland team to proceed with the construction of various community isolation facilities (CIF) in full swing. The DSD has assisted in constructing sewerage systems for several CIFs.

青衣社區隔離設施
Tsing Yi Community Isolation Facility

隔離設施位於青衣航運路旁，地盤面積約為 72,800 平方米，可提供約 3,900 張床位。當渠務署接獲有關擬建隔離設施的資料後，便立即檢測青衣航運路的現有公共排水及排污系統，並且與設施的承建商在地盤內進行多次會議，確保這些設施擁有足夠排水及排污能力。渠務署也安排承建商進行閉路電視檢查附近的公共排水及排污管道的內部結構，以確保其運作正常。鑑於現有兩條接駁污水管道的直徑較細（150 毫米），為了減少塞渠的機會，渠務署額外增建了一條直徑為 300 毫米（長 25 米）的污水接駁管道，連接該地盤及航運路的現有污水系統。額外的污水接駁管道於 2022 年 2 月 27 日完工，路面重鋪工程於 2022 年 2 月 28 日完成。項目的工程費用約為 120 萬元。

The CIF is located adjacent to Hong Wan Road at Tsing Yi. The site area is approximately 72,800 square metres providing about 3,900 beds. Upon receiving information on the proposed isolation facility at Tsing Yi, the DSD immediately examined the adequacy of existing public drainage and sewerage provision and arranged site meetings with the contractor of the facility. CCTV checks were conducted for the existing public drainage and sewerage pipes in the vicinity of the site to ensure their normal functioning. In view of the small diameter (150-millimetre) of two existing tapping sewers serving the site and in order to reduce chances of blockage, the DSD constructed an additional 300-millimetre diameter sewer (25-metre long) to connect the site to the existing sewerage system along Hong Wan Road. The additional sewer construction was completed on 27 February 2022 with the road pavement reinstatement completed on 28 February 2022. The cost of the works is about $1.2 million.

新田社區隔離設施
San Tin Community Isolation Facility

新田社區隔離設施的公共排污系統工程包括建造一所污水泵房（濕井長 5.6 米、寬 3.6 米、高 3.8 米）和鋪設總長 3.6 公里、直徑 200 毫米的雙管加壓污水渠管，以將新田社區隔離設施每天產生約 500 立方米的污水輸送至位於落馬洲管制站內的污水處理廠。排污系統的興建過程充滿挑戰，包括需要大量人手、籌集物料、選定泵房位置、短時間內完成泵房設計等。工程在 2022 年 3 月 5 日開展，渠務署與承建商順利於七日內完成工程，令系統於 2022 年 3 月 11 日晚上投入運作。整個公共排污系統能處理新田社區隔離設施每天產生約 500 立方米的污水。

The sewerage works for San Tin CIF included the construction of a sewage pumping station (a wet well with length of 5.8 metres, width of 3.6 metres and height of 3.8 metres) and the installation of twin rising mains with a total length of 3.6 kilometres and a diameter of 200 millimetres to convey the 500 cubic metres of sewage generated from the San Tin CIF to Lok Ma Chau Control Point Sewage Treatment Plant. The construction was full of challenges, including deploying labour resources, securing construction materials, determining the location of the pumping station and completing the design in a short period of time. The construction works kicked off on 5 March 2022 and the sewerage system was successfully completed within seven days and was put into operation on the night of 11 March 2022. The entire sewerage system can treat about 500 cubic metres of sewage generated from San Tin CIF daily.

洪水橋社區隔離設施
Hung Shui Kiu Community Isolation Facility

位於元朗洪水橋近雞伯嶺路的洪水橋社區隔離設施，其使用分成兩部分，分別用作一般社區隔離設施及長者暫託中心。由於社區隔離設施附近需要盡快配備公共污水收集系統，以方便將社區隔離設施所收集到的污水排放到新圍污水處理廠，所以渠務署與其他相關部門合作，確保洪水橋社區隔離設施污水泵房順利投入運作。期間，渠務署更協助於社區隔離設施東面加設一段長約 100 米的排水渠，以減低水浸風險。

從 2022 年 3 月 7 日第一次聯合地盤會議到 3 月 15 日泵房投入使用，總工期僅得八天。在分秒必爭的情況下，工作團隊提早將污水泵房的物料送到工地現場準備安裝。此外，電力控制版面亦預先於工地場外被組裝在一個電力貨櫃房內，以縮短在現場組裝的時間。最終泵房如期投入運作。整個公共排污系統能處理洪水橋社區隔離設施每天產生約 500 立方米的污水。

The Hung Shui Kiu CIF is located near Kai Pak Ling Road in Hung Shui Kiu, Yuen Long. Its use was divided into two parts, with one area dedicated for general-purpose isolation and the other serving as a holding centre for the elderly. Since it was urgently required to construct a public sewerage to discharge the sewage collected from the CIF to the nearest San Wai Sewage Treatment Works (STW), the DSD ensured the successful operation of a sewage pumping station through a concerted effort with other relevant government departments. In addition, the DSD assisted in constructing an approximately 100-metre surface channel in the east of the CIF to reduce flood risks.

From the 1st joint site meeting on 7 March 2022 till commissioning of the sewage pumping station on 15 March 2022, the construction period was only eight days. As every second counts, the working group arranged to deliver the equipment on site in advance of site handover. In addition, switchboard and control panels were pre-assembled inside a container off-site to shorten the installation time on site. The sewage pumping station was successfully completed and put into operation on time. The entire sewerage system can treat about 500 cublic metres of sewage generated from Hung Shui Kiu CIF daily.


洪水橋社區隔離設施旁的污水泵房
Sewage Pumping Station near Hung Shui Kiu Community Isolation Facility


洪水橋社區隔離設施東面的排水渠
Surface channel at the east of Hung Shui Kiu Community Isolation Facility

落馬洲河套地區社區隔離及治療設施
Community Isolation Facilities/Community Treatment Facilities at Lok Ma Chau Loop

為配合發展局在落馬洲河套地區興建社區隔離及治療設施，渠務署於 2022 年 3 月 8 日獲委託建造落馬洲河套區排放水再淨化廠，以進一步淨化落馬洲河套區應急醫院（1,000 張床位）和方艙醫院（10,000 張床位）經處理後的排放水。整項工程分兩階段進行，包括建造一所每日處理量達 7,000 立方米的臨時污水處理廠和鋪設七公里的雙管加壓污水渠。

正式展開工程前，渠務署隨即對上游已處理排放水進行初步研究，並與不同的供應商接洽，於市場上找尋現有及合適可用的污水處理設備。按照第一階段落馬洲河套區項目每日 650 立方米的排放量要求，渠務署綜合考慮污水處理流程設計、物料運送期及現場安裝所需時間，最終決定採用兩座內置紫外光消毒設備的膜生物反應器，興建總處理能力達每日 1,000 立方米的再淨化系統。

第一階段工程的方案確實後，渠務署承建商爭分奪秒地鋪設了兩對內徑 280 毫米的壓力喉管。一對連接上游處理設施的排放水到再淨化廠（每條 1.54 公里），另一對則把再淨化水排放到新田東主排水渠（每條 1.95 公里）。土木工程拓展署於 2022 年 3 月 18 日完成混凝土平台後，渠務署緊接進行入水和出水濕井的建造工程，以及安裝膜生物反應器、臨時水缸、入水和出水泵、管道和配件、儀器、電源和控制面板等設施。排放水再淨化廠的第一階段工程於 2022 年 4 月 4 日順利完成。

為了能應付落馬洲河套區項目第二階段每日 7,000 立方米的排放量，渠務署繼續展開再淨化廠第二期的興建工程，安裝處理量達每日 7,000 立方米的超過濾設備及紫外線消毒設備，並加配污水泵、管道和配件、儀器、電源和控制面板等設施。排放水再淨化廠第二期工程亦於 2022 年 4 月 30 日順利完成。

In support of the DEVB on the construction of CIF/community treatment facilities (CTF) at Lok Ma Chau Loop, the DSD was tasked on 8 March 2022 to construct an effluent polishing plant (EPP) for further polishing the effluent from the emergency hospital (1,000 beds) and isolation facilities (10,000 beds) of Lok Ma Chau Loop. The entire project was carried out in two phases, including the construction of a temporary EPP with a treatment capacity of 7,000 cubic metres per day and the installation of twin rising mains with a total length of seven kilometres.

Before the works formally commenced, the DSD conducted a preliminary study on the upstream treated effluent and approached different suppliers for suitable package plant available in the market. As the average flow in phase 1 was 650 cubic metres per day, the DSD reviewed the design, material delivery period and on-site installation time, and finally proceeded to constructing two membrane bio-reactor (MBR) plants with built-in ultra-violet disinfection systems of a total treatment capacity of 1,000 cubic metres per day.

The DSD's contractors urgently carried out laying works of two pairs of internal diameter 280-millimetre rising mains, one pair for inflowing treated effluent to this EPP (1.54 kilometres each), and one pair for outflowing discharge to San Tin Eastern Main Discharge Channel (1.95 kilometres each). After completion of the concrete platform by the Civil Engineering and Development Department (CEDD) on 18 March 2022, the DSD carried out construction works for influent and effluent wet wells and installation of the MBR plants, temporary tanks, inflow and outflow pumps, pipes and fittings, instruments, power and control panels, etc. Phase 1 of the EPP was successfully completed on 4 April 2022.

To cater for the discharge of 7,000 cubic metres per day at the Lok Ma Chau Loop facilities, the DSD continued to carry out the works for Phase 2 of the EPP. In this phase, ultra-filtration and ultra-violet disinfection plants for 7,000 cubic metres per day were installed with the addition of pumps, pipes and fittings, instruments, power and control panels, etc. Phase 2 of the EPP was also successfully completed on 30 April 2022.

落馬洲河套區排放水再淨化廠
Effluent Polishing Plant at Lok Ma Chau Loop

渠務署署長前往工地視察並為工程團隊打氣
Director of Drainage Services inspected the site and gave encouragement to the construction team

然而，排水工程部正在河上鄉路實施封路措施，鋪設約 900 米的排水管道以改善北區水浸風險。當工程團隊在 2022 年 2 月 23 日晚上收到緊急道路優化計劃消息時，便日以繼夜地展開全方位配套工作，包括重編排水管工程、擴闊道路設計、督導及監控緊急道路施工工序、聯繫各政府部門及持份者進行重型車輛路面駕駛測試及最後檢查。在短短三個工作天內，把原本四米闊的行車路擴闊至六米，好讓貨櫃車及重型貨車在河上鄉路能雙線行駛。

此外，新界北渠務部亦借出梧桐河 / 雙魚河 / 石上河部份的維修通道，作新鮮食品運送用途。河道維修工作方面亦因此作出特別安排，並緊急動員進行修剪樹木，以配合車身較高之貨櫃車及重型貨車行走。

排水工程部和新界北渠務部同事與各相關政府部門、港鐵公司及業界通力合作，並於首班列車開通前，積極參與在港鐵羅湖編組站鐵路貨場的操作測試及試運，令跨境鐵路貨運得以在 2022 年 3 月 2 日開通。

Meanwhile, the Drainage Projects Division (DPD) of the DSD was implementing temporary traffic management scheme at Ho Sheung Heung Road for laying about 900 metres of drainage pipes to mitigate the flood risk in the North District. When the project team received the news of the emergency road improvement plan on the evening of 23 February 2022, they began around the clock to carry out all-round supporting work, including rearranging drainage works, road widening design, supervising and monitoring the emergency road works, contacting various government departments and stakeholders for conducting test run and final inspections. In just three working days, the original four-metre-wide roadway was widened to six metres, so that container trucks and heavy goods vehicles could travel on two lanes on Ho Sheung Heung Road.

In addition, the Mainland North Division (MND) of the DSD lent out part of the maintenance channel of Ng Tung River/ Sheung Yue River/ Shek Sheung River for the delivery of fresh food, and thus special arrangements had been made for river maintenance work. Urgent mobilisation of tree trimming work had also been carried out to accommodate the passing of taller container trucks and heavy goods vehicles.

Colleagues from the DPD and MND cooperated fully with relevant government departments, the MTR Corporation and the industry, and actively participated in the operational testing and trial operation at the railway freight yard at the MTR Lo Wu marshalling station before the first train run. The border rail freight was able to open on 2 March 2022.

全力支援內地供港物資鐵路運輸服務的開通
Supporting the Launching of Railway Transportation of Goods from Mainland to Hong Kong

農曆新年後，本港疫情愈趨嚴峻，多名跨境貨車司機染疫，影響新鮮食品供應。有見及此，特區政府與廣東省政府和深圳市人民政府緊密合作，果斷利用現有鐵路運輸供港物資，並篤定以港鐵羅湖編組站作為臨時貨櫃卸貨場，交收貨櫃。香港貨櫃車司機提取貨櫃後，可經上水河上鄉路及梧桐河 / 雙魚河 / 石上河維修通道，把新鮮食品運往批發市場分銷全港各區。

After the Lunar New Year, the epidemic situation in Hong Kong had become more severe. Many cross-boundary truck drivers had contracted the disease, affecting the supply of fresh food. In view of this, the HKSAR Government, in close cooperation with the Guangdong Provincial People's Government and the Shenzhen Municipal People's Government, resolutely used the existing railway to transport goods for Hong Kong, and decided to use the MTR Lo Wu marshalling yard as a temporary container unloading yard for container delivery. After picking up the containers, Hong Kong container truck drivers could transport fresh food to wholesale markets through Sheung Shui Ho Sheung Heung Road and the maintenance access of Ng Tung River/ Sheung Yue River/ Shek Sheung River for distribution throughout Hong Kong.

新界北渠務部於梧桐河的維修通道上進行緊急修剪樹木工作，以配合車身較高之貨櫃車及重型貨車行走
Mainland North Division carried out emergency tree pruning work at the maintenance access of Ng Tung River to accommodate the passing of taller container trucks and heavy goods vehicles

人手安排協助執行「圍封及在受限區域進行檢測」
Mobilising Manpower for Restriction-testing Declaration (RTD)

第五波新冠疫情來得突然，同時亦非常嚴峻。各政府部門不遺餘力支持抗疫工作，渠務署也一直秉承「以心為心，盡力盡心」的精神，默默協助守護香港。渠務署參與的抗疫工作之中，最為人熟悉的莫過於由 2020 年開始，聯同環保署及香港大學跨學科團隊所進行的新冠病毒污水監測工作。部門不斷從經驗中學習，直至 2022 年 3 月中，定點污水監測站由起初全港 26 個增至超過 150 個，覆蓋人口由 100 萬大大增加至超過 500 萬。至今，污水檢測已於全港各區約 2,200 個污水井抽取污水樣本，協助政府揀選需要進行強制檢測行動的大廈，成功找出了兩萬名隱形患者，成效顯著。除了污水監測工作，本署也投入其他抗疫工作，例如協助內地供港物資鐵路運輸服務的開通，以及為建造社區隔離設施提供渠務支援等。不少同事更加入特區政府各個抗疫團隊，走到前線，參與「圍封強檢」和處理熱線查詢。

The fifth wave of COVID-19 was sudden and massive. As various government departments put every effort in supporting the anti-pandemic work. The DSD has also been helping to protect Hong Kong silently in the spirit of "Doing It from the Heart". Amongst the DSD's efforts in combating the pandemic, the most recognised endeavour was the sewage surveillance conducted in collaboration with the EPD and the cross-disciplinary team of the HKU from 2020. Learning continuously from experience, the DSD has increased stationary sewage monitoring sites from 26 to over 150 across Hong Kong since mid-March 2022, with the population covered increasing from one million to over five million. So far, sewage samples have been collected from about 2,200 manholes across Hong Kong to help the Government screen buildings for compulsory testing exercise. This has proved highly effective with 20,000 asymptomatic patients identified. Apart from sewage surveillance, the DSD is also engaged in other anti-epidemic operations, such as facilitating the launching of railway transportation of goods from Mainland to Hong Kong and providing drainage services support for the construction of CIFs. Moreover, many DSD colleagues joined the anti-epidemic teams of the Government to fight in the front line, taking part in RTD operations and handling hotline enquiries.

十週年環保團體聯絡會議
10th Anniversary of Green Group Liaison Meeting

本年度適逢渠務署與環保團體聯絡會議十週年，本署在 2021 年 11 月 25 日邀請綠色團體實地考察荔枝角雨水排放隧道及九龍城一號污水泵房。參加者透過參觀渠務署的防洪、污水處理設施，更全面了解部門的工作，並互相分享多年來合作的點滴和展望將來。

In commemoration of the 10th anniversary for the DSD/Green Group Liaison Meeting, a visit to Lai Chi Kok Drainage Tunnel and Kowloon City No. 1 Sewage Pumping Station was arranged for local green groups on 25 November 2021. The participants gained insight of the DSD's sewerage and flood prevention works, and shared the cooperation with each other over the years and paved the way for future collaborations.


渠務署署長彭雅妮女士在聯絡會議中向環保團體代表致歡迎辭
Ms Alice PANG, Director of Drainage Services, delivered welcome speech to Green Groups representatives during the liaison meeting


渠務署署長彭雅妮女士在聯絡會議中與環保團體代表交流
Ms Alice PANG, Director of Drainage Services, communicated with Green Groups representatives during the liaison meeting

研究及發展重點
Highlights of Research & Development (R&D) Studies

使用機械人清潔沉澱池斜板
Using Robotics for Cleaning the Sedimentation Settler Inclined Plates

初級斜板沉澱池可提高沉澱效率，但這些斜板需定期清洗以保持效能而且數量甚多。渠務署聯同香港中文大學劉達銘教授就運用一台暫設在元朗污水處理廠內的初級沉澱試驗池，試行了劉教授所開發的一種懸浮式機器人系統來協助工人清洗斜板。試行數據顯示懸浮式機器人易於設置和控制，而纜索驅動的設計，亦使其適用於跨度大的沉澱池。

The efficiency of sedimentation at primary sedimentation tanks can be raised by the addition of lamella plates. However, the lamella plates require regular cleaning to maintain their effectiveness and there are many lamella plates to be cleaned. The DSD, together with Professor LAU Tat-ming of The Chinese University of Hong Kong, used a pilot primary sedimentation tank temporarily installed at Yuen Long STW for a trial to run a cable-suspended robot system to replace workers in cleaning the lamella plates. The results of the trial showed that it is easy to set up and control the cable-suspended robot. In addition, the robot can be applied to sedimentation tanks with a large span due to its cable-driven design.

低電壓節能污泥除臭技術
Low Energy Electrical Odour Control (LEEO)

為解決污泥所產生的硫化氫氣味問題，本署委託香港科技大學陳光浩教授為其開發的創新技術－「低電壓節能污泥除臭技術（LEEO）」，在小蠔灣污水處理廠進行一項試點研究。該研究顯示 LEEO 技術能在連續數天有效減低污泥中引致氣味問題的硫化氫水平。

To tackle the odour issue due to hydrogen sulfide released by sewage sludge, the DSD commissioned Professor CHEN Guang-hao of The Hong Kong University of Science and Technology (HKUST), the inventor of Low Energy Electrical Odour Control (LEEO), to run a pilot trial for this innovative technology a Siu Ho Wan Sewage Treatment Works. The trial showed that, with the use of LEEO, the level of odorous hydrogen sulfide released from sewage sludge could be substantially lowered for days on end.

獎項及殊榮
Awards and Honours

渠務署可持續發展報告 2019-20 榮獲多項殊榮，其中包括：

DSD Sustainability Report 2019-20 received a number of awards, including:

香港會計師公會
The Hong Kong Institute of Certified Public Accountants

- 2021最佳企業管治及ESG大獎 ESG大獎（公營/ 非牟利機構（大型機構）組別）
  2021 Best Corporate Governance and ESG Awards ESG Award (Public Sector/Not-for-profit Category (Large))

香港管理專業協會
The Hong Kong Management Association

- 2021年度最佳年報獎 最佳環境、社會及管治資料披露獎（政府）
  2021 Best Annual Reports Awards Best Environmental, Social and Governance Reporting Award (Government)

美國傳媒專業聯盟
League of American Communications Professionals LLC

2020 Vision Awards

- 國際性金獎 Gold Winner Worldwide
- 首50名最佳中文年報 Top 50 Chinese Annual Reports
- 首80名亞太區最佳報告 Top 80 Reports Asia-Pacific Region

2021 Inspire Awards

- 金獎 Gold Winner
- 首100名最佳企業刊物 Top 100 Corporate Publications

MerComm, Inc

2021 International ARC Awards

- 銀獎 （專業年報：香港可持續發展報告）
  Silver Award – Specialised Annual Reports (Sustainability Report: Hong Kong)
- 優異獎 （非牟利機構網上年報：政府機構及辦公室）
  Non-Profit Organisation (Online A.R.) – Government Agencies & Offices
- 優異獎 （綠色/ 環保年報）
  Honours Awards – Green/ Environmentally Sound Annual Report

Communications Concept

2021 APEX Awards of Publication Excellence

- 卓越獎（寫作－綠色寫作）
  Awards of Excellence (Writing – Green Writing)

2021 年 6 月 1 日 | 1 June 2021

沙頭角污水處理廠第一期擴建工程榮獲顧問工程師協會年獎 2020

The Expansion of Sha Tau Kok Sewage Treatment Works Phase 1 project received The Association of Consulting Engineers of Hong Kong (ACEHK) Annual Award 2020

沙頭角污水處理廠擴建工程團隊獲頒「香港顧問工程師協會年獎」，工程團隊緊密合作，使用了各種創新科技，包括「可供製造及裝配的設計」、工地管理數碼化，以及建築信息模擬等，藉此精簡建築流程，並提高施工產能、效率、安全和質量。

The Project Team of the Expansion of Sha Tau Kok Sewage Treatment Works won "The Association of Consulting Engineers of Hong Kong (ACEHK) Annual Award". Through collaborating closely with the application of different innovations and technologies such as the Design for Manufacture and Assembly (DfMA) approach, digitalisation of site management, and building information modelling (BIM), construction programme was streamlined and the project's productivity, efficiency, safety and quality were enhanced, contributing to a safe, productive and sustainable construction site.

2021 年 6 月 4 日 | 4 June 2021

渠務署機電工程師梁亦嵐女士榮獲香港工程師學會「傑出青年工程師獎 2021」

Ms Ivy LEUNG Yick-laam, Electrical and Mechanical Engineer of the DSD, was awarded the "Young Engineer of the Year Award 2021" by the Hong Kong Institution of Engineers (HKIE)

渠務署機電工程師梁亦嵐女士於「香港工程師學會周年典禮暨頒獎大會」獲頒發「傑出青年工程師獎 2021」，以表揚她在工程專業、社會事務，以及學會會務上的卓越成就及貢獻。

Ms Ivy LEUNG Yick-laam, Electrical and Mechanical Engineer of the DSD, was awarded the "Young Engineer of the Year Award 2021" in the HKIE Annual Grand Ceremony cum Award Presentation, in recognition of her outstanding achievements and contributions to the profession, the community and the institution.

2021 年 6 月 13 日 | 13 June 2021

機電工程科榮獲「2020 年香港工程師學會創意獎」

The Electrical and Mechanical Branch received the "Hong Kong Institution of Engineers (HKIE) Innovation Award 2020"

本署機電工程科同事憑着「廚餘與污泥共消化」項目獲頒「香港工程師學會創意獎」(組別 II －創新應用) 優異獎，藉此推動業界以創新方式生產可再生能源作發電和發熱用途，從而協助本港減少碳排放量並紓緩因氣候變化而引致的問題。

Colleagues at the Electrical and Mechanical Branch of the Department were awarded the "HKIE Innovation Award" (Category II - An Innovative Application of Engineering Theories) for the "Food Waste and Sludge Co-digestion" project. The award was intended to promote innovative production of renewable energy for electricity and heat generation, thereby helping reduce carbon emissions and mitigate problems brought on by climate change in Hong Kong.

2021 年 6 月 24 日 | 24 June 2021

渠務署榮獲多個英國「新工程合約」獎項

The DSD received a number of New Engineering Contracts (NEC) Awards

渠務署的五個工程項目獲英國新工程合約用戶組織頒發合共七個獎項，「沙頭角污水處理廠第一期擴建工程及塘肚鄉村污水收集系統」和「石湖墟淨水設施－主體工程第一階段」，分別贏得「年度創新合約項目」和「年度水利工程項目」大獎，以表揚在水利工程項目中實踐協作精神。

其他工程項目包括「建造東涌至小蠔灣加壓污水管道及其相關工程」和「香港及離島地區之渠務維修及建造工程 (2021-2025)」及「渠務署廠房及相關設施之樓宇及土木維修及小型工程 (2020 至 2025)」和「沙頭角污水處理廠第一期擴建工程及塘肚鄉村污水收集系統」亦分別在「年度水利工程項目」、「年度創新合約項目」和「年度可持續發展及氣候適應力項目」贏得第二名；而「搬遷沙田污水處理廠往岩洞」亦在「年度水利工程項目」、「年度創新合約項目」中獲頒高度讚揚，以表彰合約項目通過使用主要績效指標或其他「新工程合約」的條款，推展項目中加入創新元素及肯定工程項目列明減少碳排放的措施。

Fives projects under the DSD received a total of seven awards. "Expansion of Sha Tau Kok Sewage Treatment Works Phase 1 and Village Sewerage in Tong To" and "Upgrading of Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1" were named NEC Contract Innovation of the Year 2021 and Water Project of the Year 2021 respectively, commending the spirit of collaboration practised in the projects.

Other works projects "Construction of an Additional Sewage Rising Main between Tung Chung and Siu Ho Wan and Associated Works", "Drainage Maintenance and Construction in Hong Kong Island and Islands Districts (2021-2025)" and "Building and Civil Maintenance and Minor Works to DSD Plants and Facilities (2020-2025)", and "Expansion of Sha Tau Kok Sewage Treatment Works Phase 1 and Village Sewerage in Tong To" were awarded the "Runner Up" prize of the NEC Water Project of the Year 2021, NEC Contract Innovation of the Year 2021 and NEC Sustainability and Climate Resilience 2021 respectively. Meanwhile, works project "Relocation of Sha Tin Sewage Treatment Works to Caverns" was also clinched the "Highly Commended" prize of the NEC Water Project of the Year 2021 and NEC Contract Innovation of the Year 2021 recognising projects that incorporate innovative elements through use of key performance indicators or other NEC clauses and promoting projects which have set out to reduce their carbon emissions.

2021 年 6 月 26 日 | 26 June 2021

渠務署助理電氣督察鍾智偉先生獲選「2021 建造業傑出青年」

Mr Leo CHUNG Chi-wai, Assistant Electrical Inspector of the DSD, was selected as "Construction Industry Outstanding Young Person 2021"

渠務署助理電氣督察鍾智偉先生獲建造業議會選為「2021 建造業傑出青年」，以表揚他在建造事業的成就和對社會作出貢獻。

Mr Leo CHUNG Chi-wai, Assistant Electrical Inspector of the DSD, was selected as one of the awardees for the "Construction Industry Outstanding Young Person 2021", in recognition of his outstanding achievements in the construction industry and devotion to the community.

2021 年 8 月 6 日 | 6 August 2021

「建造業安全周 2021」

"Construction Safety Week 2021"

渠務署 6 項工程合約榮獲第 27 屆「公德地盤嘉許計劃」獎項

Six works contracts of the DSD were honoured with awards in the 27th "Considerate Contractors Site Award Scheme".

2021 年 9 月 24 日 | 24 September 2021

渠務署與香港科技大學的研究論文榮獲「香港工程師學會青年工程師 / 研究人員傑出論文獎 2021」

Research paper by the DSD and HKUST received "The HKIE Outstanding Paper Award for Young Engineers/Researchers 2021"

渠務署於 2019 年委託香港科技大學進行以光催化技術為污水消毒的研究。而包含了此研究項目結果的香港科技大學論文「光催化消毒的潛力與前景：可持續太陽能驅動光觸媒的應用」，更榮獲「香港工程師學會青年工程師 / 研究人員傑出論文獎 2021」。

In 2019, the DSD commissioned HKUST to conduct an R&D study on the photocatalytic disinfection of sewage. HKUST's research paper, "Potential and Prospect of Photocatalytic Disinfection: Using Sustainable Solar-energy-driven Photocatalyst", which has incorporated findings of the R&D study, has been awarded "The HKIE Outstanding Paper Award for Young Engineers/ Researchers 2021".

2021 年 10 月 15 日 | 15 October 2021

「搬遷沙田污水處理廠往岩洞」工程獲頒英國土木工程師學會 2021 年度獎「Edmund Hambly Medal」

"Relocation of Sha Tin Sewage Treatment Works to Caverns" project won "Edmund Hambly Medal" in the Institution of Civil Engineers (ICE) Annual Awards 2021

渠務署的「搬遷沙田污水處理廠往岩洞」工程項目，於英國土木工程師學會舉辦的 2021 年度獎中獲頒「Edmund Hambly Medal」，以表揚工程團隊以創新設計應對氣候變化上的突出表現。

The DSD's works project "Relocation of Sha Tin Sewage Treatment Works to Caverns" received "Edmund Hambly Medal" in the ICE Annual Awards 2021, recognising the Project Team's outstanding performance on innovative design to sustainable development.

2021 年 10 月 27 日 | 27 October 2021

「搬遷沙田污水處理廠往岩洞」工程榮獲 Autodesk 香港建築信息模擬設計大獎 2021

"Relocation of Sha Tin Sewage Treatment Works to Caverns" project won the Autodesk Hong Kong Building Information Modelling (BIM) Awards 2021

渠務署轄下的「搬遷沙田污水處理廠往岩洞工程」項目，獲 Autodesk 頒發香港建築信息模擬設計大獎 2021。

The DSD's project "Relocation of Sha Tin Sewage Treatment Works to Caverns" won the Autodesk Hong Kong Building Information Modelling (BIM) Awards 2021.

2021 年 11 月 1 日 | 1 November 2021

渠務署獲頒 2021 建造業議會數碼化大獎「機構類別－客戶」銅獎

The DSD received Bronze Award under "Organisation Category – Client" in the Construction Industry Council (CIC) Construction Digitisation Award 2021

渠務署的「Digitalisation Journey for Smart Drainage Services in Drainage Services Department」項目，於建造業議會主辦的 2021 建造業議會數碼化大獎「機構－客戶」組別獲頒銅獎。

The DSD's "Digitalisation Journey for Smart Drainage Services in Drainage Services Department" won Bronze Award under "Organisation Category – Client" in CIC Construction Digitisation Award 2021.

2021 年 12 月 1 日 | 1 December 2021

新圍污水處理廠改善工程榮獲香港顧問工程師協會 2021 年度大獎

The Upgrading of San Wai Sewage Treatment Works project received The Association of Consulting Engineers of Hong Kong (ACEHK) Annual Award 2021

新圍污水處理廠改善工程團隊榮獲「香港顧問工程師協會 2021 年度大獎」，體現了工程界對此項目在工程卓越、創新精神及可持續發展的表彰。

The project team of Upgrading of San Wai Sewage Treatment Works – Phase 1 won "ACEHK Annual Award 2021", manifesting recognition of the engineering excellence, innovative spirits and dedication to sustainability by the engineering community.

2021 年 12 月 3 日 | 3 December 2021

「搬遷沙田污水處理廠往岩洞」工程項目榮獲國際比賽「ITA 隧道及地下空間大獎」2021 年度最佳項目

The Relocation of Sha Tin Sewage Treatment Works to Caverns project received "ITA Tunnelling and Underground Space Awards 2021" Project of the Year

渠務署的「搬遷沙田污水處理廠往岩洞」工程項目於「ITA 隧道及地下空間大獎 2021」國際比賽中榮獲「年度最佳項目（5,000 萬歐元下）」以表揚渠務署在隧道工程就提高生產力、建築質量、可持續性和工地安全控制方面的創新成果。

The DSD's project "Relocation of Sha Tin Sewage Treatment Works to Caverns" won the international competition "ITA Tunnelling and Underground Space Awards 2021" under the category of "Project of the Year including Renovation (up to €50 million)" that recognises the DSD's achievements in tunneling innovations for enhanced productivity, build quality, sustainability and site safety control.

2021 年 12 月 22 日 | 22 December 2021

渠務署榮獲 2021-22 年度檢測認證人力發展嘉許計劃「檢測認證人力發展機構獎」及渠務署化驗師羅婉芝博士獲頒「卓越檢測認證專業人員獎」

The DSD received the "Testing and Certification Manpower Development Corporate Award" and Dr Chermian LAW Yuen-chi, Chemist of the DSD, received the "Excellent Testing and Certification Professional Award" in the Testing and Certification Manpower Development Award Scheme 2021-22

渠務署化驗室服務分部沙田中央化驗室及污水處理服務科行動組實驗室榮獲香港檢測和認證局主辦的「2021-22 年度檢測認證人力發展機構獎」。而渠務署化驗師羅婉芝博士更獲頒「卓越檢測認證專業人員獎」—「中級管理人員」組別。

Sha Tin Central Laboratory in Laboratory Services Sub-division and Operation Section Laboratory in Sewage Services Branch of the DSD won the "Testing and Certification Manpower Development Corporate Award" and Dr Chermian LAW Yuen-chi, Chemist of the DSD, won the "Excellent Testing and Certification Professional Award" in the "Middle Management" sub-group in the Testing and Certification Manpower Development Award Scheme 2021-22 launched by Hong Kong Council for Testing and Certification (HKCTC).

2022 年 3 月 28 日 | 28 March 2022

渠務署榮獲七個日內瓦國際發明展獎項
The DSD won 7 medals at International Exhibition of Inventions Geneva

「日內瓦國際發明展」是全球規模最大的創新展覽之一，國際專業評審團從約 800 件參展作品中選出優秀的發明。渠務署獲頒獎項如下：

The International Exhibition of Inventions of Geneva is one of the largest global exhibitions devoted exclusively to inventions. About 800 inventions were evaluated by international jury of specialists. The list of awards and recognised inventions of the DSD are:

金獎 Gold Medal

用於污水監測的緊湊型沙井內採樣裝置（香港大學張彤教授帶領跨學科團隊，聯同環保署和渠務署合作研發）
A Customisable In-manhole Sampling Robot for Sewage Surveillance (Developed by Professor ZHANG Tong and the team from Civil Engineering of HKU together with the EPD and the DSD)

銀獎 Silver Medal

水文資訊系統「防洪健康碼」在智能排水管理及防洪工作的應用
Hydrometric Information System (HIS) for Smart Drainage Management and Preventive Flood Control

小鐵牛－智能濕井清淤水底機器車
The Mini Bull - Smart Robotic Underwater Wet Well Cleaning Vehicle

智能污水除泡機器人（由渠務署及香港生產力促進局共同研發）
Intelligent Foam Removal Robot (In collaboration with Hong Kong Productivity Council (HKPC))

龍門三兄弟
Lung Mun Three Brothers

多功能氣味控制水凝膠
Multifunctional Odor Control (MOC) Hydrogel

「岩洞探哥」－機械人監察系統
Resident Site Robotic Supervisor (RSRS) System

其他獎項
Other Awards

本署的員工、研究項目和工程項目在年內獲頒的獎項亦包括：

Awards received by the DSD's staff, research projects and works projects during the year include:

主辦機構 Organisers	獎項 Awards
香港申訴專員公署 Office of the Ombudsman, Hong Kong	2021 申訴專員嘉許獎 The Ombudsman's Awards 2021 for Officers of Public Organisations
香港工程師學會 The Hong Kong Institution of Engineers (HKIE)	2021 年香港工程師學會製造、工業及系統工業獎 HKIE MIS Industry Award 2021 • 創新銅獎 Innovation Award - Bronze Award
環境運動委員會 Environmental Campaign Committee	香港環境卓越大獎 Hong Kong Awards for Environmental Excellence • 建造業銀獎 Construction Industry Silver Award
環保促進會 Green Council	香港綠色企業大獎 2021 Hong Kong Green Awards 2021 • 優越環保管理獎 - 項目管理（大型企業）- 銀獎 Green Management Award - Project Management (Large Corporation) - Silver
建造業議會 Construction Industry Council (CIC)	建造業義工獎勵計劃 2021 Construction Industry Volunteer Award Scheme 2021 • 卓越建造業義工（金獎） Excellence in Construction Industry Volunteer (Gold Award) • 優秀社福機構協作（金獎） Excellence in Construction Industry Volunteering Collaboration (Gold Award) • 非凡建造業義工項目（銀獎） Excellence in Construction Industry Volunteering Project (Silver Award) • 個人服務時數 50+ Individual Volunteering Service Hours 50+
International Construction Project Management Association (ICPMA)	2021 ICPMA 獎 ICPMA Awards 2021 • 2021 卓越獎（聯盟及創新與品質） Supreme Award 2021 Alliance and IQ (Innovation and Quality)
鋒建築節 Ideal Architecture Festival	2021 IAF 鋒建築節 Ideal Architecture Festival 2021 •（建築）優勝獎（公共/文化/教育類） Winner (Architecture) (Public/ Culture/ Education Category)
職業安全健康局 Occupational Safety and Health Council	第 16 屆職業健康大獎建造業安全大獎 16th Occupational Health Award • 好心情@健康工作間大獎（企業/機構組） Joyful @ Healthy Workplace Best Practices Award (Enterprise / Organisation Category) 第 22 屆建造業安全大獎 The 22nd Construction Safety Award • 職安健模範吊運工作團隊－銅獎 Outstanding Lifting Operation Team in Occupationa Safety and Health - Bronze Award 第 20 屆香港職業安全健康大獎 The 20th Hong Kong Occupational Safety and Health Award • 工作安全行為大獎金獎 Work Safe Behaviour - Gold Award • 安全管理制度大獎－金獎 Safety Management System Award - Gold Award 職安健常識問答比賽 2021 Safety Quiz 2021 • 冠軍（團體/工會組） Champion (Community / Union Category) • 最高累積積分獎（團體/工會組） Accumulated Highest Points Award (Community / Union Category) • 工會組初賽最高積分獎（團體/工會組） 1st Round Highest Points (Community / Union Category)

第三章 CHAPTER 3

管治方針
Governance Approach

渠務署自1989年起，至今三十多年始終將公眾利益置於首位，並且通過全面披露本署的管治原則和實務，以保持本署的公信力和聲譽。我們具有完善而全面的可持續發展管治架構，在高級管理層以及多個事務委員會和工作小組的帶領下積極推動可持續發展工作。我們將可持續發展理念融入本署的抱負、使命和信念，並將其落實。本署亦通過汲取過往經驗、掌握國際發展趨勢和了解持份者的關注點，不斷改善可持續發展管治方針及政策。

For more than three decades since 1989, the Department has always put public interest as a top priority while fully disclosing our corporate governance principles and practices to maintain high credibility and reputation. Under the leadership of the senior management, our various committees and working groups promote sustainable development proactively with a comprehensive governance framework in place. The sustainability concept has been incorporated into our vision, mission and values for implementation. We also continuously improve our sustainable development management approach and policies based on our experience, international trends and stakeholders' concerns.

抱負、使命和信念
Vision, Mission and Values

渠務署為香港特別行政區政府發展局轄下部門之一。我們致力為香港提供專業而高質素的污水和雨水處理排放服務。為共同應對氣候變化及城市發展帶來的挑戰，我們決意推動香港的可持續發展，並於本署的「抱負、使命和信念」加入可持續發展理念。

The DSD is one of the departments under the Development Bureau of the Government of the HKSAR. We are committed to providing professional and high-quality sewage and stormwater drainage services to the public. Making joint efforts with all sectors to combat challenges arising from climate change and urban development, the DSD is determined to drive sustainable development in Hong Kong and we have incorporated the sustainability concept in our "Vision, Mission and Values".

使命 Mission

以具經濟效益和合乎環保的方式改善服務

Improving drainage services in a cost-effective and environmentally responsible manner

致力關懷員工，營造安全、和諧及身心健康的工作環境，培育員工的發展和創新思維

Enhancing a caring, harmonious, safe and healthy work environment that fosters staff development and a mindset for change

強化與社區、業界和各地相關機構的關係

Strengthening relationships with community, industry and worldwide counterparts

抱負 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

信念 Values

以客為本
Customer Satisfaction

優質服務
Quality

勇於承擔
Commitment

群策群力
Teamwork

管治架構
Governance Structure

高級管理層
Senior Management

由渠務署署長、副署長及四位助理署長組成的高級管理層負責作出重大決策和監督部門日常運作，確保服務具有成本效益且對環境負責，並制定和檢討本署的可持續發展策略和目標。高級管理層成員包括：

Formed by the Director of Drainage Services, a Deputy Director, four Assistant Directors and a Departmental Secretary, the Department's senior management team is responsible for making important policy decisions and overseeing the Department's daily operations, ensuring the services provided by the DSD are cost-effective and environmentally responsible, as well as formulating and reviewing our sustainability strategies and goals. The senior management team members include:

高志聰先生
Mr KO Chi-chung
助理署長/機電工程
Assistant Director/ Electrical and Mechanical

梁泳源先生
Mr Walter LEUNG Wing-yuen
時任助理署長/污水處理服務
Then Assistant Director/ Sewage Services

劉勝昌先生
Mr Edwin LAU Shing-cheong
助理署長/操作維修
Assistant Director/ Operations and Maintenance

彭雅妮女士
Ms Alice PANG
渠務署署長
Director of Drainage Services

徐仕基先生
Mr Peter CHUI Si Kay
渠務署副署長
Deputy Director of Drainage Services

李志江先生
Mr Chris LI Chi-kong
主任秘書
Departmental Secretary

蔡榮興先生
Mr Brian CHOI Wing-hing
助理署長/設計拓展
Assistant Director/ Projects and Developments

組織架構
Organisational Structure

本署設有四個分科，包括操作維修科、設計拓展科、機電工程科及污水處理服務科。分科下設 18 個不同功能的分部，當中污水監測組為新增的分部。此外，總部另設部門行政部、財務及物料供應部，以及技術支援組，分別負責行政、會計及技術支援工作。截至 2022 年 3 月 31 日，編制共有 2,056 個常額職位。

The Department consists of four branches, including Operations and Maintenance Branch, Projects and Development Branch, Electrical and Mechanical Branch and Sewage Services Branch. Under these branches, there are 18 subordinate functional divisions, where the Sewage Surveillance Team is a new division. In addition, administration, accounting and technical support are handled by the Departmental Administration Division, Finance and Supplies Section and Technical Support Group at our headquarters respectively. As at 31 March 2022, we have a permanent staff establishment of 2,056.

四位助理署長各領導一個分科，以提供所屬範疇的技術及專業支援服務。各分科的職責如下：

Each of the four Assistant Directors leads a branch to provide technical and professional support services in its specific field. The duties of each branch are as follows:

設計拓展科
Projects and Development Branch

負責執行基本工程項目，包括設計及建造雨水渠、防洪及排洪工程、污水收集系統及污水處理設施。

Being responsible for implementing capital works projects, including the design and construction of drains, flood control and relief works, sewerage network and sewage treatment facilities.

操作維修科
Operation and Maintenance Branch

負責操作和維修全港的雨水排放及污水收集系統、防洪、規劃雨水排放及污水收集系統、執行《土地排水條例》，以及管理和保養人工排水道。

Being responsible for operating and maintaining drainage and sewerage systems across the territory, as well as preventing floods, planning drainage and sewerage systems, enforcing the Land Drainage Ordinance and managing and maintaining engineered drainage channels.

機電工程科
Electrical and Mechanical Branch

負責污水處理及防洪設施的運作及保養，以及為部門的污水處理及防洪項目提供機電設計和安裝工程。

Being responsible for the operation and maintenance of sewage treatment and flood prevention facilities, as well as providing electrical and mechanical design and installation works in sewage treatment and flood protection projects of the Department.

污水處理服務科
Sewage Services Branch

負責推展鄉村公共污水收集系統、雨水排放改善工程、污水處理及收集系統和工程，如淨化海港計劃，以及徵收污水處理服務費。

Being responsible for facilitating village public sewerage, stormwater system enhancement projects and sewage treatment and collection systems and projects, such as the Harbour Area Treatment Scheme (HATS), and collecting sewage services charges.

可持續發展管理
Sustainability Management

渠務署擁有完善及全面的可持續發展管理架構，當中涵蓋多個可持續發展範疇。我們積極探討相關議題，並在高級管理層的領導下監督相關工作及提出合適建議。為持續改善管理模式和提升可持續發展表現，本署採用合適的國際標準和管理系統，透過「策劃－執行－檢查－行動」的管理原則持續提升日常運作和管理質素。

The DSD has a holistic and comprehensive sustainability management structure, covering a wide range of sustainability aspects. We proactively examine relevant issues, supervise related initiatives and provide appropriate recommendations, under the leadership of our senior management. To continuously improve our management approach and enhance our sustainability performance, we adopt appropriate international standards and management systems and utilise the "Plan-Do-Check-Act" cycle to consistently improve our daily operations and management quality.

管理架構
Management Structure

我們設立了三個專責委員會及兩個工作小組，包括：
We have set up three committees and two working groups, including:

環保管理委員會
Green Management Committee

由副署長領導，負責檢討環境管理政策、制定環保工作的方針和目標，以及監察環保計劃和措施的成效。委員會協助高級管理層管理目標進度，並每年定期向高級管理層進行匯報。

報告期內，委員會共召開兩次會議，以深入討論節能、減排、減廢及綠化等議題，並檢視環保工作的進度。

Chaired by the Deputy Director, the Committee is responsible for reviewing the environmental management policy, formulating environmental work objectives and targets, and monitoring the effectiveness of environmental programmes and measures. The Committee assists our senior management in target tracking and reports regularly to the senior management annually.

During the reporting period, the Committee held two meetings to have in-depth discussions on topics including energy conservation, emission reduction, waste reduction and greening. Environmental initiatives were also reviewed for their latest progress.

安全督導委員會
Safety Steering Group

由副署長領導，負責監察和提升本署作業的職業安全與健康。為預防與工作相關的意外，委員會訂立安全標準及指引、制定改善程序及措施，並檢視其執行情況和成效。

報告期內，委員會共召開兩次會議，檢討本署轄下建築工地及員工的安全表現，以及採納了多項改善措施，致力推廣職業安全。

Chaired by the Deputy Director, the Group is responsible for overseeing and promoting occupational safety and health across all the DSD's undertakings. To prevent work-related accidents, the Group sets safety standards and guidelines, formulates improvement procedures and measures, and reviews their implementation and effectiveness.

During the reporting period, the Group held two meetings to review the safety performance of the Department's construction sites and employees, and to implement a number of enhancement measures as well as vigorous promotion of occupational safety initiatives.

研究及發展督導委員會
Research and Development Steering Committee

由副署長領導，專責進行研究以支持部門的發展計劃。委員會設有兩個小組，分別統籌土木工程和機電工程的研究工作。

委員會在本年度共召開六次會議。報告期內，本署共完成 13 個多元化的研究項目，議題涵蓋洪泛區的生物多樣性管理、水凝膠技術、種植本土植物以增加河道的生物多樣性、低電壓節能污泥除臭技術 (LEEO) 以及使用機械人清潔元朗污水處理廠的沉澱池斜板。

Led by the Deputy Director, the Committee is responsible for conducting research to support development plans of the DSD. The Committee consists of two teams, which coordinate research projects in civil engineering and electrical and mechanical engineering respectively.

The Committee held six meetings in the year. During the reporting period, the Department completed a total of 13 research projects on diversified topics, covering biodiversity management in drainage channels, Hydrogel Technology, planting native plants for enhancing river biodiversity, low energy electrical odour control (LEEO) and using robotics for cleaning the sedimentation settler inclined plates at Yuen Long STW, etc.

能源及排放管理小組
Energy and Emission Management Team

節能減排是本署的重點關注環保議題。由助理署長 / 機電工程領導，小組成員透過識別排放源頭、訂立基準評估表現、實施改善措施及分享專業知識等方法，改善本署在能源及排放方面的表現。

本年度，小組召開兩次會議，討論節能措施及目標、可再生能源應用等議題。

Energy conservation and emission reduction are key environmental issues that the Department focuses on. Led by the Assistant Director/Electrical and Mechanical, members of the Team identify emission sources, benchmark performance, implement improvement measures and share professional knowledge to help improve the Department's energy and emission performance.

In the year under review, the Team held two meetings to discuss various topics, including energy conservation measures and targets, and the application of renewable energy.

可持續發展報告工作小組
Taskforce on Sustainability Reporting

由副署長領導，就編製該年度可持續發展報告的事宜給予意見及制定決策，包括決定報告所採用的國際準則、訂定持份者參與活動計劃及確認實質性議題等。

Chaired by the Deputy Director, the Taskforce gives comments and makes decisions related to the preparation of our annual sustainability report. These include selecting the international standards to be adopted for reporting, defining stakeholder engagement plans and identifying material topics.

綜合管理體系
Integrated Management System

渠務署自 2002 年起建立和執行符合國際標準的管理體系。至今，我們已實施一個由多套管理系統組成的綜合管理體系，當中涵蓋品質、環境、職業健康及安全。

本署貫徹「策劃－執行－檢查－行動」的管理原則，持續改善我們的管理體系。從 2020 開始，本署已實施 ISO 9001:2015 品質管理系統，ISO14001:2015 環境管理系統及 ISO 45001:2018 職業健康與安全管理系統，三個管理系統涵蓋渠務署轄下所有設施，可更全面管理本署的服務品質、減少對環境的影響和保障員工的健康及安全。

面對氣候變化及城市發展帶來的挑戰，本署致力提升資產管理以降低營運成本。本署轄下的污水處理廠、污水泵房和雨水泵房已於 2019 年通過 ISO 55001 資產管理系統認證審核。渠務署是首批獲得該認證的政府部門之一。截至 2022 年 3 月，除八所在「設計、建造及營運」合約下營運或正進行提升工程的污水處理廠和污水泵房外，所有本署轄下的污水和雨水設施已納入 ISO 55001 資產管理系統內。

The DSD has been building and implementing management systems in line with international standards since 2002. To date, we have put in place an integrated management system made up of multiple systems that cover the aspects of quality, environment and occupational health and safety.

Department adhere to the "Plan-Do-Check-Act" approach and continuously improve our management systems. The DSD has implemented the ISO 9001:2015 Quality Management System, ISO 14001:2015 Environmental Management System and the ISO 45001:2018 Safety Management System since 2020. The three management systems cover all facilities of the DSD, aiming at providing more comprehensive management on enhancing the service quality, reducing the impact on environment and uplifting the health and safety protection to our staff.

Facing challenges posed by climate change and urban development, we strive to optimise our asset management to reduce operational costs. All DSD-owned STWs, sewage pumping stations (SPSs) and stormwater pumping stations passed the certification audit for the ISO 55001 Asset Management System in 2019, making us one of the first government departments to obtain such accreditation. As of March 2022, all DSD-owned sewage treatment and stormwater facilities were included in the ISO 55001 Asset Management System, except for eight STWs and SPSs which are being operated under "Design, Build and Operate" contracts or undergoing upgrading projects.

聯合國可持續發展目標
The United Nations Sustainable Development Goals

聯合國可持續發展目標（SDGs）為全球正面臨最迫切的問題提供解決框架和藍圖，並由聯合國呼籲社會各界共同在2030年前實現其17個SDGs，推動全球可持續發展。渠務署深知SDGs的影響力和重要性，我們希望能將SDGs融入我們的整體規劃和營運，並以此作為我們未來在可持續發展工作的大方向。本署全力支持SDGs，並且識別了八個與我們營運最相關的目標，同時在下表展示針對該SDG而採取的行動。

The United Nations (UN) Sustainable Development Goals (SDGs) provide a framework and blueprint for addressing the most pressing issues facing the world. To promote global sustainable development, the UN is calling on all sectors of society to join forces to achieve the 17 SDGs by 2030. Acutely aware of the impact and significance of the SDGs, the DSD hopes to integrate these goals into our overall planning and operations as a general direction to guide our future sustainability endeavours. In support of the SDGs, the DSD has identified eight goals that are most relevant to our operations. Actions taken in response to the SDG are tabulated below.

聯合國可持續發展目標 UN SDGs	Relevant Material Topic	渠務署的行動 The DSD's Actions
目標 3：良好健康與福祉 Goal 3: Good Health and Well-being	• 服務質量標準 Service Quality Standards • 水資源及污水管理 Water Resources and Effluent Management • 職業安全及健康 Occupational Safety and Health (OSH)	• 在新冠病毒疫情下，為員工採購了充足的防疫物資，加強了前線員工的個人防護裝備，同時實施特別上班安排，指示員工採用輪更制在家工作； During the Covid-19 pandemic, the DSD purchased sufficient anti-epidemic supplies for our employees and improved the personal protective equipment used by frontline staff. We also implemented special work arrangements and instructed our staff to take turns working from home; • 利用污水監測來檢測污水中新冠病毒的變種，並結合強制檢測工作，阻止疫情傳播鏈。 Sewage surveillance was conducted to detect COVID-19 variants in effluent, while compulsory testing was implemented to sever the chain of virus transmission.
目標 7：經濟適用的清潔能源 Goal 7: Affordable and Clean Energy	• 能源管理 Energy Management • 清潔能源使用 Use of Clean Energy • 環保設計及建築 Green Design and Construction	• 2019-20年度、2020-21年度及2021-22年度電動車的行車里數分別為整體車輛的16.2%、22.4%及24.7%； In 2019-20, 2020-21 and 2021-22, the total mileage of work transport contributed by electric vehicles was 16.2%, 22.4% and 24.7% respectively; • 新落成的項目（再生能源及完善運作）於2021-22年度共節省了170萬度電； Energy savings from newly commissioned projects (for renewable energy and optimisation) in 2021-22 was 1.7 million kilowatt-hours in aggregate; • 截至2022年5月底已在32個轄下設施安裝太陽能光伏板，總發電容量約為148萬度電； As of the end of May 2022, the DSD installed photovoltaic (PV) panels at 32 facilities, generating about 1.48 million kilowatt-hours of electricity in total; • 積極發展其他再生能源，包括水力發電和生物氣。 Other renewable energy, including hydropower and biogas, have been actively developed.

聯合國可持續發展目標 UN SDGs	相關實質性議題 Relevant Material Topic	渠務署的行動 The DSD's Actions
目標 8：體面工作和經濟增長 Goal 8: Decent Work and Economic Growth	• 僱員關係 Employee Relations • 員工培訓及發展 Employee Training and Development • 內部溝通渠道 Internal Communication Channel • 投訴機制 Grievance Mechanism • 保障集體談判的權利 Collective Bargaining Rights	• 向員工提供職安健範疇的培訓課程及活動，保障員工身心健康； Training courses and activities that cover different OSH aspects are held to safeguard the physical and mental health of employees; • 為員工舉辦一系列康樂活動，包括興趣班和體育活動等； A wide range of recreational activities are organised for staff, including interest classes and sports activities; • 跟隨政府的員工政策及指引，如《公務員事務規例》等文件，確保有效管理員工，為市民提供優質服務。 The DSD follows the employment policy and guidelines of the Government, such as the Civil Service Regulations, to ensure effective management of the staff and deliver quality service to citizens.
目標 11：可持續城市和社區 Goal 11: Sustainable Cities and Communities	• 生態保育 Ecological Conservation • 環保設計及建築 Environmental Design and Construction • 技術研發與應用 Technology Development and Application	• 實施「藍綠建設」的概念，積極建設能彈性適應天氣的海綿城市； Implementing the concept of "Blue-Green Infrastructure" and actively constructing a city that elastically adapts to weather conditions like a sponge; • 建設「河畔城市」，除改善河道環境外，亦融入社區共享元素，讓市民享用河道設施，包括蓄洪人工湖、河畔公園。 Building "Rivers in the City" by improving river environments and introducing community integration to these waterways so the public could enjoy river facilities, including the artificial flood retention lakes and river parks.
目標 12：負責任消費和生產 Goal 12: Responsible Consumption and Production	• 物料使用 Use of Materials • 評估供應商的環境表現 Supplier Environmental Assessment • 供應鏈管理 Supply Chain Management • 服務質量標準 Service Quality Standards • 匯報可持續發展進程 Reporting on Sustainable Development Agenda	• 在營運過程中考慮可持續性，並公開披露可持續相關資訊； Including sustainability in the DSD's operations and publicly disclosing sustainability-related information; • 2021-22年度內平均每日使用約2,615立方米再造水和回用雨水； In 2021-22, an average of 2,615 cubic metres of reclaimed water and harvested water was used per day; • 用紙量逐漸遞減，2021-22年度內總用紙量為9,516令，較2009-10年度少約32%； Paper usage has been gradually reduced, with 9,516 reams of paper used in 2021-22, approximately 32% less than the 2009-10 level; • 採納環保署的環保採購產品清單，所採購的產品有節能電器和環保辦公室消耗品； Adopting the EPD's list of Green Procurement Items and procuring energy-saving electrical appliances and green office consumables; • 將護養河道及綠化地帶時產生的園林廢物轉化為堆肥物料作一般園藝之用。 Converting yard waste from river channels and green belt zone maintenance into composting material for general horticultural use.

聯合國可持續發展目標 UN SDGs	相關實質性議題 Relevant Material Topic	渠務署的行動 The DSD's Actions
目標 13: 氣候行動 Goal 13: Climate Action	• 氣體排放 Air Emissions • 減緩及適應氣候變化 Climate Change Mitigation and Adaptation	• 就轄下七間污水處理廠進行了碳審計； Conducting carbon audits in seven of the DSD's STWs; • 為政府跨部門氣候變化基建工作小組的其中一員； Serving as a member of the Government's Interdepartmental Climate Change Working Group; • 為「C40 城市氣候領導聯盟」旗下「連結三角洲城市」以及粵港環保及應對氣候變化合作小組的其中一員； Serving as a member of Connecting Delta Cities under the C40 Cities Climate Leadership Group, as well as the Hong Kong-Guangdong Joint Working Group on Environmental Protection and Combating Climate Change; • 加入了兩個世界級組織 — 國際公用事業專業網絡及世界氣象組織，期望與世界各地的成員交流經驗，提升服務質素。 Joined the Leading Utilities of the World and the World Meteorological Organisation, two world-class organisations, with a view to exchanging experience with members across globe for improved service quality.
目標 14: 水下生物 Goal 14: Life Below Water	• 水資源及污水管理 Water Resources and Effluent Management • 生態保育 Ecological Conservation	• 透過「淨化海港計劃」第一期和第二期大幅改善海洋水質，在海港地區發展同時努力維持理想的海洋環境，並期望能有更多不同品種的海洋生物。 With the full commissioning of the HATS Stage I and II, the marine water quality has been significantly improved. The DSD has been developing the harbour area while striving to maintain a desirable marine environment, so as to embrace a greater variety of marine life.
目標 15: 陸地生物 Goal 15: Life on Land	• 生態保育 Ecological Conservation • 環保設計及建築 Green Design and Construction	• 種植了 9,841 棵樹或灌木； 9,841 trees and shrubs were planted; • 設立綠色人工智能鷺鳥林監察系統，追蹤及識別正在飛行的鳥類，藉以減低工程對環境的影響； The Green Artificial Intelligence (AI) Egretry Monitoring System was established to identify birds tracking and their flying movement, so as to minimise the impact of construction works on the environment; • 透過實施「藍綠建設」的概念，改善河道生態系統，為水棲生物提供棲息環境並提升生物多樣化。 By implementing the concept of "Blue-Green Infrastructure" and improving the river ecosystem, the DSD creates habitats for aquatic organisms and enhances biodiversity.

綠色人工智能鷺鳥林監察系統 – 360 度人工智能相機
Green Artificial Intelligence (AI) Egretry Monitoring System - 360-degree AI Camera

CHAPTER 4 第四章

主要職責
CORE RESPONSIBILITIES

渠務署致力為香港提供世界級的污水和雨水處理排放服務，減低社區的水浸風險。本署持續提升防洪及污水處理的工作，更積極打造河畔城市，維持本港的水體質素，竭力為市民創造宜居的生活環境。

The DSD is committed to providing world-class wastewater and stormwater drainage services for Hong Kong and thereby reducing flood risks for the community. To continuously enhance flood prevention and sewage treatment efforts, the DSD is building "Rivers in the City" in a more proactive way to sustain the water quality in Hong Kong and create a more livable environment for citizens.

2021-22年度防洪概要
Overview of Flood Prevention in 2021-22

為應對颱風和暴雨等極端天氣情況所帶來的嚴峻挑戰，渠務署致力提升香港的雨水排放能力。香港於2021年錄得總降雨量約2,307毫米，與1991至2020年約2,400毫米的平均降雨量相若。然而，報告期內天文台共發出兩次黑色暴雨警告、兩次紅色暴雨警告及19次黃色暴雨警告。2021年暴雨頻生，為香港帶來更高的水浸風險，令防洪工作更具挑戰。

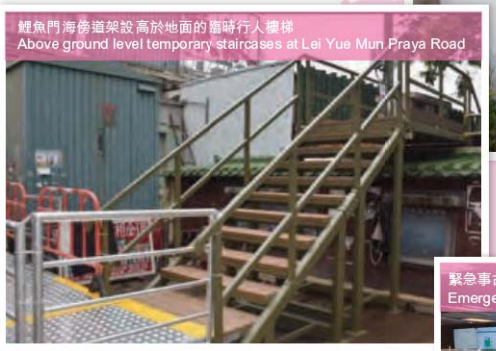
Facing the challenges brought by extreme weather conditions, such as typhoons and rainstorms, the DSD is committed to enhancing the stormwater drainage capacity of Hong Kong. In 2021, annual total rainfall was approximately 2,307 millimetres, similar to the average of 2,400 millimetres recorded between 1991 and 2020. However, Hong Kong Observatory (HKO) issued two Black Rainstorm signals, two Red Rainstorm signals and 19 Amber Rainstorm signals during the reporting period. Frequent rainstorms in 2021 exposed Hong Kong to higher flooding risks, posing greater challenges to our flood prevention work.

2021年天氣概況
Weather Overview in 2021

參考過往應對超強颱風的經驗，渠務署提早於颱風襲港前行動，加強巡查和清理主要排水道及進水口，尤其是水浸黑點，以確保沒有障礙物阻塞渠道及造成水浸。本署和其他政府部門攜手合作，在一些易受海水倒灌影響的沿岸低窪地區（包括大澳及鯉魚門等）開展防汛工作，包括安裝組合式擋水板及止回閥、建造防洪牆等。政府亦已於沿岸低窪地區設立風暴潮預警系統，並由天文台適時發出預警。當發出風暴潮預警，本署會即時採取緊急水浸緩解工作，將水浸帶來的影響降至最低。

Based on previous experience in combating super typhoons, the DSD has scaled up actions well before the approach of typhoons, including precautionary inspections and clearance of major drainage channels and inlets to ensure no obstacles in the drains would pose flooding risk, particularly at flooding blackspots. Collaborating with other government departments, we take joint flood prevention efforts to identify low-lying coastal areas that are vulnerable to tidal backflow (including Tai O and Lei Yue Mun) and initiate flood prevention measures, such as installing demountable flood barriers and non-return flap valves and building flood walls. Storm surge alert, an early alert system for low-lying coastal areas, has been developed by the Government. This alert is issued timely by the HKO and upon activation emergent, flood relief measures are launched at relevant locations immediately to minimise the impact of flooding.


協助受風暴潮影響的住戶安裝擋水板
Assisting residents affected by storm surge to install flood barriers


鯉魚門海傍道架設高於地面的臨時行人樓梯
Above ground level temporary staircases at Lei Yue Mun Praya Road


緊急事故控制中心
Emergency Control Centre

為進一步減低水浸風險，本署已設立全天候運作的「緊急事故及暴風雨應變組織」，以安排人手處理緊急事故和水浸，包括發布相關信息、與其他政府部門的緊急應變單位溝通和調配資源。我們亦已設立「緊急事故控制中心」，並且識別受水浸影響較大的黑點，在暴雨期間或八號烈風或暴風信號生效前安排應變小隊前往現場進行渠道檢查及疏通工作，以減低暴雨和颱風所造成的影響。

防洪是本署的其中一大重點工作，全港的雨水排放系統均是依照國際標準設計及建設。我們一直提升本港防洪工作的水平，包括定期檢查及維護雨水排放系統、檢視及調整各區的雨水排放計劃，以確保足夠防洪能力以應對極端天氣。

To further relieve the impact of flooding, we have set up the "Emergency and Storm Damage Organisation (ESDO)" that operates on a 24/7 basis to arrange personnel to handle emergency cases and flooding incidents, including the release of relevant information, communicating with the emergency organisations of other government departments and deploying resources. We have also set up an "Emergency Control Centre" and identified blackspots easily affected by floods. We would send contingency teams to these blackspots to carry out inspections and clear drains during heavy rainstorm or before the Gale or Storm Signal No. 8 is in force, to reduce the impact of heavy rainstorms and typhoons.

Flood prevention is a top priority of the Department. Drainage systems across Hong Kong have been designed and constructed in accordance with international standards. To consistently improve the quality of flood protection work, the drainage system is inspected and maintained regularly, and the Drainage Master Plans (DMPs) of each district are reviewed and adjusted to ensure adequate flood protection capabilities against extreme weather events.

香港整體防洪策略
Overall Flood Prevention Strategy of Hong Kong

城市化發展、地面徑流增加、洪泛平原減少，以及極端天氣事件越趨頻繁等因素都會導致低窪或沿海地區的水浸風險上升。考慮到不同區域的地勢特點，渠務署制訂「防洪三招」，以解決不同地方的水浸問題，當中包括截流、蓄洪、疏浚，有效減低因暴雨引致的水浸風險。

Urbanisation, increasing surface runoff, reducing flood plains and frequent extreme weather events would heighten the risk of flooding in low lying or coastal areas. Considering the topographical features of different districts, the DSD has developed a "three-pronged flood prevention strategy" to combat flooding threats at various locations. The strategy, including stormwater interception, flood storage, and drainage improvement, has effectively mitigated the risk of flooding arising from torrential rain.

截流
Interception

- 在半山建造雨水排放隧道，從而在上游截取雨水，改變雨水流向，將之直接排出大海或河道
  Drainage tunnels have been built in the mid-levels to intercept and divert upstream stormwater for direct discharge to the sea or rivers
- 避免在下游地區進行大規模排水改善工程，減低對交通及公眾的影響
  Large-scale drainage improvement works in downstream urban areas are avoided to reduce impacts on traffic and the public
- 四條分別位於啟德、港島西、荔枝角及荃灣的雨水排放隧道
  Four drainage tunnels are located in Kai Tak, Western Hong Kong Island, Lai Chi Kok and Tsuen Wan respectively

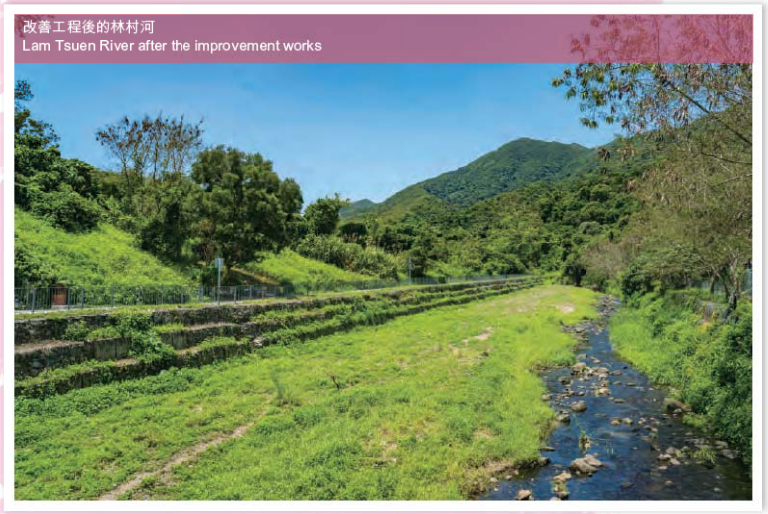
蓄洪
Flood Storage

- 暴雨或會對下游地區的排水系統造成壓力導致水浸風險，因此本署在中游地區建設蓄洪池，收集及暫存暴雨期間的雨水，減輕對排水系統的負擔
  Stormwater may impose pressure on downstream drainage systems and expose these areas to flooding risk. We have therefore constructed stormwater storage tanks in midstream to collect and temporarily store stormwater, hoping to alleviate the burden imposed on drainage systems
- 位於大坑東、上環、跑馬地及安秀道四個地方的蓄洪計劃現正運作，並計劃擴建大坑東蓄洪計劃和展開五個新蓄洪計劃，以緩減九龍區的排水壓力
  Stormwater storage schemes are now in operation at four sites: including Tai Hang Tung, Sheung Wan, Happy Valley and On Sau Roac. We plan to extend the scheme in Tai Hang Tung as well as develop five new schemes to alleviate the stress on drainage in Kowloon

疏浚
Drainage Improvement

- 進行排水系統改善工程以拉直、擴闊和挖深河道，以及擴大或建造新的地下排水渠
  Drainage improvement works are carried out to straighten, widen and deepen rivers and to broaden or construct new underground drains

- 至今已改善逾 100 公里河道，另提升超過 90 公里排水渠
  Over 100 kilometres of river sections have been improved and over 90 kilometres of drains have been upgraded to date


改善工程後的林村河
Lam Tsuen River after the improvement works

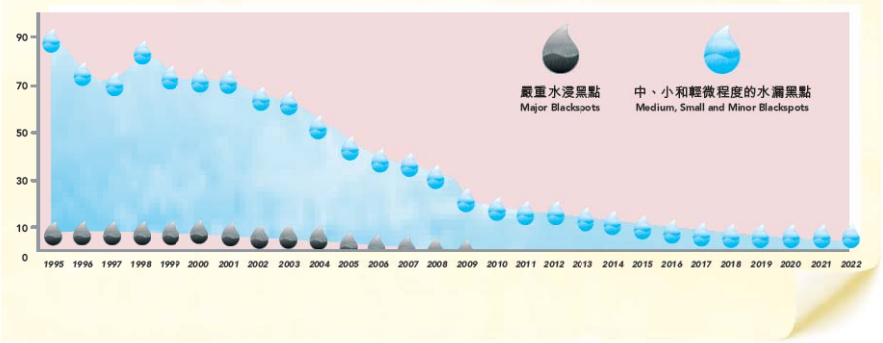
持續改善水浸黑點
Close Monitoring of Flooding Blackspots

本署正逐步剔除港九新界的水浸黑點，減低水浸對各區域造成的重大影響。截至 2022 年 3 月，我們共成功消除了127 個水浸黑點 。現時餘下的四個水浸黑點當中，南區薄扶林村的進一步排水改善工程已於 2020 年 8 月展開。尖沙咀漆咸道南的進一步雨水排放系統改善工程預計於 2022 年第三季展開，以解決漆咸道南的水浸問題。而其餘兩個黑點的進一步改善工程現正規劃及設計。我們預期未來逐步消除所有黑點，減低水浸對市民的影響。

The Department has been eliminating flooding blackspots all over Hong Kong to reduce the material impact that flooding imposes on each district. As of March 2022, we removed 127 flooding blackspots. For the remaining four blackspots, further drainage improvement works at Pok Fu Lam Village, Southern District commenced in August 2020. Further drainage improvement works at Chatham Road South, Tsim Sha Tsui is anticipated to commence in the third quarter of 2022 to resolve the flooding problem at Chatham Road South, while the next stage of improvement works for the remaining two blackspots are under planning and design. We anticipate that all blackspots will be eliminated gradually in the near future to reduce the impact on the public.

水浸黑點位置圖
Location Plan of Flooding Blackspots

水浸黑點總數
Number of Flooding Blackspots



沿岸低窪或當風住宅地區
Coastal Low-lying or Windy Residential Areas

根據過往紀錄，颱風吹襲期間部分地區會受到較大影響，該等地區或會因風暴造成的海水上升而發生水浸或海水倒灌問題。此外，海水上升亦可能會導致海浪湧過海堤，造成水浸，因此我們早前已識別七個地點作為風暴潮點以及三個地點作為越堤浪點。

為全面檢視極端天氣及氣候變化下風暴潮和風浪對本港沿岸較低窪或當風地區的影響，政府完成了「氣候變化和極端天氣下的沿岸災害研究及改善措施的制訂－可行性研究」。這研究識別了 26 個較高風險的沿岸低窪或當風住宅地區，以制定所需改善工程和管理措施，保障市民生命安全。這 26 個地區已涵蓋早前識別的七個風暴潮點及三個越堤浪點。

政府為這些地點設立風暴潮預警系統，一旦出現預警，本署或相關部門會安排人手前往該等地點實施應對措施，如放置水泵、設置組合式擋水板、放置沙包等，以免大量海水湧進地面，影響附近居民。

Previous records show that certain areas would be more severely affected during typhoons, including seawater inundation or infusion attributed to the rise of sea level from the storm. Floods may also occur when rising sea level causes sea waves to overtop seawalls. We have previously identified seven Storm Surge Spots as well as three Overtopping Wave Spots.

In order to comprehensively review the impacts of storm surges and waves on coastal low-lying or windy locations under extreme weather and climate change, the Government completed the Study of Coastal Hazards under Climate Change and Extreme Weather and Formulation of Improvement Measures - Feasibility Study. It identified 26 coastal low-lying or windy residential areas with higher risks for formulation of the necessary improvement works and management measures to safeguard public safety. These 26 areas have covered the previously identified seven Storm Surge Spots and three Overtopping Wave Spots.

An Early Alert System for Storm Surge has been established for these spots. Upon any alert, DSD or the relevant departments would arrange personnel to implement contingency measures on site, such as deploying pumping equipment, installing demountable flood barriers and placing sandbags to avoid a large amount of seawater pouring in and affecting residents nearby.

26個較高風險的沿岸低窪或當風住宅地區位置圖
Location Plan of 26 Coastal Low-lying or Windy Residential Areas with Higher Risks

排水設施的運作及維修保養
Operation and Maintenance of Drainage Facilities

本署負責管理全港的雨水排放系統，包括超過 2,400 公里的地下雨水渠、366 公里的人工河道、36 公里的雨水排放隧道，以及四個地下蓄洪池。我們致力檢查和維護每個系統和設施，確保渠道暢通。報告期內，我們檢查逾 2,320 公里的雨水渠及河道。另外，我們亦會定期檢測設施的功能和結構，以及在雨季前後清理淤塞物。

The Department is responsible for managing the drainage system in Hong Kong, covering over 2,400 kilometres of underground stormwater drains, 366 kilometres of engineered channels, 36 kilometres of drainage tunnels, and four underground stormwater storage tanks. We are committed to inspecting and maintaining each system and facility thoroughly to ensure clearance of drainage. During the year, we inspected over 2,320 kilometres of drains and river channels. Furthermore, we also conduct functional and structural checks on facilities regularly and clear blockages before and after the rainy season.

主動巡查和「及時清渠」
Proactive Inspection and Just-in-time Clearance

- 為減低大雨期間的水浸風險，在雨季（每年 4 月至 10 月）平日日間實施「及時清渠」安排
  To reduce the risk of flooding during rainstorms, the 'just-in-time clearance' arrangement is in operation during daytime on weekdays in the rainy season (April to October every year)
- 識別全港約 200 個易受垃圾或枯葉等阻塞的渠道位置，在大雨來臨時調配人手巡查
  We have identified about 200 drain locations territory-wide which are susceptible to blockage by litter or fallen leaves. Manpower is mobilised to carry out inspections when rainstorms are expected
- 即時安排清理淤塞的渠道入水口
  Immediate action is taken to clear blocked drainage inlets


清理渠道
Drainage clearance

應用機器人技術輔助清淤工作
Application of Robotic Technology in Desilting Works

妥善保養及維修河道是提供有效排水服務的關鍵要素之一。河道內的淤泥會隨著時間在河道底部沉澱，影響河道的水流容量，因而削弱現有雨水排放系統的功能。因此，定期進行清淤工作對於維持服務至關重要。

在 2021 年 12 月，渠務署引入河道清淤機械人「深水清」為港鐵屯門站底的一段屯門河進行清淤工作。有別於傳統的河道清淤方法需要工作人員駕駛搬土機和卡車進入河道收集淤泥，「深水清」由操作人員在臨時搭建的工作平台上透過控制台遙距操控機械人進入河道進行清淤，大大減少工作人員進入河道的需要，令工作更加安全。「深水清」清淤工作亦不受潮汐及天氣限制，可按需要隨時進行，使安排更靈活、效率更高。

「深水清」以抽吸方式收集淤泥。相比用於箱型暗渠清淤工作的機械人，「深水清」的設計流量較大，能吸入更多流質淤泥，較適合用於河道進行徹底清淤工作。我們期望在總結數據和經驗後將有關機械人技術推展到更多河道維修保養工程。

Proper maintenance of river channels is one of the key elements in bringing about an effective drainage service. Over times, silt has settled at the bottom of the river channels, affecting the hydraulic capacity of the river channels thus weakening the functioning of the existing stormwater drainage system. Regular desilting is therefore of paramount importance to maintain the service.

In December 2021, DSD introduced the river desilting robot "Clearwater Bot" for desilting a section of Tuen Mun River underneath Tuen Mun Station. Unlike the traditional desilting method which requires operators to drive excavators and trucks into the river, the river desilting robot is controlled by the operator remotely on a temporary working platform via a console, minimising the need for man-entry operations thus enhancing safety. The river desilting robot can also operate under water and is not affected by tides and weather. As a result, desilting works can be carried out throughout the year, making desilting operations more flexible and efficient.

The river desilting robot collects silt by suction. The larger suction rate of the river desilting robot allows it to collect more fluid silt as compared with the desilting robot used at box culverts, making it more suitable for the desilting works at rivers. We expect that the applications of such robotic technology could be further extended to the maintenance works of other rivers upon the gathering of data and experience from trials.


設置於河堤的操作控制臺
Operation console at river embankment


清淤機械人「深水清」於屯門河工作
Desilting robot working at the Tuen Mun River


河道清淤機械人 —「深水清」
River desilting robot — "Clearwater Bot"

應用無人飛機航拍技術輔助河道監測
Application of Drone for Surveillance of Rivers and Channels

香港有超過 360 公里的河道。渠務署會為主要河道進行定期和突發的巡查和測量。當在地面以步行式乘船方式進行巡查和測量時，偶爾會遇到通道和視角受限等問題。為輔助現有的巡查和測量方法，以及使用地理參考真實正射影像和相應的三維模型，以確定河道的狀況，本署應用無人飛機航拍技術監測五段天然河道。監視飛行安排在 11 月（雨季後）、3 月（雨季前）和 4 月至 9 月（雨季內）進行。根據提交的照片、視頻或模型中的調查結果，渠務署會安排承建商在特定地點進行河道清理和剪草工作，以保持河道的狀況和排洪功能。

There are over 360 kilometres of rivers and channels in Hong Kong. DSD carry out regular and ad hoc site inspections and surveying for major rivers and channels. For manual site inspections and surveying at ground level on foot or by boat, problems such as limited access and view angles would occasionally be encountered. To supplement the existing manual site inspections and surveying method, and ascertain the conditions of rivers and channels using Geo-referenced true-orthomosaic image together with corresponding 3D model, the DSD has been applying drones for surveillance of five sections of natural watercourses. Surveillance flights were scheduled in November (after rainy season), March (before rainy season) and during April to September (during rainy season). Based on the findings in the submitted photos, videos or models, DSD arranged contractor to carry out clearance and grass cutting works for identified locations to maintain the condition and hydraulic function of rivers and channels.


於實地操作無人機
Operation of a drone on site

鄉村防洪計劃
Village Flood Protection Schemes

香港部分村落因位處低窪地區，於暴雨時或會出現水浸。為減低水浸對村落的影響，渠務署實施鄉村防洪計劃，興建防洪基堤、建造雨水泵房及蓄洪池，以便在暴雨期間將雨水暫存及抽走。現正運作的鄉村防洪計劃共有 27 個，為 38 條低窪鄉村提供防洪保護。

Some villages in Hong Kong are located in low-lying areas, leading to potential floods during heavy rainstorms. To reduce the impact of floods on these villages, the DSD has been implementing Village Flood Protection Schemes. Embankments are constructed around low-lying villages where stormwater pumping staions and storage ponds are built to temporarily store and pump rainwater during heavy rain. 27 Village Flood Protection Schemes are currently in operation, providing flood protection for 38 low-lying villages.


新田鄉村防洪計劃鳥瞰圖
Aerial photo of San Tin Flood Protection Scheme

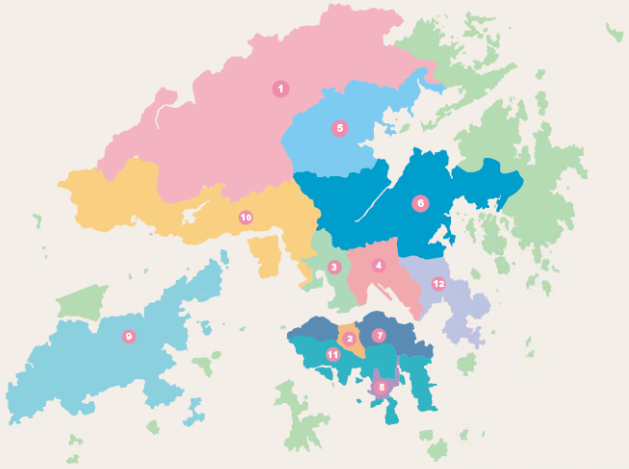
雨水排放整體計劃 2.0 研究
Drainage Master Plan 2.0 Studies

渠務署從 1994 至 2010 年間推行雨水排放整體計劃研究及排水系統研究，逐步檢視港九新界的排水系統，識別系統應對水浸的問題並提出短期及長期改善措施，確保系統符合防洪標準。

我們從 2008 年起，陸續開始檢討各區的雨水排放整體計劃，分別為 12 個集水區進行雨水排放整體計劃 2.0 研究，以應對持續的土地發展、各地區土地用途改變及氣候變化帶來的挑戰。相關進度如下：

From 1994 to 2010, the DSD implemented Drainage Master Plan (DMP) studies to review the drainage systems across Hong Kong, identify issues resulted by floods and recommend corresponding improvement measures in the short and long terms to ensure they meet flood protection standards.

Since 2008, we have been reviewing the DMP studies of different districts in phases by carrying out DMP 2.0 Studies for 12 catchment areas, so as to cope with ongoing land developments, change of land uses in various areas and challenges brought by climate change. The progress is as below:



研究地區 Study Areas	研究進展 Status	研究地區 Study Areas	研究進展 Status
1. 元朗及北區 Yuen Long and North District	已於 2011 年完成 Completed in 2011	7. 香港島北 Northern Hong Kong Island	已於 2019 年完成 Completed in 2019
2. 跑馬地 Happy Valley		8. 淺水灣及大潭 Repulse Bay and Tai Tam	已於 2020 年完成 Completed in 2020
3. 西九龍 West Kowloon	已於 2015 年完成 Completed in 2015	9. 大嶼山及離島 Lantau and Outlying Islands	已於 2021 年完成 Completed in 2021
4. 東九龍 East Kowloon		10. 屯門、荃灣及葵青 Tuen Mun, Tsuen Wan and Kwai Tsing	進行中，預計於 2022 年完成 In progress, anticipated to be completed in 2022
5. 大埔 Tai Po	已於 2017 年完成 Completed in 2017	11. 香港島南 Southern Hong Kong Island	進行中，預計於 2024 年完成 In progress, anticipated to be completed in 2024
6. 沙田及西貢 Sha Tin and Sai Kung		12. 將軍澳 Tseung Kwan O	規劃中 Under planning

規劃、設計和建造新排水設施
Planning, Design and Construction of New Drainage Facilities

活化翠屏河
Revitalisation of Tsui Ping River

「活化翠屏河」工程計劃以河畔城市的概念，透過改善環境、生態和園景美化等改善工程，將擁有逾 50 年歷史、長約一公里的觀塘敬業街明渠活化成充滿活力的翠屏河，同時加強現有明渠的排洪能力。翠屏河位處觀塘區的中央位置，毗鄰民居及繁盛的工商業區，加上河道的水景特質，具備成為市區珍貴河畔公共空間的極佳條件。

根據翠屏河與區內鄰近地方互相連繫以及河道與周邊休憩設施一體化的設計概念，本署將會建造河畔行人通道、跨河行人通道和跨河園景平台，連繫河道與區內其他地方，包括多個休憩及康樂設施，以便行人往來。我們亦將在河畔兩旁提供公共休憩空間，使翠屏河成為市民欣賞河景和進行休閒活動的新地標。

為了加強翠屏河的實用功能，我們將會在下游位置裝設可隨着潮汐漲退而升降的智能水閘。水閘會連接天文台的天氣預報系統，在天氣惡劣時自動降下以加強河道的排洪能力。此外，智能水閘亦能因應潮汐漲退的天然規律調節水位，營造富吸引力的瀑布效果，從而減少依賴泵水設備，以及盡量減低能源消耗。

In line with the "Rivers in the City" concept, "Revitalisation of Tsui Ping River" project revitalises King Yip Street Nullah — a 50-year old nullah that is approximately one kilometre in length — into a vibrant Tsui Ping River through environmental, ecological and landscaping upgrading, while increasing the drainage capacity of the existing nullah. Tsui Ping River is located in the centre of Kwun Tong District adjacent to residential and thriving commercial areas. Its inherent riverine characteristics make it a precious riverside public space in urban areas.

Under the design concept of connecting Tsui Ping River with its surrounding areas in the district and integrating the river channel with its adjacent leisure facilities, the Department will construct riverside pedestrian walkways, river crossing pathways and river crossing landscaped decks to link up various leisure and recreational facilities in the district for the convenience of pedestrians. Public leisure spaces will be created on both river banks to turn Tsui Ping River into a new landmark where residents can enjoy the river scenes and carry out leisure activities.

To enhance the functionality of Tsui Ping River, we will install a smart water gate that can move up and down according to the ebb and flow of the tide in downstream areas. The smart water gate will be linked to the Hong Kong Observatory's weather forecast system in such a way that the gate will be lowered automatically during adverse weather conditions to enhance the drainage capacity of the river channel. Also, the gate can regulate the water level according to the natural tidal cycle to create an eye-catching waterfall effect, thereby reducing reliance on pumping facilities and minimising energy consumption.

目前進度
Current Progress

工程已在 2020 年 7 月展開，預計於 2024 年完成。工程預算費用約 13.4 億元。

Works commenced in July 2020 and are scheduled for completion in 2024. Estimated project cost is about $1.34 billion.


活化後翠屏河的構想圖
Photomontage of the revitalised Tsui Ping River

西九龍雨水排放系統改善計劃－水塘間轉運隧道計劃

West Kowloon Drainage Improvement – Inter-Reservoirs Transfer Scheme

本署推行西九龍雨水排放系統改善計劃，旨在減低西九龍的水浸風險和增加本地集水量。為此，我們正興建一條全長約 2.8 公里的輸水隧道，連接九龍副水塘與下城門水塘，把整個九龍水塘群接收的地面徑流轉運至下城門水塘。此舉可減少流入深水埗、長沙灣和荔枝角雨水排放系統的地面徑流，不僅能達到提升防洪能力及保護水資源的雙重目標，更可每年額外提供約 340 萬立方米的食水。

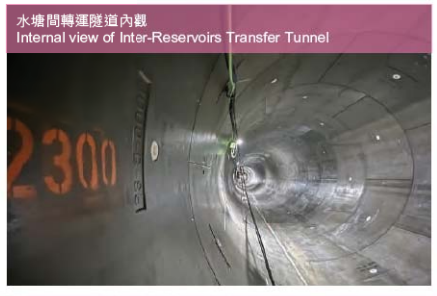
The Department is introducing the West Kowloon Drainage Improvement Plan that aims to reduce flooding risks in West Kowloon and increase local yield. To this end, we are constructing a water tunnel approximately 2.8 kilometres in length to connect Kowloon Byewash Reservoir and Lower Shing Mun Reservoir. The new tunnel will transfer collected surface runoff from the Kowloon group of reservoirs to Lower Shing Mun Reservoir. This move can reduce the load of surface runoff handled by the drainage systems in Sham Shui Po, Cheung Sha Wan and Lai Chi Kok. Fully in place, the inter-reservoirs transfer scheme will serve a dual purpose of improving flood protection capabilities and saving water resources, and also generate an additional annual freshwater yield of about 3.4 million cubic metres.

目前進度

Current Progress

工程於 2019 年 2 月展開。整項工程預計於 2022 年第四季完成。工程預算費用約 12.2 億元。

The project commenced in February 2019. The project is scheduled for completion in the fourth quarter of 2022, with an estimated cost of about $1.22 billion.



水塘間轉運隧道內觀
Internal view of Inter-Reservoirs Transfer Tunnel

水塘間轉運隧道計劃示意圖
Schematic of Inter-Reservoirs Transfer Scheme

元朗防洪壩計劃及元朗市明渠改善工程（市區中心段）

Yuen Long Barrage Scheme and Improvement of Yuen Long Town Nullah (Town Centre Section)

渠務署於 2011 年完成「元朗和北區雨水排放整體計劃檢討研究」，研究指出元朗區的排洪系統並未達到現今的防洪標準。除此之外，近年越趨嚴峻的氣候變化問題導致極端天氣事件更顯頻繁，由於元朗區地勢較為平坦，如出現風暴潮和暴雨，水浸的風險亦隨之增加。為此，渠務署參考了其他沿海地區的經驗，並因應本地的地理環境及天氣特性，研究嶄新的防洪策略 — 防洪屏障。

因應上述問題，渠務署全面檢視區內明渠，並計劃實施整體改善及活化工程。其中在「元朗市明渠改善工程 — 市區中心段」工程中，我們會在該段明渠興建旱季截流器，截取受污染的旱季流，改善明渠的氣味及環境問題。除此之外，我們亦推行「元朗防洪壩計劃」，於明渠下游興建防洪設施，改善元朗明渠整體的排洪能力。以上兩項工程完成後能提供足夠條件活化現有的傳統排洪渠道。

The DSD completed the "Review of Drainage Master Plans in Yuen Long and North Districts – Feasibility Study" in 2011. It was identified that the drainage system in Yuen Long District did not fully meet the current flood protection standards. With worsening climate change impacts and more frequent extreme weather events in recent years, Yuen Long's relatively flat topography puts it at higher risk of flooding during storm surges and rainstorms. To address this issue, the DSD sought references from the experience of other coastal areas and came up with a brand new flood protection strategy – Barrage Scheme that is accordant to the local geographical environment and weather characteristics.

In view of the above issue, the DSD has holistically reviewed the nullahs in the district, and has planned to carry out improvement and revitalisation works. Under the "Improvement of Yuen Long Town Nullah (Town Centre Section)" project, we will construct a Dry Weather Flow Interceptors (DWFI) System in the corresponding section of the nullah to intercept the polluted dry weather flow to alleviate odour and environmental nuisances. In addition, we will construct flood protection facilities at the downstream end of Yuen Long Nullah under the Yuen Long Barrage Scheme to enhance the drainage capacity of the nullah. Upon completion of the two aforementioned works, there will be an opportunity to revitalise the existing concrete-lined Yuen Long Nullah.


現時元朗市明渠鳥瞰圖
Existing Yuen Long Nullah


元朗防洪壩計劃及元朗市明渠改善工程 - 市區中心段完工構想圖
Photomontage of the Yuen Long Barrage Scheme and revitalised Yuen Long Nullah

目前進度
Current Progress

項目正處於設計階段，預計於 2022 年度向立法會申請撥款以便展開相關工程。本署預計工程將於 2023 年年初展開，目標是約在七年內分階段完成。

The above projects are now in the design stage, with an estimation to get started after applying for funding from the Legislative Council in 2022. The works are scheduled for commencement in early 2023 and target for completion of the works in stages in around seven years.

尖沙咀雨水排放系統改善工程
Drainage Improvement Works in Tsim Sha Tsui

為長遠減低尖沙咀區的水浸風險及應對氣候變化所帶來的挑戰，渠務署計劃於尖沙咀進行雨水排放系統改善工程，當中包括於市政局百週年紀念花園興建一所容量約 18,000 立方米的地下蓄洪池以及泵速達每秒八立方米的泵房，並在漆咸道南、金巴利道、天文臺道、加連威老道、加連威老廣場及金馬倫道建造長約一公里、直徑介乎 600 毫米至 1,800 毫米的雨水渠。擬建的地下蓄洪池共兩層，底層用作蓄洪用途，接近地面的一層則用作擺放機電設施，以減少佔用地面空間。兩層設計亦可達到地盡其用，善用土地資源，從而騰空更多珍貴的市區土地作其他用途。

此外，蓄洪池和雨水泵房將採用智能設計運作。設於上、下游及蓄洪池內的水位感應器能提供實時數據，配合天文台的氣象數據，將有效監察及控制蓄洪池及雨水泵房的運作，並提升設施運作的成本效益。有關工程亦將積極採用綠化外觀設計及環保建築物料，並會設置水資源回收系統收集雨水，加以處理後用作灌溉等用途，促進可持續發展。

To relieve the flood risk in Tsim Sha Tsui in the long run and meet the challenges posed by climate change, the DSD plans to carry out drainage improvement works in the area. The works include the construction of a stormwater storage scheme comprising an underground storage tank of 18,000 cubic metres and a pumping station with eight cubic metres per second at Urban Council Centenary Garden (UCCG); and the construction of approximately one kilometres of stormwater drains of diameters ranging from 600 millilitres to 1,800 millilitres at Chatham Road South, Kimberley Road, Observatory Road, Granville Road, Granville Square and Cameron Road. The proposed underground stormwater storage tank will have two levels, with the lower level for stormwater storage and the upper one near the surface for accommodating electrical and mechanical facilities, in order to minimise the above-ground space to be occupied. The two-level design will also optimise the use of land resources, thereby releasing more valuable urban land for other uses.

The proposed underground stormwater storage tank and stormwater pumping station will adopt an intelligent design for operation. Water level sensors installed in the upstream, downstream and inside the tank will provide real-time data, which, together with meteorological data from the HKO, will allow effective monitoring and control of the operation of the tank and stormwater pumping station, and enhance the cost-effectiveness of the operation of the facilities. The works will also proactively adopt green design features and green building materials, as well as put in place a water resource collection system to collect rainwater which can be treated and used for irrigation and other uses, in order to promote sustainable development.

目前進度
Current Progress

工程將於 2022 年 8 月展開，預計於 2027 年完成。工程預算費用約 7.34 億元。

The works are scheduled for commencement in August 2022 and completion in 2027. Estimated project cost is about $734 million.


蓄洪池完成後原址重置的花園構想圖
Illustration of in-situ reprovisioned garden after completion of the stormwater storage tank

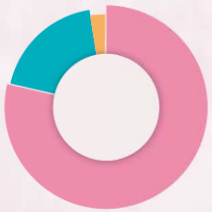
2021-22 年污水處理概要
Overview of Sewage Treatment and Sewage System in 2021-22

本署的核心服務之一是為香港提供優質的污水處理服務，其中包括污水收集、處理和排放，以及定期進行維修保養工作，確保香港的污水處理系統有效運作。同時，我們積極使用先進科技和現代化設施，確保本署轄下設施符合既定的環保目標，並且減少排放污染物。展望未來，我們會繼續擴大污水處理系統的覆蓋範圍，持續改善污水處理設施，從而保障本港水域水質。

One of the core services of the Department is to provide top-tier wastewater treatment services in Hong Kong, including sewage collection, treatment and discharge, as well as regular repair and maintenance, which ensures an effective wastewater treatment system for the territory. Meanwhile, we have been leveraging advanced technologies and modern facilities to minimise pollutant discharge and make sure that our facilities meet the established environmental protection objectives. Looking forward, we will continue to expand the coverage of Hong Kong's sewerage system and improve the sewage treatment facilities, in an effort to protect local water quality.

每日平均污水處理量（千立方米）
Average daily sewage treated (thousand cubic metres)
≈2,800

年度污水總處理量（百萬立方米）
Annual sewage treated (million cubic metres)
≈1,036



80.5% 化學強化一級處理 Chemically Enhanced Primary Treatment (CEPT)

19.07% 二級處理 Secondary Treatment

0.47% 基本一級或三級處理 Preliminary Primary or Tertiary Treatment

年度污泥收集及處理（公噸）
Annual sludge collected and treated (tonnes)
≈ 400,000

污水收集網絡總長度（公里）
Total length of sewerage network (kilometres)
≈ 1,900

公共污水收集網絡（香港人口[1]）
The public sewerage network serves (of Hong Kong's population[1])
≈ 93.8%

污水處理廠
Sewage Treatment Works
69

污水泵房
Sewage Pumping Station
261

[1]以有繳付排污費的住宅水務帳戶計算
Calculation based on the number of domestic water bill accounts with sewage charges levied

2021-22年度污水處理廠位置圖
Location Map of Sewage Treatment Works in 2021-22

主要污水處理廠 Major Sewage Treatment Works (STW)		圖例 Legend
昂船洲污水處理廠 Stonecutters Island STW	大埔污水處理廠 Tai Po STW	• 基本污水處理廠 Preliminary Treatment Works
小蠔灣污水處理廠 Siu Ho Wan STW	西貢污水處理廠 Sai Kung STW	• 一級污水處理廠 Primary STW
沙田污水處理廠 Sha Tin STW	赤柱污水處理廠 Stanley STW	• 化學強化一級污水處理廠 Chemically Enhanced Primary STW
石湖墟污水處理廠 Shek Wu Hui STW	昂坪污水處理廠 Ngong Ping STW	• 二級污水處理廠 Secondary STW
元朗污水處理廠 Yuen Long STW	望后石污水處理廠 Pillar Point STW	• 三級污水處理廠 Tertiary STW
新圍污水處理廠 San Wai STW		

專業化驗分析服務
Professional Laboratory Services

為確保污水處理服務符合相關法定要求，本署定期抽取污水樣本送往轄下化驗室檢驗。本署化驗室採用化驗室信息管理系統和商業智能軟件進行化驗工作，確保排放水的水質符合環保署訂明的排放標準。

舉例來說，沙田中央化驗室採用了全自動化的化驗室儀器，藉以快速而準確地全面檢測污水中的營養物質、微量金屬元素含量和生化需氧量水平。該化驗室在 1999 年獲頒發「香港實驗所認可計劃」(HOKLAS) 證書，確認測試環境樣本（即水和廢水的樣本）的資格，並在 2017 年成為香港首間獲得利用自動化生化需氧量分析儀測試認可資格的化驗室。為緊貼時代步伐，沙田中央化驗室已在 2020 年 9 月成功過渡品質系統，符合最新的 ISO/IEC 17025:2017 檢測和校準實驗室的香港認可處通用要求。

目前，沙田中央化驗室獲認可進行多達 32 項測試項目。報告期內，由於第五波 2019 冠狀病毒病大流行，渠務署適度調整旗下僱員的工作安排，實驗室的測試數量比去年微升 10%。我們完成了超過 226,000 項分析工作。主要污水處理廠排放水的水質分析結果載於本署網頁和政府資料一線通網站，以供公眾參閱。

To ensure compliance of its sewage treatment service with relevant statutory requirements, the Department collects and delivers sewage samples for its laboratory tests on a regular basis. The DSD's laboratories adopt the Laboratory Information Management System (LIMS) and business intelligence software to make sure the effluent quality is up to the discharge standards stipulated by the EPD.

For instance, Sha Tin Central Laboratory has adopted automatic analysers to conduct speedy, accurate and comprehensive tests on the nutrients, trace metal elements and biochemical oxygen demand (BOD) levels of sewage. This laboratory was accredited for testing environmental samples (i.e. samples of water and wastewater) under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) in 1999 and became the first laboratory in Hong Kong to be granted HOKLAS accreditation for BOD tests using an automatic BOD analyser in 2017. Keeping up with the times, the Sha Tin Central Laboratory completed its quality system's transition to the latest ISO/IEC 17025:2017 – "General requirements for the competence of testing and calibration laboratories" through the Hong Kong Accreditation Service (HKAS) in September 2020.

Currently, Sha Tin Central Laboratory is accredited for conducting up to 32 types of tests. During the year, although DSD adjusted the work arrangement for its staff due to the 5th wave of COVID-19 pandemic, the total number of analysis conducted by the laboratory was increased by 10%. We have completed more than 226,000 analyses. The results of analysis of the quality of effluent discharged from major STWs are available on the DSD's website and the data.gov.hk portal for public reference.

中文版

English version

請用手機掃描二維碼查看主要污水處理廠的排放水水質：
Please scan the QR Code to check the effluent quality of major STWs:
https://www.dsd.gov.hk/EN/Sewerage/Sewage_Treatment_Facilities/Effluent_Quality_of_Major_Sewage_Treatment_Works/index.html

新冠病毒污水監測
COVID-19 Sewage Surveillance Programme

污水監測是香港特區政府重要的抗疫策略，能有效監察 2019 冠狀病毒在社區蔓延的情況。緊密結合污水監測科學研發和抗疫措施執行，是香港較世界上其他地方獨特之處。渠務署每日和環保署合作至傍晚，決定在未來一天的採樣地點，一經落實，渠務署需即時分派工作給採樣承辦商，亦需安排合適的裝備和申請所需的臨時交通安排。採樣承辦商每天約在早上 7 時至 10 時採集污水樣本，採樣完成後，所有樣本須在下午 1 時前送到相關的化驗所進行污水檢測，以確保當天能夠取得檢測的結果。

截至 2022 年 3 月，我們在全港已設置超過 150 個定點污水監測點及超過 1,500 個於上游的臨時污水監測點，範圍覆蓋超過 500 萬人口。為應對第五波嚴峻疫情，我們每天抽取約 110 個污水樣本進行檢測，即每兩天在各定點污水監測點抽取污水樣本一次和每天抽取約 30 個臨時污水監測點的污水樣本。

Sewage surveillance is an integral part of the anti-epidemic strategy of the Government facilitating the effective monitoring of virus spread in the community. The integration of scientific research in sewage surveillance and execution of anti-epidemic measures in Hong Kong is a unique approach when compared with the other parts of the world. Each day, the DSD works with the EPD till nightfall to determine the sampling sites for the next day. Once the sites are determined, the DSD needs to assign tasks to sampling contractors as soon as possible, arrange for proper equipment, and apply for the necessary temporary traffic arrangements. Sampling contractors collect sewage samples from approximately 7 to 10 am each morning. Upon collection, all samples must be delivered to laboratories for virus testing by 1 pm, so that test results can be obtained within the same day.

As of March 2022, we established over 150 stationary sewage monitoring sites and over 1,500 ad hoc sewage monitoring sites upstream across Hong Kong. The monitoring sites covered a population of more than five million people. In response to the fifth wave of COVID-19 in Hong Kong, we collected about 110 sewage samples on a daily basis for laboratory tests, i.e. sewage samples were collected at each stationary monitoring site every two days and about 30 sewage samples were taken every day at ad hoc sewage monitoring sites.

穿戴全套保護裝備的前線採樣人員和帳篷設施
Frontline sampling staff in full personal protection equipment with marquee setup

規劃、設計和建造新污水處理設施
Planning, Design and Construction of New Sewerage Facilities

「搬遷沙田污水處理廠往岩洞」工程
"Relocation of Sha Tin Sewage Treatment Works to Caverns" Project

為應付本港龐大土地需求作長遠發展用途，政府正積極開發岩洞以開拓土地。為支持政府發展計劃，渠務署正進行搬遷工程，把沙田污水處理廠遷移至城門河對岸女婆山內開挖的岩洞。

沙田污水處理廠現址約 28 公頃的土地將在搬遷後騰出並重新規劃作其他有利民生的用途，以滿足公眾需求及改善區內的生活環境。未來的沙田污水處理廠將利用岩洞作為天然屏障，藉此加強氣味管理以減低氣味對周邊居民的影響。新沙田岩洞污水處理廠落成後，預計會成為本港規模最大的同類設施，每日可處理約 34 萬立方米污水。

To meet Hong Kong's high demand for land for long-term development, the Government is actively developing caverns to expand land resource. In support of the Government's development plan, the DSD is carrying out relocation works to move Sha Tin STW to the excavated caverns in Nui Po Shan across Shing Mun River.

About 28 hectares of land on the site of the existing Sha Tin STW will be released and planned for other beneficial and needed uses for improving the living environment in Sha Tin. Also, the caverns serve as natural barriers for the future STW, thereby enhancing odour management to minimise the odour impact on nearby residents. Upon completion, the new Sha Tin STW in caverns is anticipated to be the largest of its kind in Hong Kong, with an estimated daily treatment capacity of about 340,000 cubic metres.

搬遷計劃正分階段進行，涉及工地開拓和連接隧道建造工程、主體岩洞建造及上游污水收集系統工程、污水處理設施裝置工程，以及現有沙田污水處理廠停止運作和拆卸工程。整項工程預計需時約 13 年完成。

The relocation project involving site preparation and access tunnel construction, main caverns construction and upstream sewerage works, installation of sewage treatment facilities inside caverns, as well as decommission and demolition of the existing Sha Tin STW, is being implemented in stages. The entire project is expected to take about 13 years to complete.

目前進度
Current Progress

工程設計工作已由 2017 年起分階段完成。第一階段的工程，包括工地開拓、建造連接隧道及護土構築物和相關的道路工程等，已由 2019 年 2 月起展開，並於 2022 年 4 月完工。而第二階段的工程，包括建造主體岩洞及上游污水收集系統，已於 2021 年 7 月開始工程。本署正為餘下工程進行詳細設計工作，繼續全力推展工程項目。

The project's design work has been completed in phases since 2017. Stage 1 works, which include site formation, construction of access tunnel and retaining structures as well as associated road works, commenced in February 2019 and was completed in April 2022. For Stage 2 works which include construction of the main caverns complex and upstream sewerage works, construction works commenced in July 2021. The Department is working on the detailed design of the remaining works and pushing forward with the project.

「搬遷沙田污水處理廠往岩洞」工程
"Relocation of Sha Tin Sewage Treatment Works to Caverns" project

淨化海港計劃
Harbour Area Treatment Scheme (HATS)

為收集和處理維港兩岸污水以改善維港水質，淨化海港計劃由 1994 年起分兩期進行。作為香港歷來最龐大、總費用達 258 億元的環保基建項目，整個建造工程歷時逾 20 載。第一期及第二期甲設施分別於 2001 年 12 月及 2015 年 12 月全面啟用。我們會不時審視淨化海港計劃系統的表現效能及評估該系統不同組件的運作狀況，並提出建議來改善計劃系統和設施。

To improve the water quality of Victoria Harbour by collecting and treating sewage from both sides of the Harbour, the HATS had been carried out in two phases since 1994. As the largest ever environmental infrastructure project in Hong Kong, with a total cost of $25.8 billion, the construction works spanned over two decades. The facilities of HATS Stage 1 and Stage 2A were fully commissioned in December 2001 and December 2015 respectively. We will keep reviewing the performance of the HATS system, assess the operational condition of different components and draw up recommendations to enhance the HATS system and facilities.

目前進度
Current Progress

有關淨化海港計劃系統管理的可行性研究於 2020 年 5 月展開，現時已大致完成。接下來會進行詳細研究並分三個階段推行。第一階段會為海港旁的六間基本污水處理廠的系統和設施優化進行詳細研究，於 2022 年中旬展開。

The feasibility study on HATS system management commenced in May 2020 and has almost completed. Detailed studies would be followed and would be conducted in three phases. The first phase would cover the detailed investigation of the system and facilities enhancement works for six preliminary treatment works at the harbour sides, is scheduled to commence in mid-2022.


昂船洲污水處理廠鳥瞰圖
Aerial Photo of Stonecutters Island Sewage Treatment Works

石湖墟淨水設施
Shek Wu Hui Effluent Polishing Plant

因應地區發展和市民對持續改善環境的期望，我們計劃將已運作超過 30 年的石湖墟污水處理廠改建為石湖墟淨水設施。改建工程包括逐步提升污水處理級別至三級水平，以及分階段將該設施的污水處理量由每日 93,000 立方米增加至 190,000 立方米，以確保廠房的排放水符合更嚴格的環境要求，保護后海灣的生態環境。未來，我們亦會加入適當的景觀設施及河畔步道以改善廠房的外觀，並加強其作為水資源保育教學地點的功能，使該淨水設施成為多用途的社區設施。

In response to district development and public expectations of continuous environmental betterment, we are planning to transform the existing Shek Wu Hui STW, which has been in operation for more than 30 years, into Shek Wu Hui Effluent Polishing Plant. The project involves gradually upgrading the facility to the tertiary treatment level and expanding the sewage treatment capacity of the plant from 93,000 cubic metres per day to 190,000 cubic metres per day in phases to ensure that its discharge will conform with more stringent environmental requirements, thus protecting the ecological environment of Deep Bay. In the future, we will also add appropriate landscape facilities and a riverside promenade to improve the appearance of the plant, so as to enhance its role as an educational site for water conservation and make the plant a multi-purpose community facility.

目前進度
Current Progress

石湖墟淨水設施的前期工程在 2015 年年中展開，一組 20,000 立方米容量的傳統二級污水處理設施被改建為 40,000 立方米容量的薄膜生物反應器，並已於 2019 年 12 月起投入運作。設施正進行主體工程，工程分為三個階段進行，第一階段已於 2019 年第三季展開，最終階段則預計於 2034 年完成。前期工程、勘察及設計預算費用約五億元，而主體工程預算費用為約 132 億元。

The advance works of Shek Wu Hui Effluent Polishing Plant commenced in mid-2015. A group of conventional secondary sewage treatment facilities with a capacity of 20,000 cubic metres was converted into a membrane bioreactor with a capacity of 40,000 cubic metres. These facilities have been in operation since December 2019. The main works are being implemented currently in three phases. The first phase started in the third quarter of 2019 and the final phase is scheduled for completion in 2034. The estimated cost for the advance works, investigation and design is about $500 million, while the estimated cost for the main works comes to about $13.2 billion.


現有石湖墟污水處理廠鳥瞰圖
Aerial photo of existing Shek Wu Hui Sewage Treatment Works


石湖墟淨水設施構想圖
Photomontage of the Shek Wu Hui Effluent Polishing Plant

元朗淨水設施
Yuen Long Effluent Polishing Plant

現時的元朗污水處理廠的設計處理量為每日 70,000 立方米，為元朗市中心、元朗工業邨及錦田一帶提供二級污水處理服務。為配合區內的人口增長及未來規劃發展，元朗污水處理廠將會原址重建成「元朗淨水設施」，分階段提升污水處理量至每日 150,000 立方米，並將污水處理技術由二級處理級別提升至最高水平的三級處理。廠房亦會採取先進技術以節省能源，並積極開拓及應用各種可再生能源，進一步提升環保表現。此外，元朗淨水設施會引入大量綠化元素以美化廠房外貌，並設置共享設施如河畔步道、觀景台和教育走廊供公眾使用，推廣可持續發展。

The existing Yuen Long STW serves Yuen Long Town, Yuen Long Industrial Estate and Kam Tin areas with a treatment capacity of 70,000 cubic metres per day at the secondary sewage treatment level. To cope with the population growth and development needs of the district, in-situ redevelopment will take place to convert the existing Yuen Long STW to Yuen Long Effluent Polishing Plant. We will upgrade the treatment capacity of Yuen Long STW in stages to 150,000 cubic metres per day. The sewage treatment level will also be upgraded from secondary to the highest tertiary treatment level. Also, the plant will apply advance technologies to save energy, as well as actively explore and apply different renewable energy to enhance environmental performance. Moreover, substantial greening features will be included in Yuen Long Effluent Polishing Plant to beautify the plant's exterior, and public co-use facilities such as riverside promenade, viewing deck and education corridor will be provided for public use, so as to promote sustainable development.

目前進度
Current Progress

第一階段建造工程已於 2020 年 11 月展開，預算工程費用約 69 億元，預計於 2027 年完工。第一階段工程完成後，污水處理量將由現時每日 70,000 立方米增至 100,000 立方米。

The construction of Stage 1 Works commenced in November 2020 for completion in 2027 and the estimated cost is about $6.9 billion. After completion of Stage 1 Works, the treatment capacity would be increased from 70,000 cubic metres to 100,000 cubic metres per day.

現時元朗污水處理廠鳥瞰圖
Aerial photo of existing Yuen Long Sewage Treatment Works

元朗淨水設施構想圖
Photomontage of the Yuen Long Effluent Polishing Plant

沙頭角污水處理廠第一期擴建工程
Expansion of Sha Tau Kok Sewage Treatment Works Phase 1

我們預計沙頭角各區域，包括沙頭角墟、鹽寮下、菜園角和沙頭角邨短期內的污水量將會增加。為此，渠務署計劃原址重建區內的沙頭角污水處理廠，令該廠的污水處理量由每日約 1,660 立方米，增加至約 5,000 立方米，以應付增加的污水量。工程包括建造一條長約 1.7 公里、直徑 450 毫米的海底排放管道，及興建新的污水管以取代現有污水泵房及加壓污水管。

作為渠務署首個「建造業 2.0」先導項目，我們採用多項創新技術，包括場外建造、智能基建、建築信息模擬技術及機電組裝合成排放水空調制冷的系統，以提升工程效率、提高項目質素和加強安全管理，切合「創新、專業化、年青化」的方向。

We expect a short-term increase in the sewage volume of various areas in Sha Tau Kok, including Sha Tau Kok Town, Yim Liu Ha, Tsoi Yuen Kok and Sha Tau Kok Chuen. As such, the DSD has planned to redevelop Sha Tau Kok STW in situ to increase its sewage treatment capacity from about 1,660 cubic metres per day to about 5,000 cubic metres per day to cope with surging sewage volume. The project includes the construction of a submarine outfall which is approximately 1.7 kilometres in length and 450 millimetres in diameter, and the replacement of the existing sewage pumping station and rising mains with new gravity sewers.

Being the first "Construction 2.0" pilot project of the DSD, this expansion deployed a number of advanced techniques, namely, off-site construction, smart infrastructure, BIM techniques and electrical and mechanical modular integrated construction of effluent cooling system. In line with the direction of "innovation, professionalisation and revitalisation", we will strive to enhance construction efficiency, project quality and safety management.

目前進度
Current Progress

工程已於 2018 年 11 月展開，預計於 2025 年完成。整項工程預算費用約 20.4 億元。為維持在工程期間的污水處理服務，承建商需建造臨時污水處理設施。

Construction works commenced in November 2018 for completion in 2025. Estimated project cost is about $2.04 billion. To maintain sewage treatment in the service area during construction, the contractor is required to build temporary sewage treatment facilities.

長洲污水處理及排放改善工程
Upgrading of Cheung Chau Sewage Treatment and Disposal Facilities

我們未來會在長洲進行污水收集系統擴建計劃，將污水渠接駁至長洲更多地區。為此，渠務署現正進行長洲污水處理廠改善工程，增設污水處理設施，把廠房的污水處理能力由每日 4,000 立方米增至 9,800 立方米，並將污水處理水平由一級提升至二級。

Sewerage network expansion is planned for Cheung Chau in the future to link the existing network to additional areas on the island. In preparation for this upcoming project, the DSD is conducting improvement works at Cheung Chau STW by constructing additional treatment facilities to increase its sewage treatment capacity from 4,000 cubic metres per day to 9,800 cubic metres per day. The sewage treatment level will be upgraded from primary to secondary.

目前進度
Current Progress

建造工程於 2020 年 11 月展開，預計於 2026 年完成。整項工程預算費用約 26.1 億元。

Construction works commenced in November 2020 for completion in 2026. Estimated project cost is about $2.61 billion.

長洲污水處理及排放改善工程完工構想圖
Photomontage of the completed improvement works at Cheung Chau Sewage Treatment Works

在東涌及小蠔灣之間增建一條加壓污水管及修復現有加壓水管工程
Construction of Additional Sewage Rising Main and Rehabilitation of the Existing Sewage Rising Main between Tung Chung and Siu Ho Wan

位於東涌及小蠔灣之間的加壓污水管是有關地區目前唯一的污水輸送渠管。鑑於政府計劃擴展香港國際機場和東涌新市鎮，污水排放量預計會隨之增加。因此，我們計劃分階段增建一條加壓污水管及修復現有的加壓污水管，以應付未來的污水流量。

The sewage rising main between Tung Chung and Siu Ho Wan is the only pipe for conveying sewage in the area. In view of the Government's development plan to expand Hong Kong International Airport and Tung Chung New Town, an increase in sewage discharge is expected. Thus, we are planning to construct a new sewage rising main and rehabilitate the existing sewage rising mains in stages, so as to ensure that it is capable of handling the future sewage flow.

目前進度
Current Progress

工程分兩個階段進行。第一階段工程包括興建一條長約 6.5 公里、直徑 1,200 毫米的加壓污水管，以及進行相關的接合和附屬工程。此階段工程已於 2016 年 8 月展開，並於 2022 年 4 月竣工。第二階段工程則包括修復現有加壓污水管，工程已於 2022 年 4 月展開並於預計 2025 年完成。整項工程的預算費用約 13.6 億元。

Construction is implemented in two phases. The first phase includes the construction of a sewage rising main about 6.5 kilometres in length and 1,200 millimetres in diameter, and implementing associated connection and ancillary works. This phase commenced in August 2016 and is completed in April 2022. The second phase that involves rehabilitating the existing sewage rising main commenced in April 2022 and is expected to be completed by 2025. Total estimated project cost is about $1.36 billion.

新建的加壓污水管及漩渦室
The new sewage rising main and vortex chamber

建造旱季截流器
Construction of Dry Weather Flow Interceptors (DWFI)

當受污染旱流進入雨水排放系統，不僅會影響周邊水域的水質，亦會導致氣味問題。為免異味對周邊環境及居民造成負面影響，我們正在新油麻地避風塘海濱設置地底旱季截流器，以堵截大角咀櫻桃街箱形雨水渠內受污染的旱流，並將之輸送至昂船洲污水處理廠進行處理後才排放，減少異味問題。

另外，我們亦於九龍西和荃灣各建設四個旱季截流器，並改建位於九龍西的 39 個現有旱季截流器，以減低氣味問題及避免對水質引起重大影響。我們亦於荃灣及葵涌的鄉郊地區建設八個旱季截流器，以堵截區內沒有鋪設污水渠排放的污水。

為進一步提升維港沿岸水質及整體環境，我們正積極籌劃在五個位置，分別於紅磡、銅鑼灣、灣仔東、荃灣及筲箕灣設置新型旱季截流設施。新型旱季截流設施會配備隔篩及過濾設施，藉以堵截和過濾雨水箱形暗渠內被污染的旱流，處理所截取的旱流後才排放出海。

Polluted dry weather flow discharged into the stormwater drainage system not only affects the water quality of water bodies nearby, but also causes odour. To avoid the nuisance of unpleasant odour to the surrounding environment and residents, we are building an underground DWFI on the shore of New Yau Ma Tei Typhoon Shelter, which is capable of intercepting polluted dry weather flow at Cherry Street box-culvert and transmit to Stonecutters Island STW for pre-treatment before discharge to reduce unpleasant odour.

In addition, we are constructing four DWFIs in Kowloon West and four DWFIs in Tsuen Wan coast respectively, and modifying 39 existing DWFIs in Kowloon West, in order to reduce odour and avoid adverse impact on water quality. We are building eight DWFIs in the rural areas of Tsuen Wan and Kwai Chung to intercept effluent from the unsewered areas.

To further improve the water quality and overall environment on both sides of Victoria Harbour, we are actively planning to implement the newly designed DWFIs at five areas, namely Hung Hom, Causeway Bay, Wan Chai East, Tsuen Wan and Shau Kei Wan. The newly designed DWFIs will be equipped with the screening and filtering facilities to intercept and filter the polluted dry weather flow in the drainage box culvert, and then discharge the intercepted dry weather flow into the sea.

目前進度
Current Progress

渠務署現正於大角咀、九龍西、荃灣及葵涌進行旱季截流器建造及改善工程。其中，大角咀櫻桃街箱形雨水渠旱季截流器建造工程於 2017 年 12 月展開，並預計於 2022 年完工。整項工程預算費用約 6.6 億元。 第一期的九龍西部及荃灣污水系統改善工程包括於荃灣和九龍西部建造及改建旱季截流器已在 2022 年 1 月完工，工程實際開支預計約 1.5 億元。而第二期的污水系統改善工程包括在荃灣及葵涌鄉郊地區建造旱季截流器已於 2020 年 7 月展開，並預計於 2023 年底陸續完工，整項工程預算費用約一億元。

The DSD is currently carrying out construction and improvement works of DWFIs at Tai Kok Tsui, Kowloon West, Tsuen Wan and Kwai Chung. Construction works of the DWFI at Cherry Street box culvert in Tai Kok Tsui commenced in December 2017 for completion in 2022. Estimated project cost is about $660 million. For Phase 1 of upgrading works of West Kowloon and Tsuen Wan sewerage comprising the construction and modification of DWFIs, it was completed in January 2022. Project cost is about $150 million. While for Phase 2 of the sewerage upgrading works, the construction of the DWFIs in rural areas of Tsuen Wan and Kwai Chung commenced in July 2020 for phased completion by late 2023. Estimated project cost is about $100 million.

此外，新型旱季截流設施項目的勘查及設計工作現已全面進行中，建造工程將稍後分階段展開。而當中位於紅磡及銅鑼灣擬建的新型旱季截流設施，建造工程預計於 2023 年展開。

Besides, the investigation and design works of the newly designed DWFI projects have been in full swing, and the construction will then be carried out in stages. Among them, the construction of the DWFIs in Hung Hom and Causeway Bay is anticipated to commence in 2023.


櫻桃街箱形雨水渠旱季截流器構想圖
Photomontage of dry weather flow interceptor at Cherry Street box culvert

觀塘污水泵房優化工程
Enhancement Works for Kwun Tong Sewage Pumping Station

本署致力改善污水泵房的設施及環境，當中包括進行觀塘污水泵房優化工程，以配合東九龍區內發展。工程項目包括新建一個容量為 16,000 立方米的地底污水調節設施並安裝通風及氣味控制設施。泵房天台將建成公眾園景平台，以改善泵房外觀和提供約 11,000 平方米的休憩用地。為貫徹政府和海濱事務委員會倡議的「先駁通，再優化」理念，我們進一步承擔修復和美化一幅面積為 7,000 平方米的臨時工地，作為將來茶果嶺海濱的其中一部分，並預計於 2023 年首季開放給公眾使用。

The DSD makes every effort to improve the facilities and environment of our SPSs. In particular, we are conducting enhancement works for Kwun Tong SPS to support the local development of the East Kowloon district. Items include constructing a new underground sewage balancing facility with a capacity of 16,000 cubic metres and installing ventilation and de-odourisation facilities. The roof of the pumping station will also be renovated into a public landscaped deck to enhance the visual appearance of the pumping station and provide an open space of about 11,000 square metres. To echo with the "incremental approach" advocated by the Government and the Harbourfront Commission, we go the extra mile to reinstate and beautify a works area of about 7,000 square metres, being part of the future Cha Kwo Ling Promenade, scheduled for opening to the public in the first quarter of 2023.

目前進度
Current Progress

除沿用傳統現場建造方式，工程亦同時採用了供製造和裝配的設計方式，採用部分預製組件。此舉可以大大提升工程效率，縮短工期。工程於 2017 年 12 月動工，並預計於 2022 年年底完竣。整項工程預算費用約 10.5 億元。

Apart from traditional cast in-situ methods, the project is also adopting the DfMA method which can increase construction efficiency and shorten the construction period by using pre-assembled components. Construction commenced in December 2017 for completion in end-2022. Estimated project cost is about $1.05 billion.

九龍、沙田及西貢污水幹渠修復工程
Rehabilitation of Trunk Sewers in Kowloon, Sha Tin and Sai Kung

除了上述工程外，本署亦就四段分別位於牛池灣、土瓜灣、沙田及西貢，合共長約 1.7 公里的污水幹渠進行修復工程，以及在沙田及西貢增建約 0.6 公里的污水幹渠，並進行相關的污水改道和沙井修復工程。工程旨在加強污水系統的可靠性，減低污水渠塌陷及污水滲漏的風險，以保障公眾安全和環境衞生。

Apart from the above works, the Department is also carrying out rehabilitation works to four sections of trunk sewers totalling 1.7 kilometres in length in Ngau Chi Wan, To Kwa Wan, Sha Tin and Sai Kung respectively, as well as constructing about 0.6 kilometres of additional trunk sewers and undertaking related sewage diversion and manhole rehabilitation works in Sha Tin and Sai Kung. These works aim to enhance the reliability of our sewerage system and reduce the risk of sewer collapse and sewage seepage for the sake of public safety and environmental hygiene.

目前進度
Current Progress

主體建造工程已於 2022 年第一季完成，新污水幹渠已開始投入使用，小量餘下及還原工程已於 2022 年完成。

Major construction works were completed in the first quarter of 2022 with new trunk sewers commissioned. Minor remaining works and reinstatement works were completed in 2022.


已修復的污水渠
The rehabilitated sewer

屯門污水幹渠修復工程
Rehabilitation of Trunk Sewers in Tuen Mun

我們在勘查過程中發現一段位於屯門天后路及龍門路、約 4.2 公里的污水幹渠出現老化及破損情況。該段幹渠已運作逾 40 年。本署現正修復該段幹渠及位於天后路及屯義街附近的兩組過河污水渠，以及建造約 0.6 公里的污水幹渠，旨在減低污水滲漏及污水幹渠塌陷的風險，加強安全及環境衞生的保障，並增強污水收集系統的可靠性。

We identified signs of aging and deterioration in about 4.2 kilometres of existing trunk sewers along Tin Hau Road and Lung Mun Road, Tuen Mun during the inspection. That sewer section has been in service for over 40 years. Currently, we are carrying out rehabilitation of the trunk sewers as well as two inverted siphons underneath Tuen Mun River near Tin Hau Road and Tuen Yee Street. We are also constructing about 0.6 kilometres of new trunk sewers. The project aims to reduce the risk of sewage seepage and collapse, enhance public safety and environmental hygiene and improve the operational reliability of the sewerage system.

目前進度
Current Progress

本署以無坑挖掘技術和使用小型隧道鑽挖機增建污水幹渠，並創新地利用遙控機械人「龍門三兄弟」於運作中的污水幹渠內安裝喉管。此舉可提升工作效率並同時減低工人於密閉空間作業的安全風險。工程於 2018 年 12 月展開，現已如期修復了約 45% 的污水渠管及 90% 的擬建污水渠管。整項工程預計於 2023 年第一季完成，預算費用約 8.06 億元。

The Department is using trenchless technology to rehabilitate trunk sewers and using micro tunnel boring machines to construct new trunk sewers. Remote-controlled robots "Lung Mun Three Brothers" are also deployed to carry out lining installation in the existing box culverts with live sewage flow in an innovative way. This approach promotes efficiency and minimises safety risks faced by workers in confined space. The works commenced in December 2018. About 45% of the existing sewers have been rehabilitated and about 90% of the sewers have been constructed. The project is scheduled for completion in the first quarter of 2023 at an estimated cost of about $806 million.

完善鄉村公共污水收集系統
Improvement of Village Sewerage

我們意識到香港鄉村地區現正面對水質污染的風險。香港現時有多條鄉村仍利用化糞池處理污水，並未有公共污水渠妥善處理村內排放的污水。若化糞池缺乏妥善維護，或會令當中的污水錯誤流入雨水系統，令周邊水體遭受污染，危害生態環境。為此，本署積極擴展公共排污系統，於全港多區的鄉村提供鄉村污水收集系統，收集及處理該等地區的污水，大大減低污水因處理不當而造成污染問題。

We realise that rural areas of Hong Kong are facing the threat of water pollution. A number of villages in Hong Kong are still relying on septic tanks for sewage treatment today due to lack of public sewerage systems for proper handling of sewage from these rural communities. When septic tanks are not properly maintained, it may result in sewage being discharged into the stormwater drainage systems, polluting surrounding water bodies and destructing the ecosystem. Thus, the Department has endeavoured to extend the public sewerage systems by providing village sewerage systems in villages in various districts to collect and treat sewage from these areas. These works have minimised the pollution problem brought by improper sewage disposal.

目前進度
Current Progress

截至 2022 年 3 月，有約 255 條鄉村已增設公共污水渠。另外亦有 60 多條鄉村正進行相關工程，以及約 220 條鄉村的工程正在進行規劃和設計。渠務署在 2022-23 年度將開展兩項工程，分別為北區、荃灣及葵涌的部分地區建造污水收集系統，藉以改善該等地區的衞生情況，以及進一步減少排放到附近河溪及水域的污染物。這兩項工程預計於 2025 至 2026 年完成，總預算費用約三億元。

As of March 2022, newly built public sewers were in place in about 255 villages; works were in progress in more than 60 villages; and sewers were under planning and design for about 220 villages. In 2022-23, the DSD will commence two projects to provide sewerage systems for parts of North District, Tsuen Wan and Kwai Chung to improve sanitary conditions and further reduce the amount of pollutants being discharged into nearby stream courses and marine waters. These two projects are scheduled for completion in 2025 to 2026 at a total estimated cost of about $300 million.

管理排水及污水收集網絡
Managing Drainage and Sewerage Networks

渠務署管理的渠道約有 4,800 公里。其中，地下渠管平均已使用了 30 年，有逾 2,400 公里的渠管更使用了 30 年或以上，不少已出現老化及損耗跡象。如渠管出現嚴重損耗，可能會導致結構問題，或會引致土壤流失甚至路陷。這不但妨礙渠管正常運作，亦會影響交通、環境及公眾安全。

為免渠管損耗而對環境及公眾安全造成風險，渠務署致力對渠管進行維修保養，推行全港性復修老化雨水渠及污水渠工程計劃。我們以風險為本，分階段勘查和修復高風險的渠管。同時，我們亦會研究和採用先進技術，以便有效地保養地下管道網絡，以及提高工程的成本效益。

The DSD manages approximately 4,800 kilometres of drainage system across Hong Kong. Some of the underground pipes have been in service for 30 years on average while over 2,400 kilometres of pipes having been in use for 30 years or longer. Many of them are showing signs of ageing and wear and tear. Seriously deteriorated pipes may result in structural failure, followed by soil erosion and even road subsidence, affecting normal operation of the pipelines and bringing adverse impacts on traffic, environment and public safety.

To prevent environmental and public safety risks caused by deteriorated pipes, the DSD is making no effort in the repair and maintenance of pipes. We have launched a territory-wide risk-based rehabilitation programme for aged stormwater drains and sewers, under which surveys and rehabilitation of high-risk underground pipes are being conducted in phases. We will also examine and employ various cutting-edge technologies to efficiently maintain our underground pipe networks and enhance the cost-effectiveness of our works.

污水處理服務收費概要
Overview of Sewage Services Charges

每年，政府持續投放資源以妥善處理本港的污水。根據污染者自付原則，本署繼續推行污水處理服務收費計劃。在該計劃下，污水處理服務費設有兩部分，分別為排污費和工商業污水附加費。凡接駁至公共污水渠的處所，其用戶均須繳付排污費。而工商業污水附加費方面，現時共有27類特定行業需要繳付附加費。

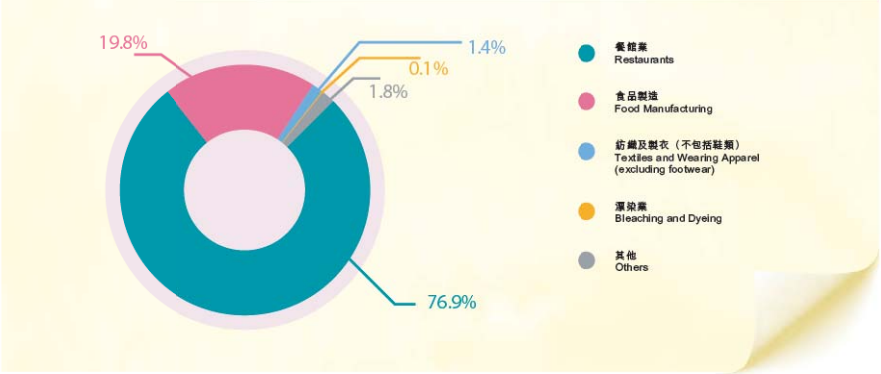
Every year, the Government allocates resources to ensure the proper treatment of sewage in Hong Kong. The DSD has been implementing the Sewage Services Charging Scheme according to the "Polluter Pays" principle. Under the scheme, the sewage services charges consist of two components, namely, the Sewage Charge (SC) and the Trade Effluent Surcharge (TES). All users whose premises are connected to public sewers are required to pay SC. As for TES, currently 27 identified trades are required to pay this surcharge.

帳單及用水量統計數字
Billing and Water Consumption Statistics

本年度，在全港約316萬個自來水用戶中，約293萬個用戶須繳付排污費。而在所有非住宅用戶中，約有33,000個用戶須繳付工商業污水附加費。下圖所示為工商業污水附加費繳納戶所屬行業的分布情況。

In the year under review, among approximately 3.16 million water utility users in Hong Kong, about 2.93 million are required to pay SC. Among all non-domestic users, about 33,000 are required to pay TES. The box below shows the distribution of trades to which the TES payers belong.

2021-22年度工商業污水附加費繳納戶所屬行業
Distribution of Trade Effluent Surcharge Accounts in 2021-22 by Trade

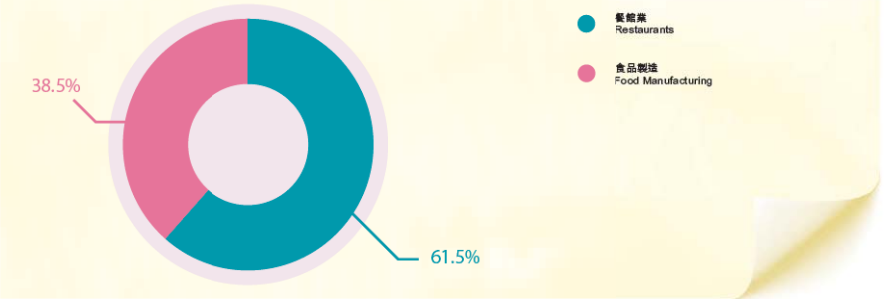


重新評估工商業污水附加費收費率及污水排放比率
Reassessment of the TES Rate and Discharge Factor

非住宅用戶若認為其排放的污水濃度或排放比率低於法例列明的數值，可申請重新評估工商業污水附加費的收費率或污水排放比率。重新評估後釐定的新附加費收費率有效期為三年。

If non-domestic consumers consider that their effluent strength or discharge factor is lower than the corresponding values specified by law, they may apply for a reassessment of the TES rate or discharge factor. The new TES rate determined after the reassessment is valid for three years.

2021-22年度申請重新評估化學需氧量的所屬行業
Accounts Applying for Chemical Oxygen Demand (COD) Reassessment in 2021-22 by Trade

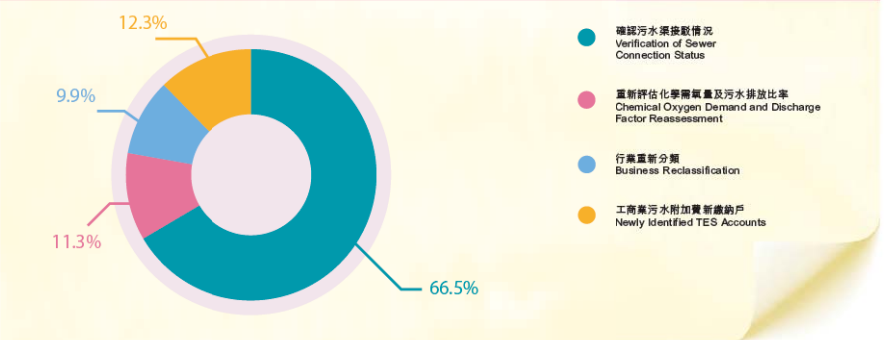


客戶查詢
Customer Enquiries

秉承「以客為本」的信念，渠務署致力為香港市民提供優質服務。為及時回應市民的查詢，我們除設有24小時熱線外，亦已就各個範疇訂立服務承諾。報告期內，我們共接獲3,022宗有關污水處理服務收費的電話及書面查詢，所有書面查詢均在一個月內作答。

Adhering to the value of "customer orientation", the DSD is dedicated to providing quality services to Hong Kong residents. To timely address public enquiries, apart from setting up a 24-hour hotline, we have also made performance pledges on various areas of our services. During the reporting period, we received a total of 3,022 telephone and written enquiries about our sewage services charges; all written enquiries were formally replied to within a month.

2021-22年度收到的各類書面查詢
Written Enquiries Received in 2021-22 by Category



CHAPTER 5 第五章

環境管理
ENVIRONMENTAL MANAGEMENT

面對氣候變化及極端天氣帶來的挑戰，渠務署除沿用「截流」、「蓄洪」及「疏浚」的策略以提升排水系統的防洪能力，亦不遺餘力地推廣和實踐「藍綠建設」的理念以提升渠務工程的可持續性。同時，在運作方面，我們積極探索及引進合適的環保技術和實施環境管理措施，務求提升營運效益，減少碳足跡，從而達到可持續發展的目標。

Facing challenges brought by climate change and extreme weather, the DSD has been putting every effort in upgrading flood protection ability of the drainage system by "stormwater interception", "flood storage", and "drainage improvement" approaches, as well as promoting and implementing the concept of "Blue-Green Infrastructure" to enhance the sustainability of drainage projects. Meanwhile, we actively explore and introduce appropriate environmental technologies and implement environmental management measures in our operations to enhance efficiency and minimise our carbon footprint, thereby achieving the goal of sustainable development.

藍綠建設
Blue-Green Infrastructure

渠務署積極實施「藍綠建設」的概念。這項概念是指建設排水系統時融入主張順應自然、彈性適應的可持續發展理念，「藍」代表河道及水體，而「綠」指綠化景觀。

本署建設及維護渠務設施時致力加入綠化元素，活化水體，打造「河畔城市」。為應對氣候變化及為市民提供更宜居的生活環境，我們於設施中加入滲透、蓄水及淨化元素，積極建設如海綿一樣能彈性適應天氣的城市。

The DSD is dedicated to implementing the concept of "Blue-Green Infrastructure". The aim is to build drainage systems under the principle of sustainability that promotes accord with nature, adaptability and flexibility. Under this concept, "blue" represents rivers and water bodies while "green" refers to landscape greening.

During construction and maintenance of drainage facilities, the Department always puts effort into greening and revitalising water bodies to build "Rivers in the City". To cope with climate change and provide a more liveable environment to the public, we actively include elements of infiltration, storage and purification in our facilities for constructing a city that elastically adapts to weather conditions like a sponge.

社區共融設計
Community Inclusive Designs

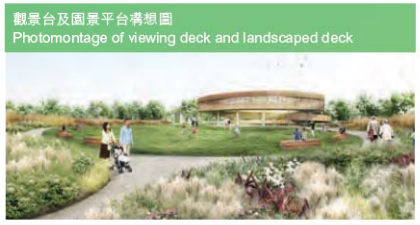
除了提升渠務設施以應付發展的需要，本署也十分著重與社區的連結，為此，我們致力於轄下設施加入社區共融元素，期望善用設施空間並將其打造成可供市民參觀和休憩的公共空間。

現時的元朗污水處理廠會原址重建成「元朗淨水設施」，除了應用創新的污水處理技術外，亦採用了綠色環保建築設計並引入社區共融的元素。工程完成後，污水設施部分範圍將會轉化成公共休憩空間供市民享用，例如河畔步道、觀景台及園景平台等。此外，我們計劃在淨水設施內設置教育走廊，貫通主要的污水處理流程，藉此教育市民污水處理的過程，並推廣可持續發展及保護水資源的重要性。

Apart from improving drainage facilities to meet development needs, the Department also places high importance on making connections with the community. To this end, we strive to incorporate community integration features into our facilities in the hope of making good use of space and upgrading our facilities into public areas suitable for public visits and leisure.

Yuen Long STW will be in-situ reconstructed to Yuen Long Effluent Polishing Plant. It not only adopts innovative sewage treatment technologies, but also the features of green building design and community's inclusive elements. After completion of the project, portion of the facility will be transformed into public open space such as river-side walkway, viewing deck and landscaped deck for public enjoyment. Moreover, we are planning to set up an education corridor in the Effluent Polishing Plant to connect the main sewage treatment process, so as to educate the public on the sewage treatment processes and promote the importance of sustainable development and water conservation.


河畔步道構想圖
Photomontage of river-side walkway


觀景台及園景平台構想圖
Photomontage of viewing deck and landscaped deck

設置生態浮島
Set Up of Ecological Floating Island

新田鄉村防洪計劃的蓄洪池於九十年代末興建，池面面積約16,400平方米。蓄洪池鄰近米埔自然保護區，渠務署於2022年3月在蓄洪池設置一個面積約100平方米的生態浮島。島上種植有白背蔓荊、藍雪花、桐花樹和文殊蘭等開花植物，為附近的雀鳥提供歇息的地方，提升蓄洪池的景觀之餘，亦豐富其生態環境。

The stormwater storage pond under the San Tin Flood Protection Scheme, with a surface area of about 16,400 square metres, was constructed in end 90s. The stormwater storage pond is adjacent to the Mai Po Nature Reserve, the DSD has set up an ecological floating island at the pond in March 2022. Area of the floating island is about 100 square meters. Flowering plants, including Vitex Rotundifolia, Plumbago Auriculata, Aegiceras Corniculatum and Crinum Asiaticum are grown on the floating island to provide a roosting place for birds, thereby enhancing the landscape as well as enriching the ecological environment of the stormwater storage pond.

綠化天台
Roof Greening

我們致力綠化污水處理設施，期望達到減低溫室氣體排放、提升生物多樣性以及美化環境的作用。我們委託認可機構就綠化工程進行評估，確保其可行性和安全性。報告期內，我們分別於元朗橫州蓄水泵房和數碼港污水處理廠進行了天台綠化工程。

We are committed to greening our sewage treatment facilities in the hope of reducing greenhouse gas emissions, enhancing biodiversity and beautifying the environment. We engage qualified contractors to assess the feasibility and safety of greening works. During the year, we conducted roof greening works at Wang Chau Floodwater Pumping Station and Cyberport Preliminary Treatment Works.


新田蓄洪池生態浮島
San Tin Polder Ecological Floating Island


元朗橫州蓄水泵房綠化天台
Green roof at Wang Chau Floodwater Pumping Station

水資源管理
Water Resources Management

本署一直貫徹可持續的水資源管理概念，並在日常運作和各項建造工程中實踐最佳用水效益的措施，包括對水資源和污水的收集、處理和回用，希望鼓勵社會各界共同保護珍貴的水資源。

The Department adheres to the rationale of sustainable water management and implements measures to enhance water use efficiency in daily operations and various construction projects, such as the harvesting, treatment and reusing of water and wastewater. We hope our initiatives can encourage all sectors of the community to help conserve the precious water resources.

水資源採集與回用系統
Water Harvesting System

我們積極在工程和日常運作中加入可持續水資源管理的設計和措施，如多孔透水路面、雨水花園、雨水收集系統和蓄洪系統等，從而收集和回用更多水資源。現時設有水資源採集回用系統的渠務署設施包括跑馬地地下蓄洪計劃、九龍城一號和二號污水泵房及荔枝角雨水排放隧道。

除了把雨水暫存在蓄洪池外，本署更計劃利用綠化天台及滲透地磚，將收集得來的雨水回用作灌溉及沖廁之用，實行了「藍綠建設」的理念。

The DSD actively implements sustainable water-saving designs and measures across our projects and daily operations. We have introduced designs such as porous pavements, rain gardens, rainwater harvesting systems and stormwater storage systems to collect and reuse water resources wisely. At present, Happy Valley Underground Stormwater Storage Scheme (HVUSSS), Kowloon City No. 1 and No. 2 SPSs and Lai Chi Kok Drainage Tunnel are the DSD facilities equipped with a water harvesting system.

To truly embrace the concept of "Blue-Green Infrastructure", apart from temporarily storing the stormwater in the storage tank, the Department plans to adopt green roofs design and use permeable paving blocks for reuse of the collected rainwater for irrigation and toilet flushing.

跑馬地地下蓄洪計劃水資源採集及回用系統示意圖
Schematics of the water harvesting system under Happy Valley Underground Stormwater Storage Scheme

污水再造與回用
Water Reclamation and Reuse

政府現正推行「全面水資源管理策略」，透過加強節約用水及開拓新水源，以確保供水穩定及支持香港的可持續發展。為配合相關策略，渠務署會繼續在轄下設施生產及使用再造水，將污水處理和淨化，成為可循環再用的再造水，供設施日常運作之用。我們期望推廣社會各界更廣泛使用再造水，進一步減少環境污染和減輕生態系統的負荷，並節省珍貴的食水資源。

渠務署現時共有六所污水處理廠設有再造水及再用水生產設施，包括香園圍污水處理廠、昂坪污水處理廠、望后石污水處理廠、新圍污水處理廠、沙田污水處理廠及大埔污水處理廠。於報告期內，我們平均每日可生產超過 2,500 立方米再造水及再用水作非飲用用途。

The Government is implementing the Total Water Management Strategy, through strengthening water conservation and exploiting new water sources, to ensure water security and support the sustainable development of Hong Kong. In line with the strategy, the Department will continue to produce and use reclaimed water at our sewage treatment facilities. After treatment and disinfection, effluent can be recycled as reclaimed water for internal daily operation uses. We hope to foster a wider use of reclaimed water in the community with the aim to further minimise environmental pollution, reduce the burden on the ecosystem, as well as to save precious fresh water resources.

Currently, the DSD has six STWs equipped with water reclamation and reuse facilities, including Heung Yuen Wai STW, Ngong Ping STW, Pillar Point STW, San Wai STW, Sha Tin STW and Tai Po STW. During the reporting period, we produced more than 2,500 cubic metres of reclaimed and recycled water per day on average for toilet flushing and other non-potable uses.

昂坪污水處理廠
Ngong Ping Sewage Treatment Works

於 2006 年正式投入運作的昂坪污水處理廠，是香港首間處理再造水的三級污水處理廠。該廠生產的再造水安全無味，現時主要供昂坪的公廁和纜車站作沖廁用途；部分再造水亦會用於飼養廠內魚池的觀賞魚及作廠內灌溉用途。

Operated since 2006, Ngong Ping STW is the first tertiary STW in Hong Kong equipped with reclaimed water treatment facility. The reclaimed water produced by this STW is safe and odourless. Currently, it is mainly used for toilet flushing at Ngong Ping public toilets and Ngong Ping Cable Car Terminal toilets. Some of the reclaimed water is also used for rearing ornamental fish in the fish pond and irrigation within the plant.

昂坪污水處理廠魚池
Ngong Ping Sewage Treatment Works Fish Pond

沙田污水處理廠
Sha Tin Sewage Treatment Works

沙田污水處理廠再造水設施於 2011 年年初投入運作，經二級處理和紫外光消毒後的排放水，再經逆滲透技術淨化，可供清洗廠房、灌溉園林、沖廁及稀釋化學品等非飲用用途。於報告期內，沙田污水處理廠再造水設施平均每日可以生產 689 立方米再造水。

The water reclamation facilities in the Sha Tin STW were commissioned in early 2011. Reclaimed water produced at Sha Tin STW is a water resource which has undergone secondary treatment and ultraviolet disinfection, and has been purified by reverse osmosis in STWs. It is suitable for non-potable uses such as plant cleaning, irrigation, toilet flushing and chemical dilution. During the reporting period, the facility was capable of generating 689 cubic metres of reclaimed water per day on average.


沙田再造水資訊中心
Sha Tin Water Reclamation Information Centre

石湖墟淨水設施
Shek Wu Hui Effluent Polishing Plant

除了以上提及渠務署轄下現有的再造水及再用水生產設施，我們現正將石湖墟污水處理廠擴建及提升為石湖墟淨水設施。石湖墟淨水設施採用最先進的污水處理技術，不僅令其每日處理量加倍，更能提升排出的淨化水水質至三級污水處理水平。經三級處理後的淨化水會輸送至水務署作進一步處理，為粉嶺及上水等新界東北地區供應再造水作沖廁及其他非飲用用途。

In addition to the above mentioned existing water reclamation and reuse facilities under the DSD, we are now upgrading Shek Wu Hui STW to Shek Wu Hui Effluent Polishing Plant. Shek Wu Hui Effluent Polishing Plant will employ state-of-the-art treatment technologies which not only double its daily treatment capacity, but also improve the quality of the treated effluent to the tertiary treatment level. The tertiary treated effluent will be further processed by the Water Supplies Department to produce reclaimed water for toilet flushing and other non-potable uses in the North East New Territories, including Fanling and Sheung Shui.

減緩與適應氣候變化
Climate Change Mitigation and Adaption

氣候變化問題越趨嚴峻，渠務署必須肩負減緩及協助應對氣候變化的責任。本署為政府跨部門氣候變化及碳中和督導委員會及氣候變化基建工作小組的成員，我們聯同政府各政策局和部門落實各項減碳和抵禦極端天氣的政策和措施。

我們亦參考世界各地應對氣候變化的措施，並加入了「C40 城市氣候領導聯盟」旗下的「連結三角洲城市」，代表香港特區政府與其他三角洲城市交流防洪技術。此外，渠務署亦是「粵港環保及應對氣候變化合作小組」的其中一員，我們會定期與其他成員進行討論和交流，了解各地的防洪技術及應對氣候變化的最新措施。

As climate change poses increasingly serious threats, the DSD must shoulder the responsibilities of mitigating and combating climate change. The Department is a member of the Government's Inter-departmental Steering Committee on Climate Change and Carbon Neutrality and Climate Change Working Group. We work in concert with other government bureaux and departments to implement the policy and initiatives about decarbonisation and withstanding extreme weather.

We examine various measures implemented in other world regions for combating climate change. We joined the Connecting Delta Cities under the C40 Cities Climate Leadership Group, and represents the Government of the Hong Kong Special Administrative Region to exchange flood prevention techniques with other Delta Cities. The DSD is also a member of Hong Kong-Guangdong Joint Working Group on Environmental Protection and Combating Climate Change. Regular discussions and exchanges were conducted among members to share knowledge of flood management and keep abreast of latest measures in tackling climate change.

氣候變化的風險和機遇
The Risks and Opportunities of Climate Change

氣候變化帶來的風險和機遇均不容忽視，本署積極探索氣候變化風險因素，並參考氣候相關財務信息披露工作組（「TCFD」）的框架及建議，以「管治」、「策略」、「風險管理」及「指標和目標」四個核心類別披露我們正面對的氣候相關風險及機遇，亦針對風險進行應對措施的規劃。

The risks and opportunities brought on by climate change should never be overlooked. The Department makes active efforts to explore climate-related risk factors and discloses the climate-related risks and opportunities we are facing in line with the framework and recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), covering its four core elements, namely "governance", "strategy", "risk management" and "metrics and targets". In addition, we are mapping out countermeasures to cope with the risks.

管治
Governance

我們設立了由副署長領導的環境管理委員會，負責檢討本署環境管理政策、制定環保工作的方針和目標，以及監察環保計劃和措施的成效，當中包括氣候相關議題。

The DSD has established the Green Management Committee (GMC) chaired by the Deputy Director. The Committee is responsible for reviewing the DSD's environmental management policy, formulating environmental work objectives and targets, and monitoring the effectiveness of environmental programmes and measures, including those targeted at climate-related issues.

最高管治機構 Highest governance body	渠務署高級管理層 DSD Senior Management			
機構監管 Board oversight	可持續發展報告工作小組 Taskforce on Sustainability Reporting			
管理層監管 Management oversight	環保管理委員會 Green Management Committee	安全督導組 Safety Steering Group	研究及發展督導委員會 Research and Development Steering Committee	能源及排放管理小組 Energy and Emission Management Team
實施與可持續性相關的戰略、政策和目標 Implementation of sustainability-related strategies, policies and goals	設計拓展科 Projects and Development Branch	操作維修科 Operations and Maintenance Branch	機電工程科 Electrical and Mechanical Branch	污水服務處理科 Sewage Services Branch
協調員 Coordinators	技術支援組 Technical Support Group			

在 2018 年，我們參考了「聯合國政府間氣候變化專門委員會」(IPCC) 發表的「第 5 次評估報告」，在「雨水排放系統手冊」加入了因氣候變化而增加的降雨量及海平面上升的設計標準。我們亦開展了多項研究，包括應對海平面上升和極端降雨的防洪管理策略規劃研究，以檢討及制定長遠防洪策略，加強應對氣候變化的能力，為將來所需未雨綢繆。

政府已於 2021 年 10 月 8 日公布《香港氣候行動藍圖 2050》，提出香港應對氣候變化的策略和實現碳中和的目標。為回應《香港氣候行動藍圖 2050》，本署制定了應對氣候變化的工作計劃，包括應對極端天氣的措施、闡釋 IPCC 最新發表的評估報告和進行有關本地氣候變化問題的顧問研究。本署可再生能源組聯同土地排水部在 2021 年 10 月 11 日舉行簡報會，向一眾部門主管及相關同事闡述相關工作計劃，以及部門在發展和應用可再生能源方面源的最新情況、未來路向、目標和挑戰，讓各分部深入了解部門應對氣候變化的工作計劃。

In 2018, we updated the Stormwater Drainage Manual by including the design considerations of rainfall increase and sea level rise due to climate change with reference to the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report. We have also commenced a number of studies, including strategic planning studies on flood management against sea level rise and extreme rainfall, to review and formulate long-term flood control strategies as well as to strengthen the capabilities under and get well-prepared in coping with climate change.

On 8 October 2021, the Government had promulgated the Hong Kong's Climate Action Plan 2050, mapping out the strategies for combating climate change and targets for achieving carbon neutrality. In response to the Hong Kong's Climate Action Plan 2050, the Department formulated a work plan for combating climate change, which includes formulating measures in combating extreme weather events, interpreting the latest IPCC Assessment Report and conducting consultant's research on local climate change issues. The Renewable Energy Team and Land Drainage Division of the DSD organised a briefing on 11 October 2021. Division heads and relevant colleagues were briefed on the work plan. Colleagues were also briefed on the latest progress, roadmap, targets and challenges of the development and application of renewable energy with the aim to allow all divisions to have a more comprehensive understanding of the work plan.

策略及風險管理
Strategy and Risk Management

IPCC 在 2021 年 8 月開始發表「第 6 次評估報告」，政府部門亦就本地最新氣候變化進行了相關研究。渠務署參考了以上資料，在 2022 年 8 月更新了「雨水排放系統手冊」，加入與氣候變化相關的設計標準。其他政府部門亦將會參考更新的「雨水排放系統手冊」的設計標準來制訂其工程的設計，包括就氣候變化而增加的降雨量及平均海平面上升的最新推算、就氣候變化相關研究的結果而加入了因氣候變化而造成的風暴潮增加的推算；在可行情況下，設計亦需考慮非常高溫室氣體排放情景，並在基建設施的設計中預留「應變設計容量」，即在設計中留有彈性作將來的修改，以提升基建設施的抗逆力。

氣候風險與我們的運作密切相關，我們建立了水文資訊系統，並設立了防洪健康碼，以監測及管理氣候變化帶來的水浸風險。除了收集各區雨量和潮汐數據外，還在超過 140 個地點安裝了傳感器以便 24 小時實時監測各排水道的水位等水文數據，從而及時分析水浸情況以統籌應變惡劣天氣的人力資源及為相關部門採取救援行動和疏散居民做好準備，務求減低一切人命傷亡的風險。同時，我們亦持續監察各水浸黑點的狀況，並針對各水浸黑點規劃及推行排水改善措施。

此外，我們已開展「應對海平面上升和極端降雨的防洪管理策略規劃研究」以制訂應對氣候變化引致海平面上升和極端降雨的防洪管理策略，從結構性防洪措施、非結構性防洪措施及管理方法等多方面提升香港的防洪能力，從而減低氣候變化所帶來的水浸風險。

我們積極研究將氣候相關風險整合至整體風險管理當中，定期透過實質性評估來識別對我們重要的議題，當中減緩及適應氣候變化已被識別為我們其中一個實質性議題。於報告期內，我們已識別氣候相關風險和機遇以及其應對措施，以助建立完善的可持續發展策略。

The IPCC released the Sixth Assessment Report in August 2021. Government departments have also conducted relevant studies on latest development of climate change in Hong Kong. With reference to the above materials, the Department updated the Stormwater Drainage Manual in August 2022 by including the design standards in coping with climate change. Other government departments will make reference to the latest design standards in the Stormwater Drainage Manual during project designs, including the latest projection of rainfall increase and mean sea level rise under climate change and projection of storm surge increase under climate change based on latest findings of related studies. The designs should also take into account the very high greenhouse gas emissions scenario and apply "design allowance" in infrastructure design that reserves an allowance for modification of design in future, where feasible, with the aim to enhance resilience of the infrastructure.

Climate-change related risks are highly relevant to the DSD's operations. We set up the Hydrometric Information System to monitor and manage flood risks brought by climate change. Apart from collecting rainfall and tide data in all districts, we have installed sensors at over 140 locations to gather hydrometric data 24 hours a day in real time so as to monitor hydrometric data including water levels of various drainage channels for the set up of the Hydrometric Information System. Situations of flooding can be analysed timely for coordination of manpower to cope with adverse weather conditions and assistance in preparation for rescue and evacuation by relevant departments, with a view to reducing risks of deaths and injuries. At the same time, we continue to monitor the condition of each flooding blackspot and to plan and implement specific drainage improvement measures for each flooding blackspot.

In addition, we have started the "Strategic Planning Study on Flood Management Against Sea Level Rise and Extreme Rainfall" for formulating strategies on flood management against sea level rise and extreme rainfall in coping with climate change. We aimed to enhance flood prevention capacity and reduce flood risks through implementation of structural flood prevention measures, non-structural flood prevention measures and management approaches.

We are actively pursuing the integration of climate-related risks into our overall risk management and regularly identify topics of importance to us through materiality assessment. Climate change mitigation and adaptation have been identified as one of our material topics. During the reporting period, we have identified climate-related risks and opportunities and relevant corresponding measures to help create a sound sustainable development strategy.

氣候相關風險 Climate-related Risks		氣候描述及對渠務署運作的潛在影響 Description and Potential Impact on the DSD's Operations	應對措施 Response Measures
實體風險 Physical Risks		海平面上升： Sea level rise: • 氣候變化下，海平面及颱風引起的風浪都會有所上升，引發低窪地區出現海水倒灌問題，及沿岸地區海浪湧過海堤，造成水浸 Rise of the sea level and waves induced by typhoons are aggravated under climate change, causing flooding when seawater infusion occurs in the low-lying areas and waves approaching shores surpass the coping level of seawall in coastal areas 雨量增加： Increase of rainfall: • 在氣候變化下，年雨量會普遍增加，極端降雨發生的頻率亦會上升，導致現有排水系統有機會超出負荷 In general, annual rainfall and frequency of extreme precipitation increase under climate change. As a result, the existing drainage system may be overloaded	• 政府部門識別了 26 個較高風險的沿岸低窪或當風住宅地區，當中包括了渠務署早前識別的七個風暴潮點及三個越堤浪點。渠務署為這些地點設立風暴潮預警系統 Government departments identified 26 coastal low-lying or windy residential areas with higher risks, which include the seven Storm Surge Spots as well as three Overtopping Wave Spots previously identified by the DSD. The DSD established Early Alert System for Storm Surge for these spots; • 在沿岸低窪地區開展防洪工作，包括安裝組合式擋水板、止回閥、建造防洪牆等以管理水浸風險 Carrying out flood prevention work in low-lying areas, such as installing demountable flood barriers, flap valves and building flood walls, so as to manage flood risks • 持續擴建和改善現有排水系統以應對不斷增加的水浸風險 Continuous expansion and improvement on existing drainage system to cope with the rising flood risks • 已更新「雨水排放系統手冊」，加入氣候變化相關的設計標準 Stormwater Drainage Manual has been updated to include design standards related to climate change • 開展顧問研究以制訂應對海平面上升和極端降雨的防洪管理策略 A consultancy study is commenced to formulate strategies on flood management against sea level rise and extreme rainfall • 就極端天氣事件作水浸風險評估，檢討現行的應急準備及方案 Conduct flood risk assessments for extreme weather events and review of the existing emergency preparedness and plans
轉型風險 Transition Risks	技術風險 Technological Risk	低排放技術轉型： Transition to low-emission technology: • 採納可再生能源和高能源效益技術會增加技術開發的成本和人力資源成本，並需要額外調配人手管理可再生能源設備 The adoption of renewable energy and energy-efficient technologies will increase R&D costs and human resource costs. Additional manpower to manage renewable energy equipment will be also required	• 傳統太陽能發電場設有自動檢測系統以提示出現故障的太陽能光伏板，運用無線技術傳送閉路電視操作信息和實時數據到太陽能發電場監察中心 Conventional solar farms are equipped with an automated detection system to indicate faulty solar panels. CCTV operation data and real-time data are transmitted to the soar farm monitoring centre wirelessly • 透過流動裝置遙距監察太陽能發電場運作情況，協助廠內人員識別故障的太陽能光伏板所處區域，從而減低操作維修難度及成本 Remote monitoring of solar farm operation through mobile devices helps plant personnel identify where the faulty panels are located, thereby reducing maintenance burdens and costs • 在應用太陽能發電系統方面，安裝於蓄洪池水面上的浮式太陽能光伏板上設置外掛式功率優化器，除了能增加太陽能光伏板的發電效率外，還可以實時監測每一塊太陽能光伏板性能，從而得知太陽能光伏板損壞 / 不能正常運作的情況 In terms of the application of solar power systems, floating solar panels on the stormwater storage pond are equipped with plug-in power optimisers, which not only increase the efficiency of solar panels but also monitor the performance of each panel in real-time to detect damaged/mal-functioning ones
氣候相關機遇 Climate-related Opportunities			**機遇描述及對渠務署運作的潛在影響 Description and Potential Impact on the DSD's Operations**
資源效率提升機遇 Resource Efficiency		• 提升能源使用效益 Improve energy efficiency • 使用循環技術 Adopt recycling technology	• 減少能源消耗量、並透過回用水系統降低資源使用和運作成本 Reduce energy consumption and lower resource consumption and operating costs using water harvesting system
能源轉型機遇 Energy Source		• 發展可再生能源 Develop renewable energy sources	• 透過推展可再生能源項目和節能措施，減低對化石能源的倚賴 Reduce reliance on fossil energy by implementing renewable energy projects and energy saving measures • 生產的可再生能源能抵消日常用電量 Offset daily electricity consumption with the renewable energy generated • 積極響應和配合《香港氣候藍圖 2050》 Proactively respond to and support Hong Kong's Climate Action Plan 2050

指標與目標
Metrics and Targets

為能夠更精準地管理部門在減緩氣候變化方面的貢獻，我們定期進行碳審計工作，並已披露部分範圍 1、2 及 3 的溫室氣體排放，直接與間接的能源使用耗量等數據。同時，我們每年都會檢視目標進度，更新下一年度的目標，例如目標於 2022-23 年度完成七個節省能源項目以達致相關省電（再生能源及完善運作）；詳情可參閱本報告**附錄一 — 完成目標**。

To manage the department's contribution to mitigating climate change more precisely, the DSD conducts carbon audit on a regular basis and has disclosed some data on Scope 1, 2 and 3 greenhouse gas emissions, direct and indirect energy use consumption, etc. Meanwhile, we will review our targets each year to update the targets for the next year. For example, we aim at completing seven energy saving projects in 2022-23 to achieve relevant energy saving targets (renewable energy and operational improvements). For details, please refer to **Appendix I Meeting the Targets** in this Report.

採用可再生能源
Harnessing Renewable Energy

政府於 2019 年訂定新的「綠色能源目標」，期望政府整體化石能源耗用量可在 2020-21 到 2024-25 年間減少 6%。為達到此目標，渠務署進一步利用太陽能、水力和生物氣產生可再生能源，以取代傳統化石能源。我們的目標是在 2024-25 年度或之前，透過推展一系列可再生能源項目和節能措施，把本署對化石能源的倚賴，相比 2018-19 年度減低最少 6%。

本署正逐步在轄下的設施設置可再生能源系統，產生電能和熱能以供設施使用。過去數年，本署轄下設施平均每年生產約 2,800 萬度電，提供本署超過 8% 的能源需求。我們於 2017-18 年度至 2021-22 年度申請了 5.39 億元撥款，用於推展 25 個不同類型的可再生能源項目。部分項目已相繼落成，其餘項目將於未來數年陸續完成。所有項目完成後，每年可額外生產相當於約 1,730 萬度電的可再生能源。

Set in 2019, the Government's new "Green Energy Target" aimed to cut its overall use of fossil energy from 2020-21 to 2024-25 by 6%. To achieve this target, the DSD has been making increasing use of renewable energy (RE) generated from solar power, hydropower and biogas in place of traditional fossil energy. Through implementing a series of RE projects and energy saving initiatives, we hope to reduce our use of fossil energy by no less than 6% by 2024-25, as compared to 2018-19.

The Department has been progressively installing RE systems at its facilities to generate electricity and heat energy for in-house consumption. In recent years, RE installations in the DSD's plants have generated energy equivalent to about 28 million kilowatt-hours of electricity a year, meeting over 8% of our annual energy demand. The Department has obtained funding of $539 million from 2017–18 to 2021–22 for implementing 25 RE projects of various kinds. Some of them have been completed while the remaining projects will be completed progressively in the next few years. Upon full completion of these projects, additional renewable energy equivalent to about 17.3 million kilowatt-hours of electricity can be generated per annum.

太陽能
Solar Energy

截至 2022 年 3 月底，本署已在 30 個轄下設施安裝太陽能光伏板，以擷取太陽能並轉化為電力。當中包括 15 所污水處理廠、13 所污水泵房和 2 所蓄洪設施。其總發電裝機容量為 1.8 兆瓦。

其中，位於小蠔灣的污水處理廠擁有政府最大規模的太陽能發電場，每年可生產達 110 萬度電。報告期內，本署所有光伏系統的總發電量約為 148 萬度。

本署現正於更多設施安裝太陽能發電系統，包括傳統硬板式、柔韌薄膜式、柔韌單晶硅和可踏式等，亦正嘗試在不同水體安裝浮式太陽能發電系統。本署在 2022 年 3 月於新田蓄洪池安裝了小規模的浮式太陽能發電系統作為先導計劃，該系統的發電裝機容量約為 37 千瓦。預計每年可生產約 37,000 度電。此外，本署將繼續物色合適水體安裝更多浮式太陽能光伏板。

於 2024-25 年，當部分太陽能項目陸續落成後，本署在太陽能方面的總發電裝機容量預計將超過 3.5 兆瓦。

長遠而言，本署計劃在多個新建設或擴建的主要污水處理廠，包括元朗淨水設施、石湖墟淨水設施、元朗南淨水設施、洪水橋淨水設施等，安裝較具規模的太陽能發電系統。預計待所有太陽能項目完成後，本署在太陽能方面的總發電裝機容量預計將超過 10 兆瓦。

As at the end of March 2022, the Department has installed PV panels at its 30 facilities, including 15 STWs, 13 SPSs and 2 stormwater storage facility, to harness solar power and generate electricity. The total installed generation capacity of the DSD's PV systems is about 1.8 megawatts.

In particular, the solar system at Siu Ho Wan STW is currently the largest government installation of its kind. It can generate up to 1.1 million kilowatt-hours of electricity annually. During the reporting period, the Department's PV systems generated about 1.48 million kilowatt-hours of electricity in total.

The Department is currently installing PV systems in more facilities, including traditional rigid, flexible thin-film, flexible monocrystalline and steppable PV panels. We are also trying to install floating PV panels in different water bodies. As a start, the DSD has installed a small-scale pilot floating PV system at San Tin Polder (i.e. flood storage pond) in March 2022, with an installed generation capacity of some 37 kilowatts. It is expected to generate about 37,000 kilowatt-hours of electricity a year. Besides, we will keep on identifying suitable water bodies for installing more floating PV panels.

It is envisaged that after completion of some PV projects in 2024-25, the total installed generation capacity of the Department's PV systems will exceed 3.5 megawatts.

In the longer term, the Department is planning to install larger scale PV systems in major new or upgrading STWs such as Yuen Long Effluent Polishing Plant, Shek Wu Hui Effluent Polishing Plant, Yuen Long South Effluent Polishing Plant and Hung Shui Kiu Effluent Polishing Plant. It is envisaged that after completion of all these PV projects, the total installed generation capacity of the Department's PV systems will exceed 10 megawatts.

設於新田雨水泵房的可踏式太陽能發電系統
Steppable Photovoltaic System at San Tin Stormwater Pumping Station

設於新田蓄洪池的浮式太陽能發電系統及生態浮島
Floating Photovoltaic System and Ecological Floating Island at San Tin Polder

設於新田雨水泵房的太陽能樹
Solar Tree at San Tin Stormwater Pumping Station

水力發電
Hydroelectric Power

建設水力發電系統亦是本署重點推行的可再生能源項目之一。為配合政府的淨化海港計劃第二期甲，我們在昂船洲污水處理廠安裝了兩台水力渦輪發電系統，利用經處理流動污水的液壓能量推動渦輪機，發電供廠房內部使用。

已裝設的兩台水力渦輪系統的發電裝機容量分別為 47 和 48 千瓦，每台系統每年可生產高達 12 萬度電。鑑於此項目成效顯著，我們現正在昂船洲污水處理廠安裝第三組水力渦輪發電系統，工程預計於 2023 年底完成。我們計劃在廠內安裝更多水力渦輪發電系統，亦正探討在吐露港經處理排放水輸送計劃的輸水隧道安裝同類系統的可行性。

Hydroelectric power system installation is another major initiative on implementation of RE projects in the Department. To align with HATS Stage 2A implemented by the Government, we have installed two hydro-turbine systems at Stonecutters Island STW, utilising hydraulic energy from the flow of treated sewage effluent to drive the turbine and generate electricity for in-house use.

The installed generation capacity of the two hydro-turbine systems are 47 and 48 kilowatts respectively, and each system can generate up to 120,000 kilowatt-hours of electricity per annum. In view of the remarkable results of these projects, we are currently installing a third unit of hydro-turbine system at Stonecutters Island STW. The installation is anticipated to be completed by late 2023. We are planning to install more hydro-turbine systems at the plant by phases and also exploring the feasibility of installing such systems at the effluent tunnel of the Tolo Harbour Effluent Export Scheme.

昂船洲污水處理廠的水力渦輪系統
Hydro-turbine system at Stonecutters Island Sewage Treatment Works

生物氣
Biogas

在污水處理過程中，會產生污泥，而污泥在進行厭氧消化，以達致生物降解期間，會釋出生物氣。本署於轄下合適的污水處理廠，裝置了七台燃燒生物氣的電熱聯供發電機及三台微型渦輪發電機，將產生的生物氣，轉化成電能和熱能，供廠內使用。至於經回收所得的熱能，除了加熱循環水，以維持污泥消化過程所需的溫度外，還可用來推動吸收式冷凍系統進行製冷。

報告期內，本署轄下污水處理廠由生物氣所產生的可再生能源相等於約 2,740 萬度電。為了加強使用生物氣，以生產電能和熱能，本署現正為沙田污水處理廠增設一組約 1,400 千瓦的電熱聯供發電系統。系統於 2022 年落成後，本署的電熱聯供總發電裝機容量達 6.8 兆瓦。此外，本署將在多個新建設 / 擴建的主要污水處理廠，包括元朗淨水設施、石湖墟淨水設施、元朗南淨水設施、洪水橋淨水設施等，安裝多組電熱聯供發電系統。

為進一步應用可再生能源，我們正為大埔污水處理廠設置一組餘熱回收發電系統，利用電熱聯供發電機的餘熱發電，工程預計於 2022 年底完成。同時，我們亦計劃於沙田污水處理廠安裝另一組同類型的發電系統。

Sewage treatment processes generate sludge, and biogas is produced when the sludge undergoes anaerobic digestion for sludge stabilisation. The Department has installed a total of seven biogas-fuelled combined heat and power (CHP) generators and three micro-turbines in its STWs for electricity generation and heating. The recovered waste heat, in addition to pre-heating recirculation water to provide heat for sludge digestion process, can be used as a source to drive an absorption chiller for cooling.

During the reporting period, the total renewable energy generated by biogas amounted to about 27.4 million kilowatt-hours. To enhance utilisation of biogas, the Department is installing an additional 1.4-megawatt CHP generator system at Sha Tin STW. Since the system has come into operation in 2022, the DSD's total installed generation capacity of the CHP generating systems reached 6.8 megawatts. In addition, the Department is planning to install CHP generating systems in major new/ upgrading STWs such as Yuen Long Effluent Polishing Plant, Shek Wu Hui Effluent Polishing Plant, Yuen Long South Effluent Polishing Plant and Hung Shui Kiu Effluent Polishing Plant.

To further embrace renewable energy, we are installing a power generating system at Tai Po STW to utilise waste heat from CHP generators for electricity generation. The installation is anticipated to be completed by late 2022. We also plan to install a similar power generation system at Sha Tin STW.

本署一直與環保署協力推行「廚餘、污泥共厭氧消化」計劃。於 2019 年，本署與環保署合作在大埔污水處理廠推行的第一個「廚餘、污泥共厭氧消化」試驗計劃開始運作。此計劃除了可增加生物氣產量、減低沼渣量及減少污水處理廠的碳排放外，亦可提高香港的廚餘處理能力。

渠務署在該試驗計劃負責接收由環保署輸送來的工商類廚餘，並與污泥混合進行共厭氧消化，以及利用從消化過程所得來的生物氣生產電能和熱能供廠房使用。此試驗計劃可處理每日達 50 公噸廚餘，預計每年可額外產生相等於約 95 萬度電的能源。

第二個「廚餘、污泥共厭氧消化」試驗項目選址於沙田污水處理廠，以測試處理工商及家居廚餘的效果。這個項目與大埔污水處理廠的試驗計劃相似，廚餘處理量預計為每日 50 公噸。由渠務署主導的共厭氧消化相關工程預計於 2022 年年底完成。

此外，為了充分利用沙田污水處理廠內現有的污泥消化設施，我們正計劃從本署其他沒有污泥消化設施的污水處理廠引入化學強化一級處理的污泥，與廚餘進行共厭氧消化，產生額外的生物氣，為廠房運作提供更多的可再生能源。相關的污泥接收及稀釋設施正在興建中，新設施每天可接收 100 公噸化學強化一級處理的污泥，預計 2023 年年初進行測試，屆時該設施會每天會接收約 80 公噸來自新圍污水處理廠經脫水後的化學強化一級處理污泥，預計每年可額外產生相等於 350 萬度電的能源。

長遠而言，我們會進一步把「廚餘、污泥共厭氧消化」技術擴展至其他有污泥厭氧消化設施的現有和新污水處理廠。

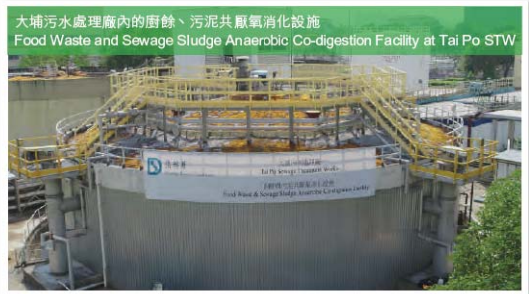
The Department has been collaborating with the EPD to implement the "Food Waste/Sewage Sludge Anaerobic Co-digestion" initiative. The first Food Waste/Sewage Sludge Anaerobic Co-digestion Trial Scheme, jointly administered by the Department and the EPD at Tai Po STW, commenced operation in 2019. Apart from increasing the biogas yield and reducing the amount of digestate and carbon emissions from the STW, the trial scheme also enhances Hong Kong's food waste handling capacity.

Under the trial scheme, the DSD is responsible for receiving the commercial and industrial food waste delivered by the EPD for anaerobic co-digestion with the sewage sludge as well as utilising the biogas produced during the co-digestion process to generate electricity and heat for use within the STW. The trial scheme can treat up to 50 tonnes of food waste every day. The estimated additional energy that could be generated is equivalent to about 0.95 million kilowatt-hours of electricity each year.

The second trial project will take place at Sha Tin STW, in which treatment of food waste from commercial and industrial as well as domestic sources will be tested. Similar to the pilot trial at Tai Po STW, the Sha Tin STW trial project is planned for a treatment capacity of up to 50 tonnes of food waste per day. The DSD-led co-digestion related works are scheduled for completion by end 2022.

In addition, to fully utilise the existing sludge digestion facilities at Sha Tin STW, the DSD is planning to divert CEPT sludge from other DSD STWs without sludge digestion facilities for production of bio-gas via co-digestion with food waste to provide more renewable energy for the plant operation. Associated sludge reception and dilution facilities with a daily handling capacity of 100 tonnes are being constructed at Sha Tin STW. The new facilities are targeted for commissioning in early 2023 to receive about all 80 tonnes of dewatered CEPT sludge per day diverted from San Wai STW. The estimated additional energy that could be generated is equivalent to about 3.5 million kilowatt-hours of electricity per year.

In the long run, we will further extend the "Food Waste/Sewage Sludge Anaerobic Co-digestion" technology to other existing and new STWs with anaerobic sludge digestion facilities.



大埔污水處理廠內的廚餘、污泥共厭氧消化設施
Food Waste and Sewage Sludge Anaerobic Co-digestion Facility at Tai Po STW

節約能源措施
Measures for Saving Energy

本署致力引入各種節能措施，並不斷提升轄下污水及防洪設施的運作狀況，以冀減低整體的碳足跡。其中包括：

With a view to reducing overall carbon footprint, the Department actively introduces various energy saving measures and optimises the operation of its sewage and flood prevention facilities. These measures include:

完善污水處理廠及污水泵房的操作流程
Optimising operation procedures of STWs and SPSs

把舊式廠房設備更換為能源效益較高的廠房設備，包括更換鼓風機、照明系統、水泵和隔篩等
Replacing outdated plant equipment with more energy-efficient devices, including replacing air blowers, lighting systems, pumps and screens

報告期內，上述新的完善運作和使用可再生能源措施節省了約 100 萬度電（相當於減少約 700 公噸二氧化碳當量）[3]
During the reporting period, the above new measures on operation optimisation plus the use of renewable energy saved about 1 million kilowatt-hours of electricity (equivalent to removal of about 700 tonnes of carbon)[3]

3. 根據全港性預設值（0.7 公斤二氧化碳當量 / 度電）計算。
Calculated based on a territory-wide default value (0.7 kilogram CO2e/kilowatt-hours).

碳審計
Carbon Audit

為減低碳足跡，我們正逐步為轄下設施進行碳審計，透過科學化的分析和評估，識別各設施的主要排放源，以便制定合適的節能減排措施，減少溫室氣體排放。報告期內，渠務署就轄下七間污水處理廠進行了碳審計，包括位於昂船洲、沙田、大埔、石湖墟、望后石、小蠔灣及赤柱的污水處理廠。我們會繼續進行碳審計，以尋求並實施合適減碳措施，包括降低機器耗能、提升運作效率及利用可再生能源等。

To reduce carbon footprint, we are currently conducting carbon audit for our facilities through scientific analysis and assessment to identify major emission sources, so as to establish appropriate energy saving and emission reduction measures for reducing greenhouse gas emissions. During the reporting period, the DSD conducted carbon audit for seven of our STWs at Stonecutters Island, Sha Tin, Tai Po, Shek Wu Hui, Pillar Point, Siu Ho Wan and Stanley. We will continue to conduct carbon audit to explore and implement appropriate carbon reduction measures, such as reducing the energy consumption of appliances, increasing operational efficiency and adopting renewable energy.

綠色辦公室
Green Office

本署積極向員工提倡綠色營運的理念，竭力於辦公室實踐多項環保措施，實現「綠色辦公室」。

The Department is making active efforts to advocate the concept of green operations to our employees through a number of environmentally friendly measures in the offices, hoping to achieve a "green office".

源頭減廢
Reducing Waste at Source

渠務署致力履行「綠色辦公室」的原則。為此，我們於辦公室實施多項源頭減廢的措施。我們積極響應政府減少使用即棄塑膠餐具的倡議，提醒同事在舉辦會議和公務活動時自備餐具或使用可重用的餐具。另外，渠務署亦致力將「無紙化辦公室」的概念付諸實踐，包括發出節約用紙指引和綠色資訊，並鼓勵員工使用雙面印刷、重用單面紙及信封，同時積極推廣「無紙會議」，鼓勵員工以手提電腦及平板電腦等電子設備進行匯報和討論，減少紙張使用量。除此之外，我們在辦公室設置多個回收點，用作收集及回收塑膠、金屬容器、打印機碳粉盒、充電電池、廢紙等物品，並定期巡查辦公室以提醒員工響應環保。

報告期內，我們舉行了共 184 次無紙會議，並以電子方式傳閱了 1,381 份會議文件。另外，本署自 2017 年年中開始推廣電子傳真，目前共有 142 個電子傳真號碼。

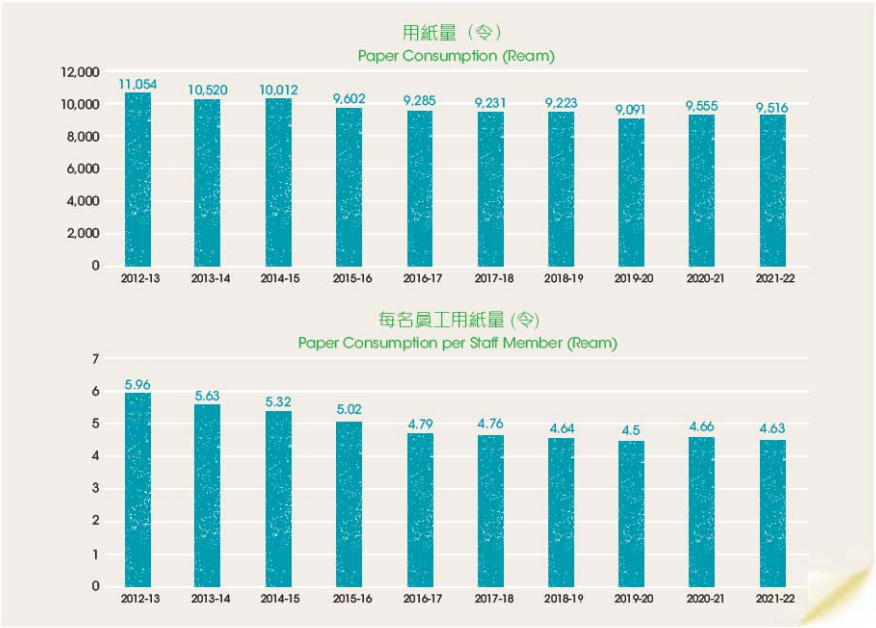
自 2018 年起，我們轄下所有行政部門已改以電子傳真方式收發文件。在各項節約用紙的措施下，渠務署的用紙量逐漸遞減，報告期內總用紙量為 9,516 令[4]，較 2012-13 年度少約 14%。

The DSD pledges to put forward the principle of "green office". As such, we have introduced a number of measures to reduce waste at source at our offices. To support the Government initiative to minimise the use of disposable plastic tableware, we remind colleagues to use reusable tableware or bring their own tableware for meetings and official events. We also strive to put into practice the concept of "paperless office". To this end, we have issued guidelines on reducing paper consumption and green information, while encouraging colleagues to adopt double-sided printing and reuse one-sided paper and envelopes. We also promote "paperless meetings" by encouraging staff to use electronic devices, including laptop computers and tablets, for presentations and discussions to reduce paper consumption. In addition, we set up a multitude of collection points to collect and recycle used items at our offices, including plastic and metal containers, toner cartridges, rechargeable batteries and waste paper. Regular office inspections are also performed to promote environmental consciousness among employees.

During the reporting period, the DSD held a total of 184 paperless meetings and circulated 1,381 meeting documents electronically. Moreover, the Department has been promoting e-fax since mid-2017 and now owns a total of 142 e-fax numbers.

Since 2018, all administration divisions under the DSD have switched to e-fax for receipt and dispatch of documents. Benefited by all the above paper-saving measures, the DSD's paper consumption has seen gradual decrease, with a total paper consumption of 9,516 reams[4] during the reporting period, decrease about 14% compared with 2012-13.

4. 撇除用於新合約 / 工程項目的招標 / 報價程序的用紙量。
Excluding paper used in tender/quotation exercises for new contracts/projects.



節約能源
Energy Saving

我們在辦公室引入節能措施，加強員工對節約能源的意識。例如，我們將空調設定在攝氏 25.5 度、減少非必要照明及使用計時器以於辦公時間後適時關閉辦公室設備等，務求減低整體用電量，配合政府於 2017 年《香港氣候行動藍圖 2030+》的建議，加強推廣綠色建築和減少政府大樓的耗電量。

We have also introduced energy saving measures in our offices to enhance staff awareness for energy saving, such as setting the temperature of air-conditioning at 25.5°C, reducing non-essential lighting and using timers to switch off office equipment after office hours. Established to effectively reduce total electricity consumption, these initiatives are in line with the "Hong Kong's Climate Action Plan 2030+" proposed by the Government in 2017 to step up promotion of green buildings and reduce electricity consumption of government buildings.

支持「地球一小時」熄燈行動
Supporting "Earth Hour 2022"

除了於日常運作中實施節能減排措施，本署亦積極參與各項綠色活動，為環保作出貢獻。其中，我們連同其他政府部門響應世界自然基金會舉辦的「地球一小時」活動，於 2022 年 3 月 26 日晚上 8 時 30 分起關掉辦公室及設施非必要的燈及電器一小時。

Apart from implementing energy saving and emission reduction measures in daily operations, the Department is also actively participating in various green activities to make contributions to environmental protection. For example, we have supported Earth Hour initiated by WWF-HK together with other governmental organisations. Non-essential lighting and electrical appliances in the DSD offices and facilities were switched off for one hour from 8:30pm on 26 March 2022.

綠色採購
Green Procurement

為響應政府的綠色採購政策，我們於採購過程中會盡量考慮環保元素，包括採納環保署的環保採購產品清單。報告期內，我們所採購的產品有節能電器（如電腦、電風扇、影印機、打印機和冰箱），以及環保辦公室消耗品（如塗改帶、垃圾袋、鉛筆、充電池、再造紙和衞生紙）。此外，我們在工作期間的交通來往盡量使用電動車，以在本港推廣低碳生活模式。

To echo with the green procurement policy of the Government, we take environmental factors into account during the procurement process. For instance, we adopt the EPD's list of Green Procurement Items. During the reporting period, we procured energy-saving electrical appliances (e.g. computers, electric fans, photocopiers, printers and refrigerators) and green office consumables (e.g. correction tapes, garbage bags, pencils, rechargeable batteries, recycled paper and toilet paper). Furthermore, we use electric vehicles as much as possible during work-related transport to promote low carbon living in Hong Kong.

培養可持續文化
Fostering a Sustainable Culture

為培養可持續發展和愛護環境的文化，一群渠務署員工組成了「綠色先鋒」。透過向環保管理委員會作出環保倡議及舉辦各項綠色活動，如綠色耕種比賽、海岸清潔活動等，提升全體員工的環保意識，實踐綠色生活。

To foster a sustainable development and environment-friendly culture, a group of the DSD colleagues formed the Green Champions. Through proposing green initiatives to the Green Management Committee and organising a number of green activities, such as green farming competition and shoreline clean-up, to raise the environmental awareness of all employees and promote the green lifestyle.

渠務署署長彭雅妮女士（左五）與同事於 2021 年 7 月 3 日參與「建造業海岸清潔日」，為保育大自然出一分力

Ms Alice PANG (fifth left), Director of Drainage Services, along with colleagues participated in the "Construction Industry Shoreline Clean-up Day" on 3 July 2021, helping to save mother earth

渠務署參與「會班服務月 2021 — 建造業海岸清潔日」。渠務署署長彭雅妮女士（後排右四）及其他工務部門包括路政署、土木工程拓展署、水務署、機電工程署及建築署首長合照

The DSD participated in the "Lo Pan Service Month 2021 - Construction Industry Shoreline Clean-up Day". Ms Alice PANG (fourth right, back row), Director of Drainage Services took group photo with Directorates of works departments including the Highways Department, Civil Engineering and Development Department, Water Supplies Department, Electrical and Mechanical Services Department and Architectural Services Department

關愛員工
CARING FOR OUR STAFF

渠務署用心對待每位員工並視他們為最重要的資產。我們為員工提供大量培訓活動和發展機遇，讓他們能夠不斷學習和提升，從而實現工作上的進步。同時，我們制定了全面的職業健康與安全政策，保障員工的身心健康。本署也會舉辦豐富多樣的員工活動，包括興趣班、體育活動等，旨在讓員工在閑暇之餘放鬆身心。

The DSD cares about each member of our staff and considers them as our most valued asset. We provide plenty of training and development opportunities, allowing colleagues to improve work performance by continuous learning. At the same time, we establish adequate occupational safety and health (OSH) policies in place to protect the physical and mental wellbeing of our staff. We also organise a multitude of staff activities, including interest classes and sports activities, for our colleagues to unwind after work.

員工培訓與發展
Staff Training and Development

渠務署為員工提供多項緊貼行業趨勢的學術活動，比如內部培訓課程、研討會、工作坊、交流會等，從而提升員工的專業水平和技術。由於受到疫情爆發的影響，部分活動轉移至網上進行，以便員工持續學習及滿足不同的培訓需要。報告期內，我們舉辦了共 411 個培訓課程，而員工的平均培訓時數為 27 小時。

The DSD provides a wide range of training activities for its workforce that closely follow the latest industry trends, including but not limited to in-house training courses, seminars, workshops and exchange sessions. These activities aim to enhance the DSD staff's professional knowledge and skills. In view of the outbreak of the COVID-19 pandemic, we have moved certain training activities online to facilitate the continuous learning and address different training needs of our staff. During the reporting period, we arranged a total of 411 training courses. Average number of training hours per capita was 27 hours.

內部培訓
In-house Training

報告期內，本署為管理層和員工舉辦各項內部培訓，培訓課程主題涵蓋污水處理技術和河畔城市概念等。本署希望透過培訓讓員工全面了解署方的政策、日常運作及最新發展，並期望員工能與本署共同成長。

During the reporting period, the Department organised different in-house training programmes for members of our management and staff, covering various topics, such as sewage treatment technologies and the concept of "Rivers in the City". These training programmes were intended to communicate our policies, daily operations and latest development in detail so that our staff could join hands with the Department to drive mutual development.

渠務署入職課程
The DSD Induction Course

與海外專家交流
Exchange with Foreign Experts

為了能不斷提升本署的技術水平，並與國際水平互相銜接，我們鼓勵員工參與不同的海外交流會，與外國的專家進行深入的技術交流。於 2021 年 4 月，本署高級工程師梁華明先生參與了英國土木工程師學會香港分會以「建構可持續生態城市：宜居性、協調性、更新性」為題的一日研討會，並於會上分享了「河畔城市」的概念。於 2021 年 6 月，本署員工在網上參與新加坡國際水利週 2021。當中，本署專家於網上分享香港的經驗，加深了國際對香港河道活化工程及防洪策略的認知。

In order to keep our technology levels abreast of the latest technological developments and meet international standards, we regularly seek out our staff to exchange with overseas experts through international exchange activities. In April 2021, our Senior Engineer, Mr LEUNG Wah-ming, attended a seminar themed "Shaping a sustainable eco-city: liveability, harmonisation, regeneration" organised by the ICE HKA G&S and shared the concept of "Rivers in the City". In June 2021, our colleagues participated in the online Singapore International Water Week 2021. Through experience sharing using real cases in Hong Kong, our experts provided the global community with a better understanding on river revitalisation and flood protection strategies of Hong Kong.

本署高級工程師梁華明先生（中）於英國土木工程師學會香港分會舉辦的研討會上分享河道活化經驗
Our Senior Engineer, Mr LEUNG Wah-ming (centre), shared his experience in river revitalisation during a seminar organised by the ICE HKA G&S

安全與健康
Safety and Health

渠務署一直十分重視員工的職業安全和健康。我們制定完善的安全政策和安全管理系統，並且嚴格遵守與職業安全及健康（職安健）相關的法律和法規，如香港《職業安全及健康條例》。我們亦要求員工、工程顧問和承建商嚴格遵守和執行相關法律和法規，致力降低職安健風險。與此同時，本署為員工提供不同的職安健培訓課程和活動，確保員工有足夠的健康安全意識。在新冠病毒疫情下，渠務署更為前線員工提供了充足的個人防護設備，並採取各種防護措施，以保障員工的健康和安全。

Occupational safety and health of (OSH) staff is of utmost important to us. To this end, we have established a comprehensive safety policy and safety management system, and at the same time require strict compliance with applicable laws and regulations, such as the Occupational Safety and Health Ordinance of Hong Kong. We are dedicated to minimise OSH risks requiring our staff, project consultants and contractors to observe demanding that they act in strict accordance with such all relevant laws and policies. To equip our employees with proper health and safety awareness, we provide extensive training courses and activities about OSH aspects. Under the COVID-19 pandemic, the DSD also provided appropriate personal protective equipment to frontline staff and adopted various protective measures to ensure their health and safety.

職安健管理
OSH Management

為了更有效管理職安健風險，渠務署已建立完善的安全管理制度以控制相關風險。我們有健全的職安健管治體系，由多個委員會識別重大的職安健風險及制訂預防措施應對相關的風險，當中包括安全督導委員會、機電工程科安全管理委員會、污水處理廠安全管理委員會及直屬員工隊安全管理委員會。委員會是由不同職級及職系的員工組成的，我們期望工作人員能多參與、諮詢及溝通有關職安健的事宜，並且可以切實地了解各部門的需要及已識別的風險。如工作人員發現任何安全相關風險，歡迎向我們提出。我們會及時了解並應對此等風險，加強安全管理，並保障相關工作人員不會受到任何處分。

本署採取預防為主的原則以制定安全政策，評估潛在的安全隱患風險，以防止或盡量減低意外的發生。在工程規劃及設計的早期階段時，我們會委託合資格專業人士嚴謹地評估工程期間潛在的安全及健康風險和危害。在工程開展後，我們會按照風險評估結果和建議實施適當的安全措施，盡量減低安全隱患，避免事故發生；亦會在工程期間進行恆常巡查，確保相關措施得以有效落實。

With a view to managing OSH risks more effectively, the DSD has a sound safety management system in place to control related risks. We have formulated a robust OSH governance system where a number of committees are responsible for identifying material OSH risks and developing appropriate precautionary measures. These committees include the Safety Steering Group, the Electrical and Mechanical Branch Safety Management Committee, the Sewage Treatment Works Safety Management Committee and the Direct Labour Force Safety Management Committee and comprise members from different disciplines and grades to encourage worker participation, consultation, and communication on OSH issues, such that we can understand the needs and identified risks of different departments. If any safety-related risks have come to their attention, workers are welcome to report to us for timely investigation and action to strengthen safety management. We will protect our staff from any disciplinary actions.

The Department's Safety Policy has been drawn up in line with the principle of "prevention first". Potential safety hazards are assessed to prevent or minimise the occurrence of accidents. In the early stage of project planning and design, qualified professionals are engaged to stringently evaluate potential safety and health risks and hazards of the projects. During subsequent works execution, the OSH is ensured by implementing appropriate safety measures according to findings and recommendations of the safety assessment to control safety hazards and minimise the occurrence of accidents. Besides, site inspections are conducted on a regular and frequent basis to ensure the effective implementation of OSH measures.

如工程期間不幸發生安全事故，相關人員可立即離開對他們生命或健康構成危險的工作環境，而不會受到任何處分。相關人員亦需要按照既定的程序即時及準確地呈報事故，在按照既定程序進行上報及調查後，我們會分析事故原因，並制定改善措施，避免同類事故再次發生。

In the unfortunate event of safety incidents during construction works, the personnel involved may immediately remove themselves from work situations that they consider present an imminent and serious danger to their life or health, without any disciplinary actions. The personnel concerned are also required to report the case promptly and accurately according to the established procedures. After reporting and investigating the incidents according to standard procedures, we will analyse the cause of the incidents and introduce improvement measures to prevent recurrence of similar incidents.

渠務署的工傷及嚴重工傷事故[1]數據 2021-22
Data of the DSD work-related injuries and high-consequence work-related injuries[1] in 2021-22

渠務署員工 DSD's staff	工傷事故（包括滑倒、絆倒或在同一高度跌倒） Work-related injuries (including slip, trip or fall on the same level)	宗數 No. of cases	5
		比率（每 1,000 名員工） Rate (per 1,000 staff)	2.7
	嚴重工傷事故[1] High-consequence work-related injuries[1]	宗數 No. of cases	0
		比率（每 1,000 名員工） Rate (per 1,000 staff)	0
由承辦商負責的建築及維修工程 Construction and maintenance works undertaken by the DSD contractors	工傷事故（包括滑倒、絆倒或在同一高度跌倒、從高處墮下） Work-related injuries (including slip, trip or fall on the same level, fall of person from height)	宗數 No. of cases	17
		比率（每 200,000 工時） Rate (per 1,000 staff)	0.3
	嚴重工傷事故[1]（包括滑倒、絆倒或在同一高度跌倒、觸及開動中的機器） High-consequence work-related injuries[1] (including slip, trip or fall on the same level, contact with moving machinery)	宗數 No. of cases	2
		比率（每 200,000 工時） Rate (per 1,000 staff)	0.04

1 嚴重工傷事故指職業傷害而導致死亡、或導致工作者無法、難以於六個月內恢復至受傷前健康狀態的傷害。報告期內發生的嚴重工傷事故主要由物理性的潛在安全危害引致。
High-consequence work-related injury refers to a work-related injury that results in fatality or an injury where the worker cannot, does not, or is not expected to recover fully to pre-injury health status within six months. High-consequence work-related injuries recorded during the reporting period were mainly resulted from physical safety hazards.

職安健培訓
OSH Training

我們致力保障員工在職場的安全和健康，故此我們為員工提供不同類型的培訓課程，讓他們掌握職業安全知識，以提升他們的職安健意識。報告期內，我們為超過 1,700 名員工舉辦多達 24 類職安健培訓活動，包括：

We are committed to protecting the safety and health of our staff in the workplace. We arrange various training courses to equip employees with OSH awareness and proper knowledge in occupational safety. During the reporting period, we organised 24 types of OSH training for over 1,700 colleagues, including:

項目 Item	課程名稱 Course Title	受訓人數 Number of Participants
1	用電安全 Electrical Safety	137
2	叉式起重車新手操作員課程 Training Course for New Operators of Fork-lift Truck	4
3	叉式起重車資深操作員課程 Training Course for Experienced Operators of Fork-lift Truck	10
4	船上貨物處理基礎安全訓練課程 Shipboard Cargo Handling Basic Training Course	17
5	密閉空間核准工人安全訓練覆證課程 Safety Training Revalidation Course for Certified Workers of Confined Spaces Operation	110
6	密閉空間核准工人及合資格人士安全訓練覆證課程 Safety Training Revalidation Course for Certified Workers and Competent Persons of Confined Spaces Operation	174
7	密閉空間核准工人安全訓練課程 Safety Training Course for Certified Workers of Confined Spaces Operation	59
8	密閉空間核准工人及合資格人士安全訓練課程 Safety Training Course for Certified Workers & Competent Persons of Confined Spaces Operation	232
9	安全施工程序 Safe Working Cycle	7
10	安全使用流動式鋁質通架 Safe Use of Mobile Aluminum Towers	5
11	安全使用磨輪 Safe Use of Abrasive Wheels	10
12	化學品安全處理 Safe Handling of Chemicals	32
13	叉式起重車操作員訓練重新甄審資格課程 Revalidation Training Course for Operators of Fork-lift Truck	12
14	職業安全管理 Occupational Safety and Health Supervisor Course	38
15	氣體焊接安全訓練重新甄審資格課程 Gas Welding Safety Training Revalidation Course	5
16	氣體焊接安全訓練課程 Gas Welding Safety Training Course	11
17	龍門式起重機重新甄審資格證明課程連測試 Gantry Crane Certification Training and Test (Revalidation)	20
18	龍門式起重機資格證明課程連測試 Gantry Crane Certification Training and Test	8
19	如何避免在工作中被狗隻咬傷 Dog Bite Safety	13
20	密閉空間合資格人士之從事渠務署工程安全訓練課程 Confined Space Safety Training Course for Competent Persons Engaged in the DSD's Works	172
21	密閉空間核准工人之從事渠務署工程安全訓練課程 Confined Space Safety Training Course for Certified Workers Engaged in the DSD's Works	364
22	顯示屏幕設備評估合格證書課程 Certificate of Competence in Display Screen Equipment Assessment	9
23	強制性基本安全訓練課程（建築工程）[建造業平安卡課程] Mandatory Basic Safety Training Course (Construction Work) [Green Card Training Course]	93
24	強制性基本安全訓練重新甄審資格課程（建築工程）[建造業平安卡重溫課程] Mandatory Basic Safety Training Revalidation Course (Construction Work) [Green Card Training Revalidation Course]	287

職安健活動
OSH Activities

除了為員工提供上述培訓，本署亦會不時舉辦職安健相關活動，包括探訪和與前線同事交流的分享會。目的旨在分享最新的職安健知識，同時了解前線員工對本署相關措施的意見，讓我們能持續改善職安健管理。此外，依照發展局的建築地盤安全手冊，本署所有工程的工地安全委員會亦會每月舉辦一次會議。

Apart from the above training, the Department also organises OSH-related activities from time to time, including visits and sharing sessions, as effective channels to communicate with frontline staff. The purpose of the OSH activities was to share the latest updates of OSH knowledge and gauge frontline staff's views on the OSH measures we have implemented, for a sustained improvement of our OSH management. Also, the site safety committees of all our construction projects would hold monthly meetings in accordance with the Development Bureau's Construction Site Safety Manual.

報告期內，本署舉辦及參與的職安健活動包括：
During the reporting period, OSH campaigns we initiated and participated in include:

48
項工程項目參與發展局及建造業議會主辦的第28屆公德地盤嘉許計劃
works projects joined the 28th Considerate Contractors Site Award Scheme organised by the Development Bureau and the Construction Industry Council

53
項工程項目參與本署舉辦的2021年工地安全及整潔獎勵計劃
works projects joined the Department's Construction Sites Safety and Housekeeping Award Scheme 2021

2
個為本署員工、顧問公司駐工地人員及承建商代表舉辦的安全講座
safety talks were organised for our colleagues, resident site staff of consultants and representatives of contractors

本署舉辦了兩場的電力安全講座，藉此提升員工的電力安全意識
Two electricity safety talks were organised to enhance staff awareness of electricity safety

作為衛生署旗下《精神健康職場約章》的簽署機構之一，本署十分關注員工的身心健康。由 2020 至 2022 年度，本署亦是「精神健康友善機構」，我們每年均會為員工舉辦壓力管理工作坊，向員工分享緩解壓力的心得，提升他們的精神健康。另外，本署亦獲得「五年＋同心展關懷」標誌，在實踐關懷精神上獲得坊間一定認可。

The Department is a signatory to the Department of Health's Mental Health Workplace Charter and is deeply concerned with the physical and mental wellbeing of employees. As a "Mental Health Friendly Organisation" in 2020-2022, we arrange stress management workshops for our employees every year to share tips on relieving stress, so as to improve their mental health. We also received the "5 Years Plus Caring Organisation" logo, an accolade that celebrates caring spirit for the community.

精神健康友善機構
Mental Health Friendly Organisation

5 years+ 同心展關懷®
caringorganisation
Awarded by The Hong Kong Council of Social Service
香港社會服務聯會頒發

疫情下的職安健措施
OSH Measures under the COVID-19 Pandemic

在新冠病毒疫情下，我們更需要保障員工的安全健康，尤其是需要處理污水和與市民溝通的前線員工，務求能繼續為公眾提供專業高效的渠務服務。

除了管理層身體力行，響應政府呼籲，自行及鼓勵同事接種疫苗，本署特別為員工安排團體疫苗接種活動，保障他們及公眾的健康，以期減低病毒在社區傳播的風險和盡快恢復正常社交生活。於疫情期間，我們亦定期為員工提供防疫指引，並提醒同事應時刻保持個人衛生及正確佩戴合適的個人防護裝備，以預防受到感染。

為防止疾病傳播及保障公共衛生，我們為員工採購了充足的防疫物資，包括各種口罩及潔手液。同時，我們為前線員工提供足夠及適當的個人防護裝備，將他們感染新冠病毒的風險降到最低，如為污水採樣人員提供口罩、面罩、手套等適當的裝備。

在疫情爆發最嚴峻的時期，渠務署為了維持對公眾的服務承諾並同時響應政府希望市民盡量留在家中及保持社交距離的呼籲，我們實施特別上班安排，指示員工採用輪更制在家工作，以減低他們受到新冠病毒感染的風險。

The COVID-19 pandemic presented a pressing need to safeguard the safety and health of our staff, especially frontline staff who are required to deal with sewage and communicate with the public, with a view to ensure that we can continue providing the public with professional and efficient drainage services.

In addition to our management giving active response to the government's appeal and encouraging colleagues to get vaccinated, we have specially arranged a group vaccination campaign aiming to safeguard the health of the staff and the public, hoping to reduce the risk of virus transmission in the community and bring life back to normal. During the pandemic, we have also been providing guidelines to staff on epidemic prevention regularly, staff are advised to maintain strict personal hygiene at all times and wear suitable personal protective equipment properly for personal protection against infection.

To prevent the spread of COVID-19 and to safeguard public health, we purchased adequate protective equipment for our employees, including different kinds of masks and hand sanitisers. Moreover, we provided the front-line staff with adequate and proper personal protective equipment. For example, we provided appropriate equipment such as masks, face shields and gloves to sewage samplers to minimise their risk of infection by the SARS-CoV-2 virus.

In addition, during the peak of the COVID-19 outbreak, we upheld our service pledge to the general public and responded to the government's call to stay home and maintain social distancing by implementing special work arrangements and instructing our staff to work in rotating shifts, so as to reduce the risk of contracting COVID-19.

署長彭雅妮女士參加團體疫苗接種活動
Ms Alice PANG, Director of Drainage Services, joined the group vaccination campaign

員工康樂活動
Staff Recreational Activities

渠務署積極推動工作與生活平衡的健康職場文化，並且鼓勵員工維持身心健康。本署持續多年舉辦康樂活動，藉此讓員工在繁忙的工作之餘得到放鬆，從而保持平衡工作和生活。員工更可以藉此機會相互交流，建立團隊精神和提高對本署的歸屬感。

The DSD aims to nurture a culture of work-life balance within the department and always encouraging our employees to attend to their physical and mental wellbeing. We have organised recreational activities for many consecutive years for our staff to relieve stress at work and practise a healthy work-life balance. They can also take the opportunity to connect, and thereby strengthen team spirit and sense of belonging towards the DSD.

親善探訪
Goodwill Visits

本署管理層非常重視與前線員工建立良好的員工關係，並認為這是人力資源管理的重要一環。 故此本署由 2013 年起推行親善探訪計劃，以助管理層與前線員工建立良好的溝通。本署署長、副署長和其他首長級人員每年均會到訪前線員工的工作地點與他們對話，了解他們關心的議題以及需求。

Our management values good staff relations with frontline staff and considers it an integral part of human resource management. The Department introduced the Goodwill Visits programme in 2013, aims to foster communication between the management and frontline staff. Under the programme, Director and Deputy Director of Drainage Services, as well as other directorate staff, pay visits to frontline colleagues at their workplaces annually to understand their concerns through warm dialogue.


署長彭雅妮女士（左二）到訪灣仔東基本污水處理廠
Ms Alice PANG (second left), Director of Drainage Services, made Goodwill Visit to Wan Chai East Preliminary Treatment Works

副署長徐仕基先生（右五）到訪深井污水處理廠
Mr Peter CHUI Si-kay (fifth right), Deputy Director of Drainage Services, made Goodwill Visit to Sham Tseng Sewage Treatment Works

副署長彭雅妮女士（前排右八）、前副署長彭偉成先生（前排右九）、前助理署長黃緒勤先生（前排左五）、助理署長梁泳源先生（前排右一）與總部技術支援組的同事合照
Group photo of Director of Drainage Services, Ms Alice PANG (first row, eighth right), the then Deputy Director of Drainage Services, Mr Wilson PANG Wai-shing (first row, ninth right), the then Assistant Director/Projects and Development, Mr WONG Sui-kan (first row, fifth left), Assistant Director/Sewage Services, Mr Walter LEUNG Wing-yuen (first row, first right) and colleagues from Technical Support Group of DSD Headquarters

中秋慶祝活動
Celebration of Mid-Autumn Festival

適逢2021年9月17日中秋佳節將至，本署首長級人員特意私人贊助為每位同事送上應節水果，與大家共慶中秋，寓意與一眾同事分享工作的碩果，藉此感謝同事對部門工作所付出的努力及貢獻。

As the Mid-Autumn Festival approached, the directorate-level staff of the Department specially sponsored each colleague seasonal fruit to celebrate the festival on 17 September 2021, which symbolise sharing the fruits of labour with employees, to extend appreciation to the colleagues for their efforts and contributions.

署長為同事送上應節水果
Director of Drainage Services brought seasonal fruit to colleagues

各助理署長及部門秘書為同事送上應節水果
Assistant Directors and Departmental Secretary brought seasonal fruit to colleagues

部門聖誕幸運大抽獎
Departmental Christmas Lucky Draw

因應疫情關係，我們今年仍未能舉辦實體的大型聖誕聯歡會。但為了與同事迎接普天同慶的聖誕佳節，以及感謝同事對部門工作所付出的努力和貢獻，我們特別以視像形式舉行幸運大抽獎活動，本署首長級人員更私人贊助多達 200 份的豐富獎品。為增添節日氣氛，我們特意準備多個精彩節目，包括在抽獎現場播放由部門同事獻唱聖誕歌的影片，以及邀請本署樂隊 The Revival 表演助興，為同事們帶來歡樂又難忘的時刻。

In view of the epidemic situation, we were not able to arrange a large-scaled physical Christmas Party this year. However, to welcome the joyful Christmas and express gratitude to our employees for their effort and contribution to delivering on the DSD's mission, we arranged a special live streaming lucky draw for Christmas. Around 200 attractive prizes mainly donated by our directorates were offered. To keep the festive spirit alive, we also prepared splendid programmes including broadcasting the video clips of singing Christmas carols by our staff and invited the Department Band namely "The Revival" to perform during the event. It was truly a joyful and memorable event for all.

署長彭雅妮女士為活動致辭
Ms Alice PANG, Director of Drainage Services, gave a welcoming speech for the staff event


渠務署樂隊 The Revival 獻唱多首聖誕歌曲
Performance of Christmas songs by DSD Band "The Revival"

活動及興趣班
Activities and Interest Classes

為了能讓員工在公餘時間享受生活的樂趣及天倫之樂，我們舉辦了多個活動和興趣班，包括皮革工作坊、香薰蠟燭小夜燈工作坊、和諧粉彩工作坊、冰皮月餅製作班、聖誕甜品製作班、聖誕掛飾工作坊等。這些活動不但能舒緩員工的工作壓力，更有助凝聚員工士氣和提高他們對工作的熱誠。

In order to enable our staff to enjoy a fruitful life and have fun with family in their spare time, we arranged various recreational activities and interest classes including leather workshop, aromatherapy candle light lamp workshop, soft pastel taster workshop, snowy mooncake class, Christmas dessert class, Christmas craft workshop, etc. for them. These activities helped not only ease their work pressure but also consolidate their morale and increase their passion for work.


香薰蠟燭小夜燈工作坊
Aromatherapy Candle Light Lamp Workshop


皮革工作坊
Leather Workshop

和諧粉彩工作坊
Soft Pastel Taster Workshop

冰皮月餅製作班
Snowy Mooncake Class

體育活動
Sports Events

除了文娛活動外，本署亦會舉辦和參與各項體育活動，旨在鼓勵同事維持運動習慣，建立健康的生活，並培養團隊精神。報告期內，職員康樂會舉辦了羽毛球及網球練習活動和足球比賽。

2021 年 11 月 14 日，本署參加「愛跑 • 河上鄉」慈善跑暨嘉年華，「愛跑」活動為罹患罕見病的兒童籌募醫療經費，並喚起外界對罕見病的關注。由時任助理署長 / 污水處理服務梁泳源先生率領的 DSD TEAM 奪得第七名，而排水工程部蔡美強先生更於男子 3.3 公里個人賽（50-59 歲組別）中贏得亞軍。

Apart from cultural activities, the Department also arranged and participated in various sports events, aiming to encourage our colleagues to embrace regular exercise in leading a healthy lifestyle as well as develop team spirit. During the reporting period, the DSD Staff Club organised practice groups for badminton and tennis, and also a football match.

On 14 November 2021, the Department participated in the "Lifewire Run 2021 • Ho Sheung Heung" charity run and carnival. The Lifewire Run raises funds and public awareness for children with rare diseases. The DSD TEAM led by Mr Walter LEUNG Wing-yuen, then Assistant Director/Sewage Services won the seventh place. Besides, Mr CHOI Mei-keung of the Drainage Projects Division won the first runner-up in 3.3km Male Individual (aged 50-59).

參賽同事大合照
Group photo of participating colleagues

本署排水工程部蔡美強先生（左）贏得男子 3.3 公里個人賽亞軍
Mr CHOI Mei-keung of the Drainage Projects Division of the DSD won the first runner-up in 3.3km Male Individual

CHAPTER 7 第七章

持份者參與
STAKEHOLDER ENGAGEMENT

渠務署一直與各界持份者保持雙向和長遠的合作關係，持著開放和包容的態度去聆聽和接受各界持份者的意見。報告期內，我們透過舉辦活動和展覽，加深公眾對本署服務和可持續發展工作的了解。另外，我們繼續與工作伙伴維持緊密合作，積極推廣職業安全與健康，從而保障工作伙伴的安全。本署亦鼓勵員工參與各種義工服務和慈善活動，與公眾維持良好的關係。

The DSD has always maintained two-way and long-term partnerships with stakeholders and has taken an open and inclusive attitude to listen to and factor in their opinions. During the reporting period, we organised events and exhibitions for the public to better understand our services and work on sustainable development. In addition, we have maintained close ties with our working partners and taken active occupational safety and health measures to guarantee their safety. Our staff are encouraged to participate in voluntary services and charity activities of all kinds to maintain a good relationship with the public.

報告期內，在每個與持份者的溝通渠道，我們均舉辦了至少一次活動[1]，各溝通渠道詳列如下[2]：

During the reporting period, we organised at least one event through each of the communication channels with our stakeholders[1], the channels are listed below[2]:

員工 Staff

- 公務員建議書計劃 Staff Suggestions Scheme
- 部門各協商委員會和討論小組 Consultative committees and discussion groups across the DSD
- 渠務署簡訊 — 渠務之聲 DSD Newsletter - Channel

供應商 Suppliers

- 公開研討會 Public seminars
- 投標活動 Tender activities

顧問及承辦商 Consultants and Contractors

- 工地考察 Site visits
- 經驗分享會 Experience sharing sessions
- 工地安全及整潔獎勵計劃 Construction Sites Safety and Housekeeping Award Scheme

議員 Councillors

- 立法會會議 Legislative Council meetings
- 區議會會議 District Council meetings

學術組織 / 專業團體 Academia/ Professional Bodies

- 研討會 Seminars
- 到訪渠務署總部或轄下設施 Visits to DSD headquarters or our facilities

公眾 Public

- 服務滿意度調查 Customer satisfaction surveys
- 問卷調查 Questionnaire surveys
- 渠務署設施導賞 DSD facilities guided tours
- 工程簡介會 Project briefing sessions

環保團體 Green Groups

- 環保團體會議 Meetings with environmental groups
- 河道考察 Site visits to river channels

其他政府部門 Other Government Departments

- 跨部門會議 Inter-departmental meetings
- 跨部門義工活動 Inter-departmental volunteer activities

媒體 Media

- 節目 Programmes
- 專訪 Interviews
- 簡報會 Briefing

[1] 活動次數視乎實際情況而定。The number of activities subject to the actual circumstances.
[2] 102-40, 102-43

公眾參與
Public Engagement

渠務署致力與公眾保持密切溝通和交流。為了向公眾宣傳渠務署提供的服務，以及了解公眾的需求，本署舉辦了各種不同的活動，例如科技展覽、工程導賞、教育計劃等。通過參與這些公眾活動，市民得以快速掌握本署最新消息。公眾參與度得以提升，同時渠務設施與周邊社區能夠更好的融合。

The DSD is committed to maintaining close communication with the public. We have organised a multitude of activities, including exhibitions, guided tours and educational programmes in order to promote the public services we provided and gain understanding of what the community needs. These activities kept Hong Kong citizens updated on our latest news and developments, thus facilitating public engagement and promoting the integration between drainage facilities and surrounding communities.

工程項目公眾參與
Public Engagement for DSD Projects

搬遷沙田污水處理廠往岩洞
Relocation of Sha Tin Sewage Treatment Works to Caverns

以沙田污水廠搬遷工程為例，為方便公眾及時掌握工程進度，本署透過項目網頁、社交媒體專頁、工程單張及季度簡訊等渠道更新和匯報工程進展。同時，項目團隊特別在梅子林路旁建造社區聯絡中心，以線下方式為市民介紹工程的環保建築、可持續發展理念和創新科技的應用情況。為加強中心與社區的聯繫，團隊又舉辦社區聯絡中心命名比賽，進一步推廣工程計劃。本署亦計劃免費開放中心的會議室給團體預約以舉辦不同活動，從而達到服務社區及促進交流的目的。

Taking the relocation works of Sha Tin STW to Caverns as an example, we keep the public updated on the construction progress through the project website, a social media page, leaflets and quarterly newsletters. Meanwhile, the Project Team set up a Community Liaison Centre (CLC) adjacent to Mui Tsz Lam Road to introduce the concept of green construction, sustainable development and the application of innovative technologies to the public in person. A naming competition for the CLC was organised to strengthen the connection between the CLC and the community and further publicise the works. We also plan to make the CLC meeting room available for free booking as an event venue for organisations to serve the community and encourage interactions.

設於梅子林路旁的社區聯絡中心
Community Liaison Centre adjacent to Mui Tsz Lam Road

項目團隊與沙田鄉事委員會及沙田區議會一直保持緊密聯繫，並收集周邊居民的意見，及時作出回應，希望盡量減少工程對社區造成的負面影響。團隊也舉辦了工程簡介會，向鄰近學校、屋苑及機構代表講解爆破工程的安排，消除公眾對爆破工程的疑慮。

報告期內，項目團隊也舉辦和協辦了不同類型的社區活動，包括：

The Project Team has been closely communicating with the Sha Tin Rural Committee and the Sha Tin District Council to collect and respond to opinions from residents in the neighbourhood in a timely manner, with a view to minimising impacts to residents during construction. Briefing sessions were also arranged for representatives of nearby schools, residential estates and organisations, through which the Project Team explained arrangements of blasting works to the public to ease their concerns.

During the reporting period, the Project Team also held and co-organised various community activities:

● 社區聯絡小組會議
Community Liaison Group Meeting

於 2021 年 9 月 30 日，工程團隊在社區聯絡中心舉辦了社區聯絡小組的第四次會議，與會人士包括沙田區議會代表、沙田區居民及其他相關持份者。會議旨在收集他們的寶貴意見，就工程進度及施工安排進行溝通。

On 30 September 2021, the Project Team held the fourth Community Liaison Group Meeting at the CLC, which was attended by representatives from the Sha Tin District Council, local residents of Sha Tin District and other relevant stakeholders. The aims of the meeting were to collect their valuable opinions and update project progress and construction works arrangements.

● 社區聯絡中心導賞團
CLC Guided Tour

我們致力與公眾保持緊密聯絡，明白公眾需求的同時，向公眾展示工程進展及當中使用的創新科技及環保措施。我們於 2021 年內安排了多次社區聯絡中心導賞團，向社區持份者及學生等介紹最新工程資訊，讓導賞團參加者藉沉浸式電腦虛擬環境體驗工地情況。

The DSD strives to maintain close communication with the public to appreciate their needs, as well as promote public understanding of our projects and the innovative technologies and environmental measures adopted in the projects. We organised a number of CLC Guided Tours in 2021 and updated community stakeholders and students etc. on the latest project information. With the CAVE (Computer Assisted Virtual Environment) system, tour participants also had an immersive experience of the site environment.

工程團隊利用沉浸式電腦虛擬環境向持份者展示工地情況
Project team used CAVE to illustrate the site environment to stakeholders

活化翠屏河
Revitalisation of Tsui Ping River

「藍綠建設」是指透過引進綠化和生態保育元素的活化水體概念，令河道不僅可用以防洪，亦為公眾提供優質的河道設施，並提升河道的環境及社會價值。而「藍綠建設」的成效，公民的參與和責任感是一大關鍵。為讓公眾進一步了解活化翠屏河的工程內容，以及探討日後河畔空間的使用，工程團隊與創不同學院合作策劃「翠屏河畔想像企劃」，以一系列教育及創意活動探索人、河流、社區之間的連結。並透過實地參觀翠屏河，讓公眾了解河道活化及社區設計議題。

"Blue-Green Infrastructure" is a concept of revitalising water bodies by incorporating green and eco-conservation elements, to provide the public quality river facilities apart from the function of flood prevention, as well as to enhance the environmental and social values of rivers. The public participation and responsibility are essential for the effectiveness of "Blue-Green Infrastructure". To let the public know more about the project details of Revitalisation of Tsui Ping River and explore uses of the future river space, the project team cooperated with Make a Difference School and planned the Tsui Ping River Community Workshop. The connections between people, rivers and the community were explored through a series of educational and creative activities. The public could learn about topics of river revitalisation and community designs by on-site visit of Tsui Ping River.

翠屏河畔想像企劃
Tsui Ping River Community Workshop

香港科學節 2021
HK SciFest 2021

為了幫助宣傳和推廣「2021 香港科學節」主題「科技創未來」，本署在 2021 年 4 月 8 日通過「藍綠治水」的線上講座，向市民介紹現代雨水管理模式－「藍綠建設」。講座的主要內容是向市民介紹這種管理模式的概念，以及這個模式如何加強城市應對洪水的能力、促進城市可持續發展。與此同時，我們在當月還特別安排了赤柱污水處理廠和跑馬地地下蓄洪池的導覽，讓市民更認識相關渠務設施。

On 8 April 2021, to help promote HK SciFest 2021 themed on "Technology for Our Future", the Department gave an online lecture titled "Blue-Green for Stormwater Management" to introduce a modern stormwater management approach - "Blue-Green Infrastructure" to the public. The talk focused on the concept of the approach as well as how it reduces flood risks and contributes to sustainable development in the city. In the same month, we also orgainsed tours to Stanley STW and Happy Valley Underground Stormwater Storage Tank for the community to know more about these drainage facilities.

「科學為民」服務巡禮 2021
Science in the Public Service 2021

為了向市民介紹政府部門和相關機構的科學工作，以及如何正確應用科技為公眾提供更高質素的服務，「科學為民」服務巡禮聯合政府多個部門及其他機構舉辦活動。渠務署特別為公眾提供參觀渠務署設施活動並安排相關科學講座，從而向公眾推廣本署是如何在渠務設施中引入全新的元素，以進一步提高部門服務質量和效率。

Science in the Public Service (SIPS) is a joint campaign organised by the Government bureaux/departments and other organisations to promote their scientific work and application of technology to the provision of services for the general public. The Department arranged site visits to the drainage facilities and relevant science talks for the public to publicise how we introduced new elements to drainage facilities for enhanced service quality and efficiency.

本署代表出席 2021 年 9 月 18 日「科學為民」服務巡禮的一場專題講座，介紹部門在推展搬遷沙田污水處理廠往岩洞項目時，如何藉新引進的污水及污泥處理技術、研發工作及工地的創新科技應用，克服項目挑戰、提升施工效率及改善工地環境。

Representatives of the Department delivered a lecture for the SIPS campaign on 18 September 2021 on how the Department overcame project challenges, enhanced construction efficiency and improved the site environment of the Relocation of Sha Tin Sewage Treatment Works to Caverns project through the newly introduced sewage and sludge treatment technology, research and development work and applications of technology in construction sites.

本署岩洞工程部高級土力工程師王曉輝先生（左）、高級工程師陳學文先生（中）及土力工程師高鳴遠先生（右）於「科學為民」專題演講中介紹渠務署在搬遷沙田污水處理廠往岩洞工程項目中所應用的創新科技

Senior Geotechnical Engineer, Mr Joel WONG Yiu-fai (left), Senior Engineer, Mr John CHAN Hok-man (middle) and Geotechnical Engineer, Mr Elton KO Ming-yuen (right) of the Department introduced the application of innovative technology in the project of Relocation of Sha Tin Sewage Treatment Works to Caverns

本署於 12 月 5 日為公眾安排參觀渠務署防洪設施「元朗排水繞道生態保育導賞團」。除了向市民介紹部門的防洪工作外，亦向他們介紹設施中所注入的保育自然生態元素及不同防洪設施的設備及運作。

On 5 December 2021, the Department arranged a visit "Yuen Long Bypass Floodway Eco Tour" to the public to introduce the flood prevention works and elements of preservation of ecosystems incorporated into the DSD's works and the equipment and the operation of different drainage facilities to the visitors.

本署同事向參觀者介紹元朗排水繞道人工濕地的作用

DSD colleague introduced the function of Yuen Long Bypass Floodway Engineered Wetland

本署參與「科學為民」服務巡禮的電視節目《科學為民》製作，節目中介紹太陽能光伏系統於污水處理廠的應用，以及大埔污水處理廠的「廚餘、污泥共厭氧消化試驗計劃」，具體展現渠務署在節能措施方面對社會可持續發展所作出的實踐，致力減少碳排放的環保貢獻。《科學為民》第一集已在 2021 年 12 月 26 日於港台電視 31 及香港電台網站播出。

The Department participated in the production of the TV documentary programme "Science in the Public Service" to introduce the application of the solar PV system in STWs and the "Food Waste/ Sewage Sludge Anaerobic Co-digestion Trial Scheme" being executed at Tai Po STW which demonstrate the DSD's commitment in pursuing sustainable development by harnessing renewable energy and showcase our contribution in striving to reduce carbon emission. The first episode of "Science in the Public Service" was broadcasted on RTHK 31 and the RTHK website on 26 December 2021.

渠務署署長彭雅妮女士於 2021 年 12 月 22 日出席電視節目《科學為民》啟播禮

Ms Alice PANG, Director of Drainage Services, attended the kick-off ceremony of TV documentary programme "Science in the Public Service" on 22 December 2021

創新科技嘉年華 2021
InnoCarnival 2021

渠務署參與了 2021 年 10 月 23 日至 10 月 31 日在香港科學園舉行的創新科技嘉年華。這一年渠務署的參與展覽攤位以展板、短片、360 度全景相機製作赤柱污水處理廠虛擬實境導覽、工程項目中採用的建築信息模擬技術 (BIM) 及五鏡頭無人飛行器系統製作三維實景模型的介紹和利用，向公眾介紹本署對於多項創新技術的應用情況。渠務署更提供機會讓市民體驗工程師如何在工程中利用如虛擬實境技術等新型科技，從而提高施工速度、質量和安全水平。為了提高市民的興趣和參與度，本署在展覽攤位額外設計了「帶下水水出海」這個游戲，借此提高大眾對「雨污分流」的認識。

The DSD joined the InnoCarnival 2021 at the Hong Kong Science Park held from 23 to 31 October 2021. With the aid of display panels, videos, a 360-degree panoramic camera for making the Stanley STW Virtual Tour, Building Information Modelling (BIM) adopted in the projects and 5-Lens Unmanned Aerial System for building 3D Photorealistic Model, we showcased the application of innovative technologies in our works and enabled the public to experience how engineers utilise the VR technology to enhance construction efficiency, quality and safety. To better engage the visitors, a booth game "Bring Drainy to the Sea" was designed to raise public awareness of "separate drainage and sewerage systems".

市民參觀渠務署的攤位
The public visited DSD's booth

「帶下水水出海」游戲
A booth game "Bring Drainy to the Sea"

國際環保博覽 2021
Eco Expo Asia 2021

2021 年 10 月 27 日，渠務署參與在香港會議展覽中心舉行的國際環保博覽 2021。本署的參展主題是「污水監測－抵禦 2019 冠狀病毒病」和「可再生能源－水力發電」，現場有同事為參觀者講解，參觀者亦可透過觀看展品、展板、欣賞短片來認識本署對抗 2019 冠狀病毒病的工作及如何應用可再生能源技術於本署的設施上。此外，渠務署機電工程師徐敏女士亦於 10 月 28 日的政府部門論壇上，向與會者分享本署對抗 2019 冠狀病毒病經驗和成果。

On 27 October 2021, the DSD participated in the Eco Expo Asia 2021 at the Hong Kong Convention and Exhibition Centre. With the themes of "Sewage Surveillance - Combating COVID-19" and "Renewable Energy - Hydro Turbine", visitors could know more about the DSD's anti-epidemic work and how renewable energy technologies are adopted in the Department's facilities through exhibits, display panels, video clips as well as briefings by the DSD colleagues. Apart from this, our Electrical and Mechanical Engineer, Ms Mandy TSUI Man, also shared the Department's experience in combating COVID-19 through sewage surveillance during the Government Department's Forum on 28 October 2021.

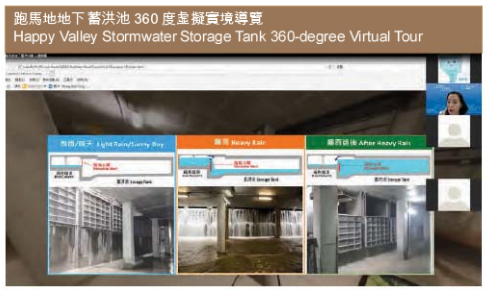
徐敏女士於 10 月 28 日的政府部門論壇上，向業界分享本署收集污水樣本的工作流程和當中所應用的科技
Ms Mandy TSUI introduced the process of sewage samples collection and technologies employed in sewage surveillance by the Department during the Government Department's Forum on 28 October 2021

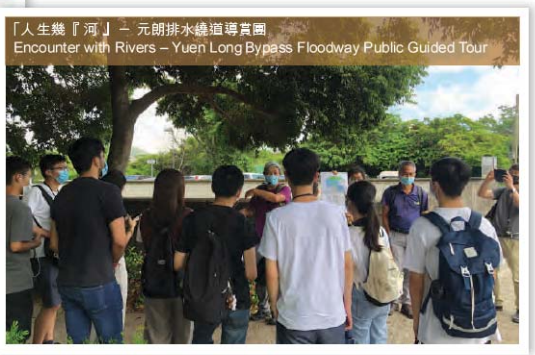
時任環境局局長黃錦星先生（右三）、時任貿發局副總裁周啟良先生（右二）在渠務署署長彭雅妮女士（右四）陪同下參觀渠務署的攤位
The then Secretary for the Environment, Mr WONG Kam-sing (third right), then HKTDC Deputy Executive Director, Mr Benjamin CHAU Kai-leung (second right) were accompanied by the Director of Drainage Services, Ms Alice PANG (fourth right) to visit the DSD's exhibit

具教育意義的參觀活動
Educational Visits

本署通過定期舉辦導賞活動，邀請市民參觀本署設施，從而加深市民對本署提供的服務以及運作流程的了解。基於香港政府在疫情期間實施社交距離措施，本署在渠務署網頁上提供了網上遊覽設施的服務，並且與本地環保組織「綠色力量」合辦讓公眾可以親身參與或以虛擬方式參加的「人生幾『河』一 元朗排水繞道導賞團」，從而在疫情期間為市民提供一個方便且可深入了解設施運作的機會。報告期內，我們也安排了防洪和污水處理設施的虛擬實境公眾導賞團，包括跑馬地地下蓄洪池和沙田污水處理廠導賞團。

It is our practice to organise guided tours on a regular basis for the public to visit our facilities so they can better understand the Department's services and daily operations. In view of the Government's implementation of social distancing measures during the pandemic, we offered virtual tours of the Department's facilities via our website. Besides, we co-organised "Encounter with Rivers – Yuen Long Bypass Floodway Public Guided Tour" with the local green group Green Power. Members of the public could join the tour virtually or in person to explore the operations of our facilities amid the pandemic. During the reporting period, public visits in the form of online virtual tours to the Department's flood prevention and sewage treatment facilities, namely Happy Valley Stormwater Storage Tank and Sha Tin STW, were arranged respectively.





供應商、顧問及承辦商參與
Suppliers, Consultants and Contractors Engagement

渠務署堅持與供應商、顧問及承辦商（工作伙伴）建立良好和緊密的合作關係，達成雙贏的結果。在渠務署的供應鏈中，本署主要用合約的方式聘請顧問和承辦商，要求他們提供顧問服務、進行工程及提供建築材料等。

我們正在逐步推行「新工程合約」這種新型合作方式，從而提升工作伙伴的參與度，有利於提升工作效率。同時，本署致力於實施嚴格的職業安全與健康措施，從而保障員工和工作伙伴的安全。為了鞏固與工作伙伴的關係，本署不定時開展伙伴工作坊，與工作伙伴對未來規劃進行意見交換和討論。

The DSD is dedicated to building sound and close working relationships with suppliers, consultants and contractors (working partners) for win-win results. In the DSD's supply chain, consultants and contractors are mainly engaged on a contractual basis for the provision of consultancy services, construction work and construction materials, etc.

We have been embracing the new NEC model to improve how we engage working partners and hence boost efficiency. Meanwhile, the DSD commits itself to implementing rigorous occupational safety and health measures to ensure the safety of our employees and working partners. Partnering workshops are conducted from time to time with a view to discussing the future plans with our working partners and hence cementing bilateral ties.

採用「新工程合約」
Launch of New Engineering Contracts (NEC)

「新工程合約」與傳統合約模式的區別在於，它更加注重與工程顧問、承建商在內的工作伙伴之間的共同管理，以及與他們之間的風險分擔。這種全新的合約模式能夠促進本署與工作伙伴之間的合作關係，並携手加強工程管理，從而提升工程效率，減低工程延誤帶來的風險和負面效果。

本署批出的「新工程合約」包含土木工程、機電工程、維修保養和工程顧問服務等範圍。截至目前為止，本署已經完成了 45 份「新工程合約」。其中，跑馬地地下蓄洪計劃的工程也採用此新模式，最終提早了 24 個月完工，節省了約 1.1 億元工程費用，令人振奮。

The NEC model differs from traditional engineering contracts by placing more emphasis on joint management and risk sharing among working partners, including consultants and contractors. The model strengthens collaboration between the Department and our working partners to jointly enhance construction management and hence improve project effectiveness to minimise the negative impact of project delays.

NECs awarded by the Department cover engineering projects, electrical and mechanical engineering projects, maintenance works and consultancy services, etc. Currently, the Department has completed 45 NECs. In particular, works of the Happy Valley Underground Stormwater Storage Scheme which adopted the new model were completed 24 months ahead of schedule, impressively saving approximately $110 million of project cost.

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本署由 2009 年至今共批出的新工程合約數目
NECs awarded by the DSD since 2009

27

報告期內共批出的新工程合約
NECs awarded in the year under review

「新工程合約」階段成果
NEC Milestones

在 2021 年，渠務署轄下五個工程項目獲英國新工程合約用戶組織頒發合共七個獎項，其中於「年度創新合約項目」和「年度水利工程項目」組別榮獲大獎。成績令人鼓舞之餘，亦顯示渠務署致力以伙伴合作方式推展「新工程合約」項目的決心。

「年度創新合約項目」和「年度水利工程項目」大獎分別由「沙頭角污水處理廠第一期擴建工程及塘肚鄉村污水收集系統」和「石湖墟淨水設施 — 主體工程第一階段」贏得。另外，渠務署亦藉著其他工程項目囊括該兩個組別的全部獎項。「沙頭角污水處理廠第一期擴建工程及塘肚鄉村污水收集系統」亦同時獲得新增的「年度可持續發展及氣候適應力項目」第二名。

渠務署獲頒獎項及工程如下：

In 2021, five projects under the DSD received a total of seven awards, including the top prize in NEC Contract Innovation of the Year and NEC Water Project of the Year, under the NEC Users' Group of the United Kingdom. The encouraging results depicted the determination of the DSD in implementing NEC through achieving collaborative partnerships.

"Expansion of Sha Tau Kok Sewage Treatment Works Phase 1 and Village Sewerage in Tong To" and "Upgrading of Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1" were named NEC Contract Innovation of the Year and Water Project of the Year respectively. The DSD swept all awards under the abovementioned categories. Meanwhile, "Expansion of Sha Tau Kok Sewage Treatment Works Phase 1 and Village Sewerage in Tong To" also came second in the newly introduced "NEC Sustainability and Climate Resilience" category.

The list of awards and recognised projects are:

「年度水利工程項目」
Water Project of the Year

大獎	石湖墟淨水設施 — 主體工程第一階段	Winner:	Upgrading of Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
第二名	建造東涌至小蠔灣加壓污水管道及其相關工程	Runner Up:	Construction of an Additional Sewage Rising Main between Tung Chung and Siu Ho Wan and Associated Works
高度讚揚	搬遷沙田污水處理廠往岩洞	Highly Commended:	Relocation of Sha Tin Sewage Treatment Works to Caverns

「年度創新合約項目」
NEC Contract Innovation of the Year

大獎	沙頭角污水處理廠第一期擴建工程及塘肚鄉村污水收集系統	Winner:	Expansion of Sha Tau Kok Sewage Treatment Works Phase 1 and Village Sewerage in Tong To
第二名	香港及離島地區之渠務維修及建造工程 (2021-2025) 及渠務署廠房及相關設施之樓宇及土木維修及小型工程 (2020-2025)	Runner Up:	Drainage Maintenance and Construction in Hong Kong Island and Islands Districts (2021-2025) and Building and Civil Maintenance and Minor Works to DSD Plants and Facilities (2020-2025)
高度讚揚	搬遷沙田污水處理廠往岩洞	Highly Commended:	Relocation of Sha Tin Sewage Treatment Works to Caverns

「年度可持續發展及氣候適應力項目」
NEC Sustainability and Climate Resilience

第二名	沙頭角污水處理廠第一期擴建工程及塘肚鄉村污水收集系統	Runner Up:	Expansion of Sha Tau Kok Sewage Treatment Works Phase 1 and Village Sewerage in Tong To

此外，「水塘間轉運隧道計劃－九龍副水塘至下城門水塘輸水隧道」的承建商亦獲頒「年度承建商」大獎

In addition, the contractor of "West Kowloon Drainage Improvement – Inter-reservoirs Transfer Scheme" was named NEC Contractor of the Year.

五個渠務署工程項目獲頒七個英國新工程合約用戶組織獎項
Five DSD works projects took seven awards under the New Engineering Contract NEC Users' Group of the United Kingdom

渠務署署長彭雅妮女士（前排左三）與獲獎的工程團隊合照
Ms Alice PANG (front row, third left), Director of Drainage Services, took photo with award-winning project teams

伙伴工作坊
Partnering Workshop

為了實踐「新工程合約」模式的團隊精神，渠務署經常開展伙伴工作坊，與承建商的管理層和基層員工交流分享在工程中遇到的阻礙和意見，從而制定共同目標，携手克服工程上的挑戰。伙伴工作坊能夠讓雙方在對未來規劃達成一致意見，減低工作阻礙、加強溝通和訊息交流，從而加快工程進度和提高品質監控，提升管理效率。本署希望雙方能夠通過工作坊了解各方需求，創新求變和平衡各方意見。

To realise the team spirit of the NEC model, the DSD regularly conducts partnering workshops with the managerial personnel and frontline staff of our contractors. On these occasions, we share problems faced and views on work projects, so as to set common goals and overcome engineering challenges collaboratively. Partnering workshops bring the parties on the same page, and thereby reduce project disruption, facilitate the exchange of information and communication, fast-track project progress, improve quality control and enhance site management efficiency. We hope these workshops would help both the DSD and our contractors understand the needs of the other side, strive for innovation, and balance the views of both parties.


伙伴工作坊
Partnering Workshop

推廣職業安全與健康
Promoting Occupational Safety and Health

為加強本署員工及工作伙伴對於職安健的認知，我們推行多項工地安全改善措施及舉辦不同活動，包括經驗分享會、實地考察和工地安全及整潔獎勵計劃。

To nurture a stronger awareness of OSH among our staff and working partners, the Department introduced a number of site safety improvement measures and activities, including experience sharing sessions, site visits and the Construction Sites Safety and Housekeeping Award Scheme.

經驗分享會及實地考察
Experience Sharing Sessions and Site Visits

我們於 2021 年 8 至 9 月舉辦了兩場的電力安全講座，並邀請了機電工程署和電力公司的安全專員作講解，共 80 名來自本署的同事、承建商和工程顧問一同參與，藉此提升員工的電力安全意識。

In August and September 2021, we organised two electricity safety talks for more than 80 staff from the DSD, contractors and consultants. The safety talks were delivered by specialists from the Electrical and Mechanical Services Department (EMSD) and electricity companies to enhance awareness of electrical safety.


電力安全講座
Electricity safety talk

工地安全及整潔獎勵計劃
Construction Sites Safety and Housekeeping Award Scheme

工地安全是保障員工及工作伙伴安全的關鍵因素。本署自 2004 年起舉辦年度「工地整潔獎勵計劃」，旨在與本署工地督導人員、承建商和工程顧問建立優良的工地管理文化並加強彼此合作。該計劃於 2018 年改名為「工地安全及整潔獎勵計劃」。我們認可並且頒發獎項予工地安全及整潔表現突出的團隊，共有 53 隊參與 2021 年度的計劃，當中 14 隊獲頒「最佳工地安全及整潔獎」或「優異獎」。

Site safety is key to the safety of our staff and working partners. The Department has been hosting the annual "Construction Sites Housekeeping Award Scheme" since 2004 with the aim of instilling a culture of good construction site management and team spirit among the DSD's in-house site supervisory staff, contractors and consultants. In 2018, the Scheme was renamed "Construction Sites Safety and Housekeeping Award Scheme", recognising teams with outstanding site management performance. Among the 53 contract teams participating in the 2021 Scheme, 14 received either "The Best Construction Sites Safety and Housekeeping Award" or the "Meritorious Award".

環保團體參與
Green Groups Engagement

本署在處理工程項目相關環保事務時，與環保團體維持積極的溝通，從而爭取實現可持續發展目標。報告期內，我們安排共三次會議，與長春社、創建香港、綠色力量、香港觀鳥會、嘉道理農場暨植物園、世界自然基金會香港分會和思匯政策研究所等本地環保團體溝通。當中我們討論了不同與渠務工程相關的環保議題，包括提高河道生態價值、保育現存河流生境、活化水體、促進生物多樣性、推廣親水文化等。

適逢渠務署與環保團體聯絡會議10週年，我們在2021年11月25日邀請綠色團體實地考察荔枝角雨水排放隧道及九龍城一號污水泵房。讓大家透過參觀渠務署的防洪、污水處理設施，更全面了解部門的工作，並分享多年來與環保團體合作的點滴和展望將來。

To achieve sustainability goals, the Department engages in active efforts to communicate with green groups when dealing with environmental issues related to works projects. During the reporting period, we arranged three meetings to communicate with local green groups, including Conservancy Association, Designing Hong Kong, Green Power, Hong Kong Bird Watching Society, Kadoorie Farm and Botanic Garden, World Wide Fund for Nature Hong Kong and Civic Exchange. At these meetings, we discussed topics such as enhancing the ecological value of rivers, preserving habitats in existing rivers, revitalising water bodies, promoting biodiversity and fostering a water-friendly culture, so as to address environmental issues related to drainage projects.

In commemoration of the 10th anniversary of the DSD/Green Group Meeting, a visit to Lai Chi Kok Drainage Tunnel and Kowloon City No. 1 Sewage Pumping Station was arranged for local green groups on 25 November 2021 to gain an insight into the DSD's sewerage and flood prevention works, to share the cooperation with green groups over the years and to pave the way for future collaborations.


渠務署署長彭雅妮女士在會議中與環保團體代表交流
Ms Alice PANG, Director of Drainage Services, communicated with Green Groups representatives during the meeting


渠務署署長彭雅妮女士與環保團體代表於九龍城一號污水泵房合照
Ms Alice PANG, Director of Drainage Services, took a group photo with Green Groups representatives at Kowloon City No. 1 Sewage Pumping Station

媒體參與
Media Engagement

本署與媒體一直保持緊密的聯繫，通過不同媒體平台例如節目、專訪及簡報會等向公眾介紹渠務署在防洪工程和污水檢測中作出的努力、對新技術的應用及工程建設中面臨的挑戰。廣泛的媒體報導有效讓公眾更加了解本署的主要工作內容和面對的困難，從而認可本署的專業能力和工作態度。

The Department has always maintained a close connection with the media. Through multiple channels, such as programmes, interviews and briefings, we enable the public to understand our efforts in flood prevention and sewage surveillance, the new technologies we embraced, as well as the challenges that arose from construction works. Extensive media coverage is effective in publicising the service we provide and the problems we tackle, so as to arouse public recognition of our expertise and dedication.

管理層與傳媒溝通
Exchanges between DSD Management and the Media

2021 14 MAY

2021年
5月14日

本署署長彭雅妮女士於2021年5月14日接受政府人員協會的專訪，介紹渠務署兩大服務範疇中污水處理和防洪工作及其中的重點工程項目，分別為「搬遷沙田污水處理廠往岩洞工程」及「啟德河改善工程」。彭女士亦簡介了渠務署在創新科技方面的發展，包括新冠病毒污水檢測計劃，以及可再生能源的應用。

Ms Alice PANG, Director of Drainage Services, gave an interview to the Government Employees Association on 14 May 2021 to introduce the two major services of the DSD, i.e. sewage treatment and flood prevention, and DSD's iconic works projects, namely Relocation of Sha Tin Sewage Treatment Works to Caverns" and "Kai Tak River Improvement Works". Ms PANG also introduced the DSD's innovation and technology development, including the COVID-19 Sewage Surveillance Programme, as well as the application of renewable energy.

渠務署署長彭雅妮女士（右）接受政府人員協會的專訪
Ms Alice PANG (right), The Director of Drainage Services, gives an interview to the Government Employees Association

2021
8
JUL

2021年7月8日

2021年7月8日，渠務署署長彭雅妮女士就渠務署應對氣候變化的防洪措施，接受商業電台節目《人民大道中》的客席主持、環境局前副局長陸恭蕙教授訪問。彭女士指出近年渠務署於防洪工程中加入了更多生態保育、一地多用和藍綠排水建設的概念，務求使香港成為可持續城市，提升應對氣候變化的能力。

On 8 July 2021, Ms Alice PANG, Director of Drainage Services, was interviewed by the guest host of The Commercial Radio's Programme "Our Way Out", Professor Christine LOH Kung-wai, the former Under Secretary for the Environment, about the DSD's flood prevention measures in combating climate change. Ms PANG pointed out that, the DSD has incorporated more ecological conservation, single site multiple uses and Blue-Green Drainage Infrastructure ideas in flood prevention projects in recent years, with an aim to make Hong Kong a sustainable city and enhance its ability to cope with climate change.

渠務署署長彭雅妮女士（中）接受商業電台節目《人民大道中》的客席主持、環境局前副局長陸恭蕙教授（左）訪問

The Director of Drainage Services Ms. Alice PANG (middle) was interviewed by the guest host of The Commercial Radio's Programme "Our Way Out", Professor Christine LOH Kung-wai, the former Under Secretary for the Environment (left)

2021
6
AUG

2021年8月6日

渠務署署長彭雅妮女士獲建造業議會邀請，擔任2021年8月6日網上講座「CIC Power Talk－建造女將」的嘉賓講者，分享了當初立志成為工程師的原因及工作生涯的經驗與體會。

Ms Alice PANG, Director of Drainage Services, was invited by the Construction Industry Council to guest speak at the webinar "CIC Power Talk - Women in Construction" to share her aspiration of becoming an engineer and her career experiences on 6 August 2021.

渠務署署長彭雅妮女士（右二）擔任建造業議會「CIC Power Talk － 建造女將」的嘉賓講者

The Director of Drainage Services, Ms Alice PANG (second right), attended "CIC Power Talk - Women in Construction" organised by the Construction Industry Council as a guest speaker

2022
25
MAR

2022年3月25日

渠務署署長彭雅妮女士於2022年3月25日接受香港電台節目《鏗鏘集》訪問，分享渠務署為新田社區隔離設施興建公共排污系統的細節和在短時間內鋪設所有污水渠及興建相關污水泵房的挑戰。

Ms Alice PANG, Director of Drainage Services, was interviewed by RTHK's TV programme "Hong Kong Connection" on 25 March 2022 to share the details of the newly constructed public sewerage system at San Tin community isolation facility and the challenges of laying the required sewers and constructing the pumping station in a short period of time.

渠務署署長彭雅妮女士接受香港電台節目《鏗鏘集》訪問

The Director of Drainage Services, Ms Alice PANG was interviewed by RTHK's TV programme "Hong Kong Connection"

2022
29
MAR

2022年3月29日

渠務署工程項目主管／污水監測白諫鳴先生，於2022年3月29日接受香港電台直播電視節目《防疫速遞》訪問，介紹本署有關污水監測的工作，提及現時政府根據污水病毒量作風險評估，以決定資源分配安排，及後續的防疫措施如圍封強檢或派發快速檢測套裝等策略。

DSD Project Leader/ Sewage Surveillance Mr Eddie PAK Kan-ming was interviewed by RTHK's live TV programme "Anti Epidemic News Express" on 29 March 2022 to introduce our sewage surveillance work. Mr PAK mentioned how viral loads in sewage are monitored to assist the Government in risk assessment to facilitate resources allocation and to determine the subsequent anti-epidemic measures like "Restriction-Testing Declaration (RTD)" operation and distribution of "Rapid Antigen Test (RAT)" kits.

渠務署工程項目主管／污水監測白諫鳴先生接受香港電台訪問，介紹污水監測工作

DSD Project Leader/ Sewage Surveillance Mr Eddie PAK Kan-ming was interviewed by RTHK to introduce the sewage surveillance work

渠務署工程及工作宣傳
Publicity on DSD Projects and Initiatives

2021
9
APR

2021年
4月9日

渠務署工程師鄭俊偉先生於2021年4月9日接受公務員事務局訪問。訪問中，鄭先生介紹了其團隊的職責，並分享了擔任目前崗位的三年間，令他印象最深刻的渠務工程。他亦簡介了團隊如何協助污水檢測工作，支援政府的抗疫行動。

DSD Engineer Mr Michael CHENG Chun-wai gave an interview to the Civil Service Bureau on 9 April 2021. In the interview, Mr CHENG introduced the job duties of his team and shared the drainage works that impressed him the most during his three-year time in the current position. He also shared the assistance provided by his team in the sewage surveillance work in supporting the Government's anti-epidemic work.

渠務署工程師鄭俊偉先生介紹其團隊職責
DSD Engineer Mr Michael CHENG Chun-wai introduces the duties of his team

2021
10
JUN

2021年
6月10日

2021年6月10日，渠務署高級園境師徐志強先生和園境師曾慶善女士向香港01和蘋果日報闡述部門逐步為早期落成的渠務設施注入綠化及美化元素，讓渠務設施融入社區。

On 10 June 2021, Senior Landscape Architect, Mr Chris CHUI Chi-keung and Landscape Architect, Ms Meg TSANG Hing-sin were interviewed by HK01 and Apple Daily News about the greening and beautifying elements incrementally injected into the DSD's drainage facilities built in the early stages, so that the facilities could fit in the community.

渠務署高級園境師徐志強先生和園境師曾慶善女士接受傳媒訪問
DSD Senior Landscape Architect, Mr Chris CHUI Chi-keung, and Landscape Architect, Ms Meg TSANG Hing-sin, gave an interview to the reporters

2021
28
JUN

2021 年
7 月 28 日

渠務署總工程師梁家聰先生及高級工程師盧秋玲女士於 2021 年 7 月 28 日接受明報專訪，分享「搬遷沙田污水處理廠往岩洞」工程進度和當中應用的新技術，包括利用「智能鑿岩台車」及「岩洞探哥」等新技術增加爆破工程的準繩度及提升工業安全，以及採用先進污水處理技術「移動床生物膜反應器」，以減少新岩洞污水處理廠所需的地下空間。

DSD Chief Engineer Mr Tony LEUNG Ka-Chung and Senior Engineer Ms Yvonne LO Chau-ling shared the works progress and new technologies application of the "Relocation of Sha Tin Sewage Treatment Works to Caverns" project, including the adoption of new technologies, such as "Drilling Jumbo" and "Robotic Monitoring System", to increase the accuracy of blasting works and improve industrial safety as well as advanced sewage treatment technologies, including "Moving Bed Biofilm Reactor", helped to minimise the footprint of the new cavern STW, during an interview by Ming Pao on 28 July 2021.

渠務署「搬遷沙田污水處理廠往岩洞」工程團隊介紹首階段工程的進度
DSD's Relocation of Sha Tin Sewage Treatment Works to Cavern project team briefs the progress of the first stage project

2021
28
OCT

2021 年
10 月 28 日

渠務署「搬遷沙田污水處理廠往岩洞」工程團隊於 2021 年 10 月 28 日受邀參與由特區政府、香港中聯辦、中國建築集團主辦的「時代精神耀香江」之大國建造活動，並接受了多間傳媒採訪。工程團隊在活動中向傳媒簡介本署「搬遷沙田污水處理廠往岩洞」的工程進展，分享工程所面對的困難、當中應用的新技術和項目所帶來的效益，並安排傳媒參觀正在興建的主連接隧道工地。

The project team of the "Relocation of Sha Tin Sewage Treatment Works to Caverns" was invited to the "The Spirit of the Times Shines upon Hong Kong" event co-organised by the Government, the Liaison Office of the Central People's Government in Hong Kong and China State Construction Engineering Corporation on 28 October 2021, and was interviewed by various media. The project team introduced to the media the project progress and challenges, showcased new innovative technologies applied on the construction works, highlighted the project benefits to the community, and toured members of the media around the construction site of the main portal.

媒體於「搬遷沙田污水處理廠往岩洞」工程工地參觀及進行採訪
Media visiting the site of "Relocation of Sha Tin Sewage Treatment Works to Caverns" and conducted interview

專業團體參與
Professional Bodies Engagement

本署認為加強與專業團體的溝通交流有助於提升本署的科技創新能力，以及幫助推動本署實現可持續發展。報告期內，本署除積極參加研討會外，還與大學學者及專業科研機構就本署相關技術和系統進行深入探討，從而加強了合作關係。

The Department believes that strengthened liaison with professional bodies helps enhance our technological innovation capability and drive our sustainable development. During the reporting period, in addition to actively participating in seminars, the DSD had in-depth discussions with academics and professional research institutes on our technologies and systems, thereby cementing partnerships.

禮節性拜訪學術界及科研機構
Courtesy Visit to Academia and R&D Institutes

自 2020 年起，2019 冠狀病毒疫情衝擊全球，但我們跟學術界及研發伙伴的合作從來沒有間斷。在 2021 年，渠務署拜訪了多個專上學院及科研機構，並在污水檢測、水凝膠技術、智能系統及設施維修操作等交換了意見，為日後的合作奠定了基礎。

The COVID-19 pandemic has impacted the world since 2020, but collaboration with academia and R&D partners has never halted. The DSD paid courtesy visits to Academia and R&D Institutes in 2021. We exchanged insights into the surveillance of sewage, hydrogel technology, smart system and operation & maintenance of facilities, laying a foundation for future collaborations.

香港科技大學楊經倫教授介紹用於氣味和微生物控制的水凝膠技術
Prof YEUNG King-lun of The Hong Kong University of Science and Technology introduced Hydrogel Technology for Odour and Microbial Control

香港大學張彤教授介紹污水新型冠狀病毒的污水監測
Prof ZHANG Tong of the University of Hong Kong introduced Surveillance of COVID-19 Virus in Sewage

混凝土研究會 2021
Annual Concreate Seminar 2021

混凝土研究會 2021 於 2021 年 4 月 28 日以網上研討會形式舉行。本年的混凝土研究會主題為「克服應用混凝土的挑戰」。席間有五位講者與大家分享其工程經驗及科研成果，亦與參與者交流有關混凝土應用的意見。

The Annual Concrete Seminar (ACS) 2021 was held successfully on 28 April 2021 in the form of a webinar. The theme of ACS 2021 was "Combating the Challenges in Use of Concrete". In the seminar, five speakers shared their valuable engineering experience and research findings and exchanged ideas on the use of concrete with the audience.

是次混凝土研究會以網上直播形式舉行
The ACS was held in the form of a webinar

講者與主持人就混凝土的應用積極分享與交流
The speakers and the session chairman were enthusiastic to share and exchange ideas on the use of concrete

義工服務及慈善活動
Voluntary Service and Charity Activities

本署同事在工餘時亦堅持參與義工活動。除過往一直參加的義工活動外，亦專注服務因為疫情受到較大影響的弱勢人群，並且通過義工活動積極推廣渠務署的服務。報告期內，本署的義工隊共參與 34 項義工服務活動，總服務時數超過 864 小時。

Our colleagues consistently participate in voluntary service in their spare time. Apart from volunteer activities carried out in previous years, programmes were performed to specifically support disadvantaged groups who were greatly impacted by the COVID-19 pandemic. Voluntary service was also a channel to promote public awareness of the DSD's services. During the reporting period, the Department's Volunteer Team joined 34 volunteer service programmes, clocking over 864 service hours.

「建造業義工獎勵計劃 2021」
Construction Industry Volunteer Award Scheme 2021

建造業議會舉行「建造業義工嘉許禮 2021」，藉以表揚在義務工作方面貢獻良多的業界傑出義工及機構。渠務署義工隊在嘉許禮上榮獲三個評審嘉許獎項，不但獲頒「非凡建造業義工項目」銀獎和「卓越建造業義工」金獎，而且聯同香港防癌會和水務署義工隊獲頒「優秀社福機構協作」金獎，成績斐然。

The Construction Industry Council organised the "Construction Industry Volunteer Recognition Ceremony 2021" with the aim of recognising construction practitioners and organisations with distinguished contributions to volunteer service. The DSD Volunteer Team was crowned with the honour of receiving the three Judges' Appreciation awards, including the "Excellence in Construction Industry Volunteering Project" Silver Award and "Excellence in Construction Industry Volunteering" Gold Award, as well as receiving "Excellence in Organisation Cooperation" Gold Award with WSD Volunteer Team and Hong Kong Anti-Cancer Society.

本署署長彭雅妮女士（右四）、前署長唐嘉鴻先生（左三）和義工隊合照
Group photo of Ms Alice PANG (forth right), Director of Drainage Services and Mr Edwin TONG Ka-hung (third left), ex-Director of Drainage Services and the Volunteer Team

本署義工隊召集人徐泳雯女士（中）獲得業界認同，贏得「評審嘉許－卓越建造業義工」金獎的最高殊榮

Ms Ginny TSUI Wing-man (middle), DSD Volunteer Team convener, was recognised by the industry and crowned with the premier honour of "Judges' Appreciation – Excellence in Construction Industry Volunteering" Gold Award

本署義工范錦成先生（右二）與香港防癌會和水務署義工代表獲頒「優秀社福機構協作」（金獎）

Mr Tim FAN Kam-shing (second right), DSD volunteer, together with Hong Kong Anti-Cancer Society and WSD Volunteer Team representatives, received the Gold Award for "Judges Appreciation – Excellence in Organisation Cooperation"

本署義工許月婷女士（中）在獲頒「非凡建造業義工項目」銀獎後介紹「渠心關顧－暖暖心意」項目

Ms Holly HUI Yuet-ting (middle), DSD volunteer, introduced the "iCare - Box of LOVE"project, after receiving the Silver Award for "Excellence in Construction Industry Volunteering Project"

愛・教育：「走過驚濤駭浪 － 癌症病人照顧者全面手冊」及教育短片

i-Educate: "A to Z Guide for Carers of Cancer Patients" & Education Videos

渠務署義工隊聯同水務署義工隊，協助香港防癌會製作《走過驚濤駭浪》癌症病人照顧者全面手冊及教育短片，以影片形式讓照顧者能輕易掌握各項全面而實用的資訊，包括醫學知識、食療、財務管理和家居安排等。

義工在影片製作初時欠缺專業的前期創作、中期拍攝及後期製作技巧，在拍攝過程中遇到不少困難，幸好獲得有豐富經驗的電視監制專業指導，並從義務工作中學習了新技能，充實自己。義工在是項活動中總服務時數已超過 300 小時。

The DSD Volunteer Team, together with the WSD Volunteer Team, assisted the Hong Kong Anti-Cancer Society with the production of "A to Z Guide for Carers of Cancer Patients" and educational videos, to provide an intuitive way for carers to obtain various information including medical, diet, financial management, in-home care services, etc.

In the beginning, the volunteers encountered various challenges as they lacked of professional knowledge in video pre-production, filming and post-production. Luckily, they received coaching from experienced TV producers, and acquired new skills in the service. We contributed more than 300 hours to this service.

義工為復康訓練進行拍攝

Volunteers filmed for the rehabilitation training

義工拍攝教育短片

Educational videos filming by volunteers

「渠心關顧 — 暖暖心意」
iCare - Box of LOVE

2019冠狀病毒疫情持續，長者及兒童機構的探訪活動因社交接觸受限而大減，而部分基層家庭亦因生計受影響而承受巨大壓力。本著「為善最樂」的精神，本署義工隊，聯同土木工程拓展署義工隊、路政署義工隊和水務署義工隊，舉辦名為「暖暖心意」的活動項目。

我們招募不同年齡層的義工，為多間機構的基層兒童準備獨一無二的禮盒，藉以向他們傳達關懷與節日祝福之意。禮盒內容由各義工因應所贈者親自構思，當中包括防疫用品、文具、圖書、保暖衣物、日用品、健康食品、節日裝飾、手作品、手寫心意卡等。此項目大受歡迎，部分同事邀請子女一同參與活動，在疫症大流行期間與基層家庭並肩同行。

During the COVID-19 pandemic, the number of visits to the elderly and children centres was significantly reduced due to the restriction of social contact. Some grassroots families came under tremendous stress as their livelihoods were affected. Embracing the principle of "better to give than to take", the DSD Volunteer Team, together with volunteers of the CEDD, HyD and WSD, launched a project entitled "Box of Love"

Volunteers of different age groups were recruited to prepare gift boxes for grassroots children at multiple facilities, expressing our care and sending holiday greetings. The gift box contained items individually selected by the volunteers, including anti-pandemic supplies, stationery, books, warm clothes, daily necessities, healthy food, holiday decorations, handicrafts and handwritten goodwill cards. The response to the project was overwhelming. Some colleagues invited their children to join in the activity to provide the grassroots families with companionship during the pandemic.


義工展示精心製作的禮物盒
Elaborately crafted gift boxes by the DSD volunteers

愛・與者義同行：「健腦 Kit Set」
i-Connect: Brain-training Kit Set

渠務署義工隊在2021年第二季展開了「健腦 Kit Set」計劃，為因應2019冠狀病毒疫症下長時間留在家中患有認知障礙症的長者，設計及製作精美的認知能力訓練禮盒。禮盒不但載有義工親手製作的健腦小遊戲（包括圖像記憶卡、拼圖等），還有可訓練肌肉控制能力的按壓球作為禮物。義工更特別製作教學短片，指導長者如何使用健腦小遊戲，及分享在家運動技巧。我們希望透過這些禮盒，讓在家抗疫的長者能透過簡易、輕鬆的方式來提升認知能力，同時亦送上的我們的關懷和祝福。

我們在2021年11月舉辦了自疫情以來首次面對面的交流會，向長者及照顧者派發同事親手製作的健腦 Kit Set，並以小組形式進行現場教學。席間義工和久未見面的老友記互相問好，場面熱鬧。

The DSD Volunteer Team launched the "i-Connect: Brain-training Kit Set" programme in the second quarter of 2021, to design and provide cognitive training materials for the dementia elderly who have to stay home during the COVID-19 pandemic. The "Brain-training Kit Set" contained volunteers' hand-made cognitive training materials e.g. memory games, puzzles, etc., as well as massage balls for muscle training. The volunteers also recorded videos to teach the elderly how to use the cognitive training materials as well as do exercise at home. We hope these kit sets could not only provide the elderly with a simple and relaxing way to maintain cognitive abilities, but also bring our love and care to the elderly.

In November 2021, we conducted the first face-to-face elderly visit since the COVID-19 pandemic, to distribute "Brain-training Kit Sets" hand-made by the DSD colleagues as well as to teach the elderly how to use them in groups. Volunteers and the elderly were excited to greet each other and share their stories after a long gap.


渠務署義工隊為長者準備禮盒
The DSD Volunteer Team prepared kit sets for the elderly


義工們製作教學短片
Volunteers produced instructional videos


義工以小組形式與長者一起進行健腦活動
Volunteers to practise cognitive training activities with the elderly

愛・耀能：兒童節的主人翁及元朗排水繞道生態保育導賞團

i-Care: Children's Day Party & Yuen Long Bypass Floodway Eco Tours

渠務署義工隊在 2021 年 4 月，為有發展障礙的小朋友舉辦兒童節親子同樂日活動；透過攤位遊戲、小手工及花籃製作，訓練小朋友專注力及聆聽指令的能力，亦有助家長與子女互動合作。

另外，我們在 2021 年 9 月聯同「綠色力量」帶領有發展障礙的小朋友參觀元朗排水繞道，實地視察如何將環境保育元素融合至防洪工程之中，認識香港河流生態和生物多樣性概念，更有機會於南生圍遠眺季候鳥南遷的景況。

因應疫情社交距離的限制，兩個活動均以兩至三個家庭為一組的模式進行。義工分享分組活動有助他們跟小朋友加強溝通，亦有助他們加深認識兒童發展障礙。

The DSD Volunteer Team organised a family fun day for children with developmental disorders in April 2021, to celebrate Children's Day. Booth games and art and crafts projects such as flower basket DIY were organised to improve the children's concentration and abilities to listen to instructions, as well as encourage parent-children interaction.

We, together with Green Power, further organised an eco-tour for children with developmental disorders to visit Yuen Long Bypass Floodway in September 2021. The children had a chance to study on site how environmental conservation was integrated into large-scale flood prevention works, and to learn about river ecology and biodiversity. The children also caught a view of migratory birds flying southbound at Nam Sang Wai.

To follow social distancing measures, both activities were conducted in groups of two to three families. Volunteers shared that this small group activity provided a better chance for them to communicate with the children and learn more about developmental disorder.

義工隊和參與親子同樂日的家庭合照，小朋友興奮的展出他們精心製作的小花籃
Group photo of the volunteers and the families joined the Children's Day family fun day. Children were excited to show their flower baskets

家長和小朋友細心聆聽導賞員講解河流周邊的生態系統
Parents and children were interested in listening to the tour guide's sharing of river ecology

渠務署工程團隊義工服務

Voluntary Service by Project Teams

除渠務署義工隊外，本署各工程項目的義工隊保持「關顧睦鄰」的理念，以及「新工程合約」的伙伴合作精神，積極組織切合附近多間社福機構需要的義工服務，回饋社區。

Apart from the DSD volunteer team, volunteer teams of the Department's respective project team keep the spirit of caring for good neighbours, as well as the spirit of partnering and cooperation in NEC, actively organised volunteer services tailored to the specific needs of the various social welfare organisations nearby to give back to the community.

「石湖墟淨水設施」工程義工活動

Volunteer Activities under Shek Wu Hui Effluent Polishing Plant Project

「石湖墟淨水設施」工程團隊與渠務署義工隊於 2021 年 6 月在上水鄉舉辦外展義工活動。署長彭雅妮女士帶領本署義工及工程團隊的顧問及承建商，為村民疏通村內淤塞的排水渠，預防雨季水浸及環境衞生問題。我們同時向村民宣揚「除污淨流　未雨綢繆」的信息。

The project team of Shek Wu Hui Effluent Polishing Plant, together with the DSD Volunteer Team, carried out an outreach volunteer activity in Sheung Shui Heung in June 2021. Led by Ms Alice PANG, Director of Drainage Services, our volunteers, consultants and contractors of the works project cleared the stormwater drains, to prevent flooding during wet season and potential hygiene nuisance in the village. We also shared the message "Clean up our water, prepare for the rainy day" with the villagers.

本署署長彭雅妮女士帶領本署義工及工程團隊的顧問及承建商參與上水鄉預防水浸義工活動
Director of Drainage Services, Ms Alice PANG, led DSD volunteers, consultants and contractors of the works project to participate in the flood prevention volunteer activity in Sheung Shui Heung

本署署長向村民簡介部門工作
Director of Drainage Services introduced the Department's work to villagers

「搬遷沙田污水處理廠往岩洞」工程義工隊
"Relocation of Sha Tin Sewage Treatment Works to Caverns" Project Volunteer Team

在疫情期間，有院舍暫停探訪安排，院友無法與家人會面，「搬遷沙田污水處理廠往岩洞」工程義工隊提供協助，設置臨時貨櫃箱，讓院友與家人能於安全獨立的環境下會面。此外，義工隊更利用自身工程知識，為一間社福機構青年學員講解工地環保知識。同時義工也會於佳節，例如中秋及新年，為附近院友製作不少應節飾物。

During the COVID-19 pandemic, residential care hostels suspended visiting arrangements and the hostel residents could not meet their family members. The volunteer team of "Relocation of Sha Tin Sewage Treatment Works to Caverns" project installed a temporary container, enabling hostel residents to meet their family members in a safe and isolated environment. Our volunteer team also drew on their construction knowledge to introduce the knowledge of environmental protection on site to the young members of another social welfare organisation. The volunteer team also made various handcrafts for the nearby hostel residents in the celebration of festivals, like the Mid-Autumn Festival and New Year's Day.

「搬遷沙田污水處理廠往岩洞」工程義工隊為院友製作飾物
"Relocation Works of Shatin Sewage Treatment Works to Caverns" Project Volunteer Team made handcrafts for hostel residents

「長洲污水處理及排放改善工程」沙灘清潔
"Upgrading of Cheung Chau Sewage Treatment and Disposal Facilities" Shoreline Cleanup

2021 年 11 月 6 日，「長洲污水處理及排放改善工程」義工隊以及長洲鄉事委員會義工團在長洲大貴灣沙灘清理垃圾，以行動回應保護海岸環境的重要性。

On 6 November 2021, the Department volunteer team of "Upgrading of Cheung Chau Sewage Treatment and Disposal Facilities" project and the volunteer team of Cheung Chau Rural Committee cleaned up the beach of Tai Kwai Wan in response to protecting the shoreline by action.

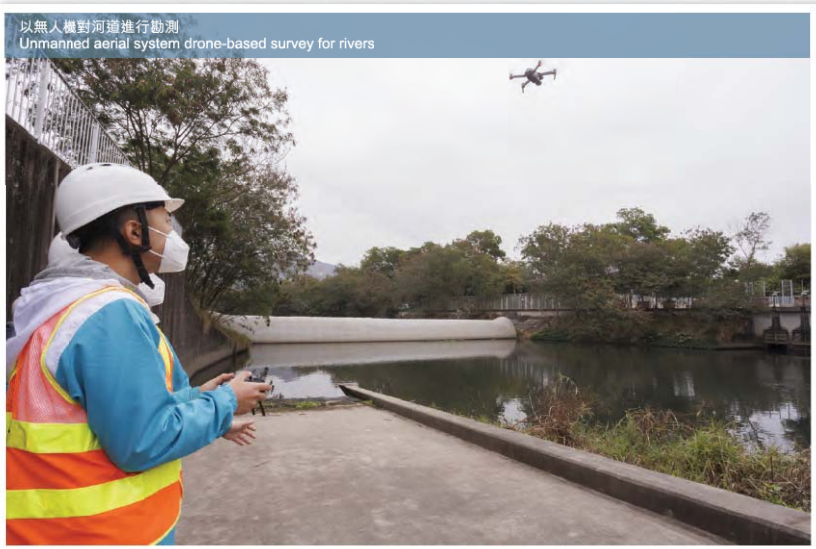
工程項目的義工隊與長洲鄉事委員會義工團合力清理海灘
Volunteer team of the works project joined forces with the volunteer team of the Cheung Chau Rural Committee to clean up the beach

義工活動團隊合照
Group photo of the volunteer teams

附錄一　完成目標
Appendix I　Meeting the Targets

本附錄總結了本署於年內在環保、社會和常規服務方面的目標及整體表現。展望2022-23年度，我們會繼續訂立目標，以監察及確保本署的工作及服務質素，實踐對各持份者及香港的可持續發展承諾。

This appendix summarised the objectives of the Department's environmental, social and routine services as well as the overall performance during the reporting year. Looking ahead to the year 2022-23, we will continue to set targets to monitor and ensure the quality of our work and services, so as to honour the commitment in respect of the sustainable development to our stakeholders and Hong Kong.



以無人機對河道進行勘測
Unmanned aerial system drone-based survey for rivers

環保事務
Environmental Issues

2021-22年度環保事務目標 Environmental Targets 2021-22	成果 Achievements
發展智能科技、完善運作、引入創新技術以提升成效和效率、減少環境影響及符合公眾期望 Developing smart technologies, optimising operations, introducing innovative measures to enhance effectiveness and efficiency, minimising environmental impacts and meeting public expectations	
展開三項研發完善運作及創新技術的項目 Conduct three Research and Development (R&D) items for optimisation and innovation technologies	達標。我們已展開三項研發項目，包括在沙田污水處理廠改進初級沉澱池的試驗、低電壓節能污泥除臭技術 (LEEO)，以及試驗以無人機對新界的一些主要河道進行空中勘測。 Target met. Three R&D projects have been commissioned, including study and pilot trial of upgrading primary sedimentation tanks in Sha Tin STW, study on LEEO, and trial on unmanned aerial system drone-based survey for major rivers/ channels in the New Territories.
自2019-20年起，三年內進行三項嶄新的可持續發展技術的試驗計劃 Conduct trial of three new sustainable technologies within a three-year period starting from 2019-20	我們試驗以無人機及三維激光掃描，對有蓋的渠道設施進行勘測，並在昂船洲污水處理廠試驗採用薄膜光伏技術以提供再生能源供應，並於沙田污水處理廠展開以「殺泥技術」作污水處理的試驗計劃。 The DSD conducted a trial of unmanned aircraft systems and 3D laser scanning for condition survey of covered facilities, and conducted trial of thin-film PV technologies at Stonecutters Island STW as a source of renewable energy. We have also commenced a trial on SANI (Sulphate Reduction, Autotrophic Denitrification and Nitrification Integrated) Process for treatment of sewage at Sha Tin STW.
每年至少六次與社區組織／環保團體／學者會面，研討可持續發展事務 Meet with community groups/green groups/ academics at least six times each year to consider sustainability matters	達標。我們舉辦了超過11次會面及實地考察。 Target met. We conducted more than 11 meetings and site inspections.
藉提高能源效益、使用可再生能源、減少二氧化碳及污染物排放、發展水資源管理及再造水重用，作為可持續發展技術和氣候變化的減緩、適應及應變措施 Integrating sustainability measures and climate change mitigation, adaptation and resilience considerations through improving energy efficiency, utilising renewable energy, reducing carbon and pollution emissions, and achieving water management, water reclamation and reuse	
自2019-20年起的三年內，將電動車佔所有車輛的行車里數比率提高至13% Increase the mileage percentage of electric vehicles among all vehicles to 13% in three years starting from 2019-20	進度良好。2019-20年度、2020-21年度及2021-22年度電動車的行車里數分別為整體車輛的16.2%、22.4%及24.7%。 Progress was promising. In 2019-20, 2020-21 and 2021-22, total mileage of work-related transport contributed by electric vehicles was 16.2%, 22.4% and 24.7% respectively.
進行七次監察碳審計 Conduct seven surveillance carbon audits	達標。我們已為七間主要污水處理廠進行了監察碳審計。 Target met. We conducted surveillance carbon audits at seven major STWs.

2021-22年度環保事務目標 Environmental Targets 2021-22	成果 Achievements
透過新落成的項目(再生能源及完善運作)估算於2021-22年度節省95萬度電 Projected energy saving of 0.95 million kilowatt-hours from newly commissioned projects in 2021-22 (for renewable energy and process optimisation)	達標。我們評估新落成的項目(再生能源及完善運作)於2021-22年度共節省了170萬度電。 Target met. We evaluated energy saving from newly commissioned projects (for renewable energy and optimisation) in 2021-22 was 1.70 million kilowatt-hours in aggregate.
再造水和回用雨水的使用量達到平均每日1,700立方米 Use an average of 1,700 cubic metres of reclaimed water and harvested water per day	達標。年內平均每日使用約2,615立方米再造水和回用雨水。 Target met. During the year, we used an average of 2,615 cubic metres of reclaimed water and harvested water per day.
標準化用紙量達至零增長，保持在2019-20年度的水平 Achieve zero growth of normalised paper usage from 2019-20 level	達標。用紙量是9,516令。 Target met. 9,516 reams of paper were used.
引入藍綠建設、增加綠化、保護生態系統及促進社區的健康、宜居性及生物多樣性 Developing blue-green infrastructure, maximising greening, conserving ecosystems and enhancing community health, liveability and biodiversity	
透過園境和綠化工程美化三個現有設施的外觀 Enhance the external appearance of three existing facilities by carrying out landscaping and greening works	達標。我們已完成了三個現有設施的美化工程。 Target met. We completed enhancement works of three existing facilities.
種植12,000棵樹或灌木 Plant 12,000 trees and shrubs	82%達標。我們種植了9,841棵樹或灌木。 82% target was met. We planted 9,841 trees and shrubs.
在工程項目和日常運作中全面遵守有關環保的法例和規定 Meeting all statutory and regulatory requirements on environmental performance in our projects and operations	
完全符合法定環境影響評估程序 Fully comply with the statutory EIA process	達標。 Target met.
完全符合環保法例要求 Fully comply with environmental legislations	99%達標。兩宗機件固障事件引致排放輕微超出標準，已即時修復。 99% target was met. Two minor non-compliance incidents of discharge licence due to equipment defects were noted and rectified.

2022-23年度環保事務目標 Environmental Targets 2022-23
發展智能科技、完善運作、引入創新技術以提升成效和效率、減少環境影響及符合公眾期望 Developing smart technologies, optimising operations, introducing innovative measures to enhance effectiveness and efficiency, minimise environmental impacts and meet public expectations
自2019-20年起，三年內進行三項嶄新的可持續發展技術的試驗計劃 Conduct trials of three new sustainable technologies within a three-year period starting from 2019-20
展開三項研發完善運作及創新技術的項目 Conduct three Research and Development (R&D) items for optimisation and innovation technologies
每年至少六次與社區組織/ 環保團體/ 學者會面，研討可持續發展事務 Meet with community groups/green groups/academics at least six times each year to consider sustainability matters
藉提高能源效益、使用可再生能源、減少二氧化碳及污染物排放、發展水資源管理及再造水重用，作為可持續發展技術和氣候變化的減緩、適應及應變措施 Integrating sustainability measures and climate change mitigation, adaptation and resilience considerations through improving energy efficiency, utilising renewable energy, reducing carbon and pollution emissions, and achieving water management, water reclamation and reuse
自2022-23年起的三年內，將電動車佔所有車輛的行車里數比率保持不少於20% Maintain the mileage percentage of electric vehicles among all vehicles to no less than 20% in three years starting from 2022-23
為七個主要的污水處理廠進行監察碳審計 Conduct surveillance carbon audits at seven major STWs
於2022-23年度完成七個節省能源項目以達致相關省電(再生能源及完善運作) Complete seven energy saving projects with relevant energy saving in 2022-23 (for renewable energy and process optimisation)
再造水和回用雨水的使用量達到平均每日2,200立方米 Use an average of 2,200 cubic metres of reclaimed water and harvested water per day
用紙量達至零增長，保持在2020-21年度的水平 Achieve zero growth of paper usage from 2020-21 level
引入藍綠建設、增加綠化、保護生態系統及促進社區的健康、宜居性及生物多樣性 Developing blue-green infrastructure, maximising greening, conserving ecosystems and enhancing community health, liveability and biodiversity
透過園境和綠化工程美化三個現有設施的外觀 Enhance the external appearance of three existing facilities by carrying out landscaping and greening works
種植12,000棵樹或灌木 Plant 12,000 trees or shrubs

2022-23年度環保事務目標 Environmental Targets 2022-23
在工程項目和日常運作中全面遵守有關環保的法例和規定 Meeting all statutory and regulatory requirements on environmental performance in our projects and operations
完全符合法定環境影響評估程序 Fully comply with the statutory EIA process
完全符合環保法例要求 Fully comply with environmental legislations

社會事務
Social Issues

2021-22年度社會事務目標 Social Targets 2021-22	成果 Achievement	2022-23年度社會事務目標 Social Targets 2022-23
降低渠務署員工的工傷意外率 Minimising the accident rate of the DSD staff		
渠務署員工的工傷意外率每年每1,000名員工應少於五宗 The accident rate of DSD's staff, be within five cases per 1,000 staff per year	達標。報告期內每年每1,000 名員工有2.7宗工傷意外。 Target met. 2.7 occupational injuries per 1,000 staff per year was reported in the reporting period.	與2021-22年度工作目標一致 Same as the 2021-22 target
降低渠務署承建商的工傷意外率 Minimising the accident rate for the DSD's contractors		
渠務署承建商的工傷意外率應低於每100,000工時0.6宗須呈報意外 The accident rate of DSD's contractors, be less than 0.6 cases of reportable accident per 100,000 man-hours worked	達標。報告期內渠務署承建商每100,000工時有0.16宗須呈報意外。 Target met. The DSD's contractors had 0.16 reportable accident per 100 000 man-hours in the reporting period.	與2021-22年度工作目標一致 Same as the 2021-22 target
舉行內部簡報會，確保專業、技術及工地督導人員、顧問和承建商時刻具有職安健意識 Maintaining occupational safety and health awareness of professional, technical and site supervisory staff, consultants and contractors with in-house briefing		
最少舉辦兩次署內職安健工作坊 Organise at least two in-house occupational safety and health (OSH) workshops	達標。共舉辦了兩次署內職安健工作坊。 Target met. Two in-house workshops were organised.	與2021-22年度工作目標一致 Same as the 2021-22 target
提高承建商的職安健意識 Promoting the awareness on occupational safety and health amongst contractors		
保持最少80%合資格的渠務署新建工程合約及30%合資格的渠務署維修工程合約參加發展局主辦的「公德地盤嘉許計劃」 Maintain at least 80% of the DSD's eligible new works contracts and 30% of the DSD's eligible maintenance contracts participating in the Considerate Contractors Site Award Scheme (CCSAS) run by Development Bureau	達標。全部33項合資格的渠務署新建工程合約均參加了發展局的「公德地盤嘉許計劃」(100%)；而在18項合資格的渠務署維修工程合約中，則有15項參加了該計劃 (83%)。 Target met. All 33 DSD's eligible new works contracts participated in CCSAS (100%); 15 out of the 18 DSD's eligible maintenance contracts participated in CCSAS (83%).	與2021-22年度工作目標一致 Same as the 2021-22 target

常規服務
Routine Services

服務 Service	承諾 Pledge	2021-22年度工作目標 Performance Target 2020-21	成果 Achievement	2022-23年度工作目標 Performance Target 2022-23
清理堵塞污水渠 / 排水渠 Clearance of blocked sewers/ drains	即日回應在下午一時前接獲的投訴 Respond within the same day for complaints received before 1 pm	99%	99.90%	與2021-22年度工作目標一致 Same as the 2021-22target
	翌日正午前回應在下午一時後接獲的投訴 Respond before noon of the next day for complaints received after 1 pm	99%	99.87%	
	市民對清理工作的滿意程度[1] Customers satisfied with the clearing work[1]	95%	98.93%	
為接駁公共排水 / 排污系統的工程提供技術審核 Technical audit for connection to the public drainage/ sewerage systems	於接獲HBP1表格後九個工作天內回應 Reply to the applicant within nine working days upon receipt of HBP1 application	99%	99.37%	
回應關於排污費帳目的書面查詢 Response to written enquiries on sewage charge accounts	兩個工作天內作出初步回應 Initial respond within two working days	100%	100%	
	一個月內作出詳細回覆 Full reply within a month	98%	100%	
回應其他投訴和查詢 Response to complaints and enquiries	十天內作出回應 Within ten calendar days	98%	98.01%	
提供渠務系統紀錄圖則 Provision of drainage record plans	即日安排查閱 Allow inspection within the same day	95%	100%	
	確認付款後的四個工作天內提供影印本 Provide photocopy within four working days upon confirmation of payment	95%	100%	
在涉及挖掘路面的渠務工程工地張貼告示，說明工程目的及預計竣工日期 On-site display of the purpose and anticipated completion date of drainage works involving road excavation	在工地張貼告示，簡介正進行的渠務工程及預計竣工日期，讓公眾了解需要施工的原因及工程將於何時完成 A simple description of drainage works with anticipated completion date will be displayed on site to enable the public to understand why the works are necessary and when they will be completec	98%	100%	

1. 透過隨機選擇受訪者，每星期進行一次市民對清理淤塞的污水渠 / 排水渠滿意度調查。
The customer satisfaction survey on the clearance of blocked sewers/drains is conducted once a week by selecting the respondents randomly.

附錄二 主要統計數據
Appendix II Key Statistics and Data

*** 數據經過重新計算**
Figures has been recalculated

環境工作表現[1]
Environmental Performance[1]

能源使用量 (302-1, 302-2, 302-3, KPI A2.1)
Energy Consumption (302-1, 302-2, 302-3, KPI A2.1)

		單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
渠務署 (302-1) By the DSD (302-1)							
直接能源 Direct Energy							
汽油 Gasoline	徵用車隊 Pool cars	千兆焦耳[2] (公升) GJ[2] (Litre)	599 (18,155)	379 (11,474)	533 (16,132)	685 (20,737)	**642 (19,444)**
	部門車隊 AM cars		3,421 (103,615)	2,874 (87,045)	2,837 (85,928)	2,605 (78,895)	**2,518 (76,272)**
柴油[3] Diesel oil[3]	柴油機，鍋爐，熔爐 Diesel fuel engine, boilers, furnace	千兆焦耳[2] (公升) GJ[2] (Litre)	87 (2,375)	100 (2,730)	111 (3,056)	143 (3,928)	**54 (1,480)**
B5 生物柴油[4] B5 Biodiesel[4]	燃油發電機 Fuel generator	千兆焦耳[2] (公升) GJ[2] (Litre)	12,030 (330,000)	3,646 (100,000)	5,468 (150,000)	4,313 (118,300)	**32,143 (881,700)**
直接能源總耗量 (KPI A2.1) Total consumption of direct energy (KPI A2.1)		千兆焦耳[2] (千個千瓦時) GJ[2] (MWh)	16,137 (4,440)	6,998 (1931)	8,950 (2,467)	7,746 (2,136)	**35,357 (9,710)**
可再生能源所產生的等量總電力[5] Total equivalent electricity generated from renewable energy sources[5]		百萬千瓦時 Million kWh	28.15	27.97*	27.96	27.28	**28.98**
生物氣所產生的電力 Electricity generated from biogas		百萬千瓦時 Million kWh	26.950	26.790	26.681	25.798	**27.374**
水力發電所產生的電力 Electricity generated from hydropower		百萬千瓦時 Million kWh	0.000	0.050	0.023	0.033	**0.127**
太陽能所產生的電力 Electricity generated from solar power		百萬千瓦時 Million kWh	1.200	1.130	1.257	1.447	**1.479**

1. 因渠務署在本報告期內的工程項目增加，例如污水處理廠重建，故此承辦商的整體環境數據較往年上升。
Due to the increase in the DSD's construction projects during the reporting period, for example, the reconstruction of STWs, the overall environmental data of contactors has increased compared with the previous year.
2. 換算成千兆焦耳的轉換系數為汽油 (0.033 千兆焦耳 / 公升)、柴油 (0.036 千兆焦耳 / 公升)、電力 (0.0036 千兆焦耳 / 千瓦時)。因估算方式使用不同的轉換系數，致能源使用量的有效數據有細微不同。
Conversion factors for standardising units to GJ are gasoline (0.033 GJ/L), diesel (0.036 GJ/L), electricity (0.0036 GJ/kWh). Since different conversion factors are adopted in estimation methods, the significant figures of energy consumption are slightly different.
3. 柴油耗量僅包含該報告期內已進行碳審計的七間污水處理廠。
The consumption of diesel oil only includes the seven STWs under carbon audit in the respective reporting period.
4. B5 生物柴油耗量僅包含該報告期內已進行碳審計的七間污水處理廠。
The consumption of B5 Biodiesel only includes the seven STWs under carbon aucit in the respective reporting period.
5. 渠務署使用的可再生能源包括水力發電、太陽能和生物氣。
The renewable energy sources harnessed by the DSD include hydroelectric power, solar energy and biogas.

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
渠務署 (302-1) By the DSD (302-1)						
間接能源 Indirect Energy						
購買電力[6] Electricity purchased[6]	千兆焦耳[2] (百萬千瓦時) GJ[2] (Million kWh)	1,084,212* (301.17)	1,082,340* (300.65)	1,070,496* (297.36)	1,113,372* (309.27)	**1,146,564** **(318.49)**
間接能源總耗量 (KPI A2.1) Total consumption of indirect energy (KPI A2.1)	千兆焦耳[2] (千個千瓦時) GJ[2] (MWh)	1,084,212 (301,170)	1,082,340 (300,650)	1,070,496 (297,360)	1,113,372 (309,270)	**1,146,564** **(318,490)**
處理每單位體積污水的平均購買用電量 (302-3, KPI A2.1) Purchased electricity consumption per unit volume of sewage treated (302-3, KPI A2.1)	百萬千瓦時/百萬立方米 Million kWh/ million m^3	0.30	0.28	0.29	0.29	**0.30**
總能源耗量 Total Energy Consumption						
總能源耗量 (KPI A2.1) Total Energy Consumption (KPI A2.1)	千個千瓦時 MWh	305,610	302,581	299,827	311,406	**328,200**
處理每單位體積污水的平均總能源耗量 (302-3, KPI A2.1) Purchased electricity consumption per unit volume of sewage treated (302-3, KPI A2.1)	千個千瓦時/百萬立方米 MWh/ million m^3	303.49	294.34	290.25	298.28	**316.79**
渠務署的承建商 (302-2) By the DSD's Contractors (302-2)						
直接能源 Direct Energy						
汽油 Gasoline	千兆焦耳[2] (公升) GJ[2] (Litre)	4,525 (137,045)	4,035 (122,186)	5,191 (157,208)	10,907 (330,313)	**9,597** **(290,641)**
柴油 Diesel		16,566 (454,411)	39,059* (1,071,408)	67,626 (1,855,021)	93,028 (2,551,807)	**123,882** **(3,398,145)**
直接能源總耗量 (KPI A2.1) Total consumption of direct energy (KPI A2.1)	千個千瓦時 MWh	5,859	11,970	20,227	28,871	**37,077**
間接能源 Indirect Energy						
電力 Electricity	千兆焦耳[2] (百萬千瓦時) GJ[2] (Million kWh)	16,480 (4.58)	22,693 (6.30)	14,808 (4.11)	20,903 (5.81)	**81,890** **(22.75)**
間接能源總耗量 (KPI A2.1) Total consumption of indirect energy (KPI A2.1)	千個千瓦時 MWh	4,580	6,300	4,110	5,810	**22,750**
總能源耗量 Total Energy Consumption						
總能源耗量 Total energy consumption	千個千瓦時 MWh	10,439	18,270	24,337	34,681	**59,827**

6. 總耗電量包括九龍政府合署和西區裁判法院的辦公室，以及本署轄下防洪和污水處理設施（包括污水處理廠、污水泵房及雨水泵房）。並不適用於稅務大樓的辦公室耗電量。總能源使用量的計算方式為汽油使用量和購買電力量相加。
The total electricity consumption includes the offices at Kowloon Government Offices, Western Magistracy, and the DSD's flood prevention and sewage treatment facilities (including sewage treatment works, sewage pumping stations and stormwater pumping stations). Electricity consumption at office at Revenue Tower is not applicable. The total energy consumption is calculated by the addition of gasoline consumption and amount of electricity purchased.

溫室氣體排放量[7] (305-1, 305-2, 305-3, KPI A1.2)
Greenhouse Gas (GHG) Emissions[7] (305-1, 305-2, 305-3, KPI A1.2)

		單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
渠務署 By the DSD							
範圍 1 及 2 Scope 1 and 2							
燃燒汽油（範圍1）(305-1) Gasoline combustion (Scope 1) (305-1)	徵用車隊 Pool Cars	二氧化碳，以公噸計算 Tonnes CO_2e	42.85	27.08	38.07	48.94	**45.89**
	部門車隊 AM Cars		244.53	205.43	202.79	186.19	**180.00**
溫室氣體排放（範圍1） GHG emission (Scope 1)	污水處理[8] Sewage Treatment[8]		3,280.44	3,289.53	2080.85	1,949.45	**3,946.36**
溫室氣體抵消 GHG emissions offset	種植 Planting		90.13	70.17	68.68	74.80	**70.00**
範圍1溫室氣體總排放 Scope 1 Total GHG emissions			3,477.69	3,451.87	2,253.65	2,109.78	**4,102.71**
購買電力（範圍2）[9] (305-2) Electricity purchased (Scope 2)[9] (305-2)		二氧化碳，以公噸計算 Tonnes CO_2e	210,821.80*	210,457.45*	208,151.30*	216,486.90*	**222,940.62**
範圍1及2溫室氣體總排放 (KPI A1.2) Scope 1 and 2 Total GHG emission (KPI A1.2)			214,299.49	213,909.32	210,404.95	218,596.68	**227,043.33**
處理每單位體積污水的平均溫室氣體總排放 (KPI A1.2) Total GHG emission per unit volume of sewage treated (KPI A1.2)		二氧化碳，以公噸計算/百萬立方米 Tonnes CO_2e/ million m^3	212.81	208.08	203.68	209.38	**219.15**
渠務署的承建商 (305-3) By the DSD's Contractors (305-3)							
範圍 3 Scope 3							
燃燒燃料（範圍3）[10] Fuel consumption (Scope 3) [10]		二氧化碳，以公噸計算 Tonnes CO_2e	1,511	3,089	4,749	6,802	**8,392**
購買電力（範圍3） Electricity purchased (Scope 3)			19,019	4,412	2,879	4,064	**15,923**
處理每單位體積污水的平均溫室氣體總排放 (KPI A1.2) Total GHG emission per unit volume of sewage treated (KPI A1.2)		二氧化碳，以公噸計算/百萬立方米 Tonnes CO_2e/ million m^3	20.39	7.30	7.38	10.41	**23.47**

7. 溫室氣體排放量的計算是參考香港環保署及機電工程署在2010年2月編制的《香港建築物（商業、住宅或公共用途）的溫室氣體排放及移除的審計和報告指引》。溫室氣體包括二氧化碳、甲烷及氧化亞氮。
GHG emission were calculated based on the Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for buildings (Commercial, Residential or Institutional Purpose) in Hong Kong issued by the EPD and EMSD, HKSAR in February 2010. Types of GHG include CO_2, CH_4 and N_2O.

8. 此數據僅包含該報告期內已進行碳審計的七間污水處理廠。污水處理過程中產生的溫室氣體排放包括固定燃燒、移動燃燒、製冷/空調設備、硝化和反硝化過程、污泥消化器甲烷釋放。
It only includes calculation of seven STWs that under carbon audit in the respective reporting period. The GHG emissions generated in sewage treatment processes include stationary combustion, mobile combustion, refrigeration/air-conditioning equipment, nitrification and denitrification process, methane release from sludge digester.

9. 間接（範圍2）溫室氣體排放是根據全港性的預設值0.7千克/千瓦時計算。
Scope 2 GHG emissions were calculated based on a territory-wide default value of 0.7 kg/kWh.

10. 由固定載具柴油及流動燃燒汽油產生，與車輛用途，渠務署承建商的車輛用油所產生的溫室氣體排放量是基於所有車輛均為海耗汽油的私家車的假設而計算。渠務署會持續改善數據統計方式以提高數據準確性。
Generated from stationary combustion of diesel and mobile combustion of petrol i.e. vehicle consumption. GHG emissions from vehicle consumption by the DSD's contractors were calculated based on the assumption that all vehicles were passenger cars that consume gasoline. The DSD will continue optimising the data collection method to enhance data accuracy.

耗水量[11] (301-1, 303-3, 303-5, KPI A2.2)
Water Consumption[11] (301-1, 303-3, 303-5, KPI A2.2)

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
用於防洪及污水處理設施的淡水耗用量[12] (KPI A2.2, 303-5) Freshwater consumption at flood prevention and sewage treatment facilities[12] (KPI A2.2, 303-5)	立方米 m^3	2,191,991	2,436,440	2,525,919	2,682,821	**2,465,409**
污水處理設施的再造水每日生產量 Daily reclaimed water produced at sewage treatment facilities	立方米 m^3	1,340	1,861	1,576	1,607	**2,505**
再造水佔用水量百分比 Percentage of reclaimed water used	%	0.05	0.08	0.06	0.06	**0.10**
處理每單位體積污水的平均總耗水量 Total water consumption per unit volume of sewage treated (KPI A2.2)	立方米/百萬立方米 m3/ million m3	2,176.75	2,370.08	2,445.23	2,569.75	**2,379.74**

污水處理 (102-7)
Sewage Treatment (102-7)

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
污水處理量 (102-7) Volume of sewage treated (102-7)	百萬立方米 Million m^3	1,007	1,028	1,033	1,044	**1,036**
從污水中移除的生化需氧量 Biochemical oxygen demand removed from sewage	公噸 Tonnes	146,159	132,797	132,089	131,888	**113,288**
從污水中移除的懸浮固體量 Suspended solids removed from sewage		223,165	194,751	207,672	216,945	**170,558**
從污水中移除的氮量 Nitrogen removed from sewage		7,106	7,388	7,084	7,250	**7,966**
從污水中移除的脱水污泥量 Dewatered sludge removed from sewage		386,137	392,140	381,045	389,878	**403,826**
從污水中移除的隔濾物量 Screenings removed from sewage		14,970	14,292	12,842	12,671	**12,497**
從污水中移除的砂礫量 Grits removed from sewage		4,996	5,721	4,981	4,998	**4,977**

11. 渠務署所耗用的淡水和再造水均為可再生物料。其中，淡水為來自城市供水系統的自來水。
Freshwater and reclaimed water consumed by the DSD are renewable materials. The freshwater is municipal water from the city's water supply system.
12. 由於渠務署並未涉及海水取水及排放，所以此數據已呈現渠務署的總耗水量。
The DSD does not involve in seawater withdrawal and discharge. Therefore, this figure represents the total water consumption of the DSD.

廢物管理[13] (306-2, 306-3, KPI A1.3, A1.4)
Waste Management[13] (306-2, 306-3, KPI A1.3, A1.4)

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
建築及拆卸廢料 Construction and Demolition (C&D) Materials						
運往堆填區的建築及拆卸廢物[14] C&D waste disposed to landfills[14]	公噸 Tonnes	2,273	2,335	6,188	14,380	**9,514**
運往公眾堆填區的建築及拆卸廢物[15] C&D waste disposed to public fill areas[15]		155,469	151,918	68,491	230,594	**191,487**
可循環再造廢料收集量 Recyclable Waste Collected						
廢紙[16] Waste paper[16]	公斤 kg	15,954	20,087	15,083	16,415	**12,002**
鋁罐[17] Aluminium cans[17]		32.23	92.21	86.76	80.20	97.44
膠樽[17] Plastic bottles[17]		22.72	52.66	45.53	33.10	**48.08**
無害廢物總量 Total non-hazardous waste (KPI A1.4)	公噸 Tonnes	157,758	154,273	74,694	244,991	**201,013**
員工實際人數的平均無害廢物總量 (KPI A1.4) Non-hazardous waste per no. of staff by strength (KPI A1.4)	公噸/員工實際人數 Tonnes/ no. of staff by strength	91.93	89.54	43.03	137.10	**111.74**
打印機墨水匣 Printer cartridges	數目 No.	1369	917	825	902	**829**
可充電電池 Rechargeable batteries	數目 No.	59	99	39	41	**34**
有害廢物總量 (KPI A1.3)[18] Total hazardous waste (KPI A1.3)[18]	公噸 Tonnes	0.22	0.15	0.13	0.14	**0.13**
員工實際人數的平均有害廢物總量 (KPI A1.3) Hazardous waste per no. of staff by strength (KPI A1.3)	公噸/員工實際人數 Tonnes/ no. of staff by strength	0.00013	0.00009	0.00008	0.00008	**0.00008**

13. 渠務署中央收集不同分部和承建商的廢物數據。
The DSD centrally collects waste data from different divisions and contractors.
14. 廢物包括金屬、塑膠、紙張或紙皮包裝物料，以及其他廢料，包括一般廢物。
Waste includes metals, plastics, paper/cardboard packaging waste and other wastes, such as general refuse.
15. 廢物包括磚塊、混凝土、建築廢料、瓦礫，以及挖掘料。
Waste include bricks, concrete, building debris, rubble and excavated soil.
16. 數字並不包括於工地所收集的廢紙量。
The amount of waste paper collected did not include those collected from project sites.
17. 由於未能獲得相關數據，數字並不包括於西區裁判法院辦公室收集的鋁罐及膠樽數量。
The amount of aluminium cans and plastic bottles collected did not include those collected from the Western Magistracy as the data were not available.
18. 一個打印機墨水匣估計為0.15公斤，而一個可充電電池估計為0.167公斤。有害廢物總量（噸）的計算方法是（打印機墨水匣的數量*0.15+可充電電池的數量*0.167）/1000。
A printer cartridge is estimated as 0.15 kg while a rechargeable battery is estimated as 0.167 kg. The total hazardous waste (in tonnes) is calculated by (the amount of printer cartridges*0.15+ the amount of rechargeable batteries*0.167)/1000.

物料使用 [19] (301-1)
Material Consumption[19] (301-1)

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
渠務署 By the DSD						
紙張總用量 Total paper consumption	令 Reams	9,231	9,223	9,091	9,555	**9,516**
A4 紙張 A4 paper		8,854	8,817	8,726	9,230	**9,182**
A3 紙張 A3 paper		377	406	365	305	**334**
購買含再造成分的 A4/A3 紙張 Purchased A4/A3 paper with recycle content	令 (佔購入紙張的百分率) Reams (% of total paper purchased)	9,231 (100%)	9,223 (100%)	9,091 (100%)	9,555 (100%)	**9,516 (100%)**
每名員工紙張用量 (以職員編制計算) Paper consumed per staff (By establishment)	令 Reams	4.8	4.6	4.5	4.7	**4.6**
渠務署的承建商 By the DSD's Contractors						
鋼筋 Rebar	公噸 Tonnes	13,325	11,811	14,998	8,257	**34,548**
鋼 Steel	公噸 Tonnes	5,042	4,159	9,843	7,416	**10,283**
磚塊 Bricks	立方米 m^3	1,993	126	140	209	**582**
水泥 Cement	公噸 Tonnes	3,500	763	2,181	3,816	**3,901**
沙漿 Cement mortar	立方米 m^3	1,946	873	812	982	**717**
混凝土 Concrete	立方米 m^3	74,651	52,150	57,418	71,794	**112,718**
沙 Sand	公噸 Tonnes	23,111	2,602	6,857	25,245	**6,772**
石料 Stones	公噸 Tonnes	26,775	8,762	6,326	13,308	**11,023**
辦公室用紙 Office paper	公噸 Tonnes	74	20	66	34	**157**

綠化
Greening

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
總種植樹木數量 Total no. of trees planted	棵 Tree	1,300	64	239	62	**4**
增設的綠化天台面積 Area of green roof added	平方米 m^2	4,150	2,028	7,359	644	**1,163**

19. 除紙張為可再生物料外，其他均為非可再生物料。
Except for paper, which is a renewable material, others are non-renewable materials.

社會工作表現
Social Performance

員工
Staff

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22[20]
職員編制 Staff establishment	數目 No.	1,940	1,986	2,020	2,050	**2,056**
首長級人員 Directorate	數目 No.	18	18	18	18	**19**
專業人員 Professional	數目 No.	307	327	346	368	**372**
技術人員及工地督導人員 Technical & Site Supervisory	數目 No.	888	908	920	962	**968**
一般職系人員 General & Common Grades	數目 No.	533	538	540	543	**544**
第一標準薪級人員 Model Scale I	數目 No.	194	195	196	159	**153**

2021-22 年度職員編制 [21] (102-7, 102-8, KPIB1.1)
Staff Breakdown in 2021-2022[21] (102-7, 102-8, KPIB1.1)

	單位 Unit	以實際人數計算 By Strength
員工人數 (102-7) No. of Staff (102-7)	人數 No.	1,799
按性別分類 (KPI B1.1) By Gender (KPI B1.1)		
男性 Male	% (人數 No.)	81.43 (1,465)
女性 Female		18.57 (334)
按職位分類 By Post		
首長級人員 Directorate	% (人數 No.)	1.06 (19)
專業人員 Professional		19.07 (343)
技術人員及工地督導人員 Technical & Site Supervisory		51.58 (928)
一般職系人員 General & Common Grades		23.18 (417)
第一標準薪級人員 Model Scale I		5.11 (92)
按僱用類型分類 By Employment Type		
全職 Full-time	% (人數 No.)	100 (1,799)
兼職 Part-time		0 (0)

	單位 Unit	以實際人數計算 By Strength
按僱用合約及性別分類 By Employment Contract, by Gender		
永久合約 (男性) Permanent (Male)	% (人數 No.)	81.43 (1,465)
永久合約 (女性) Permanent (Female)		18.57 (334)
按年齡分類 By Age		
20-29 歲 Age 20-29	% (人數 No.)	13.84 (249)
30-39 歲 Age 30-39		27.13 (488)
40-49 歲 Age 40-49		28.35 (510)
50-59 歲 Age 50-59		27.57 (496)
60 歲或以上 Age 60 or above		3.11 (56)
按國籍分類 By Nationality		
中國 Local	% (人數 No.)	100 (1,799)
外國 Non-local		0 (0)

20. 數據截至 2022 年 3 月 31 日。
Data as of 31 March 2022.

21. 我們的主要營運由渠務署員工負責執行。
The majority of our operations are performed by the DSD's employees.

2021-22 年度高級管理人員編制 (405-1)
Senior Management Breakdown in 2021-22 (405-1)

	單位 Unit	以實際人數計算 By Strength
員工人數 No. of Staff	人數 No.	5
按年齡分類 By Age		
20-29 歲 Age 20-29	% (人數 No.)	0 (0)
30-39 歲 Age 30-39		0 (0)
40-49 歲 Age 40-49		0 (0)
50-59 歲 Age 50-59		80 (4)
60 歲或以上 Age 60 or above		20 (1)

	單位 Unit	以實際人數計算 By Strength
按國籍分類 By Nationality		
中國 Local	% (人數 No.)	100 (5)
外國 Non-local		0 (0)
按性別分類 By Gender		
男性 Male	% (人數 No.)	80 (4)
女性 Female		20 (1)

培訓
Training

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
培訓課程[22] Training courses[22]	數目 No.	638	681	600	331	**411**
受訓員工 Trainees	人數 No.	8,033	10,011	6,873	4,062	**4,766**
員工培訓時數 Training hours received	小時 Hours	60,524	66,110	58,781	31,374	**42,901**
員工平均培訓時數 (以員工實際人數計算) Average training hours per staff (Based on the staff strength)		35.27	38.37	33.86	17.56	**26.91**
培訓總開支 (只包括本地培訓)[22] Total expenditure on training (Includes local training only)[22]	元 $	2,929,551	2,701,879	3,772,082	2,017,411	**4,164,501**

22. 包括內部和外界座談會、工作坊、培訓課程、參觀，以及由公務員培訓處舉辦的培訓班和員工發起的外部課程。
It includes internal and external seminars, workshops, training courses, visits and training courses held by Civil Service Training and Development Institute and staff-initiated external courses.

2021-22 年度員工培訓時數[23] (404-1)
Training Hours Breakdown in 2021-22[23] (404-1)

職位 Type of Staff	員工人數 (以實際人數計算) No. of Staff (By Strength)	接受培訓時數 (小時) Training Hours Received (Hours)	每名員工培訓時數 (小時) Training Hours per Staff (Hours)
按職位分類 By Post			
首長級人員 Directorate Staff	12	303	25.25
專業人員 Professional Grade Staff	307	11,196	36.47
技術人員、工地督導人員、一般職系人員及第一標準薪級人員 Technical, Site Supervisory, General & Common Grades and Model Scale I Staff	1,275	31,402	24.63

2020-21 年度新入職員工和員工流失量 (401-1, KPI B1.2)
New Employees and Staff Turnover in 2020-21 (401-1, KPI B1.2)

	單位 Unit	新入職員工[24] New Employee[24]	新入職員工率 (%)[25] New Employee Rate (%)[25]	員工流失量[26] Staff Turnover[26]	員工流失率 (%)[27] (KPI B1.2) Staff Turnover Rate(%)[27] (KPI B1.2)
按年齡分類 By Age					
20-29 歲 Age 20-29	人數 No.	62	24.90	37	14.86
30-39 歲 Age 30-39		38	7.79	70	14.34
40-49 歲 Age 40-49		15	2.94	50	9.80
50-59 歲 Age 50-59		5	1.01	38	7.66
60 歲或以上 Age 60 or above		2	3.57	60	107.14
按性別分類 By Gender					
男性 Male	人數 No.	98	6.69	199	13.58
女性 Female		24	7.19	56	16.77

23. 培訓方面沒有特定的性別要求，因此我們不按性別細分相關數據。
As there is no distinct requirement regarding receiving training in terms of gender, therefore we do not report the data broken down by gender.

24. 以上數字包括於 2021 年 4 月 1 日至 2022 年 3 月 31 日期間入職的員工。
The above figures involve staff with their 1st appointment date falling within the period from 1 April 2021 to 31 March 2022.

25. 新入職員工率的計算方法是新來就業的指定類別的僱員/指定類別的僱員人數。
New employee rate is calculated by Employees in the specified category of new coming employment/ Number of employees in the specified category.

26. 員工流失率數字不包括在部門間轉職的人員。
The staff turnover figures exclude staff on inter-departmental transfer.

27. 員工流失率的計算方法是指定類別的員工離職/指定類別的員工人數。
Staff turnover rate is calculated by Employees in the specified category leaving employment/ Number of employees in the specified category.

供應鏈管理（414-1）
Supply Chain Management (414-1)

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
供應商社會評估 (414-1)[28] Supplier Social Assessment (GRI 414-1)[28]						
使用社會標準篩選的新供應商百分比 (GRI 414-1) Percentage of new suppliers that were screened using social criteria (GRI 414-1)	%	100	100	100	100	**100**

社區工作及慈善捐款 (203-1, KPI B8.2)
Community Work and Charitable Contributions (203-1, KPI B8.2)

	單位 Unit	2016-17	2017-18	2018-19	2019-20	2020-21
員工參與義工活動的總時數 Total number of voluntary work hours carried out by our staff	小時 Hours	1,795	1,220*	1,332	521*	**864**
已完成的義工數目 Number of voluntary projects completed	數目 No.	41	40	39	14*	**34**
員工募捐 Employee fundraising	千元 $'000	49	40	65	25	**59**

職業安全及健康 (403-9, KPI B2.1)
Occupational Safety and Health (403-9, KPI B2.1)

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
死亡數目[29] Number of Fatalities[29]						
總死亡數目 (KPI B2.1) Number of fatalities (KPI B2.1)	人數 No.	1	0	0	0	**1**
渠務署員工 The DSD staff		0	0	0	0	**0**
由承辦商負責的建築及維修工程 Construction and maintenance works undertaken by the DSD's contractors		1 (男性) (Male)	0	0	0	1 (女性) (Female)

28. 在評估供應商報價和監督合約的階段，本署設有社會標準、環境標準、國家安全等要求。
Requirements such as social criteria, environmental criteria and national security would be conducted at the stages of supplier quotation evaluation and contract monitoring.

29. 由於2021-22年的死亡事故仍由警方調查中，因此未能提供其事故原因。
As the fatal accident of 2021-22 is subjected to the outcome of the investigation by the Police. Therefore, solid reason of the fatal accident is not able to provide.

職業安全及健康 (403-9, KPI B2.1)
Occupational Safety and Health (403-9, KPI B2.1)

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
每20萬工時發生的致命意外率[30] Fatal accident rate per 200,000 man-hours[30]						
渠務署員工 The DSD staff	-	0	0	0	0	**0**
由承建商負責的建築及維修工程 Construction and maintenance works undertaken by the DSD's contractors	-	0.02	0	0	0	**0.02**
非致命意外數目[31] Number of non-fatal accidents[31]						
渠務署員工 The DSD staff	人數 No.	5	8	5	2	**5**
由承建商負責的建築及維修工程 Construction and maintenance works undertaken by the DSD's contractors		15	6	10	13	**17**
每20萬工時發生的非致命意外率[30] Non-fatal accident rate per 200,000 man-hours[30]						
渠務署員工 The DSD staff	-	0.16	0.24	0.16	0.06	**0.15**
由承建商負責的建築及維修工程 Construction and maintenance works undertaken by the DSD's contractors	-	0.44	0.18	0.28	0.30	**0.30**
嚴重後果工傷的數目 Number of high-consequence work-related injury						
渠務署員工 The DSD staff	人數 No.	–	–	1	0	**0**
由承建商負責的建築及維修工程 Construction and maintenance works undertaken by the DSD's contractors		–	–	4	5	**2**
每20萬工時發生的嚴重後果工傷[30] High-consequence work-related injury per 200,000 man-hours[30]						
渠務署員工 The DSD staff	-	--	--	0.32	0	**0**
由承建商負責的建築及維修工程 Construction and maintenance works undertaken by the DSD's contractors	-	--	--	0.11	0.11	**0.04**

	單位 Unit	2021-22
總工作時數 Total hours worked		
渠務署員工 The DSD staff	小時 Hours	**6,458,445**
由承建商負責的建築及維修工程 Construction and maintenance works undertaken by the DSD's contractors		**10,576,218**

30. 香港建造業的意外率依據勞工處公布的統計數字，使用每10萬工時發生1.67宗意外換算，相當於每1,000名工人每年發生60宗意外，轉換系數為55.71人/20萬工時。
The accident rate of the Hong Kong Construction Industry is based on the published statistics of the Labour Department and using a conversion of 1.67 accidents per 100,000 man-hours equivalent to 60 accidents per 1,000 workers per year, which gives a conversion factor of 55.71 workers/200,000 man-hours.

31. 事故類型包括提舉或搬運時受傷、滑倒、絆倒或在同一高度摔倒、人從高處墮落、撞擊固定或靜止物體以及被墮落物體擊中。
Accident types including injured whilst lifting or carrying, slip, trip or fall on same level, fall of person from height, striking against fixed or stat onary object and struck by falling object.

經濟工作表現
Economic Performance

本署的開支主要分為營運開支和公共工程項目開支兩類。我們的日常營運經費來自政府的一般收入帳目；公共工程項目的開支，則由立法會財務委員會按個別項目批核。為確保公帑用得其所，我們採用創新技術及管理模式，致力提高營運效率。

The two major types of expenses in the DSD are operational expenses and public works project expenses. Our day-to-day departmental operation is financed by the General Revenue Account of the Government, while funding for public works projects are approved on a project-by-project basis by the Finance Committee of the Legislative Council. To ensure public funds are used effectively, we strive to enhance operation efficiency by adopting new technologies and management practices.

營運開支 (201-1)
Operating Expenditure (201-1)

		單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
經常開支 Recurrent Expenditure	個人薪酬 Personal Emoluments	百萬元 $M	916.87	958.68	1,009.37	1,040.59	**1,061.86**
	部門開支[32] Departmental Expenses[32]	百萬元 $M	1,692.80	1,774.93	1,869.07	1,999.50	**2,088.88**
非經營帳目開支 Capital Account Expenditure		百萬元 $M	37.26	94.99	81.12	90.79	**73.17**
總額 Total		**百萬元 $M**	**2,646.93**	**2,828.60**	**2,959.56**	**3,130.88**	**3,223.91**

基本工程的項目開支 (203-1)
Capital Works Project Expenditure (203-1)

	單位 Unit	2017 -18	2018-19	2019-20	2020-21	2021-22[33]
正在規劃、設計和施工階段的雨水排放工程項目數目 No. of drainage projects under planning, design and construction	數目 No.	24	24	{2} [24]	{9} [19]	**{9} [21]**
正在規劃、設計和施工的雨水排放工程項目總值 Value of drainage projects under planning, design and construction	百萬元 $M	26,876	31,935	{1,345} [34,758]	{4,577} [99,897]	**{4,577} 31,867**
正在規劃、設計和施工階段的污水處理工程項目數目 No. of sewerage projects under planning, design and construction	數目 No.	66	63	{21} [44]	{35} [40]	**{39} [39]**
正在規劃、設計和施工的污水處理工程項目總值 Value of sewerage projects under planning, design and construction	百萬元 $M	73,175	89,220	{27,031} [77,608]	{57,532} [59,880]	**{57,971} [69,143]**

32. 包括強制性公積金和公務員公積金的供款。
It included expenses on Mandatory Provident Fund and Civil Service Provident Fund contributions.

33. { } 內數字為施工中的甲級工程，金額以付款當日價格計算；[ ] 內數字為正在規劃或設計的乙級工程，金額以 2022 年 3 月價格計算。
Figures in { } are Category A projects under construction and the amount shown in money-of-the-day price; figures in [ ] are Category B projects under planning or design and amount shown in March 2022 price level.

污水處理服務經營帳目 (102-7)
Sewage Services Operating Accounts (102-7)

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22[34]
排污費收入 Sewage Charge Revenue	百萬元 $M	1,296.2	1,323.1	1,189.3	1,078.8	**1,020.0**
工商業污水附加費收入 Trade Effluent Surcharge Revenue	百萬元 $M	243.5	241.0	160.6	4.0	**12.5**
其他收入 Other Revenue	百萬元 $M	45.9	50.6	54.4	56.6	**57.6**
總收入 Overall Revenue	**百萬元 $M**	**1,585.6**	**1,614.7**	**1,404.3**	**1,139.4**	**1,090.1**
開支（不包括折舊） Expenditure (Excluding Depreciation)	百萬元 $M	(2,334.2)	(2,515.4)	(2,634.2)	(2,707.9)	**(2,741.5)**
折舊 Depreciation	百萬元 $M	(1,546.1)	(1,547.0)	(1,595.9)	(1,594.0)	**(1,717.9)**
總開支 Overall Expenditure	**百萬元 $M**	**(3,880.3)**	**(4,062.4)**	**(4,230.1)**	**(4,301.9)**	**(4,459.4)**
（虧損）(102-7) (Deficit) (102-7)	**百萬元 $M**	**(2,294.7)**	**(2,447.7)**	**(2,825.8)**	**(3,162.5)**	**(3,369.3)**

污水處理服務成本回收率[35]
Sewage Services Operating Cost Recovery Rate[35]

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22[34]
排污費及工商業污水附加費收入 Revenue of Sewage Charge and Trade Effluent Surcharge	百萬元 $M	1,539.7	1,564.1	1,349.9	1,082.8	**1,032.5**
排污費及工商業污水附加費開支（不包括折舊）[36] Expenditure (excluding depreciation of Sewage Charge and Trade Effluent Surcharge[36]	百萬元 $M	2,288.9	2,465.5	2,580.4	2,652.0	**2,684.1**
收回經營成本比率 Operating Cost Recovery Rate	%	67.3	63.4	52.3	40.8	**38.5**[37]

污水處理服務的使用量和付款統計數字 (102-7)
Sewage Service Charge Consumption and Payment Statistics (102-7)

	2017-18	2018-19	2019-10	2020-21	2021-22
自來水用戶數目（以千計） Number of water accounts (in thousand)	2,989	3,043	3,078	3,116	**3,159**
需繳付排污費的用戶數目（以千計） Number of water accounts liable to pay Sewage Charge (in thousand)	2,765	2,818	2,853	2,889	**2,933**
工商業污水附加費繳納戶數目（以千計） Number of accounts - Trade Effluent Surcharge (in thousand)	28	29	30	31	**33**

34. 2021-22 年度數字只屬暫時性，有待污水處理服務帳目委員會確認。
The 2021-22 figures are provisional and subject to endorsement by the Sewage Services Accounts Committee.

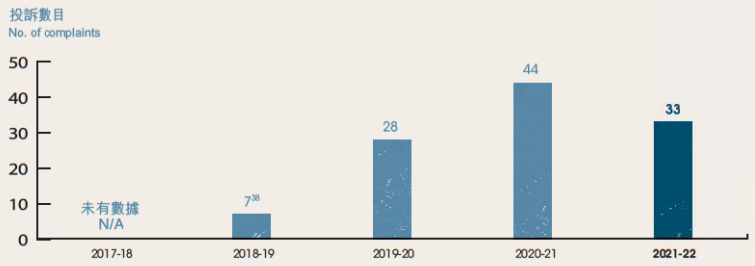
35. 本表的收入及開支總額均不包括「其他雜項服務」。
"Miscellaneous services" are excluded from the revenues and expenditure in this table.

36. 現時，本署並未透過排污費及工商業污水附加費收回折舊的開支。
Depreciation is not recovered through the Sewage Charge and the Trade Effluent Surcharge at present.

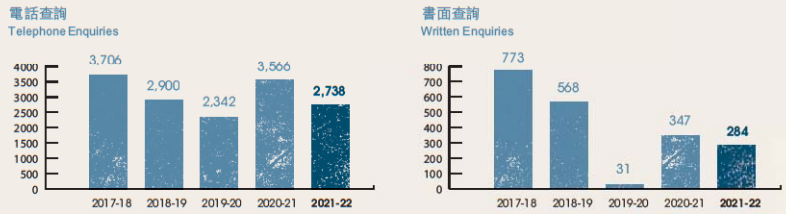
37. 數字已反映 2019-20、2020-21 及 2021-22 年度的排污費及工商業污水附加費的寬減措施。2020-21 及 2021-22 年度未計寬減措施的收回經營成本比率分別為 59.5% 及 61.0%。
The figure has reflected concessions on the Sewage Charge and Trade Effluent Surcharge in 2019-20, 2020-21 and 2021-22. The Operating Cost Recovery Rates without calculation of the concessions in 2020-21 and 2021-22 are 59.5% and 61.0% respectively.

常規服務
Routine Services

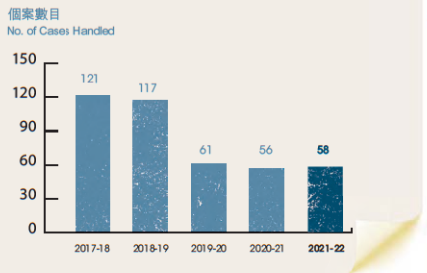
接獲關於產品及服務的投訴數目(KPI B6.2)
Number of products and service-related complaints received (KPI B6.2)



過去五年接到有關污水處理服務收費的查詢數目
Number of Enquiries Received about Sewage Services Charge for the Past Five Years



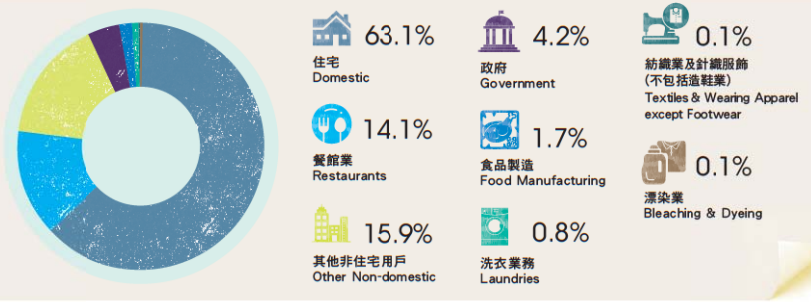
過去五年所處理有關行業重新分類的申請
Business Reclassification Application Handled for the Past Five Years



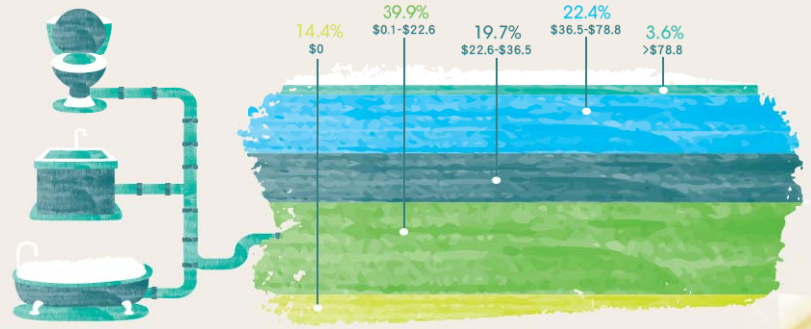
過去五年所發現工商業污水附加費的新繳納戶數目
Number of New TES Accounts Identified for the Past Five Years

38. 2018-19僅記錄第一季的數據。
Only data in first quarter of 2018-19 is available.

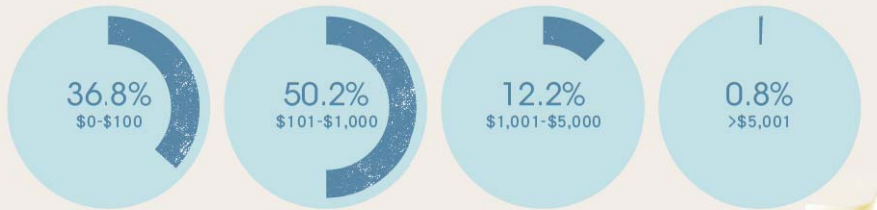
2021-22年度污水排放用戶用水量（578.7 百萬立方米）– 用戶情況
Water Consumption of Sewered Accounts (578.7 million m^3) — Customers Pattern in 2021-22



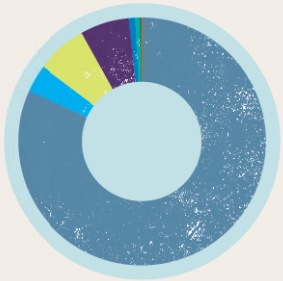
住宅用戶 — 2021-2022年度排污費收費情況（元 / 月）
Domestic Accounts - Sewage Charge Payment Pattern in 2021-2022 ($/month)



工商業污水附加費用戶 – 2021-22 年度工商業污水附加費收費情況（元/ 月）
TES Accounts — TES Payment Patterns in 2021-22 ($/month)

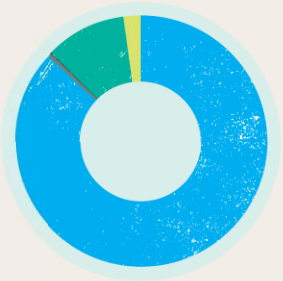


排污費（10.2 億元）－ 2021-22 年度用戶種類收費情況[39]
Sewage Charge ($1.02 billion) — Revenue Pattern by Type in 2021-22[39]



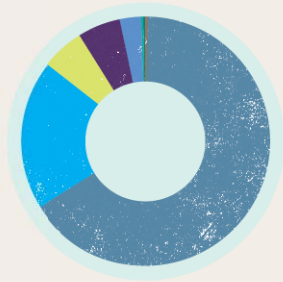
- 81.8% 住宅 Domestic
- 6.6% 政府 Government
- 0.1% 紡織業及針織服飾（不包括造鞋業） Textiles & Wearing Apparel except Footwear
- 3.5% 餐館業 Restaurants
- 0.8% 食品製造 Food Manufacturing
- 0.1% 漂染業 Bleaching & Dyeing
- 6.7% 其他非住宅用戶 Other Non-domestic
- 0.4% 洗衣業務 Laundries

工商業污水附加費（12.5百萬）－ 2021-22年度用戶種類收費情況
TES ($12.5 million) — Revenue Patter by Type in 2021-22



- 87.3% 餐館業 Restaurants
- 0.1% 紡織業及針織服飾（不包括造鞋業） Textiles & Wearing Apparel except Footwear
- 2.0% 其他非住宅用戶 Other Non-domestic
- 0.1% 漂染業 Bleaching & Dyeing
- 10.5% 洗衣業務 Laundries

排污費及工商業污水附加費入（1,032.5百萬）－ 2021-22年度用戶種類收費情況
Sewage Charge and TES ($1,032.5 million) — Revenue Pattern by Type in 2021-22



- 66.3% 住宅 Domestic
- 5.6% 政府 Government
- 0.1% 紡織業及針織服飾（不包括造鞋業） Textiles & Wearing Apparel except Footwear
- 19.3% 餐館業 Restaurants
- 2.7% 食品製造 Food Manufacturing
- 0.1% 漂染業 Bleaching & Dyeing
- 5.6% 其他非住宅用戶 Other Non-domestic
- 0.3% 洗衣業務 Laundries

39. 數字只屬暫時性，有待污水處理服務帳目委員會確認。
The figures are provisional and subject to endorsement by the Sewage Services Accounts Committee.

其他主要數據
Other Key Statistics

	單位 Unit	2017-18	2018-19	2019-20	2020-21	2021-22
防洪 Flood Prevention						
水浸黑點總數 Total no. of flooding blackspots	數目 No.	6	6	5	4	**4**
地下雨水渠總長度 Total length of stormwater drains	公里 km	2,388	2,427*	2,429*	2,410	**2,410**
人工河道總長度 Total length of engineered channels		363	363	363	366	**366**
雨水排放隧道總長度 Total length of drainage tunnels		54.87*	54.88*	54.88*	54.90*	**54.90**
雨水泵房總數 Total no. of stormwater pumping stations	數目 No.	36	36	36	36	**36**
污水處理 Sewage Treatment						
公共污水收集網絡覆蓋（佔人口百分比）[40] Coverage of Public Sewerage (Population percentage)[40]	%	93.5	93.6	93.7	93.8	**93.9%**
污水收集網絡總長度 Total length of sewerage network	公里 km	1,770	1,832	1,841	1,864	**1,893**
污水隧道總長度 Total length of sewage tunnels		56.35*	113.29*	113.29*	113.26*	**113.27**
污水處理設施總數 Total no. of sewage treatment facilities	數目 No.	314	319	324	328	**330**
總污水處理量 Total volume of sewage treated	百萬立方米 Million m^3	1,007	1,028	1,033	1,044	**1,036**
基本處理 By Preliminary Treatment		58	75	50	22	**0.24**
一級處理 By Primary Treatment		5	6	5	4	**4**
化學強化一級處理 By Chemically Enhanced Primary Treatment		757	751	784	821	**834**
二級處理 By Secondary Treatment		187	196	194	197	**198**
三級處理 By Tertiary Treatment		0.17	0.16	0.17	0.14	**0.14**
每天產生的總污泥量[41] Total sewage sludge generated daily[41]	公噸 Tonnes	1,043	1,075	1,041	1,068	**1,106**
處理污水時使用電力而引起的溫室氣體排放系數 Emission factor of GHG emissions due to electricity used for processing sewage	-	0.21	0.20	0.20	0.21	**0.21**

40. 以有繳付排污費的住宅水務帳戶計算。
Based on the number of domestic water bill accounts with sewage charges levied.

41. 大部分的污泥於污水處理廠內以磅秤量度重量，而小型廠房的污泥重量由環保署接收後量度。
Most of the sludge is weighed on a scale in the sewage treatment plants, while the weight of the sludge generated in small treatment plants is measured after being received by the EPD.

附錄三—全球報告倡議組織內容索引

Appendix III - GRI Content Index

GRI MATERIALITY DISCLOSURES SERVICE 2022

全球報告倡議組織已審議「實質性議題審核」，並認為全球報告倡議組織內容索引闡述清晰，102-40 至 102-49 披露議題的參照索引與報告內文的相應章節相符。此審核是以報告英文版本評核。

For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report. The service was performed on the English version of the report.

可持續發展報告標準 GRI Standards	一般披露 General Disclosures		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
GRI 101：基礎 2016 GRI 101：Foundation 2016					
GRI 102: 一般披露 2016 GRI 102: General Disclosures 2016	組織概況 Organisational Profile				
	102-1	機構名稱 Name of the organisation	關於本報告 About the Report	P.6	✓
	102-2	活動、品牌、產品和服務 Activities, brands, products, and services	主要職責 Core Responsibilities	P.72	✓
	102-3	總部位置 Location of headquarters	香港灣仔稅務大樓 43 樓 Hong Kong, 43/F Revenue Tower, Wanchai	—	✓
	102-4	經營位置 Location of operations	只限香港 Hong Kong only	—	✓
	102-5	所有權與法律形式 Ownership and legal form	屬於香港特區政府的一部分 Part of the HKSAR Government	—	✓
	102-6	提供服務的市場 Markets served	只限香港 Hong Kong only	—	✓
	102-7	組織規模 Scale of the organisation	附錄二：主要統計數據 Appendix II : Key Statistics and Data 本署營運地點為香港。 The Department's operation is in Hong Kong	P.193-209	✓
	102-8	有關員工和其他工作者的資訊 Information on employees and other workers	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
	102-9	供應鏈 Supply chain	持份者參與 Stakeholder Engagement	P.162-166	✓
	102-10	組織及其供應鏈的重大變化 Significant changes to the organisation and its supply chain	沒有顯著改變 No significant changes	—	✓
	102-11	預警原則或方針 Precautionary Principle or approach	管治方針 Governance Approach 渠務署於日常營運中採取預防措施以盡量減少對環境及社會產生的負面影響。 The DSD adopts precautionary approaches in our daily operations to minimise negative environmental and social impacts.	P.64-67	✓
	102-12	外部倡議 External initiatives	年度大事 Highlights of the Year	P.32-57	✓

可持續發展報告標準 GRI Standards	一般披露 General Disclosures		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
GRI 102: 一般披露 2016 GRI 102: General Disclosures 2016	組織概況 Organisational Profile				
	102-13	協會的成員資格 Membership of associations	渠務署屬於以下協會的成員：國際公用事業專業網絡；國際水利與環境工程學會香港分會；香港綠色建築議會；香港水務及環境管理學會；及新工程合約用戶組織及建造業創新及科技應用中心 i-Club。 DSD holds membership in the following associations: Leading Utilities of the World (LUOW); The International Association for Hydro-Environment Engineering and Research (IAHR) - Hong Kong Chapter; The Hong Kong Green Building Council; The Chartered Institution of Water and Environmental Management (CIWEM); and The NEC Users' Group and CITAC i-Club Corporate Member.	—	✓
	策略 Strategy				
	102-14	最高決策者的聲明 Statement from Senior decision-maker	署長序言 Director's Statement	P.2-5	✓
	操守與誠信 Ethics and Integrity				
	102-16	價值、原則、標準和行為規範 Values, principles, standards, and norms of behaviour	管治方針 Governance Approach	P.60	✓
	管治 Governance				
	102-18	管治結構 Governance structure	管治方針 Governance Approach	P. 61-66	✓
	102-20	行政管理層對於經濟、環境和社會議題的責任 Executive-level responsibility for economic, environmental, and social topics	管治方針 Governance Approach	P. 64-67	✓
	102-21	就經濟、環境和社會議題與利益相關方進行的磋商 Consulting stakeholders on economic, environmental, and social topics	關於本報告 About the Report 持份者參與 Stakeholder Engagement	P.9-15 P.152	✓
	102-23	最高管治機構主席 Chair of the highest governance body	管治方針 Governance Approach	P. 61	✓
	102-32	最高管治機構在可持續發展報告方面的作用 Highest governance body's role in sustainability reporting	管治方針 Governance Approach	P. 66	✓
	持份者參與 Stakeholder Engagement				
	102-40	利益相關方群體列表 List of stakeholder groups	關於本報告 About the Report 持份者參與 Stakeholder Engagement	P.9 P.152	✓
	102-41	集體談判協議 Collective bargaining agreements	渠務署根據《基本法》第二十七條，香港居民享有言論、新聞、出版的自由，結社、集會、遊行、示威的自由，組織和參加工會、罷工的權利和自由。 The DSD according to Article 27 of the Basic Law, Hong Kong residents enjoy the freedom of speech, of the press and the publication, the freedom of association, of assembly, of procession and of demonstration, and the right and freedom to form and join trade unions and to strike.	—	✓
	102-42	利益相關方的識別和甄選 Identifying and selecting stakeholders	關於本報告 About the Report	P.9	✓
	102-43	利益相關方參與方針 Approach to stakeholder engagement	關於本報告 About the Report 持份者參與 Stakeholder Engagement	P.9-10 P.152	✓
	102-44	提出的主要議題及關注事項 Key topics and concerns raised	關於本報告 About the Report	P.11-15	✓

可持續發展報告標準 GRI Standards	一般披露 General Disclosures		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
GRI 102: 一般披露 2016 GRI 102: General Disclosures 2016	匯報實務 Reporting Practice				
	102-45	合併財務報表中所涵蓋的實體 Entities included in the consolidated financial statements	關於本報告 About the Report	P.7	✓
	102-46	界定報告內容及議題邊界 Defining report content and topic Boundaries	關於本報告 About the Report	P.8, 12-15	✓
	102-47	實質性議題列表 List of material topics	關於本報告 About the Report	P.12-15	✓
	102-48	信息重述 Restatements of information	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
	102-49	報告變化 Changes in reporting	關於本報告 About the Report	P.12	✓
	102-50	報告期 Reporting period	關於本報告 About the Report	P.7	✓
	102-51	最近報告日期 Date of most recent report	2021 年 12 月 December 2021	—	✓
	102-52	報告週期 Reporting cycle	自 2012-13 年度起每年發表可持續發展報告。 Our Sustainability Report has been published annually since 2012-13.	—	✓
	102-53	有關本報告問題的聯繫人信息 Contact point for questions regarding the report	回應表格 Feedback Form	P.238-239, 封底 Back cover	✓
	102-54	符合全球報告倡議組織 (GRI) 標準報告的聲明 Claims of reporting in accordance with the GRI Standards	關於本報告 About the Report	P.7	✓
	102-55	GRI 內容索引 GRI content index	附錄三：全球報告倡議組織內容索引 Appendix III : GRI Content Index	P.210-222	✓
	102-56	外部鑒證 External assurance	關於本報告 About the Report 驗證聲明 Assurance Statement	P.7 P. 236-237	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
經濟 ECONOMIC					
經濟績效 Economic Performance					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report	P.8-15	✓
	103-2	管理方法及其組成部分 The management approach and its components	管治方針 Governance Approach	P.60-67	
	103-3	管理方法的評估 Evaluation of the management approach	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	
GRI 201: 經濟績效 2016 GRI 201: Economic Performance 2016	201-1	直接產生和分配的經濟價值 Direct economic value generated and distributed	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
	201-2	氣候變化帶來的財務影響以及其他風險和機遇 Financial implications and other risks and opportunities due to climate change	管治方針 Governance Approach 環境管理 Environmental Management	P.60-67 P.112-127	✓
間接經濟影響及保持公共資金和資產管理的透明度 Indirect Economic Impacts and Transparency on Public Funds and Assets Management					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report	P. 8-15	✓
	103-2	管理方法及其組成部分 The management approach and its components	管治方針 Governance Approach 主要職責 Core Responsibilities	P.60-67 P.72	
	103-3	管理方法的評估 Evaluation of the management approach	持份者參與 Stakeholder Engagement	P.150-185	
GRI 203: 間接經濟影響 2016 GRI 203: Indirect Economic Impacts 2016	203-1	基礎設施投資和支持性服務 Infrastructure investments and services supported	主要職責 Core Responsibilities 附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.72-92, P.95-107 P.193-209	✓
	203-2	重大間接經濟影響 Significant indirect economic impacts	主要職責 Core Responsibilities 持份者參與 Stakeholder Engagement	P.72-92, P.95-107 P.150-185	✓
採購實務 Procurement Practices					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report	P.8-15	✓
	103-2	管理方法及其組成部分 The management approach and its components	管治方針 Governance Approach 持份者參與 Stakeholder Engagement	P.60-67 P.162-166	
	103-3	管理方法的評估 Evaluation of the management approach	我們跟隨政府的採購政策，依從公開及公平的程序甄選承辦商和供應商，並定期檢討他們的表現。 We follow the procurement policy of the Government, follow an open and fair process to select contractors and suppliers, and review their performance regularly.		
GRI 204: 採購實務 2016 GRI 204: Procurement Practices 2016	204-1	向當地供應商採購支出的比例 Proportion of spending on local suppliers	於 2021-22 年度，經本署物料供應組採購的服務和產品 98.73% 來自本地 (即指香港) 供應商 / 承辦商或分銷商。 Procurement of services and goods made by the DSD's Supplies Unit in 2021-22 are 98.73% local (i.e. Hong Kong) suppliers, contractors or local agents.	—	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部鑑證 External Assurance
環境 ENVIRONMENTAL					
氣味管理 Odour Control					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material tcpic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 主要職責 Core Responsibilities 為控制污水處理過程中有可能產生的氣味滋擾，渠務署在轄下的污水處理設施採用了防臭處理措施，並定期監察氣味控制措施的成效。防臭處理措施的資訊已上載於渠務署網頁。 To control the odor nuisance that may be generated during the sewage treatment process, the DSD has adopted odour abatement measures in our sewage treatment facilities and regularly monitor the effectiveness of the odor control measures. Information about odour abatement is uploaded to the DSD website.	P.8-15 P.60-67 P.101	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
清潔能源使用 Use of clean energy					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material tcpic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 環境管理 Environmental Management	P.8-15 P.60-67 P.112-131	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
減緩及適應氣候變化 Climate Change and Mitigation and Adaptation					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 主要職責 Core Responsibilities 環境管理 Environmental Management	P.8-15 P.60-67 P.72-111 P.112-127	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
環保設計及建築 Green Design and Construction					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 環境管理 Environmental Management	P.8-15 P.60-67 P.114-117	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部鑑證 External Assurance
物料使用 Use of Materials					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 環境管理 Environmental Management	P.8-15 P.60-67 P.128-130	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 301: 物料 2016 GRI 301: Materials 2016	301-1	所採用原材料的重量或體積 Materials used by weight or volume	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
能源管理 Energy Management					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 環境管理 Environmental Management	P.8-15 P.60-67 P.130	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 302: 能源 2016 GRI 302: Energy 2016	302-1	組織內部的能源消耗量 Energy consumption within the organisation	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
	302-2	組織外部的能源消耗量 Energy consumption outside of the organisation	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
	302-3	能源強度 Energy intensity	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
	302-4	減少能源的消耗 Reduction of energy consumption	環境管理 Environmental Management 附錄一：完成目標 Appendix I : Meeting the Targets	P.130 P.187	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
水與放流水 Water and Effluents					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 環境管理 Environmental Management 附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.8-15 P.60-67 P.112-127 P.193-209	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 303: 水與放流水 2018 GRI 303: Water and Effluents 2018	303-1	組織與水 (作為共有資源) 的相互影響 Interactions with water as a shared resource	主要職責 Core Responsibilities 環境管理 Environmental Management 附錄一：完成目標 Appendix I : Meeting the Targets 附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.72-111 P.112-127 P.186-188 P.193-209	✓
	303-2	與排水相關衝擊的管理 Management of water discharge-related impacts	主要職責 Core Responsibilities	P.72-93, P.95-107	✓
	303-3	取水 Water withdrawal	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
	303-5	耗水 Water consumption	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
生態保育 (GRI 304: 生物多樣性) Ecological Conservation (GRI 304: Biodiversity)					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 環境管理 Environmental Management	P.8-15 P.60-67 P.112-117	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 304: 生物多樣性 2016 GRI 304: Biodiversity 2016	304-3	受保護或經修復的棲息地 Habitats protected or restored	河畔城市 Rivers in the City; 於報告期內，「搬遷沙田污水處理廠往岩洞」工程，當中的場地準備、通道建設及主要岩洞建設工程，以下自然生境得到保護 / 移植：During the report period, the following natural habitats were protected/transplanted during site preparation, channel construction and construction of the main cave of the "Relocation of Sha Tin Sewage Treatment works to Caverns" project: 小果柿：700 棵 Diospyros vaccinioides: 700 nos. 金毛狗：52 棵 Cibotium barometz: 52 nos. 土沉香：1 棵 Aquilaria sinensis: 1 no. 香港安蘭：5 棵 Ania hongkongensis: 5 nos.	P.18-26	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
排放物 Emissions					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 環境管理 Environmental Management	P.8-15 P.60-67 P.114-130	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 305: 排放物 2016 GRI 305: Emissions 2016	305-1	直接（範疇 1）溫室氣體排放 Direct (Scope 1) GHG emissions	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
	305-2	能源間接（範疇 2）溫室氣體排放 Energy indirect (Scope 2) GHG emissions	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
	305-3	其他間接（範疇 3）溫室氣體排放 Other indirect (Scope 3) GHG emissions	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
	305-4	溫室氣體排放強度 GHG emissions intensity	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
	305-5	溫室氣體減排量 Reduction of GHG emissions	環境管理 Environmental Management	P.112-127	✓
廢棄物 Waste					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 環境管理 Environmental Management	P.8-15 P.60-677 P.128	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 306: 廢棄物 2020 GRI 306: Waste 2020	306-1	廢棄物產生及與廢棄物相關的重大影響 Waste generation and significant waste-related impacts	環境管理 Environmental Management	P.128	✓
	306-2	管理與廢棄物相關的重大影響 Management of significant waste-related impacts	環境管理 Environmental Management 附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.128 P.193-209	✓
	306-3	廢棄物產生 Waste generated	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
環境法規遵循 Environmental Compliance					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 附錄一：完成目標 Appendix I : Meeting the Targets 附錄四：香港交易所《環境、社會及管治報告指引》 Appendix IV : Hong Kong Stock Exchange Environmental, Social and Governance Reporting Guide	P.8-15 P.60-67 P.189 P.223-235	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 307: 環境法規遵循 2016 GRI 307: Environmental Compliance 2016	307-1	違反環境法律和法規 Non-compliance with environmental laws and regulations	兩宗機件固障事件引致排放輕微超出標準，已即時修復。 Two minor non-compliance incidents of discharge licence due to equipment defects were noted and rectified immediately.	P.189	✓
評估供應商的環境表現 Supplier Environmental Assessment					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 環境管理 Environmental Management	P.8-15 P.60-67 P.130	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 308: 評估供應商 / 承辦商的環境表現 2016 GRI 308: Supplier Environmental Assessment 2016	308-1	採用環境標準篩選新供應商 New suppliers that were screened using environmental criteria	渠務署歡迎供應商遵從環保規格或準則，並未有採用環境標準篩選新供應商。 The DSD welcomes suppliers to follow the green specifications or criteria. No new suppliers have been screened using environmental criteria so far.	–	✓
社會 SOCIAL					
匯報可持續發展進程 Reporting on Sustainable Development Agenda					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach	P.8-15 P.60-67	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
技術研發與應用 Technology Development and Application					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 年度大事 Highlights of the Year 管治方針 Governance Approach	P.8-15 P.47-48 P.60-67	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
內部溝通渠道 Internal Communication Channel					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 關愛員工 Caring for Our Staff	P.8-15 P.60-67 P.132-149	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
投訴機制 Grievance Mechanism					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 關愛員工 Caring for Our Staff 附錄一：完成目標 Appendix I : Meeting the Targets	P.8-15 P.60-67 P.147-148 P.191	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
僱員關係 Employee Relations					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 關愛員工 Caring for Our Staff 我們跟隨政府的員工政策及指引，如《公務員事務規例》等文件，確保有效管理員工，為市民提供優質服務。 We follow the employment policy and guideline of the Government, such as the Civil Service Regulations, to ensure effective management of the staff and deliver quality service to the citizens.	P.8-15 P.60-67 P.132-149	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 401: 僱傭 2016 GRI 401: Employment 2016	401-1	新進員工和員工流動率 New employee hires and employee turnover	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
GRI 405: 多元化與平等機會 2016 GRI 405: Diversity and Equal Opportunity 2016	405-1	管治機構與員工的多元化 Diversity of governance bodies and employees	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
職業健康及安全 Occupational Health and Safety					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 關愛員工 Caring for Our Staff 持份者參與 Stakeholder Engagement	P.8-15 P. 60-67 P.132-146 P.162-166	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 403: 職業健康及安全 2018 GRI 403: Occupational Health and Safety 2018	403-1	職業健康安全管理系統 Occupational health and safety management system	關愛員工 Caring for Our Staff	P.132-146	✓
	403-2	危害識別、風險評估和事故調查 Hazard identification, risk assessment, and incident investigation	關愛員工 Caring for Our Staff	P.132-146	✓
	403-3	職業健康服務 Occupational health services	關愛員工 Caring for Our Staff	P.132-146	✓
	403-4	職業健康安全事務：工作者的參與、協商和溝通 Worker participation, consultation, and communication on occupational health and safety	關愛員工 Caring for Our Staff	P.132-146	✓
	403-5	員工職業健康安全培訓 Worker training on occupational health and safety	關愛員工 Caring for Our Staff	P.132-146	✓
	403-6	促進員工健康 Promotion of worker health	關愛員工 Caring for Our Staff	P.132-146	✓
	403-7	預防和減輕與業務關係直接相關的職業健康安全影響 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	持份者參與 Stakeholder Engagement	P.165-166	✓
	403-9	工傷 Work-related injuries	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓
員工培訓與教育 Staff Training and Education					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 關愛員工 Caring for Our Staff	P.8-15 P.60-67 P.134	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 404: 培訓與教育 2016 GRI 404: Training and Education 2016	404-1	每名員工每年接受培訓的平均時數 Average hours of training per year per employee	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
保障集體談判的權利 Freedom of Association and Collective Bargaining					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach	P.8-15 P.60-67	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 407：結社自由與集體談判 2016 GRI 407: Freedom of Association and Collective Bargaining 2016	407-1	結社自由與集體談判權利可能面臨風險的運營點和供應商 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	渠務署的運營點和供應商均在香港。根據《基本法》第二十七條，香港居民享有言論、新聞、出版的自由，結社、集會、遊行、示威的自由，組織和參加工會、罷工的權利和自由。 The DSD's operations and its suppliers are located in Hong Kong. According to Article 27 of the Basic Law, Hong Kong residents enjoy the freedom of speech, of the press and the publication, the freedom of association, of assembly, of process on and of demonstration, and the right and freedom to form and join trade unions and to strike.	–	✓
社區參與和發展支持 Community Engagement and Development Support					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 持份者參與 Stakeholder Engagement	P.8-15 P.60-67 P.176-185	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 413: 當地社區 2016 GRI 413: Local Communities 2016	413-2	對當地社區有實際或潛在重大負面影響的營運活動 Operations with significant actual and potential negative impacts on local communities	持份者參與 Stakeholder Engagement	P.153-156	✓
供應鏈管理 Supply Chain Management					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic ard its Boundary	關於本報告 About the Report 管治方針 Governance Approach 持份者參與 Stakeholder Engagement	P.8-15 P.60-67 P.162-166	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 414: 供應商社會評估 2016 GRI 414: Supplier Social Assessment 2016	414-1	使用社會標準篩選的新供應商 New suppliers that were screened using social criteria	附錄二：主要統計數據 Appendix II : Key Statistics and Data	P.193-209	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照/直接解釋/省略資料的原因 Reference/Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
服務質量標準 Service Quality Standards					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 主要職責 Core Responsibilities 附錄一：完成目標 Appendix I: Meeting the Target	P.8-15 P.60-67 P.72-93 P.95-107 P.191-192	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 416: 顧客健康與安全 2016 GRI 416: Customer Health and Safety 2016	416-2	涉及產品和服務的健康與安全影響的違規事件 Incidents of non-compliance concerning the health and safety impacts of products and services	渠務署於 2021-22 年度並沒有該類別的違規情況。 No non-compliance with laws and regulations in 2021-22.	–	✓
社會經濟法規遵循 Socioeconcmic Compliance					
GRI 103: 管理方針 2016 GRI 103: Management Approach 2016	103-1	對實質性議題及其邊界的說明 Explanation of the material topic and its Boundary	關於本報告 About the Report 管治方針 Governance Approach 附錄一：完成目標 Appendix I: Meeting the Targets 我們跟從政府於社會經濟方面的政策及指引，並確保合符法規。 We follow the policies and guidelines of the Government in the sccial and economic area and ensure that we are complying with the regulations.	P.8-15 P.60-67 P.189	✓
	103-2	管理方法及其組成部分 The management approach and its components			
	103-3	管理方法的評估 Evaluation of the management approach			
GRI 419: 社會經濟法規遵循 2016 GRI 419: Socioeconomic Compliance 2016	419-1	違反社會與經濟領域的法律和法規 Non-compliance with laws and regulations in the social and economic area	渠務署於 2021-22 年度並沒有該類別的違規情況。 No non-compliance with laws and regulations in the social and economic area in 2021-22.	—	✓

附錄四　香港交易所《環境、社會及管治報告指引》

Appendix IV　HONG KONG STOCK EXCHANGE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE

本署自願參考「ESG 報告指引」的要求作出披露。

The Department makes disclosures with voluntary reference to the requirements of the ESG Reporting Guide of the Hong Kong Stock Exchange.

強制披露規定 Mandatory Disclosure Requirements	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
管治架構 Governance Strcture	由董事會發出的聲明，當中載有下列內容： A statement from the board containing the following elements: (i) 披露董事會對環境、社會及管治事宜的監管； a disclosure of the board's oversight of ESG issues; (ii) 董事會的環境、社會及管治管理方針及策略，包括評估、優次排列及管理重要的環境、社會及管治相關事宜（包括對發行人業務的風險）的過程；及 the board's ESG management approach and strategy, including the process used to evaluate, prioritise and manage material ESG-related issues (including risks to the issuer's businesses); and (iii) 董事會如何按環境、社會及管治相關目標檢討進度，並解釋它們如何與發行人業務有關連。 how the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's businesses.	管治方針 Governance Approach 由於渠務署並非上市公司，董事會的架構並不適用於本署，故此並未能披露風險管理的過程。本署以高級管理層為最高管制架構，其負責作出重大決策和監督部門日常運作，確保服務具有成本效益且對環境負責，並制定和檢討本署的可持續發展策略和目標。 As the DSD is not a listed company, the structure of the Board of Directors is not applicable to the Department. Therefore, the risk management process is not applicable for disclosure. The highest governance body of the Department is the senior management, which is responsible for making important policy decisions and overseeing the Department's daily operations, ensuring the services provided by the Department are cost-effective and environmentally responsible, as well as formulating and reviewing our sustainability strategies and goals.

強制披露規定 Mandatory Disclosure Requirements	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
匯報準則 Reporting Principles	**重要性：** **Materiality:** 當董事會釐定有關環境、社會及管治事宜會對投資者及其他持份者產生重要影響時，發行人就應作出匯報 The threshold at which ESG issues determined by the board are sufficiently important to investors and other stakeholders that they should be reported. **量化：** **Quantitative:** 有關歷史數據的關鍵績效指標須可予計量。發行人應訂下減少個別影響的目標（可以是實際數字或方向性、前瞻性的聲明）。這樣，環境、社會及管治政策及管理系統的效益可被評估及驗證。量化資料應附帶說明，闡述其目的及影響，並在適當的情況下提供比較數據。 KPIs in respect of historical data need to be measurable. The issuer should set targets (which may be actual numerical figures or directional, forwardlooking statements) to reduce a particular impact. In this way the effectiveness of ESG policies and management systems can be evaluated and validated. Quantitative information should be accompanied by a narrative, explaining its purpose, impacts, and giving comparative data where appropriate. **平衡：** **Balance:** 環境、社會及管治報告應當不偏不倚地呈報發行人的表現，避免可能會不恰當地影響報告讀者決策或判斷的選擇、遺漏或呈報格式。 The ESG report should provide an unbiased picture of the issuer's performance. The report should avoid selections, omissions, or presentation formats that may inappropriately influence a decision or judgment by the report reader. **一致性：** **Consistency:** 發行人應使用一致的披露統計方法，令環境、社會及管治數據日後可作有意義的比較。 The issuer should use consistent methodologies to allow for meaningful comparisons of ESG data over time.	**重要性：** **Materiality:** 本署透過實質性評估識別與本署相關的實質性議題，並於本報告對經本署管理層確認的實質性議題進行重點匯報。本署採用實質性評估的方式，識別本署的主要持份者、邀請管理層及各持份者對可持續發展議題的實質性進行優次排列、開展實質性議題分析等，同時亦邀請相關持份者進行深入的焦點小組和訪談。關於實質性評估工作的詳情，請參閱本報告中的「實質性評估」章節。 The Department identified material topics relevant to our operations through the materiality assessment and highlighted these material topics upon confirmation by the DSD's management in this Report. We identified our key stakeholders, engaged the DSD management and stakeholders to rank the sustainability topics by order of importance, conducted materiality analysis and invited relevant stakeholders for in-depth focus group meetings and interviews. For details, please refer to Materiality Analysis in this Report. **量化：** **Quantitative:** 本署披露了ESG報告指引內適用的量化關鍵績效指標，並列明量化關鍵績效指標所採用的標準、方法、假設及計算的參考依據，包括主要轉換系數的來源。 The Department discloses applicable quantitative KPIs in the ESG Reporting Guidelines and sets out the standards, methods, assumptions and references used in the calculation of the quantitative KPIs, including the sources of key conversion factors. **平衡：** **Balance:** 本報告奉行高水平的誠信和透明度標準，旨在不偏不倚地向持份者呈報本署的可持續發展表現，避免選取、遺漏或呈報資料而不恰當地影響讀者決策或判斷。 This Report adheres to high standards of integrity and transparency. It aims to present the Department 's sustainability performance to stakeholders in an unbiased manner, avoiding selection, omission or presentation of information that could inappropriately influence readers' decisions or judgments. **一致性：** **Consistency:** 本報告採用與過往報告期一致的編製方法，以供讀者對本報告期內的ESG信息進行有意義的對比。 This Report is prepared using consistent methodology with previous reports to allow meaningful comparison of ESG performance over time.

強制披露規定 Mandatory Disclosure Requirements	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
報告範圍 Reporting Boundary	解釋環境、社會及管治報告的匯報範圍，及描述挑選哪些實體或業務納入環境、社會及管治報告的過程。若匯報範圍有所改變，發行人應解釋不同之處及變動原因。 A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change.	關於本報告 About the Report

一般披露及關鍵績效指標 General Disclosure and Key Performance Indicators	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
環境範疇 Environmental		
層面 A1：排放物 Aspect A1: Emissions		
一般披露 General Disclosure	有關廢氣及溫室氣體排放、向水及土地的排污、有害及無害廢棄物的產生等的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	我們跟隨政府制定的環保政策及條例： 第311章《空氣污染管制條例》； 第446章《土地排水條例》； 第358章《水污染管制條例》； 第354章《廢物處置條例》。 We follow the environmental policy and ordinances formulated by the Government: Cap. 311 Air Pollution Control Ordinance; Cap. 446 Land Drainage Ordinance; Cap. 358 Water Pollution Control Ordinance; Cap. 354 Waste Disposal Ordinance.
KPI A1.1	排放物種類及相關排放數據。 The types of emissions and respective emissions data.	由於本署未有統計相關排放數據，故此未能披露此關鍵績效指標。 The Deparment cannot disclose this KPI because statistics are not available on the relevant emission data.
KPI A1.2	直接（範圍1）及能源間接（範圍2）溫室氣體排放量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。 Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	附錄二：主要統計數據 Appendix II: Key Statistics and Data
KPI A1.3	所產生有害廢棄物總量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。 Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	附錄二：主要統計數據 Appendix II: Key Statistics and Data
KPI A1.4	所產生無害廢棄物總量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。 Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	附錄二：主要統計數據 Appendix II: Key Statistics and Data
KPI A1.5	描述所訂立的排放量目標及為達到這些目標所採取的步驟。 Description of emissions target(s) set and steps taken to achieve them.	附錄一：完成目標 — 環保事務 Appendix I: Meeting the Targets - Environmental Issues
KPI A1.6	描述處理有害及無害廢棄物的方法，及描述所訂立的減廢目標及為達到這些目標所採取的步驟。 Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	附錄一：完成目標 — 環保事務 Appendix I: Meeting the Targets - Environmental Issues

一般披露及關鍵績效指標 General Disclosure and Key Performance Indicators	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
層面A2：資源使用 Aspect A2: Use of Resources		
一般披露 General Disclosure	有效使用資源（包括能源、水及其他原材料）的政策。 Policies on the efficient use of resources, including energy, water and other raw materials.	我們跟隨政府制定的環保政策。 We follow the environmental policy formulated by the Government.
KPI A2.1	按類型劃分的直接及／或間接能源（如電、氣或油）總耗量（以千個千瓦時計算）及密度（如以每產量單位、每項設施計算）。 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	附錄二：主要統計數據 Appendix II: Key Statistics and Data
KPI A2.2	總耗水量及密度（如以每產量單位、每項設施計算）。 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	附錄二：主要統計數據 Appendix II: Key Statistics and Data
KPI A2.3	描述所訂立的能源使用效益目標及為達到這些目標所採取的步驟。 Description of energy use efficiency target(s) set and steps taken to achieve them.	附錄一：完成目標 Appendix I: Meeting the Targets
KPI A2.4	描述求取適用水源上可有任何問題，以及所訂立的用水效益目標及為達到這些目標所採取的步驟。 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	附錄一：完成目標 Appendix I: Meeting the Targets 本署在求取適用水源上並未遇到任何問題。 The Department does not have any issue in sourcing water that is fit for purpose.
KPI A2.5	製成品所用包裝材料的總量（以噸計算）及（如適用）每生產單位佔量。 Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	此關鍵績效指標不適用於渠務署的營運性質。 This KPI is not applicable to the nature of DSD's operation.

一般披露及關鍵績效指標 General Disclosure and Key Performance Indicators	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
層面A3：環境及天然資源 Aspect A3: The Envionment and Natural Resources		
一般披露 General Disclosure	減低發行人對環境及天然資源造成重大影響的政策。 Policies on minimising the issuer's significant impacts on the environment and natural resources.	環境管理 Environmental Management
KPI A3.1	描述業務活動對環境及天然資源的重大影響及已採取管理有關影響的行動。 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	環境管理 Environmental Management
層面A4：氣候變化 Aspect A4: Climate Change		
一般披露 General Disclosure	識別及應對已經及可能會對發行人產生影響的重大氣候相關事宜的政策。 Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	環境管理 Environmental Management
KPI A4.1	描述已經及可能會對發行人產生影響的重大氣候相關事宜，及應對行動。 Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	環境管理 Environmental Management

一般披露及關鍵績效指標 General Disclosure and Key Performance Indicators	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
社會範疇 Social		
僱傭及勞工常規 Employment and Labour Practices		
層面B1：僱傭 Aspect B1: Employment		
一般披露 General Disclosure	有關薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視以及其他待遇及福利的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例 的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	本署跟隨政府的員工政策及指引，如《公務員事務規例》等文件，確保有效管理員工，為市民提供優質服務： 第57章《僱傭條例》。 The Department follows the employment policy and guideline of the Governmen:, such as the Civil Service Regulations, to ensure effective management of the staff and deliver quality service to the citizens: Cap. 57 Employment Ordinance.
KPI B1.1	按性別、僱傭類型（如全職或兼職）、年齡組別及地區劃分的僱員總數。 Total workforce by gender, employment type (for example, full- or part time), age group and geographical region.	附錄二：主要統計數據 Appendix II: Key Statistics and Data
KPI B1.2	按性別、年齡組別及地區劃分的僱員流失比率。 Employee turnover rate by gender, age group and geographical region.	附錄二：主要統計數據 Appendix II: Key Statistics and Data

一般披露及關鍵績效指標 General Disclosure and Key Performance Indicators	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
層面B2：健康與安全 Aspect B2: Health and Safety		
一般披露 General Disclosure	有關提供安全工作環境及保障僱員避免職業性危害的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例 的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	關愛員工 Caring for Our Staff
KPI B2.1	過去三年(包括匯報年度)每年因工亡故的人數及比率。 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	附錄二：主要統計數據 Appendix II: Key Statistics and Data
KPI B2.2	因工傷損失工作日數。 Lost days due to work injury.	本署未有統計相關數據。 The Department does not have relevant statistics.
KPI B2.3	描述所採納的職業健康與安全措施，以及相關執行及監察方法。 Description of occupational health and safety measures adopted, and how they are implemented and monitored.	關愛員工 Caring for Our Staff

一般披露及關鍵績效指標 General Disclosure and Key Performance Indicators	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
層面B3：發展及培訓 Aspect B3: Development and Training		
一般披露 General Disclosure	有關提升僱員履行工作職責的知識及技能的政策。描述培訓活動。 Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	關愛員工 Caring for Our Staff
KPI B3.1	按性別及僱員類別(如高級管理層、中級管理層)劃分的受訓僱員百分比。 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	由於本署暫未有按性別及僱員類別統計受訓人數，故此未能披露此關鍵績效指標。 The Department cannot disclose this KPI because statistics are not available on the percentage of employees trained by gender and employee category.
KPI B3.2	按性別及僱員類別劃分，每名僱員完成受訓的平均時數。 The average training hours completed per employee by gender and employee category.	由於本署暫未有按性別和每個僱員類別統計受訓時數，故此未能披露此關鍵績效指標。 The Department cannot disclose this KPI because statistics are not available on the average training hours completed per employee by gender and employee category.
層面B4：勞工準則 Aspect B4: Labour Standard		
一般披露 General Disclosure	有關防止童工或強制勞工的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例 的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	渠務署是香港特別行政區政府屬下的部門，其有關防止童工或強制勞工的政策跟隨公務員事務局： 第57章《僱傭條例》。 The DSD is a subordinate department of the Government of the Hong Kong Special Administrative Region. The DSD follows the Civil Service Bureau for policies on the prevention of child labour and forced labour: Cap. 57 Employment Ordinance.
KPI B4.1	描述檢討招聘慣例的措施以避免童工及強制勞工。 Description of measures to review employment practices to avoid child and forced labour.	渠務署是香港特別行政區政府屬下的部門，其招聘流程由公務員事務局管理。 The DSD is a subordinate department of the Government of the Hong Kong Special Administrative Region. Recruitment processes of the DSD are managed by the Civil Service Bureau.
KPI B4.2	描述在發現違規情況時消除有關情況所採取的步驟。 Description of steps taken to eliminate such practices when discovered.	渠務署是香港特別行政區政府屬下的部門，其招聘流程由公務員事務局管理。 The DSD is a subordinate department of the Government of the Hong Kong Special Administrative Region. Recruitment processes of the DSD are managed by the Civil Service Bureau.

一般披露及關鍵績效指標 General Disclosure and Key Performance Indicators	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
營運慣例 Operating Practices		
層面B5：供應鏈管理 Aspect B5: Supply Chain Management		
一般披露 General Disclosure	管理供應鏈的環境及社會風險政策。 Policies on managing environmental and social risks of the supply chain.	本署跟隨政府的採購政策，依從公開及公平的程序甄選承辦商和供應商，並定期檢討他們的表現。 The Department follows the procurement policy of the Government, follow an open and fair process to select contractors and suppliers, and review their performance regularly.
KPI B5.1	按地區劃分的供應商數目。 Number of suppliers by geographical region.	於2021-22年度，經本署物料供應組採購的服務和產品98.73%來自本地(即指香港)供應商/承辦商或分銷商。 Procurement of services and goods made by the Department's Supplies Unit in 2021-22 are 98.73% local (i.e. Hong Kong) suppliers, contractors or local agents.
KPI B5.2	描述有關聘用供應商的慣例，向其執行有關慣例的供應商數目，以及相關執行及監察方法。 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	本署未有統計相關數據。 The Department does not have relevant statistics.
KPI B5.3	描述有關識別供應鏈每個環節的環境及社會風險的慣例，以及相關執行及監察方法。 Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	環境管理 Environmental Management
KPI B5.4	描述在揀選供應商時促使多用環保產品及服務的慣例，以及相關執行及監察方法。 Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	環境管理 Environmental Management

一般披露及關鍵績效指標 General Disclosure and Key Performance Indicators	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
層面B6：產品責任 Aspect B6: Product Responsibility		
一般披露 General Disclosure	有關所提供產品和服務的健康與安全、廣告、標籤及私隱事宜以及補救方法的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例 的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	我們跟隨政府制定的政策及條例： 第463章《污水處理服務條例》； 第463B章《污水處理服務(工商業污水附加費)規例》； 第528章《版權條例》； 第514章《專利條例》； 第486章《個人資料(私隱)條例》。 We follow the policy and ordinances formulated by the Government: Cap. 463 Sewage Services Ordinance; Cap. 463B Sewage Services (Trade Effluent Surcharge) Regulation; Cap. 528 Copyright Ordinance; Cap. 514 Patents Ordinance; Cap. 486 Personal Data (Privacy) Ordinance.
KPI B6.1	已售或已運送產品總數中因安全與健康理由而須回收的百分比。 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	此關鍵績效指標不適用於渠務署的營運性質。 This KPI is not applicable to the nature of the DSD's operations.
KPI B6.2	接獲關於產品及服務的投訴數目以及應對方法。 Number of products and service related complaints received and how they are dealt with.	主要職責 Core Responsibilities 附錄二：主要統計數據 Appendix II: Key Statistics and Data
KPI B6.3	描述與維護及保障知識產權有關的慣例。 Description of practices relating to observing and protecting intellectual property rights.	本署研發了行業首創的第一代污水除泡機器人。為推動污水處理行業的創新及科技發展，渠務署進一步研發第二代人工智能除泡機器人。兩款全球首創的污水除泡機器人已獲知識產權署批予專利。相關專利說明書及檢索報告已分別於2022年3月18日及2022年5月6日發布。 The Department developed an innovative Foam Removal Robot, the first of its kind in the wastewater treatment industry. To facilitate and promote the development of innovations and technologies in the wastewater treatment industry, the DSD further developed a second generation of the Foam Removal Robot with artificial intelligence. Short-term patents for both Foam Removal Robots (the first and second generation) were granted by Intellectual Property Department. The relevant specifications and search reports were published on 18 March 2022 and 6 May 2022 respectively.

一般披露及關鍵績效指標 General Disclosure and Key Performance Indicators	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
KPI B6.4	描述質量檢定過程及產品回收程序。 Description of quality assurance process and recall procedures.	主要職責 Core Responsibilities 產品回收並不適用於渠務署的營運性質。 Recall procedures are not applicable to the nature of the DSD's operations.
KPI B6.5	描述消費者資料保障及私隱政策，以及相關執行及監察方法。 Description of consumer data protection and privacy policies, and how they are implemented and monitored.	本署會確保所有透過本署網站遞交的個人資料，均按照《個人資料(私隱)條例》的有關條文處理。本署在收集個人資料時會列明收集資料的目的和用途。除非法律許可或有所規定，本署不會在未得到他人同意下透露任何其個人資料予第三者。 The Department is concerned to ensure that all personal data submitted through the website of DSD are handled in accordance with the relevant provisions of the Personal Data (Privacy) Ordinance. The Department will specify the collection purpose and intended usage of data when collecting personal information. Unless permitted or required by law, the Department will not disclose user's personal data to any third parties without prior consent.
層面B7：反貪污 Aspect B7: Anti-corruption		
一般披露 General Disclosure	有關防止賄賂、勒索、欺詐及洗黑錢的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例 的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	我們跟隨政府制定的政策及條例： 第201章《防止賄賂條例》。 We follow the policy and ordinances formulated by the Government: Cap. 201 Prevention of Bribery Ordinance.
KPI B7.1	於匯報期內對發行人或其僱員提出並已審結的貪污訴訟案件的數目及訴訟結果。 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	本報告期內並沒有已審結的貪污訴訟案件。 During the reporting period, there was no concluded legal case regarding corrupt practices brought against the DSD.
KPI B7.2	描述防範措施及舉報程序，以及相關執行及監察方法。 Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	本署要求員工恪守最高的道德標準。如發現任何涉嫌貪腐的個案，會立即向廉政公署舉報，以作進一步調查。 The Department requires its staff to adhere to the highest ethical standards. If any suspected corruption cases are reported, they will be submitted to the Independent Commission Against Corruption for further investigation.

一般披露及關鍵績效指標 General Disclosure and Key Performance Indicators	描述 Description	本報告有關章節或其他說明 Relevant Sections in this Report or other explanation
KPI B7.3	描述向董事及員工提供的反貪污培訓。 Description of anti-corruption training provided to directors and staff.	本報告期內共有206位員工參與反貪污培訓，其中三人為管理層。 During the reporting period, a total of 206 employees received anti-corruption training, of which three were member of the management.
社區 Community		
層面B8：社區投資 Aspect B8: Community Investment		
一般披露 General Disclosure	有關以社區參與來了解營運所在社區需要和確保其業務活動會考慮社區利益的政策。 Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	持份者參與 Stakeholder Engagement
KPI B8.1	專注貢獻範疇(如教育、環境事宜、勞工需求、健康、文化、體育)。 Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	持份者參與 Stakeholder Engagement
KPI B8.2	在專注範疇所動用資源(如金錢或時間)。 Resources contributed (e.g. money or time) to the focus area.	持份者參與 Stakeholder Engagement

驗證聲明

香港通用檢測認證有限公司對
《渠務署可持續發展報告 2021-22》
驗證聲明

驗證的性質和範圍

香港通用檢測認證有限公司獲香港特別行政區政府渠務署(以下簡稱「渠務署」)委託，對《渠務署可持續發展報告 2021-22》(以下簡稱「報告」)進行獨立驗證。根據 SGS 可持續發展報告的驗證方法，驗證範圍包括渠務署於 2021 年 4 月 1 日至 2022 年 3 月 31 日有關可持續發展的表現。

報告中的資訊及匯報由渠務署負責。香港通用檢測認證有限公司並未參與報告任何材料的準備工作。我們的責任是根據以下規定，對驗證範圍內提供的文本、數據、圖表和聲明表達意見，旨在告知渠務署的所有持份者。

本報告以中度審查規格進行驗證，所用規章旨在：

- 評估報告內容的真實性；
- 根據《全球報告倡議組織可持續發展報告標準》(GRI 標準)「核心要求」及參考香港聯合交易所有限公司 《環境、社會及管治報告指引》評估報告。

驗證方法包括驗證前調研及進行文檔和紀錄審查和確認。

獨立審計的財務帳戶中的財務資料，並未於本驗證流程中與來源資料進行核對。

獨立性與能力聲明

香港通用檢測認證有限公司確認我們相對於渠務署的獨立性，對該機構、其附屬機構和持份者不存在偏見和利益衝突。

驗證團隊是由具備與此項任務有關的知識、經驗和資歷的人員組成，當中包括 ISO 14001 主任審核員、ISO 45001、ISO 26000 審核員及可持續發展報告培訓導師。

驗證意見

基於描述的驗證方法和已進行的驗證，報告中包含的資訊和數據是準確的及可靠的，而且對渠務署可持續發展的表現提供了中肯和均衡的陳述，使我們感到滿意。驗證團隊認為，報告符合《全球報告倡議組織可持續發展報告標準》(GRI 標準)「核心要求」及參考香港聯合交易所有限公司 《環境、社會及管治報告指引》，可供渠務署的持份者使用。

簽字：
代表香港通用檢測認證有限公司

關靜儀
總監
知識與管理

2022 年 12 月 29 日
www.sgs.com

ASSURANCE STATEMENT

SGS STATEMENT ON ASSURANCE
《Drainage Service Department Sustainability Report 2021-22》

NATURE AND SCOPE OF THE ASSURANCE

SGS Hong Kong Limited was commissioned by the Drainage Services Department of the Government of Hong Kong Special Administrative Region (thereafter as "DSD") to conduct an independent assurance of *the Sustainability Report 2021-22 of Drainage Service Department* (thereafter as the "Report"). The scope of the assurance, based on the SGS Sustainability Report Assurance methodology, included the performance of DSD from 1st April 2021 to 31st March 2022.

The information in the Report and its presentation are the responsibility of DSD. SGS has not been involved in the preparation of any of the material included in the Report. Our responsibility is to express an opinion on the text, data, graphs and statements within the mentioned scope of assurance set out below with the intention to inform all DSD's stakeholders.

The Report has been assured at a moderate level of scrutiny using our protocols for:

- Evaluation of content veracity;
- Evaluation of the Report in accordance with the Core option of the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) and reference to the Stock Exchange of Hong Kong Limited, Environmental, Social and Governance Reporting Guide.

The assurance methodology comprised a combination of pre-assurance research, documentation and record review.

Financial data drawn directly from independently audited financial accounts have not been checked against the source as part of this assurance process.

STATEMENT OF INDEPENDENCE AND COMPETENCE

SGS affirms our independence from DSD, being free from bias and conflicts of interest with the organisation, its subsidiaries and stakeholders.

The assurance team was assembled based on the members' knowledge, experience and qualifications for this assignment, and comprised principal auditor of ISO 14001, auditors of ISO 45001 and ISO 26000 and trainer in Sustainability Reporting.

ASSURANCE OPINION

On the basis of the methodology described and the verification work performed, we are satisfied that the information and data contained within the Report are accurate and reliable. The Report provides a fair and balanced representation of DSD's sustainability performance. The assurance team is of the opinion that the Report conforms to the Core option of the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) and make reference to the Stock Exchange of Hong Kong Limited, Environmental, Social and Governance Reporting Guide. It can be used by DSD's stakeholders.

Signed:
For and on behalf of SGS Hong Kong Limited

Miranda Kwan
Director
Knowledge Solutions
29 December 2022
www.sgs.com

渠務署可持續發展報告 2021-22 回應表格

感謝你閱讀本報告。你的意見及建議對我們改進可持續發展的表現及匯報十分重要。希望你能抽空完成以下問卷，表達意見，謝謝。

1. 你對以下有關本報告的陳述有多認同：	十分認同	認同	不認同	十分不認同	無意見
這份報告就我們的工作和服務，以及可持續發展策略和表現作出了清晰的闡述。	○	○	○	○	○
這份報告的內容平衡及充份。	○	○	○	○	○
這份報告的資料很有用。	○	○	○	○	○
這份報告的結構清晰。	○	○	○	○	○
這份報告的圖像與文字的比例合適。	○	○	○	○	○
這份報告的設計美觀。	○	○	○	○	○
這份報告易於閱讀及瀏覽。	○	○	○	○	○
這份報告有助您增加對渠務署的認識。	○	○	○	○	○

2. 請評價我們的可持續發展報告 2021-22 及可持續發展表現：	優異	良好	尚可	欠佳	差劣
你會如何評價我們的可持續發展報告？	○	○	○	○	○
你會如何評價我們的可持續發展表現？	○	○	○	○	○

3. 你對我們的報告在以下哪一方面提供的資料最感興趣？

○ 經濟 ○ 社會 ○ 環境 ○ 管治 ○ 其他，請註明 _____

4. 你認為我們的報告在以下哪一方面提供的資料最有用？

○ 經濟 ○ 社會 ○ 環境 ○ 管治 ○ 其他，請註明

5. 你希望我們的報告在以下哪一方面提供更多資料？（可選擇多於一項）

○ 經濟 ○ 社會 ○ 環境 ○ 管治 ○ 其他，請註明 _____

6. 你認為我們於來年的報告應增加哪些內容？

_____

7. 你從何獲取渠務署可持續發展報告的資訊？

○ 渠務署網頁 ○ 渠務署舉辦的活動 ○ 家人或朋友 ○ 傳媒 ○ 學校 ○ 其他，請註明 _____

8. 其他建議或意見：

_____

9. 你屬於下列哪個組別？

○ 政府部門 ○ 顧問 / 承建商 / 供應商 / 建造業 ○ 非政府機構社區組織 ○ 學術界
○ 環保團體 ○ 媒體 ○ 渠務署員工 ○ 學生
○ 公眾人士 ○ 其他，請註明 _____

如你希望於將來收取我們的報告 / 資訊，請將你的聯絡資料包括姓名、聯絡電郵及電話透過電郵 (enquiry@dsd.gov.hk) 提供予本署跟進。如就渠務署可持續發展報告有任何查詢，請聯絡本署公共關係組 (電話：2594 7073/ 電郵：enquiry@dsd.gov.hk)。

請從以下途徑交回已填妥的表格給渠務署：
電郵：enquiry@dsd.gov.hk 傳真：3103 0033
郵寄地址：香港灣仔告士打道 5 號稅務大樓 43 樓

多謝你的寶貴意見！

Feedback on DSD Sustainability Report 2021-22

Thank you for reading our report. Your comments and suggestions are important for helping us improve our sustainability performance and reporting. Please take a few minutes to give us your views by completing the following feedback form. Thank you.

1. Please indicate whether you agree or disagree with the following statements:	Strongly agree	Agree	Disagree	Strongly disagree	No comment
The report provides a clear understanding of our works and services as well as sustainability strategy and performance.	○	○	○	○	○
The content of the report is balanced and adequate.	○	○	○	○	○
The information of the report is useful.	○	○	○	○	○
The structure of the report is clear.	○	○	○	○	○
The proportion of graphics and text is appropriate.	○	○	○	○	○
The design of the report is decent.	○	○	○	○	○
The report is easy to read and navigate.	○	○	○	○	○
The report enables you to understand more about DSD.	○	○	○	○	○

2. Please rate our Sustainability Report 2021-22 and sustainability performance:	Excellent	Good	Fair	Poor	Bad
How would you rate our Sustainability Report?	○	○	○	○	○
How would you rate our sustainability performance?	○	○	○	○	○

3. Which aspect of the report did you find most interesting?

○ Economic ○ Social ○ Environmental ○ Governance ○ Other(s), please specify _____

4. Which aspect of the report did you find most useful?

○ Economic ○ Social ○ Environmental ○ Governance ○ Other(s), please specify _____

5. Which aspect(s) of the report would you like to have more information?

○ Economic ○ Social ○ Environmental ○ Governance ○ Other(s), please specify _____

6. Are there any other topics that you would like to see in our future reports?

_____

7. Where do you learn about the DSD Sustainability Report?

○ DSD website ○ DSD activities ○ Family & friends ○ Media ○ Schools ○ Other(s), please specify _____

8. Other suggestions or opinions:

_____

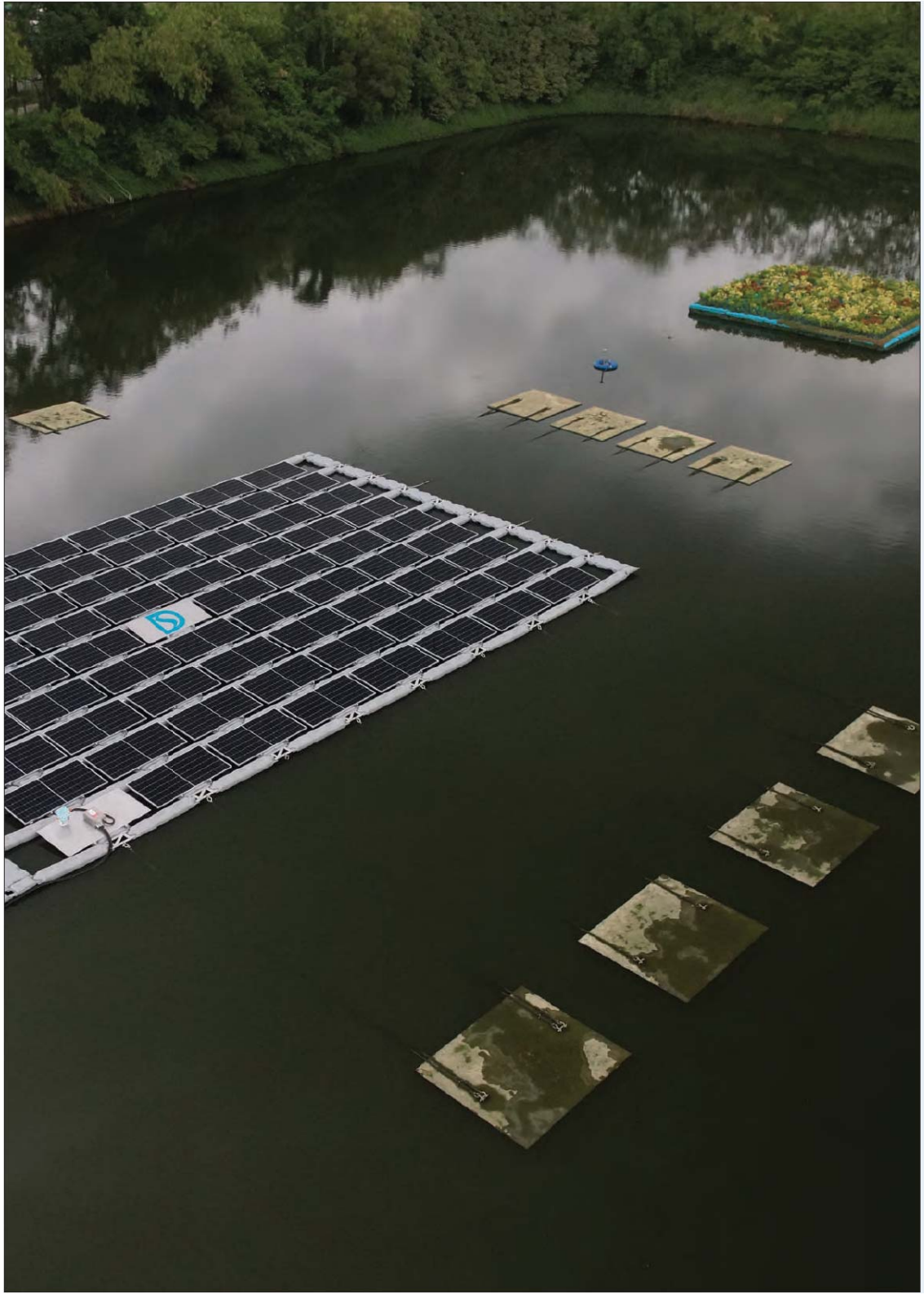
9. Which of the following best describes you?

○ Government Department ○ Consultant/Contractor/Supplier/Construction Industry
○ Non-governmental Organisation ○ Academic Sector ○ Green Group
○ Media ○ Staff of DSD ○ Students
○ General Public ○ Other(s), please specify _____

Should you like to receive our reports/information in the future, please provide your contact details including name, email and telephone number to the Department for follow up through email (enquiry@dsd.gov.hk). For enquiries about DSD Sustainability Report, please contact our Public Relations Unit (Tel: 2594 7073/Email: enquiry@dsd.gov.hk)

Please return the completed questionnaire to DSD by the following methods:
Email: enquiry@dsd.gov.hk Fax: 3103 0033
Mailing address: 43/F, Revenue Tower, 5 Gloucester Road, Wan Chai, Hong Kong

Thank you very much for your valuable opinion.



本報告的電子版及回應表格可參閱以下網址：

The electronic version of the report and feedback form can be found at the following link:

https://www.dsd.gov.hk/TC/Publicity_and_Publications/Publicity/DSD_Sustainability_Reports/index.html (繁體中文版)

https://www.dsd.gov.hk/SC/Publicity_and_Publications/Publicity/DSD_Sustainability_Reports/index.html (簡體中文版)

https://www.dsd.gov.hk/EN/Publicity_and_Publications/Publicity/DSD_Sustainability_Reports/index.html (English Version)

服務查詢 Service Enquiries

渠務熱線 (24 小時) Drainage Hotline (24 Hours):

2300 1110

污水處理服務收費諮詢 Sewage Services Charges Enquiries:

2834 9432

一般查詢 General Enquiries:

2877 0660

電郵地址 Email Address:

enquiry@dsd.gov.hk

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