渠務署
Drainage Services Department

可持續發展報告
Sustainability Report
2018–19

目錄 Content

署長序言
Director's Statement

渠務署今年踏入30周年，與香港人風雨同路，繼續以提供世界級的污水處理和雨水排放服務為己任。我們本着「勿畏難、勿輕略」的精神，上下一心，迎難而上，以誠懇的態度工作。我深信，過去30年，市民已見證到我們如何努力引入創新科技，以提升渠務基建。

Marking its 30th anniversary of serving the people of Hong Kong this year, the Drainage Services Department (DSD) remains committed to providing world-class wastewater treatment and stormwater drainage services. With the spirit of "being neither afraid of what is hard nor careless with what is easy", we have been united in rising to challenges at work in a sincere manner. I trust that over the past 30 years, Hong Kong citizens have witnessed the effort we have put into introducing innovative technologies to enhance drainage infrastructure.

渠務署署長 盧國華
Kelvin Lo Kwok-wah
Director of Drainage Services

善用可再生能源　轉廢為能

政府深切關注全球氣候變化所帶來的影響，早於2007年便成立跨部門氣候變化工作小組。工作小組由環境局主持，成員是16個部門（包括渠務署）的代表。為應對氣候變化而降低温室氣體排放量，我們積極推廣使用可再生能源並尋找轉廢為能的契機。

我們現時使用的可再生能源，包括水力能、太陽能和生物氣產能。以昂船洲污水處理廠為例，我們於2018年10月首次在廠內裝設水力渦輪發電系統，利用污水的流動轉化為電力，每年預計可生產高達12萬度電。此外，我們在多個污水處理設施的戶外空間安裝了太陽能板，當中以小蠔灣污水處理廠的太陽能發電場為目前政府設施內規模最大的太陽能發電系統，每年發電量可達110萬度電。我們亦正積極使用污泥處理過程中產生的生物氣發電和產熱，在各個大型二級污水處理廠設置生物氣發電機、鍋爐等，把生物氣轉化為電能及熱能。本年度，生物氣所產生的能量約為2,700萬度電。因此我們的可再生能源設施合共生產超過2,800萬度電，約佔渠務署用電量的9%。我們未來將繼續加強使用再生能源，與香港一同邁向低碳智慧宜居城市。

另一方面，我們在大埔污水處理廠正試驗廚餘與污泥共消化技術，把在共消化過程中產生的生物氣轉化為電力。我們正積極推行轉廢為能措施，研發適用於渠務署設施的技術，以期減少依賴傳統化石燃料和舒緩堆填區的壓力，長遠達至可持續發展的目標。

共享空間

香港土地資源匱乏，渠務設施難免成為市民的近鄰。我們本着「與民共生、與民共享」的精神，讓渠務設施與社區連結，並與市民建立緊密的關係。我們正把石湖墟污水處理廠擴建成為三級處理水平的淨水設施。我們會於淨水設施中加入「社區共融」元素，例如將開放予公眾享用的公共休憩空間、園景設施等。

Utilising Renewable Energy Turning Waste into Energy

Deeply concerned about the impact of global climate change, the Government set up the Inter-departmental Working Group on Climate Change as early as 2007. Chaired by the Environment Bureau, the Working Group comprises representatives from 16 departments including DSD. To combat climate change by reducing greenhouse gas emissions, we have actively promoted the use of renewable energy and sought opportunities to turn waste into energy.

The renewable energy currently adopted by DSD includes hydropower, solar power, and biogas. Taking Stonecutters Island Sewage Treatment Works (STW) as an example, in October 2018, we installed a hydro-turbine system at the plant for the first time, converting the flow of sewage into electricity, which was expected to generate up to 120,000 kilowatt-hours of electricity per year. Furthermore, we have installed solar panels in the open space of numerous sewage treatment facilities, with the solar farm at Siu Ho Wan STW being the largest solar photovoltaic system among government facilities and generating as much as 1.1 million kilowatt-hours of electricity annually. We are also proactively utilising biogas produced during the sewage sludge treatment process to generate electricity and heat, with biogas generators, boilers, etc. installed in major secondary sewage treatment works for converting biogas into electricity and heat. During the year, energy equivalent to about 27 million kilowatt-hours of electricity was generated from biogas, and DSD's renewable energy facilities generated a total of over 28 million kilowatt-hours of electricity, which accounted for about 9% of DSD's electricity consumption. In the future, DSD will continue to increase the use of renewable energy, with Hong Kong progressing towards a low carbon smart livable city.

In addition, we are carrying out a trial on food waste and sludge co-digestion technology at Tai Po STW to convert the biogas produced during the co-digestion process into electricity. We are actively implementing waste-to-energy measures and developing technologies applicable to DSD's facilities, with a view to reducing dependency on conventional fossil fuels and easing pressure on landfills, thereby achieving sustainable development goals in the long run.

Co-use of Space

Since land resource in Hong King is scarce, drainage facilities inevitably become citizens' close neighbours. With the spirit of "coexisting and sharing", we connect drainage facilities with the community and build a close relationship with the public. We are now expanding Shek Wu Hui STW so that it will be turned into an effluent polishing plant of a tertiary treatment level. We will add to the plant "communion with the community" elements such as public open space and landscaped facilities which will be open to the public.

氣候變化帶來的挑戰

氣候變化帶來的極端天氣近年越趨明顯，正影響全球經濟和社會發展。因此，香港難以獨善其身。超強颱風「山竹」於2018年9月襲港，本港多區錄得破紀錄的風暴潮，海平面亦普遍升高超過兩米，導致低窪地區嚴重水浸。

為應對氣候變化帶來的挑戰，我們根據過往記錄，識別了七個容易受風暴潮影響而出現海水淹浸情況的風暴潮點，以及三個容易因海浪超越海堤而出現水浸情況的越堤浪點。誠然，渠務署單憑一己之力，難以有效應對氣候變化。因此，政府與社會各方（包括企業）必須羣策羣力，制定可行的行動計劃，為突如其來的情況作好準備，盡力減低相關地點的水浸風險。

未來，我們的團隊將繼續為市民提供高效優質的污水處理及防洪服務，並持開放務實的態度研究可否引進新技術以利推展工程和營運設施，務求與時並進。我在此勉勵部門上下，在瞬息萬變的時代中，繼續一心一意、兢兢業業改善污水處理和雨水排放服務。

盧國華
渠務署署長
2019年12月

Challenges posed by Climate Change

Extreme weather brought about by climate change has become more and more obvious in recent years, affecting the global economic and social development. As a result, Hong Kong can hardly remain unscathed. When super typhoon "Mangkhut" struck Hong Kong in September 2018, record-breaking storm surges occurred in many districts, raising the water level generally by more than two metres, and leading to severe flooding in low-lying areas.

To meet the challenges posed by climate change, we have taken into account the previous records and identified seven Storm Surge Spots vulnerable to seawater inundation caused by storm surges as well as three Overtopping Wave Spots vulnerable to flooding caused by waves overtopping the seawall. Indeed, it is difficult for DSD to effectively tackle climate change alone. Thus, the Government and various sectors of the community (including enterprises) must work together to develop viable action plans in preparation for unexpected situations so that the flood risks at the locations concerned can be reduced as far as possible.

In the future, our team will continue to provide the public with efficient and quality sewage treatment and flood prevention services, and to explore with an open and pragmatic attitude the possibilities of introducing new technologies to better take forward our projects and operate our facilities so as to progress with the times. I hereby encourage all members of the Department to continue improving sewage treatment and stormwater drainage services wholeheartedly and diligently in this ever-changing era.

Kelvin LO Kwok-wah
Director of Drainage Services
December 2019

關於本報告
About This Report

香港特別行政區政府轄下的渠務署(「本署」、「我們」)發表可持續發展報告2018-19(「本報告」),旨在向持份者匯報本署去年在經濟、環境及社會三方面的工作進展及成果。我們深信高透明度的報告能讓各界更深入了解本署的工作及對環境、社會及經濟的影響,同時讓我們與持份者分享可持續發展的願景及期望,鼓勵持份者為改善本署可持續發展表現出謀獻策。

The Drainage Services Department (DSD) of the Government of the Hong Kong Special Administrative Region (HKSAR) presents here its Sustainability Report 2018-19 ("this Report") to our stakeholders on the work progress and achievements of DSD on the economy, environment and society, in the past year. We strongly believe that a highly transparent report can provide various stakeholders with a better understanding of our work and our impacts on the environment, society and the economy. At the same time, it allows us to share our vision and aspirations in sustainable development with our stakeholders, and encourages them to contribute more inspiring ideas to drive our sustainability performance.

九龍城一號污水泵房
Kowloon City No.1 Sewage Pumping Station

沙田污水處理廠
Sha Tin Sewage Treatment Works

啟德河
Kai Tak River

CO-USE RE-USE
共享 再用 創新 INNOVATION

報告簡介
Report Profile

本報告題為「共享•再用•創新」詳述於2018年4月1日至2019年3月31日期間[1]（「報告期」）或2018-19財政年度渠務署[2]在經濟、環境及社會方面的可持續發展表現。除另外說明外，本報告範圍涵蓋本署辦事處及轄下設施，包括本署主要工程顧問和承辦商的日常運作[3]。

本報告是依循GRI（全球報告倡議組織）準則：核心選項編制而成。獨立核證機構審核本報告的準確度、可靠性和公信力，確保報告內容符合有關準則規定。核實聲明可參閱第169-170頁。另外，本報告亦通過GRI標準的「實質性議題審核」服務，確認本報告按要求標示一般披露102-40至102-49的位置。

本報告分別以網上版本、PDF版本及純文字版本發布，並備有3款文字編制（英文、繁體中文及簡體中文）。本報告亦備有報告摘要，並提供網上及印刷版本。

閣下對本報告的內容、形式發表及可持續發展方面的表現之寶貴意見是渠務署持續進步的動力。歡迎持份者就本報告內容、報告方式提供意見及建議，以持續協助我們提升報告質素和加強資料披露的相關性。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, titled "Co-use • Re-use • Innovation", evokes the sustainability performance of DSD[2] in terms of our economic, environmental and social ethos from 1 April 2018 to 31 March 2019 ("Reporting Period") or during the fiscal year 2018-19[1]. Unless otherwise stated, this Report covers DSD's offices and facilities, and the operations of our major consultants and contractors[3].

This Report has been prepared in accordance with the GRI Standards: Core option. An independent accreditation agency has verified the accuracy, reliability and credibility of the Report, assuring that its contents comply with the requirements in the corresponding standards. The verification statement can be found on page 169-170. In addition, the Report was under taken GRI Materiality Disclosures Service, which reflect that the GRI content index is clearly presented and the references for disclosures 102-40 to 102-49 are aligned with appropriate sections in the body of the Report.

The Report is available online in web-based HTML, PDF and text-only versions in three languages (English, traditional Chinese and simplified Chinese). An executive summary of the Report is also available with online and printed versions.

We welcome comments and suggestions from stakeholders on the report content, report approach as well as our sustainability performance, for they could help enhance the quality of our report and the relevance of our disclosure continuously. Kindly complete and return the feedback form appended to the Report to us by email, fax and mail.

1 102-50
2 102-45
3 102-46

持份者參與活動
Engagement Approach

持份者的投入對渠務署實踐可持續發展至關重要，持份者的參與既協助我們了解日常工作對環境及社會的影響，更讓我們掌握持份者所關注的議題，以便本署回應持份者的期望。我們依據兩個因素識別主要持分者組別，包括可能對渠務署日常運作產生重大影響，或可能受日常運作高度影響的組別[4]，並分別了解他們關注的議題。在編寫可持續發展報告前，我們邀請不同持份者，包括本署員工、供應商、承辦商／顧問、立法會及區議會議員、學術組織／專業團體、公眾、環保團體和其他政府部門等[5]，表達對本署的意見及期望。

Stakeholder inputs are valuable to DSD's sustainable development. Stakeholder engagement enables us to understand the environmental and social impacts of our operations and inform the issues our stakeholders are most concerned with in order to address their expectations. We have identified key stakeholder groups who have a significant impact on DSD's operations or those who could be significantly affected by our operations[4], to understand their concerns. Stakeholder groups, including DSD staff, suppliers, contractors/consultants, legislators and local district councilors, academia groups/professional bodies, the general public, green groups and other governmental departments[5], are invited to express their opinions and expectations to us.

實質性評估
Materiality Assessment

渠務署每年均會進行一次全面的實質性評估，以識別本署及持份者最為關切的經濟、環境和社會議題，並使每年度可持續發展報告的內容更具針對性。我們根據GRI標準對議題進行實質性議題評估，以識別對本署及持份者影響較大的議題，2018/19年度的實質性議題評估過程由以下3個主要步驟組成[6]：

DSD conducts a comprehensive materiality assessment every year, with a view to identifying our shared economic, environmental and social concerns with stakeholders, and enabling us to focus the content of our sustainability reports. The materiality assessment is carried out based on the GRI Standards to identify the material topics that pose greater impacts on us and our stakeholders. The 2018-19 materiality assessment process consists of the following three major steps[6]:

步驟 Step 1 識別可持續發展議題 Identifying Sustainable Development Topics

渠務署在顧問的協助下全面檢視及修訂可持續發展議題清單，確保議題充分反映渠務署的工作性質。我們識別了共23項與渠務署及其影響最密切相關的議題，涵蓋「經濟」、「環境」和「社會」三大範疇，並由此開始與內部及外部持份者進行溝通。

With the help of our Consultant, DSD conducted a comprehensive review and revision on the list of sustainability topics which fully cover the nature of DSD's operations. DSD has identified 23 topics that are most relevant to our operations and impacts. These topics, spanning the three broad material topics of "economy", "environment" and "society", have provided the basis for our communication with internal and external stakeholders.

步驟 Step 2 收集持分者意見 Collecting Stakeholder Feedback

渠務署邀請了內部及外部持份者直接參與識別實質性議題的過程，於顧問的協助下舉辦了內部及外部持份者焦點小組研討會及進行問卷調查，旨在通過公正、持平的途徑，收集及評估持份者對相關可持續發展議題的意見和展望。

DSD invited internal and external stakeholders to actively participate in the identification of material topics. With the help of the Consultant, DSD organised focus group discussions and distributed questionnaires for internal and external stakeholders, to collect and analyse stakeholders' views and expectations on the relevant sustainability topics through a fair and balanced approach.

步驟 Step 3 識別實質性議題 Identifying Material Topics

渠務署的管理層對實質性議題及其範圍、界限和完整性作驗證，以確認這些議題對本署具有重大意義。

Senior management of DSD prioritised the material topics and their coverage, boundaries and completeness to ensure the significance to us.

[4] 102-42
[5] 102-40
[6] 102-43

實質性矩陣

本報告期內共有356位持份者參與了實質性議題的問卷調查或焦點小組討論，就可持續發展報告五大方面：環境表現、社會責任、員工福利及發展、營運表現以及人權提出意見。

我們共識別了23個議題作實質性分析評估。近年由於全球氣候暖化為香港帶來極端天氣，颱風及暴雨帶來的影響對渠務署河道工程及防洪工作有密切的關係，因此我們把「減緩及適應氣候變化」的議題新增其中。另外，渠務署作為公營機構，重視適時向持份者匯報公共政策的發展進程，因此亦納入「匯報可持續發展進程」為其中選項。

於本報告期內，我們與260位外部和96位內部持份者進行意見調查，以確定所識別的實質性議題的優先次序，及於焦點小組討論各實質性議題的影響。我們根據焦點小組討論及問卷調查的分析結果繪製了實質性矩陣。本年度渠務署優先處理及報告的實質性議題共有18個。

Materiality Matrix

During the reporting period, a total of 356 stakeholders participated in the questionnaires or focus group discussions and provided us with feedbacks on the five major aspects of this Report including: environmental performance, social responsibility, staff welfare and development, operational performance and human rights protection.

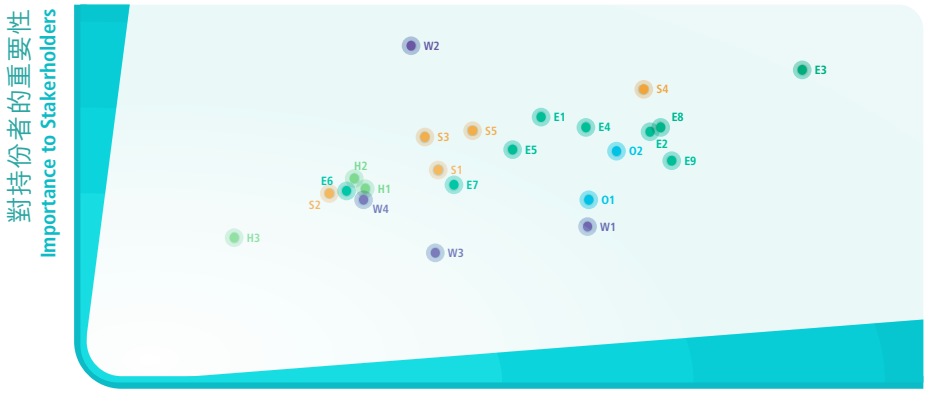
We have identified 23 issues in the materiality assessment. The global warming has brought about extreme weather to Hong Kong in recent years, the impact of typhoons and torrential rains is closely related to DSD's river works and flood control measures. Therefore, we included a topic of "Climate Change and Mitigation and Adaptation". In addition, DSD, as a governmental department, is responsible for reporting to the stakeholders on the development of public policies in a timely manner; hence, we included the topic of "Sustainable Development Agenda".

During the reporting period, we conducted a survey with 260 external and 96 internal stakeholders to prioritised the identified material issues and discuss the material issues with stakeholders in the focus groups. Based on the outcomes from the focus groups and questionnaires, a materiality matrix is formulated. This year, a total of 18 issues were prioritised as material for DSD to address and report on.

渠務署2018-19 實質性矩陣　DSD 2018-19 Materiality Matrix

我們以矩陣圖展示23個議題的重要性排序，最重要的議題列於矩陣圖的右上方，相對次要的議題則列於左下方。

We present the priorities of the 23 identified issues in the form of a matrix. The most material issues are presented on the top right corner while the less material issues are displayed in the lower left of the matrix.



對經濟、環境及社會的影響
Impact on the economy, environment and society

S1 反貪污 Anti-corruption
S2 投訴機制 Grievance Mechanism
S3 遵守社會、經濟方面法規 Social-economic Compliance
S4 匯報可持續發展進程 Sustainable Development Agenda
S5 服務質量標準 Service Quality Standards
W1 職業安全及健康 Occupational Health & Safety
W2 內部溝通渠道 Internal Communication Channel
W3 員工培訓及發展 Staff Training and Education
W4 員工政策及本地員工比例 Local Employee Ratio and Employment Policy
E1 生態保育 Ecological Conservation
E2 能源管理 Energy Management
E3 污水及廢物處理 Effluents and Waste Treatment
E4 氣味管理 Odour Management
E5 節約用水 Water Conservation
E6 物料使用 Use of Materials
E7 廢氣控制 Air Emissions
E8 遵守環境法規 Environmental Compliance
E9 減緩及適應氣候變化 Climate Change and Mitigation and Adaptation
O1 採購政策及規格 Procurement Criteria and Practices
O2 保持公共資金和資產管理的透明度 Transparency on Public Funds and Assets Management
H1 反歧視 Non-discrimination
H2 防止強制勞工 Prevention of Forced or Compulsory Labour
H3 尊重原居民權利 Respecting Indigenous Rights

本報告涵蓋的18項實質性議題及邊界如下：

A total of 18 material topics are covered in this Report and their corresponding boundaries are tabulated below:

實質性議題[8] Material Issues[8]	議題邊界[7] Topic Boundary[7] 渠務署內部 Within DSD	渠務署外部 Outside DSD
反貪污 Anti-corruption	✔	✔
遵守社會、經濟方面法規 Social-economic Compliance	✔	✔
匯報可持續發展進程 Sustainable Development Agenda	✔	✔
服務質量標準 Service Quality Standards	✔	✔
生態保育 Ecological Conservation	✔	✔
能源管理 Energy Management	✔	✔
污水及廢物處理 Effluents and Waste Treatment	✔	✔
氣味管理 Odour Management	✔	✔
節約用水 Water Conservation	✔	✔
廢氣控制 Air Emissions	✔	✔
遵守環境法規 Environmental Compliance	✔	✔
減緩及適應氣候變化 Climate Change and Mitigation and Adaptation	✔	✔
職業安全及健康 Occupational Safety & Health	✔	✔
內部溝通渠道 Internal Communication Channel	✔	
員工培訓及發展 Staff Training and Education	✔	✔
員工政策及本地員工比例 Local Employee Ratio and Employment Policy	✔	
採購政策及規格 Procurement Criteria and Practices	✔	✔
保持公共資金和資產管理的透明度 Transparency on Public Funds and Assets Management	✔	✔

[7] 102-46
[8] 102-47

持份者定期參與方式

渠務署持份者的持續參與，有助我們更新需要關心的可持續發展議題。下表概述了渠務署於本報告期內設立的多種溝通渠道，旨在與持份者保持恆常溝通，並就工程、日常運作及本署發展方針等事宜進行廣泛交流。持份者在定期交流中表達的意見及我們的回應，已反映於本報告內。有關於持份者參與活動詳情，請參閱**第七章　持份者參與活動**。

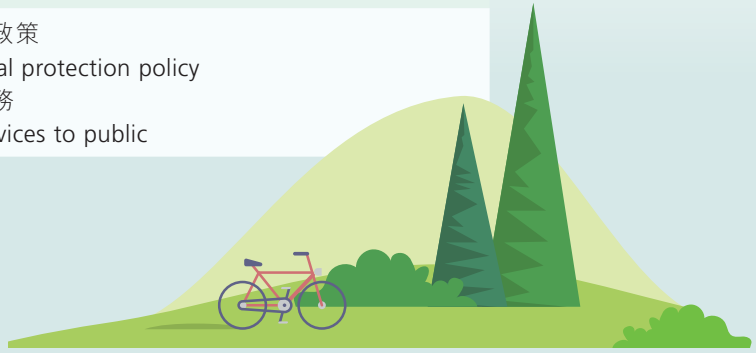
Regular Engagement

Engaging stakeholders at DSD is an ongoing process that helps us to continuously update the sustainability issues that should be of the greatest concern. To this end, we have established multiple channels to communicate with stakeholders regularly on matters relating to projects, daily operations and our development approaches; all listed in the table below. The concerns raised during these regular exchanges together with our responses are reflected in this report. For details of the engagement, please refer to **Chapter 7 Stakeholder Engagement Activities**.

主要持份者 Key Stakeholders	聯繫渠道[9] Engagement Channels[9]	關注的事宜[10] Key Concerns[10]
本署員工 DSD Staff	• 員工激勵計劃 Employee incentive scheme • 員工建議計劃 Employee recommendation scheme • 署方管理層親善探訪 Goodwill visits by DSD management • 部門各協商委員會和討論小組 Consultative committees and discussion groups across DSD	• 員工福利 Employee benefits • 員工培訓機會 Employee training opportunities
供應商 Suppliers	• 公開研討會 Public seminars • 投標活動 Procurement activity	• 採購政策 Procurement policy • 綠色採購 Sustainable procurement
承辦商及顧問 Contractors and Consultants	• 工地考察 Site visits • 經驗分享會 Experience sharing sessions • 工地整潔獎勵計劃 Construction Sites Housekeeping Award Scheme	• 職業安全與健康 Occupational safety and health • 工程的建設要求及趨勢 Construction requirements and trends for projects • 工程的環境效益 Environmental performance of projects
立法會及區議會議員 Legislators and Local District Councilors	• 焦點小組會議 Focus group meetings	• 工程進度 Progress of engineering works

9 102-43
10 102-44

主要持份者 Key Stakeholders	聯繫渠道[9] Engagement Channels[9]	關注的事宜[10] Key Concerns[10]
學術組織及專業團體 Academia Groups and Professional Bodies	• 外展活動 Outreach activities • 參觀渠務署設施及工程工地 Visits to DSD facilities and construction sites • 研究與發展論壇 Research and Development Forum • 渠務署國際會議 DSD International Conference	• 工程技術 Engineering technology • 渠務設施的環境表現 Environmental performance of drainage facilities
公眾 General Public	• 客戶滿意度調查 Customer satisfaction surveys • 參觀渠務署設施及工程工地 Visits to DSD facilities and construction sites • 問卷調查 Questionnaire surveys	• 渠務工程對居民的影響 Impact of drainage works on residents • 營運效率 Operational efficiency
環保團體 Green Groups	• 環保團體會議 Meeting with environmental groups • 河道考察 Site visits to river channels • 研究與發展論壇 Research and Development Forum	• 生態保育 Ecological conservation • 能源消耗及碳排放 Energy consumption and carbon emissions • 渠務工程中的環保設計元素 Green design elements in drainage works • 供應商／承辦商的環境表現 Environmental performance of suppliers/contractors
其他政府部門 Other Governmental Departments	• 跨部門會議 Inter-departmental meetings	• 保護環境的政策 Environmental protection policy • 公眾渠務服務 Drainage services to public



9 102-43
10 102-44

節能減排
促進香港可持續發展

第一章 CHAPTER 1

Energy Saving and Emission Reduction Promoting Sustainable Development of Hong Kong

溫室氣體排放持續上升，加劇了全球暖化和氣候變化。有見及此，渠務署自2007年起參與由環境局成立的氣候變化跨部門工作小組，制訂適應氣候變化的政策和措施，以降低溫室氣體排放和應對氣候變化。政府在2017年公布《香港氣候行動藍圖2030+》和（《行動藍圖》），大力推動可再生能源的使用。本署積極配合推行節能措施，並投放額外資源，大力推動並廣泛應用可再生能源科技於現有和全新的設施上，以減少碳排放和保護環境，達至可持續發展。可再生能源系統所產生的電能和熱能，會供應給本署廠房內的設施使用。另外，本署會繼續致力應用不同技術善用可再生能源，包括太陽能、水力和生物氣。

Continuous increase of greenhouse gas emission intensifies global warming and climate change. Since 2007, the Drainage Services Department (DSD) has been a member of the Inter-departmental Working Group on Climate Change, set up by the Environment Bureau for formulating policies and measures to reduce greenhouse gas emissions and combat climate change. In support of "Hong Kong's Climate Action Plan 2030+" ("Action Plan") published by the Government in 2017 that encourages extensive use of renewable energy (RE), DSD has actively implemented energy-saving initiatives and deployed additional resources in promoting and adopting renewable energy technologies on a wider and larger scale in its existing and new facilities to reduce carbon emissions and protect the environment for achieving sustainable development. The renewable energy systems generate electricity and heat for the facilities in DSD's plants. To help with building a cleaner and more sustainable environment, DSD will continue with the efforts to adopt various technologies, to harness renewable energy, including solar power, hydropower and biogas.

小蠔灣污水處理廠太陽能發電場
Solar Farm at Siu Ho Wan Sewage Treatment Works

大埔污水處理廠的電熱聯供發電系統
Combined heat and power generating system in Tai Po Sewage Treatment Works

節能和採用可再生能源措施
Implemented Measures for Saving Energy and Harnessing Renewable Energy

目前，本署廠房的可再生能源設施每年生產超過2,800萬度電，約佔本署能源需求量9%。從成效角度來看，本署目前每年的可再生能源產量相當於5,600個家庭的能源消耗量，並可減少約19,600公噸二氧化碳排放量。

此外，本署在2017-18年度和2018-19年度共獲得2億4,800萬元的資本撥款，以推行12個主要可再生能源項目，每年合共可生產600萬度電。本署已展開這些項目的建設工程。另外，渠務署會繼續優化各污水處理廠和污水泵房的運作，包括利用更佳的節能設備取代老化設備以節省能源。更新項目包括更換廠房的鼓風機、照明系統、泵和隔篩等。本署2018-19年的耗電量約為3億1,500萬度電，我們期望透過推行可再生能源項目和節能措施，可在2024-25年度或之前，將用電容量減少約4%。本署現正努力達成這目標。

At present, RE installations in DSD's plants generate over 28 million kilowatt-hours of electricity per annum, constituting around 9% of DSD's annual energy demand. In terms of efficiency, DSD's current annual RE contribution is equivalent to the energy consumption of 5,600 households and can reduce about 19,600 tonnes of carbon dioxide (CO_2) emission a year.

In addition, DSD obtained a capital funding of $248 million in total for 12 major renewable energy projects in 2017–18 and 2018–19 to generate a total of 6 million kilowatt-hours of electricity a year. These projects are under construction. Besides, DSD has been optimising the operation of various sewage treatment works (STWs) and sewage pumping stations (SPSs), including replacement of ageing equipment with more efficient energy saving units. The items being replaced include the plants' air blowers, lighting systems, pumps, and screens. With these RE projects and energy saving initiatives, DSD has set an electricity saving target of 4% by 2024-25, with respect to the baseline electricity consumption of about 315 million kilowatt-hours in 2018-19. DSD is striving to achieve this target.

太陽能－污水處理設施裝設太陽能光伏板
Solar Energy – Installation of Photovoltaic Panels in Sewage Treatment Facilities

本署多年來一直致力在各污水處理廠和污水泵房的戶外空間安裝太陽能光伏系統。截至2019年3月底，我們已在轄下主要設施，包括沙田污水處理廠、元朗污水處理廠、石湖墟污水處理廠和昂船洲污水處理廠等，共15所污水處理廠和13所污水泵房，安裝太陽能光伏板，以盡量利用廠房空間收集太陽能。當中，在2016年年底投入服務的小蠔灣污水處理廠太陽能發電場由超過4,200塊多晶硅太陽能光伏板組成，每年發電量可達110萬度電，是目前香港特別行政區政府設施中規模最大的太陽能發電系統。2018-19年度，本署光伏系統的總發電量約為112萬度電。

本署會繼續在其他設施廣泛應用太陽能光伏系統，並在不同泵房和污水處理廠安裝更多太陽能光伏板，估計新系統的總發電量約為0.9兆瓦，當中包括昂船洲污水處理廠沉澱池上的薄膜太陽能光伏板，能充分利用空間產能。該系統將成為香港最大的薄膜太陽能系統，發電容量逾0.5兆瓦。

Over the years, DSD has endeavoured to utilise the open space in STWs and SPSs to install photovoltaic (PV) system. As at end March 2019, DSD has installed PV panels at 15 STWs and 13 SPSs to harness solar energy by maximising the use of the plants' space. The major plants include Sha Tin STW, Yuen Long STW, Shek Wu Hui STW and Stonecutters Island STW. Notably, the Solar Farm at Siu Ho Wan STW commissioned at the end of 2016, comprises over 4,200 units of polycrystalline PV panels which can generate as much as 1.1 million kilowatt-hours of electricity annual, making it the largest PV system among the Hong Kong SAR Government facilities at present. In 2018-19, the total PV system of DSD is generating about 1.12 million kilowatt-hours of electricity.

DSD will continue to extend the use of solar power in its facilities and install more PV panels at various pumping stations and STWs. The total generation capacity of the new systems is about 0.9 megawatts, including the installation of thin-film PV panels above the sedimentation tanks at Stonecutters Island STW, fully utilising space to generate energy. It will become the largest thin-film solar system in Hong Kong, with a generation capacity of over 0.5 megawatts.

沙田污水處理廠的太陽能光伏板
PV Installations at Sha Tin Sewage Treatment Works

昂船洲污水處理廠的水力發電系統
Hydro-turbine system at Stonecutters Island Sewage Treatment Works

水力發電－昂船洲污水處理廠水力渦輪發電系統
Hydroelectric Power– Hydro-turbine System at Stonecutters Island Sewage Treatment Works

隨着淨化海港計劃第二期甲正式啟用，我們在昂船洲污水處理廠安裝水力渦輪發電系統，利用流動污水的液壓能量推動渦輪機，繼而產生電力供廠內設施使用。該發電設施屬全自動運作，電腦系統會因應污水處理廠每日的污水流量，自動調節發電機的轉速，以提升輸出功率。該系統於2018年10月啟用，設計容量達23千瓦，預計每年可生產高達12萬度電，不單有助節省電費開支，還善用水力減少碳排放。由於此項目成效顯著，我們正計劃於昂船洲污水處理廠安裝第二組水力渦輪發電系統。

After the commission of the Harbour Area Treatment Scheme Stage 2A, DSD installed a hydro-turbine system which utilises hydraulic energy from the flow of sewage to move the turbine and generate electricity for in-house use at Stonecutters Island STW. It is a completely automated operation, regulating the generator speed according to the daily sewage flow rate in order to enhance its operating efficiency. The system commissioned in October 2018, with a design capacity of 23 kilowatts, it is expected to generate up to 120,000 kilowatt-hours of electricity a year. The system does not only save electricity costs, but also make good use of hydropower to reduce carbon emissions. In light of the high efficiency of this project, we plan on installing a second hydro-turbine system at Stonecutters Island STW.

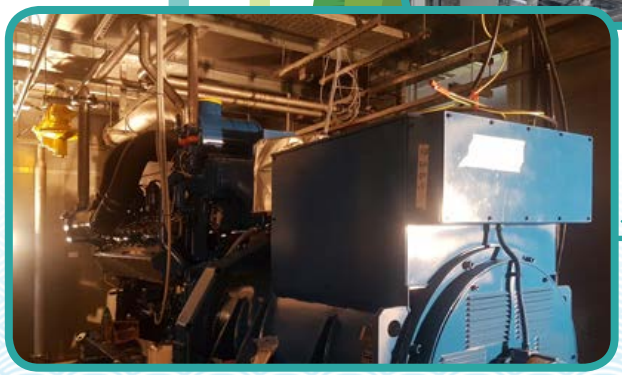
轉廢為能
Waste-to-Energy

污水處理過程產生的污泥會在厭氧消化期間釋出生物氣。生物氣約含65%甲烷（其餘成份主要為二氧化碳），屬於可再生能源。我們利用電熱聯供發電機和渦輪發動機燃燒生物氣，生產電能和熱能供廠房使用。2018-19年度，沙田、大埔和石湖墟污水處理廠共5台電熱聯供發電機的總發電容量約為3.6兆瓦；而沙田和元朗污水處理廠2台渦輪發動機的總發電容量則為280千瓦。年內，各污水處理廠的生物氣總發電量相等於約2,700萬度電。

Sludge, a byproduct of sewage treatment process, produces biogas during anaerobic digestion. Biogas is a form of renewable energy which contains 65% methane (the remaining components mainly being carbon dioxide). DSD utilises combined heat and power (CHP) generators and gas-turbines that run on biogas to generate electricity and heat for in-house use. In 2018-19, the total electricity generation capacity of five CHP generators at Sha Tin STW, Tai Po STW and Shek Wu Hui STW is about 3.6 megawatts, while two gas-turbines at Sha Tin STW and Yuen Long STW have a total electrical generating capacity of 280 kilowatts. This year, the total energy generated by biogas at our STWs amounted to about 27 million kilowatt-hours.

元朗污水處理廠的30千瓦微型渦輪發電機
A 30 kilowatt micro-turbine generator at Yuen Long Sewage Treatment Works

沙田污水處理廠的1.4兆瓦熱電聯供發電機
A 1.4-megawatt combined heat and power generator at Sha Tin Sewage Treatment Works

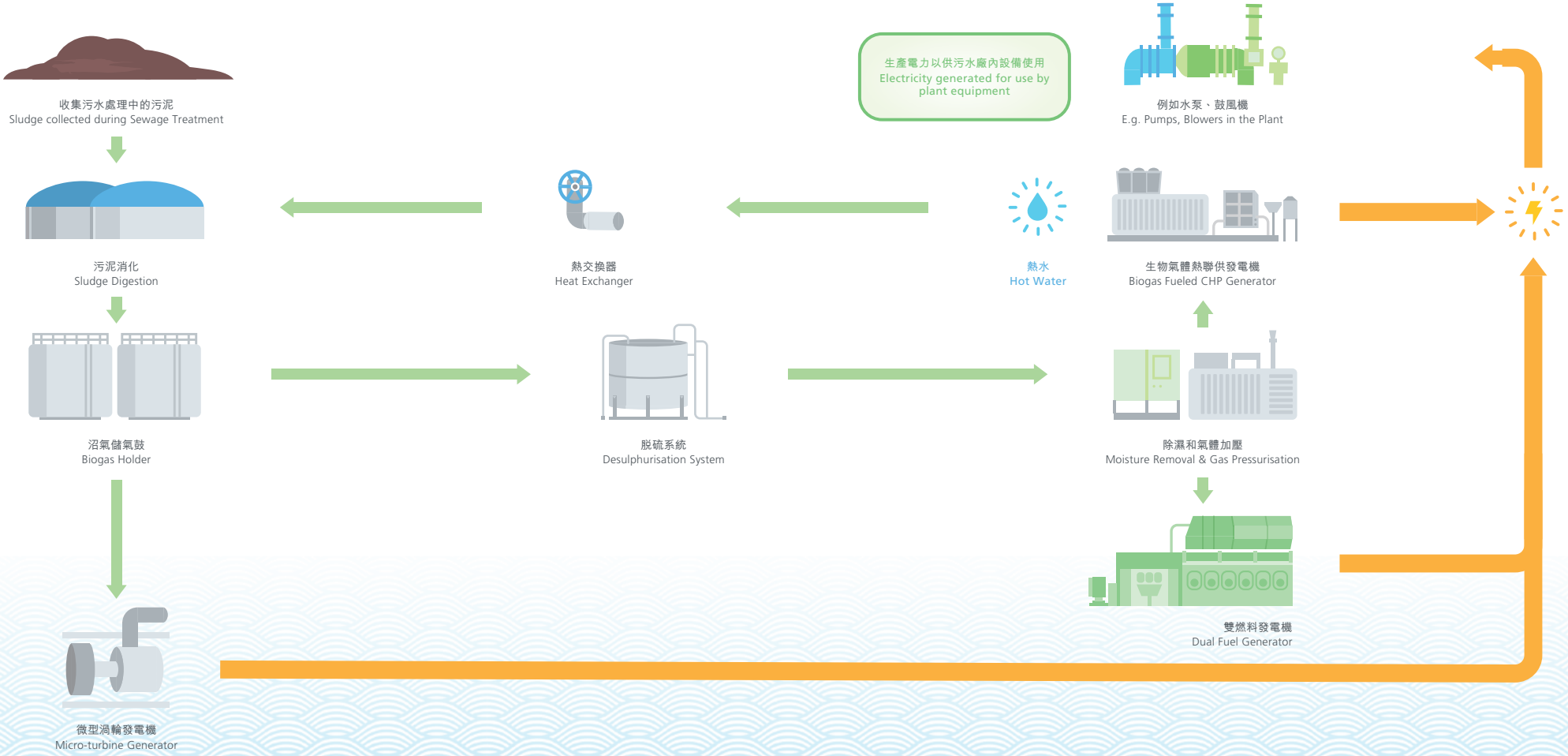


沙田污水處理廠新增的生物氣電熱聯供發電機
A new biogas-fueled combined heat and power generator at Sha Tin Sewage Treatment Works

此外，我們正於沙田、大埔和元朗污水處理廠等廠房增設電熱聯供發電機和渦輪系統，以充分利用污泥處理過程中產生的生物氣。系統裝妥後，預計發電量可達5.4兆瓦。此外，渠務署於沙田污水處理廠增設了一台三聯供系統，可同時供熱、製冷及發電，以增加使用可再生能源。

To maximise the use of biogas generated during the sludge treatment process, we are installing additional CHP generators and gas-turbine systems at our STWs such as Sha Tin STW, Tai Po STW and Yuen Long STW. Once completed, it is anticipated that up to 5.4 megawatts of electricity can be generated. In addition, a tri-generation system, which generates heat, cooling and power has been installed at Sha Tin STW to increase the use of RE.

生物氣產生電力的過程　Process for Generation of Power from Biogas



展望－廚餘與污泥共消化
Way Forward – Food Waste and Sludge Co-digestion

為取得廚餘與污泥共消化的協同效應，渠務署與環境保護署（環保署）緊密合作，在大埔污水處理廠進行「廚餘、污泥共厭氧消化試驗計劃」。本署亦正計劃在其他合適的污水處理廠實施較大規模的同類計劃。

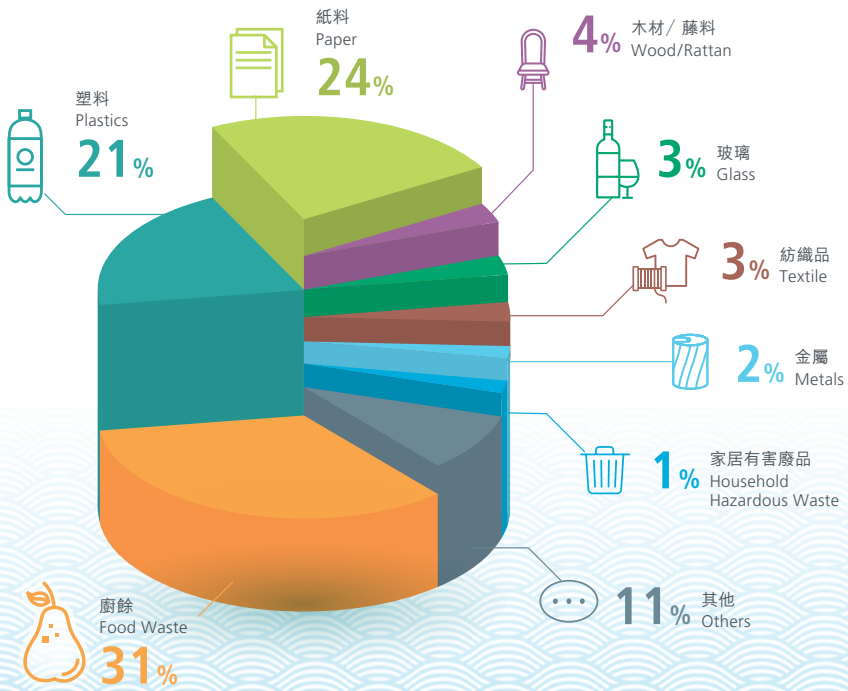
To harness the synergy effects of the food waste and sludge co-digestion process, DSD has as worked in close collaboration with the Environmental Protection Department (EPD) to conduct a "Food Waste/Sludge Anaerobic Co-digestion Trial Scheme" in Tai Po STW. DSD is also planning to implement similar scheme at other suitable sewage treatment works on a larger scale.

廚餘與污泥資源化
Food Waste and Sludge as Resources

廚餘是香港都市固體廢物中的最大組成部分。2018年，每天約有11,428公噸都市固體廢物棄置於堆填區，當中約3,565公噸為廚餘。污水處理過程中產生的副產品－污泥，亦是固體廢物。現時每天約有1,100公噸污泥會運往[源・區]焚化。廚餘和污泥一方面是固體廢物，但另一方面亦含豐富的能源資源。

Food waste is the largest component of municipal solid waste in Hong Kong. In 2018, 11,428 tonnes of municipal solid waste were disposed of at landfills each day, 3,565 tonnes of which were food waste. Sludge, a by-product of sewage treatment process is also solid waste. Currently, around 1,100 tonnes of sludge are taken to T•Park for incineration each day. On the one hand, food waste and sludge are solid waste; on the other hand, they are rich in energy resources.

2018年於堆填區棄置的都市固體廢物成分
Composition of Municipal Solid Waste Disposed of at Landfills in 2018



資料來源: 環保署香港廢物統計數字一2018年概要
Source: Hong Kong 2018 Waste Statistics – At a glance, Environmental Protection Department

目前的廚餘和污泥處理技術
Current Food Waste and Sludge Treatment Technologies

厭氧消化是一種在缺氧情況下，有機物被厭氧微生物消化和分解的過程，其間可減少廢物和有機物產生的氣味和病原體，並產生生物氣（可再生能源）作為副產品。目前，香港有2個有機資源回收中心以厭氧消化處理廚餘，包括小蠔灣的有機資源回收中心第1期及預計在2022年啟用的沙嶺有機資源回收中心第2期。預計這2個中心分別每日能夠處理200公噸及300公噸的廚餘，而於中心產生的殘渣會進一步處理成為堆肥。

Anaerobic digestion refers to the microbiological breakdown of organic matter in the absence of oxygen. In this process, the odour and pathogens of waste and organic matter will be reduced, with biogas, a renewable energy source, generated as byproduct. Currently there are two Organic Resources Recovery Centres in Hong Kong adopted anaerobic digestion to treat food waste: Organic Resources Recovery Centre Phase 1 in Siu Ho Wan is currently in operation and Organic Resources Recovery Centre Phase 2 in Sha Ling is expected to be commissioned in 2022. These two centres are targeting 200 tonnes and 300 tonnes of food waste per day for treatment respectively and the digestate from these centres will then be further treated and turned into compost.

本署二級污水處理廠現時產生的污泥會由廠房的厭氧消化缸處理。厭氧消化過程中，污泥量會減少，而同時產生的生物氣則可用於生產電能和熱能。部分國家會把消化後的污泥作進一步處理成為堆肥。至於香港，消化後的污泥會經過脫水，然後運往[源•區]用作焚化燃料，實行轉廢為能。焚化過程產生的熱能則會被回收和轉化為電力。

Currently, the sludge generated in the DSD's secondary STWs is treated in the anaerobic digesters of the plant. In the anaerobic digestion process, the volume of sludge is reduced and biogas is produced for generating electricity and heat. In some countries, digested sludge will undergo further treatment for use as compost, while in Hong Kong the digested sludge is dewatered and then transported to T•Park for use as fuel in the incineration process, realising the concept of waste-of-energy. Heat produced from the incineration process is recovered and converted into electricity.

厭氧消化
Anaerobic Co-digestion

海外國家已成功應用廚餘與污泥共厭氧消化（「共消化」）技術。與廚餘和污泥厭氧單消化相比，「共消化」能減少固體量並增加生物氣產量。生物氣可用於生產能源，以補充污水處理廠的能源消耗。若有充足廚餘和污泥，「共消化」能提供足夠生物氣，滿足污水處理廠的能源需求。政府正研究於現有污水處理廠推行「共消化」，以擴展有機資源回收中心網絡，從而提升香港的廚餘處理能力。

Anaerobic co-digestion of food waste with sludge, hereinafter referred to as co-digestion, has been successfully applied overseas. Compared with anaerobic mono-digestion of food waste and sludge, co-digestion reduced solids content and increases the production of biogas, which can be used to generate energy and supplement the STWs' energy consumption. With sufficient food waste and sludge, co-digestion has the potential to produce sufficient biogas to meet the energy demand of STWs. The Government is exploring the use of co-digestion in existing STWs to extend the network of organic resources recovery facilities, hence raising Hong Kong's food waste treatment capacity.

大埔污水處理廠50公噸「共消化」試驗計劃
50-tonne Co-digestion Trial Scheme at Tai Po Sewage Treatment Works

《2016年施政報告》宣布，大埔污水處理廠自2019年起進行「共消化」試驗計劃，每日處理50公噸廚餘及污泥。試驗計劃包括在大埔污水處理廠附近船灣滲濾液預處理廠興建一個處理量達50公噸的廚餘預處理廠，以及進行運作試驗工作。本署和環保署攜手推行有關試驗計劃。

計劃下，環保署的工程包括建造廚餘預處理廠。在此，廚餘會先去除雜質，再搗碎變成廚餘漿。至於本署工程則包括改建接收廚餘的指定厭氧消化缸。改建工程包括把缸內的混合器更換為可把較高固體含量的廚餘與污泥混合物均勻攪拌的新混合器。試驗計劃已於2019年9月開始。其間，環保署負責收集、運送，預處理和泵送廚餘至大埔污水處理廠內指定的厭氧消化缸。本署則負責操作消化缸和利用生物氣生產熱能和電力，供污水處理廠使用。

The 2016 Policy Address announced that a co-digestion trial scheme will be conducted at Tai Po STW from 2019 onwards, treating 50 tonnes of food waste and sludge everyday. The trial scheme includes the construction of a food waste pre-treatment plant with a treatment capacity of 50 tonnes, located at the Shuen Wan Leachate Pre-treatment Works, adjacent to Tai Po STW and an operation trial scheme. The co-digestion trial scheme is collaboratively run by the DSD and EPD.

Under the trial scheme, EPD's engineering works include construction of a food waste pre-treatment plant. Here, food waste is pre-treated to remove impurities before being mashed and turned into food pulp. DSD's engineering works include modification of a digester designated to receive food waste. The modification works include replacement of the sludge mixer in the digester with a new mixer that is suitable for blending the sludge and food waste, which have a higher solids content, homogeneously. The trial scheme started in September 2019. During operation, EPD is responsible for collecting, delivering, pre-treating and pumping food waste to the designated anaerobic digester at Tai Po STW, while DSD is responsible for the operation of the digester and utilisation of biogas to generate heat and electricity for STWs' use.

大埔污水處理廠50公噸「共消化」試驗計劃的優點
Benefits of 50-tonne Co-digestion Pilot Trial Scheme at Tai Po Sewage Treatment Works

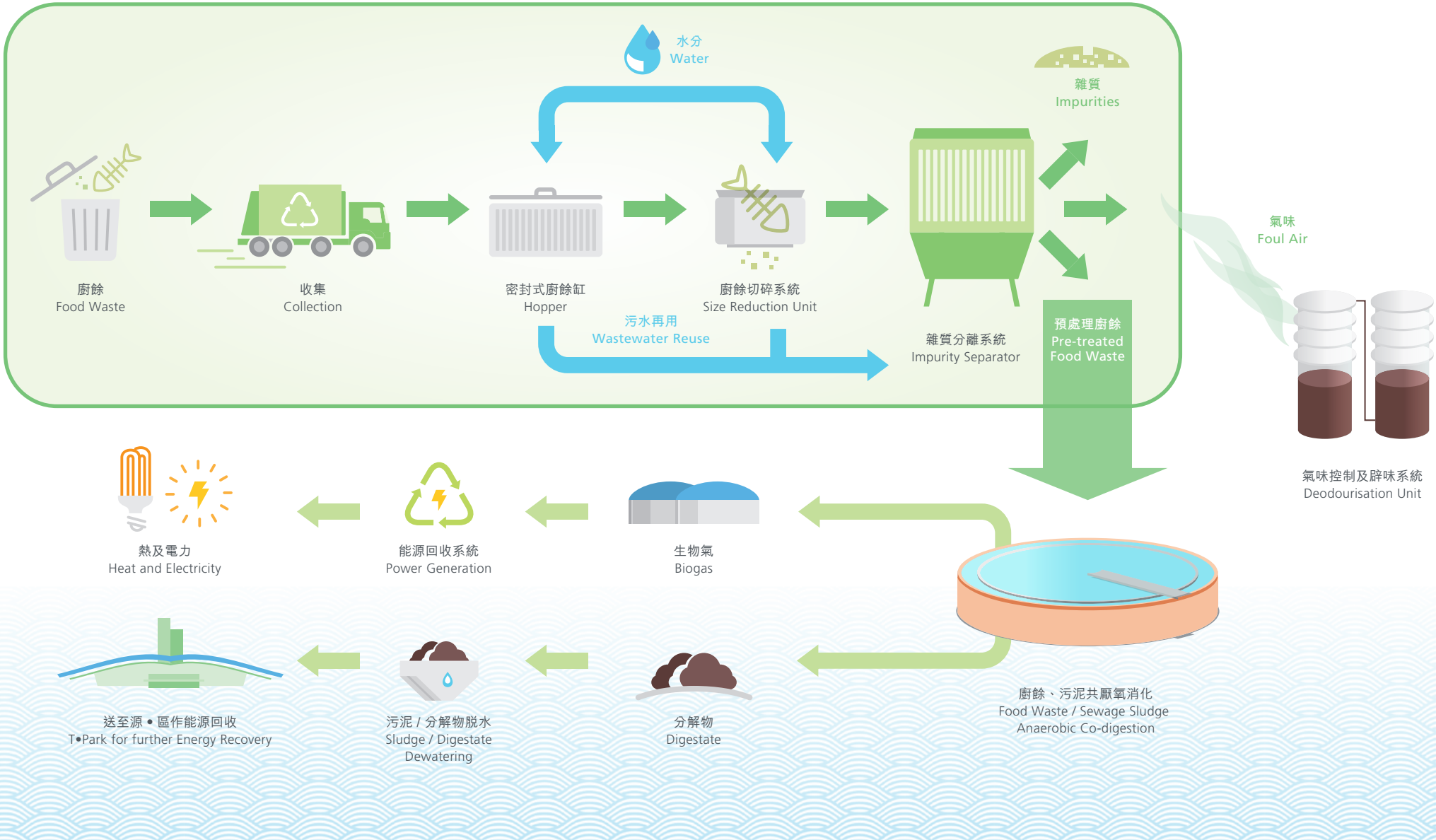
本署只須12個月便完成「共消化」試驗計劃下的指定厭氧消化缸改建工程。由於廚餘預處理設施鄰近污水處理廠，「共消化」試驗計劃可達致一址兩用和共同處理。消化缸中的微生物能否有效降解有機物取決於缸中的養分平衡。與單獨消化相比，「共消化」可提高降解效率，從而減少固體量和增加生物氣產量。在香港，消化後的污泥經脫水後會運往[源•區]，作為焚化過程中的燃料，其間產生的熱能會被回收及轉化為電力。焚燒過程中，脫水後的消化物會變成灰燼，其體積減少約九成，有助節省珍貴的堆填區空間。

DSD's modification works for the designated digester under the trial scheme took only 12 months. With the food waste pre-treatment plant and STWs adjacent to each other, the trial scheme attains the benefits of co-location and co-treatment. Whether microorganisms in the digester can effectively degrade organic solids, depends on the nutrient balance in the digester. Compared with mono-digestion, co-digestion can enhance the degradation efficiency, hence decreasing solids content and boosting biogas yield. In Hong Kong, digested sludge will be dewatered and transported to T•Park to be used as fuel in the incineration process. Heat generated during the process will be recovered and converted into electricity. In this process, the dewatered digestate will become ash, meaning it volume will decrease by 90%. Consequently, precious landfill space can be saved.

工作人員在大埔污水處理廠的指定污泥消化缸內安裝廚餘與污泥共厭氧消化新混合器

Installation of new mixer inside the sludge digester designated for food waste and sludge co-digestion at Tai Po Sewage Treatment Works

廚餘、污泥共氧消化試驗計劃流程圖 Process flow of Food Waste/ Sewage Sludge Anaerobic Co-digestion Trial Scheme



年度大事 重點輕描

第二章 CHAPTER 2

Highlights of the Year

2018-19年度，渠務署的除污和防洪工作進展良好，成效顯著。本署積極把智能科技應用於污水處理廠的建造與改善；新圍污水處理廠改善工程第一期開展，進一步展示本署應用智能科技的決心。年內，我們繼續與學術界及業界並肩合作，就藍綠建設、節能減排措施及可再生能源展開研究工作，期望能提升本署污水處理及防洪表現之餘，同時鼓勵推動創新科技發展。

In 2018-19, DSD progressed well in sewage treatment and flood prevention, achieving remarkable results. DSD actively applied smart technology to construction and upgrading of sewage treatment plants; the commencement of the Upgrading of San Wai Sewage Treatment Works (STW) Phase 1 demonstrated DSDs' determination to apply smart technology. During the year, we continued to work shoulder to shoulder with academia and the industry to conduct research on blue-green infrastructure; on energy conservation; and emission reduction measures; and on renewable energy, hoping to enhance DSD's performance in sewage treatment and flood prevention, while encouraging the development of innovative technologies.

香港管理專業協會2018年度最佳年報獎
2018 HKMA
Best Annual Reports Award

新圍污水處理廠平頂儀式

San Wai Sewage Treatment Works Topping-Out Ceremony

Hong Kong Flower Show 2019
2019年香港花卉展覽

核心工作 Core Business

渠務署2018研究及發展論壇 DSD Research & Development Forum 2018

渠務署於2018年12月5日舉辦「2018研究與發展論壇」，論壇分上、下午舉行，主題分別為「智慧城市•創新雨水管理」及「智慧城市•創新污水管理」。本年度再次成功吸引了500多名本地學者、專業人士及業界代表參與討論。討論範疇涵蓋智慧技術、可持續措施，以及創新的雨水和污水管理事務。

渠務署連續舉辦了13年的「研究及發展論壇」是部門的周年盛事之一，本署邀請業界翹楚和專家在論壇上發表專題演說，而論壇則提供平台讓各持份者交流意見、了解最新技術，以及開拓合作機會，為香港締造更美好和可持續的居住環境。

The Research & Development (R&D) Forum 2018 was held by DSD on 5 December 2018. The forum was divided into a morning session and an afternoon session under the themes "Smart City • Innovative Stormwater Management" and "Smart City • Innovative Wastewater Management" respectively. This year's forum was yet another success attracting more than 500 scholars, professionals and representatives of the industry to take part in discussion. The areas of discussion covered smart technologies, sustainable initiatives and innovative stormwater and wastewater management.

The R&D Forum, which has been held by DSD for the past 13 years is one of the Department's major annual events. The Department invited leading industry practitioners and experts to deliver keynote speeches at the forum, which provided a platform for stakeholders to exchange views, learn about the latest technologies as well as to explore opportunities for collaboration, thereby creating a better and sustainable living environment.

發展局常任秘書長（工務）林世雄先生（右七）、渠務署時任署長唐嘉鴻先生（左七）、渠務署副署長麥嘉為先生（左六）、發展局副秘書長（工務）2麥成章先生（左五）與上午論壇的講者合照

Group photo of Mr. LAM Sai-hung (seventh right), Permanent Secretary for Development (Works), Mr. Edwin TONG Ka-hung (seventh left), then Director of Drainage Services, Mr. MAK Ka-wai (sixth left), Deputy Director of Drainage Services, Mr. Vincent MAK Shing-cheung (fifth left), Deputy Secretary for Development (Works) 2, and speakers of the morning session

本署時任署長唐嘉鴻先生致歡迎辭

Mr. Edwin TONG Ka-hung, then Director of Drainage Services, delivered a welcome speech

環境局常任秘書長唐智強先生（左六）、渠務署時任署長唐嘉鴻先生（左五）、渠務署副署長麥嘉為先生為（右六）與下午論壇的講者合照

Group photo of Mr. Donald TONG Chi-keung (sixth left), Permanent Secretary for the Environment, Mr. Edwin TONG Ka-hung (fifth left), then Director of Drainage Services, Mr. MAK Ka-wai (sixth right), Deputy Director of Drainage Services, and speakers of the afternoon session

新圍污水處理廠平頂儀式
San Wai Sewage Treatment Works Topping-Out Ceremony

2018年12月14日，渠務署舉行新圍污水處理廠第一期平頂儀式，標誌着本工程進度的重要里程碑。工程合約採用「設計、建造及營運」模式，於2016年5月展開，預計於2020年完成。新圍污水處理廠第一期完成後，可提供每天200,000立方米的污水處理量以配合區內發展需要。有關工程同時會將新圍污水處理廠的污水處理級別由基本處理提升至化學強化一級處理，並加設紫外線消毒設施，以進一步提高新圍污水處理廠的環境效益。

On 14 December 2018, DSD held a topping-out ceremony for the San Wai STW Phase 1 to mark significant milestone in the progress of the project. Procured under a Design-Build-Operate (DBO) arrangement, the contract commenced in May 2016 with the construction works scheduled for completion in 2020. Upon completion of San Wai STW Phase 1, the sewage treatment facilities will provide a daily treatment capacity of 200,000 cubic metres to cope with the development needs in the area. The project will also upgrade the treatment level of San Wai STW from preliminary treatment to chemically enhanced primary treatment providing ultra-violet disinfection facilities, thereby further enhancing the environmental performance of the San Wai STW.

本署時任署長唐嘉鴻先生致歡迎辭

Mr. Edwin TONG Ka-hung, then Director of Drainage Services, delivered a welcome speech

本署時任署長唐嘉鴻先生（中）、副署長麥嘉為先生（右三）和其他主禮嘉賓於平頂儀式合照

Group photo of Mr. Edwin TONG Ka-hung (middle), then Director of Drainage Services, Mr. MAK Ka-wai (third right), Deputy Director of Drainage Services, and other officiating guests at the topping-out ceremony

工程團隊不僅在本工程的設計及建造階段應用智能科技（建築信息模型），亦在平頂儀式後設置攤位，向嘉賓進一步介紹新圍污水處理廠及智能科技應用事宜。

Not only did the project team use smart technology such as Building-Information-Modelling (BIM) in the design and construction stages of the project, they also set up a demonstration booth after the topping-out ceremony to further introduce guests to the San Wai STW and the application of smart technology.

新圍污水處理廠第一期的行政大樓及工場獲香港綠色建築議會綠建環評（新建建築）暫定鉑金級認證，而本工程團隊亦榮獲本署「工地整潔獎勵計劃2018」的「總冠軍」大獎－承建商及工地督導人員。

The administration building and workshop for the San Wai STW Phase 1 were awarded Platinum Rating of Provisional Assessment under BEAM Plus (New Buildings) from the Hong Kong Green Building Council, while the project team was also awarded "The Grand Award" for Contractors and Site Supervisory Staff under DSD's "Construction Site Housekeeping Award Scheme 2018".

研究與發展重點
Highlight of Research & Development Studies

沙田污水處理廠遷往岩洞項目中研究應用大數據和人工智能技術
Study on Using Big Data-AI Technology in Real-time Environmental Monitoring under the Relocation of Sha Tin Sewage Treatment Works to Caverns Project

這項研究的目的是把大數據和人工智能技術深度學習，應用於實時環境監察「搬遷沙田污水處理廠往岩洞計劃」建築地盤附近的鷺鳥活動、噪音水平和震動情況，從而設立結合大數據和人工智能技術的分析架構，方便在工程不同階段進行實時環境監控工作。

The study aims to apply Big Data and AI technologies (e.g. Deep Learning) to real-time environmental monitoring of egrets' activity, noise levels and vibration conditions in the vicinity of the construction site of the Relocation of Sha Tin Sewage Treatment Works to Cavern Project, thereby creating a Big Data-AI analytic framework for real-time environmental monitoring in different stages of the project.

安裝於沙田污水處理廠的實時環境監控儀器
A real-time monitoring device installed at the Sha Tin Sewage Treatment Works

在工地附近實時監控鷺鳥活動情況
Real-time monitoring of egrets' activities in the vicinity of the construction site concerned

渠務署設施的生態園境設計
Application of Eco-landscape Design in DSD's Facilities

為響應香港生物多樣性策略及行動計劃，渠務署正研究適合本署設施的生態園境規劃、設計和管理方式，從而加強渠務署設施的園境設計、提高生態價值和完善城市的生物廊道。

因此，本署在2017年委託香港大學進行研究，藉以制定可評估渠務署設施潛在生態價值的指標作策略性園境規劃參考用途。同時，此項研究亦為制定生態園境設計和管理守則提供意見，而實地試驗工作亦會進行以評估其成效。

In support of the Biodiversity Strategy and Action Plan, DSD is exploring ways of eco-landscape planning, design and management to suit the Department's facilities, with a view enhancing the landscape design of the facilities, increasing ecological value and refining the connectivity of ecological networks in the city.

Therefore, the University of Hong Kong was commissioned in 2017 to carry out study through which an indicator was devised to evaluate the potential ecological value of DSD's facilities and serve as a reference guide to strategic landscape planning. The study will also provide suggestions for drawing up a code of practice on eco-landscape design and management; site trials will be carried out to assess its effectiveness.

赤柱污水處理廠空氣軸承高速渦輪鼓風機
Air-bearing type high speed centrifugal air blowers in Stanley Sewage Treatment Works

渠務署設施的生態園境設計：
牛潭尾水道泵房的實地試驗場
Application of Eco-landscape Design in DSD's Facilities: Trial site at Ngau Tam Mei Main Drainage Channel Pumping Station

赤柱污水處理廠使用空氣軸承高速渦輪鼓風機
Using Air-bearing Type High Speed Centrifugal Air Blowers in Stanley Sewage Treatment Works

曝氣在生物污水處理過程中對於維持微生物成長和分解污水中的污染物至關重要。一般來說，曝氣佔污水處理廠耗電量的40％。

與傳統的鼓風機相比，空氣軸承鼓風機摩擦力較小，因而更加節能。2018年，渠務署在赤柱污水處理廠完成了一項有關空氣軸承鼓風機的研究測試。我們將赤柱污水處理廠兩台傳統鼓風機更換成空氣軸承鼓風機，並緊密監察其表現。

結果發現，空氣軸承鼓風機產生的噪音和熱量，以及維修需求也比較低，耗電量亦比被更換的傳統鼓風機低約22％，每年共節省約300,000度電。試驗後，我們亦於石湖墟污水處理廠及昂船洲污水處理廠等設施安裝更多空氣軸承鼓風機。

Aeration is crucial for sustaining the growth of micro-organisms in a biological sewage treatment process and breaking down pollutants in sewage. In general, aeration accounts for 40% of a sewage treatment works' power consumption.

Compared with conventional air blowers, air-bearing blowers are more energy efficient. In 2018, DSD completed an R&D trial on air-bearing blowers at Stanley STW. Two conventional air blowers in Stanley STW were replaced with air-bearing blowers whose subsequent performance was closely monitored.

It was found that the air-bearing blowers produced less noise and heat and required less maintenance. Their energy consumption was approximately 22% lower than that of the replaced blowers and that a total of approximately 300,000 kilowatt-hours of electricity per annum was saved. After the trial, more air-bearing blowers have been installed at facilities such as Shek Wu Hui STW and Stonecutters Island STW.

薄膜太陽能板 Thin-film Solar Panels

2018年，本署在昂船洲污水處理廠及沙頭角污水處理廠就不同種類的薄膜太陽能板完成測試，以了解它們的表現、可靠性及耐用性。測試的對象包括不同種類的薄膜太陽能板如銅銦鎵硒、碲化鎘和非晶硅。

測試結果指出銅銦鎵硒的效能最高，而垂直安裝的薄膜太陽能板輸出的電力比水平安裝的薄膜太陽能板少兩成。

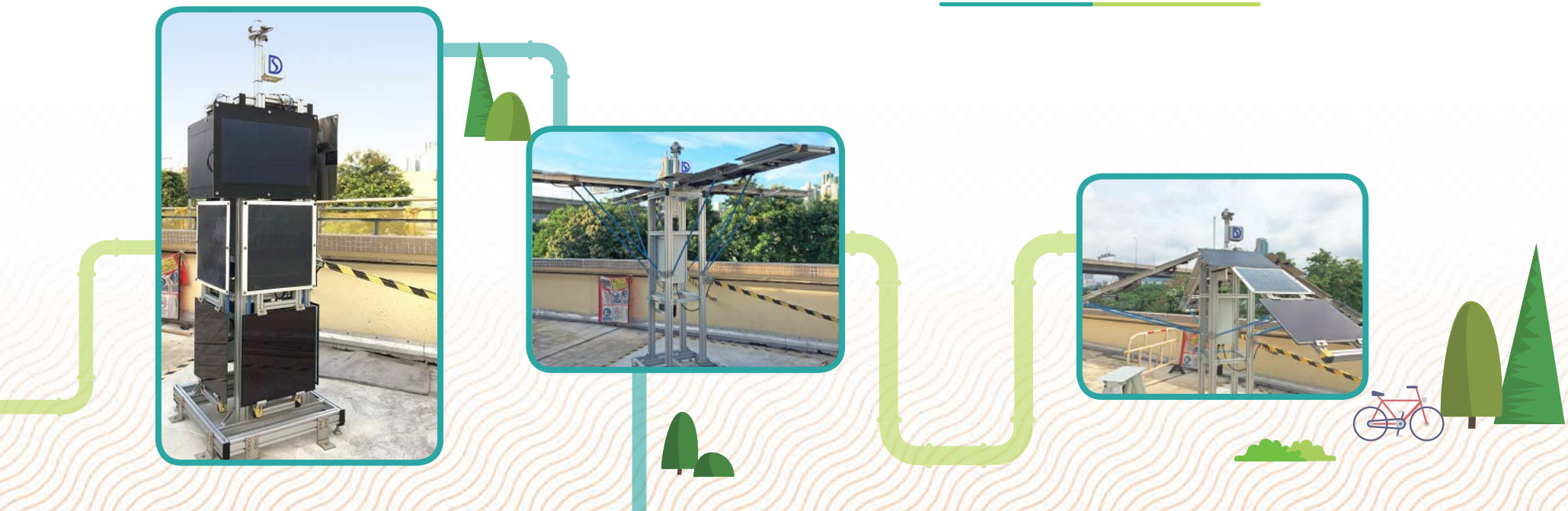
試驗完畢後，渠務署在昂船洲污水處理廠沉澱池的蓋面上，安裝了約120塊富彈性的銅銦鎵硒薄膜太陽能板，提供約14千瓦的電力輸出。

In 2018, DSD completed a trial on different types of thin-film solar panels to gauge their performance, reliability and durability at Stonecutters Island STW and Sha Tau Kok STW. The test objects included types of thin film solar panels such as copper indium gallium selenide (CIGS), cadmium telluride (CdTe) and amorphous silicon (a-Si).

The test results revealed that CIGS panels were the most efficient ones and that the electricity output of thin-film panels installed in a vertical position was 20% less than those installed in a horizontal position.

Subsequent to the trial, DSD installed about 120 pieces of flexible CIGS thin film solar panels, which can provide an electricity output of about 14 kilowatts, on the covers of the sedimentation tanks at Stonecutters Island STW.

昂船洲污水處理廠測試組件
Test modules at Stonecutters Island Sewage Treatment Works



獎項及殊榮
Awards and Honours

2018

6月3日
3 Jun

渠務署「淨化海港計劃」在科技創新和應用方面成績卓越，獲頒第十五屆中國土木工程詹天佑獎「市政工程組別」獎項。

DSD's "Harbour Area Treatment Scheme" has been awarded the 15th Tien-yow Jeme Civil Engineering Prize under the "Municipal Engineering Category" for its outstanding achievements in the area of technological innovation and application.

2018

6月29日
29 Jun

渠務署「石湖墟污水處理廠 – 擴建工程第1A期 – 坪輋路污水渠工程」在建築信息模型科技的創新與應用方面成績顯著，獲頒WBIM國際數字化大獎之施工類優秀獎（三等獎）。

DSD's "Advance Works for Shek Wu Hui STW – Further Expansion Phase 1A and Sewerage Works at Ping Che Road" has been awarded the WBIM International Digitalisation Award – Design Remarkable Award (3rd Level Award) for its remarkable achievements in innovation in and application of BIM technologies.

2018

7月
7 Jul

渠務署可持續發展報告2016-17榮獲多項殊榮，其中包括：
DSD's Sustainability Report 2016-17 received a number of awards, including:

獎項 Awards	主辦機構 Organisers
2017 Vision Awards • 銀獎 Silver Award • 東南亞地區最佳可持續發展報告首80名（排名第41） Top 80 Reports in the Asia-Pacific Region (ranked 41st) • 2017最佳中文報告首60名 Top 60 Chinese Reports in 2017 • 技術成就獎 Technical Achievement Award	美國傳媒專業聯盟 League of American Communications Professionals LLC
2018 Inspire Awards • 金獎 Gold Award • 首100名企業刊物（排名第52） Top 100 Corporate Publications (ranked 52nd)	美國傳媒專業聯盟 League of American Communications Professionals LLC
2018 APEX Awards for Publication Excellence • 卓越獎（寫作－綠色寫作） Awards of Excellence (Writing – Green Writing)	Communications Concepts
• 香港管理專業協會2018年度最佳年報獎 2018 HKMA Best Annual Reports Awards • 優秀環境、社會及管治資料披露獎 Citation for Environmental, Social and Governance Disclosure	香港管理專業協會 The Hong Kong Management Association

2018

9月17日
17 Sep

渠務署支持香港科技大學研發的「殺泥技術」在污水處理方面對全世界特別是沿海城市貢獻殊偉，榮獲2018國際水協項目創新獎「突破性科研」銅獎。

With great support from DSD, the "SANI technology (Sulphate reduction, Autotrophic denitrification and Nitrification Integrated)", developed by the Hong Kong University of Science and Technology, was awarded the 2018 IWA Project Innovation Awards Bronze Medal Award for "Breakthroughs in R&D" for its great contribution to sewage treatment throughout the world, especially in coastal cities.

2018

10月8日
8 Oct

渠務署「淨化海港計劃」在可持續發展方面成績卓越，獲頒2018年度英國土木工程師學會Edmund Hambly獎章。

DSD's "Harbour Area Treatment Scheme" was awarded the 2018 Edmund Hambly Medal from the Institution of Civil Engineers, U.K. for its outstanding achievements in the area of sustainable development.

2018

10月20日
20 Oct

渠務署「跑馬地地下蓄洪計劃」在創新及科技發展方面成績斐然，獲頒2018年度中國水利學會「大禹水利科學技術獎」。

DSD's "Happy Valley Underground Stormwater Storage Scheme" was awarded the 2018 "Dai Yu Science & Technology Medal" of Chinese Hydraulic Engineering Society for its outstanding achievements in the area of innovation and technology development.

2018

11月2日
2 Nov

渠務署工程師鄧加月女士（左二）及崔詠霞女士（右三）榮獲「2018年申訴專員嘉許獎」公職人員獎項。

Ms. Annie TANG Ka-yuet (second left) and Ms. Tanya TSUI Wing-har (third right), DSD Engineers, received Awards for Officers of Public Organisations at the "Ombudsman's Awards 2018".

2018

11月30日
30 Nov

渠務署「啟德河改善工程 — 黃大仙段」在景觀設計方面表現傑出，獲頒2018年香港園境師學會設計獎之優異獎。

DSD's "Kai Tak River Improvement Works (Wong Tai Sin Section)" was awarded the Merit Award of Hong Kong Institute of Landscape Architects (HKILA) Design Awards 2018 for its outstanding landscape design.

2018

12月8日
8 Dec

渠務署致力為正在餵哺母乳的僱員提供適合及方便餵哺母乳的環境，獲家庭議會頒發「2017/18年度支持母乳餵哺獎」。

DSD has been awarded the "Awards for Breastfeeding Support 2017/18" by the Family Council in recognition of its effort in providing an appropriate and friendly environment for our breastfeeding employees to breastfeed their children.

2019

3月15日
15 Mar

渠務署展區「願」在2019年香港花卉展覽獲得最佳設計（園林景點）金獎。

DSD's exhibit "Dreams" was awarded the Gold Award for Design Excellence (Landscape Display) at the Hong Kong Flower Show 2019.

2018

12月13日
13 Dec

渠務署「跑馬地地下蓄洪計劃」和「林村谷污水收集系統第2階段」在推廣可持續發展方面表現卓越，分別獲頒綠建環評新建建築「最終鉑金級」和「暫定鉑金級」的認證。

DSD's "Happy Valley Underground Stormwater Storage Scheme" and "Lam Tsuen Valley Sewerage – Village Sewerage Stage 2", were bestowed the "Final Platinum Rating" and "Provisional Platinum Rating" under BEAM Plus New Buildings respectively, in recognition of the department's outstanding performance in promoting the sustainable development.

管治方針

第三章 CHAPTER 3

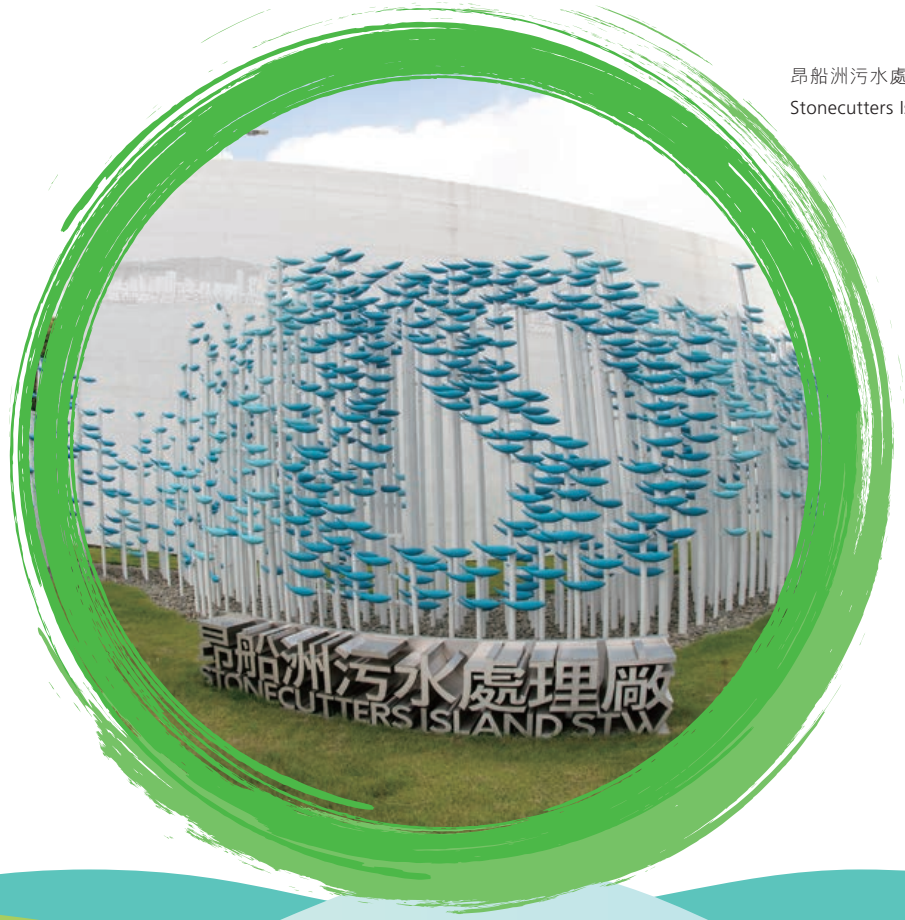
Governance Approach

本署深信優良的機構管治是可持續發展的基石，亦是實現抱負、使命和信念的根本。本署成立至今，一直以公眾利益為依歸，致力建立及維持一套優良、穩建而明智的管治架構。我們按著完善的管治架構營運，並按汲取的經驗、國際發展趨勢和持份者的期望來持續修訂及優化可持續發展管理政策。同時，我們以開誠布公的方式，全面披露本署管治的原則和實務，以提升我們的公信力和聲譽。

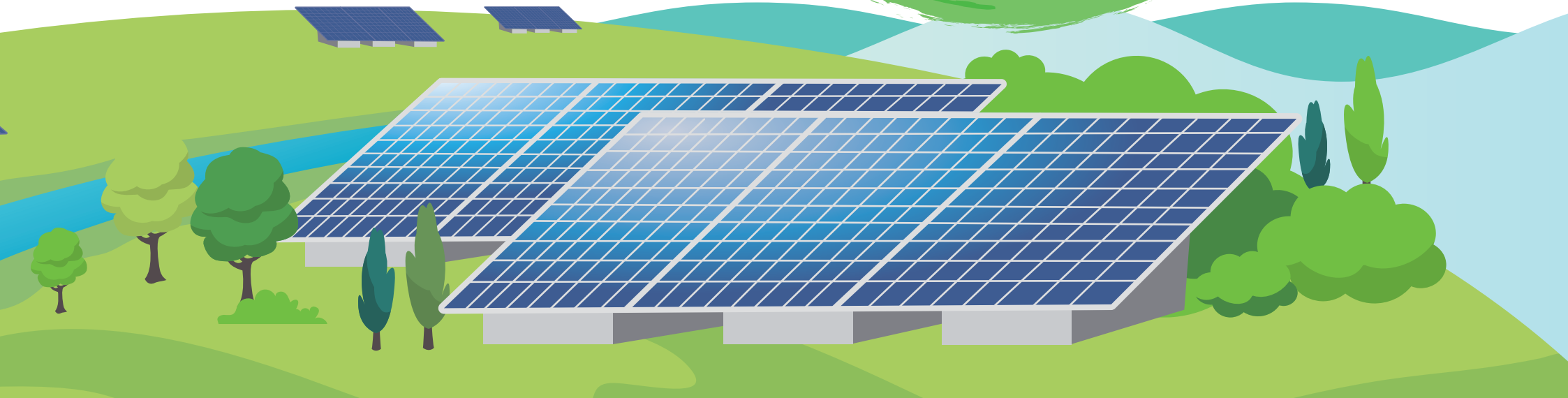
DSD firmly believes that sound corporate governance is not only the bedrock of sustainable development, but also the foundation for achieving our vision, mission and values. Since our establishment, we have endeavoured to establish and maintain a good, solid and sensible framework of corporate governance in the interests of the public. We operate within a well-defined governance structure, continuously adapt and improve our sustainability management strategies in light of our experience, international developments and stakeholders' expectations. In addition, we disclose our corporate governance principles and practices openly and fully to uphold our credibility and reputation.

維多利亞海港
Victoria Harbour

荔枝角雨水排放隧道
Lai Chi Kok Drainage Tunnel



昂船洲污水處理廠
Stonecutters Island Sewage Treatment Works



抱負、使命和信念
Vision, Mission and Values

本署於1989年成立，為香港特別行政區政府發展局轄下9個部門之一。我們一直與時並進，為香港提供專業卓越的防洪及污水處理服務。我們的「抱負、使命和信念」貫徹可持續發展理念，可見我們決心推動香港的可持續發展，以應對氣候變化及城市發展帶來的挑戰。

Established in 1989, DSD is one of the nine departments under the Development Bureau of the Government of the Hong Kong Special Administrative Region. Keeping in tune with current times, we provide state of the art flood prevention and sewage treatment services. Our "Vision, Mission and Values" exemplifies the sustainability concepts, vividly demonstrating our commitment in promoting sustainable development in Hong Kong and rising up to challenges brought by climate change and urban development.

管治架構 Governance Structure

高級管理層

本署的高級管理層以署長為首，並由一位副署長及4位助理署長組成，負責制定重大決策和監督部門日常運作，並制定和檢討本署的可持續發展策略及目標。成員包括：

Senior Management

Headed by the Director of Drainage Services, the Department's senior management comprises a Deputy Director and four Assistant Directors who are responsible for making important policy decisions and overseeing the Department's daily operations, as well as formulating and reviewing our sustainability strategies and goals. The senior management team includes:

A 渠務署署長 Director of Drainage Services
盧國華先生 Mr. Kelvin LO Kwok-wah

B 渠務署副署長 Deputy Director of Drainage Services
麥嘉為先生 Mr. MAK Ka-wai

C 助理署長／設計拓展
Assistant Director/Projects and Development
黃緒勤先生 Mr. Ken WONG Sui-kan

D 助理署長／機電工程
Assistant Director/Electrical and Mechanical
白諫鳴先生 Mr. Eddie PAK Kan-ming

E 助理署長／污水處理服務
Assistant Director/Sewage Services
曾國良先生 Mr. Anthony TSANG Kwok-leung

F 助理署長／操作維修
Assistant Director/Operations and Maintenance
何耀光先生 Mr. HO Yiu-kwong

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

組織架構

本署設有4個分科，包括污水處理服務科、操作維修科、設計拓展科及機電工程科，下設15個不同功能的分部。此外，總部另設部門行政部、財務及物料供應部及技術支援部，分別負責行政、會計及技術支援工作。截至2019年3月，編制有1,986個常額職位。

Organisational Structure

DSD consists of four branches, including Sewage Services Branch, Operations and Maintenance Branch, Projects and Development Branch and Electrical and Mechanical Branch and 15 subordinate functional divisions. 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 March 2019, we have a permanent staff establishment of 1,986.

4個分科各由一位助理署長領導，負責提供所屬範疇的技術及專業支援服務。各分科的職責如下：

- **設計拓展科**
  負責實施基本工程項目，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。

- **操作維修科**
  負責全港雨水排放及污水收集系統的操作和維修、防洪、策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。

- **機電工程科**
  負責污水處理及防洪設施的運作及維修，以及為部門轄下的污水處理及防洪項目提供機電設計和裝置。

- **污水處理服務科**
  負責推展包括淨化海港計劃等污水處理及收集系統和工程及徵收排污費。

Each of the four branches is led by an Assistant Director and is responsible for providing technical and professional support services in its specific field. The duties of each branch are as follows:

- **Projects and Development Branch**
  is responsible for the implementation of capital works projects, which include the design and construction of drains, flood control and relief works, sewerage network and sewage treatment facilities.

- **Operations and Maintenance Branch**
  is responsible for the operation and maintenance of the drainage and sewerage systems in the territory as well as flood protection, planning of drainage and sewerage systems, enforcement of Land Drainage Ordinance and the management and maintenance of engineered drainage channels.

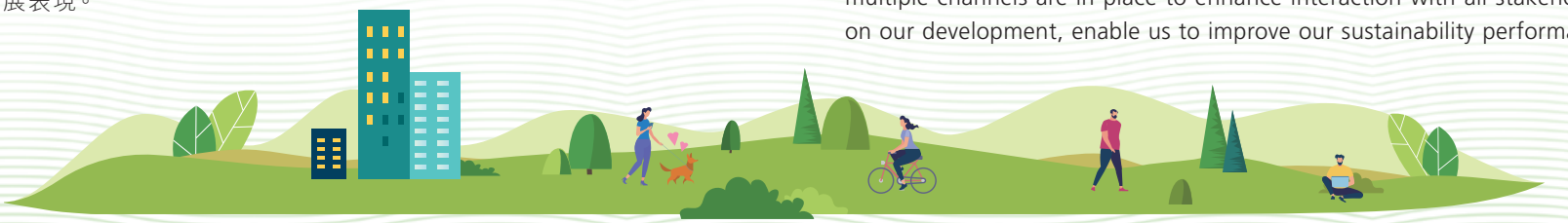
- **Electrical and Mechanical Branch**
  is responsible for the operation and maintenance of sewage treatment and flood protection facilities as well as electrical and mechanical design and installation works in sewage treatment and flood protection projects of the Department.

- **Sewage Services Branch**
  is responsible for the implementation of sewerage and sewage treatment projects including the Harbour Area Treatment Scheme and collection of sewage charges.

可持續發展管理
Sustainability Management

在高級管理層的帶領下，本署已建立可持續發展的管理架構，探討多個可持續發展議題，提出適切建議以及監督相關工作。本署亦積極採用合適的國際標準及管理系統，為管理模式注入新元素，妥善管理風險，並設立多個溝通渠道，加強與持份者交流，聽取並回應他們對本署發展的意見，讓本署持續提升可持續發展表現。

Under the leadership of the senior management, DSD has established a sustainability management structure to address various topics specific to sustainable development, and to provide appropriate recommendations as well as supervise the related initiatives. We also actively adopt suitable international standards and management systems and invigorate our management approach with innovative ideas. Risks are properly managed and multiple channels are in place to enhance interaction with all stakeholders, and for us to address their feedback on our development, enable us to improve our sustainability performance continuously.



管理架構

我們設立了3個專責委員會及2個工作小組，包括：

- **環保管理委員會**

  環保管理委員會由副署長領導，負責檢討環境管理政策、擬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。

  報告期內，委員會共召開2次會議，深入討論節能、綠化、減排、減廢等議題及檢視環保工作的進度。

- **安全督導委員會**

  安全督導委員會由副署長領導，負責監察工地的安全表現、制訂工地的安全標準及指引、擬定改善措施及審視其成效和執行進度。

  報告期內，委員會共召開2次會議，討論本署轄下設施及工地的安全表現、職業安全與健康（職安健）的內部和外部審核，以及職安健培訓課程和推廣活動等議題。

- **研究及發展督導委員會**

  研究及發展督導委員會由副署長領導，專責進行研究以支持部門的發展計劃。委員會設有2個小組，分別統籌土木工程和機電工程的研究工作。

  報告期內，委員會共召開6次會議，並統籌渠務署2018研究及發展論壇。年內，本署共完成11個研究項目，課題涵蓋藍綠建設、喉管物料、新工程合約、研究沼氣燃料電池在污水處理廠使用的可行性、廚餘與污泥共厭氧消化的運作條件、薄膜光伏板的性能評估和比較等。

- **能源及排放管理小組**

  節能減排是本署重點關注的環保議題。能源及排放管理小組由助理署長／機電工程領導，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。

Management Structure

We have set up three committees and two working groups, including:

- **Green Management Committee**

  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 initiatives.

  During the reporting period, the Committee held two meetings discuss issues on energy saving, greening, emission reduction and waste reduction in detail, and reviewed the progress of the environmental initiatives.

- **Steering Group on Safety**

  Chaired by the Deputy Director, the Group is responsible for supervising the safety performance of DSD sites, establishing safety standards and guidelines at sites, formulating improvement measures, and evaluating the execution and effectiveness of the undertakings.

  During the reporting period, the Committee held two meetings to discuss topics including the safety performance of the facilities and construction sites under DSD, internal and external audit of Occupational Safety and Health (OSH) and OSH training and promotion programmes.

- **Research and Development Steering Committee**

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

  During the reporting period, the Committee held six meetings and organised DSD Research & Development Forum 2018. In the year, DSD completed a total of 11 research projects on topics covering Blue-Green Infrastructure, pipe material, New Engineering Contract, study on the feasibility of using biogas-fuelled fuel cell in sewage treatment works, a study on the operating conditions for co-digestion of food waste with sewage sludge, performance evaluation and comparison of thin film photovoltaic panels, etc.

- **Energy and Emission Management Team**

  Energy saving and emission reduction are key environmental issues addressed by DSD. Chaired by the Assistant Director/Electrical and Mechanical, the Team helps improve DSD's energy and emission performance through identifying emission sources, benchmarking performance, implementing improvement measures, and sharing professional knowhow.

報告期內，小組共召開2次會議，討論節能措施及目標、再生能源應用等議題。

- **可持續發展報告工作小組**
  可持續發展報告工作小組由副署長領導，每年第一季會召開會議就編製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指引、訂定持份者參與活動計劃及確認實質性議題等。

綜合管理體系

本署自2002年開始建立和落實符合國際標準的管理體系，至今已實施多套系統組成的綜合管理體系，涵蓋範疇包括品質、環境、職業安全與健康。

我們秉持管理體系的「規劃－實施－檢查－行動」原則，不斷追求自我完善。年內，ISO 9001品質管理體系及ISO 14001環境管理體系已順利升級至新版本ISO 9001:2015及ISO 14001:2015。另一方面，我們將展開對職業安全衛生管理體系OHSAS 18001的內部檢討，務求於2021年3月截止日期前順利提升至ISO 45001:2018新標準的要求。

為更有效應對自然環境轉變、氣候變化及城市擴展帶來的挑戰，我們竭力優化資產管理以降低成本。自2013年起，本署分階段實施資產管理體系，加強管理轄下設施。在2019年7月，除6所由「設計、建造和營運」合約下營運或正處於提升工程的污水處理廠及污水泵房外，本署轄下的污水處理廠、污水泵房及雨水泵房已通過ISO 55001資產管理標準認證審核，使本署成為首批獲得該認證的政府部門之一。

During the reporting period, the Team held two meetings to discuss various topics, including energy conservation measures and targets, and applications of renewable energy, etc.

- **Taskforce on Sustainability Reporting**
  Chaired by the Deputy Director, the Taskforce holds meeting in the first quarter every year and gives comments and makes decisions in relation to the preparation of the sustainability report. These include determining the choice of international guidelines to be adopted for reporting, defining stakeholder engagement plans, and identifying material topics, etc.

Integrated Management System

DSD has begun establishing 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 safety and health.

We adhere to the "Plan-Do-Check-Act" approach of the management systems and strive for continuous self-improvement. During the year, the ISO 9001 Quality Management System and ISO 14001 Environmental Management System were upgraded to the new standards of ISO 9001:2015 and ISO 14001:2015 successfully. On the other hand, an internal review will be conducted on the OHSAS 18001 Occupational Health and Safety Management System with a mission to facilitate smooth transition to meet the requirements of the new standards of ISO 45001:2018 before the deadline in March 2021.

We strive to optimise asset management to reduce costs to better address the challenges posed by natural environmental change, climate change and urban sprawl. Since 2013, DSD has been implementing in stages an Asset Management System (AMS) to enhance management of our facilities. In July 2019, all DSD-owned sewage treatment works (STWs), sewage pumping stations (SPSs), and stormwater pumping stations, except six STWs and SPSs which are being operated under "Design – Build – Operate" contracts or being under upgrading projects, passed the certification audit for ISO 55001 AMS standard, making us one of the first government departments to obtain such accreditation.

渠務署主要職責

第四章 CHAPTER 4

Our Core Responsibilities

本署一直致力為市民提供專業的污水處理及雨水排放服務，以保護香港水域水質和保障市民免受水浸影響。本署自1989年成立至今，矢志建造優質污水處理及排水設施，使香港成為更宜居城市。

DSD is committed to providing professional sewage treatment and stormwater drainage services to the public so as to protect the quality of Hong Kong waters and protect citizens against flooding. Since our establishment in 1989, we have been endeavouring to build excellent sewerage and drainage facilities to make Hong Kong a more liveable city.

昂船洲污水處理廠
Stonecutters Island
Sewage Treatment Works

啟德河
Kai Tak River

跑馬地地下蓄洪池
Happy Valley Underground Stormwater Storage Tank

2018-19年度防洪概要 Overview of Flood Prevention in 2018-19

在防洪工作上，本署主要按國際標準設計及建造雨水排放系統，並定期進行檢查及維修工作，確保轄下設施妥善運作。2018-19年度，本署繼續推行多項防洪工程，亦正分階段檢討各區的雨水排放整體計劃，以提升相關地區的防洪能力及配合香港未來發展。

2018年氣候驟變，颱風暴雨頻繁。超強颱風山竹9月襲港期間引發風暴潮，導致多個沿海地區嚴重水浸，令防洪工作更具挑戰。

2018年年內的總降雨量約為2,163毫米，略低於1981至2010年約2,400毫米的平均值約10%。2018年，香港天文台共發出4次紅色及19次黃色暴雨警告信號。年內，有6個熱帶氣旋引致香港天文台發出熱帶氣旋警告信號，接近長期年平均；當中三號強風信號共發出5次。而在9月山竹吹襲本港期間，天文台曾發出十號颶風信號。

In view of flood prevention, DSD makes reference to international standards for the design and construction of drainage facilities, and carries out regular inspections and maintenance works to ensure proper operation of our facilities. In 2018-19, DSD continued to implement various flood prevention projects. In addition, we are reviewing the Drainage Master Plans (DMPs) of various districts in stages, as to upgrade their flood protection level and tie in with Hong Kong's future development.

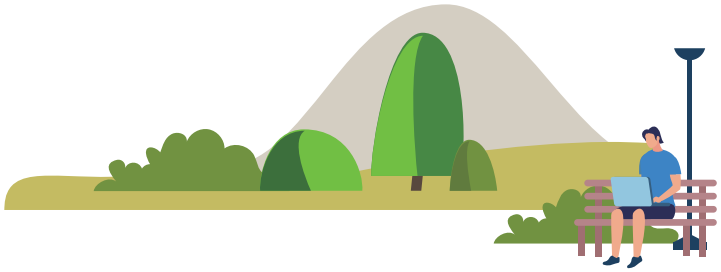
There were drastic climate changes in 2018, with frequent typhoons and rainstorms. The storm surge caused by Super Typhoon Mangkhut, which hit Hong Kong in September, led to severe flooding in many coastal areas of the city and posed new challenges to our flood prevention works.

The annual total rainfall in 2018 was about 2,163 millimetres, slightly lower than the mean annual total rainfall of about 2,400 millimetres by approximately 10% between 1981 and 2010. In 2018, the Hong Kong Observatory (HKO) issued four Red and 19 Amber Rainstorm Warnings Signals. During the year, six tropical cyclones necessitated the issuance of tropical cyclone warning signals, similar to the long-term average in a year. HKO issued tropical cyclone warning signal No. 10 during the passage of Mangkhut in September, while issued five tropical cyclone warning signals No. 3.

於屯門嘉和里的防洪牆
Flood walls at Kar Wo Lei, Tuen Mun

在排水口安裝止回閥阻止海水倒灌
Installation of flap valves at drainage outlets to prevent backflow of seawater

大澳可拆卸式擋水板
Demountable flood barriers at Tai O



山竹帶來的嚴重風暴潮，令本港當日的水位普遍升高超過兩米，並於多區錄得破紀錄的風暴潮。2018年9月16日下午鰂魚涌於維多利亞港內的潮位最高升至海圖基準面以上3.88米，是自1954年有儀器記錄以來的第二高，僅次於1962年超強颱風溫黛襲港期間錄得的海圖基準面以上3.96米。

為紓緩超強颱風山竹為香港帶來的水浸風險，在颱風襲港前，本署已加強巡查及清理主要渠道及進水口，尤其是水浸黑點，以確保渠道暢通。此外，我們亦識別了一些容易受海水倒灌影響而出現水浸的沿岸低窪地區，包括大澳、鯉魚門及西貢南圍等。渠務署亦聯同其他政府部門為相關地區建造了防洪設施，包括裝設擋水板及止回閥、建造防洪牆等。而政府亦為上述地區設立風暴潮預警系統，當收到天文台發出的風暴潮預警後，本署會在有關地點進行緊急水浸緩解工作，以減少水浸的影響。以大澳為例，本署於颱風來臨前已派駐十多人留守大澳，在河堤上通宵加裝可拆卸式擋水板，提升河堤的防洪能力，以及應付緊急工作。

在暴雨期間，我們於8號烈風或暴風信號生效前已啟動緊急應變控制中心。本署並派遣了超過30隊應變小隊，動員合共接近120位同事，於較容易受水浸影響的地點駐守候命，以便及時檢查及疏通渠道、減低水浸風險。

The severe storm surge brought by Mangkhut raised the water level generally by more than two metres, resulting in unusually high water levels in many places in Hong Kong. On the afternoon of 16 September 2018, the water level at Quarry Bay rose to a maximum of 3.88 metres above Chart Datum (mCD), the second highest since instrumental water level measurement started in 1954, and only lower than the record high of 3.96 mCD set by Super Typhoon Wanda in 1962.

To minimise the flooding risk arising from Super Typhoon Mangkhut, DSD stepped up inspections and clearance of major drainage channels and inlets, particularly at flooding blackspots, to ensure the drains were free from obstructions. DSD had identified several low-lying coastal areas that are susceptible to tidal back flow, such as Tai O, Lei Yue Mun and Nam Wai in Sai Kung. DSD worked with other government departments and installed flood prevention facilities, such as installation of flood barriers and non-return flap valves, and construction of flood walls, etc. The Government had also established an early alert system for the above locations. When storm surge alerts were issued by HKO, DSD immediately implemented emergency flood relief measures at relevant locations with an aim to alleviate the flooding impact. Taking an example in Tai O, before the arrival of the typhoon, DSD deployed over 10 staff in Tai O for the installation of demountable flood barriers overnight in order to enhance the flood protection capacity of the river wall and to handle the emergency situation.

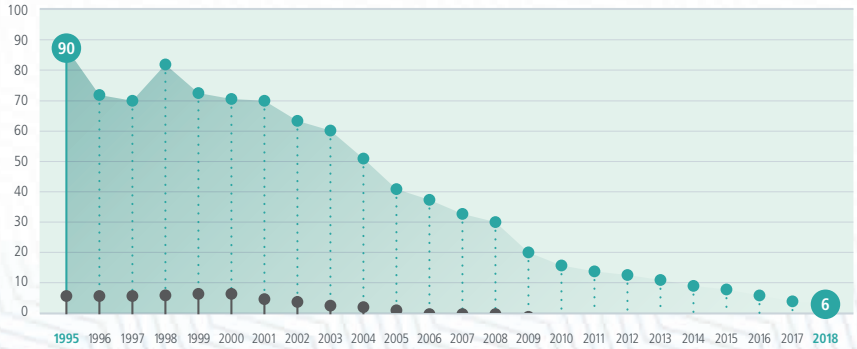
During the severe weather and before the Tropical Cyclone Warning Signal No. 8 was in force, we activated the Emergency Control Centre. Contingency teams were also deployed by DSD to stand by at the locations prone to flooding, to ensure that inspections and drain clearance would be conducted in time to reduce flooding risk. Around 120 staff in 30 teams were mobilised.

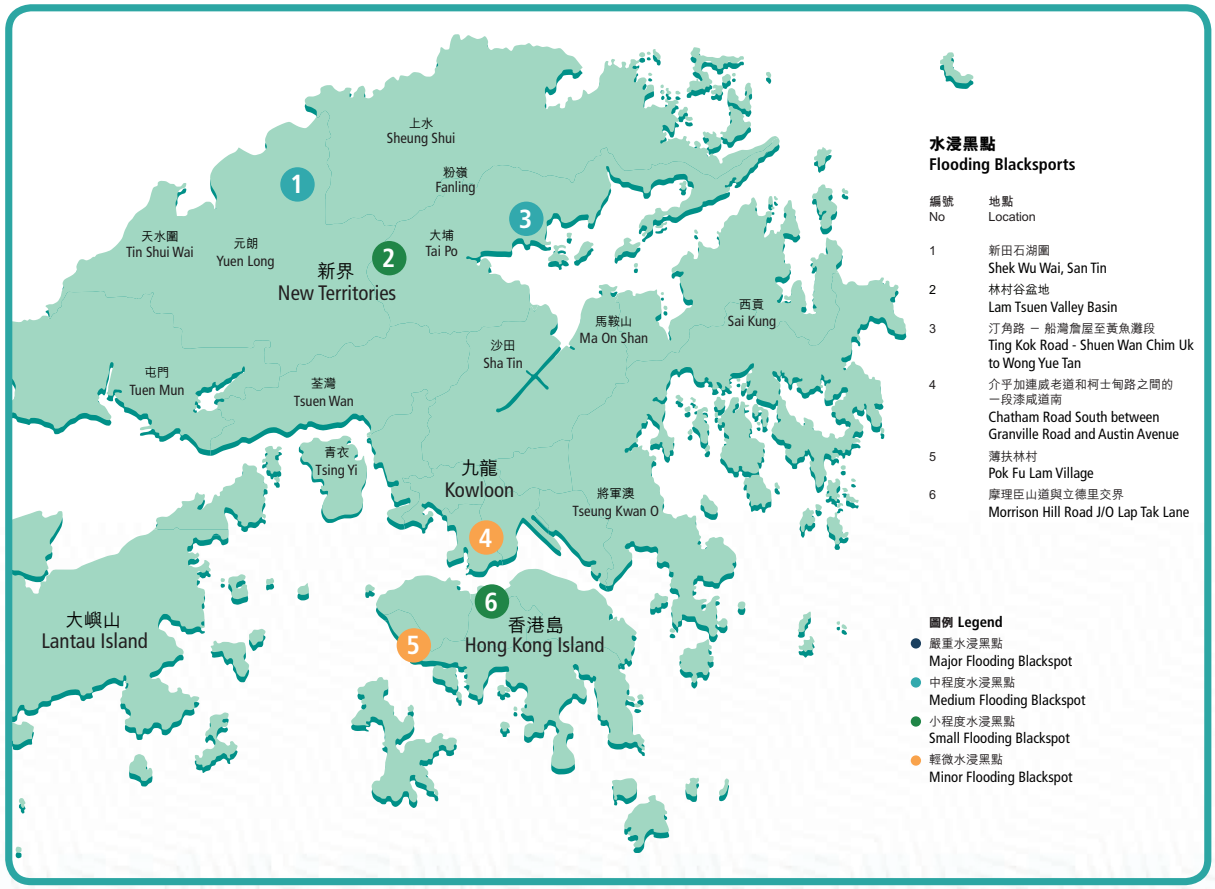
持續監察水浸黑點
Close Monitoring of Flooding Blackspots

我們於過去一年進行了不同的排水系統改善工程，並於2019年年初為各項已完成的排水系統改善工程進行成效評估。現時全港剩餘6個水浸黑點，餘下水浸黑點中，2個黑點的改善工程經已完成，我們現正監察工程成效。此外，為盡早剔除所有水浸黑點，其餘4個黑點的第一階段改善工程已完成；我們現正規劃和設計下一階段工程，並會在雨季期間密切監察該等地區的排水情況。

Last year, we implemented various drainage improvement works, evaluation was done on the effectiveness of each completed drainage improvement works at the beginning of 2019. At present, Hong Kong still has six flooding blackspots have not been removed, two of the remaining six flooding blackspots have had drainage improvement works commissioned and the effectiveness is being monitored. In order to remove all the flooding blackspots as early as possible, the first stage improvement works for the other four blackspots was completed while the next stage improvement works are under planning and design. We will closely monitor the drainage condition in these areas during the rainy season.

水浸黑點總數
Total Number of Flooding Blackspots





風暴潮點和越堤浪點
Storm Surge Spots and Overtopping Wave Spots

本署根據過往紀錄，識別了7個因颱風所引起的風暴潮導致海水上升時容易出現海水淹浸的風暴潮點和3個因海浪超越海堤而容易出現水浸的越堤浪點。現時，渠務署已積極與有關部門制定相應措施。

Based on records, DSD has identified seven Storm Surge Spots, which are vulnerable to seawater inundation due to rise of sea level caused by storm surge during typhoon and three Overtopping Wave Spots, which are vulnerable to flooding due to wave overtopping the seawall. DSD has formulated measures to combat the problems with other departments.

風暴潮點
Storm Surge Spots

1.	大澳	Tai O
2.	屯門聯安新村	Tuen Mun Luen On San Tsuen
3.	屯門嘉和里	Tuen Mun Kar Wo Lei
4.	深井新村	Sham Tseng San Tsuen
5.	鯉魚門	Lei Yue Mun
6.	西貢南圍	Sai Kung Nam Wai
7.	元朗西北沿岸低窪地區	Yuen Long North West Low-lying Coastal Area

越堤浪點
Overtopping Wave Spots

1.	將軍澳南	Tseung Kwan O South
2.	杏花邨	Heng Fa Chuen
3.	海怡半島	South Horizons

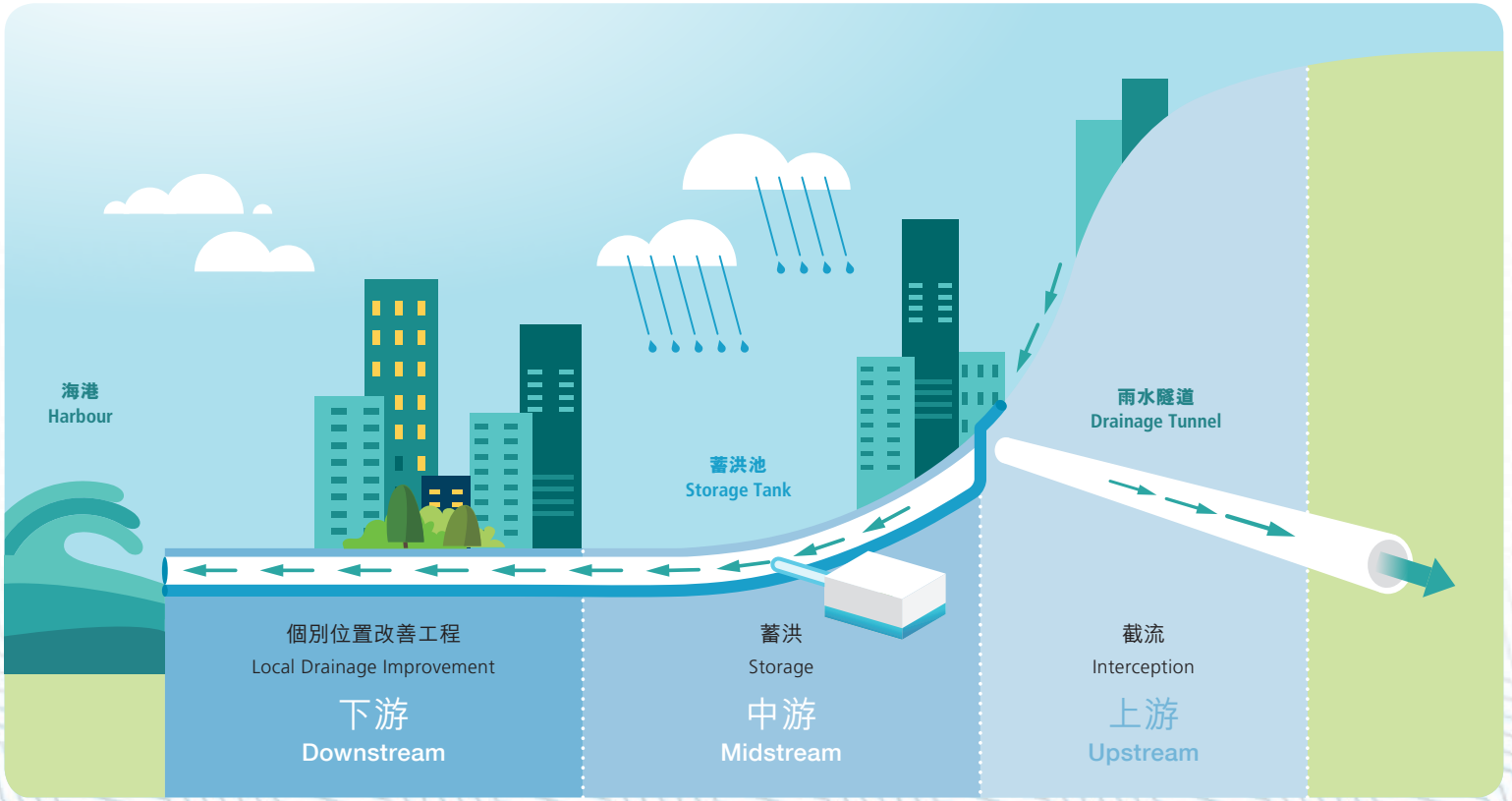
香港整體防洪策略 Overall Flood Prevention Strategy of Hong Kong

隨着城市化發展、地面徑流劇增及洪泛平原減少，令低窪地帶或沿海地區有機會出現水浸情況。為解決不同地方的水浸問題，本署按不同地勢特點制訂策略，利用「防洪三招」，即截流、蓄洪、疏浚的方法，有效減低因暴雨引致的水浸風險。

Compounded by urbanisation, increases in surface runoff and reduction of flood plains leads to flooding problems in the low-lying areas and coastal areas. To address the flooding problem in various places, we have developed a "three-pronged flood prevention strategy", i.e. stormwater interception, flood storage and drainage improvement, which has proven to be effective in mitigating the flood risk arising from heavy rains.

防洪三招

Three-pronged Flood Prevention Strategy



截流
Stormwater Interception

在半山建造雨水排放隧道，以截取中上游雨水，將之直接排入大海或其他河道和渠道
Building drainage tunnels to intercept stormwater from the mid-levels and discharge it directly into the sea or to other channels and drains

蓄洪
Flood Storage

在中游地區建造蓄洪池以暫存部分雨量，減低下游洪峰流量
Building storage tanks in the midstream for temporary stormwater storage to relieve the discharge load of the downstream drainage system

疏浚
Drainage Improvement

在原有河道進行治理工程或興建排洪河道和渠道，直接提升雨水排放系統的防洪能力
Carrying out river training works or build new drainage channels and drains to upgrade the capacity of drainage system

海綿城市

為配合香港的可持續發展及應對氣候變化帶來的挑戰，本署近年參照「海綿城市」概念，以「順應自然，彈性適應」的方式，促進雨水滲透到地底，以蓄洪、滯洪的方式減少地面徑流，並收集部份雨水重用，以優化城市的水循環，提高城市的耐洪能力。

Sponge City

To support the sustainable development of Hong Kong and respond to rising challenges of climate change, we introduced the "Sponge City" concept of "following the nature with resilience" to facilitate stormwater infiltration and reduce surface runoff through flood storage and retention. Part of the stormwater is collected and reused in an attempt to optimise water recycling across the city and enhance the flood resilience level of the city.

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

防治洪患，暢通的雨水排放系統是不可或缺的。全港約有2,400公里的地下雨水渠、360公里的人工河道、21公里的雨水排放隧道，以及4個地下蓄洪池，均由本署管理。年內，我們檢查逾2,310公里的雨水渠及河道，較2018-19年度計劃檢查的雨水渠及河道的總長度多約23公里。除了進行定期檢查及維修保養工作外，我們亦定期檢測設施的功能和結構，以及在雨季前後清理淤塞物。

A clear and well maintained drainage system is a prerequisite to flood prevention. There are about 2,400 kilometres of underground stormwater drains, 360 kilometres of engineered channels, 21 kilometres of drainage tunnels, and four underground stormwater storage tanks in Hong Kong, all managed by DSD. During the year, we inspected over 2,310 kilometres of drains and rivers, which is about 23 kilometres longer than the total length of drains and rivers planned for inspection in 2018-19. Apart from regular inspections and preventive maintenance works, we also conduct regular functional and structural checks and clear blockages before and after the rainy season.

緊急事故及應變措施

- 緊急事故及暴風雨應變組織24小時運作，以統籌緊急事故的信息發放和資源調配事宜，並負責與政府其他緊急應變單位協調

Emergency and Response

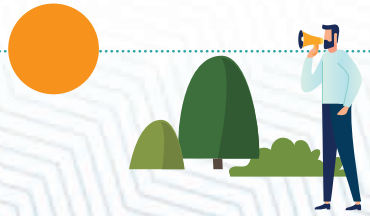
- Emergency and Storm Damage Organisation (ESDO) operates round the clock to coordinate the dissemination of information relating to emergencies and allocation of resources, as well as to liaise with other government emergency units

截流

- 在上游截取雨水，改變雨水流向，將之直接排出大海或河溪，從而大幅降低下游地區的水浸風險
- 避免在下游市區進行大規模排水改善工程，從而減低對交通及公眾的影響
- 現有4條總長約21公里的雨水排放隧道（包括啟德雨水轉運計劃、港島西雨水排放隧道、荔枝角雨水排放隧道、荃灣雨水排放隧道）已運作多年

Interception

- Stormwater is intercepted upstream and diverted for direct discharge to the sea or rivers, thereby substantially mitigating the flood risk in downstream areas
- Obviate the need for large-scale drainage improvement works in downstream urban areas, thereby reducing the impacts on traffic and the public
- Four drainage tunnels (including Kai Tak Transfer Scheme, and Hong Kong West, Lai Chi Kok and Tsuen Wan Drainage Tunnels) totaling about 21 kilometres in length have been in operation for many years



蓄洪

- 暴雨期間，市區部分雨水會引流至蓄洪池暫存，以紓緩下游地區排水系統的壓力
- 現時，大坑東、上環、跑馬地及安秀道共4個蓄洪計劃已投入運作
- 為進一步紓緩九龍區的水浸風險，本署已制訂不同的雨水蓄洪方案，並計劃下一步的勘察工作

Flood Storage

- During heavy rainstorms, some stormwater in urban areas is diverted to storage tanks for temporary storage to relieve the burden of downstream drainage systems
- Four stormwater storage schemes at Tai Hang Tung, Sheung Wan, Happy Valley and On Sau Road are now in operation
- To further alleviate the flood risk in Kowloon, various stormwater storage schemes have been formulated and planned for further investigation

疏浚

- 進行排水系統改善工程，拉直、擴闊和挖深河道，以及建造或擴大地下排水渠
- 至今已改善逾100公里河道，另提升約94公里排水渠

Drainage Improvement

- Drainage improvement works are carried out to straighten, widen and deepen rivers and to construct or enlarge underground drains
- Over 100 kilometres of rivers have been improved and about 94 kilometres of drains upgraded to date

鄉村防洪計劃

- 在低窪村落四周興建防洪基堤，並於村內建造蓄洪池及雨水泵房，在暴雨期間暫時將雨水貯存，並在暴雨後將雨水抽走
- 現有27個鄉村防洪計劃，為35條低窪鄉村提供防洪保護

Village Flood Protection Schemes

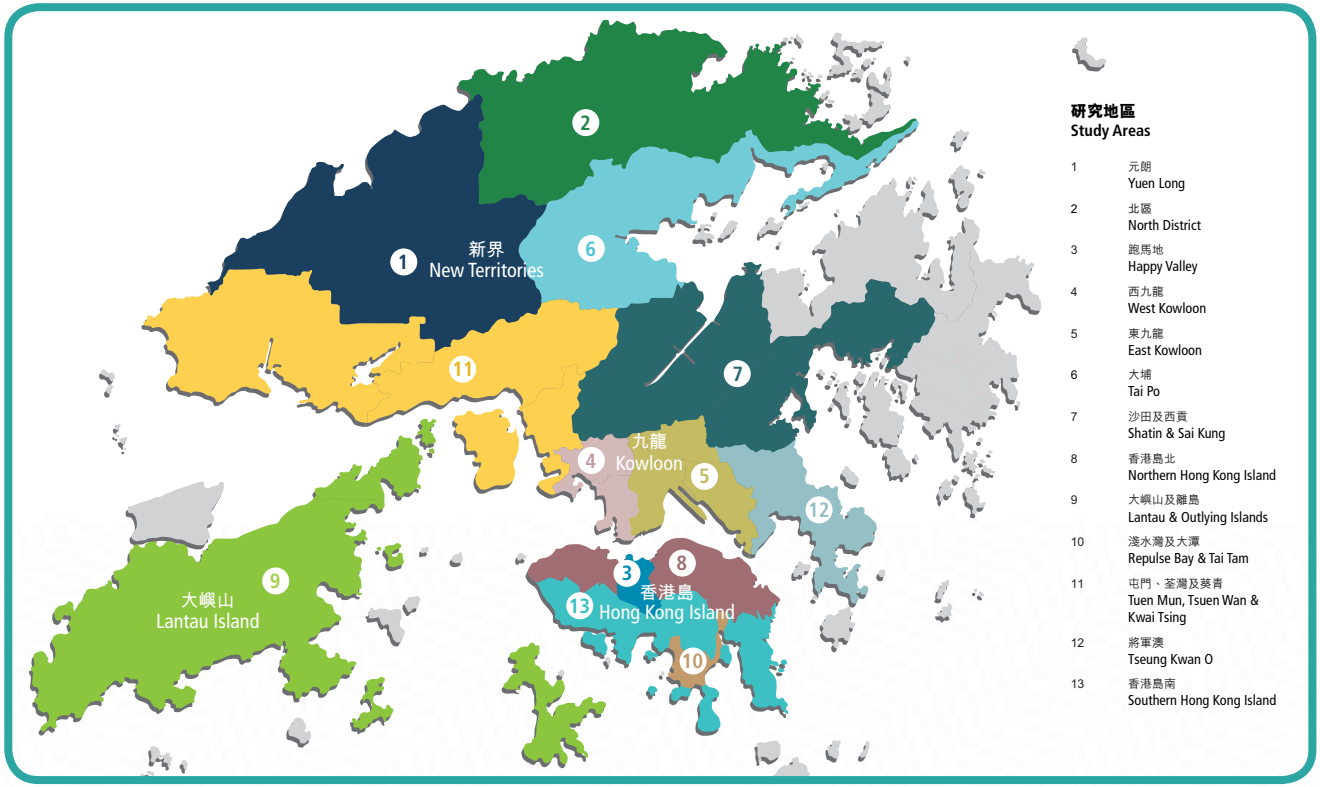
- Construct embankments around low-lying village and build flood storage ponds and stormwater pumping stations in villages for temporary storage of stormwater during heavy rainstorms and subsequent discharge by pumping
- 27 Village Flood Pumping Schemes are currently in operation, providing flood protection for 35 low-lying villages

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

雨水排放整體計劃檢討研究 Drainage Master Plan Review Study

為配合香港未來發展及應對氣候變化帶來的威脅，本署就全港地區進行了雨水排放整體計劃檢討研究和雨水排放研究。繼元朗及北區的檢討研究和跑馬地的雨水排放研究於2011年完成後，跑馬地的改善工程於2017年全面啟用。西九龍及東九龍的雨水排放整體計劃檢討研究亦於2015年完成，改善工程正在籌劃中。大埔、沙田及西貢的檢討研究和香港島北的檢討研究也分別於2017年及2019年完成。

To tie in with Hong Kong's future development and adapt to rising challenges of climate change, we have conducted DMP review studies and drainage studies on the whole territory of Hong Kong. The review studies of DMPs for Yuen Long and North District and the drainage study for Happy Valley were completed in 2011, whereas the improvement works at Happy Valley have been fully commissioned since 2017. The studies for West Kowloon and East Kowloon were also completed in 2015 and the proposed improvement works are under planning. The review studies for Tai Po, Shatin and Sai Kung and the review study for Northern Hong Kong Island were also completed in 2017 and 2019 respectively.



目前進度 Current Progress

現時，在元朗及新界北區研究建議的改善工程正在設計中，而西九龍及東九龍建議的改善工程亦在籌劃中。在沙田及西貢建議的改善工程已於2019年展開勘查研究工作。而在大埔及港島建議的改善工程則擬於2020年展開勘查研究工作。大嶼山及離島區和屯門、荃灣及葵青區的2項雨水排放整體計劃檢討研究，以及淺水灣及大潭的雨水排放研究目前正在進行中。

At present, the improvement works proposed on the studies for Yuen Long and North District in the New Territories are under the design stage. The proposed improvement works for West Kowloon and East Kowloon are also under the planning stage. The investigation of the proposed improvement works in Sha Tin and Sai Kung commenced in 2019 while the investigation of the proposed improvement works in Tai Po and Hong Kong Island is targeted to commence in 2020. The two DMP review studies of Lantau and Outlying Islands, and Tuen Mun, Tsuen Wan and Kwai Tsing, and the drainage study for Repulse Bay and Tai Tam, are currently underway.

啟德河改善工程（上游及中游段）

為提升東九龍的防洪能力，蒲崗村道至太子道東一段長約1.1公里的啟德河已完成重建及修復工程，包括將河床挖深，以及在彩虹道地底加建長400米的箱形暗渠。

Kai Tak River Improvement Works (upstream and midstream sections)

To improve the flood protection levels of East Kowloon, the improvement works of reconstructing and rehabilitating the 1.1 kilometres section of the Kai Tak River from Po Kong Village Road to Prince Edward Road East have been completed. The works involved deepening of the riverbed and constructing a 400 metres long box culvert underneath Choi Hung Road.

改善工程前（左）和改善工程後（右）的啟德河
Kai Tak River before (left) and after (right) the improvement works

目前進度 Current Progress

改善工程於2011年10月起分階段動工，並已於2018年6月完成。整項工程費用約28億元。現時啟德河的排洪能力已達到現行防洪設計標準，以緩解黃大仙及新蒲崗一帶的水浸風險。

渠務署亦把握機遇，加入不同綠化及生態元素於啟德河中，將其活化成市區綠化河道走廊，一併優化該處的城市景觀，為市民提供休憩景點，展現河道與鄰近地區的緊密連繫。

The improvement works commenced in stages since October 2011 and were completed in June 2018. The project cost is about $2.8 billion. At present, Kai Tak River meets the latest flood prevention design standards, alleviating the flood risks in Wong Tai Sin and San Po Kong areas.

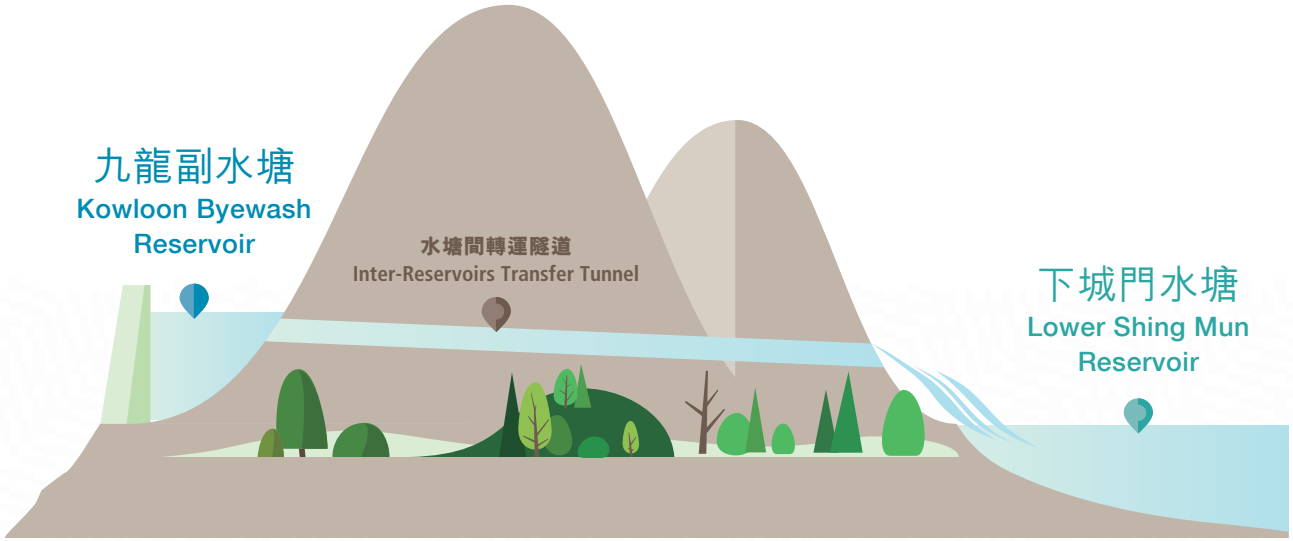
DSD has also taken this opportunity to inject various greening and ecological elements into Kai Tak River, thus revitalising it into an urban green river corridor. The living environment has been improved through enhancing the townscape of the area, provisioning of a scenic and leisure place for enjoyment of the public, as well as fostering closer connection between river and adjacent areas.

西九龍雨水排放系統改善計劃－水塘間轉運隧道計劃

為提升西九龍的防洪能力以應對氣候變化帶來的挑戰，我們正在興建一條全長約2.8公里的輸水隧道連接九龍副水塘與下城門水塘，把九龍水塘群接收的地面徑流轉運至下城門水塘。此水塘間轉運隧道計劃可額外提供每年約340萬立方米集水量，達到防洪及保護水資源的雙重目標。

West Kowloon Drainage Improvement – Inter-reservoirs Transfer Scheme

In an attempt to enhance the flood prevention capacity of West Kowloon to cope with the challenges posed by climate change, we are constructing a water tunnel with a total length of about 2.8 kilometres connecting Kowloon Byewash Reservoir and Lower Shing Mun Reservoir, which will transfer the surface runoff collected from the Kowloon group of reservoirs to Lower Shing Mun Reservoir. The Inter-reservoirs Transfer Scheme will generate an annual additional fresh water yield of about 3.4 million cubic metres with a view to achieving dual purposes in flood protection and water conservation.



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

目前進度 Current Progress

工程已於2019年2月展開，預計於2022年完成。整項工程預算費用約12.2億元。
The project commenced in February 2019 and is scheduled for completion in 2022. The estimated project cost is about $1.22 billion.

活化翠屏河

翠屏河原是貫穿翠屏道及敬業街旁的明渠，座落觀塘區中央，毗鄰民居及繁盛的工商業區。基於河道水景特質，翠屏河有利成為市區珍貴的河畔公共空間。除加強河道防洪能力外，活化翠屏河工程旨在改善環境、生態和景觀，把現有明渠活化成翠屏河，同時美化毗鄰的行人道，以及透過增建河邊步道和園景平台以加強行人通道間的連繫和易行度。我們期望將翠屏河活化成為市民欣賞河景和進行休閒活動的新地標。

Revitalisation of Tsui Ping River

Situated right at the heart of Kwun Tong, Tsui Ping River is a nullah running along Tsui Ping Road and King Yip Street. It is set in close proximity to residential, commercial and industrial areas. Given its unique waterscape, Tsui Ping River is well-positioned to become a valuable urban riverside leisure space for public enjoyment. In addition to enhancing flood prevention capacity, we are transforming the existing nullah into Tsui Ping River through environmental, ecological and scenic enhancement. The project also beautifies adjoining pavements as well as improves connectivity and walkability by providing riverside walkways and landscaped decks. We aspire to turn the existing nullah into a new landmark where the public can enjoy the river view and leisure activities.

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

目前進度 Current Progress

我們於2018年年中舉辦第二階段公眾參與活動，以蒐集公眾對計劃及最新活化方案的意見。項目的詳細設計已在2019年大致完成。^

We conducted the Stage 2 Public Engagement exercise in mid-2018 to collect public views on the project and the latest revitalisation plan. The detailed design of the project was substantially completed in early 2019.^

活化翠屏河計劃包括以下工程項目：
The works under the revitalisation of Tsui Ping River comprise the following:

1. 活化現有明渠－提供富吸引力的水景設計及河景設施
   Revitalisation of the existing nullah through the provision of attractive waterscape design and water features
2. 河上增建園境平台，提供休閒用地
   Provision of landscaped decks and amenity public space above the river
3. 加建河道兩旁及連接河道兩岸的行人通道，以加強行人通道間的連繫和易行度，使翠屏河成為社區的綠化河道走廊
   Provision of walkways along/across the river to enhance connectivity in order to transform Tsui Ping River into a green river corridor in the community
4. 改建及翻新現有鯉魚門道的行人天橋
   Modification of the existing footbridge across Lei Yue Mun Road
5. 美化翠屏河旁的街道
   Beautification of streets adjacent to Tsui Ping River

^ 視乎撥款進度、工程預計2020年年初展開，於2024年年初完成。整項工程預算費用約17.6億元。

^ Subject to funding approval, the works will commence in the early 2020 and target for completion in early 2024. The estimated project cost is about $1.76 billion.

2018-19年度污水處理概要
Overview of Sewage Treatment and Sewerage System in 2018-19

除了疏導雨水，收集、處理及排放本港日常產生的污水亦是本署核心服務之一。本署致力提供世界級污水處理服務，透過不同污水處理程序及先進技術，大大減低污染物排放。我們亦定期進行維修保養工作，確保污水收集、處理和排放設施有效運作。展望未來，我們會繼續擴大污水收集系統的覆蓋範圍，並持續改善污水處理設施，保護本港水域水質，促進香港可持續發展。

Apart from stormwater drainage, one of the core services of the Department is to collect, treat and discharge sewage generated daily in Hong Kong. DSD is committed to providing world-class sewage treatment services through adopting various sewage treatment processes and advanced technologies to significantly reduce the discharge of pollutants. We also carry out regular repair and maintenance works to ensure the effective operation of our sewerage, treatment and disposal facilities. Looking ahead, we will continue to expand the coverage of the sewerage system and to improve the sewage treatment facilities to protect the water quality within Hong Kong waters and promote the sustainable development of Hong Kong.

280萬 立方米
2.8 million cubic metres

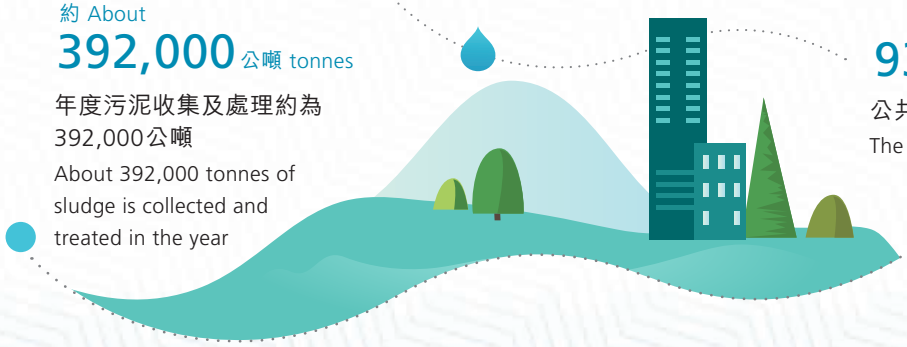
每日平均處理約280萬立方米污水，年度污水總處理量為10.28億立方米
Treatment of about 2.8 million cubic metres of sewage on average every day and 1,028 million cubic metres of sewage in total in the year

總長 Total length
1,890 公里 kilometres

污水收集網絡總長約1,890公里
Total length of sewerage network is around 1,890 kilometres

約 About
392,000 公噸 tonnes

年度污泥收集及處理約為392,000公噸
About 392,000 tonnes of sludge is collected and treated in the year



93.6%

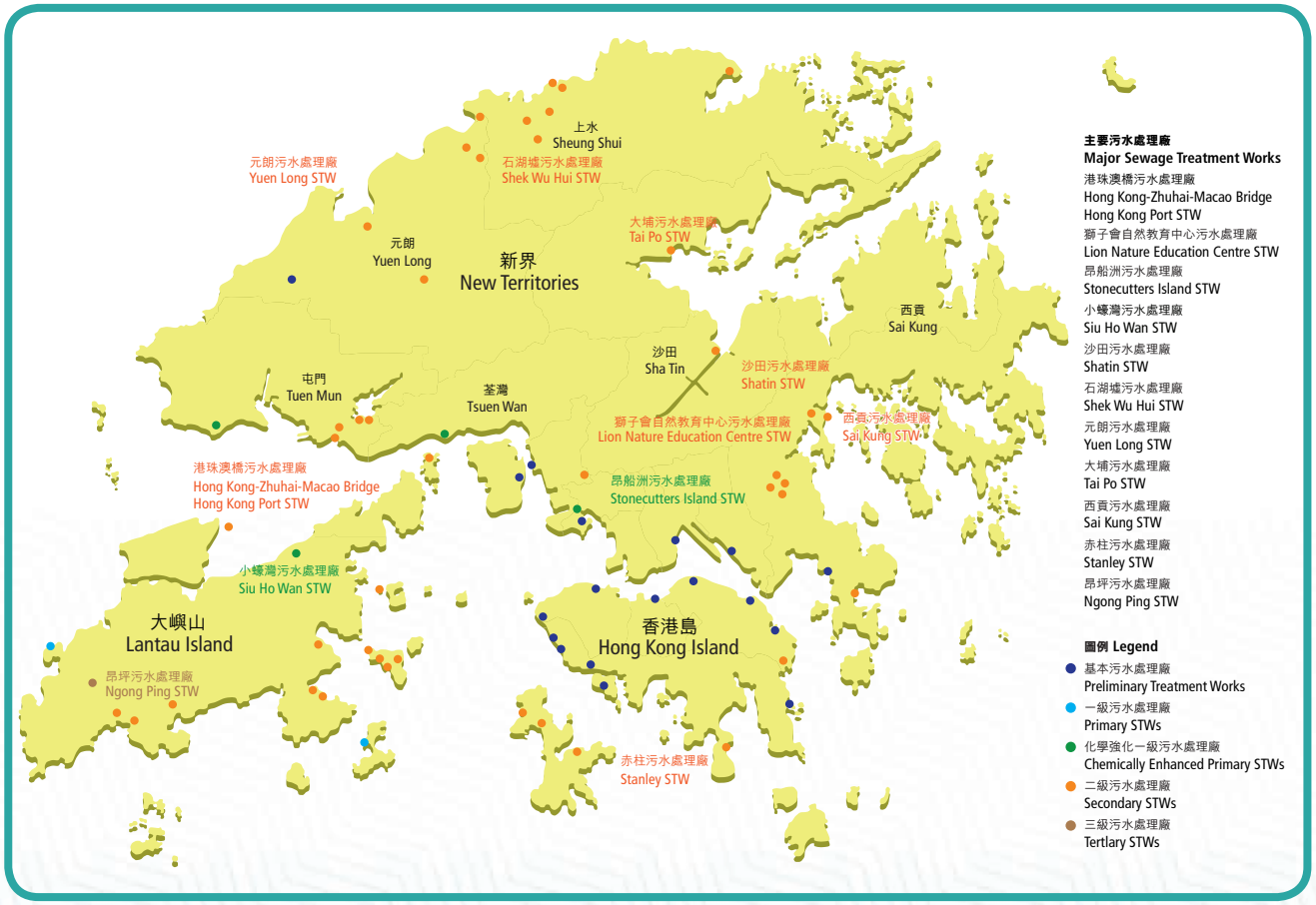
公共污水收集網絡服務約佔本港人口的93.6%[1]
The public sewerage network serves around 93.6% of Hong Kong's population[1]

共 Total
319 所

本署轄下共有319所污水處理設施
A total of 319 sewage treatment facilities are owned and operated by DSD

[1] 以有繳付排污費的住宅水務帳戶計算
Calculations based on the no. of domestic water bill accounts with sewage charges levied

2018-19年度污水處理廠位置圖
Location Map of Sewage Treatment Works in 2018-19



現時我們操作319所污水處理設施，當中包括69所污水處理廠和250所污水泵房。2018-19年度，我們共處理約10.28億立方米的污水，當中7.3%進行基本處理、73.0%進行化學強化一級處理、19.1%進行二級處理，餘下的0.6%污水進行一級和三級處理。

Currently, we are operating 319 sewage treatment facilities, including 69 sewage treatment works (STWs) and 250 sewage pumping stations (SPSs). In 2018-19, we treated 1,028 million cubic metres of sewage in total, of which 7.3% underwent preliminary treatment, 73.0% chemically enhanced primary treatment (CEPT), and 19.1% secondary treatments. The remaining 0.6% underwent primary and tertiary treatments.

73.0% 化學強化一級處理
Chemically Enhanced Primary Treatment (CEPT)

0.6% 基本及三級處理 Primary & Tertiary Treatment

19.1% 二級處理 Secondary Treatment

7.3% 基本處理 Preliminary Treatment

港珠澳大橋香港口岸污水處理廠
Hong Kong-Zhuhai-Macao Bridge Hong Kong Port Sewage Treatment Works

港珠澳大橋香港口岸（簡稱大橋香港口岸）位於香港國際機場東部的人工島。島上建有一座二級污水處理廠，於2018年9月開始運作，以處理島上的旅檢大樓、公共洗手間、政府部門辦公室等設施所收集的污水。其污水處理量約為每日2,700立方米，採用膜式生物反應器污水處理技術。污水會先經過25毫米、6毫米和2毫米的隔篩，接著除去污水裡的有機物，懸浮固體，氨氮，硝酸鹽及亞硝酸鹽氮，然後透過板式過濾膜淨化排放水。污水處理過程產生的污泥運往小蠔灣污水處理廠再作處理。

Hong Kong Boundary Crossing Facilities (HKBCF) is located on the artificial island at the east side of the Hong Kong International Airport. To treat the sewage produced from the passenger clearance building, public toilets and government offices, a secondary sewage treatment works was built on the artificial island and was commissioned in September 2018. The design capacity of the plant is about 2,700 cubic metres per day and the plant adopts the membrane bio-reactor (MBR) technology for sewage treatment. Sewage first passes through 25 millimetres, 6 millimetres and 2 millimetres screens. Then, organic matters, suspended solids, ammonia-nitrogen, nitrate and nitrite-nitrogen are removed from sewage by the MBR. Lastly, effluent is filtered by flat-sheet membranes. Sludge produced during sewage treatment is transported to Siu Ho Wan STW for further treatment.

港珠澳大橋香港口岸污水處理廠
Hong Kong-Zhuhai-Macao Bridge Hong Kong Port STW

在繼續保持高效率的污水收集、處理和排放服務之餘，我們同時會確保轄下設施符合訂立之環保目標。在先進科技和現代化設施的協助下，我們的專業團隊竭誠為香港提供世界級的污水收集和處理服務。

Our Department continues to maintain an efficient and effective operation with regard to sewage collection, treatment and disposal. At the same time, we ensure that our facilities meet with the set environmental protection objectives. Our team of professionals, aided by advanced technology and modern facilities, is working towards providing and delivering world-class sewage collection and treatment services for Hong Kong.

專業化驗分析服務
Professional Laboratory Services

為確保經處理的污水排放符合法例要求，專業的化驗服務至關重要。本署轄下設有多個化驗室，提供多個範疇的化驗服務。沙田中央化驗室及昂船洲化驗室於1999年獲創新科技署轄下的香港認可處頒發「香港實驗所認可計劃」(HOKLAS)證書，確認測試環境樣本（水及廢水）的認可資格。昂船洲化驗室更於2007年獲得測試化學樣本的認可資格，負責分析用於處理污水的化學品主要成分。利用全自動化的化驗室儀器，對營養物質、重金屬含量和生化需氧量作化學分析，以增加效率及減少人為引致的誤差。沙田中央化驗室於2017年獲得利用自動化生化需氧量分析儀測試的認可資格，是香港首間獲此認證的實驗室。

我們採用化驗室信息管理系統及商業智能軟件，令實驗室的工作流程自動化及實行電腦化管理。透過整合測試結果及廠方數據，有助監察排放水水質、加強決策和調控污水處理過程。

化驗室信息管理系統及商業智能軟件
Laboratory Information Management System and Business Intelligence Software

沙田中央化驗室
Sha Tin Central Laboratory

為了提高器械的準確性、有效監察污水處理過程的水質和效率，我們會定期收集樣本及分析污水，以確保經處理的污水符合排放標準。年內，本署轄下化驗室的認可測試項目達32項，並完成了超過260,000項分析。有關主要污水處理廠的排放水水質分析結果，可瀏覽本署網頁。

Professional laboratory services are imperative in ensuring treated sewage meets the statutory requirements. DSD operates a number of laboratories to provide various types of testing services. Since 1999, our Sha Tin Central Laboratory and Stonecutters Island Laboratory have been accredited for testing environmental samples (water & wastewater) under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) operated by the Hong Kong Accreditation Service of the Innovation and Technology Commission (ITC). The Stonecutters Island Laboratory has also gained a chemical testing accreditation which has allowed the analysis of the main components of chemicals applied in sewage treatment since 2007. To enhance laboratory efficiency and reduce human error, automatic analysers for nutrient tests, heavy metal tests and biochemical oxygen demand (BOD) tests have been installed in the Sha Tin Central Laboratory. HOKLAS accreditation of BOD tests using automatic BOD analyzers was obtained in 2017 and the Sha Tin Central Laboratory was the first laboratory in Hong Kong to grant the accreditation in this aspect.

The adoption of the Laboratory Information Management System (LIMS) and business intelligence software, not only helps us automate laboratory work flow, but also facilitates computerised management. The consolidation of laboratory results and operation data can assist us to monitor effluent quality, facilitate effective decision making, and control the sewage treatment process.

To improve the precision of instruments, monitor water quality in meeting specified discharge requirements and the efficiency of the sewage treatment process, we carry out regular sewage sampling and analyses. During the year, 32 of our laboratory test items were accredited and more than 260,000 analyses were conducted. The analytical results of effluent quality of major sewage treatment works can be found on our website.

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

淨化海港計劃
Harbour Area Treatment Scheme

淨化海港計劃是政府推行的最重要基建項目之一，旨在透過收集和處理維港兩岸污水，改善維港水質。計劃分兩期進行，建造工程歷時20載，總費用高達258億元。計劃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。

The Harbour Area Treatment Scheme (HATS) is one of the most important governmental infrastructure projects in Hong Kong, aiming to improve the water quality of Victoria Harbour by collecting and treating sewage from both sides of the harbour. The project was carried out in two phases, with construction works spanning two decades at a total cost of $25.8 billion. The facilities of HATS Stage 1 and Stage 2A were fully commissioned in December 2001 and December 2015 respectively.

淨化海港計劃佈局圖

Layout plan of Harbour Area Treatment Scheme

安裝中的一號主泵房新水閘

New penstock inside the Main Pumping Station No. 1 being installed

目前進度 Current Progress

為了提升淨化海港計劃整體的靈活性及穩定性，工程團隊經多月籌備及規劃，成功更換昂船洲污水處理廠一號主泵房內地下34米的兩台大型水閘。為了配合有關更換工程，部分已在上游基本污水處理廠經初步處理的污水會繞流排放至維多利亞港，有關污水繞流過程原先預計需在兩年間（即2018至2020年）分5次進行，每次繞流為期不超過兩星期。由於工程進度較預期理想，整項大型更換工程已於2019年3月的第三次繞流期間全面順利完成，並無需要進行原先預計分別要在2019年第四季及2020年第一季啟動的第四次及第五次繞流。

To improve the operational flexibility and stability of the entire HATS system, the project team spent months on the preparation and planning of the replacement of two large penstocks located at 34 metres below ground level, inside the Main Pumping Station No. 1 of the Stonecutters Island STW. To accomplish these replacement works, bypasses of the preliminarily treated sewage from the upstream preliminary treatment works into Victoria Harbour were to be carried out on up to five occasions, each not exceeding two weeks within two years (from 2018 to 2020). Since the progress of the works was not only satisfactory but beyond expectation, such large-scale replacement works were successfully completed during the third bypass in March 2019 and there is no need to carry out the fourth and fifth bypasses in the fourth quarter of 2019 and the first quarter of 2020 respectively as envisaged in the original plan.

梅窩污水處理廠改善工程
Upgrading of Mui Wo Sewage Treatment Works

舊有的梅窩污水處理廠於1985年啟用，為梅窩涌口、銀灣邨及梅窩碼頭一帶收集的污水提供二級處理。為配合預期的人口增長及擬議的鄉村公共污水收集系統擴展計劃所增加的污水流量，我們於2007年聘請顧問公司研究提升梅窩污水處理廠處理能力的可行性。研究建議梅窩污水處理廠的污水處理量應從每日約1,190立方米增加至每日約3,700立方米。

The previous Mui Wo STW was commissioned in 1985, and provided secondary treatment to sewage collected from Chung Hau area, Ngan Wan Estate and the Mui Wo Ferry Pier area. In order to cater for the forecasted increase in sewage flow due to the increase in population and extension of the village public sewerage system, we engaged a consultant in 2007 to investigate the feasibility of upgrading the design capacity of the Mui Wo STW. The investigation proposed that the design capacity of the Mui Wo STW should be increased from about 1,190 cubic metres per day to about 3,700 cubic metres per day.

目前進度 Current Progress

工程於2012年動工，並於2018年4月大致完成投入運作。整項工程費用約9.67億元。在工程進行期間，承建商需要保持梅窩污水處理廠正常運作，以確保處理後的水質不會受到影響。工程亦包括改善梅窩污水處理廠的污泥處理及除臭設施，以及梅窩污水處理廠的園林綠化工作。

Construction works commenced in 2012 and was substantially completed and commissioned in April 2018. The project cost is about $967 million. During the course of upgrading, the contractor was requested to maintain the operation of the Mui Wo STW to ensure the quality of sewage treatment. The project also includes upgrading the sludge treatment and deodourisation facilities, together with landscaping and greening of the Mui Wo STW.

梅窩污水處理廠
Mui Wo Sewage Treatment Works

吐露港地區污水收集系統建造工程
Tolo Harbour Sewerage of Unsewered Areas

我們在沙田及大埔進行污水系統工程，以改善吐露港水質及以上11個未有鋪設污水設施的地區的衛生情況。工程包括在沙田九肚建造一所污水泵房，以及為沙田和大埔分別9個和2個未鋪設污水設施的地區鋪設長約12公里的污水渠。

We are carrying out sewerage works in Sha Tin and Tai Po to improve both the water quality of Tolo Harbour and sanitation for 11 unsewered communities. The project involves building a sewage pumping station at Kau To, Shatin and laying about 12 kilometres of sewers for nine and two unsewered areas in Shatin and Tai Po respectively.

目前進度 Current Progress

工程於2013年動工，並於2018年12月完成。整項工程費用約3.64億元。

Construction works commenced in 2013 and completed in December 2018. The project cost is about $364 million.

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

為配合北區迅速發展，我們將分階段增加石湖墟污水處理廠的處理量，由每日93,000立方米增加至190,000立方米，並提升該廠的淨水設施至三級污水處理水平，確保排放符合更高的環境要求，保護后海灣的生態環境。我們亦藉此機會改善廠房外觀及環保表現，提升其水資源保育教學功能，使該淨水設施成為具代表性的多元化社區設施。

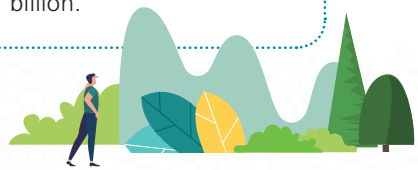
In line with the rapid development of North District, we will expand the treatment capacity of Shek Wu Hui STW from 93,000 cubic metres per day to 190,000 cubic metres per day in phases. The plant will be upgraded to an effluent polishing plant with tertiary treatment level. This is to ensure the discharge will comply with the stricter environmental requirements, thus protecting the ecological environment of Deep Bay. We will also take this opportunity to revamp its exterior, enhance its environmental performance and promote its educational function in water conservation so as to transform Shek Wu Hui STW into an iconic and multipurpose community facility.

目前進度 Current Progress

石湖墟淨水設施工程項目已分階段進行。前期工程於2015年年中展開，並於2019年完成。主體工程計劃分三階段進行，於2019年第三季展開，預計於2034年完成最終階段。前期工程、勘察及設計預算費用約5億元，而主體工程預算費用約132億元。

Shek Wu Hui Effluent Polishing Plant is executed in stages. Advance works was commenced in mid-2015 and completed in 2019. The Main Works will be implemented in three phases starting from the third quarter of 2019 targeting for completion of the final phase by 2034. The estimated cost for advance works, investigation and design is about $500 million and the estimated cost for Main Works is about $13.2 billion.

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



新圍污水處理廠改善工程第一期 Upgrading of San Wai Sewage Treatment Works Phase 1

隨着元朗、天水圍及洪水橋的人口增長，新圍污水處理廠的每日污水處理量將於工程完成後由原來約164,000立方米增至約200,000立方米。工程同時會將新圍污水處理廠的處理水平由基本處理提升至化學強化一級處理，並加設紫外線消毒，以提升西北水域的水質。

In light of the increasing population in Yuen Long, Tin Shui Wai and Hung Shui Kiu, the project will increase the treatment capacity of San Wai STW from existing about 164,000 cubic metres per day to about 200,000 cubic metres per day. It will also upgrade the existing preliminary treatment of San Wai STW to chemically enhanced primary treatment with ultraviolet disinfection in order to improve the water quality in the north western water.

目前進度 Current Progress

此工程合約採用「設計、建造及操作」模式，於2016年5月展開，預計於2020年完成。建造工程完成後，承建商將負責新圍污水處理廠為期達10-15年的營運及維修工作。整項工程預算費用約31.4億元。

The project, procured through a Design-Build-Operate (DBO) contract, commenced in May 2016 and is scheduled for completion in 2020. Upon completion of construction works, the contractor will undertake the operation and maintenance of the new San Wai STW for a period of 10-15 years. The estimated project cost is about $3.14 billion.

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

現時位於東涌及小蠔灣之間的加壓污水管是唯一的污水輸送渠管，負責把東涌區及機場島內收集所得的污水輸送至小蠔灣污水處理廠。該污水管道至今已使用了20年，接近其25年的設計壽命。為了配合香港國際機場和東涌新市鎮規劃的發展需求，增建一條加壓污水管實在刻不容緩，以便檢查及修復現有污水管，並提高污水收集系統的可靠性。

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，以及相關的接合和附屬工程。第二階段工程是修復現有加壓污水管。預計整項工程完成後，兩條加壓污水管可應付至2038年的污水流量。

The existing sewage rising main between Tung Chung and Siu Ho Wan is the only pipe for conveying sewage collected within the Tung Chung area and airport island to the Siu Ho Wan STW. It has been in operation for 20 years, and approaching its design life of 25 years. It is imperative to provide an additional sewage rising main to keep conveyance of the sewage, and thus allow inspection and rehabilitation of the existing one. Both rising mains are designed to meet the increased demand from the development of Hong Kong International Airport and Tung Chung New Town Extension, as well as enhancing the reliability of the sewage system.

The first works contract of the project includes the construction of sewage rising main of about 6.5 kilometres with a diameter of 1,200 millimetres and associated connection and ancillary works. The second works contract of rehabilitation works will follow upon completion of the new rising main. On completion of the works, the combined nominal capacity of the two rising mains will meet the sewage flows projected up to 2038.

目前進度 Current Progress

工程於2016年8月展開，並正分階段進行，預計2025年竣工。整項工程預算費用約13.6億元。
The project commenced in August 2016 and will be implemented in phases for an anticipated completion date in 2025. The estimated project cost is about $1.36 billion.

在翔東路實施臨時交通措施下進行明坑敷設渠管工程
Pipe laying in an open trench excavation under the temporary traffic arrangement (TTA) at Cheung Tung Road

擴建鄉村公共污水收集系統
Expansion of Village Sewerage

渠務署多年來致力擴建鄉村公共污水收集系統，藉以改善鄉郊地區的衛生環境及其附近水體的水質。現時進行中的鄉村污水工程分別位於屯門、西貢及離島。

Over the years, DSD has strived to expand public sewerage systems to villages in a bid to improve hygienic conditions in rural areas, as well as the quality of nearby water bodies. Construction works for sewerage projects are currently underway in Tuen Mun, Sai Kung and the Outlying Islands.

目前進度 Current Progress

截至2019年3月，我們已為240多條鄉村鋪設了公共污水渠，亦正為另外約20條鄉村進行相關工程。目前，尚有約245條鄉村的工程正在進行規劃和設計。
As of March 2019, we have laid public sewerage for over 240 villages. The works for around 20 villages are underway and the schemes for around 245 villages are under planning and design.

大角咀櫻桃街旱季截流設施
Dry Weather Flow Interceptors at Cherry Street, Tai Kok Tsui

由於九龍塘、旺角及油麻地的雨水排放系統接收了受污染的旱流，導致新油麻地避風塘的水質變差，以及引發相關氣味問題。因此，我們正沿新油麻地避風塘海濱建造一個地底旱季截流器及泵房，堵截櫻桃街箱形雨水渠內受污染的旱流，並輸送至昂船洲污水處理廠作妥善處理及排放。

Polluted dry weather flow from stormwater systems running in Kowloon Tong, Mongkok and Yau Ma Tei districts becomes a major cause of the deterioration in water quality and the associated odour problem at the New Yau Ma Tei Typhoon Shelter (NYMTTS). In view of the situation, we are constructing an underground dry weather flow interceptor (DWFI) and a pumping station along the seafront of NYMTTS to intercept the polluted dry weather flow from the Cherry Street box-sulvert and deliver to Stonecutters Island STW for proper treatment and disposal.

目前進度 Current Progress

工程已於2017年12月展開，預計於2022年完工。整項工程預算費用約3.13億元。
Construction works commenced in December 2017 aiming for completion in 2022. The estimated project cost is about $313 million.

櫻桃街旱季截流設施模擬圖。工程完成後，截流器上蓋的園景設施會開放公眾享用
Photomontage of the dry weather flow interceptor at Cherry Street. After project completion, the landscaped area above the dry weather flow interceptor will be open to the public for enjoyment

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

為配合東九龍的區內發展，我們將優化現有觀塘污水泵房，以提供一個容量達16,000立方米的地底污水調節設施，以及安裝通風和氣味控制設施。工程亦包括將廠房天台建成園景平台，提升泵房景觀和提供約10,000平方米的公共空間供公眾享用。

To support local development of East Kowloon, the enhancement works for Kwun Tong SPS will involve the construction of an underground sewage balancing facility with a capacity of 16,000 cubic metres and provision of ventilation and odour control equipment. A landscaped deck at the roof will also be constructed to enhance the visual appearance of the pumping station and provide an open space of about 10,000 cubic metres for public recreation.

目前進度 Current Progress

工程已於2017年12月動工，預計2022年中完成。整項工程預算費用約10.5億元。
Construction commenced in December 2017 and is scheduled for completion in mid-2022. The estimated project cost is about $1.05 billion.

經優化後觀塘污水泵房的構想圖
Photomontage of the enhanced Kwun Tong Sewage Pumping Station

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

現有沙頭角污水處理廠在1989年建成，是一所二級污水處理廠，處理沙頭角墟、鹽寮下、菜園角和沙頭角邨的污水，並把處理後的污水排放到沙頭角海。為配合沙頭角污水集水區預計增加的污水量，我們將重建現有沙頭角污水處理廠，以增加該廠污水處理量由每日約1,660立方米至約5,000立方米。工程亦包括建造一條長約1.7公里、直徑450毫米的海底排放管道，及拆卸現有的污水泵房及附屬的加壓污水管。

The existing Sha Tau Kok STW was built in 1989 and is a secondary treatment works which provides treatment to the sewage collected from Sha Tau Kok Town, Yim Liu Ha, Tsoi Yuen Kok and Sha Tau Kok Chuen before discharging into Starling Inlet. To cope with the forecast increase in sewage flow in Sha Tau Kok sewage catchment, we will reconstruct the existing Sha Tau Kok STW to increase its capacity from about 1,660 cubic metres per day to about 5,000 cubic metres per day. The project also includes construction of approximately 1.7 kilometres of submarine outfall with diameter 450 millimetres and decommissioning of existing sewage pumping station and the associated rising mains.

工程進行中
（攝於2019年7月）

Construction in progress
(Photo taken in July 2019)

沙頭角污水處理廠第一期擴建工程完工構想圖

Photomontage of the completed Phase 1
Sha Tau Kok Sewage Treatment Works

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。

Construction works commenced in November 2018 targeting for completion in 2025. The estimated project cost is about $2.04 billion.

元朗淨水設施 Yuen Long Effluent Polishing Plant

現有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、元朗工業邨及錦田地區提供服務。我們將分階段增加元朗污水處理廠的處理量至150,000立方米，以解決污水與日俱增的問題，並提升該廠的淨水設施至三級污水處理水平，確保排放符合更高的環境要求，保護后海灣的生態環境。我們亦藉此機會改善廠房外觀及環保表現，採用再生能源及融入大量綠化元素和提供公眾共用設施，惠及當地社區。

The existing Yuen Long STW serves Yuen Long Town, Yuen Long Industrial Estate and Kam Tin areas with a design capacity of 70,000 cubic metres per day. We will expand the treatment capacity of Yuen Long STW in stages to 150,000 cubic metres per day to cope with the issue of ever-increasing sewage. The plant will be upgraded to an effluent polishing plant with tertiary treatment level. This is to ensure the discharge will comply with the stricter environmental requirements, thus protecting the ecological environment of Deep Bay. We will also take this opportunity to revamp its exterior, enhance its environmental performance, adopt renewable energy and incorporate extensive greening features and provide public co-use facilities for the benefit of the local community.

元朗污水處理廠
Yuen Long Sewage Treatment Works

元朗淨水設施設計圖
Design layout of Yuen Long Effluent Polishing Plant

目前進度 Current Progress

環境影響評估已經完成，相關環境許可證已經於2019年4月發出，詳細設計工作現正進行中。擴建工程將分兩階段進行，視乎撥款進程。第一階段工程將於2020年展開，預計於2027年完成。勘察及設計預算費用約9,800萬元，而第一階段工程預算費用約68億元。

Environmental impact assessment was completed and Environmental Permit was granted in April 2019. Detailed design for the upgrading works is on-going. Construction will be implemented in two stages. Subject to funding approval, the construction of Stage 1 Works is scheduled for commencement in 2020 and targeted for completion in 2027. The estimated cost for investigation and design is about $98 million while the estimated cost for Stage 1 Works is about $6.8 billion.

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

搬遷沙田污水處理廠往城門河對岸女婆山開挖的岩洞，可騰出現址約28公頃土地作有利民生用途，同時改善區內生活環境。

The Sha Tin STW is to be relocated to a cavern, to be excavated in Nui Po Shan on the opposite side of Shing Mun River. This will release 28 hectares of land on the existing Sha Tin STW site for other uses and improve the living environment of the district.

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

目前進度 Current Progress

未來重置在岩洞的沙田污水處理廠將是香港同類設施中規模最大的。搬遷計劃須分階段推展，包括：工地開拓和連接隧道建造工程；主體岩洞建造工程；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解除運作和拆卸工程。

工程設計工作於2017年起分階段完成。我們於2018年10月獲得立法會財務委員會批准撥款進行第一階段的土地開拓和連接隧道建造工程後，已於2019年2月開展工程。我們仍在檢討工程餘下階段的推行時間表，預計整項工程需時約13年。

The future cavern complex for the relocated Sha Tin STW will be the largest of its type ever built in Hong Kong. It will be constructed by stages, namely: site preparation and access tunnel construction; main caverns construction; upstream serverage works; sewage treatment facilities installation; and decommission and demolition of existing Sha Tin STW.

The design work was completed in phases since 2017. In October 2018, we obtained the funding approval from the Finance Committee of Legislative Council and commenced the Stage 1 works – site preparation and access tunnel construction in February 2019. While the implementation programmes of the remaining stages of construction works are still under review, the total construction period of the project is estimated to be 13 years.

管理地下排水及污水收集網絡

本署管理的地下雨水渠及污水渠約有4,700公里，這些渠管平均使用年期為29年，當中已使用30年或以上的渠管逾2,030公里，不少渠管已出現老化及損耗跡象。嚴重的損耗甚至會使渠管塌陷，引致土壤流失而路陷。這不但會影響渠管正常運作，亦對交通、環境及公眾安全帶來影響。

有見及此，除了定期檢查外，我們正致力推行風險為本的全港性復修老化雨水渠及污水渠工程計劃，分階段勘查及修復被評為高風險的渠管。同時，我們亦會研究及採用先進技術，務求更有效地保養管道網絡，以及提高工程的成本效益。2018-19年度，我們復修了總長約14公里的雨水渠及污水渠，費用約1.72億元。

Managing Underground Drainage and Sewerage Networks

DSD manages about 4,700 kilometres of underground drains and sewers. These underground pipes have been in service on average for 29 years. Over 2,030 kilometres of the underground pipes have been used for 30 years or more, with many of them showing signs of wear and tear. Structural failure of seriously deteriorated pipes may result in soil erosion and road subsidence, affecting the normal operation of the pipelines and bringing adverse impacts on traffic, environment and public safety.

In view of this, in addition to regular inspections, we are striving to implement a territory-wide rehabilitation programme in a risk-based approach for the aged stormwater drains and sewers. Condition surveys and rehabilitation of high risk underground pipes are being implemented in phases. At the same time, we will study and apply various cutting-edge technologies to efficiently maintain our underground pipe networks and achieve greater cost-effectiveness of our works. In 2018-19, we rehabilitated storm drains and sewers with a total length of about 14 kilometres, at a cost of about $172 million.

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

為實踐污染者自付原則，本署自1995年4月1日起推行污水處理服務收費計劃。根據該計劃，凡接駁至公共污水渠的處所，其用戶均須繳付排污費。污水處理服務費包括排污費和工商業污水附加費。現時須繳付工商業污水附加費的行業共有27類。

In accordance with the "Polluter Pays" principle, the Sewage Services Charging Scheme came into effect on 1 April 1995 for all users whose premises are connected to public sewers. The sewage services charges are composed of Sewage Charge (SC) and Trade Effluent Surcharge (TES). There are currently 27 trades required to pay the TES.

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

全港約有304萬個自來水用戶，其中約282萬用戶須繳付排污費。在非住宅用戶中，約有29,000用戶須繳付工商業污水附加費。工商業污水附加費繳納戶所屬行業分布見下圖。

Among the 3.04 million water utility users in Hong Kong, about 2.82 million are required to pay the SC. Among the non-domestic users, about 29,000 are required to pay the TES, the distribution of which is as follows.

2018-19年度工商業污水附加費繳納戶所屬行業
Distribution of Trade Effluent Surcharge Accounts in 2018-19 by Trade

- 78.0% 餐飲業 Restaurants
- 0.1% 漂染 Bleaching and Dyeing
- 18.5 食品製造業 Food Manufacturing
- 1.9% 紡織業及製衣業（不包括鞋類） Textiles and Wearing Apparel (except footwear)
- 1.5% 其他 Others

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

如非住宅用戶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排放比率。獲重新評估的工商業污水附加費收費率有效期為3年。

Non-domestic consumers may apply for a reassessment of the TES rate or discharge factor if they consider that their effluent strength or discharge factor is lower than the corresponding values specified by law. The reassessed TES rate is valid for 3 years.

- 86.2% 餐飲業 Restaurants
- 3.8% 乳類製品 Dairy products
- 7.5% 食品加工業 Food Manufacturing
- 2.5% 漂染 Bleaching & dyeing

客戶查詢

為了提供更優質的服務，我們除了設有24小時熱線外，在多個範疇及查詢亦訂定服務承諾，務求在適當時間內解答市民的查詢。2018-19年度，我們共接獲3,468宗有關污水處理服務收費的電話及書面查詢，當中所有的書面查詢，均在收到後一個月內正式回覆。

Customer Enquiry

In order to provide better services, we set up a 24-hour hotline and established performance pledges on different areas of our services and enquiries to ensure public enquiries are addressed in a timely manner. In 2018-19, we received a total of 3,468 telephone and written enquiries about our sewage services charges, of which all the written enquiries were formally replied within a month.

2018-19年度收到的各類書面查詢
Written Enquiries Received in 2018-19 by Category

- 50.53% 重新評估化學需氧量及排污比率 Chemical Oxygen Demand (COD) and Discharge Factor Reassessment
- 11.62% 行業重新分類 Business Reclassification
- 32.04% 確認污水渠接駁情況 Verification of Sewer Connection Status
- 5.81% 工商業污水附加費新繳納戶 Newly Identified TES Accounts

環境管理

第五章 CHAPTER 5

Environmental Management

全球氣候變化對渠務署來說，既是機遇，也是挑戰。面對大自然的變化，本署一直積極探索及引進嶄新工程技術和環境管理措施，一方面既可提升運營效益，另一方面可以推廣可持續發展理念（包括河道活化和節能減排等），同時實現工程項目與自然環境雙生共融的目標。

Global climate change embeds opportunities and challenges. In the face of changes in the environment, DSD has committed to exploring and introducing cutting-edge engineering technologies and environmental measures. On one hand, it enhances the operational efficiency; on the other hand, it promotes the concept of sustainable development (covering river revitalisation and energy conservation, etc.), and to realize the goal of co-existence between project works and environmental protection.

昂船洲污水處理廠綠化天台
Green Roof at Stonecutters Island Sewage Treatment Works

位於昂坪污水處理廠的魚塘已使用再造水

Fish Pond at Ngong Ping Sewage Treatment Works using Reclaimed Water

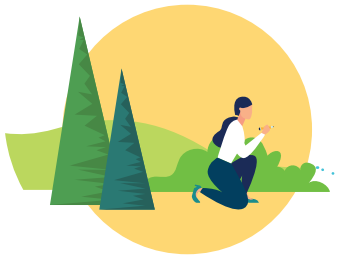
維多利亞海港

Victoria Harbour

藍綠建設
Blue-Green Infrastructure

渠務署在多項工程中積極引進綠化和生態保育元素的活化水體概念，例如在河道兩旁或河道種植、營造天然溪澗環境、保育河道生態、促進各類生物繁衍，以及引入園景設計等務求在有效排水的同時，亦以促進綠化、生物多樣性及美化環境為目標。透過藍綠建設，我們希望為市民建設草木繁茂和水景優美的環境，讓市民有更多機會親近水體，珍惜天然資源。

DSD has been striving to implement the concept of revitalising water bodies by incorporating green and eco-conservation elements into channel and river training works. These include planting in river channels and along riverbanks, engineering natural stream settings, preserving river ecosystems, enhancing various wildlife growth and introducing landscape designs, which promote greening, biodiversity and environmental beautification while maintaining the drainage capacity. For the purpose of blue-green infrastructure, we wish to create an environment with lush vegetation and beautiful waterscape for the public to get close to the water bodies and treasure the natural resources.



藍指河道水體，綠則指綠化景觀
Blue refers to rivers and water bodies;
green refers to landscape greening

建設集自然環境、社區特色和現代化功能於一身的都市排水布局
Building an urban drainage system that interweaves the natural environment with community characteristics and modern functions

活化河道 – 讓河流走進社區
River Revitalisation – Rivers in Our Community

早年建成的排水設施多以混凝土建造，設計上主要以防洪為主。隨著年代的轉變，河道不再是單單用作排洪，市民開始對近水和親水活動有更多的期望，並逐漸關注水體生態保育及善用市區空間的重要性。因此，我們就《2015年施政報告》中的建議，在進行大型排水改善工程及新發展區的排水規劃時，積極引入活化水體創新意念。

Drainage facilities built in the early years were mainly made of concrete and were designed for flood prevention. As time evolves, the public has more aspiration on water-friendly activities and gradually concerned with the importance of protecting water ecology and effective use of urban space. In response, we have been pushing forward a policy initiative in the 2015 Policy Address. In both large-scale drainage improvement works and the planning of drainage networks for New Development Areas, we have actively introduced innovative ideas for revitalising water bodies in nullahs and river channels.

活化水體不但美化環境，同時提升河道生態及生物多樣性價值，以及綠化及美化河道。我們更會致力推廣近水和親水活動，讓市民享用河道設施、體驗水體多功能的價值、珍惜水體及共同締造美好居住環境。

Revitalising water bodies not only enhances the environment, but also enhances the river ecological value and biodiversity, as well as improves river greening. We will also strive to promote water-friendly activities so that the public can enjoy the river facilities and experience the value of multi-functionality of the water bodies so as to treasure the water bodies and jointly create a more livable environment.

活化河道的元素
River Revitalisation Elements

蠔涌河和林村河上游河道改善工程

渠務署分別於2007及2012年完成蠔涌河及林村河上游河道改善工程，大大紓緩區內的水浸風險。西貢蠔涌河及大埔林村河擁有極高生態價值，不少生物（包括鳥類、魚類和蜻蜓等）在兩河棲息。故此，我們在施工期間，盡力把工程對環境和生態的影響減至最少，並縮小擴闊河道工程範圍，以保留河道原貌。

Ho Chung River and Upper Lam Tsuen River Improvement Works

DSD completed Ho Chung River and Upper Lam Tsuen River Improvement Works in 2007 and 2012 respectively, thus considerably alleviating the flood risk in the regions. Ho Chung River in Sai Kung and Lam Tsuen River in Tai Po are of great ecological significance. Myriads of wildlife, including bird, fish and dragonfly species, inhabit the two rivers. During construction, we did our utmost to minimise environmental and ecological impacts of our works and keep the land uptake during the river widening works to a minimum in order to preserve the original characters of the rivers.

改善工程後的蠔涌河
Ho Chung River after the improvement works

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

工程所採用的保育措施例子 Example of conservation measures

林村河上游3條「之」字型設計的魚梯，上設凹位，供魚類棲息
Three zig-zag fish ladders in Upper Lam Tsuen River designed with still water troughs to provide refuge for fish

林村河上游提岸的石籠河岸，有助植物生長及營造自然生態環境
Gabion banks in Upper Lam Tsuen River, helps to promote plant growth and cultivate a natural ecology

林村河上游河道改善工程進行前，工程團隊撈捕香港瘰螈

Project team capturing the Hong Kong Newt before the Upper Lam Tsuen River Improvement Works

蠔涌河的導流板能改變水流方向、流速和水深，藉此創造微生境，供各類物種生長

Deflectors in Ho Chung River includes variation in flow direction and velocity, which also creates zones of different water depths allowing various species to grow

蠔涌河的魚洞穴可於水漲及水流急速時為魚類和其他水生動物提供庇護

Fish shelters in Ho Chung River provides refuge for fish and other aquatic animals during times of high tide and rapid flow

香港瘰螈腹部橙色的不規則斑紋

The Hong Kong Newt characterised by irregular orange ventral patches

在林村河上游工程完成後，我們發現石籠河岸及天然河床的植物蓬勃茂盛，如同自然生境，而且水質改善，顯示保育措施具有成效。此外，河道的鳥類、魚類及蜻蜓的品種數量均恢復至工程前水平，而林村河稀有品種－香港瘰螈的數量更勝從前，成績令人鼓舞。

Upon the completion of Upper Lam Tsuen River Improvement works, we deserved extensive plant growth on gabion banks and the natural riverbed, with a flourishing natural habitat, and the water quality was improved. These outcomes indicate that the conservation measures were effective. Moreover, the number of bird, fish and dragonfly species in the river were restored to the level before the improvement works and the Hong Kong Warty Newt, the rare species of Lam Tsuen River, was more abundant afterwards, all these results are encouraging.

啟德河改善工程

我們透過啟德河改善工程提升河道的排洪能力，工程完成後，該河的排洪能力將達現行防洪設計標準，可抵禦200年一遇的暴雨，緩解彩虹道一帶的水浸風險。渠務署亦藉此機會，為河道加入不同的綠化、園境及生態元素，將其活化為市區第一條綠化河道走廊。

除了在河床加設魚洞穴及導流石以形成靜水區，供魚群在河道棲息外，我們更加添河邊花槽、設置仿石種植盆及增建河床種植槽，栽種不同品種的植物，以增強河道的綠化效果。活化後的啟德河綠意盎然，我們更經常見到雀鳥及魚類於該河道棲息。

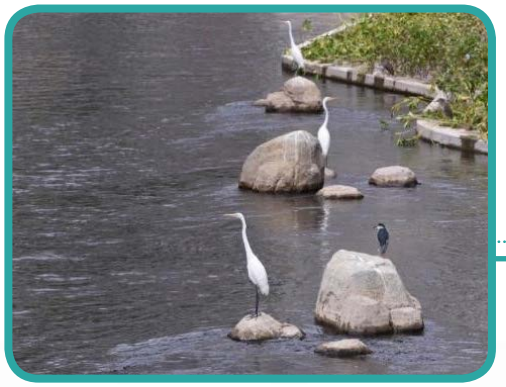
Kai Tak River Improvement Works

Improvement works were carried out mainly to enhance the drainage capacity of the Kai Tak River. Upon completion of the works, Kai Tak River will meet the latest flood prevention design standards and be able to withstand rainstorms on the scale of a 200-year rainstorm, alleviating the flood risks in Choi Hung Road and surrounding area. In addition to upgrading drainage capacities, we are also taking this opportunity to incorporate aesthetic, greening, landscaping and ecological elements, thus revitalising the nullah into the first urban green river along a serene emerald corridor.

Not only did we install fish shelters and current deflectors at the river to reduce flow speed providing a refuge for fish inhabit, we also installed riverside planters, placed artificial rock planters and built submerged planters along the river allowing different types of plants growing on both banks to accentuate the greening effect. The revitalised Kai Tak River provides refuge for birds and fish with abundant greenery.

活化後的啟德河

Kai Tak River after revitalisation



於啟德河棲息的鳥類包括不同種類的鷺鳥

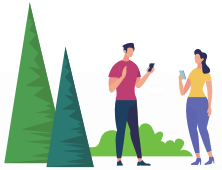
Egrets and herons roosting in Kai Tak River

啟德河河堤種植的簕杜鵑

Draping plant *Bougainvillea spectabilis* along the banks of Kai Tak River

河床種植槽種植了原生紅樹林品種的水生植物，營造濕地環境

Submerged planters with native mangroves species provide a wetland habitat



活化翠屏河

渠務署計劃將沿翠屏道及敬業街旁的明渠活化成翠屏河。除了加強防洪能力及利用環境、生態和園境美化等改善工程外，工程項目亦會一併加強毗鄰行人通道的連繫，使翠屏河成為市民欣賞河景和進行休閒活動的新地標。

此外，工程亦會加入創新元素，為突顯翠屏河的水體特質，我們計劃在下游設置可隨著潮汐漲退而升降的智能水閘，以營造富吸引力的瀑布效果。此項設計能盡量利用天然潮汐漲退的規律來營造水景，減少利用泵水設備及減低能源消耗。另一方面，智能水閘的操作模式亦會連接天文台的天氣預報系統，水閘會因應惡劣天氣而自動降下，以確保翠屏河有足夠的排洪能力。

我們亦會沿河提供各種近水設施，如園景平台及人工浮島等，以推動近水活動。

Revitalisation of Tsui Ping River

DSD plans to revitalise the nullah along Tsui Ping Poad and King Yip Street into Tsui Ping River. In sync with enhancing flood prevention capacity, we plan to revitalise the existing nullah with environmental, ecological and landscaping upgrading and enhance connectivity along the river and with the surrounding areas. Tsui Ping River will become a new landmark where the public can enjoy the river view and carry out leisure activities.

To manifest the characteristics of Tsui Ping River as a water body, we plan to install a smart water gate at the downstream to regulate the water level and create a waterfall effect. Such design utilises the natural tidal cycle to create waterscape, reducing the use on pumping facilities and hence lowering the energy consumption. On the other hand, the operation of the smart water gate will link to Hong Kong Observatory's weather forecast system, such that the smart water gate will be lowered during adverse weather conditions to maintain the hydraulic capacity of Tsui Ping River.

We will also provide along the riverside water-friendly features such as landscaped decks and a floating pontoon to promote water friendliness.

翠屏河智能水閘及人工浮島完工構想圖
Illustration of the water gate and floating pontoon at the completed Tsui Ping River

展望未來 挑選有潛力的明渠進行活化
Looking ahead Selecting Potential Nullahs and Rivers for Revitalisation

同時，我們已檢視及評估全港主要明渠和河道的活化潛力，挑選合適的明渠進行活化。我們已完成大圍明渠（香粉寮至文禮閣）、火炭明渠（桂地新村至香港體育學院），以及佐敦谷明渠（沈雲山抽水站至佐敦谷游泳池）的活化方案。活化項目能整合排水設施與土地用途，在不影響河道排洪下，我們期望可展現水體的多重功能價值，並善用河道空間，實行一地多用。

Meanwhile, we have reviewed and assessed major nullahs and rivers in Hong Kong with a view to identifying suitable nullahs and rivers channels for revitalisation. The revitalisation schemes of the Tai Wai Nullah (from Heung Fan Liu to Man Lai Court), Fo Tan Nullah (from Kwai Tei New Village to Hong Kong Sports Institute), and Jordan Valley Nullah (from Shum Wan Shan Pumping Station to Jordan Valley Swimming Pool) have been formulated. Revitalisation schemes will promote the co-use of river channels for other purposes in addition to their function as drainage facilities. Without affecting the drainage capabilities, we aim to demonstrate the multiple values of the water bodies and utilise the river spaces for the co-use of river channels.

活化大圍明渠、火炭明渠及佐敦谷明渠

渠務署計劃活化現有的大圍明渠、火炭明渠及佐敦谷明渠以提升其生態價值，並促進綠化和近水和親水活動，改善社區環境以建設宜居城市。

在大圍明渠的活化計劃，我們會深入研究以試驗方式讓公眾進入河道進行近水和親水活動的可行性，提供市民更多優質的大型綠色休憩空間。

火炭明渠旁邊的行人路徑的易行度會提升。在不影響河道的排洪能力及管理的情況下，我們更積極考慮預留適當的河道空間放置社區藝術品，以供市民在河岸觀賞。

佐敦谷明渠的下游會部分進行園境美化，並於河道上建造觀景平台，提供休憩空間。而明渠的上游部分則加設水池和魚梯，以增加生態價值。

Revitalisation of Tai Wai Nullah, Fo Tan Nullah and Jordan Valley Nullah

DSD plans to revitalise the existing Tai Wai Nullah, Fo Tan Nullah and Jordan Valley Nullah with aims to enhance the ecological value of the nullah, provide a greener environment, promote water friendliness and improve the community environment for building a livable city.

In Tai Wai Nullah revitalisation scheme, we will carry out an in-depth investigation on the feasibility of allowing the public to enter the river to conduct water friendly activities as a pilot scheme in order to provide the public with more large-quality-green spaces.

The walkability of the riverside footpath of the Fo Tan Nullah will be enhanced. Without affecting the drainage capacity and management of the river, we will consider utilising some river spaces to install community artwork for the public to view at the riverfront.

The downstream area of the Jordan Valley Nullah will be landscaped and a viewing platform will be built above the river to furnish a leisure space. In the upstream area, pools and fish ladders will be provided for ecological enhancement.

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

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

活化佐敦谷明渠構想圖
Conceptual picture of the revitalised Jordan Valley Nullah

共享空間
Public Co-Use Facilities

除了河道及排水工程外，污水處理亦是我們工作的重要一環。隨着社區不斷發展，污水處理廠亦逐漸成為社區的近鄰。在提升污水處理設施以應付發展需要的同時，本署也重視與社區連結，在設計過程中注入社區共融的元素如公共休憩空間及園景設施等，讓公眾享用，將渠務設施構建成社區共融的民生設施，使渠務設施更容易受市民所接受。

In addition to river courses and drainage works, sewage treatment is also an important part of our work. As the community continues to develop, sewage treatment plants have gradually become close neighbors of the community. While upgrading the sewage treatment facilities to meet the development needs, DSD also attaches importance to the links with the community. In the design process, the community's inclusive elements such as public open space and landscape facilities are incorporated for the purpose of public enjoyment in the drainage facilities. The construction of a community-integrated livelihood facility will make drainage facilities more accessible to the public.

石湖墟污水處理廠將提升為石湖墟淨水設施，工程除擴建廠房提升淨化水平外，亦會設置觀鳥區、河畔步道及生態園等，令石湖墟淨水設施更融入周邊的自然環境及社區，並為市民提供共享空間，讓市民在石上河、梧桐河旁邊欣賞美景，親親大自然。

Shek Wu Hui Sewage Treatment Works (STW) will be upgraded to Shek Wu Hui Effluent Polishing Plant. Apart from expanding the plant to enhance the treatment level, facilities such as a bird watching area, a riverside promenade and an ecological garden, will be integrated into the Shek Wu Hui Effluent Polishing Plant improvement plan. The plan aims to utilise the surrounding natural environment and communities to provide a co-use space for the public to enjoy the beautiful scenery and stand close to the nature at River Sutlej and River Indus.

為此，渠務署更委託顧問推行一個名為「社區環境工作室@石湖墟淨水設施及周邊地區」的社區共創項目，實踐「設計思維」的概念，邀請社區人士、教育界代表、綠色團體，以及其他專業人士，共同構思石湖墟淨水設施公共空間及預先登記遊覽區的設計。

To this end, DSD has engaged a consultant to design and deliver a community-based co-creation project – "Community Design for Sustainable Development @ Shek Wu Hui Effluent Polishing Plant and the Peripheral Areas". Using the methodology of design thinking, community members, educators, green groups and other professionals are invited to come together to co-design the co-use space and pre-registered visitor's area at Shek Wu Hui Effluent Polishing Plant.

新工場天台的綠化空間及社區種植園構想圖
Conceptual picture of green space and community plantation on the roof of the new workshop

毗鄰新污泥處理設施的河畔步道構想圖
Conceptual picture of riverside promenade adjacent to the new sludge treatment facility

綠化天台
Roof Greening

綠化天台有助紓緩市區空氣污染、降低室內溫度、減少建築物的能源消耗、美化建築物，以及為野生動物創造棲息地，從而改善周邊環境的生物多樣性。進行規劃時，我們會聘請合資格人士評估選址及天台結構可負荷重量，待完成詳細設計後才展開建造工程。2018-19年度，我們為轄下9個設施完成天台綠化工程：

Roof greening can mitigate air pollution in urban areas, lower indoor air temperature, reduce building energy consumption, beautify building appearance and create wildlife habitats to improve biodiversity of the surrounding environment. During planning, we engage qualified persons to assess viable locations and their respective structural load-bearing capacities. Construction is carried out only after detailed design is completed. In 2018-19, we carried out roof greening for the following nine DSD facilities:

- **昂船洲污水處理廠（聚合物儲存大樓）**
  Stonecutters Island Sewage Treatment Works – Polymer Storage Building
- 南華甫污水泵房
  Nam Wa Po Village Sewage Pumping Station
- 圍頭村污水泵房
  Wai Tau Tsuen Sewage Pumping Station
- 九肚污水泵房
  Kau To Sewage Pumping Station
- 澳仔污水泵房
  O Tsai Sewage Pumping Station
- **華富基本污水處理廠**
  Wah Fu Preliminary Treatment Works
- **香港仔基本污水處理廠**
  Aberdeen Preliminary Treatment Works
- 鴨脷洲基本污水處理廠
  Ap Lei Chau Preliminary Treatment Works
- 牛潭尾主要河道泵房
  Ngau Tam Mei Main Drainage Channel Pumping Station

昂船洲污水處理廠化學物儲存樓綠化天台
Roof greening at Stonecutters Island Sewage Treatment Works Polymer Storage Building

華富基本污水處理廠綠化天台
Roof greening at Wah Fu Preliminary Treatment Works

香港仔基本污水處理廠天台綠化工程
Roof greening at Aberdeen Preliminary Treatment Works

水資源管理
Water Resources Management

本署在新建設施引進可持續發展水資源管理概念，主要設計元素包括雨水收集系統、地下蓄洪系統、雨水花園及多孔透水路面等，希望藉此提升各項設施的水資源利用效率，加強採集及回用珍貴水資源。2012至2016年間，完成的相關工程項目包括九龍城一號及二號污水泵房、荔枝角雨水排放隧道，以及跑馬地地下蓄洪計劃。

DSD has incorporated sustainable water resources management concepts into its newly constructed facilities. Major elements in these designs include, rainwater harvesting systems, underground stormwater storage systems, rain gardens and porous pavements, etc. We aim to enhance the water efficiency at various facilities, and increase rainwater harvesting and reusability, by utilizing these systems. Between 2012 and 2016, various projects with the application of the above concepts have been completed including the Kowloon City No. 1 and No. 2 Sewage Pumping Stations, Lai Chi Kok Drainage Tunnel, and Happy Valley Underground Stormwater Storage Scheme (HVUSSS).

此外，為支持政府在全面水資源管理策略下使用再造水的建議，本署繼續在轄下設施生產及使用再造水，並提高再造水設備在運作方面的可靠性。

Furthermore, in support of the Government's Total Water Management Strategy initiative via usage of reclaimed water, DSD continues to produce and use reclaimed water within its facilities and improve the operational reliability of its water reclamation facilities.

水資源採集及回用系統
Water Harvesting System

跑馬地地下蓄洪計劃水資源採集及回用系統

跑馬地地下蓄洪計劃配備水資源採集及回用系統，是利用系統將地下水、運動場的灌溉水和雨水收集回用。由於所收集的水資源水質較佳，經簡單消毒處理已能達到非飲用用途的回用水標準。現時，跑馬地遊樂場內的11個球場及園景區都是利用回用水灌溉的。回用水亦供給場內的2所更衣室和附近的2所公共廁所作沖廁用途。此外，系統配置設施提供回用水予食物環境衞生署的水車作清洗跑馬地及灣仔一帶街道之用。

Water Harvesting System of Happy Valley Underground Stormwater Storage Scheme

A water harvesting system is incorporated in HVUSSS for collecting groundwater, irrigation water and rainwater for reuse purposes. As the collected water is of better quality, simple disinfection treatment is sufficient to provide up-to-standard reclaimed water for non-potable use. Now, the collected water is being used for the irrigation of the 11 sport pitches and the landscape areas of the Happy Valley Recreation Ground (HVRG) are being irrigated with the reclaimed water, and for toilet flushing of the two changing rooms in the HVRG and two public toilets in the vicinity. The system also equips facilities to allow collection of the reclaimed water by the water tankers of the Food and Environmental Hygiene Department (FEHD) for street cleaning in the Happy Valley and Wan Chai districts.

跑馬地地下蓄洪池
Happy Valley Underground Stormwater Storage Tank

跑馬地遊樂場內所更衣室以回用水沖廁
Reclaimed water is being used for toilet flushing in the changing rooms in the Happy Valley Recreation Ground

食物環境衞生署利用回用水清洗街道
Food and Environmental Hygiene Department is using reclaimed water for street cleaning

再造水 Water Reclamation

「再造水」是指經過一連串有效的污水處理及消毒除菌程序淨化，以達到可循環再用的排放水。再造水的使用既減少對環境的污染及自然生態的負荷，亦大大紓緩了對淡水的需求，為持續發展帶來有利因素，並為保護環境作出貢獻。

2018-19年度，我們平均每日生產逾1,800立方米再造水作非飲用用途。本署最具規模的再造水生產設施位於昂坪污水處理廠、沙田污水處理廠及望后石污水處理廠。

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，於2006年正式投入運作。該廠生產的再造水安全無味，現供昂坪的公廁及昂坪纜車站作沖廁用途。部分再造水亦會用於飼養廠內魚池的觀賞魚，以及作廠內有監控的灌溉之用。沙田污水處理廠的「再造水」生產設施則於2011年年初投入運作，每日可生產1,000立方米的再造水，供清洗廠房、灌溉園林、沖廁及稀釋化學品。望后石污水處理廠的「再造水」則主要用作稀釋化學品之用。

沙田污水處理廠再造水設施
Water reclamation facilities at Shatin Sewage Treatment Works

此外，我們正分階段進行擴建工程，將石湖墟污水處理廠改建為石湖墟淨水設施，提升該淨水設施的污水處理級別至三級淨化水平，及提升其設計處理能力至每日190,000立方米，以解決污水與日俱增的問題。石湖墟淨水設施改善計劃完成後，部分經該設施三級處理的排放水將會由水務署作進一步處理成再造水，供應給上水及粉嶺等新界東北地區作沖廁等非飲用水用途。估計將來可提供每日約56,500立方米的再造水，節省珍貴的食水資源。

Reclaimed water is the highly treated and disinfected effluent water which could be recycled for reuse. Reclaimed water not only could minimise pollution to the environment and avoid overloading of the ecosystem, it also relieves the demand on freshwater resource. This has provided favourable conditions for sustainable development and contributed to environmental protection.

In 2018-19, more than 1,800 cubic metres reclaimed water has been generated per day for non-potable use. The major water reclamation facilities are located in the Ngong Ping STW, Sha Tin STW and Pillar Point STW.

The Ngong Ping STW, operated since 2006, is the first tertiary sewage treatment plant in Hong Kong with reclaimed water treatment facility. The reclaimed water produced by this plant is safe and odourless. It is now supplied for toilet flushing at the Ngong Ping public toilets and the Ngong Ping Cable Car Terminal toilets. Some of the reclaimed water is used for rearing ornamental fish in fish ponds and controlled irrigation within the sewage treatment works. The water reclamation facility in the Shatin STW, was commissioned in early 2011. It can generate 1,000 cubic metres reclaimed water every day for plant cleaning, irrigation, toilet flushing and chemical dilution. The reused water in Pillar Point STW is now mainly used for chemical dilution.

石湖墟污水處理廠改善工程
Shek Wu Hui STW Improvement Works

Furthermore, the Shek Wu Hui STW is being upgraded in stages to Shek Wu Hui Effluent Polishing Plant to enhance its treatment capability to tertiary treatment level. Its daily treatment capacity would also be increased to 190,000 cubic metres to cope with the ever-increasing sewage volume. Upon completion of the Shek Wu Hui Effluent Polishing Plant Improvement Scheme, part of the tertiary treated effluent will be further polished by the Water Supplies Department as reclaimed water and supplied to north-east New Territories, i.e. Sheung Shui and Fanling, for toilet flushing and other non-potable use. It is estimated that about 56,500 cubic metres reclaimed water could be produced per day, which could help to conserve our valuable potable water sources.

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

渠務署自2007年起參與由環境局成立的氣候變化跨部門工作小組，制訂適應氣候變化的政策及措施，以降低溫室氣體排放及應對氣候變化。政府於2017年公布《香港氣候行動藍圖2030+》（《行動藍圖》），大力推動可再生能源的使用。為作配合，本署積極推行節能措施，並利用太陽能及水力發電和生物氣產能（有關詳情請參閱**第一章　節能減排　促進香港可持續發展**）。

Since 2007, DSD has joined the Inter-departmental Working Group on Climate Change set up by the Environment Bureau for formulating polices and measures in adapting climate change to reduce greenhouse gas emissions and combat climate change. In support of "Hong Kong's Climate Action Plan 2030+" (Action Plan) published by the Government in 2017 that encourages extensive use of renewable energy, DSD has actively implemented energy-saving initiatives and adopted solar power, hydropower and biogas to generate energy (Please refer to **Chapter 1　Energy Saving and Emission Reduction Promoting Sustainable Development in Hong Kong** for details).

面對全球暖化問題，本署積極與其他城市和地區保持緊密聯繫，並加入國際組織C40城市氣候領導聯盟旗下連結三角洲城市，代表香港特區政府與其他三角洲城市交流防洪技術；此外，亦是粵港應對氣候變化聯絡協調小組成員。

To address global warming, DSD maintains close connection with other cities and regions and joined the Connecting Delta Cities, a subsidiary of the international organisation C40 Cities Climate Leadership Group, and represents the HKSAR Government to exchange flood prevention techniques with other delta cities. DSD is also a member of the Hong Kong/Guangdong Joint Liaison Group on Combating Climate Change.

節能和採用可再生能源新措施
Newly Implemented Measures for Saving Energy and Harnessing Renewable Energy

2018-19年度，我們繼續優化污水處理廠及污水泵房的運作，並以更高能源效益的機電設備取替老化設備，以節省能源，同時增加使用可再生能源。推行的節能措施包括：

- 以發光二極管燈取代傳統照明光源
- 優化污水處理廠及污水泵房的操作流程及更換能源效益較高的設備
- 安裝太陽能光伏板
- 安裝電熱冷三聯供系統
- 安裝水力渦輪發電系統

年內，上述措施共節省約91萬度電（相當於減碳約637噸[1]）。

In 2018-19, we continued to optimise the operation of our sewage treatment works and sewage pumping stations, as well as replace aging equipment with more energy efficient ones to save energy. Concurrently, we promoted wider use of renewable energy. The measures taken include:

- Replacing conventional lighting with light emitting diode (LED) type
- Optimising operation procedures and replacing equipment with more energy efficient ones at sewage treatment works and sewage pumping stations
- Installing photovoltaic solar panels
- Installing tri-generation system (electricity, heat and cooling)
- Installing hydro-turbine system

During the year, the above measures saved a total of about 0.91 million kilowatt-hours of electricity (equivalent to carbon reduction of about 637 tonnes[1]).

[1] 2018年的間接（範圍二）溫室氣體排放是根據電力公司及煤氣公司所提供的排放系數計算：電能實業（0.79 公斤二氧化碳當量/ 千瓦時）、中電（0.51 公斤二氧化碳當量/ 千瓦時）及香港中華煤氣有限公司（0.592 公斤二氧化碳當量/ 單位）

[1] 2018 Scope 2 emissions were calculated based on the default factors provided by electricity providers in Hong Kong, Power Assets (0.79 CO_2e kilogram/kilowatt-hours), CLP (0.51 CO_2e kilogram/kilowatt-hours) and The Hong Kong and China Gas Company Limited (0.592 CO_2e kilogram/unit).

碳審計

為進一步減少日常運作所釋放的溫室氣體，本署積極為轄下廠房進行碳審計，以找出主要排放源。年內，我們分別為昂船洲污水處理廠、沙田污水處理廠、大埔污水處理廠、石湖墟污水處理廠、小蠔灣污水處理廠、赤柱污水處理廠，以及深井污水處理廠進行碳審計。透過適當的措施如降低機器耗能、提升運作效率，以及利用可再生能源等方法，我們成功減少了溫室氣體排放量。

日後，本署會持續為污水處理廠進行碳審計，並採取合適的減碳措施，以及利用最環保的方法為市民提供優質雨水排放和污水處理服務。

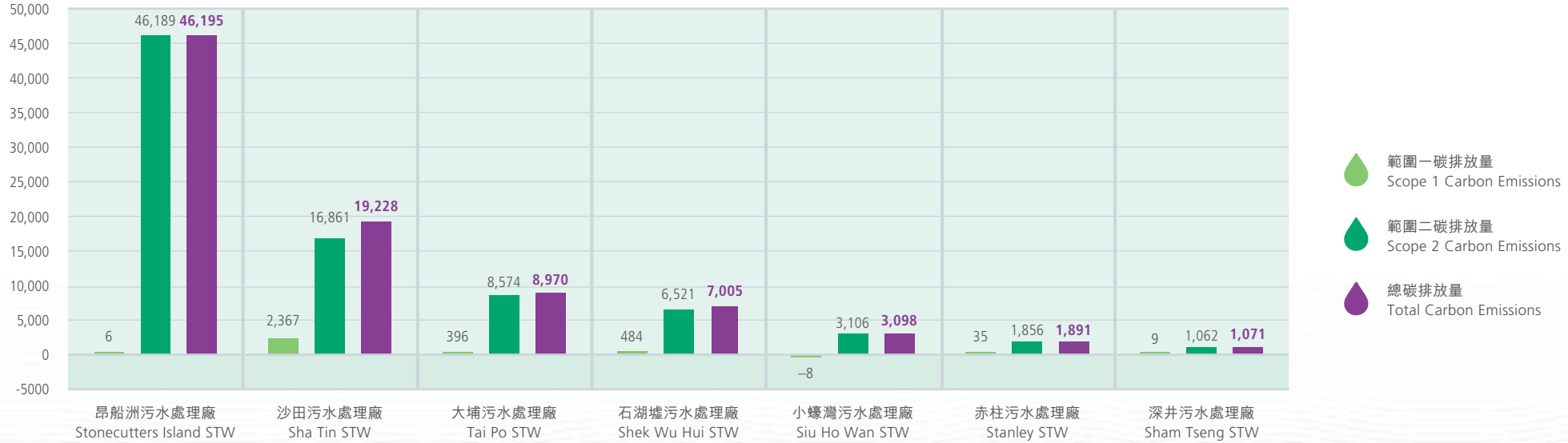
Carbon Audit

To further reduce greenhouse gas emissions from daily operation, carbon audits are conducted under DSD's facilities in order to identify major sources of emissions. During the year, carbon audits were carried out at Stonecutters Island STW, Sha Tin STW, Tai Po STW, Shek Wu Hui STW, Siu Ho Wan STW, Stanley STW and Sham Tseng STW. With appropriate measures like reducing energy consumption of machinery, enhancing operation efficiency and using renewable energy, we have successfully lowered greenhouse gas emissions.

In future, DSD will continue to conduct carbon audits in STWs and adopt appropriate carbon reduction measures to provide quality storm water drainage and sewage treatment services for the public in the most environmentally friendly manner.

2018年碳排放量（以公噸二氧化碳當量計算）

Carbon Emissions in 2018 (in tonnes of CO_2 equivalent)



範圍一
經直接使用燃料而產生的直接排放 + 除氮過程中釋放的氧化氮 + 製冷劑排放 + 污泥消化池中的甲烷釋放 – 因植樹/太陽能移除的碳排放（以公噸二氧化碳當量計算）

範圍二
經使用電力及煤氣而產生的間接排放

Scope One
Direct emissions generated from direct combustion of fuels + N_2O emissions through nitrogen removal + Refrigerant Emissions + Methane Release from Sludge Digester – GHG removals by planting trees/applying solar power (in tonnes of CO_2 equivalent)

Scope Two
Indirect emissions generated from the use of electricity + Towngas

綠色辦公室
Green Office

為於工作環境中實現綠色文化，我們致力實踐綠色辦公室概念，實行相關的環保政策及措施，從而提高員工的環保意識。

We make every effort to practise the green office concept in every aspect of our day-to-day operation. A series of green policies and measures are in place to raise the environmental awareness of our staff.

廢物管理
Waste Management

為貫徹綠色辦公室概念，我們實施了多項源頭減廢的措施，包括發出有關節約用紙的指引、綠色資訊，鼓勵員工盡量利用紙張的兩面和重用單面紙及信封。另外，我們設置打印機碳粉盒、充電電池、廢紙、塑料和金屬容器等回收站，並定期巡查辦公室，進一步提高員工的環境保護意識。

為邁步向前，我們積極推廣「無紙會議」，鼓勵於日常會議中以平板電腦和手提電腦等電子產品進行簡報和討論，以減少用紙。此外，本署於2017年年中開始推動使用電子傳真。自2018年起，署內各個總務部已改為使用電子傳真收發文件。現時，署內已設置一共142個電子傳真號碼。

年內，渠務署共舉行約195次無紙會議，並以電子方式傳閱逾1,980份相關文件。至於全年用紙量為9,223令，較2009-10年度減少約34%。

Bringing the green office concept into full play, we introduced a number of measures to reduce waste at the source. These include issuing guidelines on reducing paper consumption and green tips, and encouraging our staff to print on both sides as well as reusing one-sided paper and envelopes whenever possible. We also set up collection points to recycle used toner cartridges, rechargeable batteries, waste paper, plastic and metal containers, as well as conducting regular office inspections to heighten environmental awareness among our staff.

Forging ahead with the green office concept, we have been actively promoting "paperless meetings" by using electronic devices such as tablets and laptop computers for presentations and discussions in day-to-day meetings to reduce paper consumption. In addition, we began promoting e-fax in mid-2017. As from 2018, all DSD administration divisions have switched to e-fax for document transmission. We now have 142 e-fax numbers department-wide.

During the year, DSD held about 195 paperless meetings and circulated 1,980 documents electronically. Total paper consumption was approximately 9,223 reams, down about 34% compared to 2009-10.

響應政府減少塑膠廢物

為鼓勵社會減少使用即棄餐具和培養使用可重用餐具的習慣，政府致力樹立環保榜樣，由2019年1月1日起於政府產業及場地內的食堂、小食亭及餐廳在最大程度上避免使用即棄塑膠餐具。渠務署亦響應此政策，在籌辦會議和活動時以身作則，減少使用即棄餐具。

Supporting the Government's Call to Minimise the use of Disposable Tableware

Playing its part as a green role model, the Government has taken the lead to minimise the use of disposable tableware in all canteens, food kiosks and restaurants in Government properties and venues to the maximum extent possible with effect from 1 January 2019. To echo with this initiative, DSD actively promotes the use of reusable tableware in our daily operations, as well as in organising meetings and official events.

辦公室茶水間提供可重用的餐具，供同事們在會議及活動上使用

Office pantry provides reusable tableware for colleagues during meetings and official events

節約用電：減少非必要照明及以發光二極管燈代替T5燈管

Electricity Saving: To reduce non-essential lighting and replace fluorescent T5 light with LED light

節約能源
Energy Saving

在2017年《香港氣候行動藍圖2030+》中，政府進一步加強推廣綠色建築及減少政府建築物用電量。在此原則下，本署多年來在辦公室實施了多項節能措施，包括把室溫設定在攝氏25.5度、減少非必要照明，並使用計時器於辦公時間後關閉公用辦公室設備，用電量因而持續錄得大幅度的下降。

As reinforced in "Hong Kong's Climate Action Plan 2030+" published in 2017, the Government would step up the promotion of green buildings and reduce electricity consumption of government buildings. Guided by this principle over the years, DSD has implemented a number of energy saving measures in our offices, including setting the room temperature at 25.5°C, reducing non-essential lighting, and using timers to turn off office equipment after office hours. Our electricity consumption has seen significant drop as a result.

綠色採購
Green Procurement

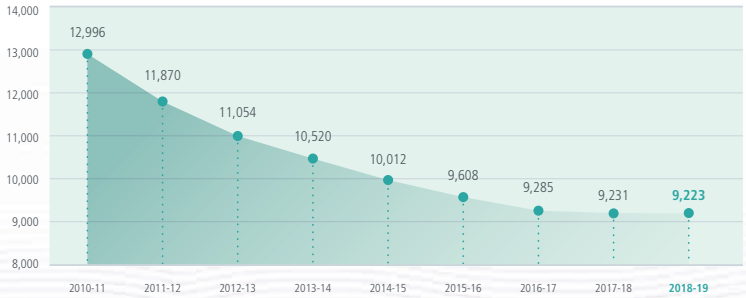
渠務署一直積極支持政府的環保採購政策，在採購貨品及服務時顧及環保因素，如採用環境保護署建議的規格採購環保產品。我們在2018-19年度採購了各種符合環保規格的產品，當中包括電器用品如影印機、打印機、電風扇、電腦和冰箱，以及辦公室耗材如再造紙、塗改帶、鉛筆、充電池、衞生紙和垃圾袋。

Always in support of the Government's green procurement policy, DSD gives due consideration to environmental factors when procuring goods and services such as adopting EPD's list of Green Procurement Items. In 2018-19, we purchased a wide variety of products complying with green specifications, including electrical appliances such as photocopiers, printers, electric fans, computers and refrigerators to office consumables, such as recycled paper, correction tapes, pencils, rechargeable batteries, toilet paper and garbage bags.

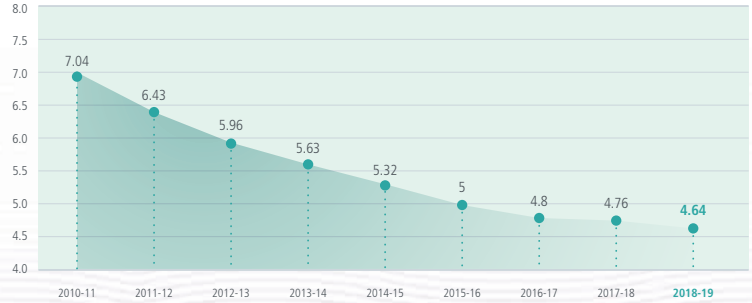
打印機旁新增設單面紙回收箱

Newly introduced one-sided paper collection box next to a printer

用紙量（令）　Total Paper consumption (ream)



每名員工用紙量（令）　Paper consumption per staff (ream)



附註：　數據為截至2019年3月31日的用紙量（令）及每名員工用紙量（令）

Note:　Data as of 31 March 2019 for total paper consumption (ream) and paper consumption per staff (ream)

培養可持續文化
Nourishing a Sustainable Culture

綠色先鋒由一群熱心推動綠色及可持續生活及辦公室文化的同事組成。他們亦向環保管理委員會反映同事意見，從而加強同事的環保意識及促進可持續發展。2018-19年度，綠色先鋒舉辦以下環保活動：

1. 綠色耕種比賽－在本署設施的可用空間設置耕種地點，既能綠化環境，亦可讓同事及家屬一嘗耕種樂；
2. 「愛•回書」舊書、兒童玩具及影碟回收活動－收集和分享同事的舊書、兒童玩具和影碟，鼓勵善用現有資源；
3. 海灘清潔活動－與其他政府部門和組織合作清理海灘上的垃圾。

綠色先鋒深信透過參與各項活動，我們的親朋好友無論在辦公室或家裏都分享到可持續發展生活方式的樂趣，並培養出愛護環境的文化。

The Green Champions is formed by a group of colleagues who have a passion on promoting green and sustainable living and office culture. They also bring about staff's view to the Green Management Committee so as to increase green awareness among colleagues to enhance sustainable development. In 2018-19, the Green Champions organized the following activities:

1. Green Farming Competition – setting farming lots in available areas within DSD facilities for green use and for colleagues and their families to experience the joy of farming;
2. Books, Children's Toys and Video Discs Exchange – collecting and sharing used books, children's toys and video discs for colleagues to promote re-use of resources;
3. Beach Clean-up Activities – co-organize with other governmental departments and organizations to participate in cleaning up beaches.

The Green Champions believe that by taking part in various activities, our friends could share the joy of a sustainable way of living, and develop an environmentally friendly culture, both at work and at home.

「愛•回書」舊書、兒童玩具及影碟回收活動
Books, Children's Toys and Video Discs Exchange

海灘清潔活動
Beach Clean-up Activities

關愛員工

第六章 CHAPTER 6

Caring for Our Staff

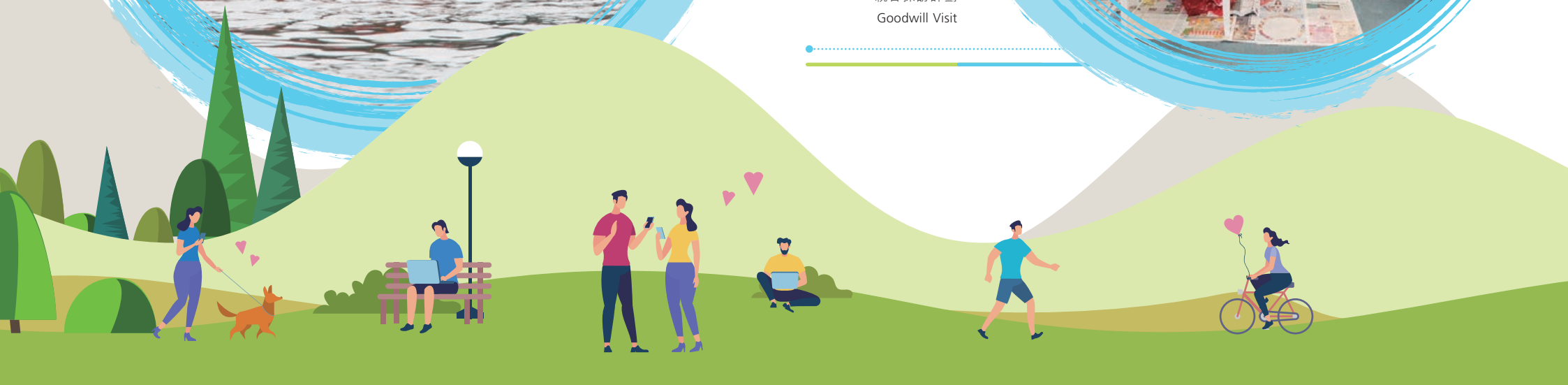
射箭體驗班
Archery Experience Class

培訓對於提高員工的能力和知識方面發揮著關鍵作用。因此，本署積極支持員工的職業生涯和個人發展，並設計了多元化的培訓。同時，我們也強調要為員工提供安全舒適的工作環境。此外，本署亦為員工安排各種康樂活動，有助於推廣工作與生活的平衡。

Training plays a key role in enhancing staff capabilities and knowledge. In light of this, DSD proactively supports the career and personal development of our employees, with a wide range of training systems. At the same time, we also place an emphasis on providing a safe and pleasant working environment for our employees. In addition, DSD arranges a variety of recreational activities for our staff to help foster a healthy work life balance.

龍舟比賽
Dragon Boat Race

親善探訪計劃
Goodwill Visit



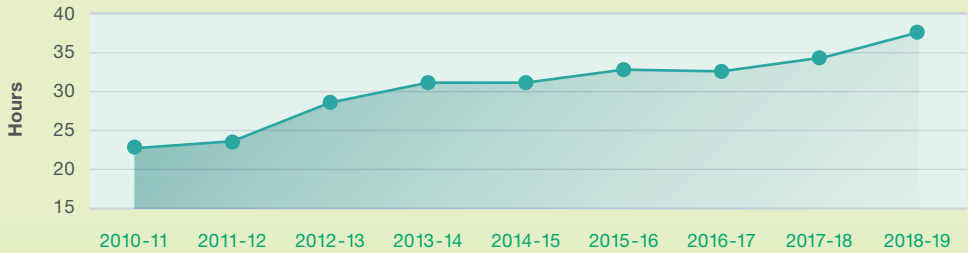
員工培訓與發展
Staff Training and Development

我們深知提供多元化的培訓計劃，能有助提升新入職及現有員工的專業知識和技能。2018-19年度，我們為員工舉辦了逾680次培訓活動，包括入職培訓、內部培訓、職務考察和海外會議等。本署員工年內的員工平均培訓時數時為38小時，較上年度增長8.57%，亦較全港僱員平均培訓時數16.9小時[1]高125%。

We are well aware of the importance in providing diverse training programmes of enhancing the professional knowledge and techniques for both new joining and existing employees. We held over 680 training activities in 2018-19, including induction courses, in-house training, duty visits, overseas conferences, etc. The average number of training hours per capita during the year was 38 hours, indicative of an increase of 8.57% in comparison with the previous year, plus exceeding the territory-wide average of 16.9 hours[1] by 125%.

1 香港人力資源管理學會發佈的《2018年培訓及發展需求調查報告》（2019年6月24日）
"2018 Training & Development Needs Survey" released by Hong Kong Institute of Human Resource Management (24 June 2019)

員工平均培訓時數
Average number of training hours per capita



入職課程
Induction Courses

我們為新入職同事安排入職課程，協助他們了解部門的運作和服務承諾。2018-19年度，我們共舉辦了5次入職課程，共有逾220名新入職同事參與。

Induction courses are arranged for new employees to help them understand the departmental operation and performance pledges. In 2018-19, five induction courses were held for a total of more than 220 new hires.

職業安全與健康培訓
Occupational Safety and Health Training

2018-19年度，我們就OHSAS 18001職業健康安全管理系統舉辦了兩個內部審核員的培訓課程，共有61名員工參加。

In 2018-19, we organised two Internal Auditor Training Courses for the Occupational Health and Safety Management System (OHSAS) 18001 with a total of 61 employees participating.

年內，我們亦為逾2,100名員工舉辦了多達22項職業安全健康（職安健）及其他安全培訓活動，相關課程的參加人數如下：
During the year, we organised 22 Occupational Safety and Health (OSH) and other safety training sessions for about 2,110 colleagues. The breakdown is as follows:

項號 Item	課程名稱 Course Title	受訓人數 Number of Participants
1	船上貨物處理基礎安全訓練課程 Shipboard Cargo Handling Basic Training Course	25
2	龍門式起重機資格證明課程連測試 Gantry Crane Certification Training and Test	25
3	建造業安全督導員課程 Construction Safety Supervisor Course	27
4	如何避免在工作中被狗隻咬傷 Dog Bite Safety	4
5	用電安全 Electrical Safety	66
6	叉式起重車新手操作員課程 Training Course for New Operators of Fork-lift Truck	7
7	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	8
8	化學品安全處理 Safe Handling of Chemicals	59
9	安全使用磨輪 Safe Use of Abrasive Wheels	21
10	安全施工程序 Safe Working Cycle	14
11	人力提舉及搬運 Manual Lifting and Handling	10
	氣體焊接安全訓練課程 Gas Welding Safety Training Course	24
12	氣體焊接安全訓練重新甄審資格課程 Gas Welding Safety Training Revalidation Course	21
13	安全使用流動式鋁質通架 Safe use of Mobile Aluminum Towers	14
14	船舶修理拆卸工程督導員安全訓練課程 Works Supervisor Safety Training Course (Ship-repairing & Ship-breaking)	15
15	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 DSD's Works	359
16	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 DSD's Works	232
17	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]	316
18	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]	121
19	密閉空間核准工人安全訓練課程 Safety Training Course for Certified Workers of Confined Spaces Operation	169
20	密閉空間合資格人士安全訓練課程 Safety Training Course for Competent Persons of Confined Spaces Operation	140
21	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	258
22	密閉空間合資格人士安全訓練覆證課程 Safety Training Revalidation Course for Competent Persons of Confined Spaces Operation	176
	總數 Total	**2,111**

海外考察
Overseas Duty Visit

除了安排本地培訓課程外，我們亦鼓勵員工到海外考察，擴闊視野。透過與當地專家交流，我們可研究及借鑒外國經驗，有助本署引進先進科技，提升服務質素。

英國水務及環境管理學會香港分部－技術代表團2018

2018年5月，本署同事參加英國水務及環境管理學會香港分部－技術代表團2018到訪加拿大，重點關注各種環境基礎設施和綠色技術的最新發展。代表團更就環境政策的規劃和實施事宜與安大略省和卑詩省環境事務部部長會面。

In addition to our local training programmes, we encourage our colleagues to attend overseas visits to broaden their horizons. Through exchanges with overseas experts, we can study and learn from their experience, which helps us to adopt cutting-edge technologies and hence, optimise our services.

CIWEM Hong Kong Branch – Technical Mission 2018

In May 2018, our colleagues participated in the Chartered Institution of Water and Environmental Management (CIWEM) Hong Kong Branch – Technical Mission 2018 to Canada, which focused on various environmental infrastructure and the latest developments in green technologies. The delegation also met the provincial ministries of environmental affairs of Ontario and British Columbia regarding the planning and implementation of environmental policies.

參加者與安大略省和卑詩省環境事務部長合照

Group photo of the participants and the provincial ministries of environmental affairs of Ontario and British Columbia

學習最新的保科技

Learning about the latest green technologies

第10屆國際非開挖技術展覽及研討會

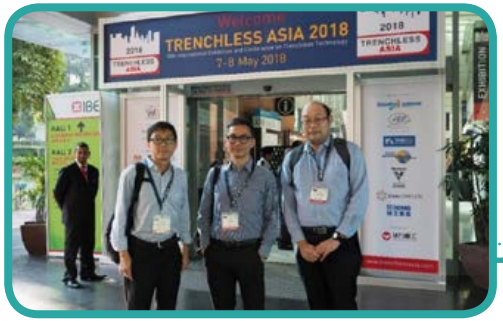
2018年5月，本署同事出席在馬來西亞吉隆坡舉行的第10屆國際非開挖技術展覽及研討會，並參觀位於泰國呵叻府的聚乙烯喉管生產廠房。第10屆國際非開挖技術展覽及研討會是一個為期兩天的展覽及研討會，旨在提升與會者對非開挖技術及相關設備的認識。透過出席該展覽及研討會和參觀聚乙烯喉管生產廠房，本署同事能加深對各類型聚乙烯喉管及配件及應用非開挖技術於喉管鋪設及修復工程之認識。

本署同事參觀位於泰國呵叻府的聚乙烯喉管生產廠房

DSD colleagues visited Thai Asia Polyethylene Pipe Factory at Pak Chong, Thailand

10th International Exhibition and Conference on Trenchless Technology

In May 2018, our colleagues attended Trenchless Asia 2018, the 10th International Exhibition and Conference on Trenchless Technology in Kuala Lumpur, Malaysia, and visited the Thai Asia Polyethylene (PE) Pipe Factory at Pak Chong, Thailand. Trenchless Asia 2018 comprised of a 2-day conference and exhibition, which provided the participants with information on the latest trenchless techniques and equipment. Through the conference and site visit, our staff deepened their knowledge on the installation and rehabilitation of underground utilities and pipelines using the latest trenchless techniques, and broadened their understanding on the wide variety of PE pipes and fittings.



本署同事出席第10屆國際非開挖技術展覽及研討會

DSD colleagues attended the 10th International Exhibition and Conference on Trenchless Technology

2018年新加坡國際水資源週研討會

2018年8月，本署同事與發展局及水務署代表出席新加坡兩年一度的「第8屆新加坡國際水資源週研討會2018」。

座談會及會議提供超過24,000名包括「水領導者」的公共界別機構及各地專家交流水資源的最新科技。本署同事還參觀了裕廊再生水廠，實地了解先進污泥預處理技術，以及參觀樟宜再生水廠及其「新生水」設施汲取新加坡對再造水方面的寶貴經驗。

歡迎會慶祝「新加坡國際水資源週」的十週年

"Singapore International Water Week" welcome reception celebrating 10 years of water excellence

8th Singapore International Water Week 2018

In August 2018, our colleagues joined the representatives from the Development Bureau and the Water Supplies Department on a trip to 8th Singapore International Water Week 2018, a biennial event, in Singapore.

The conference offered a number of highly informative forums for more than 24,000 participants, including various leaders in the water industry, public sector organizations and experts from all over the world to share their experience in the latest technologies. Our colleagues also visited Jurong Water Reclamation Plant (WRP), which is equipped with an advanced thermal hydrolysis process as well as Changi WRP with a NEWater plant of the city to gain an insight into Singapore's sludge treatment and reclaimed water technologies.

香港工程師學會土力工程分部瑞士海外考察活動

2018年6月，本署同事參加由香港工程師學會土力工程分部舉辦的海外代表團到訪瑞士進行考察活動。是次考察活動旨在通過學習瑞士在地下空間開發和隧道技術的經驗和專業知識，藉此豐富同事們在相關範疇的技術、風險管理和減災方面的知識。代表團亦參觀了瑞士著名的洞穴設施、大型隧道工程和地下採石場等設施。

HKIE Geotechnical Division Overseas Delegation Visit to Switzerland

In June 2018, our colleagues attended an overseas delegation visit to Switzerland which was organised by the Geotechnical Division of the Hong Kong Institution of Engineers (HKIE). The visit aimed at enriching our knowledge on underground space development and tunnelling technologies, as well as landslide risk management and hazard mitigation by learning from Switzerland's experience and expertise. Some examples of sites that the delegation visited during the tour include some notable cavern facilities, large tunnelling projects, and an underground quarry.

代表團參觀瑞士的地下採石場

The delegation visited an underground quarry in Switzerland

第16屆濕地系統水污染控制國際會議

2018年9月，本署同事參加了國際水協會兩年一度在西班牙舉行的會議。透過參與講座和實地考察，本署同事與來自世界各地的從業員交流污水處理資訊，並加深對可持續濕地系統控制水污染的應用體。

16th International Conference on Wetland Systems for Water Pollution Control

In September 2018, our colleagues attended the International Water Association (IWA) biennial conference in Spain. They exchanged information on sewage treatment with practitioners around the world and enriched their experience of sustainable wetland systems for water pollution control application through a series of lectures and site visits.

第16屆濕地系統水污染控制國際會議

16th International Conference on Wetland Systems for Water Pollution Control

員工安全與健康
Staff Safety and Health

除了為員工提供培訓及發展機會外，我們亦致力確保所有員工能在安全及健康的環境下工作。本署設有安全督導委員會，負責監察和統籌本署的職安健事務，確保消除或有效受控制員工的職安健風險。

除此之外，我們亦設有多個監察委員會，包括機電工程科安全管理委員會、污水處理廠安全及健康管理委員會，以及直屬員工隊安全管理委員會。各委員會均由署內不同職系和職級的人員組成，佔部門整體人員編制約3%。各委員會定期舉行會議，討論及檢視與職安健相關的事項和措施。

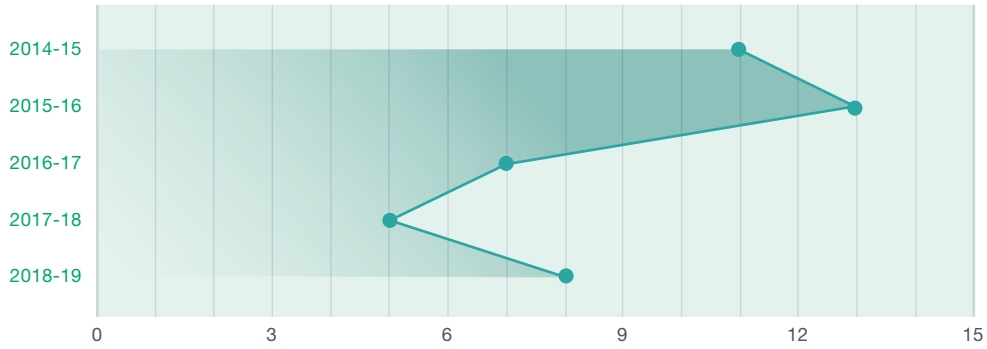
自2019年1月起，我們已成立污水處理廠安全關懷探訪計劃，與前線工作人員會面並收集他們對工作場所安全的意見。探訪期間亦會進行安全簡報、研討會、影片播放和經驗分享。

In conjunction with our drive to provide staff with training and development opportunities, we strive to ensure a safe and healthy working environment for the entire workforce. A Safety Steering Group has been set up to oversee and coordinate the OSH affairs of the Department, ensuring that the OSH risks are eliminated or effectively controlled.

We have also established a number of monitoring committees, namely the Electrical and Mechanical Branch Safety Management Committee, the Sewage Treatment Works Safety and Health Management Committee, and the Direct Labour Force Safety Management Committee. They are composed of DSD staff from various disciplines and grades and account for about 3% of the DSD staff. Meetings are held regularly to discuss and review OSH related issues and measures.

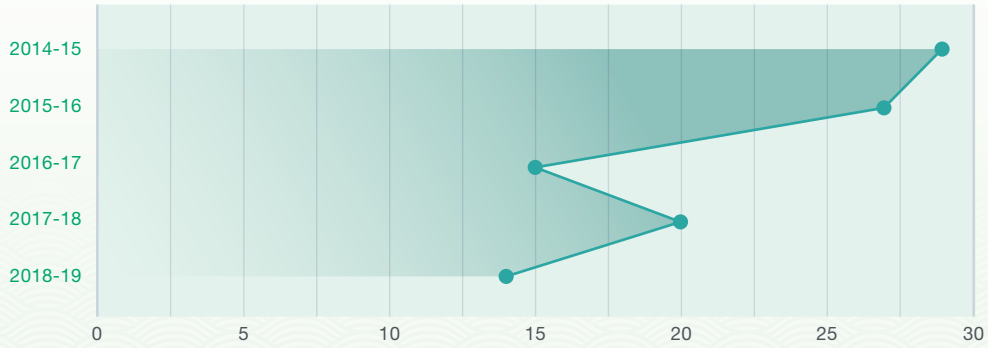
Since January of 2019, a Safety Caring Visit Program has been set up for sewage treatment plants, to meet the front-line workers and collect their views on workplace safety. Safety briefings, workshops, video shows, and experience sharing would be conducted during the visits.

渠務署員工受傷個案#
DSD Staff injuries



員工受傷個案指根據《僱員補償條例》呈報導致死亡或喪失工作能力超過3天的工傷個案。
Staff injury cases refer to cases of occupational injuries reported under Employees' Compensation Ordinance, resulting in death or incapacity for work over three days.

非致命意外數目*
Number of non-fatal accidents



* 包括渠務署員工及渠務署轄下承建商員工受傷個案。
Including injury cases of DSD staff and DSD contractors' staff.

職安健推廣活動
Occupational Safety and Health Promotional Activities

我們積極舉辦和參與職安健推廣活動，為本署培育安全文化。2018-19年度，本署參與的活動如下：

- 29項工程項目參與發展局主辦的第25屆公德地盤嘉許計劃
- 32項工程項目參與本署舉辦2018年工地安全整潔獎勵計劃
- 為本署員工、顧問公司駐工地人員及承建商代表舉辦2個安全講座及1個實地考察

To foster the culture of work safety within the Department, we actively organise and participate in OSH promotional campaigns. The activities we took part in during 2018-19 are listed below:

- 29 DSD projects participated in the 25th Considerate Contractors Site Award Scheme held by the Development Bureau
- 32 projects participated in the Construction Sites Safety and Housekeeping Award Scheme 2018 organised by DSD
- Two safety talks and one site visit were organised for DSD colleagues, resident site staff of consultants and representatives of contractors

獲獎合約團隊代表於第25屆公德地盤嘉許計劃頒獎典禮合照

Representatives of the winning contract teams pictured at the award ceremony for the 25th Considerate Contractors Site Award Scheme

康樂活動
Staff Recreational Activities

為促進本署各部門同事的溝通和認識，鼓勵工作及生活平衡，渠務署職員康樂會定期為員工籌劃和舉辦不同的康樂活動，藉此拉近同事之間的距離。

To facilitate communication between DSD staff members from different divisions, and to promote a healthy work-life balance, the DSD Staff Club organises a wide range of recreational activities on a regular basis. These events help strengthen relationships among colleagues across the division.

香港馬拉松2019
Hong Kong Marathon 2019

於2019年的香港馬拉松，本署除了有約30名員工及其親屬踴躍參與賽事外，更邀請了本署的顧問公司及承建商等合作夥伴一同參與，總人數多達90人。於賽事中，本署的參賽者及合作夥伴一同迎難而上，互相打氣，藉此增進友誼，充分體現團隊的合作精神。

In 2019, DSD continues to give the Hong Kong Marathon 2019 fervent support, with approximately 30 staff members and their relatives participating. Our consultants, contractors and other partners were invited to join the race, making up a strong team of 90 runners. Each person's participation in the race helped encourage the rest of the team, and helped build up team morale throughout the event.

香港馬拉松2019
Hong Kong Marathon 2019

單車河道遊
Cycling trip along riverside

戶外活動及興趣班
Outdoor Activities and Interest Classes

本署的員工興趣廣泛，上至烹飪，下至攝影，均有愛好者。有見及此，職員康樂會亦安排了各式各樣的戶外活動和興趣班讓同事互相交流，當中包括本地旅行團、單車遊、遠足、綠化講座、烹飪班、攝影技巧教學班及水晶珠製作班等。

DSD employees have a wide range of interests, ranging from cooking to photography. Catering to their diverse passions, the Staff Club organises many different types of outdoor activities and classes for our colleagues. These include local tours, cycling trips, hiking, green seminars, cooking classes, photography classes and bead accessories design classes.

龍舟競渡
Dragon Boat Race

本署的龍舟隊自成立以來，除了定期訓練外，每年均積極參與不同的龍舟賽事，希望能為員工強健體魄之餘，亦能提升團隊凝聚力。龍舟隊於沙田龍舟公開賽2018奪得中龍混合邀請賽季軍，並於將軍澳龍舟比賽2018奪得發展局盃（政府部門）銀盃（亞軍）。

Since the establishment of DSD dragon boat team, the members have been training regularly to stay in shape and actively participating in different dragon boat races over the years. Apart from helping to maintain good health, competitions can also be an excellent team building activity that promotes cohesiveness among our people. The DSD dragon boat team won the second runner up in China Dragon Mixed Invitational Tournament of Shatin Dragon Boat Open Competition 2018, and achieved the Silver Cup (first runner-up) in the Development Bureau Cup (Government Cup) of Tseung Kwan O Dragon Boat Race 2018.

渠務署於沙田龍舟公開賽2018奪得中龍混合邀請賽季軍

DSD won the second runner-up in China Dragon Mixed Invitational Tournament of Shatin Dragon Boat Open Competition 2018

渠務署於將軍澳龍舟比賽2018奪得發展局盃（政府部門）銀盃（亞軍）

DSD won the Silver Cup (first runner-up) in the Development Bureau Cup (Government Cup) of Tseung Kwan O Dragon Boat Race 2018

體育競賽
Sports Competitions

為達至員工身心健康，除了參加馬拉松及龍舟競賽外，職員康樂會亦積極參與其他機構舉辦的體育競賽，以及主動籌劃了包括足球、籃球、乒乓球、壁球、桌球、網球、羽毛球、保齡球和飛鏢等跨部門運動競賽，讓同事發揮運動才能、一較高下。

Apart from joining the marathon and dragon boat races every year, our Staff Club strives to promote colleagues' athletic strength and wellness in our colleagues. Hence, a series of inter-departmental sports tournaments were organised throughout the year, including football, basketball, table tennis, squash, snooker, tennis, badminton, bowling and darts.

建造業議會2019開心長跑

Construction Industry Council Happy Run 2019

發展局開心長跑日2018

Development Bureau Happy Running Day 2018

周年晚宴
Annual Dinner

一年一度的渠務署職員康樂會週年晚宴於2018年5月完滿舉行，出席的嘉賓及同事約300人。當晚除了頒發各項體育比賽獎項、進行幸運抽獎及有獎問答遊戲外，時任署長唐嘉鴻先生及副署長麥嘉為先生更與渠務署樂隊一同獻唱，令台上台下開懷盡歡。

Organised by our Staff Club, the DSD Annual Dinner was held in May 2018, hosting about 300 guests and colleagues. The programme included a prize presentation for sports competitions, a lucky draw and a myriad of team games, and Mr. Edwin TONG Ka-hung, then Director of Drainage Services and Mr. MAK Ka-wai, Deputy Director of Drainage Services, gave a musical performance alongside the DSD Band. It was truly a joyful and memorable evening for all.

祝酒儀式
Making a toast

本署副署長麥嘉為先生與渠務署樂隊合唱
Mr. MAK Ka-wai, Deputy Director of Drainage Services, jamming with the DSD Band

本署時任署長唐嘉鴻先生與渠務署樂隊合唱
Mr. Edwin TONG Ka-hung, then Director of Drainage Services, jamming with the DSD Band

發展局常任秘書長（工務）林世雄先生、發展局副局長廖振新先生、環境局副局長謝展寧先生、時任環境局常任秘書長／環境保護署署長唐智強先生、已退休渠務署署長們於聖誕聯歡會上共聚一堂
Mr. LAM Sai-hung, Permanent Secretary for Development (Works), Mr. LIU Chun-san, Under Secretary for Development, Mr. TSE Chin-wan, Under Secretary for the Environment, Mr. Donald TONG Chi-keung, then Permanent Secretary for the Environment/Director of Environmental Protection, and retired Directors of Drainage Services were invited to join our Christmas Party

部門聖誕聯歡會

逾470位同事及嘉賓在2018年的聖誕聯歡會聚首一堂，共慶佳節。於聯歡會上，同事們獻唱聖誕詩歌和進行幸運抽獎，氣氛歡騰，樂也融融。

Christmas Party

Over 470 colleagues and guests joined the DSD Christmas Party 2018 to celebrate the holiday season. Christmas carols sung by colleagues and a lucky draw brought the festive cheer to the staff function.

親善探訪 Goodwill Visits

我們十分重視員工的意見，為加強管理層與前線員工的交流和對話，本署自2013年6月起設有親善探訪計劃。在此計劃下，本署署長、副署長和其他首長級人員每年均會到前線員工的工作地點進行親善探訪，了解員工關心的議題，深化彼此間之連繫。在2018-19年度，管理層共進行了12次親善探訪，與14處辦公地點的員工溝通。

Staff feedback is crucial to us. To foster communication and reinforce ties between the management and frontline staff, DSD introduced the Goodwill Visits programme in June 2013. Under the programme, Director and Deputy Director of Drainage Services, as well as other directorate staff, pay visits to frontline staff at their workplaces annually, listening to staff concerns and thus developing a deep trust in our department. In 2018-19, the management made a total of 12 goodwill visits to communicate with frontline staff at 14 operational sites.

親善探訪茶聚
Goodwill visits tea gathering

管理層親善探訪情況
Top management's goodwill visits

內部員工意見
Comments from Internal Staff

作為渠務署的內部員工，喜見渠務署不論階級，均願意照顧員工的需求，並重視各階層員工的意見。而渠務署作為政府部門的一份子，於社會責任及保障人權，包括採購政策和維持平等機會，都有劃一的政策，並見渠務署一直致力落實推行，得到良好的實踐。

於未來，期望渠務署將繼續聆聽員工的訴求，並作出跟進。我們亦希望渠務署能安排更多的外展培訓機會，使我們能裝備自己，為未來的工作挑戰做更好的準備。

The internal staff of DSD, appreciate the willingness of DSD's management to take care of our needs and addressing the opinions given by staff from junior grades or senior management. DSD has standardised social responsibility and human rights policies, including procurement and non-discrimination policies. We can see the good practices resulting from DSD's continuous application of these policies.

We anticipate DSD will continue to listen to and follow up with its employee's needs. We hope DSD will arrange more outbound training opportunities to equip ourselves for the upcoming challenges faced in the future works.

渠務署內部員工焦點小組會議合照
Group photo of DSD internal staff in the focus group meeting

渠務署的話

本署非常重視員工的個人發展、身心健康及職業安全，因此將繼續為員工帶來更多不同的培訓和康樂活動，以支持員工的工作及營造健康、和諧的工作環境。我們亦會不斷聆聽及回應員工的意見與需求，以確保內部有充分溝通，維持營運效率。

Our Response

We care much about the personal development, physical heath, mental health and occupational safety of our employees. Therefore, we will continue to provide our employees with a variety of training and recreational activities, in order to support their work and build a healthy and harmonious working environment. We will continue to listen and respond to our employees' opinions, and maintain sufficient communication to facilitate efficient operation.

持份者參與活動

第七章 CHAPTER 7

Stakeholder Engagement Activities

渠務署非常重視各持份者的意見，以開放態度，積極與不同界別的持份者建立互動和長遠的夥伴關係。渠務署透過不同媒體，致力向公眾推廣及介紹轄下工程項目，並舉辦生態保育、親水文化的推廣與教育工作，希望大眾能進一步了解並支持渠務署的工作。此外，本署亦鼓勵員工投身社區及義務工作，身體力行，回饋社會。

DSD attaches great importance to the opinion of various stakeholders with an open-minded attitude and actively maintain an interactive and long-term partnerships with multi-sectoral stakeholders. DSD is committed to promoting and introducing our works to the public through various means of media as well as engaged in the promotion and educational work of ecological conservation and water-friendly culture, with the hope of the public can further understand and support the works of DSD. In addition, DSD also encourages employees to physically take part in volunteer services and charitable activities for giving back to the society.

參觀跑馬地地下蓄洪池

Visit to Happy Valley Underground Stormwater Storage Tank

渠務署職場體驗活動
DSD Job Tasting Programme

2019 渠務署開放日
DSD Open Day 2019

媒體參與 Media Engagement

媒體是我們對外發布消息及與公眾溝通的重要夥伴。年內，我們繼續舉辦傳媒簡報會並接受媒體採訪，亦應邀參與媒體舉辦的資訊節目，以簡介及分享社會關注的項目，致力提升部門形象，加深大眾對渠務署工作的認識。

The media is our crucial partner for channeling our news and communicating with the public. This year, we continued to host media briefings, attend interviews and participate in informative programmes organised by the media to brief stakeholders and share details of the projects that are of public concern. DSD strives to enhance the department's image and deepen the public's understanding of our work.

管理層與傳媒溝通 Exchange between the Management and Media

時任署長唐嘉鴻先生就水塘間轉運隧道計劃及共享渠務設施空間接受傳媒訪問

2018年9月27日，時任署長唐嘉鴻先生就水塘間轉運隧道計劃及共享渠務設施空間兩方面接受傳媒訪問。專訪已於2018年10月8日刊出。

Mr. Edwin TONG Ka-hung, then Director of Drainage Services, gave an interview to the media on Inter-Reservoirs Transfer Scheme and Land Co-use of DSD facilities

On 27 September 2018, Mr. Edwin TONG Ka-hung, then Director of Drainage Services, attended an interview to present DSD's Inter-reservoirs Transfer Scheme and Land Co-use at DSD facilities to the media. The interview was published on 8 October 2018.

年度傳媒簡報會

2019年3月28日，本署舉行年度簡報會，向傳媒簡介本署主要工程的最新情況，並帶領記者前往昂船洲污水處理廠講解淨化海港計劃的優化工程。

Annual Media Briefing

On 28 March 2019, DSD held the Annual Media Briefing to brief the media on the latest situation of DSD's major works. In addition, DSD led a visit for the media to Stonecutters Island Sewage Treatment Works (STW) to introduce the Enhancement Works of Harbour Area Treatment Scheme (HATS).

渠務署時任署長唐嘉鴻接受傳媒訪問

Mr. Edwin TONG Ka-hung, then Director of Drainage Services, attending the media interview

渠務署署長盧國華先生向傳媒講解淨化海港計劃的優化工程

Mr. Kelvin LO Kwok-wah, Director of Drainage Services, introduced the Enhancement Works of Harbour Area Treatment Scheme to the media

渠務署署長盧國華先生向傳媒簡介渠務署的工作

Mr. Kelvin LO Kwok-wah, Director of Drainage Services, briefed the media on DSD's works

渠務署工程及工作傳媒專訪
Media Interviews on DSD Projects and Work

雨水排放隧道傳媒專訪

2018年8月13日，工程師李進鵬先生就應對雨季的工作接受《晴報》訪問。訪問中，李先生向記者介紹荔枝角雨水排放隧道採用的截流概念，並分享該隧道的日常運作及維修工作。訪問已於2018年9月7日的《晴報》刊出。

Media Interview on Drainage Tunnels

On 13 August 2018, Mr. Terence LEE Chun-pang, Engineer, gave an interview to Sky Post on precautionary works for the rainy season. Mr. LEE introduced to the reporter the concept of interception of Lai Chi Kok Drainage Tunnel (LCKDT) and shared the operation and maintenance systems of LCKDT. The interview was published in Sky Post on 7 September 2018.

工程師李進鵬先生介紹荔枝角雨水排放隧道的設計

Mr. Terence LEE Chun-pang, Engineer, introduced the design of Lai Chi Kok Drainage Tunnel

廚餘、污泥共厭氧消化試驗計劃傳媒專訪

2019年2月1日，《明報》、《星島日報》及《經濟日報》專訪就「廚餘、污泥共厭氧消化試驗計劃」專訪高級機電工程師黎瑋筠女士及機電工程師張鍵權先生。專訪已於2019年2月11日刊出。

Media Interviews on "Food Waste and Sewage Sludge Anaerobic Co-digestion Pilot Trial"

On 1 February 2019, Ming Pao, Sing Tao Daily and Hong Kong Economic Times interviewed Ms. Sussana LAI Wai-kwan, Senior Electrical and Mechanical Engineer and Mr. CHEUNG Kin-kuen, Electrical and Mechanical Engineer, regarding the "Food Waste and Sewage Sludge Anaerobic Co-digestion Pilot Trial" at the Tai Po STW. The interview was published on 11 February 2019.

高級機電工程師黎瑋筠女士（右）及機電工程師張鍵權先生（左）講解廚餘與污泥所產生的的協同效應

Ms. Sussana LAI Wai-kwan (right), Senior Electrical and Mechanical Engineer and Electrical and Mr. CHEUNG kin-kuen (left), Mechanical Engineer, introduced the synergy between the anaerobic co-digestion of sewage sludge and food waste

參與電視及電台資訊節目 Participation in TV and Radio Informative Programmes

香港電台介紹麻笏河及下林村河生態改善試驗研究

2018年11月8日，香港電台第一台資訊節目《開心日報》就香港生物多樣性節2018和麻笏河及下林村河生態改善工程，訪問漁農自然護理署及渠務署代表。訪問中，本署工程師葉沛璣女士講解麻笏河及下林村河生態改善工程的背景、生態考慮及試驗結果，並介紹渠務署在活化河道及河道保育生態的工作。專訪已於11月8日上午的「開心日報」播出。

Radio Television Hong Kong reported on the Ecologial Enhancement Site Trials at Ma Wat River and Lower Lam Tsuen River

On 8 November 2018, Happy Daily, the informative programme of RTHK Radio 1, interviewed representatives from Agriculture, Fisheries and Conservation Department (AFCD) and DSD about the Hong Kong Biodiversity Festival 2018 and the Ecological Enhancement works at Ma Wat River and Lower Lam Tsuen River. During the interview, Ms. Maggie YIP Pui-kei, DSD Engineer, explained the background, ecological consideration and the results of the enhancement works at Ma Wat River and Lower Lam Tsuen River. In addition, DSD's works in river revitilisation and river ecological conservation were also discussed. The interview was broadcast during Happy Daily on 8 November 2018.

工程師葉沛璣女士（右二）接受香港電台節目《開心日報》訪問
Ms. Maggie YIP Pui-kei (second right), Engineer, was interviewed by RTHK Radio 1

亞洲電視訪問機電工程師吳嘉榮及熱線總監黎超良

2018年12月7日，亞洲電視節目《香港追擊搜》就渠務署渠蓋設計比賽訪問了機電工程師吳嘉榮先生及熱線總監黎超良先生。訪問中，黎先生向記者講解渠蓋的歷史及種類；而吳先生則介紹由本署舉辦的渠蓋設計比賽，並鼓勵市民踴躍參加。專訪已於2018年12月13日亞洲電視及香港開電視播出。

Asia Television Interviewed Mr. Barry NG Ka-wing, Electrical and Mechanical Engineer and Mr. Sammy LAI Chiu-leung, Hotline Superintendent

On 7 December 2018, Mr. Barry NG Ka-wing, Electrical and Mechanical Engineer, and Mr. Sammy LAI Chiu-leung, Hotline Superintendent, gave an interview to the progamme of Asia Television (ATV), "Hong Kong Snipe", on DSD's manhole cover design competition. During the interview, Mr. LAI briefly explained the history of local manholes of various categories while Mr. NG introduced DSD's manhole cover design competition and encouraged participation. The interview was broadcast in ATV and Hong Kong Open Televisions on 13 December 2018.

機電工程師吳嘉榮先生向記者介紹本署的渠蓋設計比賽
Mr. Barry NG Ka-wing, Electrical and Mechanical Engineer, introduced DSD's manhole cover design competition to the reporter

渠務署熱線總監黎超良先生接受亞洲電視節目《香港追擊搜》訪問
Mr. Sammy LAI Chiu-leung, DSD Hotline Superintendent, gave an interview to ATV's progamme, "Hong Kong Snipe"

公眾參與
Public Engagement

渠務署邀請大眾參與多元化活動，並以不同渠道收集公眾意見。本署定期舉辦不同形式的公眾參與活動，包括社區宣傳、技術考察及工作坊等。本署以謙卑的態度，仔細聆聽社區意見，平衡各方利益。同時，本署致力組織公眾推廣工作，增加大眾對渠務署工作的參與及支持。本署相信，邀請公眾參與活動既可提高渠務署的透明度，亦可吸收創新思維，啟發創意，對渠務署未來的可持續發展具有莫大裨益。

DSD invites public to participate in the diversified activities and collect public views through different channels. DSD regularly organises various forms of public engagement activities, including community outreach, technical visits and workshops. DSD listens carefully to the views of the community and balances the interests of all parties with modesty. At the same time, DSD is committed to public promotion to enhance public participation and support of DSD's work. DSD believes inviting the public to participate in the engagement activities can enhance the transparency of DSD, also to inspire innovative ideas and creativity which will be of great benefit to the sustainable development of DSD in the future.

渠務署工程項目公眾參與活動
Public Engagement Activities of DSD Projects

啟德河改善工程

早於工程開展前，本署已聯同土木工程拓展署及規劃署，進行兩階段的「共建啟德河」公眾參與活動。自2011年工程開展後，我們一直與各界持份者保持緊密溝通，向持份者及公眾發放工程資訊，並聆聽他們對工程的意見，務求回應他們所關注的議題，盡力減少工程對居民的影響。

Kai Tak River Improvement Works

Prior to project commencement, DSD was in partnership with the Civil Engineering and Development Department and Planning Department to launch "Building Our Kai Tak River", a two-stage public engagement programme. Since the commencement of the project in 2011, we have maintained close communication with various stakeholders and provided project information to the stakeholders and the public, so as to address their concerns and minimise the impacts of the project on residents as far as possible.

2018年11月，本署於可立中學進行講座
In November 2018, school talk in Ho Lap College was held

2019年1月，黃大仙區議會議員參觀啟德河
In January 2019, Wong Tai Sin District Council members visited Kai Tak River

社區活動及宣傳

為讓公眾更了解啟德河改善工程，本署於2018年11月邀請了位處啟德河附近的中學，舉辦一系列到校講座。講座期間，本署職員向同學介紹部門的防洪工作，亦講解了啟德河改善工程所遇到的挑戰。

除於黃大仙區議會轄下的政府及公用機構工程計劃工作小組定期匯報工程進度外，我們亦專誠安排黃大仙區議員參觀啟德河改善工程，為他們講述道路重建時所實施的臨時交通措施。

實地考察

過去一年，我們安排多個機構代表，包括深圳市水務局人員、土木工程師學會（香港分會青年部）的會員及南澳洲政府代表，到啟德河進行實地考察，讓他們了解改善工程的目的、挑戰和成效。

Community Activities and Publicity Efforts

To enhance the public's understanding of the project, DSD held a series of outreach school talks at secondary schools near Kai Tak River in November 2018. During the talks, DSD staff introduced our flood prevention works and the challenges we faced when carrying out the Kai Tak River improvement works.

Apart from regular progress reporting in Working Group on Government and Public Utilities Works Projects of Wong Tai Sin District Council, we arranged a visit to the Kai Tak River Improvement Works for the members of Wong Tai Sin District Council to brief them on the temporary traffic arrangement implemented on site during the road reinstatement works.

Site Visits

In the past year, several site visits to Kai Tak River were arranged for groups of various organisations, including members of the Shenzhen Water Resources Bureau, members of Institution of Civil Engineers (Hong Kong Association, Graduates and Students Division) and delegates from the South Australia Government, in order to give them an understanding of the project's objectives, challenges and outcomes.

2018年7月，南澳洲政府代表參觀啟德河

In July 2018, delegates from South Australia Government visited Kai Tak River

2018年11月，深圳市水務局代表到訪啟德河

In November 2018, representatives of Shenzhen Water Resources Bureau visited Kai Tak River

活化翠屏河

活化翠屏河計劃旨在利用水景、園景和生態概念，將翠屏道及敬業街旁的明渠活化成河道，為它注入生氣和活力，營造生境，亦能加強翠屏河的防洪功能，為社區帶來一個全新的近水休憩設施。

Revitalisation of Tsui Ping River

The Revitalisation of Tsui Ping River aims to transform the nullah along Tsui Ping Road and King Yip Street into a river through a revitalisation concept that comprises waterscape, landscaping and ecological enhancement. The goal is to inject vibrancy and create habitats while strengthening the flood protection capability of Tsui Ping River. It will become a new and vibrant riverine amenity for the community.

我們於2018年年中舉辦了第二階段公眾參與活動，介紹項目的最新設計及收集公眾人士及持份者的意見。我們亦分別諮詢了觀塘區議會和海濱事務委員會。為增加公眾人士對項目的了解及收集公眾意見，我們更新了項目網頁、安排巡迴展覽、派發工程小冊子，並安排了兩場社區工作坊和一場專題小組會議，直接與公眾、綠色團體、專業團體及學術團體溝通和交流。本項目得到公眾的普遍支持。

DSD organised the Stage 2 Public Engagement in mid-2018 to introduce the updated design of the project as well as to collect further views from the public and stakeholders. We also consulted the Kwun Tong District Council and the Harbourfront Commission. Other initiatives were also rolled out to provide more project details for the public and to seek their comments, such as revamping the project website, arranging roving exhibitions and handing out project pamphlets. Two community workshops and a focus group meeting were held to provide platforms for direct communication and exchange of views with the general public, green groups, professional bodies and academia. The project has gained general support from the public.

在巡迴展覽中應用到虛擬實境技術介紹項目內容

Roving exhibition, with the application of virtual reality (VR) technology to introduce the project

在社區工作坊中介紹最新活化計劃及收集公眾意見

Introducing updated revitalisation plan and collecting public views at community workshops

在專題小組會議上與綠色團體、專業團體及學術團體交流

Exchange of views with green groups, professional bodies and academia at the Focus Group Meeting

石湖墟淨水設施

為配合北區長遠發展，渠務署將重建現有石湖墟污水處理廠，以提高其污水處理能力及將其污水處理水平提升至三級標準，以優化石湖墟淨水設施。

在2018至2019年期間，渠務署委託了香港社會創新顧問「好單位」，共同推行一個名為「社區環境工作室@石湖墟淨水設施及周邊地區」的社區共創項目。

Shek Wu Hui Effluent Polishing Plant

To tie in with the long-term development of the North District, DSD will reconstruct the existing Shek Wu Hui STW, to increase its sewage treatment capacity and to upgrade the sewage treatment level to a tertiary standard, for optimising Shek Wu Hui Effluent Polishing Plant.

In 2018-2019, DSD engaged a Hong Kong social innovation consultant, "Good Lab", and jointly implemented a social innovative programme, namely "Community Design for Sustainable Development @ Shek Wu Hui Effluent Polishing Plant and Peripheral Areas".

秉承「以人為本」的宗旨，本署及工程項目團隊與地區人士、綠色團體、教育界及其他專業團體代表攜手合作，共同設計石湖墟淨水設施的共享空間及訪客遊覽區。我們更以突破性「設計思維」方式與持份者探討連結相關空間至社區的理念，並注入可持續發展和地區歷史文化的教育元素。

在過程中，我們通過一系列的互動活動，包括訪問、街站和公眾工作坊，善用多個平台與不同持份者溝通，了解他們對石湖墟淨水設施的期盼，並從未來使用者的角度，共同構思「以用家為本」的共享空間設計意念。

透過與社區共同設計的創新方法，我們期望石湖墟淨水設施能成為一個更惠民的公共設施，並能連結社區，從而提升市民的生活質素及凝聚一個更共融的社區。

With the aim of "people-oriented", DSD and the project team, held hands with the district members, green groups, representatives from the educational and other professional parties, collectively designed the public co-use and visitors' areas inside Shek Wu Hui Effluent Polishing Plant. We also explored, with the stakeholders, the concept of connecting these areas to the community, in a breakthrough "design thinking" approach. In addition, we even infused educational elements of sustainable development and district history and culture.

With a view to communicate with the stakeholders in multi-faceted platforms, we held a series of interactive events, including interviews, street booths and public workshops throughout the process, so as to understand the users' wishes towards Shek Wu Hui Effluent Polishing Plant, and jointly developed the concept of "user-oriented" co-use design from the future users' point of view.

With the innovative way of co-design with the community, our wish is to make Shek Wu Hui Effluent Polishing Plant a public facility which is more beneficial to the public, and at the same time connects the community, such that the quality of living of the public can be improved and to enhance a more inclusive community.

石湖墟淨水設施共享空間概念圖
Conceptual illustration of co-use area inside Shek Wu Hui Effluent Polishing Plant

2019年1月舉行的「社區教育計劃」體驗日
The Experiential Day of "District-based Educational Programme" held in January 2019

一系列多平台的公眾溝通活動
A series of multi-faceted public communication events

淨化海港計劃第二期甲

我們在2018-2019年度舉辦多項公眾參與活動，致力向市民推廣淨化海港計劃第二期甲工程，當中主要包括：

- 向鄰近相關持份者派發簡訊；
- 接待多個團體參觀昂船洲污水處理廠，簡介工程及污水處理廠的日常運作，其中包括工程及科技專業學會、中學及大專院校學生、建造業議會、環保署及內地政府官員等；
- 於昂船洲污水處理廠舉辦「渠務署成立30週年暨淨化海港計劃完成主要系統優化工程」慶祝典禮；
- 接受傳媒採訪。

Harbour Area Treatment Scheme Stage 2A

We organised various public engagement events throughout 2018-19 to promote the Harbour Area Treatment Scheme (HATS) Stage 2A Project to the public. Our key public engagement activities include:

- Distribution of newsletters to neighbourhood stakeholders;
- Arrangement of visits to Stonecutters Island STW for various groups and organisations introducing the project and the daily operation of the STW, including engineering and technology professional institutions, secondary school or university students, Construction Industry Council and the Environmental Protection Department, mainland officials and others;
- Organised the ceremony for celebrating DSD 30th Anniversary Cum Completion of HATS' Main System Enhancement Works; and
- Media Interviews.

2018年11月22日，內地政府官員參觀昂船洲污水處理廠，了解工程設計理念

On 22 November 2018, Mainland government officers visited Stonecutters Island Sewage Treatment Works and the engineering design concept were introduced

2019年3月22日，渠務署成立30週年暨淨化海港計劃完成主要系統優化工程典禮於昂船洲污水處理廠舉行

On 22 March 2019, the Celebration Ceremony for DSD 30th Anniversary Cum Completion of Harbour Area Treatment Scheme Main System Enhancement works was held at the Stonecutters Island Sewage Treatment Works

渠務署參與扶貧委員會「友 • 導向」計劃，並於2018年7月6日帶領一眾中學生參觀昂船洲污水處理廠，了解淨化海港計劃

DSD participated in the "Life Buddies" Scheme launched by the Commission on Poverty. Secondary school students were invited to visit Stonecutters Island Sewage Treatment Works on 6 July 2018 to understand the aims and benefits of HATS

2019年3月28日，渠務署年度傳媒簡報會邀請傳媒參觀昂船洲污水處理廠及淨化海港計劃第二期甲工程

On 28 March 2019, DSD Annual Media Briefing invited media to visit Stonecutters Island Sewage Treatment Works and the project of Harbour Area Treatment Scheme Stage 2A

社區活動及展覽 Community Activities and Exhibitions

年內，本署舉辦及參與多項不同類型的社區活動及展覽，包括：

科學為民巡禮

一如以往，本署參與年度「科學為民」服務巡禮，向市民介紹政府部門和相關機構的科學工作，以及如何應用科技提供公眾服務。2018年服務巡禮的主題為「科學與智慧城市」。

2018年9月15日在科學館舉行論壇，本署高級工程師黃可揚先生及工程師譚鷹勳先生聯同香港天文台科學主任胡宏俊先生，向公眾講述「小渦旋」臨近預報系統在優化船灣排水系統的控制理念及應用於啟德河改善工程的情況。

During the year, DSD hosted and participated in various community activities and exhibitions, including:

Science in the Public Service

As in previous years, DSD took part in the annual "Science in the Public Service" event to introduce the general public about the scientific work and application of technology by the government bureaux and departments and other related organisations on the public services. The 2018 event was held with the theme of "Science for Smart City".

On 15 September 2018 at the Forum held in the Hong Kong Science Museum, Mr. WONG Ho-yeung, DSD Senior Engineer and Mr. TAM Ying-fan, DSD Engineer, joined with Mr. WOO Wang-chun, Scientific Officer of the Hong Kong Observatory, to introduce the application of Short-range Warning of Intense Rainstorms in Localised Systems (SWIRLS) Nowcasting System for the Optimisation of the Control Philosophy of Shuen Wan Drainage System and Kai Tak River Improvement Works to the public.

2018年9月，本署代表參與「科學為民」服務巡禮，並向市民講解啟德河改善工程

In September 2018, DSD representative presented at the "Science in the Public Service" event to introduce Kai Tak River project

創新科技嘉年華2018

2018年11月3日至11日，本署於香港科學園舉行的創新科技嘉年華參展，透過短片、展板、模型、虛擬實景技術及互動遊戲，向市民介紹本署活化河道工程，例如：啟德河改善工程及活化翠屏河工程，以及當中應用的創新元素，並讓市民了解渠務署在防洪及污水處理方面的工作。

InnoCarnival 2018

From 3 to 11 November 2018, DSD joined the InnoCarnival held at the Hong Kong Science Park. With the aid of videos, display panels, physical model, VR technology and interactive games, visitors learned about our works on river revitalisation, such as Improvement Works of Kai Tak River and Revitalisation of Tsui Ping River. They also were also invited to learn more about the innovations that DSD has adopted in our projects, as well as our works on flood prevention and sewage treatment.

香港生物多樣性節2018

為推廣香港豐富的生物多樣性，本署響應漁農自然護理署舉辦的生物多樣性節2018，於2018年11月至12月期間舉行多個導賞活動。

Hong Kong Biodiversity Festival 2018

To promote the rich biodiversity of Hong Kong, guided tours were arranged between November and December 2018 to support "Hong Kong Biodiversity Festival (HKBF) 2018" organised by AFCD.

參觀人士可透過虛擬實景技術「置身」活化後的翠屏河

By using the virtual reality technology, visitors could enjoy a site tour to our revitalized Tsui Ping River

市民踴躍參與在林村河的導賞團活動，加深對本地綠化河流的認識

The public were keen to participate in guided tour at Lam Tsuen River and to enhance their knowledge in our green channels

參加者興奮地展示他們在寫生工作坊的作品

Participants excitedly showed their art works in the sketching workshop

林村河生態導賞團及寫生工作坊

2018年11月10日及11日，本署參與了由漁農自然護理署舉辦的生物多樣性節其中的林村河上下游導賞團活動。導賞團向參加者展示林村河生態、社會、文化及環境方面的特質，藉以加強公眾對本地綠化河流的認識。環境局局長黃錦星先生亦有參與首天的導賞團活動。

除了導賞團，渠務署亦參與於2018年12月23日在林村河下游、鄰近生態改善試驗研究的位置舉辦的戶外寫生工作坊。是次活動除介紹林村河下游外的生態及改善措施外，亦邀請畫家教導參加者基本的寫生技巧，以畫筆記錄河道與動植物的互動。

Guided Tour and Nature Sketching Workshop at Lam Tsuen River

On 10 November 2018 and 11 November 2018, DSD took part in the guided tour to Upper and Lower Lam Tsuen River as part of the activities in the HKBF organised by AFCD. The guided tour highlights the multiple dimensions of the Lam Tsuen River such as ecological, social, cultural and environmental dimensions, in order to enhance participants' knowledge in our green river channels. Mr. WONG Kam Sing, the Secretary for the Environment, also participated in the first day of the guided tour.

Besides the guided tour, DSD also took part in a nature sketching workshop at Lower Lam Tsuen River, near the location of the site trial of ecologically enhancement works, on 23 December 2018. In this event, participants not only learned about the river ecology and enhancement works, but also the nature sketching techniques from a nature artist.

九龍城一號及二號污水泵房導賞團

2018年11年24及25日，渠務署聯同漁農自然護理署及一所非弁利機構，一連兩日舉辦了「公民科學－城市生態多面」的活動，共接待了超過100名市民參觀九龍城一號及二號污水泵房。九龍城一號及二號污水泵房以可持續發展的設計概念，加入了透水草坪路面、垂直綠化、天台花園和雨水花園等多項綠色元素，亦豐富了市區的生物多樣性。活動期間，參加者除了認識污水泵房的環保特點，更即場於污水泵房內探索城市生物多樣性。

Guided Tour at Kowloon City No. 1 & 2 Sewage Pumping Stations

On 24 and 25 November 2018, DSD, joined with AFCD and a Non-Government Organisation, and organised an event titled, "Citizen Science－Urban Biodiversity", and toured more than 100 citizens to the Kowloon City No. 1 & 2 Sewage Pumping Stations (SPS). Kowloon City No. 1 & 2 SPS has evoked the design concept of creating an urban oasis, by integrating green infrastructure elements, such as pervious grass pavements, vertical greening, roof gardens and rain gardens to maximise the green coverage, enriching the urban biodiversity. In addition to learning about green features, participants also explored the urban biodiversity of the SPS.

市民參觀九龍城一號及二號污水泵房，對其綠色設計概念有更深入認識

The public visited Kowloon City No. 1 & 2 Sewage Pumping Stations and gained more understanding of its greening design concept

市民參觀元朗排水繞道人工濕地

The public visited Yuen Long Bypass Floodway Engineered Wetland

元朗排水繞道保育導賞團

2018年12月8日及15日，渠務署及漁農自然護理署帶領約40名市民參觀新田雨水泵房及元朗排水繞道。除介紹鄉村防洪計劃及元朗排水繞道防洪工程如何減低水浸風險外，渠務署及漁農自然護理署代表同時展示防洪工程中所注入的保育自然生態元素。

Yuen Long Bypass Floodway Eco Tour

On 8 and 15 December 2018, DSD and AFCD led about 40 participants to visit the San Tin Stormwater Pumping Station and Yun Long Bypass Floodway (YLBF). In addition to introducing how the village flood protection scheme and YLBF reduce the flooding risk, representatives of DSD and AFCD also demonstrated the environmental friendly features incorporated into our flood control projects.

渠務署開放日2019

2019年1月19及20日，本署在沙田污水處理廠舉行以「除污•防洪•共建三十載，復修•活化•開拓新未來」為題的開放日。透過專題展覽和導賞團等活動，加深市民對渠務署歷年發展的認識，和展示渠務署在防洪及除污淨流上的工作成果。

為配合今年的主題，開放日介紹了渠務署的「4R」。第一個R是回顧(Review) ，回顧渠務署30年來在除污和防洪方面的成果。另外3個R則代表渠務署未來的重點工作，包括河道活化(River Revitalisation)、復修渠道(Rehabilitation)及將沙田污水處理廠遷往岩洞(Relocation of Sha Tin Sewage treatment Works to Caverns)。

開放日更為早前舉行的渠蓋設計比賽進行頒獎，比賽以「4R」作為主題，反應非常熱烈，合共收到超過1,400份設計作品。所有得獎及參賽作品均在開放日向公眾展示。

DSD Open Day 2019

DSD held an Open Day at the Sha Tin STW on 19 and 20 January 2019 under the theme of "30 Years of Groundwork, Embracing a New Age". The Open Day aimed to present to the public DSD's development throughout the years, as well as our works and achievements in flood prevention and sewage treatment through various activities including guided tours and thematic exhibitions.

Along with the theme for the year, DSD introduced our "4Rs" on the Open Day. The first "R" stands for reviewing the achievements in flood prevention and sewage treatment of DSD over the last 30 years. The other three "Rs" represent the iconic future projects of the department, namely River Revitalisation, Rehabilitation and Relocation of Sha Tin Sewage Treatment Works to Caverns.

Prize presentation ceremony for the Manhole Cover Design Competition was also held during the Open Day. Themed with the "4Rs", the competition received an overwhelming response with more than 1,400 design entries. All entries were displayed to the public on the Open Day.

時任渠務署署長唐嘉鴻（右三）、副署長麥嘉為（左三）、以及助理署長一同主持開幕典禮

Mr. Edwin TONG Ka-hung (third right), then Director of Drainage Services, Mr. MAK Ka-wai (third left), Deputy Director of Drainage Services, and Assistant Directors officiated at the opening ceremony

渠蓋設計比賽的得獎者與評判團合照

Group photo of the winners and adjudicators of the Manhole Cover Design Competition

一連兩日的開放日得到市民熱烈支持，共吸引超過20,000名市民入場參觀，打破歷年紀錄

The two-day event was well received by the public with an unprecedented number of visitors of more than 20,000 people

互動魔幻泡泡巡遊表演深受家長及小朋友喜愛

The bubble game show was so popular that both the kids and parents were very much enjoyed

本署同事在能源展示區講解電熱聯供發電機之運作

DSD colleagues was explaining the operation of the Combined Heat and Power generator in the Energy Zone

經過環運會秘書處及環保署的確認，是次渠務署開放日2019（沙田污水處理廠）在參與「綠色戶外活動嘉許計劃」中成功達標，並獲得「綠色戶外活動」嘉許計劃證書。活動亦獲授以「綠色戶外活動」的名銜，以嘉許署方在活動中為環保所付出的努力。

As confirmed by the Environmental Campaign Committee and the Environmental Protection Department under the "Green Outdoor Event Commendation Scheme", the DSD Open Day 2019 at Sha Tin Sewage Treatment Works has fulfilled the requirements for receiving "Green Outdoor Event" certificate and is granted with the title of "Green Outdoor Event" as an appreciation of DSD's green efforts in the event.

2019年香港花卉展覽

2019年3月15日至24日，本署參加在維多利亞公園舉行的香港花卉展覽，渠務署展區「願」更獲得最佳設計（園林景點）金獎。展區的園林造景設計靈感來自香港的天然岩石地貌，藉以連繫即將遷入岩洞的渠務設施。設計借用岩洞、岩石的天然形態，以抽象手法將戶外的疊石花園和彎彎曲曲的岩洞走廊塑造成富現代感的展覽場地，再結合星空、月亮及觀天等元素來凸顯主題－大紅花説願。際此渠務署成立30週年，具雕塑感的岩洞走廊化身時光隧道，與市民回顧渠務署過去的發展，撫今追昔，展望將來。

The Hong Kong Flower Show 2019

From 15 to 24 March 2019, we took part in the Hong Kong Flower Show 2019 held at Victoria Park and our exhibit was awarded the Gold Award for Design Excellence (Landscape Display). The landscape design came from inspirations of Hong Kong's interesting rock formations and natural landforms, reminding visitors of STWs to be relocated into caverns. Making use of the natural formations of caverns and rocks and by means of imagery, an outdoor terraced garden and a cavern corridor have been transformed into an exhibition gallery with a sense of modernity. Our theme – When Dreams Blossom – is accentuated by various elements of the starlit sky, the moon and stargazing. To tie in with the 30th anniversary of DSD, the cavern corridor with a sculpture aura serves as a time tunnel to glimpse the past, review the present and reach into the future.

渠務署署長盧國華先生（後排右二）、助理署長黃緒勤先生（後排左二）、及渠務署的工作團隊於展覽期前在展區內合照

Mr. LO Kwok-wah (second right at rear), Director of Drainage Services, Mr. WONG Sui-kan (second left at rear), Assistant Director of Drainage Services and DSD's representatives had a group photo at DSD's exhibit before the exhibition period

渠務署展區內擠滿賞花人士

DSD's exhibit was crowded with visitors

渠務署展區的夜景

The night view of DSD's exhibit

工作夥伴參與 Working Partners Engagement

本署深明良好的夥伴關係能帶來正面的協同效力，與工作夥伴緊密協商及合作，有效提升工作效率。本署藉着新工程合約的合作模式，提高顧問公司及承建商的參與度。同時，本署透過定期實地考察及到訪工地，進一步面對面與工作夥伴溝通，了解各計劃的進展。此外，本署與夥伴工作單位不定期舉辦工作坊，以推廣職業安全與健康，深化與工作夥伴的交流及合作。

DSD understands good partnerships can bring positive synergies and working closely with our partners can enhance work efficiency. Under the new engineering contract model, DSD has boosted the participation between consultants and contractors. At the same time, DSD conducts regular site visits to carry out face-to-face communication with the working partners and to understand the progress of each project. In addition, DSD collaborates with working partners to organize workshops to promote Occupational Safety and Health and deepen exchanges and cooperation between working partners at a regular interval.

推廣職業安全與健康 Promoting Occupational Safety and Health

為推廣職業安全與健康，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、實地考察及工地整潔獎勵計劃，讓工作夥伴交流知識及經驗。

To promote Occupational Safety and Health (OSH), we rolled out a number of site safety improvement measures and activities, including experience sharing sessions, site visits and a Construction Sites Safety and Housekeeping Award Scheme for our staff and project partners.

經驗分享會及實地考察

於本報告年度的第三季，我們舉辦了一場有關工地意外事故課程學習分享會，以及一場由機電工程署和中華電力有限公司的專業人員主講，有關一般電力安全的分享會。兩場分享會均吸引超過50名渠務署、顧問公司及承建商員工出席交流意見及分享經驗。

Experience Sharing Sessions and Site Visits

In the third quarter of the reporting year, we organised an experience sharing session to review the recent accident cases, and a session regarding general electrical safety delivered by a specialist from the Electrical and Mechanical Services Department (EMSD) and CLP Power Hong Kong Limited. Both sessions attracted more than 50 staff from DSD, consultants and contractors to attend, exchanging their views and experiences.

2018年8月我們安排了一次到香港寶嘉建築有限公司安全訓練中心的參觀。約20名渠務署員工參加了是次活動並積極與主持人交流意見。

A visit to the Safety Training Centre of Dragages Hong Kong Ltd was held in August 2018. About 20 DSD's colleagues participated in the visit and actively exchanged their views with the host.

渠務署員工參觀香港寶嘉建築有限公司安全訓練中心

DSD's colleagues visited the Safety Training Centre of Dragages Hong Kong Ltd

頒獎典禮合照
Group photo of the Award Presentation Ceremony

工地安全及整潔獎勵計劃2018

工地整潔獎勵計劃自2004年1月推出後，一直以來希望為本署同事、工程顧問及承建商間建立優良工地管理文化並以此為目標，計劃成效令人鼓舞。該計劃於2018-19年度重新推出，並改名為工地安全及整潔獎勵計劃。獎項將頒發予工地安全及管理表現突出的團隊，以表達渠務署管理層對承建商工地安全及管理的重視。更重要的是藉此加強本署同事、工程顧問及承建商間的合作，以達到公眾與日俱增的期望。

於2018年度本計劃有32支隊伍參與，當中11支獲頒「最佳工地安全及整潔獎」或「優異獎」。本署管理層在頒獎典禮上致辭時表示，工地意外率、工作效率、員工歸屬感和公眾形象的表現，全賴良好的工地管理及工地整體環境整潔，並表揚參與隊伍於施工期間致力將工程對市民的影響降至最低，並肩負起提供優質服務及建設良好環境的責任。

Construction Sites Safety and Housekeeping Award Scheme 2018

The "Construction Sites Housekeeping Award Scheme" was established in January 2004, which aimed to instill a culture of good site management among DSD's contractors, consultants and in-house site supervisory staff. As from 2018-19, the Scheme was renamed and re-launched as the "Construction Sites Safety and Housekeeping Award Scheme". Awards are given to teams with outstanding site management performance to show our appreciation of Construction Site Safety and Housekeeping. More importantly, it encourages DSD's contractors, consultants and in-house site supervisory staff to work as a team in keeping with ever rising public expectations.

There were 32 contract teams participating in the Scheme 2018, and 11 of which received either "The Best Construction Sites Safety and Housekeeping Award" or the "Meritorious Award". DSD's senior management gave a speech in the award presentation ceremony, remarking that the accident rate, work efficiency, employees' sense of belonging and the public image of a construction site are largely hinged upon good site safety management and a clean and tidy working environment. Encouragement has also been given to the contract teams for continuous enhancement of site safety, alleviation of the impacts from works to surrounding neighborhoods, shouldering responsibilities of providing quality services and building a better environment.

採用新工程合約 Launch of New Engineering Contract

相比傳統的工程合約，新工程合約促進各方緊密合作，並提倡共同管理及分擔工程的風險。此模式鼓勵工程管理部門與承建商建立良好的夥伴關係，從而避免爭拗、減少工程延誤的風險及提高施工效率。

過去10年，本署共批出66份新工程合約，涵蓋土木工程、機電工程、維修保養和工程顧問服務等範疇。本署積極向建造業界推廣此合約模式，在過去一年共批出了22份新工程合約，佔本署新工程合約總數約33%。此外，本署已完成18份新工程合約，其中跑馬地地下蓄洪計劃提早14個月完工並節省約1億1,000萬工程費用，成績令人鼓舞。

作為新工程合約的主要用戶，本署在過去一年積極參與多個專題研討會及工作坊，向業界不同持份者推廣新工程合約如何提升工程成本效益和降低風險。當中包括在2018年4月27日，本署副署長麥嘉為先生參加新工程合約亞太區用戶組織簡報會，提出節省成本設計及分判的建議，加強互信和合作。而本署高級工程師黎玉安先生在2018年11月12日，參加建造業議會分包商領袖高峰會2018，跟與會者分享渠務署使用新工程合約後有助提升工程項目表現的經驗。

Compared with the traditional engineering contract, the New Engineering Contract (NEC) facilitates a closer cooperation among all parties, as well as advocates joint management and risk-sharing. This encourages the project offices to establish amicable working relationships with contractors to avoid disputes, minimise the risk of project delay and improve productivity.

In the past 10 years, we have awarded 66 NECs covering civil engineering projects, electrical and mechanical engineering projects, maintenance works and consultancy services. We actively promote NEC to the construction industry and awarded 22 NECs last year, which accounted for about 33% of the total awarded NECs. On the other hard, we have already completed 18 NECs, among which Happy Valley Underground Stormwater Storage Scheme (HKUSSS) demonstrates a very encouraging result; 14-month early completion with around $110 million savings to the total project cost.

As a major NEC user, DSD collaborated with different stakeholders in the construction industry through participating in numerous symposiums and workshops in the past year to promote the improvement in cost effectiveness and risks reduction of the NEC. Among these, Mr. MAK Ka-wai, Deputy Director of Drainage Services, attended the NEC Asia Pacific Users' Group Briefing on 27 April 2018 to share suggestions regarding subcontracting and cost saving design of further enhancement in mutual trust and cooperation. Meanwhile, Mr. LAI Yuk-on, Senior Engineer, shared with subcontractors on DSD's experience in using NEC for better project delivery in the Construction Industry Council's Subcontractor Leadership Summit 2018 on 12 November 2018.

2018年4月27日，本署參與新工程合約亞太區用戶組織簡報會

On 27 April 2018, DSD participated in NEC Asia Pacific Users' Group Briefing

夥伴工作坊

在新工程合約模式下，「九龍中部及東部污水收集系統改善工程－第三期」工程團隊於2019年3月29日舉辦夥伴工作坊，藉此加強渠務署、工程顧問和總承建商三方之間的互助互信關係，以及訂定共同目標。三方的管理層以至前線員工均參與其中。參加者透過工作坊之小組，明白工程成功的關鍵在於善用夥伴長處、創新求變，並需平衡各方意見以作出決定。參加者亦討論及探討工程所面對的各項困難，體會群策群力的重要性。

工程團隊經過分組討論後，為工程訂下共同目標，包括提早6個月完成工程、節省工程最終目標價格5%、達至零意外及零環保檢控、採用4個創新技術以推廣建造業2.0、獲取兩個安全獎項及10封嘉許信，並就此簽署夥伴協議。藉着新工程合約的合作模式以及其提倡「配合社區發展步提升排污效能高」的精神，攜手克服工程上的各種挑戰。

Partnering Workshop

Under the NEC form, the project team for the "Upgrading of Central and East Kowloon Sewerage – Phase 3", which consists of DSD, the project consultant and the main contractor, hosted a Partnering Workshop on 29 March 2019. The Workshop aimed at strengthening mutual trust, fostering cooperation and setting common goals among the project team members. Managerial personnel and frontline staff from all three parties participated in the workshop. Through the group activities in the workshop, participants learnt that, the success factors of a project include to use the strengths of each partner wisely, to be innovative and to makes decisions after balancing the views of all parties. Participants also exchanged views and discussed the challenges encountered during the construction works, and acknowledged the importance of teamwork.

After the group discussions, participants set a series of common objectives, including advancing the project completion by six months, reducing project cost by 5%, achieving zero accident, zero environmental summons, adopting four innovations in construction for promoting Construction 2.0, as well as winning two safety awards and obtaining 10 recognition letters. A partnering charter was signed accordingly. By dint of the partnering approach of NEC and our project slogan of "upgrading the sewerage to cope with the pace of developing community", we will overcome various engineering challenges collaboratively.

2019年3月29日，「夥伴工作坊」參加者合照
On 29 March 2019, group photo of Partnering Workshop participants

參加者在工作坊為工程訂定共同目標
Participants set common goals for the project at the Workshop

參加者在工作坊設計的工程項目標誌
Project logo designed by participants at the Workshop

參加者在工作坊簽訂的夥伴協議
Partnering Charter signed by participants at the Workshop

區議員參與 District Councilors Engagement

為確保本署的服務切合社區需要，我們經常與區議員聯絡，定期參與區議會會議。年內，本署時任署長及部門代表皆有出席東區、荃灣及黃大仙等區議會會議，向區議員講解相關地區的主要工程項目，並交換意見。

To ensure our services are in tune with the needs of the community, we always maintain close links with District Council (DC) members and attend DC meetings regularly. During the year, former Director of Drainage Services and departmental representatives attended meetings convened by the DCs including that of the Eastern District, Tsuen Wan District and Wong Tai Sin District to explain to DC members about our major projects and exchange views.

2018年7月3日，本署代表出席東區區議會會議

On 3 July 2018, DSD representatives attended the Eastern District Council meeting

2019年3月1日，本署高級工程師梁華明先生（右一）出席「東涌河保育與發展交流會」，分享渠務署以綠化河道經驗套用於河畔公園

On 1 March 2019, Mr. Richard LEUNG Wah-ming, (first right), DSD Senior Engineer, participated in "Tung Chung River Conservation Annual Inter-departmental Interflow", and shared application of DSD's experience of river revitalization in riverside park

環保團體參與 Green Groups Engagement

就本署工程項目及保養工作的環保及保育議題，我們主動與環保團體建立長遠合作關係。年內，我們與綠色力量、世界自然基金會香港分會、長春社、嘉道理農場暨植物園、香港觀鳥會及創建香港進行了3次會面。雙方就不同議題交換意見，包括提升河道生態價值、保護現有河道生境、活化水體、促進生物多樣性、在本署工程中推展親水文化及推進操作與維修工作相關的環保事宜等。

When dealing with environmental protection and conservation issues of DSD projects and maintenance works, we take a proactive stance on maintaining long-term relationships with green groups. In the past year, we arranged three meetings to exchange views with the Green Power, World Wide Fund for Nature Hong Kong, Conservancy Association, Kadoorie Farm and Botanic Garden, Hong Kong Bird Watching Society and Designing Hong Kong. Discussions were held over wide-ranging issues, including enhancing the ecological value of rivers, preserving habitat in existing rivers, revitalising water bodies, promoting biodiversity, fostering a water-friendly culture in DSD projects and addressing environmental issues related to operation and maintenance work.

環保團體意見

香港觀鳥會－吳祖南博士

渠務署一直積極與環保團體保持緊密聯繫，除了定期的小組會面外，就着不同項目需要亦會與環保團體主動溝通合作，使得我們能夠適時反映意見及參與討論。本年度渠務署於「昂船洲污水處理廠改善工程」邀請了環保團體參與生態研究，也邀請我們就活化翠屏河及元朗淨水設施的設計提供意見。合作過程及成果亦得到正面的回應。

香港觀鳥會－吳祖南博士

Hong Kong Bird Watching Society – Dr. NG Cho-nam

渠務署對持份者意見非常重視，這可見於部門就着我們的查詢、回應和建議均會作出適切及適時的跟進，並積極建立多元化的溝通渠道及維繫良好合作氣氛。

展望將來，我們期望渠務署日後舉辦的持份者參與活動，能讓不同範疇的持份者利用合適的渠道作更多的互動，以增加各持份者之間的互相了解。我們也希望於河道活化、防洪及排污的工作上，能與渠務署和其他不同部門攜手合作，發揮協作效應，例如合作處理河盆管理及周邊規劃的工作。

渠務署的話

環保團體的寶貴意見和專業知識，對本署在防洪及排污工程上的生態及環境保育一直發揮着重要且有效的角色。本署非常感謝各環保團體對本署工作的支持，並期望能與環保團體及各界持份者以更多不同形式聯繫和合作。本署亦會加強與內部及各部門的溝通，建構更全面的防洪及排污工作方案，以迎接未來挑戰。

本署對吳博士辭世深表哀悼，並感謝吳博士一直致力環保及保育工作，推動香港可持續發展，並就相關範疇向本署提供保貴意見。

Comments from the Green Group

Hong Kong Bird Watching Society– Dr. NG Cho-nam

DSD has been proactively maintaining a close relationship with the green groups. Apart from regular liaison meetings, DSD also initiates communication and collaboration with us on a variety of projects, enabling us to participate in the project design process and voice out our opinion in a timely manner. This year, DSD invited green groups to the ecological study for the "Upgrading Works at Stonecutters Island STW". We were also invited to offer comments on the design of revitalisation of Tsui Ping River and Yuen Long Effluent Polishing Plant. Positive feedback and outcomes have been resulted from this cooperation.

DSD also values opinions of stakeholders as can be seen from the appropriate and timely following up to our enquiries, responses and suggestions, maintaining various communication channels and establishing amicable working relationship.

Looking into the future, we look forward to more interactions with different stakeholder groups in the forthcoming stakeholder engagement activities, fostering understanding between stakeholders. In terms of river revitalisation, flood prevention and sewage treatment operations, we hope more collaborations among DSD, other governmental departments and ourselves would achieve synergistic effect, such as strengthening the river basin management and planning of works in the corresponding nearby areas with concerted effort.

Our Response

Green groups have been providing vital contribution towards the ecological and environmental conservation of our flood prevention and sewage treatment works through their valuable feedback and professional knowledge. DSD is very thankful for the support from various green groups. We strive to continue our communication and cooperation, in various formats, with green groups as well as other stakeholder groups. We would strengthen both the inter– and intra-departmental communication for constructing well-rounded flood prevention and sewage treatment works which cope well with future challenges.

DSD deeply mourns the passing of Dr. NG, and thanks Dr. NG for his dedication to environmental protection and conservation, to promote sustainable development in Hong Kong and to provide us with valuable opinions on related areas.

專業團體及教育界參與 Professional and Academia Engagement

本署非常重視與業界互動交流，年內除舉辦2018研究及發展論壇（詳見**第二章　年度大事　重點輕描**）外，亦透過科研茶聚及研討會主動與本地學者、專業人士、業界代表、其他持份者及政府部門分享本署工作。同時，本署亦接待多個社區團體和學校參觀轄下設施，介紹本署各分部的工作。

DSD highly values the interaction and exchanges with the industry. During the year, apart from hosting the Research & Development (R&D) Forum 2018 (For details **see Chapter 2 Highlights of the Year**), we took the initiative to share the Department's work with local academics, professionals, industry representatives, other stakeholders and government departments through R&D tea gatherings and seminars. In addition, we received visitors from community groups and schools touring our facilities where we briefed them on the operation of various DSD divisions.

技術交流 Technical Exchange

渠務科研茶聚2018

本署於4月18日在小蠔灣污水處理廠舉辦了「渠務科研茶聚2018」，接近30位來自11個不同專上學院及科研機構的學者出席參與。

小蠔灣污水處理廠擁有全港政府設施中規模最大的太陽能發電場。茶聚期間，本署時任署長唐嘉鴻先生帶領一眾學者參觀太陽能發電場設施，並分享渠務署現時和未來科研及發展項目的範疇和方向；渠務署同事亦與一眾學者就最新能源管理策略，及可再生能源的應用進行交流。是次活動加深了渠務署和學者對彼此工作的認識，為將來的合作奠定基礎。

DSD Research & Development Tea Gathering 2018

The "DSD R&D Tea Gathering with Academia 2018" was held at Siu Ho Wan STW on 18 April with nearly 30 academics from 11 universities and research institutes in attendance.

Siu Ho Wan STW is home to the largest solar farm within Hong Kong Government facilities. During the Tea Gathering, Mr. Edwin TONG Ka-hung, then Director of Drainage Services, led the academics to tour the solar farm and shared with them the current and future directions and scope of DSD's R&D items. DSD colleagues also exchanged views with the academics on the latest applications of renewable energy and energy management strategy. This event enabled DSD and the academics to gain an insight of the work of each other and paved the way for future collaborations.

本署時任署長唐嘉鴻先生、副署長麥嘉為先生、一眾渠務署同事及學者合照

Group photo of Mr. Edwin TONG Ka-hung, then Director of Drainage Services, Mr. MAK Ka-wai, Deputy Director of Drainage Services, DSD colleagues and the academics

渠務署拜訪北京市水務局

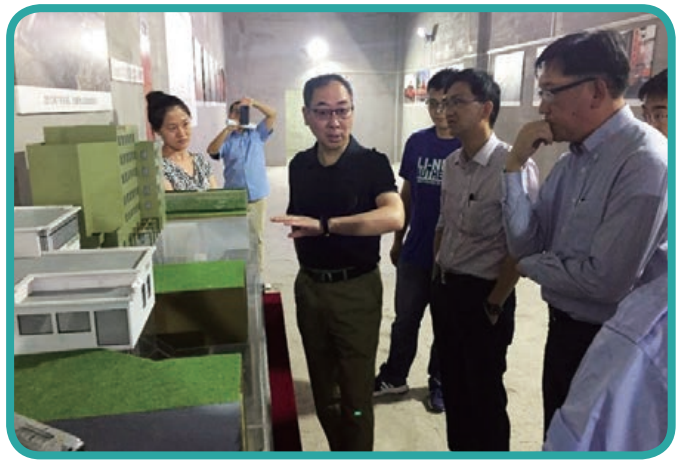
繼2017年11月北京市水務局到香港出席「京港合作水專題論壇」，渠務署於2018年6月初回訪北京市水務局及北京排水集團，交流兩地水務管理及防洪政策，並就「香港淨化海港計劃」獲頒「第十五屆土木工程詹天佑獎」及香港於2019年舉辦國際水會事宜分享經驗。

DSD visited Beijing Water Authority

Following the attendance of Beijing Water Authority (BJWA) at the forum regarding the topic of water for exchanging the policy of water supplies, flood prevention and sewage treatment between Hong Kong and Beijing, held in Hong Kong in November 2017, DSD visited BJWA and Beijing Drainage Group Co., Ltd in early June 2018 for knowledge exchange between Beijing and Hong Kong on the policy of water management and flood prevention. DSD also shared the experience on HATS which was awarded the 15th Tien-yow Jeme Civil Engineering Prize and was hosting the IWA World Water Congress in Hong Kong in 2019.

本署時任署長唐嘉鴻先生（右邊中間）率領代表與北京市水務局人員交流經驗

Mr. Edwin TONG Ka-hung (middle of the right side), then Director of Drainage Services, led representatives to share experience with the officials of Beijing Water Authority



本署時任署長唐嘉鴻先生（右一）和總工程師劉勝昌先生（右二）到訪夕照寺排澇泵站了解其運作

Mr. Edwin TONG Ka-Hung (first right), then Director of Drainage Services, and Mr. Edwin LAU Shing-cheong (second right), Chief Engineer, visited the Xizhao Temple stormwater pumping station to understand its operation

參觀及外展教育活動
Educational Visits and Outreach

我們積極配合本港通識教育科的學習範疇，為本地中小學生定期安排外展教育活動，務求以靈活多變的教學模式加強同學對氣候變化、保護環境和珍惜水資源等議題的了解。

In active support of supplementing the curriculum of Liberal Studies in Hong Kong, we organise educational outreach activities regularly for local primary and secondary school students. We hope that through this flexible teaching approach, students can learn more about issues such as climate change, environmental protection and cherishing water resources.

小學生參觀沙田污水處理廠

Primary school students visited Sha Tin Sewage Treatment Works

中學生參觀跑馬地地下蓄洪池

Secondary school students visited Happy Valley Underground Stormwater Storage Tank

中學生參觀元朗排水繞道人工濕地

Secondary school students visited the engineered wetland of Yuen Long Bypass Floodway

團體參觀

年內，我們共接待超過13,000名來自中小學、內地及海外等多個機構的訪客，安排他們參觀跑馬地地下蓄洪池、小蠔灣污水處理廠、荔枝角雨水排放隧道、沙田污水處理廠以及元朗排水繞道人工濕地等本署設施。

Group Visits

During the year, we received over 13,000 visitors from primary and secondary schools as well as various mainland and overseas organisations. Tours were arranged to our facilities, including Happy Valley Underground Stormwater Storage Tank, Siu Ho Wan STW, Lai Chi Kok Drainage Tunnel, Sha Tin STW and the engineered wetland of Yuen Long Bypass Floodway, etc.

外展教育活動

我們亦定期推行外展教育計劃，到訪學校向師生講解本署的工作及工程項目。年內，我們到訪了16所學校，向師生介紹香港的污水處理及防洪工作。

在本地學校進行外展教育計劃

Educational outreach programme at the local school

Education Outreach

We conduct educational outreach programmes regularly, visiting schools and introducing DSD's work and projects to students and teachers. In 2018-19, we visited 16 schools, to explain the sewage treatment and flood prevention in Hong Kong.

義工服務及慈善活動
Voluntary Services and Charity Activities

渠務署同事本着惠澤社群的精神，在公餘時積極參與各類義工服務及慈善活動。年內，本署義工隊共參與40項義工服務，總服務時數達1,220小時。

In the spirit of serving the community, DSD staff actively participated in various types of volunteer services and charitable activities in their leisure time. During the year, the DSD Volunteer Team took part in more than 40 volunteer services, clocking over 1,220 service hours in total.

「最卓越建造業義工」金獎及「十大最卓越義工項目」優異獎
"Excellence in Construction Industry Volunteering" Gold Award and "Top Ten Excellence in Construction Industry Volunteering Project" Merit Award

在40項義工服務當中，義工隊憑着「愛·與孩同行」義工活動系列，在建造業議會於2018年7月15日在零碳天地舉辦的首屆「建造業義工嘉許禮」中脫穎而出，榮獲「評審嘉許－十大最卓越義工項目」優異獎。除此之外，亦有500多名參與「建造業義工獎勵計劃」的義工獲得嘉許，當中10位來自本署義工隊。本署的義工潘詠芝女士更獲得業界認同，贏得「評審嘉許－最卓越建造業義工」金獎的最高殊榮。

Among 40 volunteer services delivered, "Peering with the Children" was awarded for the first "Construction Industry Volunteering Award" presented by the Construction Industry Council at Zero Carbon Building on 15 July 2018, as well as the "Judges' Appreciation – Top Ten Excellence in Construction Industry Volunteering Project" Merit Award. In addition, more than 500 volunteers participated in the "Construction Industry Volunteer Award Scheme" were commended, 10 of whom were from the Volunteer Team of DSD. Ms. Gigi POON Wing-chi, DSD volunteer, was recognised by the industry and crowned with the premier honour of "Judges' Appreciation – Excellence in Construction Industry Volunteering" Gold Award.

本署時任署長唐嘉鴻先生（右三）、潘詠芝女士（左三）和義工隊合照

Group photo of Mr. Edwin TONG Ka-hung (third right), then Director of Drainage Services, Ms. Gigi POON Wing-chi (third left) and the Volunteer Team

40項義工服務
Voluntary Services

1,200服務小時
Service Hours

本署時任署長唐嘉鴻先生（右四）和義工隊合照

Group photo of Mr. Edwin TONG Ka-hung (fourth right), then Director of Drainage Services and the Volunteer Team

關懷基層家庭兒童–「愛•與孩同行」
Caring for Underprivileged Children－"Peering with the Children"

2017年6月30日，我們的義工隊再次安排約50位來自基層家庭的兒童及其家人參觀本署小蠔灣污水處理廠。除了講解污水處理廠的基本運作，以及太陽能發電系統的操作原理外，義工隊亦帶領小朋友到香港國際機場參加「我的杯麵工作坊」。希望透過參觀活動，讓他們既可認識污水處理的原理，亦能明白可再生能源的應用及重要性，從小培養節能習慣，為香港環保出一分力。

On 30 June 2017, DSD Volunteer Team organised a guided tour for about 50 underprivileged children and their families to visit Siu Ho Wan STW. In addition to the introduction of the operation of sewage treatment facilities and solar power system, the Volunteer Team also led the children to the Hong Kong International Airport to participate in the "My Cup Noodles Workshop". Apart from understanding the operation of a sewage treatment plant, participants could also learn the application and importance of renewables through the guided tours, with the hope to nurture the young with energy-saving practices and contribute to environmental protection in Hong Kong.

小朋友在我們義工隊帶領下參觀本署小蠔灣污水處理廠

DSD Volunteer Team guided children for a visit to Siu Ho Wan Sewage Treatment Works

本署義工師友與東華三院呂潤財紀念中學的師生合照

Group photo of mentors and students at T.W.G Hs Lui Yun Choy Memorial College

政務司司長張建宗先生（前排左四），本署副署長麥嘉為先生（前排右三）以及本署義工師友於起航禮合照

Group photo of Mr. Matthew Cheung Kin-chung (fourth left, front row), Chief Secretary for Administration, Mr. MAK Ka-wai (third right, front row), Deputy Director of Drainage Services and the mentoring team at launching ceremony

推動師友文化－「友•導向」師友計劃
Promoting Mentoring Culture－"Life Buddies" Mentoring Scheme

本署義工隊今年繼續以師友角色參與由扶貧委員會籌劃的跨界別職志師友計劃「友•導向」2018，擔任來自東華三院呂潤財紀念中學十多名高中生的成長夥伴。本署義工隊為他們安排一系列活動包括溝通工作坊、求職技巧基礎訓練、生涯規劃和職場探訪等，讓他們及早訂立未來的方向，從而促進他們向上流動的能力。

DSD Volunteer Team continued to participate in the "Life Buddies" scheme organised by the Commission on Poverty, and picked up the role as mentor of about 10 high school students from T.W.G Hs Lui Yun Choy Memorial College. The Volunteer Team organised a series of activities including communication workshops, job hunting skills, career planning, workplace visits, etc., with the aim to set their future goal in advance and facilitate youth's upward mobility.

「愛•身歷耆境」及「愛•與耆義同行」
"Experience with the Elderly" and "Peering with the Elderly"

年內，本署義工隊舉辦了「愛•與耆義同行」義工項目。顧名思義是以渠務署義工隊夥拍其他義工團體的長者義工一同參加與長者有關的義工活動。在設計「愛•與耆義同行」義工活動上，主要透過3E（經驗(Experience)、刺激(Excitement)、同理心(Empathy)）身心體驗活動，讓同事了解長者的生活需要，學會多包容、關懷和欣賞長者。第一階段我們首先安排義工參加「愛•身歷耆境」活動，好讓他們能夠親身體驗長者衣食住行的不便。

During the year, the Volunteer Team organised an activity of "Peering with the Elderly" with a group of elderly volunteers. The "Peering with the elderly" activity comprised of physical and mental activities based on 3Es (Experience, Excitement and Empathy), aimed to let colleagues understand the needs of the elderly, learn to be more tolerant, caring and appreciative to the elderly. During the first phase, we arranged the volunteers to participate in the "Experience with the Elderly" so colleagues could experience the inconvenience of the elderly in daily life.

其後，我們會提供機會予這些受訓練的義工參加其他有關長者的義工活動，包括探訪及清潔家居等。在經過多次探訪及與長者互相交流，我們的義工更會為每位受訪的長者製作一本獨一無二的「生命故事冊」，並由本署時任署長唐嘉鴻先生於2019年2月16日的義工分享會中頒發給長者。

We provided opportunities for these trained volunteers to participate in other elderly volunteer services, including home visits and home cleaning. The Volunteer Team designed a unique "Life Story Book" for each of the elderly volunteered for the home visits and exchanges, and presented to them by Mr. Edwin TONG Ka-hung, then Director of Drainage Services, in the sharing session on 16 February 2019.

「愛•與耆義同行」項目之「愛•身歷耆境」活動
"Experience with the Elderly" in the series of "Peering with the Elderly"

本署時任署長唐嘉鴻先生（左四）和義工隊合照
Group photo of Mr. Edwin TONG Ka-hung (fourth left), then Director of Drainage Services and the Volunteer Team

「愛•與耆義同行」義工分享活動
Volunteer sharing session of "Experience with the Elderly"

本署義工為長者製作的「生命故事冊」
"Life Story Book" prepared by DSD volunteers for the elderly volunteers

清潔海岸及「愛•回書」書籍及影碟回收活動
Coast Clean-up and "Book Exchange" Activity of Collecting Books and DVDs

2018年8月及2019年3月，義工隊及環保先鋒參與由海洋環境管理跨部門工作小組所舉辦的海岸清潔活動，在馬鞍山烏溪沙沙灘及大嶼山水口海灘清理垃圾，為保育我們珍貴的大自然盡一分力。至於「愛•回書」書籍及影碟回收活動，以往一貫只在灣仔稅務大樓及九龍政府合署舉行，今年度更拓展至於2019年2月23日在跑馬地蓄洪池所舉辦的音樂同樂日一併舉行，讓其他分部同事也能參與這項具環保意義的活動，透過善用資源和減少浪費改善環境。

In August 2018 and March 2019, the Volunteer Team and environmental ambassadors participated in the coast clean-up activities organised by the Inter-departmental Working Group of Marine Environmental Management. The group cleaned up rubbish on Wu Kai Sha Beach in Ma On Shan and Shui Kou Beach on Lantau with the aim to preserve our precious nature. The "Book Exchange" activity promoted exchanges of books and DVDs is used to be holding at the Wan Chai Revenue Tower and the Kowloon Government Offices only. The activity was held also in parallel to the music festival this year at Happy Valley Underground Stormwater Storage Tank on 23 February 2019, as to allow other divisional colleagues to participate in this environmental-friendly activity through promoting resource reuse and waste reduction.

海岸清潔活動
Coast Clean-up Activities

「愛•回書」回收活動
"Book Exchange" Activity

渠務署30週年「愛•渠務30小時義工馬拉松」活動
"30 Hours Volunteer Marathon" Event to Celebrate 30th Anniversary of DSD

為慶祝部門成立30週年，本署義工隊創新地舉辦了一項名為「愛•渠務30小時義工馬拉松」活動。希望渠務署各分部於2019年1月1日至8月29日期間能夠達30小時義工時數的目標，從而鼓勵更多同事在公餘時間參加義務工作，進一步推動義工文化，致力發揮本署「以心為心•盡力盡心」的助人精神。

To celebrate the 30th anniversary of DSD, DSD Volunteer Team has organised an innovative event named "30 Hours Volunteer Marathon". Each of the divisions are encouraged to achieve 30 hours of volunteering target between 1 January and 29 August 2019, thereby encouraging more colleagues to participate in volunteering in their spare time, thus to further promote the volunteering culture and actualise DSD's spirit of "Do it from the Heart".

附錄一　完成目標
APPENDIX I　Meeting The Targets

本附錄匯報了本署年內環保事務、社會事務和常規服務目標及其綜合的表現。展望2019-20年度，我們會繼續訂立目標，以監察及確保本署工作及服務質素，實踐對各持份者及香港的可持續發展承諾。

This appendix summarised the objectives and their overall performance of our department's environmental, social and routine services during the year. Looking ahead to the year 2019-20, we will continue to set targets to monitor and ensure the quality of our work and services so as to demonstrate the commitment to sustainability to our stakeholders and Hong Kong.

環保事務
On Environmental Issues

2018-19年度環保事務目標 Environmental Targets 2018-19	成果 Achievement	2019-20年度環保事務目標 Environmental Targets 2019-20
發展智能科技、優化運作、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的合理期望 **Developing smart technologies, optimizing operations, introducing innovative measures to enhance effectiveness and efficiency, minimize environmental impacts and meet public expectations**		
自2016-17年起，3年內採用3項嶄新的可持續發展技術 Starting from 2016-17, adopt three new sustainable technologies within a three-year period	進度良好。我們已採用3項新技術，包括總裝置發電容量達110萬瓦特的小蠔灣污水處理廠太陽能發電場、電掣房內空調系統的節能設計及大埔污水處理廠試驗廚餘污泥共厭氧消化技術。 The progress is promising. DSD adopted three items, including a solar farm with an installed generation capacity of 1,100 kilowatt at Siu Ho Wan Sewage Treatment Works (STW), cooling energy saving design in switchrooms and pilot trial of food waste and sewage sludge co-digestion technology in Tai Po STW.	自2019-20年起，3年內採用3項嶄新的可持續發展技術 Adopt three new sustainable technologies within a three-year period starting from 2019-20
展開3項研發優化運作及創新技術的項目 Conduct three Research & Development (R&D) items for optimization and innovation technologies	達標。我們已展開3項研發項目，包括應用於岩洞內的超親水性納米複合材料吸附制冷系統、岩洞內需求控制通風系統及應用水凝膠於化學強化一級處理污泥去除味道。 Target met. Three R&D projects have been commissioned: Adsorption Cooling System adopting Superhydrophilic-nanostructured Composite Surfaces for Use in a Cavern, Demand Control Ventilation System in Cavern and Odour Removal from Chemically Enhanced Primary Treatment sludge using Hydrogel.	同2018-19年度工作目標一致 Same as 2018-19 targets
每年至少6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。我們舉辦了不少於6次會議、論壇及社區活動。 Target met. No less than six meetings/forums/community activities were conducted.	同2018-19年度工作目標一致 Same as 2018-19 targets

2018-19年度環保事務目標 Environmental Targets 2018-19	成果 Achievement	2019-20年度環保事務目標 Environmental Targets 2019-20
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, utilizing renewable energy, reducing carbon and pollution emissions, and achieving water economy, water reclamation and reuse		
自2016-17年起，3年內將電動車佔所有車輛的行車里數率由6%倍增至12% Double the mileage percentage of electric vehicles to all vehicles from 6% to 12% in three years starting from 2016-17	達標。2018-19年電動車的行車里數佔總體的12%。 Target met. In 2018-19, 12% of the total mileage of work transportation used electric vehicles.	由2019-20年度起的3年內，將電動車佔所有車輛的行車里數率提高至13% Increase the mileage percentage of electric vehicles to all vehicles to 13% in three years starting from 2019-20
進行1次新的碳審計和6次監察碳審計 Conduct one new carbon audit and six surveillance carbon audits	達標。我們共完成了1次新的碳審計和進行了6次監察碳審計。 Target met. We conducted one new carbon audit and six surveillance carbon audits.	進行7次監察碳審計 Conduct seven surveillance carbon audits
優化運作和使用再生能源進一步節省60萬度電 Further save 0.6 million kilowatt-hours from process optimization and use of renewable energy	達標。我們共節省了逾90萬度電。 Target met. We saved more than 0.9 million kilowatt-hours which exceeded the target level.	優化運作和使用再生能源中進一步節省270萬度電 Further save 2.7 million kilowatt-hours from process optimization and use of renewable energy
再造水和回用雨水的使用量達到平均每日1,500立方米 Use an average of 1,500 cubic meters of reclaimed water or harvested water per day	達標。年內平均每日使用約1,980立方米再造水和回用雨水。 Target met. During the year, we used an average of about 1,980 cubic meters of reclaimed water or harvested water per day.	同2018-19年度工作目標一致 Same as 2018-19 targets
用紙量達致零增長，保持在2017-18的水平 To achieve zero growth of paper usage from 2017-18 level	達標。用紙量是9,223令（較2017-18年度少用16令紙，達致零增長）。 Target met. 9,223 reams of paper were used (Achieved zero growth of paper usage i.e. consumed 16 reams less than 2017-18 level).	標準化用紙量達至零增長，保持在2018-19的水平 To achieve zero growth of normalized paper usage from 2018-19 level

2018-19年度環保事務目標 Environmental Targets 2018-19	成果 Achievement	2019-20年度環保事務目標 Environmental Targets 2019-20
引入藍綠建設、增加綠化、保護生態系統及促進社區的健康、可居住性及生物多樣性 **Developing blue-green infrastructure, maximizing greening, conserving ecosystems and enhancing community health, liveability and biodiversity**		
建造3,000平方米綠化天台和150平方米垂直綠化 Build 3,000 square metres of green roof and 150 square metres of vertical greening	部份達標。我們已完成了2,028平方米綠化天台和278平方米垂直綠化 Target partially met. We completed 2,028 square metres of green roof and 278 square metres of vertical greening	建造2,000平方米綠化天台和150平方米垂直綠化 Build 2,000 square metres green roof and 150 square metres vertical greening
種植2,000棵樹及60,000叢灌木 Plant 2,000 trees and 60,000 shrubs	部份達標。我們種植了64棵樹及20,181叢灌木 Target partially met. We planted 64 trees and 20,181 shrubs （註：由於部份新工程實際進度與預計有所出入，所以我們未能如期達到本年之目標。本署會定期檢討新工程之進度，以確保達到未來所訂立之目標。） (Note: Due to the variation between the actual and estimated progress of some new projects, we fell short to attain the planting numbers during the year. The Department will review the progress of the new projects regularly to ensure the target could be reached in the future.)	種植12,000棵樹、竹或灌木 Plant 12,000 trees, bamboos or shrubs
在工程項目和日常運作中全面遵守有關的環保的法例和規定 **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.	同2018-19年度工作目標一致 Same as 2018-19 targets
完全符合環保法例要求 Fully comply with environmental legislations	未能達標。年內有1項測定超越了《水污染管制條例》牌照的排放標準。 Target not met. There was one exceedance of Water Pollution Control Ordinance (WPCO) license standard in the year.	

社會事務
On Social Issues

2018-19年度環保事務目標 Environmental Targets 2018-19	成果 Achievement	2019-20年度環保事務目標 Environmental Targets 2019-20
盡量減低渠務署員工的工傷意外率 Minimising accident rate for DSD staff		
渠務署員工的工傷意外率每年每1,000名員工應少於10宗 Maintain not more than 10 occupational injuries per 1,000 staff per year	達標。 報告期內每年每1,000名員工有4.6宗工傷意外。 Target met. 4.6 occupational injuries per 1,000 staff per year were reported in the reporting period.	同2018-19年度工作目標一致 Same as 2018-19 targets
盡量減低渠務署承建商的工傷意外率 **Minimising the accident rate for 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宗職業工傷意外 Maintain less than 0.6 reportable accident per 100,000 man-hours	達標。 報告期內每100,000渠務署承建商工時有0.09宗職業工傷意外。 Target Met. 0.09 reportable accident per 100,000 man-hours of DSD's contractors in the reporting period.	
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2次署內職安健工作坊 Organise at least two in-house workshops on safety and health	達標。 共舉辦了2次署內職安健工作坊。 Target met. Two in-house workshops on safety and health were organised.	
提高承建商的職安健意識 **Promoting the awareness on occupational safety and health amongst contractors**		
達致最少80%的渠務署合資格新建工程合約及30%的合資格維修定期工程合約的承建商，參加發展局的「公德地盤嘉許計劃」 Maintain DSD's contractors of at least 80% of eligible new works contracts and 30% of eligible maintenance term contracts, have participated in Development Bureau's Considerate Contractors Site Award Scheme (CCSAS)	達標。 全部18項渠務署合資格新建工程的承建商均參加了發展局的「公德地盤嘉許計劃」；而11項合資格維修定期工程的承建商中，則有9項(82%)的承建商參加了該計劃。 Target met. All of the 18 contractors of eligible new works contracts participated in CCSAS while out of the 11 contractors of eligible maintenance term contracts, nine (82%) of them participated in the Scheme.	

常規服務
Our Routine Services

服務 Service	承諾 Pledge	2018-19年度工作目標 Achievement Target 2017-18	成果 Achievement	2019-20年度工作目標 Performance Achievement Target 2019-20
清理堵塞污水管／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%	99.19%	同2018-19年度工作目標一致 Same as 2018-19 targets
	翌日正午前回應在下午一時後接獲的投訴 Respond before noon of next day for complaints received after 1 pm	99%	99.30%	
	市民對清理工作的滿意程度[1] Customers satisfied with the clearing work[1]	95%	99.66%	
公共渠務／污水系統接駁渠管的技術審核 Technical audit for connection to the public drainage/sewerage systems	於接獲HBP1表格後9個工作天內回應 Reply to the applicant within nine working days upon receipt of HBP1 application	99%	100%	
回應關於污水處理服務帳項的書面查詢 Response to written enquiries on sewage services accounts	2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%	
回應投訴 Response to complaints	10天內作出回應 Respond within ten calendar days	98%	98.95%	
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4個工作天內提供影印本 Provide photocopy within four working days upon confirmation of payment	95%	100%	
在需要挖掘道路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 completed	98%	99.19%	

[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

能源使用量
Energy Consumption

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
渠務署 By DSD						
購買電力[1] Electricity Purchased[1]	千兆焦耳（百萬千瓦時）GJ (Million kWh)	943,308 (262.03)	992,808 (275.78)	1,024,092 (284.47)	1,082,376 (300.66)	**1,054,656** **(292.96)**
可再生能源所產生的總電力[2] Total Electricity Generated from Renewable Energy[2]	百萬千瓦時 Million kWh	29.34	34.68	21.70	28.15	**28.50**
汽油 Gasoline						
徵用車隊 Pool Cars	千兆焦耳（公升）GJ (Litre)	893 (27,048)	825 (24,974)	627 (18,995)	599 (18,155)	**379** **(11,474)**
部門車隊 AM Cars	千兆焦耳（公升）GJ (Litre)	3,799 (115,060)	3,497 (105,901)	3,173 (96,097)	3,422 (103,615)	**2,874** **(87,045)**
沼氣[3] Biogas[3]	百萬立方米 Million m^3	10	10	7	9	**8**
處理每單位體積污水的平均購買用電量 Purchased Electricity Consumption per Unit Volume of Sewage Treated	千瓦時 kWh	0.26	0.27	0.28	0.30	**0.28**
渠務署的承建商 By DSD's Contractors (302-2)						
電力 Electricity	千兆焦耳（百萬千瓦時）GJ (Million kWh)	23,328 (6.48)	97,798 (27.17)	56,616 (15.73)	16,480 (4.58)	**22,693** **(6.30)**
汽油 Gasoline	千兆焦耳（公升）GJ (Litre)	10,438 (316,101)	6,834 (187,239)	4,473 (135,461)	4,525 (137,045)	**4,035** **(122,186)**
柴油 Diesel	千兆焦耳（公升）GJ (Litre)	27,451 (752,080)	42,601 (1,167,162)	12,540 (343,571)	16,586 (454,411)	**39,106** **(1,071,408)**

1. 總耗電量包括稅務大樓、九龍政府合署及西區裁判法院的辦公室，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）。
The total electricity consumption includes the office at Revenue Tower, Kowloon Government offices and Western Magistracy, and DSD's flood prevention and sewage treatment facilities (including sewage treatment works, sewage pumping stations and stormwater pumping stations).

2. 渠務署使用的可再生能源包括水力能、太陽能和生物氣產能。
The renewable energy souraces harnessed by DSD include hydropower, solar power, and biogas.

3. 由污水處理廠產生。
Generated from sewage treatment works.

溫室氣體排放量[4]
Greenhouse Gas (GHG) Emissions[4]

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
渠務署 By DSD						
購買電力（範圍2）[5] Electricity Purchased (Scope 2)[5]	二氧化碳，以公噸計算 Tonnes CO_2e	183,421	193,046	199,129	210,462	**205,072**
燃燒汽油（範圍1） Gasoline Combustion (Scope 1)						
徵用車隊 Pool Cars	二氧化碳，以公噸計算 Tonnes CO_2e	63.83	65.90	44.83	42.85	**27.08**
部門車隊 AM Cars	二氧化碳，以公噸計算 Tonnes CO_2e	271.54	249.93	226.79	244.53	**205.43**
渠務署的承建商 By DSD's Contractors (305-3)						
購買電力（範圍3） Electricity Purchased (Scope 3)	二氧化碳，以公噸計算 Tonnes CO_2e	4,536	19,016	11,009	19,019	**4,412**
燃燒燃料（範圍3）[6] Fuel Consumption (Scope 3)[6]	二氧化碳，以公噸計算 Tonnes CO_2e	2,824	3,561	1,218	1,511	**3,089**

4. 溫室氣體排放量的計算是參考香港環境保護署及機電工程署在2010年2月編制的《香港建築物（商業、住宅或公共用途）的溫室氣體排放及減除的審計和報告指引》。
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 Environmental Protection Department and Electrical and Mechanical Services Department, HKSAR in February 2010.

5. 2018年的間接（範圍二）溫室氣體排放是根據電力公司及煤氣公司所提供的排放系數計算：電能實業（0.79 公斤二氧化碳當量/千瓦時）、中電（0.51公斤二氧化碳當量/千瓦時）及香港中華煤氣有限公司（0.592公斤二氧化碳當量/ 單位）。
2018 Scope 2 emissions were calculated based on the default factors provided by electricity providers in Hong Kong, Power Assets (0.79 CO_2e kilogram/kilowatthours), CLP (0.51 CO_2e kilogram/kilowatt-hours) and The Hong Kong and China Gas Company Limited (0.592 CO_2e kilogram/unit).

6. 由固定燃燒柴油及流動燃燒汽油產生（即車輛用油）。
Generated from stationary combustion of diesel and mobile combustion of petrol i.e. vehicle consumption

耗水量
Water Consumption

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
用於防洪及污水處理設施的淡水耗用量 Freshwater Consumption at Flood Prevention and Sewage Treatment Facilities	立方米 m^3	2,085,560	2,050,936	2,433,500	2,191,991	**2,436,440**
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	1,565	1,512	1,332	1,340	**1,861**
再造水佔用水量百分比 Percentage of Reclaimed Water Used	%	0.08	0.07	0.05	0.05	**0.08**

污水處理
Sewage Treatment

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
污水處理量 Volume of Sewage Treated	百萬立方米 Million m^3	1,011	1,007	1,015	1,007	**1,028**
從污水中移除的生化需氧量 Biochemical Oxygen Demand Removed from Sewage	公噸 Tonnes	115,681	124,569	151,406	146,159	**132,797**
從污水中移除的懸浮固體量 Suspended Solids Removed from Sewage	公噸 Tonnes	207,738	242,933	277,232	223,165	**194,751**
從污水中移除的氮量 Nitrogen Removed from Sewage	公噸 Tonnes	6,820	6,551	6,683	7,106	**7,388**
從污水中移除的脱水污泥量 Dewatered Sludge Removed from Sewage	公噸 Tonnes	355,220	392,396	410,526	386,137	**392,140**
從污水中移除的隔濾物量 Screenings Removed from Sewage	公噸 Tonnes	15,817	15,172	14,823	14,970	**14,292**
從污水中移除的砂礫量 Grits Removed from Sewage	公噸 Tonnes	5,429	6,631	6,513	4,996	**5,721**

廢物管理
Waste Management (306-2)

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
建築及拆卸廢料[7] Construction and Demolition (C&D) Materials[7]						
運往堆填區的建築及拆卸廢物 C&D Waste Disposed of to Landfills	千公斤 '000kg	6,420	6,998	5,801	2,273	**2,335**
運往公眾堆填區的建築及拆卸廢物 C&D Waste Disposed of to Public Fill Areas	千公斤 '000kg	238,662	235,735	170,162	155,469	**151,918**
可循環再造廢料收集量 Recyclable Waste Collected						
廢紙[8] Waste Paper[8]	公斤 kg	28,918	19,360	20,587	15,954	**20,087**
鋁罐[9] Aluminium Cans[9]	公斤 kg	30.70	19.73	29.51	32.23	**92.21**
膠樽[9] Plastic Bottles[9]	公斤 kg	43.70	20.71	18.76	22.72	**52.66**

7. 建築及拆卸廢物包括金屬，紙張／紙皮包裝物料，化學廢料以及其他廢料，包括一般廢物。
C&D waste includes metals, paper/cardboard packaging waste, chemical waste and other wastes such as general refuse.

8. 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.

9. 由於未能獲得相關數據，數字並不包括於九龍政府合署和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 Kowloon Government Offices and Western Magistracy as the data were not available.

物料使用
Material Consumption (301-1)

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
渠務署 By DSD						
紙張總用量 Total Paper Consumption	令 Reams	10,012	9,608	9,285	9,231	**9,223**
A4紙張用量 A4 Paper	令 Reams	9,452	9,357	8,992	8,854	**8,817**
A3紙張用量 A3 Paper	令 Reams	470	251	293	377	**406**
購買含再造成份的 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)	10,012 (100%)	9,608 (100%)	9,285 (100%)	9,231 (100%)	**9,223 (100%)**
每名員工紙張用量（以職員編制計算） Paper Consumed per Staff (By Establishment)	令 Reams	5.3	5.0	4.8	4.8	**4.6**
渠務署的承建商 By DSD's contractors						
鋼筋 Rebar	公噸 Tonnes	沒有相關數據 Figures Not Available	7,165	10,643	13,325	**11,811**
鋼 Steel	公噸 Tonnes		3,171	3,402	5,042	**4,159**
磚塊 Bricks	立方米 m^3		30	5,817	1,993	**126**
水泥 Cement	公噸 Tonnes		2,406	2,248	3,500	**763**
沙漿 Cement Mortar	立方米 m^3		263	640	1,946	**873**
混凝土 Concrete	立方米 m^3		50,616	73,175	74,651	**52,150**
沙 Sand	公噸 Tonnes		12,586	24,117	23,111	**2,602**
石料 Stones	公噸 Tonnes		9,617	31,898	26,775	**8,762**
辦公室用紙 Office Paper	公噸 Tonnes		27	40	74	**20**

綠化
Greening

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
總種植樹木數量 Trees Planted	數目 No.	570	2,300	10,000	1,300	**64**
增設的綠化天台面積 Area of Green Roof Added	平方米 m^2	6,051	4,015	4,200	4,150	**2,028**

社會工作表現
Social Performance

員工
Staff

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
職員編制 Staff Establishment (102-7)	人數 No.	1,883	1,914	1,937	1,940	**1,986**
首長級人員 Directorate	人數 No.	18	18	18	18	**18**
專業人員 Professional	人數 No.	306	310	310	307	**327**
技術人員及工地督導人員 Technical & Site Supervisory	人數 No.	838	865	884	888	**908**
一般職系人員 General & Common Grades	人數 No.	524	526	531	533	**538**
第一標準薪級人員 Model Scale I	人數 No.	197	195	194	194	**195**

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
培訓 Training						
培訓課程[10] Training Courses[10]	數目 No.	624	654	674	638	**681**
受訓員工 Trainees	人數 No.	7,159	8,019	9,042	8,033	**10,011**
員工培訓時數 Training Hours Received	小時 Hours	57,600	58,520	57,737	60,524	**66,110**
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)	小時 Hours	31.8	33.0	33.4	35.0	**38.4**
培訓總開支（只包括本地培訓）[10] Total Expenditure on Training (Includes Local Training Only)[10]	港元 HK$	4,201,000	3,585,011	3,046,283	2,929,551	**2,701,879**
受傷 Injury (403-2)						
渠務署員工受傷個案[11] Staff Injury Cases[11]	數量 No.	11	13	7	5	**8**
員工因工傷放取病假 No. of Sick Leave for Officers Injured on Duty	日數 Days	914.5	870.5	800.5	305.5	**358.0[12]**

10. 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 CSTDI and staff-initiated external courses.

11. 員工受傷個案是指在僱員補償條例下接獲導致死亡或喪失工作能力超過3天的工傷個案。
The definition of staff injury cases is the reported cases of occupational injuries, under Employee's Compensation Ordinance, resulting in death or incapacity for work over 3 days.

12. 數字包括在2017-18年度批出，但在2018-19 年度放取的病假日數。
The number includes sick leave days granted in 2016-17 but enjoyed in 2017-18.

2018-19年度職員編制
Staff Breakdown in 2018-19 (102-8)

	單位 Unit	以實際人數計算 By Strength
員工人數 No. of Staff	人數 No.	1,723
以職位分類 By Post		
首長級人員 Directorate	%（人數 No.）	1.22 (21)
專業人員 Professional	%（人數 No.）	17.41 (299)
技術人員及工地督導人員 Technical & Site Supervisory	%（人數 No.）	49.62 (854)
一般職系人員 General & Common Grades	%（人數 No.）	24.84 (427)
第一標準薪級人員 Model Scale I	%（人數 No.）	6.91 (119)
以僱用類型分類By Employment Type		
全職 Full-time	%（人數 No.）	100 (1,723)
兼職 Part-time	%（人數 No.）	0
以僱用合約分類 By Employment Contract		
永久合約（男性）Permanent (Male)	%（人數 No.）	81.72 (1,408)
永久合約（女性）Permanent (Female)	%（人數 No.）	18.28 (315)
以年齡分類 By Age		
20-29歲 Age 20-29	%（人數 No.）	10.80 (186)
30-39歲 Age 30-39	%（人數 No.）	23.68 (408)
40-49歲 Age 40-49	%（人數 No.）	26.81 (462)
50-59歲 Age 50-59	%（人數 No.）	35.29 (608)
60歲或以上 Age 60 or above	%（人數 No.）	3.42 (69)
以國籍分類 By Ethnicity		
中國 Local	%（人數 No.）	100 (1,723)
外國 Non-local	%（人數 No.）	0
以性別分類 By Gender		
男性 Male	%（人數 No.）	81.72 (1,408)
女性 Female	%（人數 No.）	18.28 (315)

2018-19年度高級管理人員編制
Senior Management Breakdown in 2018-19

	單位 Unit	以實際人數計算 By Strength
員工人數 No. of Staff	人數 No.	8
以年齡分類 By Age		
20-29歲 Age 20-29	% (人數 No.)	0
30-39歲 Age 30-39	% (人數 No.)	0
40-49歲 Age 40-49	% (人數 No.)	0
50-59歲 Age 50-59	% (人數 No.)	62.5 (5)
60 歲或以上Age 60 or above	% (人數 No.)	37.5 (3)
以國籍分類 By Ethnicity		
中國 Local	% (人數 No.)	100 (8)
外國 Non-local	% (人數 No.)	0
以性別分類 By Gender		
男性 Male	% (人數 No.)	100 (8)
女性 Female	% (人數 No.)	0

2018-19年度員工培訓時數[13]
Training Hours Breakdown in 2018-19[13]

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)
首長級人員 Directorate Staff	21	1,724	82
專業人員 Professional Grade Staff	299	29,493	99
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 Grade and Model Scale I Staff	1,403	34,893	25

13. 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.

2018-19年度員工流失量[14]
Staff Turnover in 2018-19[14]

	單位 Unit	男性 Male	女性 Female
20-29歲 Age 20-29	人數 No.	0	0
30-39歲 Age 30-39	人數 No.	2	1
40-49歲 Age 40-49	人數 No.	2	0
50-59歲 Age 50-59	人數 No.	6	5
60歲或以上 Age 60 or above	人數 No.	68	6

14. 員工流失率數字不包括在部門間轉職的一般職系人員。
The staff turnover figures exclude those General/Common Grades' staff on inter-department transfer.

2018-19年度新入職員工[15]
New Employee Hires in 2018-19[15]

	單位 Unit	男性 Male	女性 Female
新入職員工 No. of New Employee Hires	人數 No.	100	27
以年齡分類 By Age			
20-29歲 Age 20-29	人數 No.	36	10
30-39歲 Age 30-39	人數 No.	39	13
40-49歲 Age 40-49	人數 No.	15	2
50-59歲 Age 50-59	人數 No.	10	2
60歲或以上 Age 60 or above	人數 No.	0	0

15. 以上數字包括於2018年4月1日至2019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 2018 to 31 March 2019.

意外率
Accident Rate (403-2)

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
死亡數目 Number of Fatalities						
總死亡數目 No. of Fatalities	數量 No.	0	1	0	1	**0**
由渠務署員工負責的建築及維修工程 Construction and Maintenance Works Carried out Directly by DSD's Staff	數量 No.	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 DSD's Contractors	數量 No.	0	1 （男性Male）	0	1 （男性Male）	**0**
每10萬工時發生的致命意外率 Fatal Accident Rate per 100,000 Man-hours						
由渠務署員工負責的建築及維修工程[16] Construction and Maintenance Works Carried out Directly by DSD's Staff[16]	–	0	0	0	0	**0**
由承辦商負責的建築及維修工程[16] Construction and Maintenance Works Undertaken by DSD's Contractors[16]	–	0	0.011	0	0.01	**0**
非致命意外數目 Number of Non-fatal Accidents						
由渠務署員工負責的建築及維修工程[16] Construction and Maintenance Works Carried out Directly by DSD's Staff[16]	數量 No.	11	13	7	5	**8**
由承辦商負責的建築及維修工程[16] Construction and Maintenance Works Undertaken by DSD's Contractors[16]	數量 No.	18	14	8	15	**6**
每10萬工時發生的非致命意外率 Non-fatal Accident Rate per 100,000 Man-hours						
由渠務署員工負責的建築及維修工程[16] Construction and Maintenance Works Carried out Directly by DSD's Staff[16]	–	0.17	0.20	0.10	0.08	**0.12**
由承辦商負責的建築及維修工程[16] Construction and Maintenance Works Undertaken by DSD's Contractors[16]	–	0.13	0.16	0.11	0.22	**0.07**

16. 我們目前不按性別細分相關數據。
We currently do not collect these figures by gender.

社區工作及慈善捐款
Community Work and Charitable Contributions (203-1)

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
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	1,000	1,200	1,115	1,795	**1,200**
已完成的義工服務數目 Number of Voluntary Projects Completed	數目 No.	25	27	20	41	**40**
員工募捐 Employee Fundraising	千港元 HK$ Thousands	73	65	53	49	**40**

經濟工作表現
Economic Performance

本署的開支主要分為營運開支及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，而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 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
Operating Expenditure (201-1)

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
經常開支 Recurrent Expenditure						
個人薪酬 Personal Emoluments	百萬元 $M	839.76	882.31	917.19	916.87	**958.68**
部門開支[17] Departmental Expenses[17]	百萬元 $M	1,286.48	1,487.83	1,646.92	1,692.80	**1,774.93**
非經營帳目開支 Capital Account Expenditure	**百萬元 $M**	**22.63**	**23.23**	**30.04**	**37.26**	**94.99**
總額 Total	**百萬元 $M**	**2,148.87**	**2,393.37**	**2,594.15**	**2,646.93**	**2,828.60**

17. 包括強積金及公務員公積金。
It included expenses on Mandatory Provident Fund & Civil Service Provident Fund.

基本工程的項目開支
Capital Works Project Expenditure

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
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	12,975	13,983	14,445	26,876	**31,935**
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	80,483	72,402	70,093	73,175	**89,220**
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.	17	18	18	24	**24**
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.	81	73	69	66	**63**

污水處理服務經營帳目
Sewage Services Operating Accounts

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19[18]
排污費收入 Sewage Charge Revenue	百萬元 $M	955.1	1,047.0	1,161.1	1,296.2	**1,323.1**
工商業污水附加費收入 Trade Effluent Surcharge Revenue	百萬元 $M	226.6	221.5	231.8	243.5	**241.0**
其他收入 Other Revenue	百萬元 $M	45.4	48.3	45.5	45.9	**50.6**
總收入 Overall Revenue	**百萬元 $M**	**1,227.1**	**1,316.8**	**1,438.4**	**1,585.6**	**1,614.7**
開支（不包括折舊） Expenditure (Excluding Depreciation)	百萬元 $M	(1,759.3)	(2,149.2)	(2,340.6)	(2,334.2)	**(2,515.4)**
折舊 Depreciation	百萬元 $M	(839.9)	(1,042.3)	(1,518.2)	(1,546.1)	**(1,547.0)**
總開支 Overall Expenditure	**百萬元 $M**	**(2,599.2)**	**(3,191.5)**	**(3,858.8)**	**(3,880.3)**	**(4,062.4)**
（虧損）(Deficit)	**百萬元 $M**	**(1,372.1)**	**(1,874.7)**	**(2,420.4)**	**(2,294.7)**	**(2,447.7)**

18. 2018-19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 2018-19 figures are provisional and subject to endorsement by the Sewage Services Accounts Committee.

污水處理服務成本回收率[19]
Sewage Services Operating Cost Recovery Rate[19]

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
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$M	1,181.7	1,268.5	1,392.9	1,539.7	**1,564.1**
排污費及工商業污水附加費開支（不包括折舊）[20] Expenditure (excluding depreciation) of Sewage Charge and Trade Effluent Surcharge[20]	百萬元$M	1,714.6	2,101.4	2,295.7	2,288.9	**2,465.5**
收回經營成本比率 Operating Cost Recovery Rate	%	68.9	60.4	60.7	67.3	**63.4**

19. 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.

20. 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 Trade Effluent Surcharge at present.

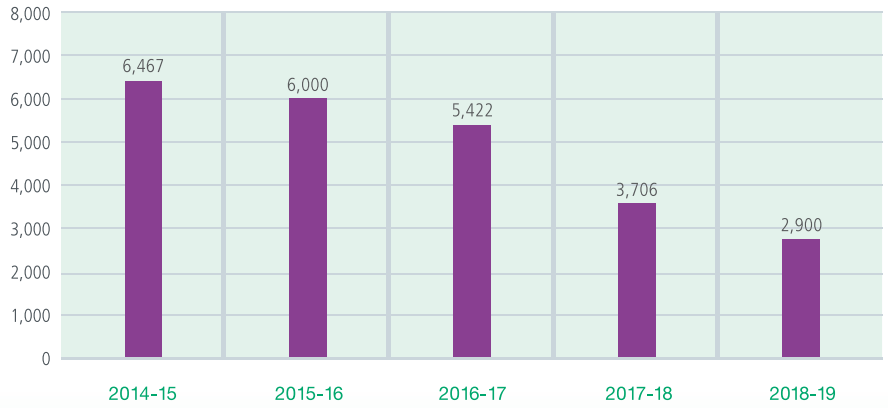
污水處理服務的使用量和付款統計數字
Sewage Service Charge Consumption and Payment Statistics

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
自來水用戶數目 Number of Water Accounts	數目（以千計）No. (in Thousand)	2,881	2,907	2,955	2,989	**3,043**
需繳付排污費的用戶數目 Number of Water Accounts Liable to Pay Sewage Charge	數目（以千計）No. (in Thousand)	2,663	2,689	2,735	2,765	**2,818**
工商業污水附加費繳納戶數目 Number of Accounts – Trade Effluent Surcharge	數目（以千計）No. (in Thousand)	24	25	27	28	**29**

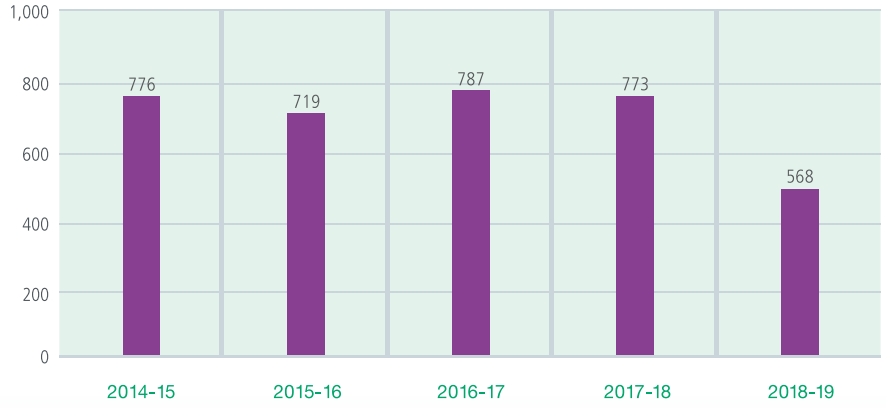
常規服務
Routine Services

過去5年接到的顧客查詢數目
Number of Enquiries Received for the Past 5 Years

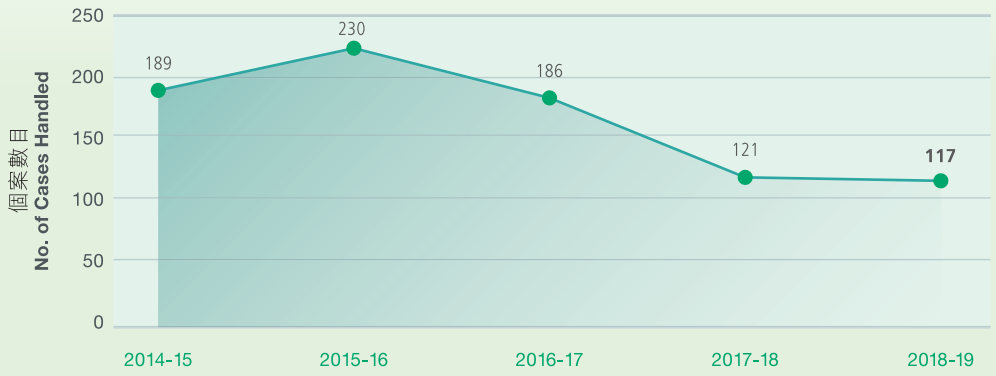
電話查詢 Telephone enquiries



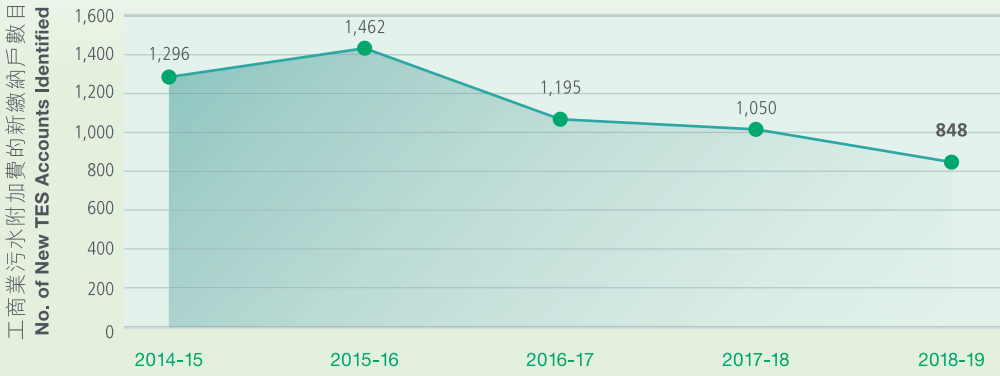
書面查詢 Written enquiries



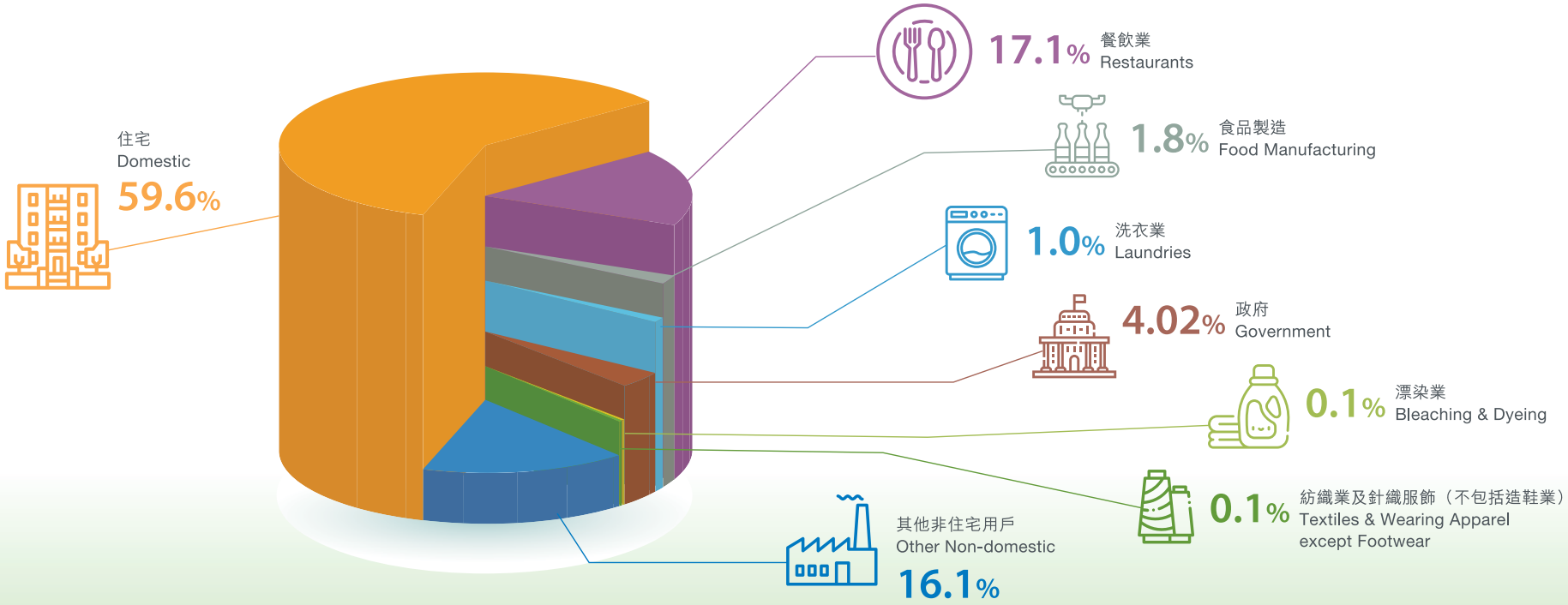
過去5年所處理有關行業重新分類的申請
Business Reclassification Applications Handled for the Past 5 Years



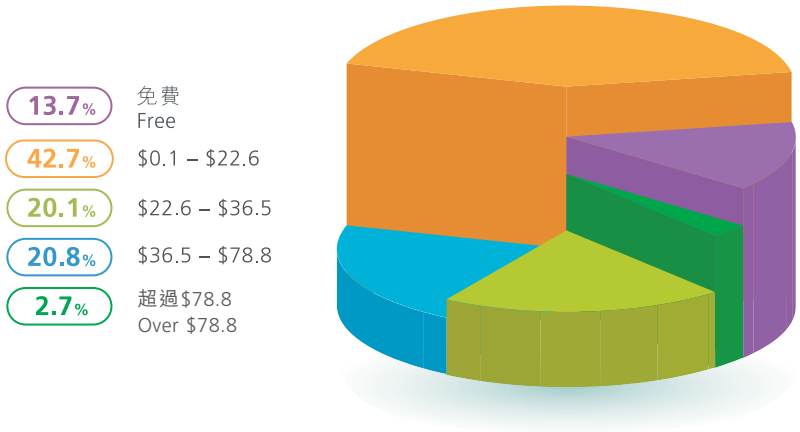
過去5年所發現工商業污水附加費的新繳納戶數目
Number of New TES Accounts Identified for the Past 5 Years



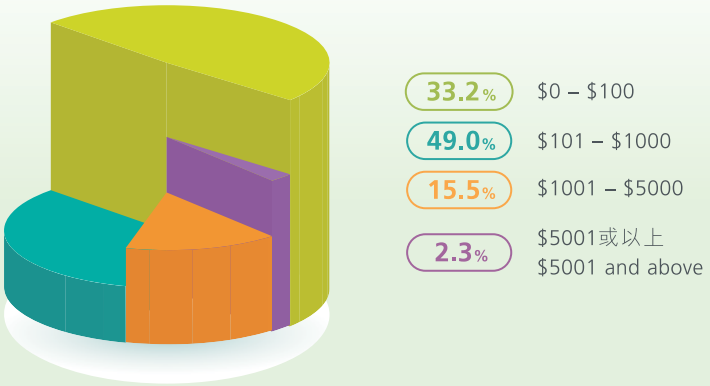
2018-19年度污水排放用戶用水量（565百萬立方米） – 用戶情況
Water consumption of Sewered Accounts (565 Million m³) – Customers Pattern in 2018-19



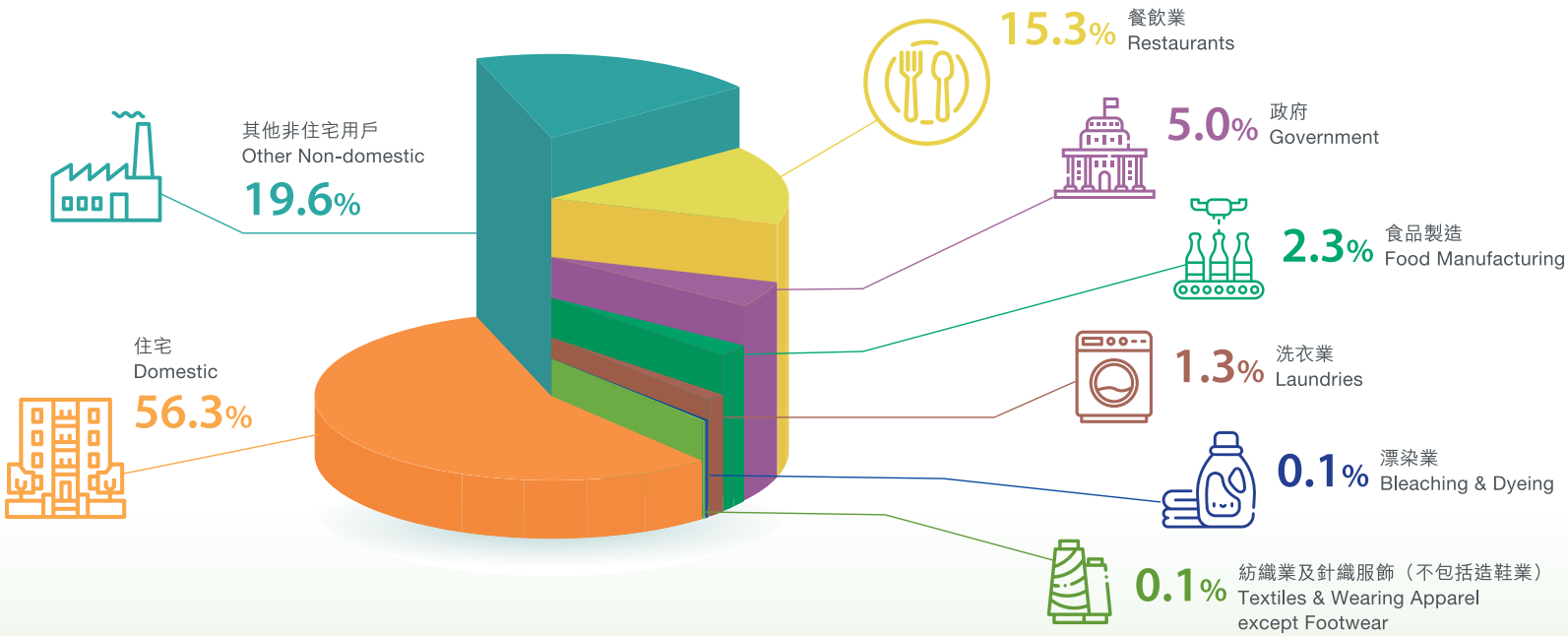
住宅用戶 – 2018-19年度排污費收費情況（港元/月）
Domestic Accounts – Sewage Charge Payment Pattern in 2018-19 (HK$/month)



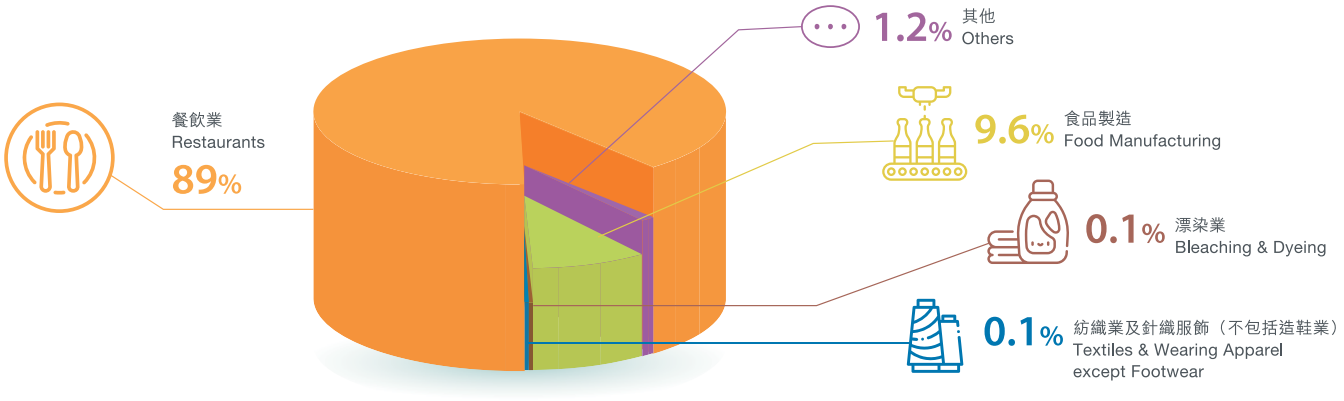
工商業污水附加費用戶 – 2018-19年度工商業污水附加費收費情況（港元/月）
Trade Effluent Surcharge Accounts – TES Payment Pattern in 2018-19 (HK$/month)



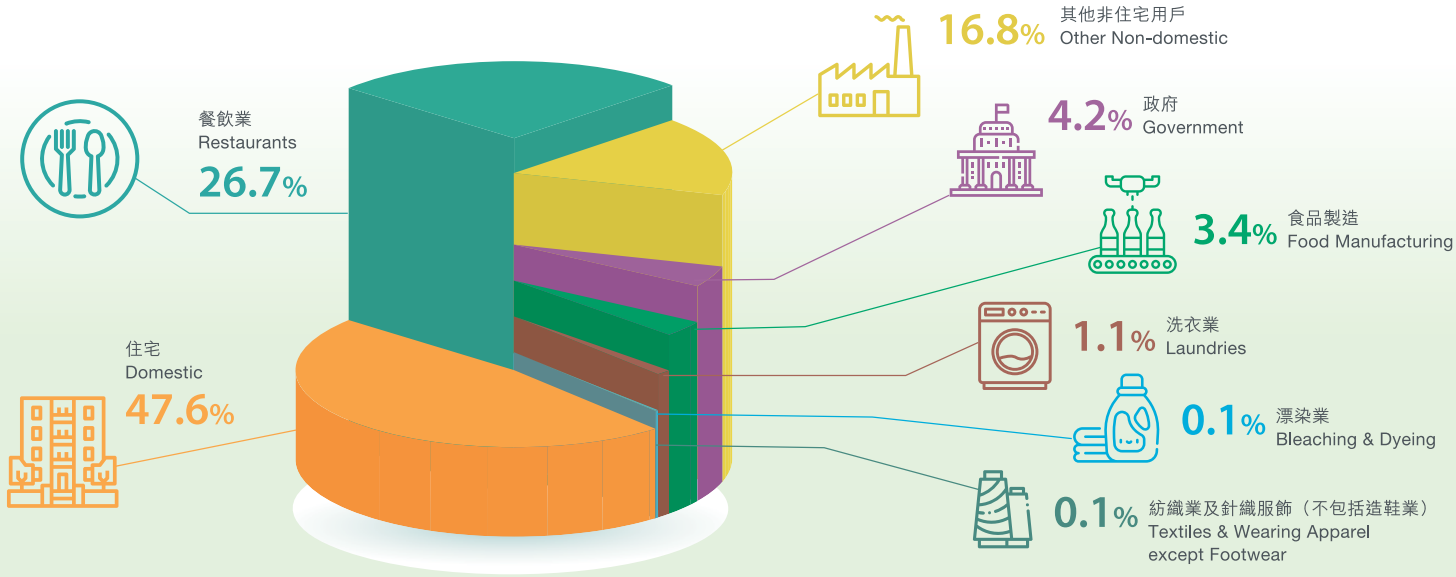
排污費（1,323百萬港元） – 2018-19年度用戶種類收費情況
Sewage Charge ($1,323M) – Revenue Pattern by Type in 2018-19



工商業污水附加費（241百萬港元） – 2018-19年度用戶種類收費情況
Trade Effluent Surcharge ($241 M) – Revenue Pattern by Type in 2018-19



排污費及工商業污水附加費（1,564百萬港元） – 2018-19年度用戶種類收費情況
Sewage Charge and Trade Effluent Surcharge ($1,564M) – Revenue Pattern by Type in 2018-19



其他主要數據
Other Key Statistics

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
防洪 Flood Prevention						
水浸黑點總數 Total Number of Flooding Blackspots	數目 No.	10	8	7	6	**6**
地下雨水渠總長度 Total Length of Stormwater Drains	公里 km	2,385	2,385	2,386	2,388	**2,427**
人工河道總長度 Total Length of Engineered Channels	公里 km	360	361	363	363	**363**
雨水排放隧道總長度 Total Length of Drainage Tunnels	公里 km	21	21	21	21	**21**
雨水泵房總數 Total No. of Stormwater Pumping Stations	數目 No.	35	36	36	36	**36**

	單位 Unit	2014-15	2015-16	2016-17	2017-18	2018-19
污水處理 Sewage Treatment						
公共污水收集網絡覆蓋（佔人口百份率）[21] Coverage of Public Sewerage (Population Percentage)[21]	%	93.4	93.5	93.5	93.5	**93.6**
污水收集網絡總長度 Total Length of Sewerage Network	公里 km	1,710	1,728	1,755	1,770	**1,832**
污水隧道總長度 Total Length of Sewage Tunnels	公里 km	42	42	63	63	**63**
污水處理設施總數 Total No. of Sewage Treatment Facilities	數目 No.	297	300	304	314	**319**
總污水處理量 Total Volume of Sewage Treated	百萬立方米 Million m^3	1,011	1,007	1,015	1,007	**1,028**
基本處理 By Preliminary Treatment	百萬立方米 Million m^3	228	138	45	58	**75**
一級處理 By Primary Treatment	百萬立方米 Million m^3	5	5	5	5	**6**
化學強化一級處理 By Chemically Enhanced Primary Treatment	百萬立方米 Million m^3	606	690	779	757	**751**
二級處理 By Secondary Treatment	百萬立方米 Million m^3	172	174	186	187	**196**
三級處理 By Tertiary Treatment	百萬立方米 Million m^3	0.14	0.14	0.17	0.17	**0.16**
每天產生的總污泥量 Total Sewage Sludge Generated Daily	公噸 Tonnes	958	1,048	1,121	1,043	**1,075**
處理污水時使用電力而引起的室溫氣體排放系數 Emission Factor of GHG Emissions due to Electricity Used for Processing Sewage	–	0.18	0.19	0.20	0.21	**0.20**

21. 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.

附錄三　全球報告倡議組織內容索引
APPENDIX III　GRI Content Index

本報告通過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，該審核服務以報告的英文版本進行。

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 Reference	直接解釋／省略資料的原因 Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
GRI 101 基礎 Foundation 2016						
GRI 102: 一般披露 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 this Report		P.6	✓
	102-2	業務活動、品牌、產品及服務 Activities, brands, products, and services		渠務署為香港市民提供污水和雨水處理排放服務 DSD provides wastewater and stormwater drainage services to the general public in Hong Kong	–	✓
	102-3	機構總部的位置 Location of headquarters		香港灣仔稅務大樓43樓 Hong Kong, 43/F Revenue Tower, Wanchai	–	✓
	102-4	營運地點 Location of operations		只限香港 Hong Kong only	–	✓
	102-5	擁有權及法律形式 Ownership and legal form		屬於香港特區政府的一部分 Part of the Hong Kong SAR Government	–	✓
	102-6	所服務的市場 Markets served		只限香港 Hong Kong only	–	✓
	102-7	機構的規模 Scale of the organisation	附錄二－主要統計數據 Appendix II－Key Statistics and Data		P.136-157	✓
	102-8	有關僱員及其他員工的資料 Information on employees and other workers	附錄二－主要統計數據 Appendix II－Key Statistics and Data		P.141-145	✓
	102-9	供應鏈 Supply chain	環境管理 Environmental Management 持份者參與活動 Stakeholder Engagement Activities		P.86 P.118-123	✓
	102-10	機構與其供應鏈方面的重大改變 Significant changes to the organization and its supply chain		沒有顯著改變 No significant changes	–	✓
	102-11	謹慎方針或原則Precautionary Principle or approach	管治方針 Governance Approach		P.36	✓
	102-12	由外部所制定的倡議 External initiatives	年度大事重點輕描 Highlights of the Year 持份者參與活動 Stakeholder Engagement Activities		P.31-33 P.102-130	✓

可持續發展報告標準 GRI Standards	一般披露 General Disclosures		參照 Reference	直接解釋／省略資料的原因 Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
	102-13	機構參與的協會的會員資格 Membership of associations		渠務署屬於以下協會的成員：國際水協；國際水利與環境工程學會；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；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: The International Water Association (IWA); The International Association for Hydro-Environment Engineering and Research (IAHR) – Institute Member; 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); 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.34-41	✓
	管治 Governance					
	102-18	管治結構 Governance structure	管治方針 Governance Approach		P.37-41	✓
	102-20	管理層在經濟、環境和社會議題方面的責任 Executive-level responsibility for economic, environmental, and social topics	管治方針 Governance Approach		P.37-41	✓
	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.	持分者定期參與方式 Regular Engagement		P.12-13	✓
			持份者參與活動 Stakeholder Engagement Activities		P.102-130	
	102-22	最高管治機構及其委員會的組成 Composition of the highest governance body and its committees	管治方針 Governance Approach		P.37-39	✓
	102-23	最高管治機構主席 Chair of the highest governance body	管治方針 Governance Approach		P.37-39	✓
	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	持份者參與活動 Engagement Approach		P.9-13	✓
	持份者參與 Stakeholder Engagement					
	102-40	持份者群體清單 List of stakeholder groups	持份者參與活動 Engagement Approach		P.9	✓

可持續發展報告標準 GRI Standards	一般披露 General Disclosures		參照 Reference	直接解釋／省略資料的原因 Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
	102-41	集體談判協議 Collective bargaining agreements		沒有 Nil	–	✓
	102-42	界定及挑選持份者 Identifying and selecting stakeholders	持份者參與活動 Engagement Approach		P.9	✓
	102-43	持份者參與的方針 Approach to stakeholder engagement	持份者參與活動 Engagement Approach		P.9,12-13	✓
	102-44	提出的主要議題及關注事項 Key topics and concerns raised	持份者參與活動 Engagement Approach		P.12-13	✓
	匯報實務 Reporting practice					
	102-45	財務報表所包含的單位 Entities included in the consolidated financial statements	關於本報告 About this Report		P.8	✓
	102-46	界定報告內容及議題界限 Defining report content and topic Boundaries	關於本報告 About this Report 持份者參與活動 Engagement Approach		P.8 P.11	✓
	102-47	重要議題清單 List of material topics	持份者參與活動 Engagement Approach		P.11	✓
	102-48	重整信息 Restatements of information		本報告沒有重整舊報告所提供的信息 There is no such re-statement in this Report	–	✓
	102-49	匯報上的改變 Changes in reporting		沒有顯著改變 No significant change	–	✓
	102-50	匯報期 Reporting period	關於本報告About this Report		P.8	✓
	102-51	上一份報告的日期 Date of most recent report		2018年12月渠務署可持續發展報告2017-18於2018年12月發表 DSD Sustainability Report 2017-18 was published in December 2018	–	✓
	102-52	匯報周期 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	查詢報告的聯絡點 Contact point for questions regarding the report	回應表格 Feedback Form		P.171-172	✓
	102-54	按照GRI標準提出的的匯報申述 Claims of reporting in accordance with the GRI Standards	關於本報告 About this Report		P.8	✓

可持續發展報告標準 GRI Standards	一般披露 General Disclosures		參照 Reference	直接解釋／省略資料的原因 Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
	102-55	全球報告倡議組織(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.158-168	✓
	102-56	外部認證 External assurance	關於本報告 About this Report		P.8	✓
			核實聲明 Verification Statement		P.169-170	

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照 Reference	直接解釋／省略資料的原因 Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
經濟 Economic						
	保持公共資金和資產管理的透明度 Transparency on public funds and assets management					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.147-155	✓
GRI 201: 經濟績效 Economic Performance 2016	201-1	機構所產生及分配的直接經濟價值 Direct economic value generated and distributed	附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.147-155	✓
GRI 203: 間接經濟影響 Indirect Economic Impacts 2016	203-1	基礎設施投資和支持性服務 Infrastructure investments and services supported	渠務署主要職責 Our Core Responsibilities		P.42-69	✓
			持份者參與活動 Stakeholder Engagement Activities		P.102-130	✓
	採購政策及規格 Procurement Criteria and Practices					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3			渠務署採取香港特別行政區政府的採購政策 DSD adopts the procurement policy of the Government of the Hong Kong Special Administrative Region	–	✓
GRI 204: 採購實務 Procurement Practices 2016	204-1	本地供應商採購的支出比例 Proportion of spending on local suppliers		100%	–	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照 Reference	直接解釋／省略資料的原因 Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
	反貪污 Anti-corruption					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3			我們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。 We request our staff to adhere to the highest ethical standard. If any suspected corruption cases are reported, they will be submitted to the Independent Commission Against Corruption for further investigation.	–	✓
GRI 205: 反貪污 Anti-corruption 2016	205-3	經確認的貪污事件和採取的行動 Confirmed incidents of corruption and actions taken		自2013-14年度起並沒有確認的貪污事件 No Confirmed incidents of corruption since 2013-14	–	✓
環境Environmental						
	氣味管理 Odour Management					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		渠務署主要職責 Our Core Responsibilities		P.61-64	✓
	減緩及適應氣候變化 Climate Change and Mitigation and Adaptation					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		渠務署主要職責 Our Core Responsibilities 環境管理 Environmental Management		P.44-55 P.83-87	✓
	能源管理 Energy Management					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		節能減排促進香港可持續發展 Energy Saving and Emission Reduction Promoting Sustainable Development in Hong Kong 環境管理Environmental Management		P.14-23 P.83-87	✓
GRI 302: 能源 Energy 2016	302-1	組織內部的能源消耗量 Energy consumption within the organization	附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.136	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照 Reference	直接解釋／省略資料的原因 Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
	302-3	能源強度 Energy intensity	附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.136	✓
	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.83-87 P.131-133	✓
	節約用水 Water Conversation					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		渠務署主要職責 Our Core Responsibilities 環境管理 Environmental Management		P.42-69 P.81-82	✓
GRI 303: 水資源 Water 2016	303-1	依來源劃分的總取水量 Total water withdrawal by source	附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.138	✓
	303-3	水資源回收及再利用 Water recycled and reused	附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.138	
	生態保育 Ecological Conservation					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		環境管理 Environmental Management		P.73-78	✓
GRI 304: 生物多樣性 Biodiversity 2016	304-1	組織所擁有、租賃、管理的營運地點或其鄰近地區位於環境保護區或其他高生物多樣性價值的地區 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	渠務署主要職責 Our Core Responsibilities 環境管理 Environmental Management		P.52-55 P.73-78	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照 Reference	直接解釋／省略資料的原因 Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
	304-3	受保護或經修復的棲息地 Habitats protected or restored	環境管理 Environmental Management		P.73-78	✓
	廢氣控制Air Emissions					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		節能減排促進香港可持續發展 Energy Saving and Emission Reduction Promoting Sustainable Development in Hong Kong		P.14-23	✓
GRI 305: 排放 Emissions 2016	305-1	直接溫室氣體排放（範疇1） Direct (Scope 1) GHG emissions	環境管理 Environmental Management		P.84	✓
			附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.137	
	305-2	能源間接溫室氣體排放（範疇2） Energy indirect (Scope 2) GHG emissions	環境管理 Environmental Management		P.84	✓
			附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.137	
	305-3	其他間接溫室氣體排放（範疇3） Other indirect (Scope 3) GHG emissions	附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.137	✓
	305-5	減少溫室氣體的排放量 Reduction of GHG emissions	節能減排促進香港可持續發展 Energy Saving and Emission Reduction Promoting Sustainable Development in Hong Kong		P.14-19	✓
			環境管理 Environmental Management		P.83-84, 86	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照 Reference	直接解釋／省略資料的原因 Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
	污水和廢棄物 Effluents and Waste					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		渠務署主要職責 Our Core Responsibilities		P.60-69	✓
GRI 306: 污水及廢棄物 Effluents and Waste 2016	306-2	按類別及處置方法劃分的廢棄物 Waste by type and disposal method	附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.138-139	✓
	306-3	嚴重洩漏 Significant spills		年內，渠務署發生了67宗污水溢漏個案，總漏量約為27,900,000立方米（少於我們每年污水處理量的2.72%）。我們立即採取了糾正行動，沒有對環境造成重大影響。 During the year, a total of 67 significant sewage spills were reported and the total volume of sewage spill was about 27,900,000 cubic metres.(less than 2.72 per cent of our annual sewage treated). Corrective actions were taken immediately without causing any significant environmental impacts.	–	✓
	環境法規遵循 Environmental Compliance					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		管治方針 Governance Approach		P.37-41	✓
GRI 307: 環境法規遵循 Environmental Compliance 2016	307-1	違反環境法律和法規 Non-compliance with environmental laws and regulations	附錄一－完成目標 Appendix I – Meeting the Targets		P.131-133	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照 Reference	直接解釋／省略資料的原因 Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
社會Social						
	匯報可持續發展進程 Sustainable Development Agenda					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		管治方針 Governance Approach		P.34-41	✓
			渠務署主要職責 Our Core Responsibilities		P.42-69	
	內部溝通渠道 Internal Communication Channel					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		關愛員工 Caring for Our Staff		P.88-101	✓
	員工政策及本地員工比例 Local Employee Ratio and Employment Policy					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		關愛員工 Caring for Our Staff		P.88-101	✓
GRI 401: 僱員 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.145	✓
GRI 405: 多元化與平等機會 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.143-144	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照 Reference	直接解釋／省略資料的原因 Direct Answer/Reasons for Omissions	頁數 Page No.	外部認證 External Assurance
	職業安全及健康 Occupational Health and Safety					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		關愛員工 Caring for Our Staff		P.88-101	✓
GRI 403: 職業健康及安全 Occupational Health and Safety 2016	403-2	工傷、職業病、損失工作日及缺勤的種類比率，以及與工作有關的死亡人數 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.142, 146	✓
	員工培訓與教育 Staff Training and Education					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		關愛員工 Caring for Our Staff		P.90-101	✓
GRI 404: 培訓與教育 Training and Education 2016	404-1	每名員工每年接受培訓的平均小時數 Average hours of training per year per employee	關愛員工 Caring for Our Staff 附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.88-101 P.142	✓
	404-2	員工技能提升方案和過渡協助方案 Programs for upgrading employee skills and transition assistance programs	關愛員工 Caring for Our Staff 附錄二－主要統計數據 Appendix II – Key Statistics and Data		P.88-101 P.142	✓

可持續發展報告標準 GRI Standards	特定議題標準 Topic-specific Standards		參照 Reference	直接解釋／省略資料的原因 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 Management Approach 2016	103-1 103-2 103-3		管治方針 Governance Approach		P.34-41	✓
GRI 416: 客戶健康與安全 Customer Health and Safety 2016	416-1	對產品和服務類別的健康與安全影響的評估 Assessment of the health and safety impacts of product and service categories	渠務署主要職責 Our Core Responsibilities 附錄一－完成目標 Appendix I – Meeting the Targets		P.44-69 P.131-135	✓
	416-2	涉及產品和服務的健康與安全的違規事件 Incidents of non-compliance concerning the health and safety impacts of products and services	附錄一－完成目標 Appendix I – Meeting the Targets		P.131-135	✓
	社會經濟法規遵循 Socioeconomic Compliance					
GRI 103: 管理方針 Management Approach 2016	103-1 103-2 103-3		管治方針 Governance Approach		P.34-41	✓
GRI 419: 社會經濟法規遵循 Socioeconomic Compliance 2016	419-1	違反社會及經濟領域方面的法律和規定 Non-compliance with laws and regulations in the social and economic area		渠務署於2018-19年度，並沒有此類別的違規情況 No non-compliance with laws or regulations in the social and economic area in 2018-19	–	✓

核實聲明
Verification Statement

核實範圍
香港品質保證局已對渠務署2018-2019年可持續發展報告（以下簡稱「報告」）的內容進行獨立驗證，報告根據全球報告倡議組織（GRI）《可持續發展報告標準》（GRI 標準）的核心選項進行匯報。報告陳述了渠務署對可持續發展的承諾，努力和表現。核實範圍包括渠務署在報告期 內（即2018年4月1日至2019年3月31日），有關可持續發展表現的數據和資料。

保證程度和核實方法
核實方法是參照國際準則。有關收集核實證據的幅度是參考國際準則所要求進行合理保證的原則而制定，以確保能擬定核實結論；此外，核實的內容則是按照GRI 標準的「核心選項」而釐訂。

核實過程確認報告的內容披露和表達方式，並且對以下部份進行核對：編制報告和管理流程的資料，與持份者溝通的方法及結果，重要的可持續發展範疇，有關可持續發展表現數據的計算方法、記錄和滙報程序，以及收集、整理和匯總可持續發展表現數據的流程和檢查程序。核實過程包括檢閱有關文件資料，與負責編制報告內容的代表面談，選取具有代表性的數據和資料進行查核。相關原始數據和支持證據亦於核實過程中經過詳細審閱。

獨立性
渠務署負責收集和 備所有在報告內陳述的資料。香港品質保證局不涉及收集和計算此報告的數據或參與編撰此報告。香港品質保證局的核實過程是絕對獨立於渠務署。

Scope of Verification
Hong Kong Quality Assurance Agency (HKQAA) has been engaged by Drainage Services Department (DSD) to undertake an independent verification for its Sustainability Report 2018-2019 (Refer to as "The Report") which was prepared in accordance with the Core Option of the Global Reporting Initiative (GRI) Sustainability Reporting Standards ("the GRI Standards"). The Report states DSD's commitments, efforts and progress of performance towards sustainability. The scope of HKQAA's verification covers the data and information associating with DSD's sustainability performance for the reporting period between 1st April 2018 and 31st March 2019.

Level of Assurance and Methodology
The process applied in this verification was based on international standards. Our evidence gathering process was designed to obtain a reasonable level of assurance as set out in the standards for the purpose of devising the verification conclusion and the extent of this verification process undertaken was provided for the core aspects of the GRI Standards.

In order to understand the process that DSD adopted to ascertain the key sustainability issues and impacts, the Report compilation process was discussed including stakeholder engagement and materiality assessment processes. System and process for collecting, collating and reporting sustainability performance data were also verified. Our verification procedure performed covered reviewing of relevant documentation, interviewing responsible personnel with accountability for preparing the reporting contents and verifying the selected representative samples of data and information. Raw data and supporting evidence of the selected samples were also thoroughly examined during the verification process.

Independence
DSD is responsible for the collection and preparation of the information presented. HKQAA does not involve in calculating, compiling, or development of the Report. Our verification activities are independent from DSD.

結論

香港品質保證局基於核實的結果總結：

- 報告平衡地、清晰地、具比較性和及時地將渠務署的可持續發展表現闡述；及
- 報告內的數據和資料可靠和完整；及
- 報告編撰是跟據（GRI 標準）的核心選項進行匯報。

總括而言，報告如實地載述了渠務署的可持續發展承諾、方針和表現，並且清晰地披露與其可持續發展情況和重要性相稱的表現。

譚玉秀
企業業務總監
2020年1月

Conclusion

On the basis of our verification results and in accordance with the verification procedures, it is the opinion of the HKQAA's verification team that:

- The Report illustrates the sustainability performance of DSD's material topics in a balanced, comparable, clear and timely manner; and
- The data and information disclosed in the Report are reliable and complete; and
- The Report is prepared in accordance with the GRI Standards (Core option).

In conclusion, the Report reflects truthfully the sustainability commitments, policies and performance of DSD and discloses transparently the sustainability performance of the department that is commensurate with its sustainability context and materiality.

Signed on behalf of Hong Kong Quality Assurance Agency

Jorine Tam
Director, Corporate Business
January 2020

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
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2018-19及可持續發展表現：	優異	良好	尚可	欠佳
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 7140/ 電郵：enquiry@dsd.gov.hk)。
多謝你的寶貴意見！

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
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 2018-19 and sustainability performance:

	Excellent	Good	Fair	Poor
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 7140/ Email: enquiry@dsd.gov.hk)
Thank you very much for your valuable opinion.