水務署
WATER SUPPLIES DEPARTMENT

WATER Security Conservation

保供 促節

年報 Annual Report 2013/14

抱負 Vision

滿足客戶對優質供水服務的需求，務求有卓越之表現。

To excel in satisfying customers' needs for the provision of quality water services.

信念 Values

- 以客為本 **C**ustomer satisfaction
- 確保質量 **R**eliability
- 重視環保 **E**nvironmental awareness
- 竭盡所能 **D**edication
- 精益求精 **I**mprovement
- 同心協力 **T**eamwork

使命 Mission

- 以最符合成本效益的方式為客戶提供可靠充足的優質食水及海水。
  To provide a reliable and adequate supply of wholesome potable water and sea water to our customers in the most cost-effective way.
- 提供以客為本的服務。
  To adopt a customer-oriented approach in our services.
- 維持及激勵一支能幹、高效率及完全投入的工作隊伍，以服務社羣。
  To maintain and motivate an effective, efficient and committed workforce to serve the community.
- 時刻關注對保護環境方面須負的責任。
  To remain conscious of our responsibilities towards the environment.
- 善用資源和科技，力求不斷改善服務。
  To make the best use of resources and technology in our striving for continuous improvement in services.

目錄 Contents

部門總覽
Corporate Profile

香港特別行政區政府水務署全方位監督和管理全港食水及鹹水水源，維持全港食水及鹹水供應。本署每日提供256萬立方米食水以滿足719萬人口的需要。食水主要取自香港山坡上眾多集水區，以及從華南東江輸入的大量儲備，並進行嚴格的水質測試及處理，務求符合全球安全食水標準。其後，食水會儲存在廣泛分佈的配水庫內等待配送至各家各戶和商用物業。本署亦會將經處理的海水輸送至沖廁系統。香港境內大部分住宅、商業及工業大廈一般均使用海水沖廁；利用這種水資源有助降低整體食水需求。本署亦負責通過海水化淡、循環再用和雨水收集等方法，開拓新水源並監督有關的發展。

我們每日竭盡所能，致力滿足市民期望的同時，亦會實行成效顯著的政策推廣節約用水。水是支撐香港活力和繁榮發展的基本元素，因此本署將繼續與全體相關持份者緊密合作，優化供水，為現在和未來的香港繼續保持安全優質的供水。

The Hong Kong SAR Government's Water Supplies Department oversees and manages all aspects of sourcing and maintaining supplies of fresh and salt water throughout the Territory. Every day we pump 2.56 million cubic metres of fresh water to meet the needs of 7.19 million people. We get our fresh water supplies primarily from Hong Kong's expansive hillside catchments along with considerable reserves piped in from Dongjiang in southern China, which undergoes strict water testing and treatment to meet global safety standards. Afterwards fresh water is stored in a broad array of service reservoirs for distribution to homes and commercial developments. The Department also utilises seawater which is treated and then piped to toilet flushing systems. Seawater flushing is generally found in a majority of residential, commercial and industrial buildings throughout Hong Kong; the utilisation of this type of water resource helps lower our overall need for fresh water. The Department is also responsible for initiating and monitoring the development of new water sources based on methods like desalination, water recycling and rainwater harvesting.

We dedicate ourselves every day to meeting the expectations of our customers while at the same time implementing strong and effective policies to promote water conservation. Water is an essential element that underpins the vitality and prosperity of Hong Kong. For this reason, we will continue to closely work in collaboration with all stakeholders to optimise supplies so that Hong Kong's water remains secure and of high quality now and in the future.

主要統計數字 (截至二零一四年三月三十一日)
Principal Statistics (as at 31.3.2014)

** 包括敷設於私人街道的水管。*
** Water mains laid in private streets are included.*

水塘數目 No. of Impounding Reservoirs	17 個 nos.	總容量 Total Storage Capacity	586.05 百萬立方米 million cubic metres (mcm)
濾水廠數目 No. of Water Treatment Works	21 個 nos.	總日產量 Total Daily Treatment Capacity	5.02 百萬立方米 million cubic metres (mcm)
食水抽水站數目 No. of Fresh Water Pumping Stations (包括食水和原水抽水站及泵房) (including both fresh & raw water pumping stations and pump houses)	153 座 nos.	總抽水日產量 Total Daily Pumping Capacity	31.23 百萬立方米 million cubic metres (mcm)
海水抽水站數目 No. of Salt Water Pumping Stations (抽水站及泵房) (including both pumping stations and pump houses)	33 座 nos.	總抽水日產量 Total Daily Pumping Capacity	1.89 百萬立方米 million cubic metres (mcm)
食水及海水抽水站數目 No. of Combined Fresh Water & Salt Water Pumping Stations	7 座 nos.	總抽水日產量 Total Daily Pumping Capacity	0.29 百萬立方米 million cubic metres (mcm)
食水配水庫數目 No. of Fresh Water Service Reservoirs	170 個 nos.	總容量 Total Storage Capacity	4.18 百萬立方米 million cubic metres (mcm)
海水配水庫數目 No. of Salt Water Service Reservoirs	52 座 nos.	總容量 Total Storage Capacity	0.24 百萬立方米 million cubic metres (mcm)
食水管長度 Length of Fresh Water Mains (直徑20毫米至2 400毫米) (20 mm to 2 400 mm diameter)	6 703* 公里 kilometres (km)	海水管長度 Length of Salt Water Mains (直徑20毫米至1 200毫米) (20 mm to 1 200 mm diameter)	1 698* 公里 kilometres (km)

水務署組織圖
WSD Organisation Chart

林天星工程師，JP
Ir LAM Tin Sing, Enoch, JP
水務署署長
Director of Water Supplies

吳孟冬工程師，JP
Ir NG Mang Tung, Bobby, JP
水務署副署長
Deputy Director of Water Supplies

林正文工程師
Ir LAM Ching Man
助理署長／客戶服務
Assistant Director/ Customer Services

麥成章工程師
Ir MAK Shing Cheung, Vincent
助理署長／發展
Assistant Director/ Development

內部稽查組
Internal Audit Section

客戶服務科
Customer Services Branch

發展科
Development Branch

一般行政組
General Administration Section

合約顧問組
Contract Advisory Unit

公共關係組
Public Relations Unit

客戶服務部
Customer Services Division

客戶帳務組
Customer Accounts Section

技術支援組
Technical Support Unit

發展(1)部
Development (1) Division

發展(2)部
Development (2) Division

水質科學部
Water Science Division

李光明先生 **Mr LEE Kwong Ming** 助理署長／ 財務及資訊科技 **Assistant Director/Finance & Information Technology**	汪學成工程師 **Ir WONG Hok Sing** 助理署長／機械及電機 **Assistant Director/ Mechanical & Electrical**	梁永廉工程師, JP **Ir LEUNG Wing Lim, JP** 助理署長／設計及建設 **Assistant Director/ New Works**	錢柱森工程師, JP **Ir CHIN Chu Sum, JP** 助理署長／運作 **Assistant Director/ Operations**	李尹璇先生 **Mr LI Wan Suen, Clement** 部門秘書 **Departmental Secretary**

財務及資訊科技科 **Finance and Information Technology Branch**	機械及電機科 **Mechanical and Electrical Branch**	設計及建設科 **New Works Branch**	運作科 **Operations Branch**	部門行政部 **Departmental Administration Division**
財務部 Finance Section	保養部 Maintenance Division	建設部 Construction Division	香港及離島區 Hong Kong and Islands Region	
物料供應組 Supplies Section	工程計劃部 Projects Division	顧問工程管理部 Consultants Management Division	九龍區 Kowloon Region	
資訊科技及數據管理組 Information Technology & Data Management Unit	機電行政組 M & E Administration Unit	設計部 Design Division	新界東區 New Territories East Region	
資訊科技工程計劃管理及覆檢小組 IT Project Management & Review Unit	安全組 Safety Unit	工程管理部 Project Management Division	新界西區 New Territories West Region	
	訓練組 Training Unit		運作組 Operations Section	
			斜坡安全組 Slope Safety Section	

大事紀要
Events in Brief

2013

從二零一三年三月開始…
From March 2013

惜水愛地球巡迴展覽
Save Water-Cherish the World Roving Exhibitions

由二零一三年起，本署定期在全港各區的商場及屋苑積極舉辦「*惜水愛地球*」系列巡迴展覽，旨在加深市民大眾的節約用水意識及知識。於二零一四年三月，我們已成功舉辦70場巡迴展覽。

Since 2013 the Department has been active in arranging a regular series of *Save Water-Cherish the World* roving exhibitions at shopping malls and housing estates throughout Hong Kong. The aim is to deepen the public's awareness and knowledge of water conservation. As of March 2014, we successfully staged over 70 roving exhibition events.

四月 • April

*「水的巡禮」講座系列*及特備展覽
All About H_2O Lecture Series and Special Exhibitions

這個活動旨在以生活化的角度，與市民一起探索與水相關的點點滴滴，從而加強社會對珍惜及保護水資源的意識。

「水的巡禮」講座邀請了多個領域的專家分別以水資源管理現代科學及先進技術為主題進行演講，另舉辦一系列展覽介紹世界及本地的水資源情況、海水化淡、食水處理工藝、水質監測的生物技術、虛擬水和再造水等主題。

This event was held to raise public awareness of water conservation through the exploration of various scientific topics related to water but presented through a layman's point of view.

Experts in a wide range of fields were invited to speak on topics related to modern science and the technological advances in water resource management. Another series of exhibitions was held as well to introduce topics concerning: global and local water resource distribution, desalination, water treatment technology, biological techniques in water quality monitoring, virtual water and reclaimed water.

五月 • May

新加坡考察團參觀水務署水資源教育中心
Singapore Visitors tour the WSD's Water Resources Education Centre

二零一三年五月二十一日，本署接待新加坡公用事業局22名不同背景的訪客，並由集水區及水務工程（Catchment & Waterway Works）高級助理署長Chris Chow先生帶領參觀位於旺角的水資源教育中心。

The Department welcomed 22 visitors with different background from the Public Utilities Board of Singapore on a tour of the Water Resources Education Centre in Mongkok on May 21, 2013, led by Mr. Chris Chow, senior assistant director of Catchment & Waterway Works.

*「全情『頭』入齊慳水Cap帽設計比賽」*頒獎典禮
Let's Save Water Cap Design Competition Award Ceremony

是次比賽由水務署贊助，以「珍惜點滴為未來」為標題邀請本地學生設計Cap帽宣揚節約用水的訊息。本署最終收到超過10 000份來自小一至中三學生的參賽作品，除頒發冠軍、亞軍、季軍及優異獎與嘉許獎外，本署亦評選出學生參賽人數最多、最投入參與的學校。

Under the banner of "Saving drops for tomorrow", this WSD-sponsored competition invited local students to design a cap to convey the message of water conservation. More than 10 000 entries were received from students ranging from

primary one to secondary three. In addition to awards for the champion, first runners up, second runners up along with merits and commendations, the Department also recognised those schools that were particularly active in recruiting students to take part in the competition.

七月 • July

多間小學響應「節約用水 — 從家開始」活動 — *保護水資源大使選拔賽證書頒發典禮*

Water Conservation Starts from Home Campaign for Primary Schools – *Certificate Presentation Ceremony for Water Conservation Ambassadors*

逾3 600名來自31間小學的學生參與本活動，最終616名學生獲選為「保護水資源大使」，人數創下歷史新高。本活動證明現時學生對每天節約用水的意識不斷提高。

水資源及供水水質事務諮詢委員會（水諮會）主席陳漢輝博士向保護水資源大使頒發證書，亦衷心感謝眾多學校踴躍參與推廣節約用水。保護水資源大使更逐一宣誓，承諾肩負保護珍貴水資源的使命。

A record high 3 600 students from 31 primary schools took part in this scheme and ultimately 616 were appointed as Ambassadors. This is a testament to the growing awareness that students today have about the need to save water on a daily basis.

Dr. Chan Hon-fai, chairperson of the Advisory Committee on Water Resources and Quality of Water Supplies (ACRQWS) helped confer certificates to the Ambassadors and expressed his appreciation to schools for their help in promoting water conservation. Each Ambassador pledged to uphold and protect our precious water resources.

「*全情『頭』入齊慳水 Cap 帽設計比賽*」得獎作品巡迴展覽

Let's Save Water Cap Design Competition Winning Entries Exhibition

水務署贊助舉辦為期四個月的全情「*頭*」*入齊慳水 Cap 帽設計比賽*得獎作品巡迴展覽，展示及表揚得獎者的創新設計，宣揚「珍惜點滴為未來」的訊息，鼓勵市民節約用水。

Over a four-month period the WSD sponsored a roving exhibition of the winning entries in the *Let's Save Water Cap Design Competition* to display and honour the creative designs of the awardees whose promotion of the message – "Save Drops for Tomorrow" encourages water conservation.

「*大廈優質食水認可計劃*」證書頒發典禮

The *Quality Water Recognition Scheme for Buildings* (QWRSB) Certificate Presentation Ceremony

水務署已於年度頒獎典禮上頒發「*大廈優質食水認可計劃*」證書，藉以表揚致力維護大廈食水系統的商業物業業主、業主立案法團及物業管理公司。今年是推行計劃的第11年，本署頒發的金、銀、藍證書總數一直持續增加。目前有效的證書超過3 682張，較去年增加逾200張。此外，近100座商業和工業大廈獲獎，是各類樓宇中增幅最顯著的組別。我們相信此現象反映市民大眾關注工作場所以及商業環境的食水系統保養工作。

2013

Certificates for WSD's *Quality Water Recognition Scheme for Buildings* were presented during an annual presentation ceremony. This award goes to those commercial property owners, corporation owners, and property management companies that have made special efforts to maintain fresh water plumbing systems in their buildings. Now in its 11th year, the Scheme's total number of awarded Gold, Silver and Blue certificates has been on a continual rise. At present, there are over 3,682 valid certificates, an increase of more 200 over last year. Moreover, nearly 100 have been awarded to industrial/commercial buildings, representing the most significant increase among all types of buildings. We are confident that this is a reflection of the public's concern for maintaining the plumbing systems at the workplace and in business environments.

九月 • September

水務講座 2013
Water Supplies Seminar 2013

作為水務署致力為市民提供優質食水的一環，本署每年均會舉辦水務講座，藉此交流及聆聽市民對水質及供水服務的見解及意見。

二零一三年的講座專注於三個主題：「生物感應預警系統」、「暫停供水通告系統」及「用戶在內部供水系統保養及打擊非法取水方面的責任」。主題發言完畢後，水務署即場設有問答環節，務求聆聽市民回應及意見。

As part of the WSD's commitment to supplying quality drinking water, we hold an annual Water Supplies Seminar for the public in order to allow a free exchange of ideas and opinions about water quality and supply services.

In 2013 the Seminar's focused on three topics: 'Bio-sensing Alert Systems', "Water Suspension Notice Systems" and "Consumer's Responsibilities on Maintenance of Their Inside Service and Combating Unauthorised Taking of Water." After the presentations, the WSD held an informative Q&A session to get feedback and advice from the attendees.

校園用水考察
School Water Audit

為加強本港青少年的節約用水意識，本署在全港各區舉辦一項主要活動，就是在小學推行「校園用水考察」計劃。在老師的協助與指導下，小學生以小組形式完成收集及分析水資源消耗數據的任務，然後報告有關學校用水的滲漏或其他異常情況。其後，學生須建議實際可行的節約措施，以便節省更多水資源。本計劃有效協助本港學校實施最佳節約用水慣例，並向學生介紹節約用水新方法，以便他們將節約用水的訊息及習慣帶給身邊的同學及自己的家人與朋友。

One of the main activities the Department conducts throughout Hong Kong to promote greater water conservation awareness among the Territory's youth is our *School Water Audit* programme conducted in primary schools. With the help and guidance of their teachers, primary school students are given the task of working in groups to collect and analyse water consumption data then report any cases of water leakage or other abnormalities related to water use in their schools. Afterwards the students are asked to suggest practical conservation measures to help save more water. This scheme is effective in helping schools around the Territory implement best water conservation practices and introduces students to new methods of water conservation so that they can also then convey these messages to their peers and family members.

「*節約用水 — 從家開始*」計劃
Water Conservation Starts at Home Campaign

本署一直大力強調教育年青一代節約用水。因此，我們於二零零九年推行「*節約用水 — 從家開始*」計劃，舉辦路演及在小學舉辦展覽，務求加強宣揚節約用水的重要性，協助鼓勵學生從小養成良好的節約用水習慣。為實施本計劃，我們亦為全港所有小學出版及派發一套教學資料套，因應學生的學習進度、教育水平及各級整體需要靈活講解節約用水的知識。

The Department has long placed a great deal of emphasis on educating younger generations about water conservation. For this reason, in 2009 we launched the *Water Conservation Starts from Home* campaign through roadshows and exhibitions at primary schools to reinforce the importance of water conservation and help motivate students to develop good water saving habits, starting from childhood. To complement this campaign we have also published and distributed to all primary schools in Hong Kong an information kit that explains water conservation in more flexible ways in order to suit students' activity schedules, academic level and overall needs in each grade.

十月 • October

第十屆深圳－香港－珠海－澳門供水講座

10th Shenzhen-Hong Kong-Zhuhai-Macau Seminar on Water Supply

是次講座由香港水務及環境管理學會及本署聯合舉辦，吸引來自中國內地及香港逾250位人士踴躍參與。自一九九六年起，珠三角地區四大城市輪流舉辦兩年一度的會議，讓當地的供水組織聚首一堂。

An event co-organised by the Chartered Institution of Water and Environmental Management Hong Kong Branch and the Department drew more 250 participants from China and Hong Kong. Since 1996, this biennial gathering brings together water organisations from the four major cities of the Pearl River Delta with each city hosting by turns.

國際環保博覽 — 透過創新及創意推動環保

Eco Expo Asia – *Promoting environmental conservation through innovation and creativity*

本署參與*國際環保博覽2013*，向各行各業及市民大眾展示本署職員自行研發的「海浪推動刷網裝置」，為海水抽水站節省人力及能源。為期四天的博覽會吸引過千名人士到場，其中環境局局長黃錦星先生更特別前來參觀本署的展覽攤位。

The Department took part in *EcoExpo Asia 2013* to present to both businesses and the general public a "Wave-powered In-take Screen Cleaning Device", which was developed by our own staff for use at saltwater pumping stations to save manpower and energy. The 4-day Expo welcomed more than a thousand visitors, including Secretary for the Environment Mr. Wong Kam Sing who made a special visit to the Department's booth.

牛潭尾濾水廠開放日

Ngau Tam Mei Water Treatment Works Open Day

為幫助提供有關水質的清晰正確訊息，並介紹食水處理過程中的先進技術及處理設施，本署邀請公眾人士參觀牛潭尾濾水廠。逾800名不同背景的市民參與整個食水處理過程的導覽。作為開放日活動的一部分，我們亦安排了關於「生物感應預警系統」、「*惜水愛地球*」活動、更換及修復水管、「沖廁水系統優質維修認可計劃」、打擊非法取水、禁止在水塘游泳或跳水及「大廈優質食水認可計劃」的展覽。

To help provide clear and proper information about water quality as well as introduce advanced technologies and treatment facilities in the water treatment process, the Department invited the public to visit the Ngau Tam Mei Water Treatment Works. More than 800 people from a wide range of backgrounds joined the facilities tour of the entire operations. As part of the open day activities, we arranged exhibitions of the Biosensing Alert System, the *Save Water-Cherish our World* campaign, replacement and rehabilitation of water mains, the Flushing Water Plumbing Quality Maintenance Recognition Scheme, combating unlawful taking of water, plus the prohibition against swimming or diving in reservoirs, and the Quality Water Recognition Scheme for Buildings.

2013

十一月 • November

2013香港區世界水質監測挑戰
World Water Monitoring Challenge 2013

*2013香港區世界水質監測挑戰*由國際水協中國香港地區委員會與本署假牛潭尾濾水廠聯合舉辦，逾100名中學生參與此次活動。我們的員工帶領他們參觀各項設施，而水務署化驗師亦向他們講解測試方法、安全注意事項、基本指示、採集水樣本及呈報結果方法等。響應國際水協的呼籲，是項活動自二零零四年起開始舉辦。我們邀請中學生在本署水廠進行水質測試。他們利用簡單測試工具量度四項主要指標：溫度、酸鹼度、溶解氧及混濁度；有關的測試結果更提交至「世界水質監測挑戰」的數據資料庫。

The *World Water Monitoring Challenge 2013* (Hong Kong) organised by the International Water Association Regional Committee of Hong Kong, China and the Department, took place at the Ngau Tam Mei Water Treatment works. More than 100 secondary students participated in the event. They were given a tour of the facilities by our staff as well as WSD chemists who explained the testing methods, safety precautions, basic instructions, collection of water samples and methods for reporting results, etc. This event has been held since 2004 in response the International Water Association's call for support. We invite secondary students to perform water tests at the Department's waterworks facilities. They use simple test kits to carry out the measurement of four key indicators: temperature, pH, dissolved oxygen and turbidity. The test results are then uploaded to the World Water Monitor Challenge database.

「創新科技嘉年華2013」— 向公眾宣傳屯門水力發電站
InnoCarnival 2013 – *Promoting the Tuen Mun hydropower plant to the public*

為協助推廣位於屯門濾水廠的首個新水力發電站，本署於二零一三年十一月二日至十日在香港科學園舉辦一個特備展覽。數以千計的參觀人士對這個創新項目讚不絕口，並對本署善用再生能源節約電力成本及保護環境表示支持。

To help promote our first-of-its-kind new hydropower plant at the Tuen Mun Water Treatment Works, the Department set up a special exhibition at the Hong Kong Science Park from 2nd to 10th November 2013. Thousands of interested visitors were fascinated by this innovative project in support to the Department's wise use of renewable energy to save electricity cost and protect the environment.

水諮會廣東之行
ACRQWS's visit to Guangdong

水諮會成員前往廣東視察東江供水系統。此行，成員注意到廣東省當局一直致力保護東江供水，以確保在輸送至香港前完全符合所有規定標準。

Members of the ACRQWS visited Guangdong to inspect the Dongjiang water supply system. While there the members noted that the Guangdong authorities have continued to focus their efforts on protecting the Dongjiang water supply in order to keep it in full compliance with all required standards before conveying it to Hong Kong.

十二月 • Decemeber

馬鞍山濾水廠開放日
Ma On Shan Water Treatment Works Open Day

二零一三年十一月，馬鞍山濾水廠舉辦一系列展覽開放予公眾參觀，其中包括解釋香港供水輻射監控系統、漏損管理及「『珍惜水資源』水務設施繪畫比賽」的展覽攤位，讓公眾更深入了解香港水處理的運作流程。

The Ma On Shan Water Treatment Works opened its doors to the public with a series of exhibitions in November 2013. There were booths that explained radiological monitoring systems for water supplies in Hong Kong, water loss management and a "Cherish Water Resources" Water Installations Drawing Competition to provide the public with a better understanding of how water treatment operations work in Hong Kong.

2014

一月 • January

第六十八次客戶聯絡小組會議
The 68th Customer Liaison Group (CLG) Meeting

客戶聯絡小組第六十八次會議於今年一月假牛潭尾濾水廠舉行。本署帶領各成員參觀相關設施後，便就「全面水資源管理策略」發表演講，重點講述教育市民大眾節約用水等主要講題。

The 68th meeting of the CLG was held at the Ngau Tam Water Treatment Works in January this year. After providing a guided tour of the facilities to the members, the Department gave a presentation on Total Water Management, which focused on key topics like public education about water conservation.

三月 • March

「齊來慳水十公升」運動
"Let's Save 10L Water" Campaign

為支持世界善用食水日，本署於二零一四年三月二十二日展開*「齊來慳水十公升」運動*，並邀請發展局局長陳茂波為主禮嘉賓，鼓勵市民每日慳水十公升。歡迎香港市民登入www.wsd.gov.hk/save10litres參與運動，並簽署承諾宣言，承諾在日常生活中節約用水十公升。每個參與家庭均可免費獲贈節流器一對，幫助減少水龍頭的用水量。是次運動受到市民踴躍支持，水務署已將節流器的申請名額由最初的30 000戶增加至120 000戶，派完即止。

The *Let's Save 10L Water* campaign was launched by the Department in the presence of the Secretary for Development Mr Paul Chan, in support of World Water Day on 22 March 2014, to encourage domestic consumers to use 10L less water each day. To participate, the Hong Kong public were invited to log onto www.wsd.gov.hk/save10litres and sign a Commitment Certificate pledging to reduce their daily water consumption by 10 litres. Each household taking part was entitled to a free pair of flow controllers to help reduce the amount of water they use from water taps. To meet the very enthusiastic responses, we have increased our stock of flow controllers to give out from 30 000 to 120 000 households on a first-come, first-served basis.

小蠔灣濾水廠開放日
Siu Ho Wan Water Treatment Works Open Day

於二零一四年三月，本署安排了小蠔灣濾水廠開放日技術參觀活動，向參觀人士展示一系列有關「海浪推動刷網裝置」、水錶工作坊、「水務署流動應用程式」及「保護水資源大使選拔賽」最新資訊的展覽。舉辦開放日旨在教育公眾有關水務署目前採用的最新技術，並向參觀人士概述本署正推出的最新宣傳活動。

A technical tour of the Siu Ho Wan Water Treatment Works was arranged during March 2014. Visitors were also presented with a series of exhibitions on the Wave-powered Cleaning System, meter workshop, the latest news about the WSD Mobile App as well as the Water Conservation Ambassador Selection Scheme. The purpose of the open day activities is aimed at educating the public about the latest technologies the WSD is adopting and to brief visitors on the latest promotion campaigns the department is launching.

推出流動應用程式
Launch of the WSD Mobile App

為致力提高本署服務質素，我們已推出免費流動應用程式，即《WSD Mobile App》，透過手機向公眾提供最新資訊，包括公告欄、暫停供水通告、帳單摘要以及催繳通知。

In an effort to enhance the quality of services the Department provides the public, we have launched a free mobile application called the WSD Mobile App which gives updated information, including a notice board, water suspension notices, a water bill summary and a bill reminder to the public via mobile phone.

署長的話
Director's Statement

現今全球氣候不穩，我們的目標是確保水資源安全，以及節約用水，令市民無須擔憂日後的供水問題。

In today's world of climate instability, our goal is water security and water conservation for future peace of mind.

林天星工程師，JP
Ir LAM Tin Sing, Enoch, JP

水務署署長
Director of Water Supplies

全球各地如今正被氣候變化的陰霾籠罩，這可能是人類史上前所未有的挑戰。自然災害的次數有增無減，嚴重程度亦不斷加劇，加上兩極冰層融化，旱災連連，許多其他自然反常現象不斷浮現，足證氣候變化造成的影響。鑒於目前情況，本署積極採取審慎及有效措施，確保香港供水能夠滿足不斷增長的商界及市民需求。為此，我們正積極擴大使用先進技術，確保水源安全及盡量提高用水效益。我們亦舉辦社區外展活動，務求降低個人每日耗水量，同時發掘具成本效益的新方法，確保我們的節約用水和保障水資源安全的目標得以實踐，造福現在和未來香港的每位市民。

Today around the world we are all facing the spectre of climate change, a challenge for mankind perhaps like no other in history. We see the effects of climate change in the rising numbers and intensity of natural disasters, polar ice cap depletion, the threat of droughts and many other natural anomalies. Given this current scenario, our department is actively taking prudent and effective measures to ensure that Hong Kong's water supply can meet the demands of the growing commercial sector as well as consumers. To this end, we are actively expanding the use of cutting-edge technologies to ensure secure sources of water and maximise water efficiency. We are also initiating outreach programmes in the community to lower daily individual water consumption and discovering novel and cost-effective ways to ensure that we achieve our aim of water conservation and security to benefit everyone in Hong Kong now and in the future.

水資源安全

本署長期採取多管齊下的措施保護水資源，務求為全港用戶提供24小時不間斷供水，可靠性高達99%。於二零一三年，本港總食水用量為9.33億立方米，但隨著預期人口增加及經濟發展，及至二零三零年的食水用量有可能增加至超過11億立方米。於二零一三年，本港集水區收集的水量佔本署供水量的26.5%，中國東江輸入的水量合共佔50.5%，利用鹹水沖廁則佔23%，即分別達3.21億立方

Water Security

The Department has long adopted a multi-faceted approach to securing water sources for Hong Kong users on a 24-hour, non-stop supply basis with 99% reliability. In 2013, total fresh water demand in Hong Kong was 933 million cubic metres (mcm). However, in line with anticipated population increases and economic development, fresh water demand will likely rise to over 1 100mcm by 2030. In 2013 local catchment water collection comprised 26.5% of our water supply while the importation of water resources from DongJiang, China, totalled 50.5%, and the use of seawater for flushing came to 23%, accounting for 321, 612, and 278 mcm of water resources respectively.

進行研究及開發工作
Carrying out research and development work

東江原水輸水管道
Pipeworks of Raw Water Supply from Dongjiang

米、6.12億立方米及2.78億立方米。氣候變化會引致極端天氣更加頻繁。舉例而言，發生特大旱災會危及水資源安全，降雨程度加劇加上降雨日數減少會嚴重影響本港的雨水收集。過去十年，本港雨水收集量波動趨勢加劇，可能是氣候變化對本港水資源造成影響的訊號。此外，人口持續增長，加上中國出現特大旱情，將會加劇廣東省多個城市之間對東江水的競爭，成為香港的真正考驗。

Climate change will lead to more frequent incidents of extreme weather consequences. For example, the occurrence of extreme drought will put our water security in peril as the increase in rainfall intensity coupled with a reduced number of rainy days will adversely affect our local rainwater yield. Over the last decade, we have seen an even greater fluctuating trend in our local yield, which probably is signalling the impact of climate change on our local water resources. Moreover, continued population growth and extreme drought conditions in China will lead to greater competition for Dongjiang water resources among the various cities of Guangdong Province, and this will become a real challenge for us in Hong Kong.

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發掘新水資源

為協助探索新水源以舒緩氣候變化的影響，水務署已展開策劃及勘察研究，在將軍澳興建採用先進逆滲透技術的海水化淡廠。將軍澳海水化淡廠預期將於二零一二零年投產。透過逐步擴建額外設施，將軍澳海水化淡廠的產量將可滿足全港總食水用量的5%甚至10%。策劃及勘查研究的範圍包括詳細評估技術的可行性及成本效益、制定工程實施策略及時間表、進行初步設計，以及對興建

Exploiting New Water Resources

In order to aid in the search for new sources of water that will ameliorate the impact of climate change, the WSD has already begun planning and investigation studies on the construction of a desalination plant using advanced reverse osmosis technology in Tseung Kwan O, which is projected to become operational by 2020. This would meet 5% and perhaps even as high as 10% of our total fresh water demand in the territory through gradual additional facilities expansion. The scope of the planning and investigation studies covers detailed assessments on technical feasibility and cost effectiveness, formulation of an implementation strategy

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海水淡化廠進行各項技術影響評估。策劃及勘查研究大概將於二零一五年初完成，然後進行最後的詳細設計。除海水淡化之外，本署亦著手研究將石湖墟污水處理廠處理過的污水轉成再造水作非飲用用途，例如在供水成本不菲的地方作沖廁用途。長遠而言，再造水將可滿足全港約2%的總用水需求。此外，我們亦正探索擴展污水重用和雨水收集的可行技術。目前，水務署已制訂這些水源作非飲用用途的技術及水質標準，並會考慮在適當的政府項目中執行。

宣傳節約用水

有別於全球其他主要城市，香港住戶每人每日的平均食水及沖廁水用量分別高達130公升和90公升，遠高於新加坡、倫敦等其他大都會。因此，要保障穩定供水，則必須雙管齊下，一方面加強節約用水意識，另一方面提高用水效率，從而滿足香港工商企業及市民的需要。按照目前策略，我們先從學校年輕一代

and programme, preliminary design, and various technical impact assessments for the construction of the desalination plant. The planning and investigation studies will largely be completed in early 2015 followed by a final detailed design. Apart from seawater desalination, studies are underway to convert treated effluent from the Shek Wu Hui Sewage Treatment Works into reclaimed water for non-potable applications such as flushing in places where it is not economical to do so. This reclaimed water source over the longer term will meet about 2% of Hong Kong's total water demand. Separately, we are also looking into viable techniques to expand grey water reuse and rainwater harvesting. The WSD has now established the technical and water quality standards for non-potable applications of these water sources and will consider their implementation in appropriate government projects.

Promoting Water Conservation

Unlike other major cities around the world, Hong Kong's average domestic per capita daily consumption of fresh water and flushing water is 130 litres and 90 litres respectively, which actually are much higher than major metropolitan areas like Singapore or London. Therefore, securing stable water supplies must be coupled with greater conservation awareness and water use efficiency to meet the needs of businesses and citizens of Hong Kong. Our current strategy starts with the younger generation in schools through education programmes that teach concepts and knowledge about water conservation. We are also expanding our reach to the public at large via the "Let's Save 10L Water" campaign coupled with the free distribution of flow controllers for taps. Under this initiative, those individuals who have pledged to reduce their daily consumption of water by 10 litres would receive a special *Commitment Certificate* along with a complementary pair of flow controllers to attach to faucets in order to help maintain the 10 litre daily benchmark

入手，透過教育課程灌輸節約用水的概念和知識。我們亦透過「齊來慳水十公升」活動及免費派發水龍頭節流器，將宣傳範圍延伸至普羅大眾。參與是項活動的住宅用戶承諾將每日個人用水量減少10公升，並會獲贈特別設計的*承諾宣言證書*連同水龍頭節流器一對，務求協助市民維持每日慳水10公升的目標。節流器平均有助將水龍頭出水量減少20%，每分鐘節省大概2公升用水。節流器體積小巧，安裝容易，如能在市場上廣泛採用，將可成為極具成本效的硬件裝置，有助降低整體用水需求。時至今日，是項計劃取得驕人成績，採用節流器的家庭用戶數目由最初的30 000戶倍增至超過90 000戶。此外，本署亦與房屋署通力合作，自二零一四年八月起為約25 000戶公共屋邨租戶免費安裝節流器。

至於非住宅用水方面，本署已展開用水效益檢討，為選定政府設施及主要用水行業（例如餐飲、酒店及洗衣等）制訂最佳慣例。於二零一四年九月，我們開展一項計劃，為全港多間學校及多座政府大樓安裝近100 000個節流器。於二零一四年八月，自願參與用水效益標籤計劃範圍擴大至包括安裝在花灑和水龍頭內的節流器。

savings for water use. The flow controllers will, on average, help reduce the flow from taps by 20%, achieving savings of around 2 litres per minute. This small, easily installed device, if penetrated significantly into the market, will be a highly cost effective hardware measure to reduce overall water demand. To date, this scheme has been an unqualified success with the number of households being issued with flow controllers soaring from an initial 30 000 to reach beyond 90 000. Furthermore, in collaboration with the Housing Department, the Department since August 2014 has started free installations of flow controllers for about 25 000 households in public housing estates.

On the non-domestic side, the Department has been carrying out water efficiency reviews in order to develop best practices for water use in selected government facilities and major water-consuming commercial trades, including catering, hotels and laundries, etc. In September 2014, we embarked on a programme to fit nearly 100 000 water flow controllers in schools and government buildings throughout the territory. In August 2014, we expanded the Voluntary Water Efficiency Labelling Scheme to cover flow controllers for showers and faucets.

用水效益標籤
Water efficiency labels

提高用水效益

我們在15年內分階段開展更換及修復3 000公里水管的計劃將於二零一五年完成。是項計劃與一項科技智能用水網絡策略相輔相成。這項策略旨在削減資本開支、減少道路建造工程和紓緩交通阻塞情況。根據海外得出的經驗及成果，這項策略被視為降低大型配水系統滲漏的最有效和最經濟方式。作為香港致力實現高效節約用水措施的主要一環，這項策略將會採用最新的先進技術，進一步減少因水管滲漏造成的水量流失。按照這項策略，全港大部分地區均獲指定為區域檢測區，當中包括用水流經的整體供水網絡各個檢測段。利用先進的管內監測技術，我們可以對流量、水壓等水力數據和其他指標進行持續監測和分析，即時提供區域檢測區的實際瞬態情況。

假如輕度干預措施未能將滲漏控制在可接受水平以下，本署將進行修復工程以修復或更換損壞的水管，以維持區域檢測區的順利運作。採用這項策略的意義

Enhancing Water Efficiency

Our 15-year phased programme of replacing and rehabilitating 3 000km of water mains will be completed in 2015. This programme will dovetail with a technology-based smart water network strategy aimed at reducing capital expenditures, curtailing road construction works and easing traffic disruption. Based on overseas experiences and results, the strategy is seen as the most effective and economical way to reduce leakage across large water distribution systems. As a major part of efforts to realise effective water conservation in Hong Kong, the strategy will incorporate the latest technological advancements to further reduce water loss due to water mains leakage. Under this strategy, large areas in the territory are designated as District Metering Areas (DMAs) comprised of discrete metered sections of the overall water supply network where water enters and leaves. Using cutting-edge monitoring technology inside the pipes, hydraulic data such as flow, pressure and other metrics can be constantly monitored and analysed to provide real-time snapshots of the DMA's actual conditions.

In the event that less invasive measures can no longer stop leakage below an acceptable level, our department will go ahead with repair and rehabilitation work to fix or replace dysfunctional water mains to maintain the smooth operation of the DMA. The application of this strategy is more than just finding new ways to use the latest technologies, it provides ancillary benefits like fewer disruptions to the public due to costly underground construction works.

「ISO 50001能源管理系統」能源政策的宣傳海報
Posters promoting 'ISO 50001 Energy Management System' Energy Policy

不單在於利用最新技術探索新方法，更在於兼備其他優點，例如減少因昂貴地下建築工程而對公眾造成滋擾。

邁向未來

展望未來，我們銳意增強研發隊伍的實力及加強研發活動，並與其他本港及國際組織合作，時刻了解供水業界的最新發展之餘，亦培訓員工運用最新的先進技術。

本署亦建議將配水庫遷移至岩洞內，以及處置多餘的員工宿舍作更有價值的用途，藉此為增加本港土地供應以作發展出一分力。

多年以來，我們亦一直恪守提升能源效益的最佳慣例。為了致力保護環境，本署在現有穩固根基之上制訂能源管理體系，而有關體系將於二零一四年年底根據最新ISO 50001:2011標準進行認證。

在商界及市民大眾通力合作之下，水務署將透過積極推行加強節約用水和水資源保障的策略，繼續全心全意服務社會，確保供水服務能夠滿足香港現在及未來的需求。

林天星工程師，JP
水務署署長

二零一四年九月十五日

Moving into the Future

Looking ahead, we are determined to strengthen our research and development team and activities as well as collaborate with other local and international parties to stay informed about the very latest developments in the water industry while also training our staff to use the latest in advanced technologies.

The Department will also contribute toward increasing the land supply for development in Hong Kong by offering to relocate service reservoirs to caverns as well as disposing of our surplus staff quarters for more gainful use.

Furthermore, over the years, we have embraced best practices for improvements in energy efficiency. In keeping with our commitment to protecting the environment, we have built on this solid foundation to develop an Energy Management System for the Department to be certified by the end of 2014 in accordance with the latest ISO 50001:2011 standards.

By actively pursuing strategies that improve both water conservation and water source security, we at the WSD, along with the cooperation of the commercial sector and individual citizens, will continue to work hard to ensure that we meet the water demands of Hong Kong for today and in the years to come.

Ir LAM Tin Sing, Enoch, JP
Director of Water Supplies

15 September 2014

主要工作表現指標
Key Performance Indicators

指標 Indicators	財政年度（百分比）Financial Year (Percentage) 11/12	12/13	13/14
食水水質〔100%符合世界衛生組織在2011年制定的《飲用水水質準則》#〕 Fresh Water Quality [100% compliant with WHO's "Guidelines for Drinking-water Quality"(2011#)]	100	100	**100**
鹹水水質〔96%符合水務署所定的水質指標〕 Salt Water Quality [96% compliant with WSD Water Quality Objectives]	符合指標 complied with	符合指標 complied with	**符合指標 complied with**
食水供水水壓（15至30米）λ Fresh Water Supply Pressure (15 – 30 metres) λ	100	100	**100**
鹹水供水水壓（15米）λ Salt Water Supply Pressure (15 metres) λ	100	100	**100**

指標 Indicators	財政年度（百分比）Financial Year (Percentage) 11/12	12/13	13/14
到場處理故障投訴所需的時間 Response Time for Attendance to Fault Complaints			
• 食水供應故障^（在半天內） Fresh Water Supply Fault^ (within half a day)	99.2	99.97	**100**
• 其他（在一個工作天內） Others (within a working day)	99.8	99.97	**100**
因預算進行的工程而暫停供水的時間長度（97%於八小時內） Duration of Suspension of Water Supply for Planned Works (97% within 8 hours)	符合指標 complied with	符合指標 complied with	**符合指標 complied with**
水錶準確程度@（偏差程度不超過±3%） Accuracy of Water Meters@ (inaccuracy not exceeding ±3%)	95.3	96.0	**96.4***
初步回覆市民的來信（十個曆日） Interim Reply to Correspondence from the Public (10 Calendar Days)	98.2	99.9	**99.96**

 # 於2012年起採用世界衛生組織在2011年制定之準則。

^ 包括食水供應中斷、食水受污染及內部食水管爆裂而可能導致水浸的情況。

λ 配水系統的最小剩餘水壓（或水壓幅度），在系統的盡頭除外。

@ 在驗錶時，如水錶的偏差程度不超過±3%，水錶即視作運作正常。

** 二零一四／一五年度的目標為96.7%。*

 # The 2011 WHO Guideline standards were adopted in August 2012.

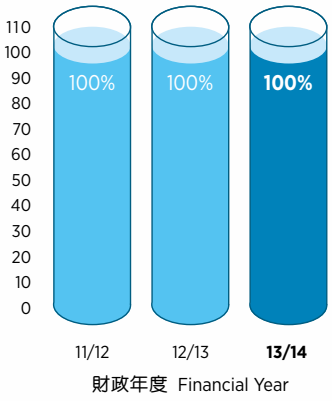
^ Including cases of no fresh water supply; polluted fresh water supply; and internal fresh water pipe burst likely to cause flooding.

λ Minimum residual pressure (or pressure range) in the distribution systems except at their extremities.

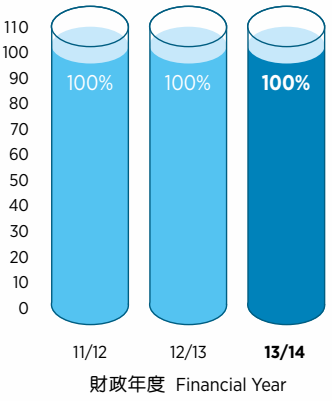
@ Water meters are deemed to register correctly if their inaccuracy does not exceed ±3%.

** The target for 2014/2015 is 96.7%.*

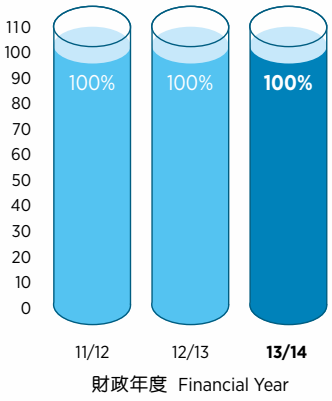
食水水質
Fresh Water Quality



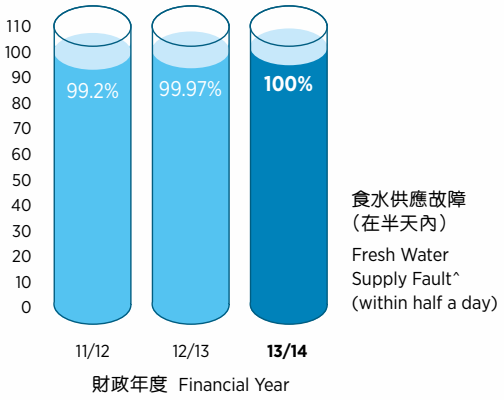
食水供水水壓
Fresh Water Supply Pressure

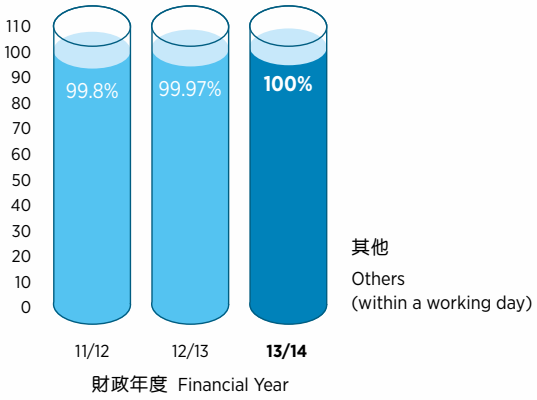


鹹水供水水壓
Salt Water Supply Pressure

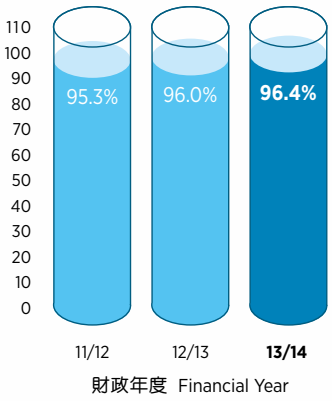


到場處理故障投訴的時間
Response Time for Attendance to Fault Complaints

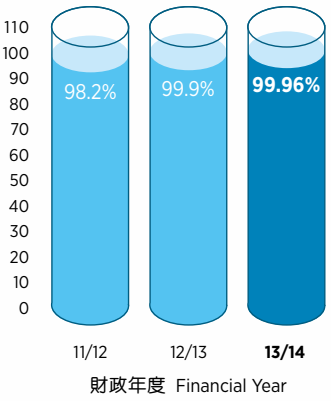




水錶準確程度
Accuracy of Water Meters



初步回覆市民的來信
Interim Reply to Correspondence from the Public



全面水資源管理策略
Total Water Management Strategy

全面水資源管理是對水資源各方面進行管理的現代理念，旨在實現水資源供求的最佳平衡，以確保水資源可持續使用。

自二零零八年推出以來，本港政府實施《全面水資源管理》策略，為現在及未來本港不斷可靠及可持續供水奠定了穩固根基。本年度，本署亦成功舉辦「*齊來慳水十公升*」運動，鼓勵本港市民節約用水，提高水資源保護意識。迄今，這項運動大受公眾歡迎。本署的最終目標是為本港市民灌輸「精明用水」意識。此外，本署亦積極減低整體配水系統的用

Total Water Management is a modern concept for managing all aspects of water resources. It seeks to achieve an optimal balance between water supply and water demand in order to ensure sustainable use of water resources.

Introduced in 2008, the Government's implementation of the Total Water Management (TWM) strategy has laid a strong foundation for a continued reliable and sustainable supply of water to the Territory now and into the future. This year we also successfully launched the *'Let's Save 10L Water'* campaign to encourage local citizens to use less water and recognise the need for water conservation. To date, this initiative has been warmly received by the public. Ultimately the aim of the WSD is to nurture a 'water-wise' mind-set among Hong Kong

水資源及供水水質事務諮詢委員會東江供水系統考察簡報會 2014
The Advisory Committee on Water Resources and Quality of Water Supplies Press Briefing on Visit to Dongjiang Water Supply System 2014

水流失量，並擴大鹹水用途，鼓勵更多應用洗盥污水再造，同時推動興建高科技海水化淡廠計劃。新海水化淡廠暫定將於二零二零年投產。

策略回顧

面對當前氣候變化造成的影響及香港人口不斷增長，本署正採取審慎措施，確保我們已因應氣候變化所導致而可能影響水資源安全的任何事件作好準備。因此，於二零一四年年底，我們計劃訂立專家顧問服務合約，檢討我們的《全面水資源管理》策略，檢討結果將有助引導我們為香港制訂最佳的長期整體水資源管理策略。

people. This will be coupled with active efforts to reduce water loss due to water main breakage along the entire distribution system, plus expand salt water usage and encourage greater application of grey water recycling as well move forward with plans for the construction of a high-tech desalination plant tentatively set for operation by 2020.

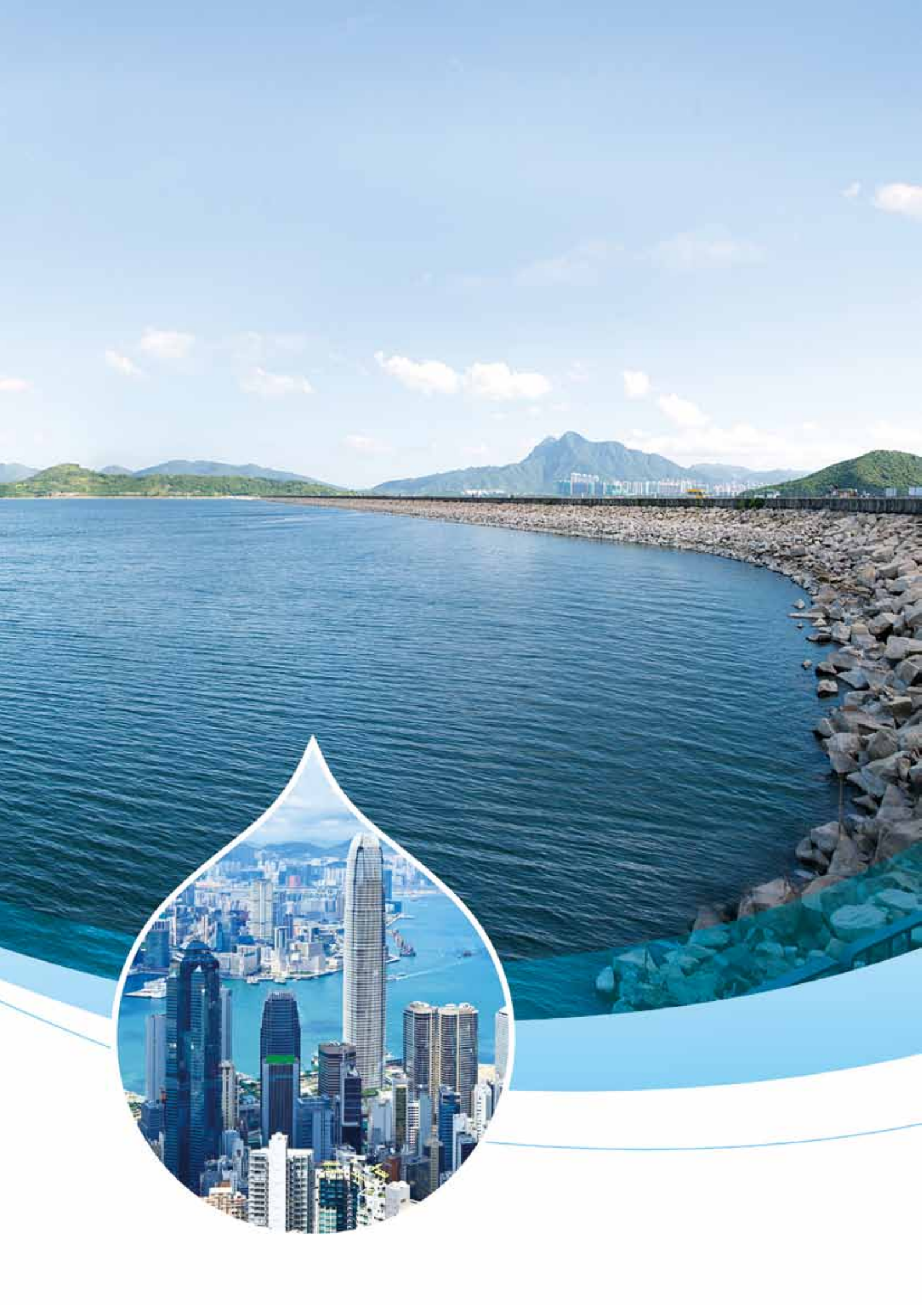
Review of strategy

Faced with the ever present consequences of climate change coupled with the continued growth of Hong Kong's population, the Department is taking prudent measures to ensure that we are prepared for any eventuality resulting from climatic disruption that may affect our water security. For this reason, at the end of 2014, we plan to contract the services of expert consultants to review our Total Water Management strategy, the results and findings of which will help guide us to the best possible long-term overall water management strategy for Hong Kong.

「水資源管理」刊物
Publications of 'Total Water Management'

供水管理

Water Supply Management



供水管理

香港的食水主要有兩個來源：輸入廣東省的東江水，以及遍佈全港的雨水集水區設施。由於降雨量增多，二零一三年本港約66%水源來自廣東省專用輸水管

Water Supply Management

In Hong Kong we rely primarily on two main sources of fresh water, namely imported water from Dongjiang in Guangdong, and rainwater from catchment facilities located throughout the territory. 2013 saw about 66% of our water source flow through a dedicated aqueduct

大型水管輸送東江原水
Huge pipelines conveying Dongjiang Water

道，較去年下降10%。其餘34%水源則來自本港收集的雨水。於專用輸水管道維修期間，中國內地必須暫停供應東江水，我們此時便使用船灣淡水湖和萬宜水庫的儲水滿足日常用水需要。

除了飲用水源外，我們亦重視利用海水沖廁。用作沖廁的海水從香港沿海各處的抽水站抽取，並供應給全港八成的人口。於二零一三年，全新的海水供應系統已大致落成，準備就緒為薄扶林區提供鹹水沖廁。仔細考慮到目前的水資源情況，本署將繼續尋找飲用水和非飲用水的新本地替代水源，以確保將倚賴東江水的程度維持在可接受的水平。

本地集水

集水區約佔香港面積近30%，收集的雨水儲存於本港的17個水塘。一般而言，收集的雨水大多不受污染，但作為額外的安全措施，本署仍會進行定期巡查、質檢、維修和清除垃圾等工作。本地雨水收集約佔全港食水用水量的20-30%。

from Guangdong, a reduction of 10% from the previous year due to higher rainfall. The remaining 34% of our water sources comes from local yield. During the maintenance periods of the aqueduct when the flow of water from Guangdong must be closed, we use the water stored in the Plover Cove or High Island impounding reservoir to meet our daily needs.

In addition to potable water sources, we also place great importance on the application of sea water for toilet flushing. This is supplied through seafront salt water pumping stations that cover about 80% of Hong Kong's population. In 2013, the construction of a new salt water supply system was substantially completed, ready to provide seawater for flushing in the Pok Fu Lam area. Taking careful consideration of these current water sources, the Department continues to seek new local alternatives for both potable and non-potable water to maintain acceptable levels of reliance on Dongjiang's water supply.

Local Yield

All across Hong Kong, covering nearly 30% of the territory, are rainfall catchment areas the contents of which are stored in 17 impounding reservoirs. In general, rainwater is largely uncontaminated. However, as additional measures for safety, the Department makes regular inspections, checks water quality, carries out necessary maintenance and removes of all debris in the water. Local yield generally accounts for about 20–30% of our total fresh water consumption.

來自東江的食水

從廣東省東江輸入的食水一般佔全港食水用量70-80%，我們目前簽訂的東江供水協議已同時考慮到香港的日常用水需要和廣東省現時的供水情況。目前的協議設定每年8.2億立方米的供水上限，將可確保香港住宅和非住宅用水的99%供水可靠性。換言之，即使遇上百年一遇的極度乾旱情況，亦能保證日以繼夜的穩定供水。為了充分善用本地資源，我們參照本地降雨量的季節性變化調整每月從廣東省輸入的水量。根據為期三年的現行協議，從廣東省購買食水的成本分別為二零一二年的35.39億港元、二零一三年的37.43億港元及二零一四年的39.59億港元。本署現正就二零一四年過後的供水價格、水質和其他事宜與廣東省當局進行磋商，最終協議有望於二零一四年底達成。

香港與廣東省水務官員緊密友好的合作關係，令我們從中受益匪淺。此外，香港水資源及供水水質事務諮詢委員成員每年均會前往廣東省考察，就各項水資源事宜展開研討。於二零一三年十一月，廣東省當局向委員會成員講解當地最新採納的措施以確保輸出香港食水的水質。我們對本地水塘貯水量進行嚴密控制，亦有助減少浪費和節約抽水成本。本署將繼續嚴密監察輸水運作情況，以確保水質和安全事宜的高透明度。

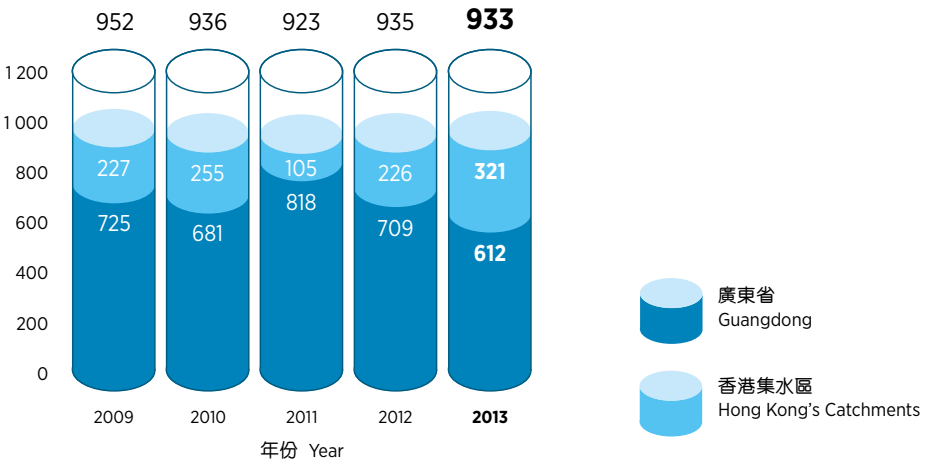
Fresh Water from Dongjiang

Water imported from Dongjiang, Guangdong generally accounts for 70-80% of our total fresh water consumption. Our current contractual agreement for the supply of water from Dongjiang takes into account the daily needs of Hong Kong as well as the existing water supply situation in Guangdong. The current agreement has adopted an annual supply ceiling of 820 million cubic metres which will satisfy all of Hong Kong's domestic and non-domestic needs with 99% water supply reliability, i.e. water supply is maintained around the clock even under extreme drought conditions with a return period of once in 100 years. We balance the monthly amount of water we draw in from Guangdong against local seasonal rainfall amounts to optimise local resources as much as possible. The current 3-year agreement for the cost of water from Guangdong breaks down to: HK$3,539 million, HK$3,743 million and HK$3,959 million for the years 2012, 2013 and 2014, respectively. Talks are now underway with Guangdong authorities over price, water quality and other matters for the years after 2014. Final agreement is expected to be reached by the end of 2014.

We benefit greatly from the strong and amicable partnership nurtured between Hong Kong and Guangdong water officials. Moreover, each year members of the Hong Kong Advisory Committee on Water Resources and Quality of Water Supplies (ACRQWS) visit Guangdong to discuss various water issues. In November 2013, Committee members were briefed on the latest measures being taken in Dongjiang to assure water quality coming into Hong Kong. Our efforts at closely controlling water storage levels at local impounding reservoirs as well helps us minimise water waste and optimise pumping expenses. The Department closely monitors water transfer operations to ensure that there is a high degree of transparency in terms of water quality and security.

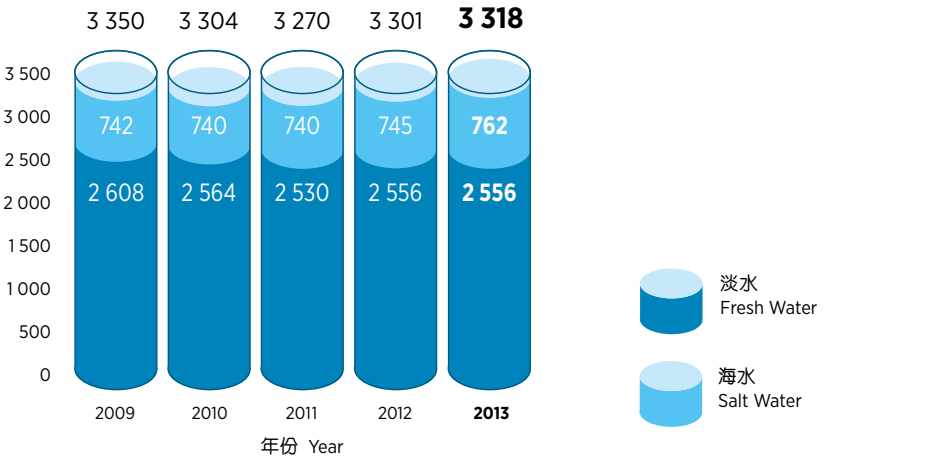
全年供水量
Annual Quantity of Water Supply

百萬立方米 million cubic metres



二零零九年至二零一三年總平均日耗水量（淡水＋海水）
Total Average Daily Consumption (FW+SW) 2009-2013

百萬公升／日 million litres per day



食水替代水源

發展海水化淡

本署時刻關注與供水管理有關的事宜，並積極探討所有可行方案尋找新的水資源，以便更適切防範氣候變化引致的未知後果。有見及此，本署於二零一二年展開興建逆滲透原理海水淡化廠的勘察研究，預計位於將軍澳的海水化淡廠將於二零二零年投入服務，初步每日產量可達1.35億公升，相當於全港食水總用量的5%(其後可望擴大至每日2.70億公升或10%)。初步勘察研究仍在進行中，預期將於二零一五年完成。

使用再造水

我們亦著手計劃將石湖墟污水處理廠經三級處理的再造水，提供予上水、粉嶺和新界東北新發展地區作非飲用用途。本署暫定將於二零二二年分階段開始為該區供應再造水，最終可望每年為香港節省約2 100萬立方米的食水。

洗盥污水再造及雨水收集

從浴室、洗手盆等地方收集得來的水統稱為洗盥污水，這種水通常較少被污染，本身更容易處理及再利用於沖廁及灌溉等非飲用用途。同一道理，收集得來的雨水亦可用作上述用途。政府正率先帶頭推行洗盥污水再造和雨水收集措施，本署亦鼓勵私營地產發展商將再造技術加入發展項目中。

Fresh Water Alternatives

Moving Forward with Desalination

The Department is always concerned with issues surrounding water supply management and we actively explore all viable options for obtaining new water resources that will better withstand the unknown consequences of climate change. With this in mind, in 2012, an investigative study was undertaken for the construction of a reverse osmosis desalination plant to start operations in Tseung Kwan O by 2020. This plant is expected to achieve an initial output capacity of 135 MLD per day, which would supply about 5% (later expandable to about 270 MLD or 10%) of the total fresh water needs in Hong Kong. Preliminary investigation studies are still on-going and are expected to be completed by 2015.

Use of Reclaimed Water

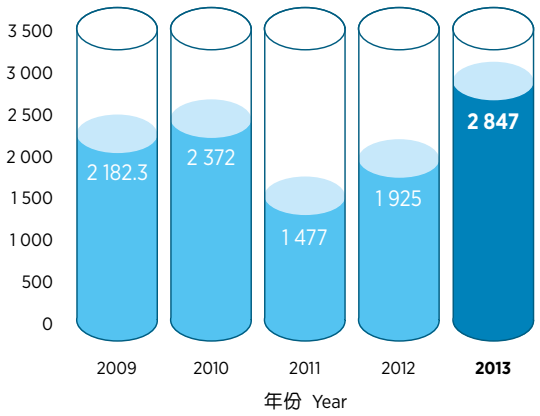
We have also begun planning the supply of reclaimed water being converted from tertiary treated sewage effluent from the Shek Wu Hui Sewage Treatment Works to Sheung Shui, Fanling and North East New Territories New Development Areas for non-potable applications. The supply of reclaimed water will tentatively be commissioned in phases in 2022 and will ultimately help save Hong Kong about 21 million cubic metres of fresh water each year.

Grey Water Re-Use and Rainwater Harvesting

Grey water is the general term that refers to the water collected from baths, showers and wash basins, etc. These sources of water are normally less contaminated, and as such can be more readily be treated and re-used for non-potable applications like toilet flushing and irrigation. By the same token, rainwater can also be collected and used for these purposes. The government is taking the lead in implementing grey water re-use and rainwater harvesting measures but the Department is also encouraging private real estate developers to include re-use technologies into their developments.

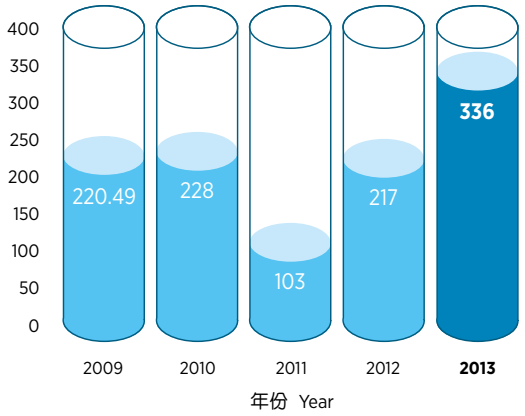
全年降雨量
Annual Rainfall

毫米 millimetres



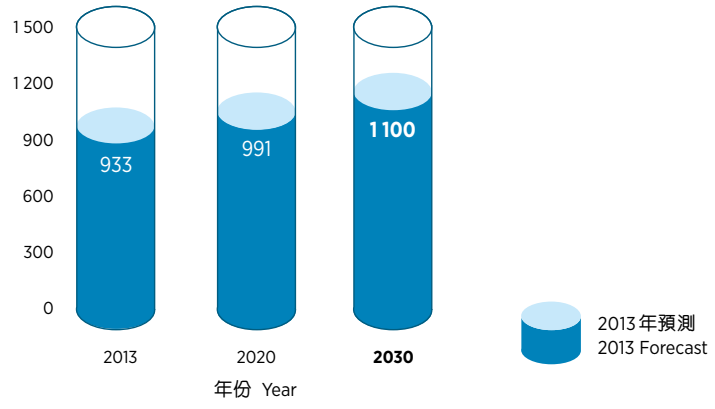
全年集水量
Annual Yield

百萬立方米 million cubic metres



二零一一年至二零三零年食水需求預測
Fresh Water Demand Forecast Projection 2011-2030

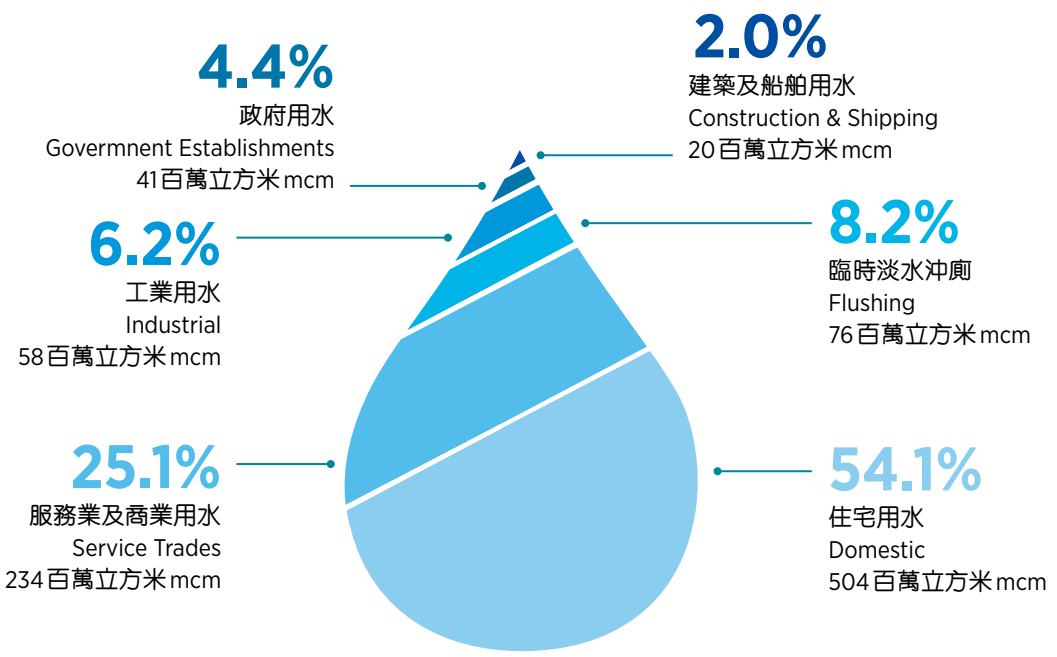
百萬立方米 million cubic metres



二零一三年按用水類別劃分的食水用量（佔總量百分比）

Annual Fresh Water Consumption 2013 by sectors in million cubic metres (mcm) (and percentage of total)

百萬立方米 million cubic metres (mcm)



食水總用水量 **933** 百萬立方米
Total Fresh Water Consumption **mcm**

全年食水用水量（按用水類別劃分）
Annual Water Consumption (by sectors)

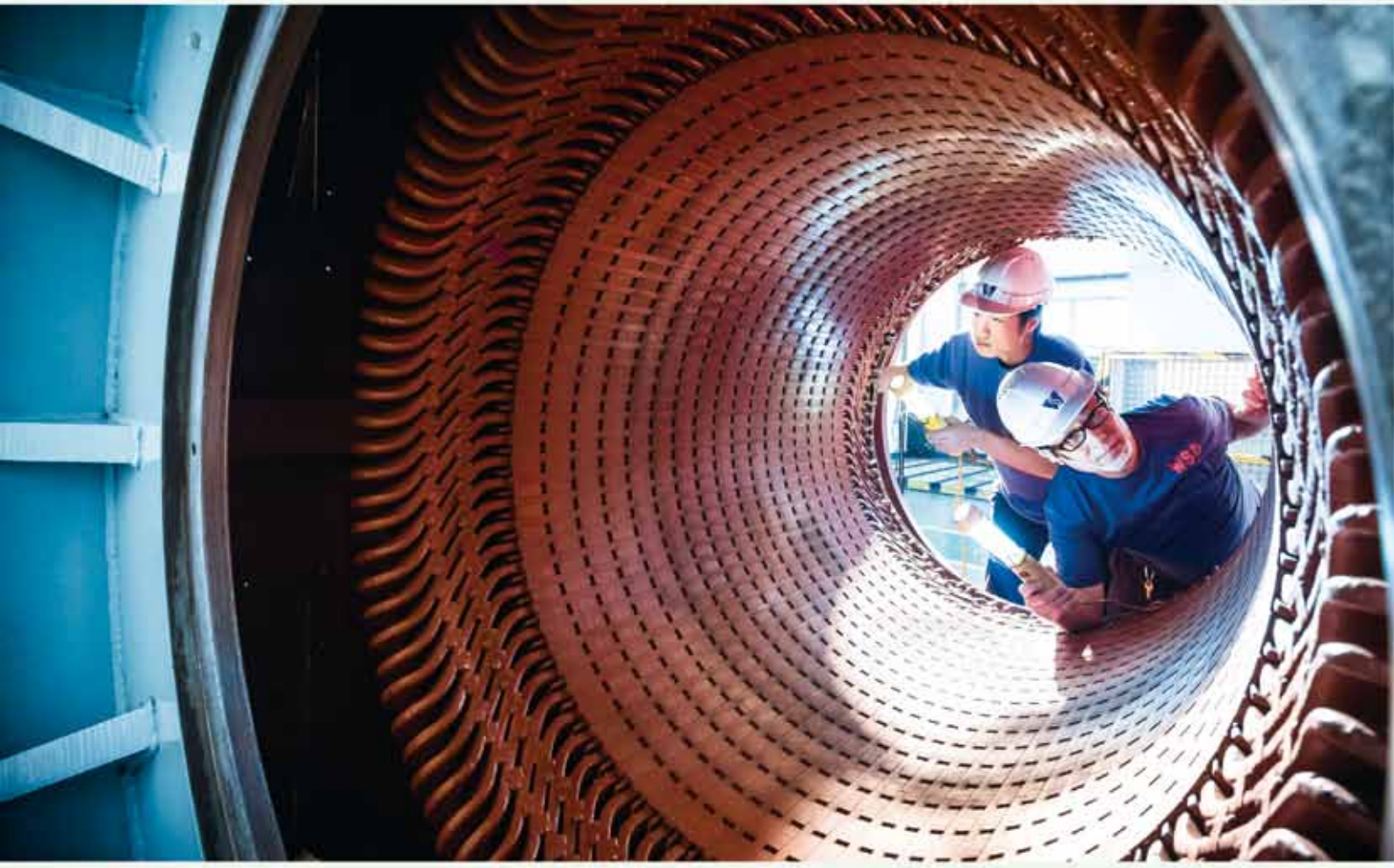
百萬立方米 million cubic metres

年份 Year	2009	2010	2011	2012	**2013**
住宅用水 Domestic	524	509	498	505	**504**
工業用水 Industrial	55	57	58	59	**58**
服務業及商業用水 Service Trades	238	237	236	236	**234**
政府用水 Government Establishments	44	42	41	41	**41**
建築及船舶用水 Construction & Shipping	11	12	14	18	**20**
臨時淡水沖廁 Flushing	80	79	76	76	**76**
食水總用水量 Total Fresh Water Consumption	952	936	923	935	**933**


Smart Network System

水資源需求管理

Water Demand Management



厲行節約用水

「齊來慳水十公升」運動

二零一四年三月二十二日，為支持世界善用食水日，水務署推出一項名為「齊來慳水十公升」的特別活動，邀請有意參加活動的香港市民登入www.wsd.gov.hk/save10litres網站簽署承諾宣言，承諾每日節約個人用水10公升。參加活動的每個家庭均免費獲贈節流器一對，協助他們減少用水。由於市民反應非常踴躍及熱烈，我們增加免費節流器的存貨，並以先到先得的方式為120 000戶家庭免費提供節流器（遠高於原定配額30 000戶）。

Making Water Conservation Count

"Let's Save 10L Water" Campaign

In support of World Water Day on March 22, 2014, the WSD launched a special campaign called "Let's Save 10L Water". To participate, the Hong Kong public were invited to log onto www.wsd.gov.hk/save10litres and sign a Commitment Certificate as a pledge to reduce their daily water consumption by 10 litres. Each household taking part was entitled to a free pair of flow controllers to help reduce the amount of water they use. To meet the very enthusiastic and positive response, we have increased our stock of free flow controllers to 120 000 households (far more than the original quota of 30 000 households) to be provided on a first-come first-served basis.

推廣節水器具

二零零九年，本署開始實施自願參與的「用水效益標籤計劃」，鼓勵消費者使用節水器具及設備。計劃從起初對沐浴花灑進行標籤，至現在發展至包括水龍頭、洗衣機及小便器用具和節流器在內。

本署將於二零一四年下半年左右開始把節流器納入「用水效益標籤計劃」內。

在政府大樓、學校及公共屋邨加裝節水裝置

本署為政府大樓及學校加裝全新水管設備和節水裝置的第一期計劃已經完成。事實證明計劃成效顯著，不但有助減少用水量，提高市民大眾的節水意識和對節約用水的評價之餘，更增強市民大眾對節水裝置的興趣，對減少耗水量大有幫助。除該計劃外，我們亦會繼續為未安裝的政府大樓和學校加裝節水設備並安排加裝節流器，作為減少水龍頭用水的策略措施。此外，本署日後亦會安排在選定公共屋邨加裝節流器。

Promoting Water Efficient Appliances

In 2009, the Department began implementing the voluntary Water Efficiency Labelling Scheme (WELS) to encourage consumers to use appliances and equipment that conserve water. From its initial labelling of showers for bathing, the scheme has now extended to include water taps, washing machines as well as urinal equipment and flow controllers.

We are going to extend the WELS coverage to include flow controllers, beginning sometime around the second half of 2014.

Retro-fitting government buildings, schools and public housing estates with water-saving devices

The Department has completed its first phase of retrofitting new plumbing fixtures and water-saving devices in government buildings and schools. The benefits of this scheme have proven to be manifold with both reductions in water usage along with greater public awareness and appreciation of water conservation plus greater interest in water-saving devices to help reduce water consumption. In addition to this programme, we will continue to retrofit plumbing fixtures with water-saving devices and arrange for flow controllers to be installed in government buildings and schools which do not already have them, as a strategic measure to reduce water use from taps. Installation of flow controllers will also take place in selected public housing estates.

水龍頭節流器
Flow controller for water tap

「水的巡禮」展覽
Exhibition of H_2O

「惜水愛地球」流動展覽車
"Save Water • Cherish the World" Mobile Showroom

提高公眾節水意識

從校園開始

從二零零九年起，本署邀請全港各小學參加保護水資源大使選拔賽。選拔賽的評選標準是根據個人的節約用水表現與家中用水量和家庭成員人數等進行對比。二零一四年七月，本署在九龍灣國際展貿中心舉辦保護水資源大使證書頒發典禮。本年度共有3 600名學生參賽，最終616名學生獲委任為保護水資源大使，獲選人數與委任比例均創下新高，反映學生對日常生活節約用水方式及節約用水重要性的意識迅速提升。

為引發本港青年對節約用水的興趣，水務署於二零一二年推出「全情『頭』入齊

Raising Public Awareness

Starting from school

Since 2009, the Department has sent out invitations to primary schools across Hong Kong to join in the Water Conservation Ambassador Selection Scheme. The criteria to be selected as an Ambassador is based on individual outstanding water conservation performance vis a vis how much water is being consumed at home and the number of household members there are, etc. In July 2014, the Department held a Certificate Presentation Ceremony for Water Conservation Ambassadors at the Kowloon Bay International Trade and Exhibition Centre. This year, 3 600 students took part and 616 students were ultimately appointed as Ambassadors, a record high in terms of the number selected and the appointment ratio. This reflects a quickly rising awareness on the part of students about how to save water on a daily basis and the importance of water conservation.

「全情『頭』入齊慳水 Cap 帽設計比賽」的參賽作品
Entries of "Let's Save Water" Cap Design Competition

「水資源教育中心」內的節水器具展覽廳
Water Saving Device Showroom in 'Water Resources Education Centre'

慳水 Cap 帽設計比賽」，歡迎所有小一至中三學生參加。比賽以「珍惜點滴為未來」為主題，每名參賽學生可提交六幅 Cap 帽設計圖片，附以最多 50 字的作品標題或解釋，表達設計概念。

設計比賽於二零一三年五月舉行頒獎典禮。159 間參賽小學合共提交超過 10 000 份設計作品。作品內容包羅萬有，包括節約用水共創美好明天、節約用水實用貼士，以及如何共同實現節水目標等。

公開講座和展覽

為協助提高公眾對節約用水的意識和認識，水資源及供水水質事務諮詢委員會於二零一四年四月在香港科學館舉辦一項活動。活動邀請了八位來自地理、地球科學、環境科學、工程學、水質科學及醫學專業等領域的專家，為公眾提供多個以水務作為主題的演講，內容涵蓋「水的科學」、「中國和香港的水資源情況」、「中國水資源的挑戰」及「水質與健康」四個不同範疇。本署旨在透過這些資訊活動，讓本港市民更深入了解當今社會上各個與水資源相關的議題及其重要性。

In order to spark greater interest in water conservation among local youth, the WSD launched a 'Let's Save Water' Cap Design Competition in 2012. All students from primary one to secondary three were eligible to take part in the competition, which was based on the 'Save Drops for Tomorrow' theme. Each one who entered could submit 6 photos of their cap design plus a caption or explanation of 50 words or less detailing the concept.

An award ceremony took place in May 2013. In all, 159 primary schools took part and over 10 000 design submissions were received. The themes ranged from conserving water for a better tomorrow and practical tips to conserve water to ways we can work together to achieve water conservation goals.

Public Lectures and Exhibitions

To help raise awareness and knowledge about water conservation the Advisory Committee on Water Resources and Quality of Water Supplies kicked off an event at the Hong Kong Science Museum in April 2014. Eight experts from a wide range of fields like geography, earth sciences, environment sciences, engineering, water science and the medical profession were invited to speak on various water-related topics during 4 separate sessions: "Science of water" "Water resources in China and Hong Kong," "The challenges of water resources in China," and "Water quality and health". These informative sessions provided local residents with a deeper understanding of the various issues related to water and its importance in today's society.

作為向外接觸社會的論壇，同時協助加強與市民之間的溝通聯繫，本署每年均為社區各界人士舉辦水務講座，對象包括地產代理、企業東主、酒店和學術機構等。透過這些講座，我們能夠有效聆聽香港社會對水務事務的意見。二零一三年的講座集中圍繞以下三大主題：「生物感應預警系統」、「暫停供水通告系統」及「用戶在內部供水系統保養及打擊非法取水方面的責任」。

As a forum for outreach into the community and to help strengthen communication ties with the public that we serve, the Department holds annual water supply seminars targeted at different sectors of community, including property agents, corporation owners, hotels and academic institutions. These seminars are an effective way for us to hear about the concerns of Hong Kong with respect to water supplies. In 2013 the seminar focused on 3 key topics: "Bio-Sensing Alert Systems", "Water Suspension Notices System" and "Consumer responsibilities on maintenance of their inside service and combating unauthorised taking of water".

本署另一項主要公共關係活動是在購物商場及屋邨舉辦*「惜水愛地球」*巡迴展覽，並定期在港九新界的屋邨舉行流動展覽。這些活動一律旨在以嶄新有趣的手法提高公眾意識，讓他們明白節約用水的重要性。

Another key public relations tool carried out by the Department is our *"Save Water – Cherish the World"* roving exhibitions at shopping malls and housing estates. We also deployed mobile showrooms to housing estates in Hong Kong, Kowloon and the New Territories on a regularly scheduled basis. All of these activities are focused on raising awareness in new and interesting ways about the importance of water conservation.

「齊來慳水十公升」運動的大型户外宣傳橫幅
Giant outdoor banners of "Let's Save 10L Water"

貼在公共巴士上有關「齊來慳水十公升」運動的宣傳海報
Poster regarding "Let's Save 10L Water" on a bus

「切勿非法取水」宣傳單張
Leaflet of 'Unlawful Taking of Water is prohibited'

用水效益檢討

我們一直推行用水效益檢討，以對公共游泳池、公園和街市等選定政府管理設施的用水情況，以及私人業界中酒店及餐飲業的用水情況進行分析，藉此制訂最佳實務指引。推行用水效益檢討的主要目標是降低整體耗水量。檢討程序讓我們掌握以事實為基礎的工具，在制訂節約用水推薦建議之餘，更有助我們保持一貫的整體公眾服務水平。

非法取水

根據《水務設施條例》，未經水務監督的水錶量度取水屬刑事罪行。本署負責執行《水務設施條例》，並對違法人士採取法律行動。為協助阻止和打擊這些違法活動，本署於二零一三年增加檢控組的人手，以便加強執法行動。至於打擊非法取水的最新工作，我們加快推出多個關於防止非法取水的教育和宣傳計劃，服務對象除了本署內外的職員之外，更透過開放日及學校巡迴探訪等活動讓市民大眾參與。我們將繼續保持警惕，密切監察大型屋邨及郊野鄉村的用水情況，藉此協助發現漏水及非法用水問題。二零一三年，本署對82宗非法用水個案進行檢控，其中80宗獲定罪。為協助進一步提升突擊檢查的效率及成效，

Water Efficiency Review

We have been conducting water efficiency reviews to analyse water use in selected government-managed facilities such as public swimming pools, parks and markets, and also hotel and catering operations in the private sector with a view to developing best practice guidelines. Our primary objective is to reduce overall water consumption. The review process gives us fact-based tools to craft water-saving recommendations without having to compromise the overall level of services provided to the public.

Illegal Water Use

Under the Waterworks Ordinance (WWO), drawing water without a metered instrument authorised by the Water Authority is a criminal offense, and the Department is tasked with administering the WWO and taking legal action against offenders. To help deter and combat these illegal activities, the Department's Prosecution Unit was strengthened in 2013 in order to enhance enforcement action. In terms of the latest efforts to combat illegal water use, we have accelerated a number of education and publicity programmes on preventing the illegal taking of water not only to officers within and outside the Department but also to the public in events such as open days and school tours. We will also continue to be vigilant and monitor the consumption of water in large housing estates and rural villages to help identify leakage and unauthorised use. In 2013, the Department has prosecuted 82 cases of illegal use of water and convicted 80 of those cases. In order to help further enhance the efficiency and effectiveness of surprise inspections, we are exploring as well the use of data analytics technique to analyse water usage in order to isolate targets we suspect of unauthorised water consumption.

我們現正探索和使用數據分析技術來分析用水量，務求識別出非法取水的可疑目標。

改善供水網絡

在過去近14年間，本署在減少水管爆裂方面取得明顯進步，水管爆裂宗數由二零零零至零一年度的2 500宗下降至二零一三至一四年度僅241宗，主要歸功於本署在15年內分階段更換及修復接近3 000公里的水管項目的成功（全港水管總長度接近8 400公里），因而大幅提高了供水的可靠程度。

我們目前採用全球最先進的建造方法和技術進行工程。在合適情況下，我們採用無坑建造法，包括內喉緊貼法、原位內搪喉管法、水管推頂法和橫定向鑽挖法，以便減少路面施工的阻塞和對公眾的滋擾。

在鄉郊地區，水務署亦計劃更換大嶼山和長洲的海底水管。為此，我們將採用橫定向鑽挖法以便盡量減少對環境的整體影響，同時避免干擾海陸考古地點和海上交通。有關項目已於二零一三年十月動工興建，目標定於二零一五年十月竣工。

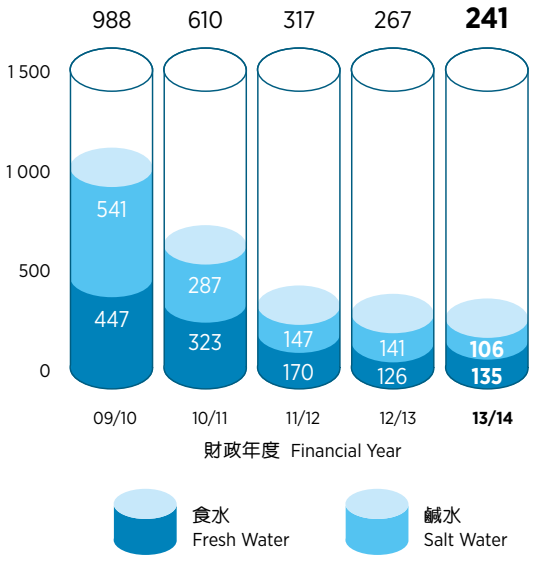
Improving the Supply Network

Over the past nearly 14 years the Department has made dramatic improvements in reducing water main breaks from 2 500 in 2000/01 to just 241 in 2013/14. This has been accomplished in large part through the success of our 15-year phased in replacement and rehabilitation of nearly 3 000 km (among a total of near 8 400 km of pipelines all across Hong Kong) of water mains, resulting in significantly greater water supply reliability.

In carrying out this work, we are applying the world's most advanced construction methods and technologies. Where applicable, we use trenchless construction, including close fit lining of existing mains, cure in-place pipes, pipe jacking and horizontal directional drilling to help reduce ground construction disruptions and limit disturbances to the public.

Outside of the urban areas, the WSD also plans to replace the undersea pipeline from Lantau and Cheng Chau islands. To do this we will employ horizontal directional drilling to help minimise the overall environmental impact as well as avoid disrupting marine and terrestrial archaeological sites and marine traffic. We have already begun work on this project in October of 2013 and have set October 2015 as our target for completion.

水管爆裂修理個案統計數字
Statistics on Mains Bursts Repaired



測漏統計數字
Statistics on Leak Detection

食水 Fresh Water

各財政年度所進行的測漏工作
Tests Conducted Per Financial Year

	2009/10	2010/11	2011/12	2012/13	**2013/14**
最低晚間流量測試次數 No. of Minimum Night Flow Tests	276	241	174	139	**92**
分段流量測漏次數（或滲漏測試） No. of Step Tests (or Leakage Tests)	30	27	25	13	**15**
音聽視察次數 No. of Sounding & Visual Inspections	4 914	3 177	3 221	3 282	**2 918**
經發現的滲漏個案數目 No. of Leaks Detected	2 563	1 846	2 006	1 432	**1 237**
估計每日可節省的食水量（立方米／日） Estimated Quantity of Fresh Water Saved (cubic metres/day)	93 731	75 299	79 531	57 128	**47 872**

海水 Sea Water

各財政年度所進行的測漏工作
Tests Conducted Per Financial Year

	2009/10	2010/11	2011/12	2012/13	**2013/14**
音聽視察次數 No. of Sounding & Visual Inspections	155	304	532	516	**488**
經發現的滲漏個案數目 No. of Leaks Detected	154	124	154	127	**116**
估計每日可節省的海水量（立方米／日） Estimated Quantity of Sea Water Saved (cubic metres/day)	18 204	29 918	21 719	35 040	**19 881**

用水流失管理措施

為有效管理供水網絡和減少用水流失，我們開展更換及修復3 000公里水管的計劃，並將於二零一五年完成。為了找出網絡異常情況並作出改善，本署將集中設立區域檢測區進行持續監察。水壓管理區亦有助降低供水網絡的水壓，繼而減少因滲漏和潛在水管爆裂而造成的用水流失。

水壓管理和持續監察

本署繼續安裝流量錶和其他水壓管理設備及儀器，以便準確監察香港17個主要供水區中12個配水系統的運作和調節水壓，從而降低整體水壓、減少水管故障及有效抑制用水流失。其餘五個供水區的勘查研究已接近完成。截至二零一四年三月，我們成功設立570個區域檢測區，其中150個為水壓管理區。我們的最終目標是在全港設立約2 000個區域檢測區／水壓管理區。隨著越來越多的區域檢測區和水壓管理區的逐步投入服務，我們得以不斷長期監測流量、水壓及晚間最低流量，所以晚間流量測試及分段測試的需要亦因此而逐步減少。

此外，本署正採取新措施，以試驗方式將測漏工作外判，目前已在元朗區和屯門區實施。迄今日為止，外判試驗成果顯著，措施有助減少測漏組人員的工作量。繼首次試驗之後，我們最近亦將新界大部分測漏工作外判。

Water Loss Management Initiatives

In order to manage our supply network effectively and reduce water loss, we have embarked on a replacement and rehabilitation of water mains programme to replace and rehabilitate 3 000 km of water mains and will complete in 2015. The Department will focus on the establishment of district metering areas (DMA) to carry out continuous monitoring in order to look for network anomalies and make improvements. Pressure management areas (PMA) as well help reduce network pressure in order to reduce water loss through leaks and potential bursts.

Pressure Management and Continuous Monitoring

The Department has continued its efforts to install flow meters and other pressure management equipment and instrumentation to help accurately monitor the performance and regulate water pressure within 12 of the distribution systems among Hong Kong's 17 major supply zones. This has been undertaken in order to reduce overall water pressure, lower the number of pipe failures and effectively control overall water losses. At the remaining five zones, our investigation studies are nearly finished. As of March 2014, we have successfully installed 570 DMAs with 150 of them serving as PMAs. The eventual goal is to construct nearly 2 000 DMA/PMA zones across Hong Kong. With more and more DMA/PMA put into service that enables us to continuously monitor the daily flow, pressure as well as the minimum night flow, the need to carry out separate minimum night flow test and step test has been gradually reduced.

The Department has also undertaken new measures on a trial basis to outsource leak detection work to contractors. This has been carried out so far in the Yuen Long and Tuen Mun areas. To date, the results have been promising in helping to reduce the work load of staff in our Leak Detection Unit. Following this first trial, more recently we have also followed up by contracting out leak detection work across most of the New Territories.

區域監測井
District Metering Area Chamber

為了更適切協助推動主動的滲漏控制，本署採取多項新的高技術方案，包括最低晚間流量測量、分段流量測漏和日常音聽視察，以識別和發現任何滲漏問題。本署亦利用最新的噪音相關設備，這些設備按經改良的計算法運作並對數據分析作出改善，有助確定管道滲漏位置，特別適用於大型口徑水管和非金屬水管。這些最新技術和設備一律有助本署人員更準確地檢測滲漏源頭。

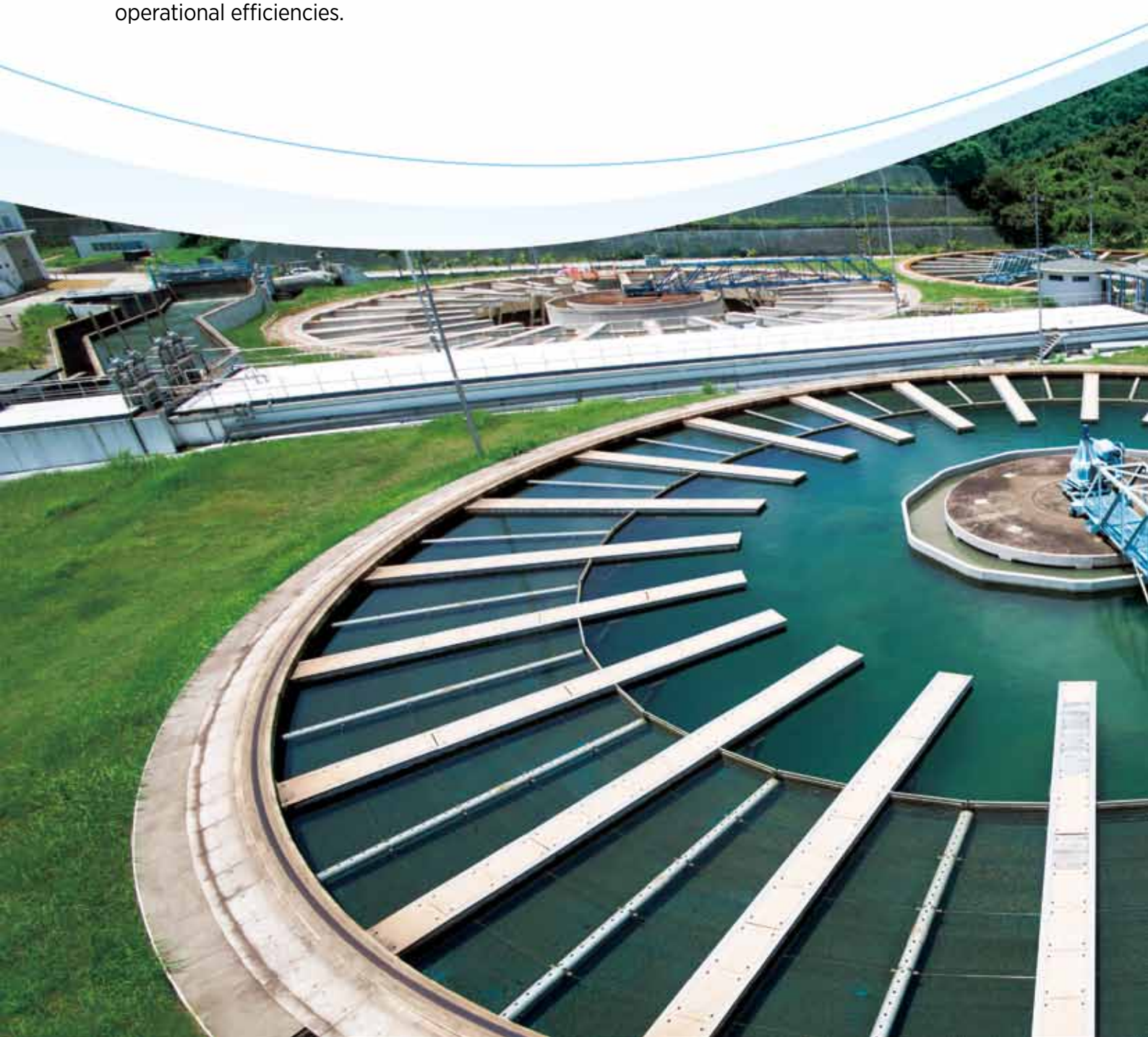
To better help facilitate active leakage control, the Department has employed a number of new high tech solutions, including minimum night flow measurements, step tests, as well as routine sound and visual inspections in order to isolate and detect any leakage problems. We are also making use of the latest innovations in noise correlating equipment that runs a refined algorithm and has improved data analysis to help locate leaking points in pipes especially those with large diameters as well as non-metallic pipes. All of these upgraded technologies and equipment are helping our teams more accurately detect sources of leaks.

水務基建設施

Waterworks Infrastructure

改善水務基建設施及提升運作效率，讓香港享有更可靠的供水系統。

Hong Kong enjoys the benefits of a water supply that boasts greater reliability as a result of improved waterworks infrastructure and increased operational efficiencies.



灣仔二號海水抽水站
Wan Chai No. 2 Salt Water Pumping Station

提升供水能力

本署積極探索對氣候變化影響較不敏感的新水資源。於二零一二年，我們開始就二零二零年前在將軍澳興建海水化淡廠進行策劃及勘察研究，以滿足全港5%（可望增至10%）的總食水需要。有關研究將於二零一五年年初大致完成。

Expanding Water Supply Capacity

The Department has actively explored methods for new water resources that are less sensitive to the impact of climate change. In 2012, we began a planning and investigation study for constructing a desalination plant in Tseung Kwan O by 2020 to cater for 5% (expandable to 10%) of our total fresh water demand. The study will largely be completed in early 2015.

位於馬己仙峽的新鹹水水管
New salt water mains at Magazine Gap

寶雲徑海水抽水站
Bowen Drive Salt Water Pumping Station

為致力改善及擴建水務基建設施，我們目前正著手提升海水供水系統，以應付灣仔、中環和半山地區不斷增加的沖廁用水需求。本署目前亦正重置灣仔海水抽水站，並在馬己仙峽道增建新海水配水庫、在寶雲道附加海水抽水站並鋪設7公里長的新鹹水水管。

中區低地地區及半山地區的用水需求亦預料在不久將來顯著增長。本署將透過興建新食水配水庫，藉以擴大配水庫網絡為這些地區供水的總容量。此外，我們亦會在毗鄰現有食水配水庫的蒲魯賢徑臨時遊樂場興建新食水配水庫。因此，已投入使用近60年的現有雅賓利配水庫將會退役。整個項目完成後，本署將在新配水庫的屋頂設計及興建新遊樂場。

As part of our efforts to improve and expand water-related infrastructure, we are now upgrading the sea water supply system to meet the increased demand for flushing water in Wan Chai, Central and the Mid-level districts. The Department is also currently re-provisioning the Wan Chai Salt Water Pumping Station, plus we're adding a new salt water service reservoir on Magazine Gap road along with an additional salt water pumping station on Bowen Road and 7km of new salt water mains.

Water demand for the low and mid-level areas of Central is set expand significantly as well in the near future and the Department is responding by enlarging total storage capacity of the reservoir group that supplies these areas through the construction of a new fresh water and service reservoir (FWSR). In addition, we will build a new FWSR at the Brewin Path Temporary Playground near to the present FWSR. As a consequence, we will retire the existing Albany reservoir which has been in service for nearly 60 years. After completion of the entire project the Department will design and construct a new playground on the roofs of these new service reservoirs.

大埔濾水廠擴建工程
Expansion works in Tai Po Water Treatment Works

為應對上水和粉嶺區住宅發展項目數目不斷增加的用水需求，本署亦會在興建新配水庫後，搭建配套的幹管配水系統，藉以提升上水和粉嶺區的供水服務。

濾水廠設施升級

沙田濾水廠和大埔濾水廠正處於大幅擴容的規劃及興建中。兩座濾水廠是處理原水的重要中心，原水經處理後會分配至全港各地。沙田濾水廠將進行原地重置工程，而大埔濾水廠將進行大規模的擴容擴建工程。兩個項目將有助確保我們有足夠能力為公眾供應最高水質標準的飲用水。為密切配合全港與日俱增的用水需求，本署正在對有關項目進行分期審慎規劃。

Sheung Shui and Fanling will also see service upgrades following the construction of a new service reservoir with an associated trunk and distribution system to meet the needs of the expanding number of housing developments in the area.

Upgrading Water Treatment Facilities

Both the Sha Tin and Tai Po Water Treatment Works are currently in the planning and construction stages of major capacity increases. These two facilities are important centres for the treatment of raw water prior to its distribution across Hong Kong. Re-provisioning work will be carried out at the Sha Tin plant while Tai Po will undergo a major expansion of its capacity and operations. Both projects will help ensure adequate capacity to produce the highest levels of potable water for the public. These projects are being carefully planned in phases to match closely the greater demand for water throughout the Territory.

大埔濾水廠的設施升級工程分兩期進行，工程完成後，濾水量將由每日250 000立方米增至800 000立方米，總投資成本為56億港元。第一期工程已告竣工，目前每日濾水量為400 000立方米。第二期工程於二零一三年動工，於二零一七年投入服務後，最終濾水量將增至每日800 000立方米。沙田濾水廠的原地重置工程已經開始，將於二零二零年左右投入服務。

更換及修復工程

為減少水管滲漏情況，本署現正對全港總長8 400公里的水管實施更換及修復計劃，爭取於二零一五年前完成更換及修復長達約3 000公里的水管。更換及修復計劃完成後，水管滲漏率將由二零零三年的25.8%下降至二零一五年的15%。

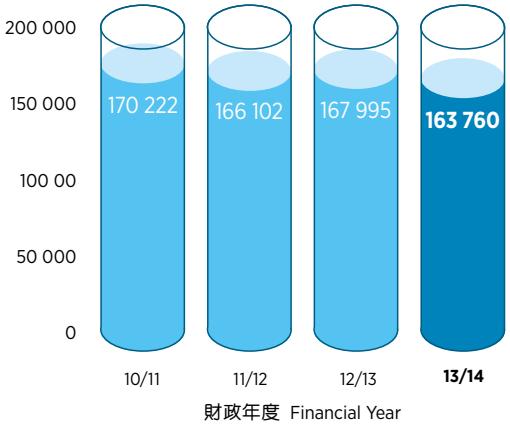
Once its facilities upgrade is completed in two phases the Tai Po Water Treatment Works will see its capacity increase from 250 000 to 800 000 cubic metres per day at a total investment cost of HK$5.6 billion. Phase one has been completed and is now processing 400 000 cubic metres of water per day. Phase two began in 2013 will see an eventual capacity increase to 800 000 cubic metres per day by its commissioning date in 2017. The in situ reprovisioning of the Sha Tin facility has begun and will be commissioned sometime by the 2020s.

Replacement and Rehabilitation Works

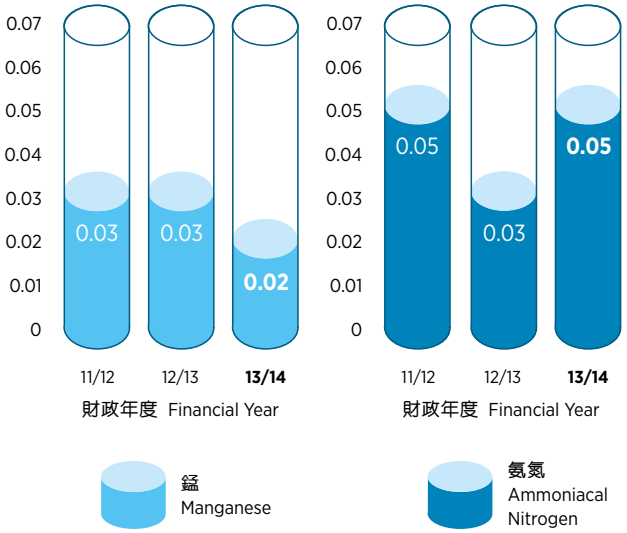
To reduce leakage, the Department is implementing a territory-wide Replacement and Rehabilitation (R&R) programme to replace and rehabilitate about 3 000km of the 8 400km water mains for completion by 2015. The water main leakage rate will be reduced from 25.8% in 2003 to 15% in 2015 upon the completion of the R&R programme.

沙田濾水廠設置新泵
New pumpset in Sha Tin Water Treatment Works

化驗樣本總數
No. of Samples Taken



東江原水內平均氨氮及錳水平
Average Ammoniacal Nitrogen and Manganese Levels in Dongjiang Water
毫克／公升 mg/L



提升水務運作效率

本署已成功提升監控及資料收集系統，令系統表現更加穩健。該系統由四個區域控制中心管理，用以遙距監控所有抽水站和配水庫。我們亦運用先進的虛擬技術來改進系統可用性和硬件獨立性。此外，對於在不同平台運作的所有個人電腦、平板電腦和智能手機，我們已改用開放源代碼軟件。此舉讓本署員工能夠隨時隨地使用簡單的網頁瀏覽器查詢即時數據和過往監控及資料收集系統的資料，從而提升工作效率。

在收到全面狀況評估後，本署著手對多個抽水站實行必要的改善計劃。具體而言，我們已更換沙田二號抽水站、粉嶺抽水站和上水抽水站的供電設施。此外，我們已著手更換將軍澳海水抽水站的水泵和水閥，以及上環海水抽水站、大埔海水抽水站及九龍南二號海水抽水

Improving Waterworks Operational Efficiencies

The Department has upgraded the supervisory control and data acquisition (SCADA) system we use to remotely monitor all pumping stations and service reservoirs from four regional control centres. This has been carried out to enhance system resilience. We also apply advanced virtualisation technology to improve system availability and hardware independence. In addition, for all personal computers, tablets and smartphones that operate on varying platforms, we are have switched over to open source software. As a result, now our staff can access real time data and historical SCADA information anywhere, anytime using a simple web browser to raise the level of work efficiency.

After receiving a thorough condition assessment, the Department has gone ahead with improvement programmes for a number of pumping stations that are deemed in need. Specifically, we have replaced power supplies at the pumping stations at Sha Tin No. 2, Fanling and Sheung Shui. In addition, we have begun replacing pumps and valves at the Tseung Kwan O Salt Water Pumping Station and the station pipe works system at the Sheung Wan, Tai Po and Kowloon South No.

站的管道系統，務求提升海水抽水站的運作效率和可靠程度。

由於多座濾水廠已運作數十年，因此有必要對廠內設備進行改善工程，以維持飲用水供應可靠和充足。除將濾水廠的分佈式控制系統及控制設備現代化，令濾水廠更安全和可靠之外，本署更會安裝使用特大包裝袋的新石灰處理系統，並更新陳舊的供電系統，以及更換濾池反沖設施及污泥脫水設施。

除氯系統是一種防護裝置，有助在不太可能出現的系統故障期間控制氯氣釋放至大氣層，保持濾水廠時刻安全運作。本署目前正著手更換銀鑛灣濾水廠的除氯系統，令濾水廠運作更現代化。本署亦會視乎需要對油柑頭濾水廠和其他主要濾水廠進行類似更新工程，確保濾水廠在緊急情況下亦能可靠運作。

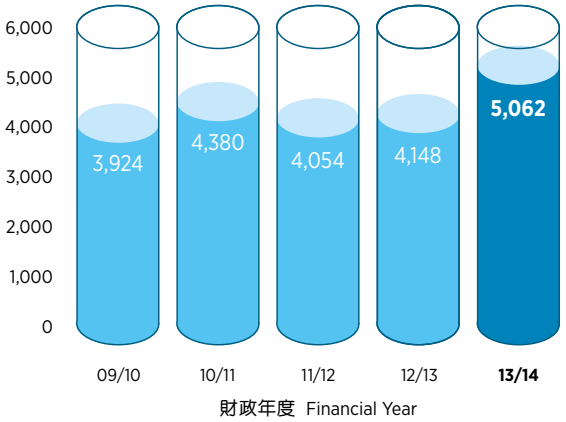
2 Salt Water Pumping Stations in order to upgrade their operational efficiency and reliability.

Because many water treatment plants have been in operation for decades, it is necessary to undertake improvement work on their equipment in order to maintain reliable and adequate supplies of drinking water. In addition to modernising the DCS and control equipment in the water treatment works to improve plant safety and reliability, the Department will also install new lime handling systems using jumbo bags, plus renovate aging power supply systems and replace filter backwashing and sludge de-watering facilities.

Chlorine scrubbers, which control leakage of chlorine gas into the atmosphere in the unlikely event of a system failure, are protective devices to keep water treatment works operating safely at all times. The Department is currently replacing the chlorine scrubber system at the Silver Mine Bay Water Treatment Works to modernise its operations. Similar upgrades will be initiated at Yau Kom Tau Water Treatment Works and other key water treatment works to ensure reliable operations when needed during an emergency situation.

資本投資
Capital Investment

百萬元 $million



北港濾水廠舉辦的"以可靠性為中心的維修"會議
Reliability Centred Maintenance (RCM) meeting at Pak Kong Water Treatment Works

位於薄扶林水塘道的斜坡
Slope at Reservoir Road, Pok Fu Lam

位於葵涌九華徑的斜坡已完成斜坡鞏固工程約一年
Upgrading works of the slope at Kau Wah Keng, Kwai Chung has been completed almost a year

優化供水設施

水務署致力妥善管理所有供水基建設施的使用周期，務求在可接受的風險框架內，使服務效能達至最具成本效益的水平。

我們於去年完成四項地面資產管理計劃，就接近900個水務設施的表現及實際狀況進行評估。如發現有需要進行改善工程，有關工程計劃便會在未來數年優先實施。本署員工定期對6 500個斜坡進行監察，並對重要設施附近的80多個斜坡及擋土牆展開後續預防性保養及提升工程。本署進行的工程包括打土釘、斜坡表面加固、在斜坡護面的牆腳栽種植物、改善排水系統、提供安全通道走廊、栽種植被，以及其他工程。各項措施均有助大大減低山泥傾瀉的風險及山泥傾瀉對生命和財產的威脅。

兩個主要抽水站及濾水廠以可靠性為主的維修計劃已接近完成。未來，我們會繼續對所有主要設施展開以可靠性為主的維修計劃，並根據檢討建議進一步完善機械和電力設施的維修策略。

Optimising Waterworks Assets

At the WSD our goal is to manage the life cycles of all water services infrastructure in order to achieve the optimal level of service in the most cost-effective manner within an acceptable risk framework.

During the past year we completed four surface asset management plans which identify the performance and physical condition of nearly 900 waterworks installations. Once an area of improvement has been identified we prioritise this for implementation during the coming years. Our staff routinely inspects 6 500 slopes and carries out subsequent preventive maintenance work and upgrading projects to more than 80 slope features near important installations. The work our Department undertakes includes soil-nailing, slope surface stabilisation, construction of toe planter walls, improvements to water drainage systems, providing safe access corridors, carrying out planting operations, and other work. The result of all these efforts has been a dramatic decrease in the risk of landslides as well as the danger they pose to life and property.

Work is almost finished on recent Reliability Centred Maintenance (RCM) programmes for two key pumping stations and water treatment works. In future, we will continue to carry out RCM studies on all major installations and apply review recommendations to further refine our maintenance strategies for mechanical and electrical assets.

水務署的斜坡編號牌
Sign plate of WSD's slopes

現場監督位於沙田筆架山的斜坡鞏固工程
Site supervision of the slope upgrading works at Beacon Hill, Shatin

本署亦完成一個濾水廠及六個抽水站的機械和電機評估。我們會繼續按持續基準進行同類評估，以制訂及更新資產管理計劃。

本署已研發出一種監測感觸系統的光纖布拉格光柵，用以監測長達200米的東江玻璃纖維強化塑膠輸水管的其中一段。經過近一年的仔細觀察後，我們已建立輸水管在無水狀態下的性能數據庫，目前正在監測輸水管在有水狀態下的結構完整性。

供水危機管理

為保障供水可靠及充足，本署務須時刻作好準備應對任何影響供水的不可預見情況。為此，我們已制訂一個危機管理計劃和多個應變計劃，以隨時準備快速調配資源及協調各個緊急行動。

此外，我們亦已制訂一個乾旱應變計劃作為適應措施，以抵禦氣候變化對水資源的影響，確保用水安全，即使在緊急情況下仍可滿足本港的基本用水需要。

The Department also completed mechanical and electrical assessments for one water treatment plant and six pumping stations. We will continue to conduct these assessments on an ongoing basis for developing and updating our asset management plans.

An optical Fibre Bragg Grating (FBG) for monitoring sensory systems was developed and has been implemented to monitor a segment of the 200-metre long underground Glassfibre Reinforced Plastics (GRP) Dongjiang Water Main. After careful observations for nearly a year, the performance database of the pipe without water has been set and monitoring of the structural integrity of the pipe with water is now underway.

Water Supply Crisis Management

To safeguard reliable and adequate water supplies, it is essential for the Department to prepare for any unforeseen situations affecting water supplies in the water supply system. For this reason, we have a crisis management plan and several contingency plans drafted to maintain a state of readiness for the rapid mobilisation of resources and coordination of emergency actions.

In addition we have developed a Drought Contingency Plan (DCP) as an adaptive measure to counter the impact of climate change on water resources in order to ensure water security to meet the basic needs of

銀鑛灣濾水廠的臨時除氯系統
Temporary Chorine Scrubber system at Silver Mine Bay Water Treatment Works

屯門濾水廠新設置使用特大包裝的石灰處理系統
New lime handling system using jumbo bags in Tuen Mun Water Treatment Works

乾旱應變計劃旨在於本港或中國內地遭遇可能即時影響本港食水供應和食水處理的嚴重旱情時，確保我們能隨時準備就緒，應對緊急情況及有效調配資源。

水質及健康標準

廣東當局已採取有效措施，確保輸港的東江水水質符合《國家地表水環境質量標準》。有關措施和項目包括興建新污水處理廠、遷走具污染性的工廠和農業、鋪設專用輸水管道，以及在深圳水庫設立生物硝化廠。此外，我們亦在木湖抽水站設有在線水質監察系統，該系統透過先進的監控及資料收集系統運作，全天二十四小時密切測量輸港的東江水水質。我們更實施水安全計劃，以控制和預防從水源到配水過程中出現飲用水受污染的風險，對本港飲用水供應的水質嚴格把關，保障公眾的健康。本署亦率先利用斑馬魚探測原水的異常情況。透過密切監察原水中的斑馬魚行為，本署能夠快速確定有可能的水質問題，並採取適當應對措施。

Hong Kong in the event of an emergency. The DCP was formulated to guarantee our readiness in response to an emergency situation and efficiently mobilise resources in the event of severe drought either in Hong Kong or on the mainland which could immediately affect fresh water supplies and treated water in Hong Kong.

Water Quality and Health Standards

Guangdong authorities have taken effective steps to ensure that the quality of Dongjiang water that reaches Hong Kong meets all relevant national environmental quality standards. This has been carried out through a combination of measures and projects including the construction of new sewage treatment plants, removal of polluting factories and farming, commissioning of dedicated aqueducts and on-going operations of a bio-nitrification plant at the Shenzhen Reservoir. Moreover, we also maintain an on-line Water Quality Monitoring System that runs via an advanced SCADA system at the Muk Wu Pumping Stations to closely gauge the quality of imported Dongjiang water around the clock. We have also implemented a Water Safety Plan to control and prevent risks of contamination of drinking water from sources to distribution and safeguard the quality of the drinking water supply in Hong Kong for public health protection. The Department has also pioneered the application of Zebrafish to detect abnormalities in raw water. By closely monitoring the behaviour of the Zebrafish in the raw water, the Department can quickly spot potential water quality problems and take appropriate countermeasures.

財務及水費

Finance and Water Charges

維持低廉水費

世界其他主要城市相比，香港市民為優質食水所繳付的費用相對低廉，而水費自一九九五年二月至今亦一直維持不變。

Water Charges

Water consumers in Hong Kong pay less for high quality fresh water than their counterparts in most major cities around the world. Water charges have not been revised since February 1995.

抄表員使用電子手賬記錄客戶的水錶讀數

Meter readers log meter data with Personal Digital Assistant (PDA)

收費幅度

住宅用戶的食水水費(沖廁用水除外)按以下四級制，每四個月收費一次：

Scale of Charges

Fresh water for domestic use (other than flushing) is charged at four-month period rates set out in a four-tier system as follows.

	每單位收費* Charging rate per unit*
第一級 — 首12個單位 Tier 1 for the first 12 units	免費 Free
第二級 — 繼後的31個單位 Tier 2 for the next 31 units	$4.16
第三級 — 再繼後的19個單位 Tier 3 for the next 19 units	$6.45
第四級 — 餘下單位 Tier 4 for the remainder	$9.05

* 1個單位 = 1立方米 * One unit = one cubic metre

作其他用途的食水，會根據其用途按下表所列收費：

Fresh water for other uses is charged at different rates as follows based on the purpose of consumption.

用途 Purpose	每單位收費 Charging rate per unit
沖廁水每四個月的收費率 Flushing per 4 month period	
— 首30個單位 for the first 30 units	免費 Free
— 餘下單位 for the remainder	$4.58
商業 Trade	$4.58
建築 Construction	$7.11
航運(非本地船隻) Shipping (Non-local Vessels)	$10.93
航運(本地船隻) Shipping (Local Vessels)	$4.58
航運以外用途(非本地船隻)，並以預付票繳交水費 Any purpose other than Shipping (Non-local Vessels) where payment is made against a prepaid ticket	$4.58

鹹水沖廁費用全免。

Sea water for flushing is supplied free of charge.

自一九九八至九九年度以來，水務署一直錄得經營赤字，需要依賴政府一般收入來補貼。於二零一三至一四年度錄得赤字9.30億港元，成本回收率為89.1%。為配合政府定期檢討各項收費的整體政策，由財經事務及庫務局常任秘書長（庫務）擔任主席的「水務帳目委員會」每年均會檢討水務帳目，檢討範圍涵蓋水費制度及收費水平，過程中亦會考慮多項因素，包括：水務設施的財政狀況、公眾接受程度及承擔能力、立法會議員的意見，以及其他相關政策目標。任何修訂水費制度及／或收費水平的建議，必須呈交行政會議，並在獲批准後經由立法程序通過。

除水費外，水務設施規例（第102A章）亦列明25項法定收費項目。我們一直遵照政府的「用者自付」原則檢討這些收費項目，以符合有關原則下收回一切服務供應成本的目標。於年內，我們已修訂24項法定收費項目，有關修訂自二零一三年八月一日起生效。我們會進一步修訂所有25項法定收費，有關修訂將會自二零一五年一月一日起生效。

水費收入總覽

於二零一三至一四年度，約14%住宅用戶毋須支付任何水費；42%達到第二級用水量而繳付最多每單位4.16元水費；20%最多繳付第三級，即每單位6.45元水費；餘下24%最多繳付第四級，即每單位9.05元的水費。於二零一三至一四年度，260萬住宅用戶（包括無須繳付水費之用戶）每月平均水費為47元，約相等於住戶每月平均開支的0.3%。

Waterworks operations have seen deficits since 1998-99 which means that it is subsidised by general government revenues. In 2013-14, the deficit was $930.0M and the cost recovery rate was 89.1%. The Government is conducting a review of water charges which is expected to be completed in 2014, taking into consideration a number of factors, including the affordability, financial performance of waterworks operations, the prevailing economic situation and the views of Legislative Council members. Any proposal for a change of the water tariff structure and/or charging levels must be taken to the Executive Council and, if approved, then sent to the Legislative Council to undergo the legislative process.

Other than water charges, there are 25 statutory fee items stipulated in the Waterworks Regulations (Cap. 102A). We have been periodically reviewing these fee items in accordance with the Government-wide "user pays" principle which aims to recover the full cost of providing services. During the year, 24 statutory fee items have been revised effective from 1 August 2013 and all 25 statutory fee items will be further revised effective from 1 January 2015.

Profiles of the Revenue from Water Charges

During the year 2013-14, about 14 per cent of domestic customers were not required to pay water charges, 42 per cent were paying up to the tier 2 rate of $4.16 per unit, 20 per cent were paying up to the tier 3 rate of $6.45 per unit and only 24 per cent were paying up to the tier 4 rate of $9.05 per unit. For the 2.6 million domestic customers, the average water charge in 2013-14, including those not required to pay any charge, was $47 per month. According to the Census & Statistics Department household expenditure survey, the water charge amounts to about 0.3 per cent of the average monthly household expenditure.


WSD
WSD

過去五年按用戶類別劃分的水費收入分析如下：

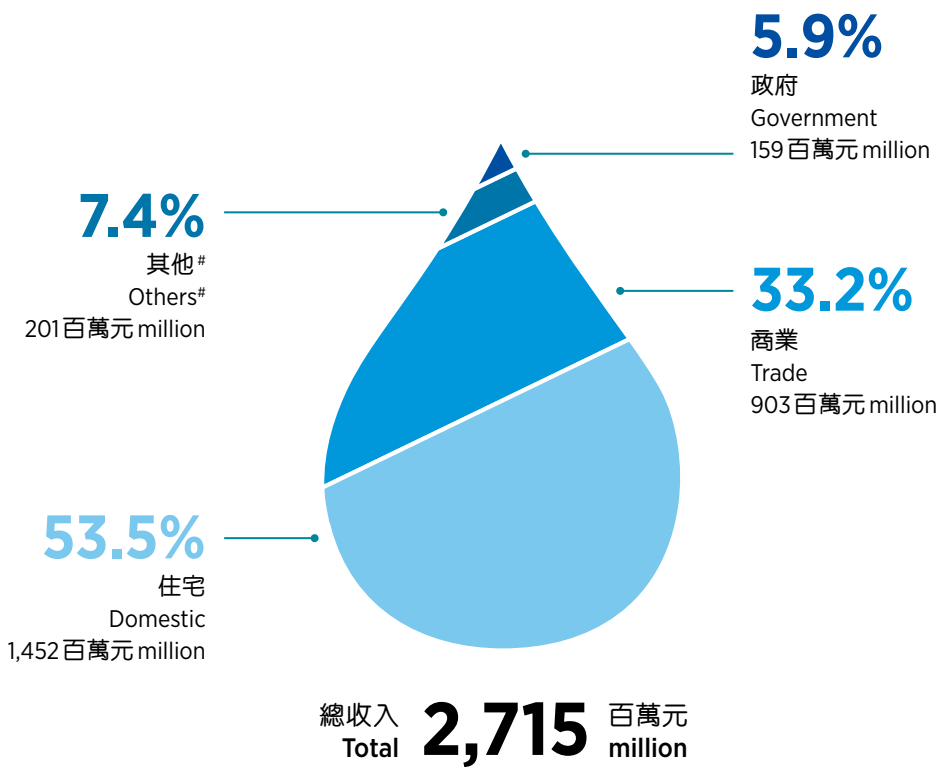
An analysis of the water charges by sector over the past five years is as follows:

百萬元 $M	09/10	10/11	11/12	12/13	13/14
商業 Trade	876	896	913	905	**903**
住宅 Domestic	1,443	1,408	1,414	1,437	**1,452**
政府 Government	150	163	155	156	**159**
其他# Others#	157	160	175	185	**201**
總收入 Total	2,626	2,627	2,657	2,683	**2,715**

包括沖廁用淡水 # including fresh water for flushing

二零一三／一四年收入及開支分析水費收入（按用戶類別劃分，以百分比顯示）

Water Charge (% by Sectors) 2013/14 Analysis of revenue and expenditure



包括沖廁用淡水

including fresh water for flushing

收入及開支分析

水費收入包括一般水費、各項收費、牌費，以及代客戶進行工程的收費。在編製水務賬目時，會以應計賬目基準呈列財務表現及狀況，其中包括各項非現金收入項目，主要為差餉補貼、免費用水補貼及政府用水。總運作成本主要包括員工費用、購買東江水支出、折舊、運作、行政及其他費用。過去五年的收入及開支分析如下：

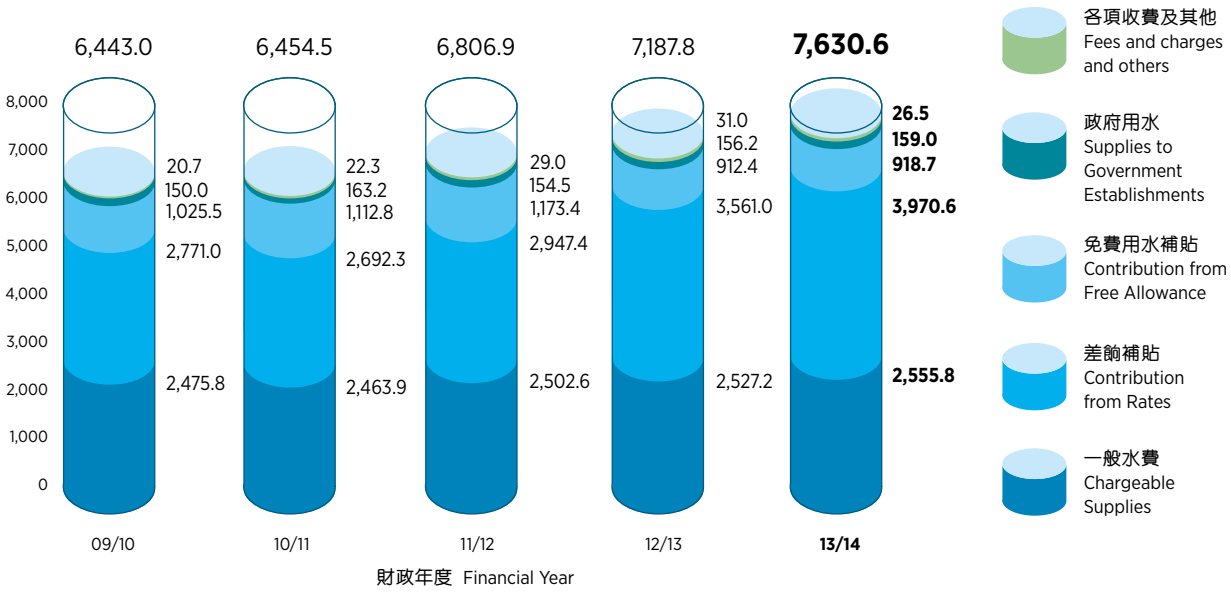
Analysis of Revenue and Expenditure

The revenue collections include chargeable water supplies, fees, licences, and reimbursable work. In preparing the Waterworks Operating Accounts which present the financial results and positions on an accrual accounts basis, the revenues include non-cash items, mainly contribution from rates, contribution from free allowance, and water supplies for government usage. The total operating costs include mainly staff costs, purchase costs of Dongjiang water, depreciation, operating charges, plus administration and other expenses. An analysis of the revenue and expenditure over the past five years is as follows:

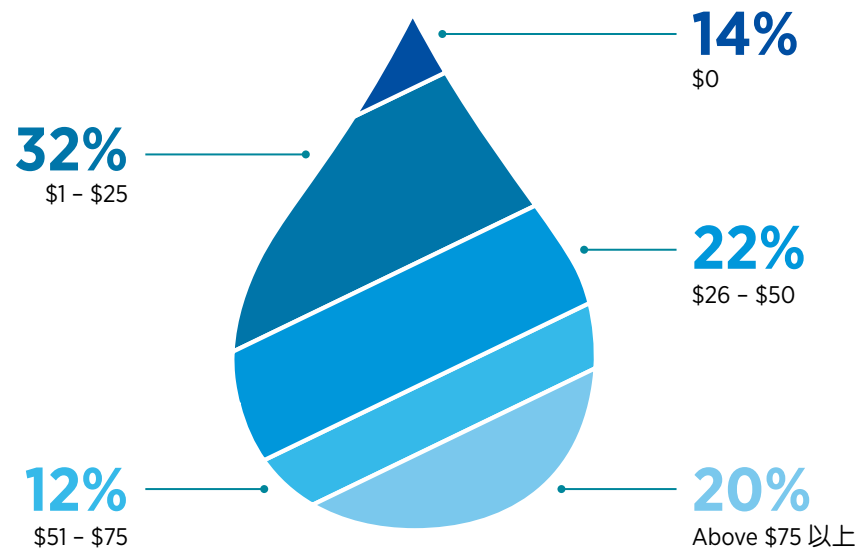
收入

Revenue

百萬元 $million

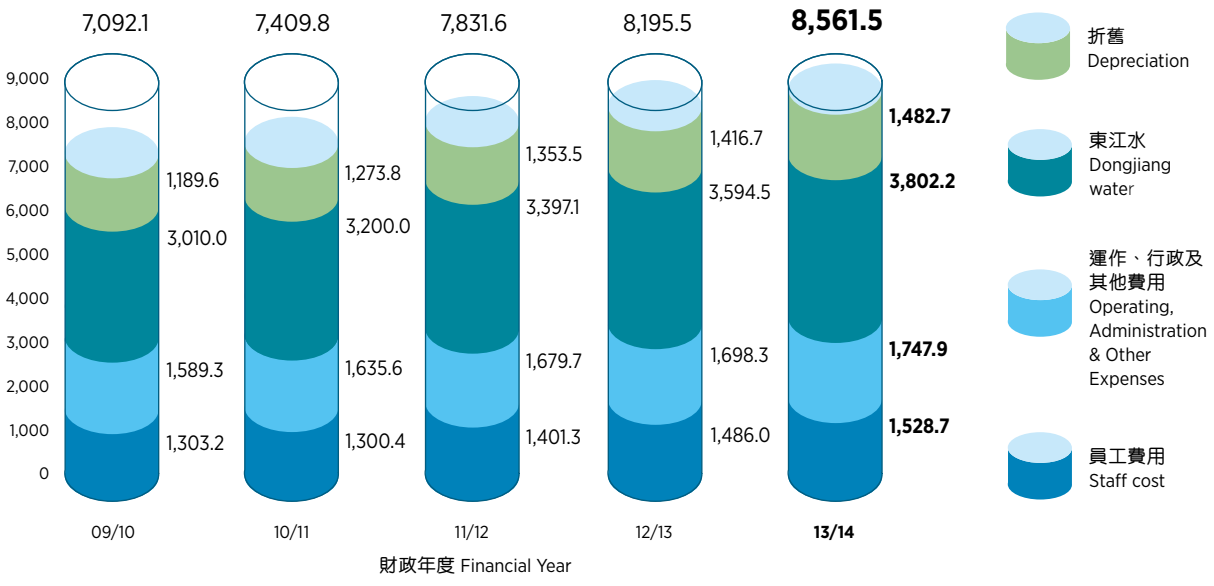


二零一三年／一四年度住宅用戶每月水費分佈圖
Distribution of Household Average Monthly Bill 2013/14



開支
Expenditure

百萬元 $million



進行水錶測試
Meter testing in process

抄錶員進行抄錶工作
Meter reader at work

本署致力以符合成本效益的方式提供服務，並大力投資在固定資產、設備、資訊科技及人力資源方面，藉此提高運作效益及員工生產力，務求滿足市民對更優秀服務的期望。社會大眾以及我們的用戶可以放心，我們會實行嚴謹的財務紀律，在提供優質服務滿足用戶需要之餘，不忘提升成本效益，這方針是我們實踐抱負和使命的憑藉。

The Department is committed to providing services as cost effectively as possible. We have made substantial investments in fixed assets, equipment, information technology and human resources to improve operational efficiency and staff productivity to meet the demands for a higher quality of services by the public. Our customers and the public at large can rest assured that we will exercise strict financial discipline and be very cost conscientious in delivering our quality services to meet the demand of our customers. This is our underlying approach in achieving our vision and missions.

可持續運作

Sustainable Operations


LOCAL OPERATION PANEL
TOUCH

歷史、經驗及準確理解供水所需的條件是我們維持可持續運作的重要元素。

本署致力：

- 嚴格遵守環保規例
- 善用能源和燃料
- 限制氣體排放
- 盡量減少辦公室用品的消耗
- 盡量減少處理食水過程中使用的化學品
- 盡量減少供水系統的用水流失量
- 盡量減少建築工程對環境造成的影響
- 減少化驗室、工場和濾水廠的固體、液體及化學廢物

History, experience and a precise understanding of what is required in terms of viable water supplies are key elements that enable us to operate in a sustainable manner.

The Department is committed to:

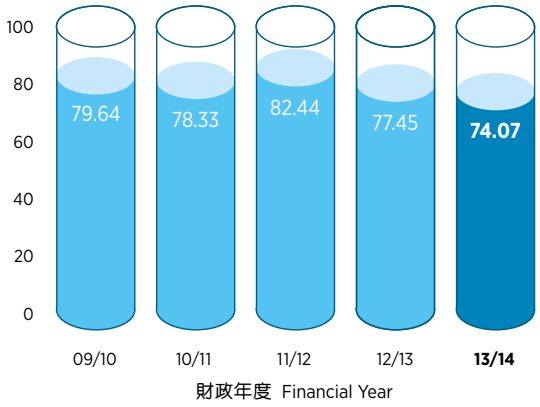
- working in strict compliance with environmental regulations
- optimising the use of energy and fuel consumption
- limiting gaseous emissions
- minimising the consumption of glossary items in offices
- minimising the use of chemicals in the water treatment process
- minimising water loss across the distribution system
- minimising environmental impacts that can arise from construction work
- reducing the quantities of solid, liquid and chemical wastes generated by our laboratories, workshops and treatment works

- 盡量減少污水排放，並盡可能將污水循環再用
- 減少抽水站發出的噪音
- 提倡安裝綠化屋頂
- 提倡使用再造紙

- minimising the discharge of effluent and where possible recycle effluent as reclaimed water
- reducing noise generated from pumping stations
- encouraging the setting up of green roofs
- encouraging the use of recycled paper

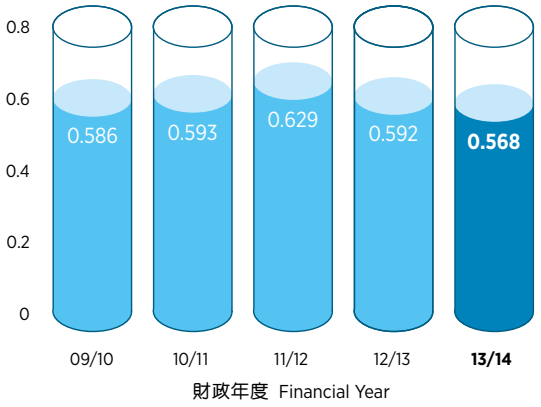
人均耗電量（食水及原水）
Per Capita Electricity Consumption (Fresh Water and Raw Water)

千瓦時／每人／每年 kWh/head/year



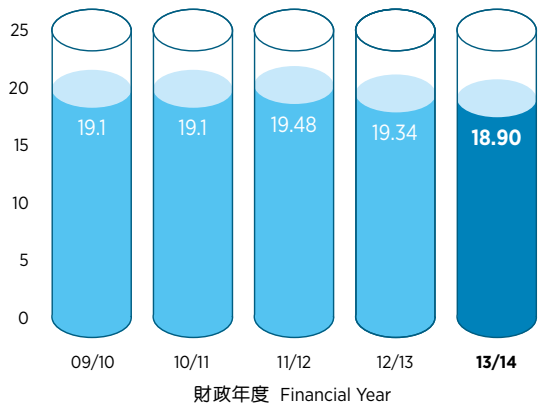
每單位耗電量（食水及原水）
Unit Electricity Consumption (Fresh Water and Raw Water)

千瓦時／立方米 kWh/m^3



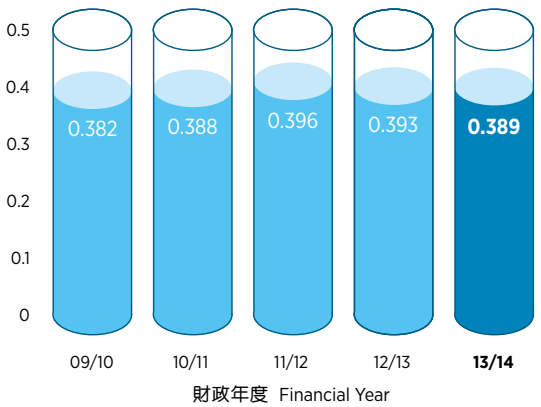
人均耗電量（海水）
Per Capita Electricity Consumption (Sea Water)

千瓦時／每人／每年 kWh/head/year



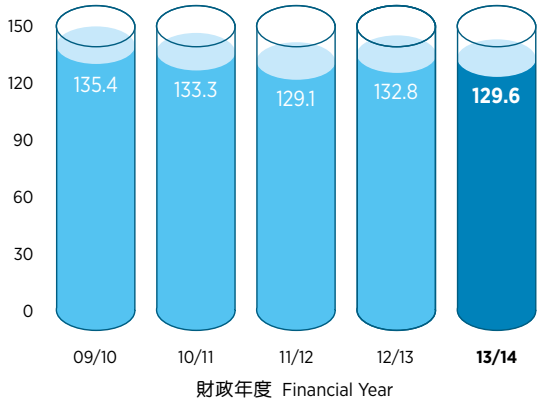
每單位耗電量（海水）
Unit Electricity Consumption (Sea Water)

千瓦時／立方米 kWh/m^3



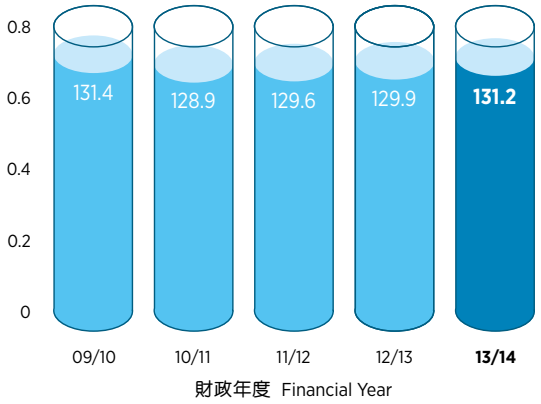
辦公室每單位樓面面積的耗電量
Office Electricity Consumption Per Unit Floor Space

千瓦時／平方米 kWh/m²



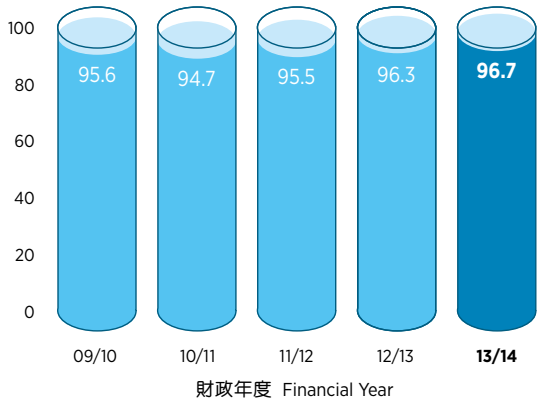
人均住宅食水耗用量*
Per Capita Domestic Fresh Water Consumption*

公升／日 Litres/day



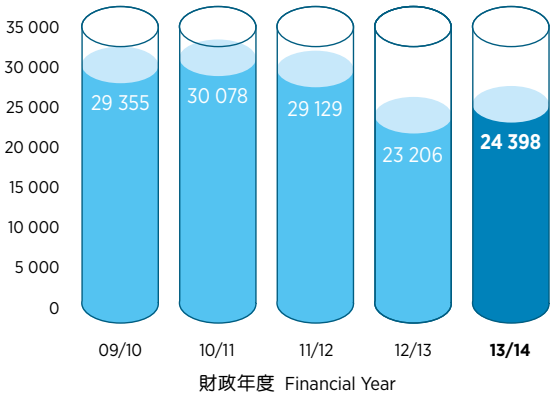
人均沖廁水耗用量（食水及海水）*
Per Capita Flushing Water Consumption (Fresh Water & Sea Water)*

公升／日 Litres/day



耗紙量
Paper Consumption

令 Reams



關注環境

本署的抱負是致力滿足客戶對優質供水服務的需求，務求每天取得卓越表現。作為以上承諾的一部分，我們願意承擔對維持環境清潔應負的責任。為此，本署的設計及建設科肩負水務規劃、設計及建設的重任，力求盡量減低對環境造成的任何影響。自二零一三年年初至今，設計及建設科一直奉行嚴格規約，作為按照ISO 14001所制訂環境管理體系的一部分。環境管理體系要求：「為已規劃及新增的工程項目、發展項目、產品及服務提供供水服務時，妥善做好環境管理工作」。於二零一三年十月，設計及建設科獲頒ISO140001: 2004環境管理體系標準認證，有關認證適用於供水工程項目交付。

Environmental Focus

The vision of the Department is to excel each day at satisfying the needs of providing water services to our customers. As part of that commitment, we fully appreciate the responsibilities we have toward maintaining a clean environment. For this reason, the New Works Branch of the Department is tasked with planning, designing and building waterworks to ensure that all impacts to the environment will be minimised. Since early 2013, The New Works Branch has followed a strict protocol as part of the Environmental Management System (EMS) in accordance with ISO Standard 14001. The EMS mandate is: "Environmental management in the provision of water supply services arising from planned and new engineered projects, developments, products and services.". In October of 2013, the New Works Branch obtained ISO140001: 2004 Environmental Management System Standards certification applicable to the delivery of engineering projects for the provision of water supplies.

設計及建設科致力：

- 精益求精
- 預防污染
- 遵行一切適用法例及其他規定

嶄新技術和設備

透過「遺傳基因演算法」安排食水泵的運作

本署目前正在研究最新技術，善用在整個供水及配水系統操作水泵所需的能源。本署與英國艾克斯特大學水系統中心和本地工程界合作，繼續優化北港濾水廠的網上水泵控制方法。

The New Works Branch is committed to:

- continual improvement
- prevention of pollution
- acting in compliance with all applicable legislation and other requirements

New Technology and Equipment

Pump Scheduling with Genetic Algorithm

The Department is now studying the latest technologies that optimise the energy needed to operate pumps throughout an entire water supply and distribution system. Working in partnership with the Centre for Water Systems at the University of Exeter in the UK as well as the local engineering sector, we are continuing to refine the methodology of on-line pump controls at the Pak Kong Water Treatment Works.

可持續發展

騰出一個分區辦事處，善用土地資源造福社群

本署位於旺角洗衣街的新界西分區辦事處自一九五零年起一直運作至今。今年，根據旺角購物區地區改善計劃（由規劃署草擬），我們決定搬遷新界西分區辦事處。搬遷後，現址將可用於地區改善計劃，有助改善旺角商業發展項目的交

Sustainable Development

Releasing a regional office to optimise land use for the public's benefit

Since 1950 the Department's New Territories West Regional Office at Sai Yee Street, Mong Kok has been in continual operation. This year we have decided to relocate the Office as part of the Area Improvement Plan (AIP) for the Shopping Area of Mong Kok (drafted by the Planning Department). After re-location the site will become usable for AIP to help improve traffic flow and the overall environment of Mong Kok's commercial development. The re-provisioning of a building in Tin Shui Wai will serve as the new Regional Office with construction beginning in mid-2015 and a completion date near the end of 2017.

位於欣澳海水抽水站的太陽能板和風力發電裝置
Solar panels and a wind turbine at Sunny Bay Salt Water Pumping Station

通流量及整體環境。新分區辦事處將遷往天水圍一幢樓宇，建築工程將於二零一五年年中動工，並於二零一七年年底左右竣工。

將水務設施遷往岩洞

行政長官發表的二零一三年度施政報告提出，以岩洞作為發展長期土地供應的可行來源。本署將積極支持是項計劃，展開搬遷現有鑽石山食水及海水配水庫及其他配套設施往岩洞的可行性研究，以便騰出現址作房屋或其他用途，滿足本港長遠的社會及經濟需要。可行性研究亦會檢討並改善供水系統，確保能夠為社會提供可靠、充足及優質的食水。

延伸海水供應系統，節約寶貴的食水

薄扶林海水供應系統已於二零一三年三月落成，並於二零一三年十月起開始為華富邨供應鹹水。本署現正推行一項試驗性外判安排，藉以探討為薄扶林部分地區供應鹹水是否可行。新界西北部（包括屯門東、元朗及天水圍）的海水供應建築工程正在進行中。這個海水供應系統的主要部分預計將於二零一四年完成。此外，東涌的新海水供應項目現處於規劃階段。

Caverning of Waterworks Installations

The 2013 policy address from the Chief Executive contained an initiative to develop rock caverns as viable sources of long-term land supply. We at the WSD will actively support this plan by carrying out feasibility studies of relocating the existing Diamond Hill Fresh Water and Salt Water Service Reservoirs and other associated facilities to caverns in order to release sites for housing or other uses to meet the long-term social and economic needs of the Territory. The feasibility study will also review and enhance water supply systems to maintain a reliable, adequate and high quality supply of water to the community.

Extending salt water supply system to save precious fresh water

The salt water supply system at Pok Fu Lam was completed in March 2013 and salt water delivery to Wah Fu Estate has been in effect since October 2013. The Department is currently initiating a trial outsourcing arrangement to explore the possibility of converting sea water supplies to part of the Pok Fu Lam area. The construction works for the salt water supply to northwest New Territories including Tuen Mun East, Yuen Long and Tin Shui Wai are in progress. Major components for this salt water supply system are expected to be completed in 2014. Moreover, a new salt water supply project at Tung Chung is currently in the planning stages.

抽水站的綠化屋頂
Green roof on a pumping station

內塗層可提高水泵效能
Internal coating improves pump efficiency

使用及節約能源

水務署已著手推行各項可持續能源管理計劃措施，務求為客戶供水時在整個運作過程中減低能耗。其中最有效的節能措施之一是向市民推廣節約用水，並且及時維修保養及更換機器及電力設備。此外，我們亦定期監督濾水廠運作方式及能源效益，同時對主要設施進行能源審核，並維持水務辦公室及供水設施的環保內務管理。這些措施產生了累積效應，使二零一三／一四年的整體能源消耗額外減低3.0%。

Energy Use and Savings

The WSD has embarked on a host of ongoing energy management programme initiatives with the aim of reducing energy use over the entire range of operations for supplying water to customers. Among the most effective energy-saving measures have been the promotion of water conservation within the community along with timely maintenance and replacement of mechanical and electrical equipment. In addition, we regularly monitor plant operations and energy performance while carrying out energy auditing for major assets as well as maintaining green housekeeping of waters office and installations. All of these measures have had the cumulative effect of reducing overall energy consumption by an additional 3.0% during 2013/14.

海浪推動刷網裝置

水務署員工已設計及開發一款創新的海浪推動刷網裝置，能有效防止海洋生物依附在海傍海水抽水站進水口隔濾網上滋生，大大節省人力和能源。憑藉這個裝置的環保、簡便及低成本設計，我們的員工榮獲二零一三年公務員優質服務獎勵計劃的內部支援服務隊伍金獎及特別嘉許（創新意念）獎。

Wave-powered Cleaning Device

Staff from the WSD have designed and developed an innovative wave-powered cleaning device that prevents marine organisms from growing on the intake screens of seafront salt water pumping stations, which results in significant manpower and energy savings. In recognition of this device's environmentally friendly, simple and low-cost design, our staff won the Gold Prize and a Special Citation (Innovation) of the Team Award (Internal Service) category at the Civil Service Outstanding Service Award Scheme 2013.

ISO 50001能源管理

過往數年，我們一直堅持採取最佳慣例提升能源效益，最終成功大幅節省能源成本。為配合我們的環保承諾，我們已根據ISO 50001:2001標準制訂一項整體能源管理體系，目標是於二零一四年年底前獲頒認證。

ISO 50001 Energy Management

Over the years, we have made it our singular focus to embrace best practices for improvements in energy efficiency, and the results have allowed us to achieve remarkable savings in energy costs. In line with our commitment to environmental protection, we have developed a department-wide Energy Management System based on the ISO 50001:2001 standard and our goal is to earn certification before the end of 2014.

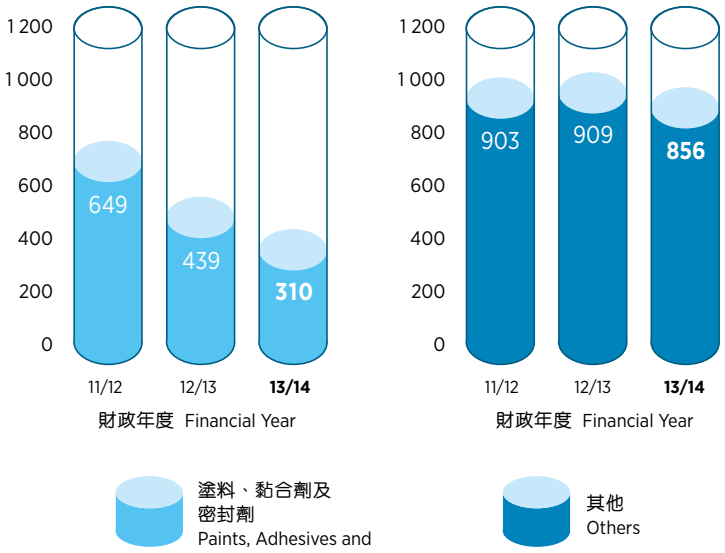
屯門海水抽水站舉行海浪推動刷網裝置的傳媒簡布會

Press conference of wave-powered cleaning device at Tuen Mun Salt Water Pumping Station

內部工作所需揮發性有機化合物耗用量

VOC Consumption for In-house Work

公斤 kg



公用集調車輛資料
Information on Pool Transport

	公務用車數量 No of Government Vehicles in Operation			總燃料耗用量（公升） Total Fuel Consumption (Litres)			總車程（公里） Total Mileage (km)		
	11/12	12/13	**13/14**	11/12	12/13	**13/14**	11/12	12/13	**13/14**
柴油 Diesel	18	18	**16**	30 619	28 121	**22 569**	209 738	138 193	**116 082**
汽油 Petroleum	196	201	**190**	461 144	533 795	**534 972**	3 255 439	3 538 662	**2 732 005**
混合（汽油／電力） Hybrid (Petrol/Electric)	21	20	**18**	53 834	15 897	**15 265**	376 407	260 951	**246 496**
液化石油氣 LPG	8	8	**13**	36 171	36 167	**35 187**	115 208	109 775	**107 640**
電力 Electricity	3	4	**9**	–	–	**–**	16 437	32 900	**74 572**

廢氣排放
Emissions

（以公噸計） (Figures in Tonnes)	二氧化碳 CO_2			二氧化硫 SO_2			氮氧化物 NO_x			可吸入懸浮粒子 RSP		
	11/12	12/13	**13/14**	11/12	12/13	**13/14**	11/12	12/13	**13/14**	11/12	12/13	**13/14**
直接廢氣排放： Direct Emissions:												
公務用車（柴油） Vehicle fleet (Diesel)	80	74	**59**	–	–	**–**	1	1	**1**	–	–	**–**
公務用車（汽油） Vehicle fleet (Petrol)	1 215	1 297	**1 299**	–	–	**–**	1	1	**1**	–	–	**–**
公務用車（液化石油氣） Vehicle fleet (LPG)	61	61	**59**	–	–	**–**	–	–	**–**	–	–	**–**
間接廢氣排放： Indirect Emissions:												
耗用電（九龍及新界） Electricity Consumed (Kowloon and New Territories)	368 802	351 277	**371 581**	181	204	**209**	363	398	**455**	14	13	**13**
耗用電（港島） Electricity Consumed (Hong Kong Island)	51 179	56 179	**50 394**	95	27	**17**	70	58	**52**	2	1	**1**
總量 Total	426 337	406 619	**423 392**	208	230	**226**	423	462	**509**	15	14	**14**


L 16
L 15
L 14
L 13
L 12
L 11
L 10
等候人數
Waiting
署旺角客戶諮詢中心 WATER SUPPLI
SAMSUNG
每日慳水10公升
SAVE WATER Save 10 liters a day
購買水票

專注客戶服務

Focusing on Customer Service

作為一個以客為本的機構，我們盡量提供不同渠道，確保用戶能迅速與我們聯絡，從而清楚得知各區水務工作的進展情況。

As a customer focused organisation, we make ourselves as accessible as possible, ensuring that consumers can reach us quickly and, in turn, are clearly informed of any water-related developments in their districts.

保持溝通

客戶諮詢中心服務意見調查

於二零一三年，本署委託私人顧問公司對客戶諮詢中心的服務進行意見調查，調查結果令我們深受鼓舞。97.6%受訪客戶對諮詢中心的服務表示滿意，滿意程度較上一次於二零零八年進行的調查上升6.1%。總體而言，滿意程度指數由二零零八年的87大幅飆升至最近一次調查的94。

智能手機流動應用程式

水務署最新推出的《WSD Mobile App》智能電話應用程式，讓市民可透過新方法利用智能電話接收本署發出的暫停供水通告及其他重要資訊，包括各項大型活動及任何突發事件。已在本署登記的客戶更可透過智能電話查詢帳單資訊，非常方便。

Staying in Touch

Opinion Survey on Customer Enquiry Centre (CEC) Services

In 2013, the Department secured the services of a private consulting firm to carry out an opinion survey on CEC services and we were encouraged by the results. 97.6% of customers polled said they were satisfied with CEC services. This was a 6.1% increase compared to the last survey done in 2008. Overall the satisfaction index rose dramatically from 87 in 2008 to 94 in the most recent survey.

Mobile App for Smartphones

The latest WSD application software for smartphones called the "WSD Mobile App" adds another method for the public to use their smartphones to receive water suspension notices and other key information from the Department, including major events and any emergency incidents. It's also a more convenient way for customers who have registered with the Department to access their billing information via their smartphones.

網上電子服務

年內，我們加強了為用戶提供的電子服務，包括按最新網上數據保安規定為網上保安進行升級，並使用啟動密碼以便沒有電子證書的企業用戶登記電子服務。我們亦推出全新的《WSD Mobile App》，這個應用程式可在智能手機平台上運作，方便已登記電子服務的客戶接收最新資訊，包括帳單摘要及催繳通知。市民亦可下載《WSD Mobile App》收取有暫停供水通告的資訊及提示。

方便用戶繳費

截至二零一四年三月三十一日，9 400名用戶選擇通過電子方式收取水費單。來年，我們將繼續加強電子服務，精簡

On-line e-service

During the year, we have made enhancements in providing e-services to our customers including the upgrade of online security to comply with the updated online data security requirements and the use of an activation code for facilitating business customers that do not have an electronic certificate to register for e-services. We have also launched a new WSD mobile App, which is an application running on smart phones, for customers who have joined the e-services to receive updated information including bill summaries and bill reminders. The general public may also download the WSD Mobile App and receive information and alerts on water suspension notices.

Facilitating Bill Payments

As at 31 March 2014, 9 400 customers have opted to receive their water bills electronically. In the coming year, we will continue to enhance our e-services to streamline the e-bill online application

客戶可於繳費聆終端機便捷地繳交水費
Payment of water bills can be conveniently processed through PPS terminals

電子帳單網上申請程序，並透過客戶諮詢中心及客戶熱線擴大電子帳單申請渠道，藉以推廣電子帳單服務。在不久將來，我們更會探討增設電子帳單遞交及付款服務是否可行。是項服務由香港金融管理局與庫務署合作推出，旨在協助市民透過單一平台收取水費單摘要及網上繳付水費。

水錶及讀數

本署積極更換已達指定使用年期的水錶。於二零一三至一四年度，我們分別更換了68%和51%的小型及大型舊水錶。因此，於本年年底仍在使用的小型及大型舊水錶的比例分別只有3.3%和11.4%，正在使用而讀數準確度符合理想水平的水錶比例則由二零一二至一三年度的96.0上升至96.4。

自動抄錶試驗計劃

最近，我們在深水埗元州村的住宅樓宇和上水紀律部隊宿舍推行自動抄錶試驗計劃，以審視多層高樓大廈水錶自動抄

procedures and extend e-bill application channels through our customer enquiry centres and customer hotline to promote our e-billing service. In the near future we will also explore the feasibility of adding an Electronic Bill Presentment and Payment Service, which has been initiated by the Hong Kong Monetary Authority in collaboration with the Treasury Department aimed at helping the public receive their water bill summary and pay their bills online through a single platform.

Meters and Readings

The Department has been actively replacing water meters that have reached their designated service lives. During 2013/14 we have replaced 68% and 51% of old small and large meters respectively. As a result, there will only be 3.3% of old small meters and 11.4% of large meters remaining in operation by the end of the year. As a consequence, the percentage of those meters now operating at their desired accuracy has risen to 96.4 from 96.0 as in 2012/13.

Automatic Meter Reading (AMR) Pilot Scheme

We have recently launched a pilot scheme for AMR at residential buildings in Un Chau Estate, Sham Shui Po and Sheung Shui Disciplined Services Quarters to review the latest technological advancements and technical performance of AMR water meters

自動抄錶試驗計劃在深水埗元州邨和上水紀律部隊宿舍推行
Automatic Meter Reading (ARM) pilot scheme has been launched in Un Chau Estate, Sham Shui Po and Sheung Shui Disciplined Services Quarters

錶的最新技術成果和技術表現，以及大規模推行自動抄錶的成本效益。實地安裝工程已告完成，目前正在收集數據以作分析。除了這些初步選址外，目前在建的上水第36區(西)公共屋邨亦將於二零一五年年初推行自動抄錶試驗計劃。

讓用戶取得最新資訊

水務署網站採用無障礙網頁設計

本署已著手支持政府資訊科技總監辦公室於二零一一年九月推出的最新無障礙網頁政策。具體而言，我們正在改良官方網頁，以符合萬維網聯盟《無障礙網頁內容指引》2.0AA級別標準的最新要求。作出改良後，弱勢群體現在能夠使用一系列全新的無障礙網頁功能。日後，我們亦會繼續致力貢獻社會，設計「無障礙」網站讓有需要的社群能夠平等分享互聯網發展帶來的成果。

in multi-storey high rise buildings as well as its cost effectiveness for large scale implementation. Site installation works have been completed and data are now being collected for analysis. In addition to these initial sites, the AMR pilot scheme will be extended in early 2015 to Sheung Shui Area 36 West public housing estate which is currently under construction.

Keeping Customers Informed

WSD website adopts web accessibility design

We at the WSD have begun supporting the latest web accessibility policy introduced by the Office of the Government Chief Information Officer in September of 2011. Specifically we are enhancing our official website to conform to the latest requirements of the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG) 2.0 Level AA. As a result of these enhancements, underprivileged groups will now be able to use a host of new web accessibility features. In future we will also continue our efforts to contribute to society by designing 'barrier-free' websites that provide needy communities with equal opportunities to share in the benefits brought about by the development of the internet.

客戶聯絡小組

自一九九三年至今，本署一直透過客戶聯絡小組與市民直接有效溝通。客戶聯絡小組提供寶貴的資訊來源，讓本署能夠及時了解市民對水務署運作的評價。去年，客戶聯絡小組召開三次會議，成員代表來自社會不同界別。客戶聯絡小組曾就多項重要措施與水務署緊密合作，小組成員曾參觀牛潭尾濾水廠，並聽取有關當前問題的講解及計劃，包括水電站運作、水務署電子服務及節約用水計劃的事宜。

家用水質

大廈優質食水認可計劃

為用戶供水之前，本署於每個階段均會按照嚴格的國際指引，對供水進行大量水質測試，確保供水安全、適合飲用。然而，為用戶供水後，大廈業主便有責任維持供水清潔安全。為此，我們推出「大廈優質食水認可計劃」，這項計劃覆蓋住宅用戶、商業及工業樓宇，迄今已向大廈業主／物業管理公司頒發3 838張金、銀、藍證書，以表揚他們對維持內部優質供水系統作出的努力。

The Customer Liaison Group

Since 1993 the Department has been able to effectively communicate directly with the people we serve through the Consumer Liaison Group, which provides a valuable source of information and feedback on the public's perceptions about WSD operations. Over the past year the Group met three times. Comprising a representative cross-section of the community the Group has worked closely with the WSD on a number of key initiatives. Members visited the Ngau Tam Mei Water Treatment Works and studied presentations and plans dealing with current issues like hydropower plant operations, WSD electronic services and water conservation campaigns.

Water Quality in the Home

Quality Water Recognition Scheme for Buildings

Following strict international guidelines, the Department carries out extensive testing of the water supply to assess its quality at every stage before it reaches the tap to ensure a safe, drinkable water supply. However, once the water supply reaches a home, the owners of the building are the ones who assume responsibility for keeping it clean and safe. For this reason we have developed the Quality Water Recognition Scheme for Buildings, which covers domestic households as well as commercial and industrial buildings. To date 3 838 Gold, Silver and Blue certificates have been awarded to building owners/management companies in recognition of their dedication to maintaining the quality of their internal fresh water plumbing systems.

客戶聯絡小組會議
Customer Liaison Group Meeting

旺角客戶諮詢中心
Mong Kok Customer Enquiry Centre

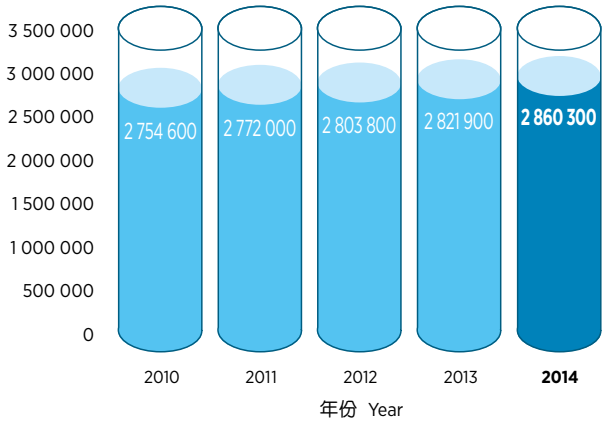
沖廁水系統優質維修認可計劃

「沖廁水系統優質維修認可計劃」是本署於二零一三年七月推出的另一項計劃，旨在鼓勵大廈業主妥善維修保養本港樓宇的內部沖廁系統。我們相信這項計劃能有助減少因沖廁系統保養欠佳而出現的停止供水情況。這項計劃覆蓋住宅用戶、商業及工業樓宇。水務署至今已向大廈業主／物業管理公司頒發759張藍證書，以表揚他們對內部沖廁系統進行優質保養維修。

Flushing Water Plumbing Quality Maintenance Recognition Scheme

Another of the Department's initiatives is the Flushing Water Plumbing Quality Maintenance Recognition Scheme launched in July 2013. This scheme is aimed at encouraging proper maintenance of internal flushing systems in Hong Kong's buildings. Through this scheme, we feel confident of reducing failures in flushing water supplies due to poorly maintained systems. This scheme also covers domestic households as well as commercial and industrial buildings. So far the WSD has awarded 759 Blue certificates to building owners/management companies in recognition of the quality maintenance of their internal flushing plumbing systems.

客戶數目（截至二零一四年三月三十一日）
Number of Accounts (as at 31 March 2014)



開創未來

Shaping Our Future

本署致力培育一支出色的管理團隊，同時推行工作場地計劃，
藉以提升在所有供水環節供應優質食水的能力。

The Department is dedicated to the development of a strong managerial leadership team while at the same time initiating workplace programmes to improve competencies that involve all phases of providing high quality water supplies.

培育一支盡心盡力的工作隊伍

水務署已培育一支富有才幹和竭誠盡力的工作隊伍，並安排他們在本署各級部門任職。我們為(4 396)名員工安排深入培訓計劃和跨部門研討會，確保我們能持續滿足並超越用戶的需要和期望。本年度，我們的內部培訓部致力提升員工的技術知識和管理能力，培訓內容尤其集中在濾水、安全性及資訊科技方面。為此，我們已提供共12 346個工日的培訓，成本達270萬港元。在減低工作地點意外方面，統計數字顯示，水務工程合約意外率一直處於較低水平。事實上，我們的意外率遠低於政府就公共工程合約所定的安全上限。

Fostering a Committed Workforce

The WSD has nurtured a talented and highly dedicated workforce that spans the entire range of the Department's operations. We schedule in-depth training schemes along with inter-branch seminars for our (4 396) staff members to make sure that we continue meeting and exceeding the needs and expectations of our customers. This year, our in-house training unit has focused on enhancing the technical knowledge and managerial skills of our staff, particularly in the area of water treatment, as well as safety and information technology. To this end, we have conducted a total of 12 346 training days at a cost of HK$2.7 million. With respect to lowering workplace accident cases, the statistics show that we are maintaining a consistently low rate on water works contracts. In fact, we are well below the safety limits designated by the Government for public works contracts.

我們亦致力在本署各級管理層與員工之間建立穩健而有效的溝通渠道。為此，部門協商委員會及轄下小組委員會提供多個有效平台，供全體員工就共同關切的事項交換意見。本署安排定期與工會舉行會議，而高級人員亦定期到訪各辦事處及工作場地，以加深了解各個進行中的項目及激勵員工。本署期望所有主管人員在履行職責時將提高生產力及改善服務作為第一要務。為此，本署已推出多項激勵計劃，鼓勵員工出謀劃策，務求改善服務及提升工作效率。有關創新建議經試行、試驗及實施後，明顯提升了我們的服務質素和運作效率。

水務署是參與「機電業博覽 — 人才大招募」機構之一
WSD was one of the organizations of The Electrical & Mechanical Trades Expo – Manpower Recruitment

向合作伙伴學習

我們與眾多頂尖學術機構和私營公司一同研究及發展多個項目，從而加強了雙方在技術發展和新技術應用方面的合作。本署積極培養創新文化，致力加強

員工在職培訓
Staff in-service training

We are also working hard to expand the strong and effective communications channels that exist between managers and staff throughout the Department. In this regard, the Departmental Consultative Committee and its sub committees have provided useful forums to create an open exchange of ideas on issues of common concern for all staff members. The Department schedules regular meetings with staff unions and senior officers make regular visits to individual offices and work sites to become more knowledgeable about various on-going projects and to help motivate staff. All supervisors are expected make productivity enhancements and service delivery improvements a top priority as part of their duties. To this end, the Department has introduced a number of motivation schemes to encourage staff to contribute their ideas and opinions on how to improve service delivery and foster greater work efficiency. As a consequence, new innovative ideas are being tried, tested and implemented, significantly helping our operations achieve impressive service and operational improvements.

Learning from Partnerships

We have formed a great many partnerships with academic institutions and private sector firms on research and development projects. This has led to strengthened collaborative relationships on technological developments and newly developed applications. The Department actively cultivates a culture of innovation and we have worked hard to

水務署的人才招募攤位
The recruitment booth of WSD

各級員工的信心。年內，員工為協助全面提升本署運作達致卓越表現而提出許多意見和建議，本署亦已仔細考慮有關建議，並在可行情況下付諸實行。

為提升對公眾提供的用戶服務，本署籌辦一系列經驗分享會，員工可以直接與公眾面對面討論各類水務事宜，例如如何處理申訴專員個案、處理申請、執行巡查，以及更換水錶等。其他分享會的議題包括四川重建項目的管理、草坪管理及防止貪污事宜。

於二零一零年，本署設立技術轉移工作坊及培訓小組，以便提高員工對水處理最新發展的認識。我們就濾水廠的設計、濾水程序和運作舉辦研討會。年內，60名員工參加五場知識分享會，並四次前往本地濾水廠和污水處理廠進行技術考察。本署的工程顧問亦繼續與員工分享先進的技術知識。

bolster confidence throughout the organisation. The large number of ideas and suggestions submitted by staff during the year to help raise the overall excellence of our operations has been carefully considered and, where feasible, the ideas have been implemented.

In order to affect improved customer services for the public, the Department has organised a series of experience-sharing sessions in which our staff meet with the public directly to discuss matters such as how we've handled ombudsman cases , processing of applications, carrying out inspections, and meter replacement work. Other sessions have covered topics such as management of the Sichuan Reconstruction project, turf management and corruption prevention issues.

In 2010, the Department formed a technology transfer workshop and training group to help increase knowledge about the latest developments in water treatment. We held seminars on design, treatment processes and treatment plant operations. During the year, 60 staff members participated in knowledge-sharing at five seminars and four technical visits to local water treatment facilities and sewage treatment works. The Department's engineering consultants as well continue to share their advanced technical knowledge with staff.

通過學習培育團隊合作精神
Fosters team spirit among staff through learning

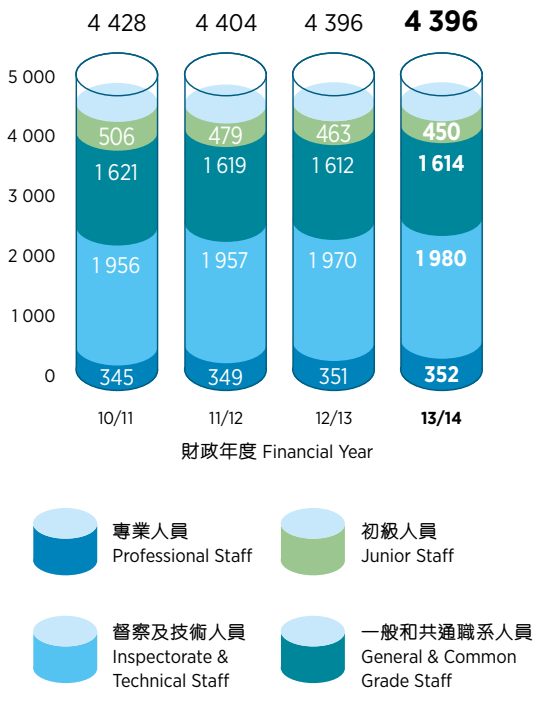
部門職位互調計劃

水務署參與「職位互調計劃」，將本署的工程師調派至土木工程拓展署，以擴闊他們的眼界和工作思路。「職位互調計劃」成效顯著，現已踏入第五年，成功互調21對工程師。本署所有部門的工程師都可申請其中一類職位互調，一般為期兩年。本署深信該計劃有助進行同工繼任的規劃，並讓員工有機會在新環境展現決斷行事的能力和才能。為此，我們鼓勵工程師踴躍參與。

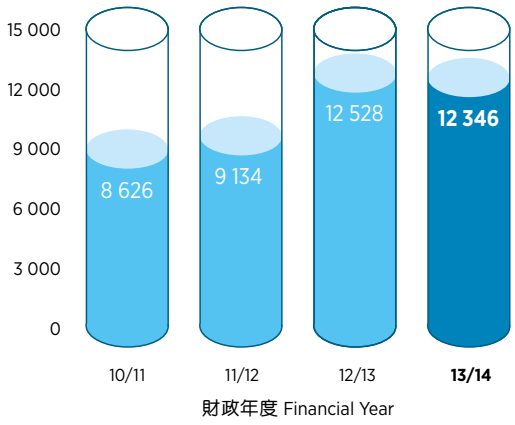
Departmental Cross Postings

The WSD participates in a cross-posting scheme that seconds engineers from our Department to the Government's Civil Engineering and Development Department in order to expand their overall exposure and broaden work perspectives. This successful scheme, now in its fifth year, has matched 21 pairs of engineers. Engineers from all sections of the Department can apply for one of these cross- posting positions for a term which normally spans two years. The Department believes strongly that this cross-posting experience helps staff members with succession planning and offers a novel environment for people to display their personal initiative and individual capabilities. For this reason we encourage as many engineers as possible to take part in the programme.

員工編制
Staff Establishment



培訓工日
Training Man-days



鼓勵員工參加各種體育比賽
Staff is encouraged to take part in various sport competitions

建立團隊

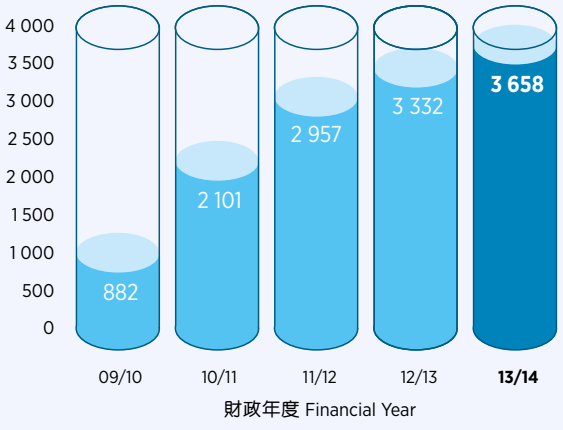
為協助員工更妥善維持工作與生活的平衡，我們於年內舉行了各色各樣的體育活動，超過500名員工參與其中。我們更積極鼓勵各級員工踴躍參與其他團體舉辦的各項體育活動，例如部門際乒乓球比賽、工商機構運動會、建造業運動會暨慈善同樂日，以及其他體育相關的活動。以上各項活動均有助本署建立更深厚的團隊精神之餘，亦有助促進員工身心健康。

Team Building

To help build a better work-life balance for our staff, we arranged a wide array of sporting events during the year with more than 500 WSD personnel taking part. We also actively encourage everyone in the Department to participate in the various sporting events organised by outside bodies such as the Inter-department Table Tennis Tournament, the Corporate Games, the Construction Industry Sports Day cum Charity Fun Day, as well as other sports-related activities. All of these activities and events help to build a stronger esprit de corps within the Department and a healthier lifestyle for our staff.

《點滴》季刊有助增進和諧的員工關係
"Droplet", the quarterly staff newsletter, enhances harmonious staff relation

水務署義工工時數目
No. of Man-hours for WSD Volunteers



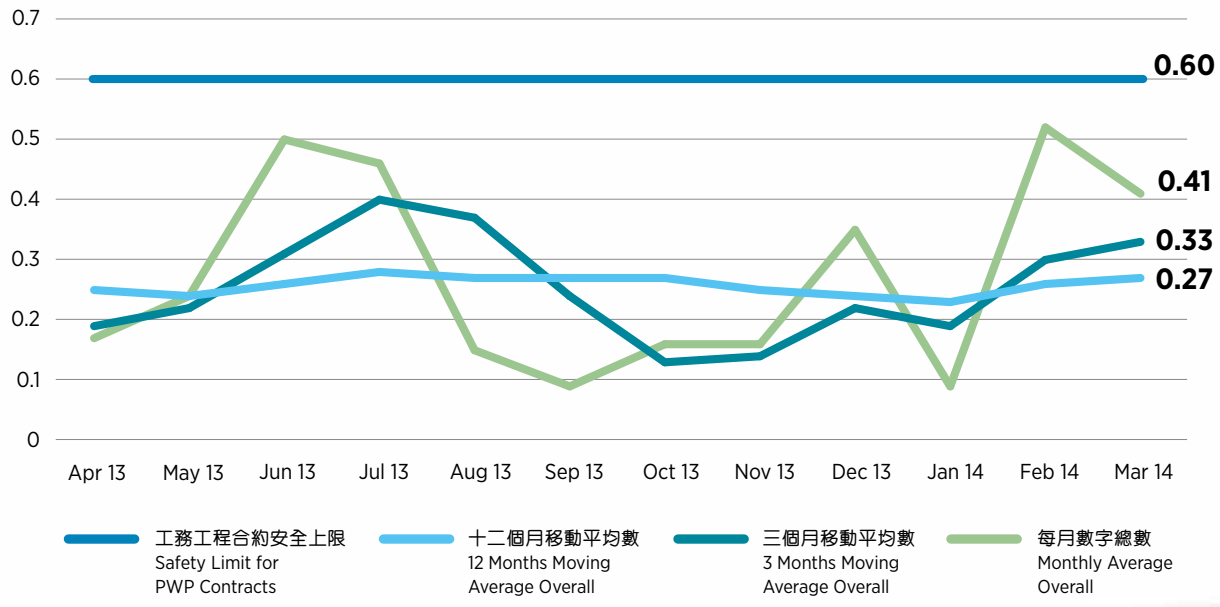
義務工作

本署人員一如既往積極參與義務工作，履行對社會的承諾。於年內，我們的義工參加了超過120項慈善活動，當中包括籌款活動、探訪老人院及協助殘疾人士。員工義務工作時數合計達3 658小時，有16名員工獲得個人金、銀、銅嘉許狀，表揚他們對以社區為本工作的貢獻。

Voluntary Work

Staff volunteers showed their on-going commitment to the community by taking part in more than 120 charity events during the year. These included fund raising efforts, visiting the homes of the elderly and assisting the disabled. A total of 3 658 community service hours were spent by staff and 16 received individual Gold, Silver and Bronze awards in recognition of their dedication to community-focused work.

二零一三／一四年度水務工程合約意外率
Accident Rates for Waterworks Contracts 2013/14



水務署義工隊積極服務社會及扶助有需要人士
WSD Volunteer Team dedicated to serve the Community and to help those in need

獎項和嘉許

本署最近在本港及國際均獲得多個獎項，以認同我們在服務、創新及人力發展方面的成就。本署於二零一三／一四年度獲得的獎項包括：

1. 二零一三至一四年度香港公益金「僱員募捐計劃」：
   - 「僱員樂助計劃」政府部門最高籌款獎第三名
2. 公務員事務局公務員優質服務獎勵計劃：
   - 部門精進服務獎(大部門組別) — 銅獎
   - 隊伍獎(內部支援服務) — 金獎(能源管理組 — 海浪推動刷網裝置)
   - 隊伍獎(內部支援服務) — 銀獎(水質科學部 — 生物感應預警系統)

Awards and Recognition

The Department has received a number of awards recently, both locally and globally, that recognise our work in the areas of service, innovation and manpower development. Awards received by the Department in 2013/14 include:

1. The Community Chest' Employee Contribution Programme 2013/14:
   - CARE Scheme (Civil Service Category) – 3rd Highest Donation
2. Civil Service Bureau, Civil Service Outstanding Award Scheme:
   - Departmental Service Enhancement Award (Large Department) – Bronze Prize
   - Team Award (Internal Service) – Gold Prize (Wave Powered Cleaning System by Energy Management Unit)
   - Team Award (Internal Service) – Silver Prize (Biosensing Alert System by Water Science Division)

- 隊伍獎(內部支援服務) — 銅獎(工程拓展組 — 內聯閉式水力發電系統)
- 隊伍獎(內部支援服務) — 特別嘉許(創新意念)[能源管理組－海浪推動刷網裝置]

3. 二零一三年度申訴專員嘉許獎公職人員獎

4. 公務員事務局局長嘉許狀

5. 香港品質保證局ISO 14001:2004環境管理體系，適用於供水工程項目

6. 二零一三年香港環保卓越計劃 — 優異獎(水務署)

7. 二零一四年國際年報比賽金獎(非牟利機構) — 水務署二零一二／一三年報總裁函件

- Team Award (Internal Service) – Bronze Prize (Inline Hydroelectric Generating System in Confined Condition by Project Development Unit)
- Team Award (Internal Service – Special Citation (Innovation) [Wave-powered Cleaning System by Energy Management Unit]

3. The Ombudsman's Awards 2013 for Officers of Public Organisations

4. Civil Service Bureau, The Secretary for the Civil Service's Commendation Award

5. Hong Kong Quality Assurance Agency's ISO 14001:2004 Environmental Management System applicable to Deliver engineering projects for the provision of water supplies

6. 2013 Hong Kong Awards for Environmental Excellence – Merit, Water Supplies Department

7. 2014 International ARC Awards – Gold Winner, WSD Annual Report 2012/13 President's Letter (Non-Profit Organisation)

附錄 Appendices

附件 Annexes

附錄及附件

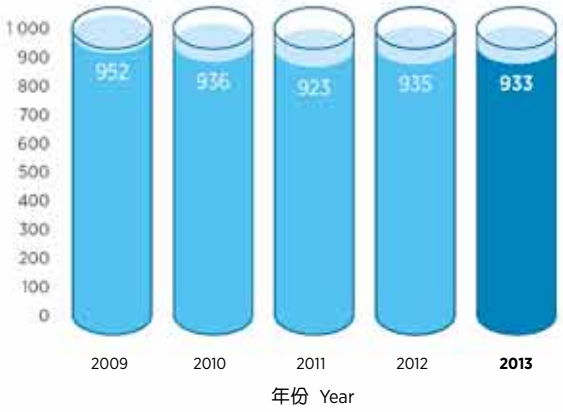
Appendices and Annexes

附錄
Appendices

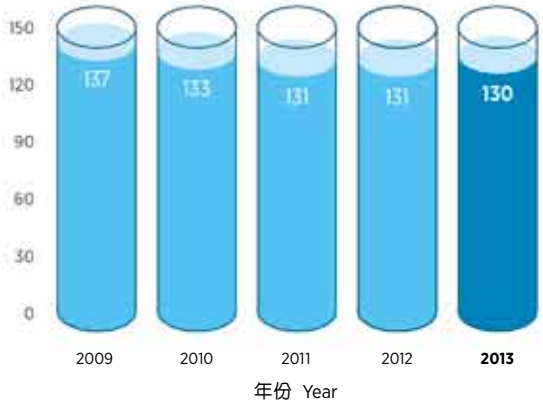
附錄一
Appendix I

全年食水耗用量及人均用水量* Annual Fresh Water Consumption and Per Capita Consumption*

全年食水用水量
Annual Fresh Water Consumption
百萬立方米 million cubic metres



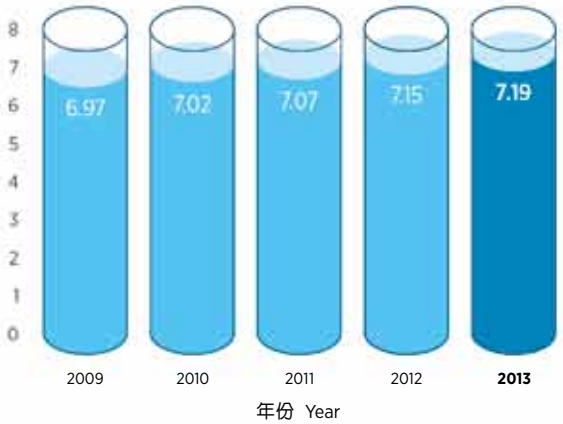
人均用水量
Per Capita Consumption
立方米／每年 cubic metres per year



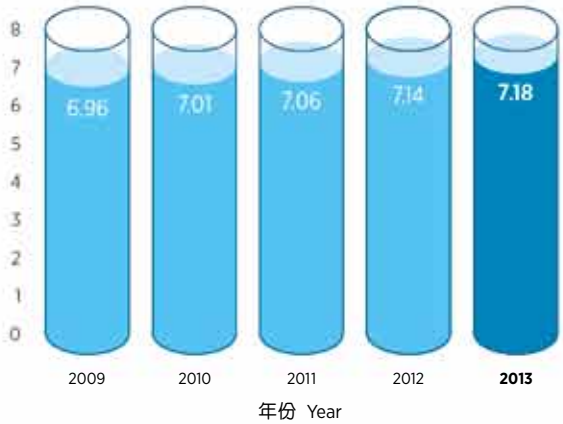
附錄二
Appendix II

全港人口及獲食水供應人口* Population in HK and Population Served with Fresh Water*

全港人口
Population in Hong Kong
百萬 million



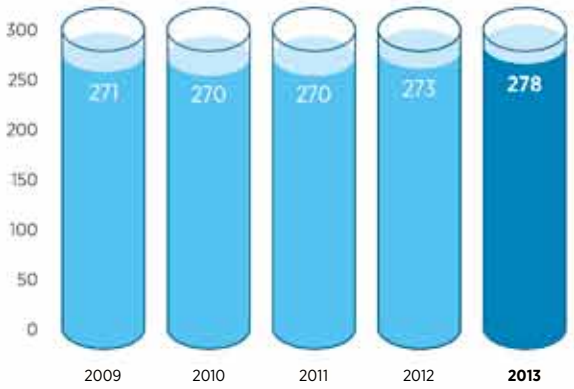
獲食水供應人口
Population Served with Fresh Water
百萬 million



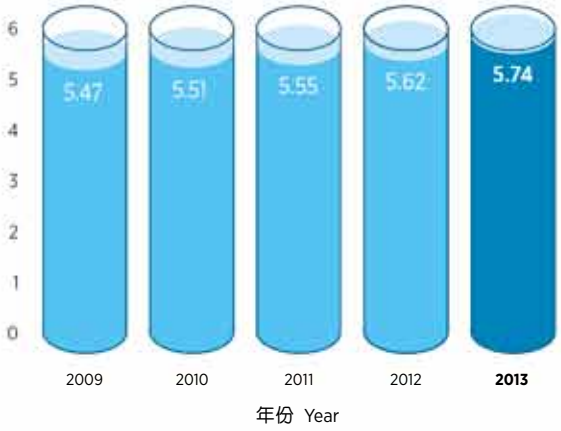
附錄三
Appendix III

全年海水耗用量及獲海水供應人口*
Annual Sea Water Consumption and Population Served with Sea Water*

全年海水用水量
Annual Sea Water Consumption
百萬立方米 million cubic metres



獲食水供應人口
Population Served with Sea Water
百萬 million



* *根據二零一一年人口普查統計結果得出的人口基準，二零零七年年中至二零一一年年中的人口數字已予以修訂，該修訂已採用計算先前人口數字時還未備妥的人口變動數字。從二零零七年起的人均耗水量及獲供水人口數字亦已相應作出修訂。*

* *Based on the population benchmark from the results of the 2011 Population Census, the population figures from mid-2007 to mid-2011 have been revised. The revision has incorporated more estimates of population changes that were not yet available at the time when the previous population figures were prepared. Consequently, the per capita consumption figures and population served from 2007 onwards have been revised as well.*

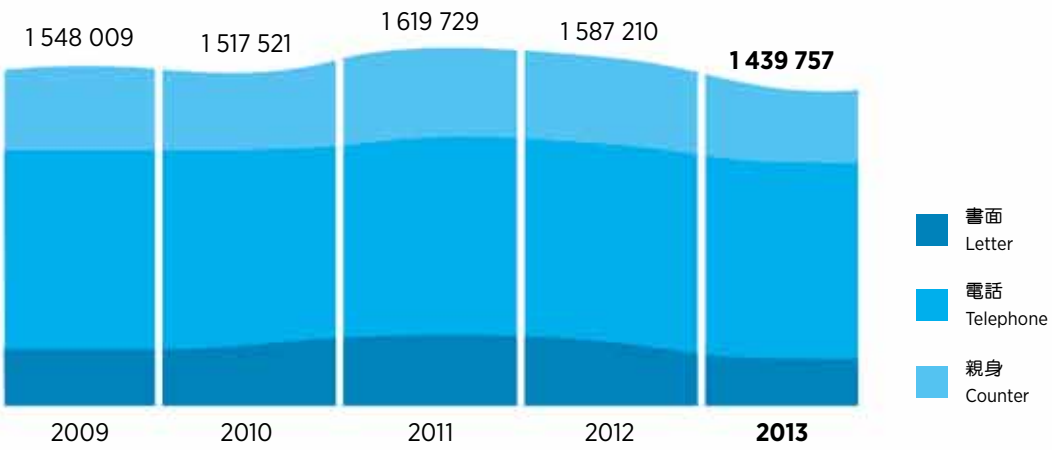
附錄四
Appendix IV

客戶查詢及申請服務的統計數字
Statistics on Customer Enquires and Requests for Services

年份 Year	2009	2010	2011	2012	**2013**
書面查詢／申請 Letter	261 347	279 676	318 986	295 016	**212 566**
電話查詢／申請 Telephone	902 314	888 857	901 758	896 956	**897 424**
親身查詢／申請 Counter	384 348	348 988	398 985	395 238	**329 767**
總數 Total	1 548 009	1 517 521	1 619 729	1 587 210	**1 439 757**

客戶查詢及申請服務的統計數字
Statistics on Customer Enquires and Requests for Services

個案數目
number of requests

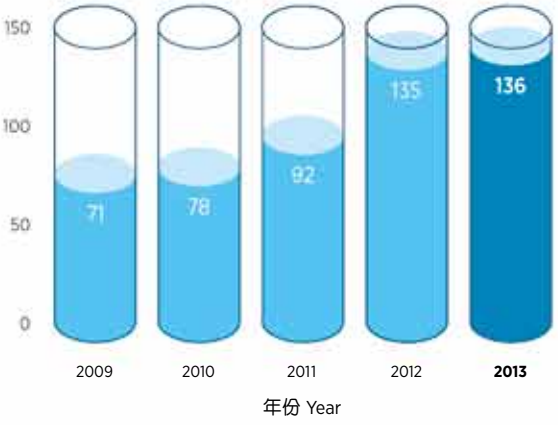


附錄五
Appendix V

客戶投訴的統計數字 Statistics on Customer Complaints

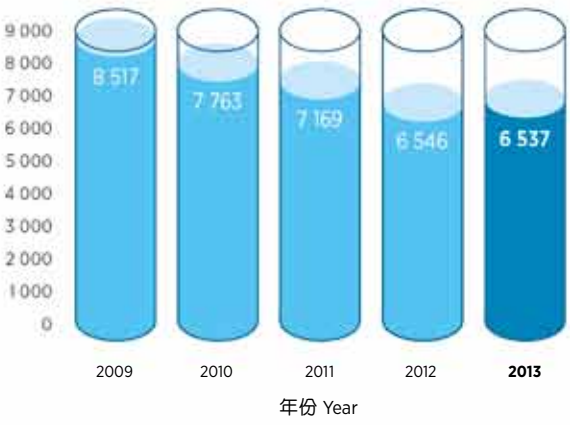
與帳戶有關的投訴#
Account-Related#

投訴個案數目 number of complaints



與帳戶無關的投訴
Non-Account-Related

投訴個案數目 number of complaints



年份 Year	2009	2010	2011	2012	**2013**
與帳戶有關的投訴# Account-Related#	71	78	92	135	**136**
與帳戶無關的投訴 Non-Account-Related	8 517	7 763	7 169	6 546	**6 537**
總數 Total	8 588	7 841	7 261	6 681	**6 673**

由區議會，立法會及申訴專員轉介與帳戶有關的投訴。
Account-related complaints from District Councils, Legco and Ombudsman.

附錄六
Appendix VI

二零一三／一四年度繳費方式的統計數字 Statistics on Mode Payment 2013/14

繳費方式 Mode of Payment	交易數目 No. of Cases	百份比 Percentage (%)
親身繳費 In person	3 704 900	49.8
郵寄 By post	101 500	1.3
自動轉帳 Autopay	855 000	11.5
繳費聆 PPS	861 900	11.6
自動櫃員機 ATM	441 400	5.9
網上繳費 Internet	1 482 000	19.9
總數 Total	**7 446 700**	**100.0**

附件
Annexes

附件一
Annex I

水務署向公眾提供的刊物目錄

除另有註明外，所有刊物均可在水務署網頁瀏覽，並備有中英文本。

刊物

可在網上政府書店購買的刊物

- 《香港水務》
- 《香港水務設施條例》及《水務設施規例》

小冊子及單張

在各客戶諮詢中心免費派發的小冊子或單張

- 緊記僱用持牌水喉匠
- 清洗食水水箱指引
- 正確使用大廈消防喉轆
- 如何申請供水
- 安裝家庭用貯水式電熱水器須知
- 私人屋邨／樓宇的供水問題及內部供水系統的維修保養
- 服務承諾
- 水的真相
- 水務簡訊
- 用戶指南
- 香港水塘釣魚樂
- 大廈優質食水認可計劃簡介
- 食水系統維修指引
- 電子服務*
- 紅潮對沖廁海水水質的影響
- 切勿非法取水
- 水務署部門單張*
- 水錶測試實驗所
- 耗水量偏高用戶須知
- 香港的食水處理及水質控制
- 供水故障投訴
- 用戶責任
- 飲食業（食肆）廚房申請供水指引

List of WSD Publications Available to the Public

All publications are available on the WSD homepage and in both English and Chinese except where indicated.

Publications

Available at the online Government Bookstore

- Hong Kong's Water
- Waterworks Ordinance and Regulations

Pamphlets/Leaflets/Booklets

Available free at all Customer Enquiry Centres

- Employment of Licensed Plumbers
- A Guide to Cleansing of Fresh Water Storage Tanks
- Proper Use of Fire Fighting Hose Reels in Buildings
- How to Apply for Water Supply
- Installation of Electric Thermal Storage Type Water Heater for Domestic Purpose
- Maintenance of Water Supply Systems in Private Housing Estates/Buildings
- Performance Pledge
- Facts About Water
- Waterlink Newsletter
- Consumer Guide Book
- Fun of Fishing in Hong Kong Reservoirs
- Quality Water Recognition Scheme for Buildings Brief Introduction
- Fresh Water Plumbing Maintenance Guide
- Electronic Services*
- Effect of Red Tides on Seawater for Toilet Flushing
- Unlawful Taking of Water Is Prohibited
- Departmental Leaflet*
- Meter Testing Laboratory
- Advice for Consumers on High Consumption
- Water Treatment and Quality Control in Hong Kong
- Water Supply Technical Fault Complaints
- Consumer's Responsibility
- Guidelines on Water Supply Application for Food Business (Restaurant/Kitchen)

可要求索取或在水務署總部提供的小冊子或單張

- 香港的全面水資源管理
- 水務便覽
- 凹頭濾水廠
- 沙田濾水廠
- 馬鞍山濾水廠
- 北港濾水廠
- 牛潭尾濾水廠
- 大埔濾水廠
- 小蠔灣濾水廠
- 大潭水務文物徑
- 大潭篤原水抽水站
- 「小水點的奇妙旅程」單張
- 「沖廁用水嚴禁作其他用途」警告字樣標貼紙
- 「消防用水嚴禁作其他用途」警告字樣標貼紙
- 「珍惜每點滴」標貼
- 「節約用水 從家開始」海報(以中文、英文、印尼文、菲律賓文和泰文五種語言印製)
- 「定期檢查維修慎防食水滲漏」海報
- 「大廈優質食水認可計劃」海報
- 「珍惜點滴 積聚未來」海報
- 「參與節約用水 — 齊縮短沐浴時間」海報
- 發給業界的「用水效益標籤計劃 — 沐浴花灑」單張*
- 發給公眾的「用水效益標籤計劃 — 沐浴花灑」單張
- 發給業界的「用水效益標籤計劃 — 水龍頭」單張*
- 發給公眾的「用水效益標籤計劃 — 水龍頭」單張
- 發給業界的「用水效益標籤計劃 — 洗衣機」單張*
- 發給公眾的「用水效益標籤計劃 — 洗衣機」單張
- 發給業界的「用水效益標籤計劃 —

Available Upon Request or Available at WSD Headquarters

- Total Water Management in Hong Kong
- Key Facts
- Au Tau Water Treatment Works
- Sha Tin Water Treatment Works
- Ma On Shan Water Treatment Works
- Pak Kong Water Treatment Works
- Ngau Tam Mei Water Treatment Works
- Tai Po Water Treatment Works
- Siu Ho Wan Water Treatment Works
- Tai Tam Waterworks Heritage Trail
- Tai Tam Tuk Raw Water Pumping Station
- Leaflet on "Little Drop's Marvellous Journey"
- Warning Sticker – Misuse of Flushing Water
- Warning Sticker – Misuse of Fire Services Water
- Sticker – "Treasure every drop"
- Poster on "Water Conservation Starts from Home" in 5 Languages (Chinese/English/Indonesian/Tagalog/Thai)
- Poster on "Inspect and maintain plumbing regularly to prevent water leaks"
- Poster on "Quality Water Recognition Scheme for Buildings"
- Poster on "Save Water for the Future Every Drop Counts"
- Poster on "Save Water Take Shorter Showers"
- Leaflet to Trade on "Water Efficiency Labelling Scheme – Showers for Bathing" *
- Leaflet to Public on "Water Efficiency Labelling Scheme – Showers for Bathing"
- Leaflet to Trade on "Water Efficiency Labelling Scheme – Water Taps" *
- Leaflet to Public on "Water Efficiency Labelling Scheme – Water Taps"
- Leaflet to Trade on "Water Efficiency Labelling Scheme – Washing Machines" *
- Leaflet to Public on "Water Efficiency Labelling Scheme – Washing Machines"
- Leaflet to Trade on "Water Efficiency Labelling Scheme – Urinal Equipment"

小便器用具」單張
- 「節約用水 從家開始」單張(以中文、英文、印尼文、菲律賓文和泰文印製)
- 《水務署年報 2012 – 2013》
- 《水務署年報 2011 – 2012》
- 《水務署年報 2010 – 2011》
- 《水務署年報 2009 – 2010》
- 《水務署年報 2008 – 2009》
- 《水務署年報 2007 – 2008》
- 《水務署年報 2006 – 2007》
- 《水務署年報 2005 – 2006》
- 《水務署年報 2004 – 2005》
- 《水務署年報 2003 – 2004》
- 《水務署年報 2002 – 2003》
- 《水務署年報 2001 – 2002》
- 《水務署年報 2000 – 2001》
- 《水務署年報 1999 – 2000》
- 《水務署年報 1998 – 1999》

* *仍未在水務署網頁提供*

- Leaflet on "Water Conservation Starts from Home" (Chinese/English/Indonesian/Tagalog/Thai)
- Annual Report – Water Supplies Department 2012 – 2013
- Annual Report – Water Supplies Department 2011 – 2012
- Annual Report – Water Supplies Department 2010 – 2011
- Annual Report – Water Supplies Department 2009 – 2010
- Annual Report – Water Supplies Department 2008 – 2009
- Annual Report – Water Supplies Department 2007 – 2008
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- Annual Report – Water Supplies Department 2001 – 2002
- Annual Report – Water Supplies Department 2000 – 2001
- Annual Report – Water Supplies Department 1999 – 2000
- Annual Report – Water Supplies Department 1998 – 1999

* *Not yet available on WSD homepage*

只在水務署網頁提供的刊物

- 《樓宇內部供水設備防銹蝕喉管物料 – 一般資料》
- 《樓宇內部供水設備防銹蝕喉管物料 – 安裝須知》
- 《香港水務標準規格 – 樓宇內水管裝置適用》
- 各水務署通函
- 樓宇水管裝置手冊

Available on WSD Homepage Only

- General Information on the Use of Different Types of (Corrosion Resistant Pipe) Materials as Inside Service in Buildings
- Installation Notes of Different Types of Corrosion Resistant Pipe Materials as Inside Service in Buildings
- Hong Kong Waterworks Standard Requirements for Plumbing Installation in Buildings
- WSD Circular Letters
- Handbook on Plumbing Installation for Buildings

附件二
Annex II

客戶諮詢中心

港島

- **灣仔客戶諮詢中心**
  灣仔告士打道7號入境事務大樓1樓

九龍

- **旺角客戶諮詢中心**
  旺角洗衣街128號地下

新界

- **大埔客戶諮詢中心**
  大埔汀角路1號大埔政府合署4樓
- **沙田客戶諮詢中心**
  沙田上禾輋路1號沙田政府合署3樓
- **屯門客戶諮詢中心**
  屯門屯喜路1號屯門政府合署7樓

Customer Enquiry Centres

Hong Kong

- **Wan Chai Customer Enquiry Centre**
  1/F Immigration Tower, 7 Gloucester Road, Wan Chai

Kowloon

- **Mong Kok Customer Enquiry Centre**
  G/F 128 Sai Yee Street, Mong Kok

New Territories

- **Tai Po Customer Enquiry Centre**
  4/F Tai Po Government Offices, 1 Ting Kok Road, Tai Po
- **Sha Tin Customer Enquiry Centre**
  3/F Sha Tin Government Offices, 1 Sheung Wo Che Road, Sha Tin
- **Tuen Mun Customer Enquiry Centre**
  7/F Tuen Mun Government Offices, 1 Tuen Hi Road, Tuen Mun

附件三
Annex III

二零一三年四月至二零一四年三月的食水水質
Drinking Water Quality for the Period of April 2013 – March 2014

甲部． 微生物含量
Part A. Microbiological quality

一般事項
General Points

- 香港是世界上享有最安全食水的地區之一。自二零一二年八月起，水務署已按照世界衛生組織在二零一一年制定的《飲用水水質指引》(世衛2011)，監測香港的食水水質。世衛就食水內所含物質建議一套準則值，即使體重達60公斤的用戶在70年內每日飲用兩公升載有準則值物質含量的食水，亦不會對健康構成重大影響。

- 如發生嚴重污染的情況，水務署會聯同衛生署採取行動。如有需要，我們會通知公眾採取適當的措施。

- 我們在濾水廠、配水庫、供水接駁位置和用戶水龍頭抽取食水樣本，並由合資格的水務署人員在現場和水務署轄下的化驗室進行分析。

- 在這段期間，水務署抽取了逾26 000個經處理的食水樣本作微生物含量分析。

- 這段期間內的食水水質完全符合世衛在二零一一年制定的《飲用水水質指引》。

- 按國際慣例，達標與否是根據水質監測數據的全年平均值而定。

- Hong Kong enjoys one of the safest water supplies in the world. Since August 2012, we have begun monitoring the quality of our drinking water according to the World Health Organization's (WHO) Guidelines for Drinking-water Quality (2011). The WHO recommends a set of Guideline Values (GVs) representing the concentration of constituents in drinking water that will not result in any significant health risk to a consumer weighing 60 kg over a lifetime consumption of 2 litres per day for 70 years.

- In extreme cases of contamination, we will take concerted actions with the Department of Health. The public will be informed to take appropriate measures if necessary.

- Samples were taken at water treatment works, service reservoirs, connection points and consumer taps and analysed on site and in WSD's laboratories by WSD's qualified staff.

- During this period, over 26 000 treated water samples were taken for microbiological analyses.

- The drinking water quality for this period fully complied with the World Health Organization's Guidelines for Drinking-water Quality (2011).

- Compliance is based on the annual average of monitoring data in accordance with international practices.

微生物數量 Microbiological quality

參數 Parameter	單位 Unit	監測數據 Monitoring Data (04/2013 – 03/2014)			世衛2011準則值 WHO 2011 Guideline Value	達標 Compliance
		最低值 Minimum	最高值 Maximum	平均值 Average		
埃希氏大腸桿菌 E. coli	菌落數／100毫升 cfu* per 100 mL	0	0	0	0	✓
總大腸桿菌群# Total Coliforms#	菌落數／100毫升 cfu* per 100 mL	0	0	0	–	–
隱孢子蟲@ Cryptosporidium@	卵囊數量／公升 no. of oocyst per L	0.00	0.00	0.00	–	–
賈第蟲@ Giardia@	孢囊數量／公升 no. of cyst per L	0.00	0.00	0.00	–	–

* *菌落數*

\# *世衛2011並沒有為總大腸桿菌群制訂與健康有關的準則值。*

@ *雖然世衛沒有就食水所含的隱孢子蟲或賈第蟲制訂與健康有關的準則值，但水務署亦有監測這些微生物。每公升0.00的監測數據代表在不少於100公升經處理的食水樣本中，檢測不到卵囊或孢囊。*

* *colony forming unit (cfu)*

\# *WHO 2011 has not established health-related GV for Total Coliforms.*

@ *Although the WHO has not established any health-related GV for cryptosporidium or giardia in drinking water, we also monitor for these organisms. The monitoring data of 0.00 per litre represents no oocyst or cyst detected in a volume of not less than 100 litres of treated water sample.*

乙部． 世界衛生組織在二零一一年制定的《飲用水水質指引》中所列對健康有影響的化學物質

Part B. Chemicals of health significance as described by World Health Organization's Guidelines for Drinking-water Quality 2011

一般事項
General Points

- 香港是世界上享有最安全食水的地區之一。自二零一二年八月起，水務署已按照世界衛生組織在二零一一年制定的《飲用水水質指引》(世衛2011)，開始監測香港的食水水質。世衛就食水內所含物質建議一套準則值，即使體重達60公斤的用戶在70年內每日飲用兩公升載有準則值物質含量的食水，亦不會對健康構成重大影響。

- 如某些物質對健康影響的資料有限，世衛會就該些物質建議臨時準則值。

- 即使食水中某些物質含量偶爾比世衛所定的準則值為高，亦不反映食水不適宜飲用，因為準則值在制定時，已預留了很大的安全容差。

- 如發生嚴重污染的情況，水務署會聯同衛生署採取行動。如有需要，我們會通知公眾採取適當的措施。

- 我們在濾水廠、配水庫、供水接駁位置和用戶水龍頭抽取食水樣本，並由合資格的水務署人員在現場和水務署轄下的化驗室進行分析。

- 這段期間內的食水水質完全符合世衛在二零一一年制定的《飲用水水質指引》。

- 按國際慣例，達標與否是根據水質監測數據的全年平均值而定。

- Hong Kong enjoys one of the safest water supplies in the world. Since August 2012, we have begun monitoring the quality of our drinking water according to the World Health Organization's (WHO) Guidelines for Drinking-water Quality (2011). The WHO recommends a set of Guideline Values (GVs) representing the concentration of constituents in drinking water that will not result in any significant health risk to a consumer weighing 60 kg over a lifetime consumption of 2 litres per day for 70 years.

- Some GVs are recommended by WHO as provisional GVs where available health effect information is limited.

- Occasional deviations above the WHO GVs do not mean that the water is unsuitable for consumption. Large safety margins have been allowed for in the derivation of the GVs.

- In extreme cases of contamination, we will take concerted actions with the Department of Health. The public will be informed to take appropriate measures if necessary.

- Samples were taken at water treatment works, service reservoirs, connection points and consumer taps and analysed on site and in WSD's laboratories by WSD's qualified staff.

- The drinking water quality for this period fully complied with the World Health Organization's Guidelines for Drinking-water Quality (2011).

- Compliance is based on the annual average of monitoring data in accordance with international practice.

項目 Parameter	單位 Unit	監測數據 Monitoring Data (04/2013 – 03/2014) 最低值 Minimum	最高值 Maximum	平均值 Average	世衛 2011 準則值 WHO 2011 Guideline Value	達標 Compliance
丙烯酰胺 Acrylamide	微克／公升 μg/L	< 0.4	< 0.4	< 0.4	0.5	✓
草不綠 Alachlor	微克／公升 μg/L	< 5.0	< 5.0	< 5.0	20	✓
涕滅威 Aldicarb	微克／公升 μg/L	< 2.5	< 2.5	< 2.5	10	✓
艾氏劑和異艾氏劑 Aldrin and Dieldrin	微克／公升 μg/L	< 0.008	< 0.008	< 0.008	0.03	✓
銻 Antimony	毫克／公升 mg/L	< 0.001	< 0.001	< 0.001	0.02	✓
砷 Arsenic	毫克／公升 mg/L	< 0.001	< 0.001	< 0.001	0.01 (A,T)	✓
莠去津和其氯均三秦代謝物 Atrazine and its chloro-s-triazine metabolites	微克／公升 μg/L	< 25	< 25	< 25	100	✓
鋇 Barium	毫克／公升 mg/L	0.004	0.030	0.015	0.7	✓
苯 Benzene	微克／公升 μg/L	< 2.5	< 2.5	< 2.5	10	✓
苯并(a)芘 Benzo(a)pyrene	微克／公升 μg/L	< 0.0020	< 0.0020	< 0.0020	0.7	✓
硼 Boron	毫克／公升 mg/L	< 0.02	0.05	0.02	2.4	✓
溴酸鹽 Bromate	微克／公升 μg/L	< 2.5	4.0	< 2.5	10 (A,T)	✓
一溴二氯甲烷 Bromodichloromethane	微克／公升 μg/L	< 15	20	< 15	60	✓
溴仿 Bromoform	微克／公升 μg/L	< 25	< 25	< 25	100	✓
鎘 Cadmium	毫克／公升 mg/L	< 0.001	< 0.001	< 0.001	0.003	✓
夫喃丹 Carbofuran	微克／公升 μg/L	< 1.2	< 1.2	< 1.2	7	✓

項目 Parameter	單位 Unit	監測數據 Monitoring Data (04/2013 – 03/2014) 最低值 Minimum	最高值 Maximum	平均值 Average	世衛 2011 準則值 WHO 2011 Guideline Value	達標 Compliance
四氯化碳 Carbon tetrachloride	微克／公升 μg/L	< 0.50	< 0.50	< 0.50	4	✓
氯酸鹽 Chlorate	微克／公升 μg/L	< 175	< 175	< 175	700 (D)	✓
氯丹 Chlordane	微克／公升 μg/L	< 0.050	< 0.050	< 0.050	0.2	✓
氯 Chlorine	毫克／公升 mg/L	< 0.1	1.4	0.7	5 (C)	✓
亞氯酸鹽 Chlorite	微克／公升 μg/L	< 50	< 50	< 50	700 (D)	✓
氯仿 Chloroform	微克／公升 μg/L	< 50	< 50	< 50	300	✓
綠麥隆 Chlorotoluron	微克／公升 μg/L	< 7.5	< 7.5	< 7.5	30	✓
毒死蜱 Chlorpyrifos	微克／公升 μg/L	< 7.5	< 7.5	< 7.5	30	✓
鉻 Chromium	毫克／公升 mg/L	< 0.001	< 0.001	< 0.001	0.05 (P)	✓
銅 Copper	毫克／公升 mg/L	< 0.003	0.058	< 0.003	2	✓
青乙酰肼 Cyanazine	微克／公升 μg/L	< 0.15	< 0.15	< 0.15	0.6	✓
2,4-滴 2,4-D (or 2,4-dichlorophen-oxyacetic acid)	微克／公升 μg/L	< 7.5	< 7.5	< 7.5	30	✓
丁基-2,4-二氯酚羥基醋酸 2,4-DB (or 4-(2,4-dichlorophenoxy) butyric acid)	微克／公升 μg/L	< 22	< 22	< 22	90	✓
滴滴涕和代謝物 DDT and metabolites	微克／公升 μg/L	< 0.50	< 0.50	< 0.50	1	✓
二(2-乙基己基)鄰苯二甲酸鹽 Di(2-ethylhexyl) phthalate	微克／公升 μg/L	< 2	< 2	< 2	8	✓

項目 Parameter	單位 Unit	監測數據 Monitoring Data (04/2013 – 03/2014) 最低值 Minimum	最高值 Maximum	平均值 Average	世衛2011準則值 WHO 2011 Guideline Value	達標 Compliance
二溴乙腈 Dibromochloromethane	微克／公升 μg/L	< 25	< 25	< 25	70	✓
二溴一氯甲烷 Dibromochloromethane	微克／公升 μg/L	< 25	< 25	< 25	100	✓
1,2-二溴-3-氯丙烷 1,2-Dibromo-3-chloropropane	微克／公升 μg/L	< 0.25	< 0.25	< 0.25	1	✓
1,2-二溴乙烷 1,2-Dibromoethane	微克／公升 μg/L	< 0.10	< 0.10	< 0.10	0.4(P)	✓
二氯乙酸鹽 Dichloroacetate	微克／公升 μg/L	< 12	18	< 12	50 (D)	✓
二氯乙腈 Dichloroacetonitrile	微克／公升 μg/L	< 5.0	< 5.0	< 5.0	20 (P)	✓
1,2-二氯苯 1,2-Dichlorobenzene	微克／公升 μg/L	< 250	< 250	< 250	1000 (C)	✓
1,4-二氯苯 1,4-Dichlorobenzene	微克／公升 μg/L	< 75	< 75	< 75	300 (C)	✓
1,2-二氯乙烷 1,2-Dichloroethane	微克／公升 μg/L	< 7.5	< 7.5	< 7.5	30	✓
1,2-二氯乙烯 1,2-Dichloroethene	微克／公升 μg/L	< 12	< 12	< 12	50	✓
二氯甲烷 Dichloromethane	微克／公升 μg/L	< 5.0	< 5.0	< 5.0	20	✓
1,2-二氯丙烷 1,2-Dichloropropane	微克／公升 μg/L	< 5.0	< 5.0	< 5.0	40 (P)	✓
1,3-二氯丙烯 1,3-Dichloropropene	微克／公升 μg/L	< 5.0	< 5.0	< 5.0	20	✓
2,4-滴丙酸 Dichlorprop (or 2,4-DP)	微克／公升 μg/L	< 25	< 25	< 25	100	✓
樂果 Dimethoate	微克／公升 μg/L	< 1.5	< 1.5	< 1.5	6	✓
1,4-二噁烷 1,4-Dioxane	微克／公升 μg/L	< 12.5	< 12.5	< 12.5	50	✓
乙二胺四乙酸 Edetic acid (EDTA)	微克／公升 μg/L	< 50	< 50	< 50	600	✓

項目 Parameter	單位 Unit	監測數據 Monitoring Data (04/2013 – 03/2014) 最低值 Minimum	最高值 Maximum	平均值 Average	世衛2011準則值 WHO 2011 Guideline Value	達標 Compliance
異狄氏劑 Endrin	微克／公升 μg/L	< 0.15	< 0.15	< 0.15	0.6	✓
表氯醇 Epichlorohydrin	微克／公升 μg/L	< 0.4	< 0.4	< 0.4	0.4 (P)	✓
乙苯 Ethylbenzene	微克／公升 μg/L	< 75	< 75	< 75	300 (C)	✓
2,4,5-涕丙酸 Fenoprop (or 2,4,5-TP)	微克／公升 μg/L	< 2.2	< 2.2	< 2.2	9	✓
氟化物 Fluoride	毫克／公升 mg/L	0.15	0.69	0.48	1.5	✓
六氯丁二烯 Hexachlorobutadiene	微克／公升 μg/L	< 0.15	< 0.15	< 0.15	0.6	✓
羥基化莠去津 Hydroxyatrazine	微克／公升 μg/L	< 50	< 50	< 50	200	✓
異丙隆 Isoproturon	微克／公升 μg/L	< 2.2	< 2.2	< 2.2	9	✓
鉛 Lead	毫克／公升 mg/L	< 0.001	0.003	< 0.001	0.01 (A,T)	✓
林丹 Lindane	微克／公升 μg/L	< 0.50	< 0.50	< 0.50	2	✓
2-甲基-4-氯苯氧基乙酸 MCPA (or 4-(2-methyl-4-chlorophenoxy) acetic acid)	微克／公升 μg/L	< 2.0	< 2.0	< 2.0	2	✓
2-甲基-4-氯丙酸 Mecoprop (or MCPP)	微克／公升 μg/L	< 2.5	< 2.5	< 2.5	10	✓
汞 Mercury	毫克／公升 mg/L	< 0.00005	< 0.00005	< 0.00005	0.006	✓
甲氧滴滴涕 Methoxychlor	微克／公升 μg/L	< 5.0	< 5.0	< 5.0	20	✓
甲氧毒草安 Metolachlor	微克／公升 μg/L	< 2.5	< 2.5	< 2.5	10	✓
微囊藻毒素-LR(總) Microcystin-LR (total)	微克／公升 μg/L	< 0.5	< 0.5	< 0.5	1 (P)	✓
禾草特 Molinate	微克／公升 μg/L	< 1.5	< 1.5	< 1.5	6	✓

項目 Parameter	單位 Unit	監測數據 Monitoring Data (04/2013 – 03/2014) 最低值 Minimum	最高值 Maximum	平均值 Average	世衛 2011 準則值 WHO 2011 Guideline Value	達標 Compliance
一氯胺 Monochloramine	毫克／公升 mg/L	< 1.0	< 1.0	< 1.0	3	✓
一氯醋酸鹽 Monochloroacetate	微克／公升 μg/L	< 10	< 10	< 10	20	✓
鎳 Nickel	毫克／公升 mg/L	< 0.001	0.016	0.003	0.07	✓
硝酸鹽（以 NO_3^- 計） Nitrate (as NO_3^-)	毫克／公升 mg/L	< 2.5	16	4.7	50	✓
次氨基三乙酸 Nitrilotriacetic acid	微克／公升 μg/L	< 50	< 50	< 50	200	✓
亞硝酸鹽（以 NO_2^- 計） Nitrite (as NO_2^-)	毫克／公升 mg/L	< 0.004	0.028	< 0.004	3	✓
N-亞硝基二甲胺 N-Nitrosodimethylamine	微克／公升 μg/L	< 0.025	< 0.025	< 0.025	0.1	✓
二甲戊樂靈 Pendimethalin	微克／公升 μg/L	< 5.0	< 5.0	< 5.0	20	✓
五氯酚 Pentachlorophenol	微克／公升 μg/L	< 2.2	< 2.2	< 2.2	9 (P)	✓
硒 Selenium	毫克／公升 mg/L	< 0.003	< 0.003	< 0.003	0.04 (P)	✓
西瑪三嗪 Simazine	微克／公升 μg/L	< 0.50	< 0.50	< 0.50	2	✓
二氯異氰尿酸鈉（以氰尿酸計） Sodium dichloroisocyanurate (as cyanuric acid)	毫克／公升 mg/L	< 10	< 10	< 10	40	✓
苯乙烯 Styrene	微克／公升 μg/L	< 5.0	< 5.0	< 5.0	20 (C)	✓
2,4,5-涕 2,4,5-T (or 2,4,5-trichlorophenoxy acetic acid)	微克／公升 μg/L	< 2.2	< 2.2	< 2.2	9	✓
特丁律 Terbuthylazine	微克／公升 μg/L	< 1.8	< 1.8	< 1.8	7	✓
四氯乙烯 Tetrachloroethene	微克／公升 μg/L	< 10	< 10	< 10	40	✓

項目 Parameter	單位 Unit	監測數據 Monitoring Data (04/2013 – 03/2014) 最低值 Minimum	最高值 Maximum	平均值 Average	世衛2011準則值 WHO 2011 Guideline Value	達標 Compliance
甲苯 Toluene	微克／公升 μg/L	< 175	< 175	< 175	700 (C)	✓
三氯乙酸鹽 Trichloroacetate	微克／公升 μg/L	< 25	< 25	< 25	200	✓
三氯乙烯 Trichloroethene	微克／公升 μg/L	< 18	< 18	< 18	20 (P)	✓
2,4,6-三氯酚 2,4,6-Trichlorophenol	微克／公升 μg/L	< 50	< 50	< 50	200 (C)	✓
氟樂靈 Trifluralin	微克／公升 μg/L	< 5.0	< 5.0	< 5.0	20	✓
鈾 Uranium	毫克／公升 mg/L	< 0.0002	0.0008	< 0.0002	0.03 (P)	✓
氯乙烯 Vinyl chloride	微克／公升 μg/L	< 0.2	< 0.2	< 0.2	0.3	✓
二甲苯 Xylenes	微克／公升 μg/L	< 125	< 125	< 125	500 (C)	✓

註：

（一）以上是有關食水水質的摘要報告。

（二）各數值是根據水務署水質科學部現行品質保證指引所訂的要求而編製。

（三）水務署已就每個重金屬及微量有機化合物項目進行了100至300個樣本分析。

（四）根據世衛2011：

P = 暫定準則值，因為健康數據庫內存在變化。

T = 暫定準則值，因為計算所得準則值低於通過實際處理方法或保護水源等方式所能達到的水平。

A = 暫定準則值，因為計算所得準則值低於所能達到的定量水平。

D = 暫定準則值，因為消毒程序可能令物質含量超過準則值。

C = 如該物質的含量等於或低於以健康為本的準則值，便有可能影響食水的外觀、味道或氣味，引起消費者投訴。

Note:

(1) This is a summary report on drinking water quality.

(2) All values are compiled in accordance with requirements stipulated by the current quality assurance protocol of the Water Science Division of WSD.

(3) For heavy metals and trace organics, 100-300 samples per parameter have been analysed.

(4) According to WHO 2011:

P = provisional guideline value because of uncertainties in the health database.

T = provisional guideline value as calculated guideline value is below the level that can be achieved through practical treatment methods, source protection, etc.

A = provisional guideline value as calculated guideline value is below the achievable quantification level.

D = provisional guideline value as disinfection may result in the guideline value being exceeded.

C = concentrations of the substance at or below the health-based guideline value may affect the appearance, taste or odour of the water, leading to consumer complaints.

丙部． 輻射水平
Part C. Radiological quality

一般事項
General Points

- 香港是世界上享有最安全食水的地區之一。水務署按照世界衛生組織在二零一一年制定的《飲用水水質指引》(世衛2011)，監測香港的食水水質。
- 根據世衛的建議，食水的總 α 及總 β 活度的篩查水平分別為每公升0.5貝可和每公升1.0貝可。如食水的放射性活度低於篩查水平，便無須對個別放射性核素作進一步調查或詳細分析。
- 我們在濾水廠、分配網絡和用戶水龍頭抽取食水樣本，並由合資格的水務署人員在化驗室進行分析。
- 在這段期間，食水的放射性活度遠低於世衛在二零一一年建議的總 α 及總 β 活度篩查水平，有關食水可供安全飲用。

- Hong Kong enjoys one of the safest water supplies in the world. The Water Supplies Department (WSD) monitors the quality of drinking water supply according to the World Health Organization's (WHO) Guidelines for Drinking-water Quality (2011).
- According to the recommendation of the WHO, the screening levels for drinking water are 0.5 Bq/L for gross alpha activity and 1.0 Bq/L for gross beta activity respectively as noted below. No further investigation or detailed analysis for specific radionuclides is required.
- Samples were taken at water treatment works, distribution networks and consumer taps and analysed in WSD's laboratories by WSD's qualified staff.
- During this period, the radioactivity level of drinking water was well below the screening levels for gross alpha and gross beta activities as recommended by the WHO 2011, and was safe for consumption.

輻射水平 Radiological quality

參數 Parameter	單位 Unit	監測數據 Monitoring Data (04/2013 – 03/2014)			世衛2011篩查水平 WHO 2011 Screening Level	低於篩查水平 Below Screening Level
		最低值 Minimum	最高值 Maximum	平均值 Average		
總 α 活度 Gross alpha activity	貝可／公升 Bq/L	< 0.1	< 0.1	< 0.1	0.5	✓
總 β 活度 Gross beta activity	貝可／公升 Bq/L	< 0.2	< 0.2	< 0.2	1.0	✓

註：

(一) 以上是有關食水水質的摘要報告。

(二) 總 α 及總 β 活度的報告值設定為世衛篩查水平的20%。

(三) 水務署對逾150個樣本作總 α 及總 β 活度的分析。

Note:

(1) This is a summary report on drinking water quality.

(2) Reporting values for gross alpha and gross beta activities are set at 20% of their respective WHO screening levels.

(3) Over 150 samples have been analysed for gross alpha and gross beta activities.

丁部． 其他參數
Part C. Other parameters

參數 Parameter	單位 Unit	監測結果 Monitoring Data (04/2013 – 03/2014)		
		最低值 Minimum	最高值 Maximum	平均值 Average
pH值（水溫25°C時） pH at 25°C	pH	6.4	9.2	8.5
色度 Colour	Hazen unit	< 3	< 3	< 3
混濁度 Turbidity	NTU	< 0.1	2.9	0.3
導電率（水溫25°C時） Conductivity at 25°C	μS/cm	58	203	126
溫度 Temperature	°C	12.3	31.2	23.1
總鹼度（以 $CaCO_3$ 計） Total alkalinity (as $CaCO_3$)	毫克／公升 mg/L	7	35	21
總硬度（以 $CaCO_3$ 計） Total hardness (as $CaCO_3$)	毫克／公升 mg/L	<5	62	32
鈣 Calcium	毫克／公升 mg/L	0.7	20	11
鎂 Magnesium	毫克／公升 mg/L	0.31	2.3	1.4
氯化物 Chloride	毫克／公升 mg/L	< 5	18	9
硫酸鹽 Sulphate	毫克／公升 mg/L	5	26	12
正磷酸鹽（以 PO_4 計） Ortho-phosphates (as PO_4)	毫克／公升 mg/L	< 0.01	0.05	< 0.01
鐵 Iron	毫克／公升 mg/L	< 0.01	0.15	< 0.01
鋁 Aluminium	毫克／公升 mg/L	< 0.01	0.31	0.03
二氧化硅（以 SiO_2 計） Silica (as SiO_2)	毫克／公升 mg/L	2.2	14	10
錳 Manganese	毫克／公升 mg/L	< 0.01	0.05	< 0.01

註：

（一）以上是有關食水水質的摘要報告。

（二）各數值是根據水務署水質科學部現行的品質保證指引所訂的要求而編製。

Note:

(1) This is a summary report on drinking water quality.

(2) All values are compiled in accordance with requirements stipulated by the current quality assurance protocol of the Water Science Division of WSD.

附件四
Annex IV

水務監督 — 經營帳目
Water Authority – Operating Accounts

二〇一三／一四年度回顧 Review of the Year 2013/14

截至二〇一四年三月三十一日止的財政年度 For the year ended 31 March 2014

工作方面	Activities
按照水錶記錄的淡水耗水量上升0.9%至6.37億立方米	Metered fresh water consumption increased by 0.9% to 637 million cubic metres

財務表現	Financial Performance
收入上升6.2%	Revenue increased by 6.2%
開支上升4.5%	Expenditure increased by 4.5%
虧損由二〇一三年度的10.077億元減至二〇一四年度的9.309億元	The deficit decreased from $1,007.7 million in 2012-13 to $930.9 million in 2013-14
按固定資產平均淨值計算的回報率改善至-1.9%	Return on Average Net Fixed Assets slightly improved to -1.9%

經營帳目 Operating Account

截至二〇一四年三月三十一日止的財政年度 For the year ended 31 March 2014

		註 Note	**2014** **（百萬元） $M**	2013 （百萬元） $M
收入	Revenue	2	**7,630.6**	7,187.8
開支	Expenditure	3	**8,561.5**	8,195.5
稅前虧損	**Deficit before taxation**		**(930.9)**	(1,007.7)
稅項	Taxation	1(e) & (f) and 4	**–**	–
稅後虧損	**Deficit after taxation**	1(j)	**(930.9)**	(1,007.7)

附註為這帳目的一部分。 *The annexed notes form part of these accounts.*

衡量財務表現的指標 Financial Performance Measures

截至二〇一四三年三月三十一日止的財政年度 For the year ended 31 March 2014

		註 Note	2014 （百萬元） $M	2013 （百萬元） $M
固定資產平均淨值	Average net fixed assets (ANFA)	1(i) and 5	**50,086.9**	46,941.6
實際回報額	Actual return		**(930.9)**	(1,007.7)
目標回報額	Target return		**1,703.0**	1,596.0
按固定資產平均淨值計算的實際回報率	Actual return as % of ANFA	1(h)	**(1.9%)**	(2.1%)
按固定資產平均淨值計算的目標回報率	Target return as % of ANFA		**3.4%**	3.4%

附註為這帳目的一部分。 The annexed notes form part of these accounts.

資產負債表 Balance Sheet

二〇一四年三月三十一日結算 As at 31 March 2014

		註 Note	2014 （百萬元） $M	2013 （百萬元） $M
可動用淨資產	**Net assets employed**			
固定資產	**Fixed assets**	1(b) & (c) and 5	**51,869.3**	48,304.5
流動資產	Current assets	1(d) and 6	**2,427.4**	2,307.9
流動負債	Current liabilities	7	**(2,243.2)**	(2,123.9)
流動資產淨值	Net current assets		**184.2**	184.0
			52,053.5	48,488.5
財政來源	**Financed by**			
公共資本帳目	**Public capital account**	1(j) and 8	**52,053.5**	48,488.5

附註為這帳目的一部分。 The annexed notes form part of these accounts.

帳目附註

1. 會計政策

(a) 會計基礎

此帳目是根據歷史成本基礎來制定，並略加修訂以包括名義的收支。

(b) 固定資產

(i) 除政府收回的土地外，固定資產不包括水務設施和集水區位處的土地。至於政府收回的土地，其收回成本會包括在有關的工程成本內。

(ii) 至於工程項目，成本包括實際直接開支，和施工期間有關設計、規劃和監督等的員工費用。

(iii) 所有其他固定資產，除了建造中的資產以成本值計算外，均以其成本值減去累積折舊列出。

(c) 折舊

(i) 折舊是根據資產原值減去使用期末的剩餘值，採用直線攤銷法按其預計使用年期分期註銷。每年折舊率為：－

隧道、堤壩、收回土地及造林等	1%
土木工程	2%
喉管 － 淡水	2%
－ 鹹水	5%
機電工程、機器及設備	4%-14.29%
水錶	8.33%
電腦硬件、軟件及系統	10%
車輛	10%-20%

(ii) 建造中的資產並沒有折舊撥備。

(d) 存貨

存貨是以加權平均法，按成本值和可變賣淨值兩者中較低者列出。

Notes on the Accounts

1. Accounting Policies

(a) Basis of Accounting

The accounts have been prepared on the historical cost basis of accounting modified to include notional receipts and payments.

(b) Fixed Assets

(i) No cost is included for land which is occupied by installations or sterilised by catchment areas except that, where it has been resumed, the cost of resumption has been included in the capital cost of the project concerned.

(ii) For capital projects, the costs include the actual direct expenditure and staff costs for design, planning and supervision during the construction period.

(iii) All other fixed assets are stated at cost less accumulated depreciation except assets under construction which are stated at cost.

(c) Depreciation

(i) Depreciation is provided on a straight-line basis calculated to write off the cost of assets less residual value over their estimated useful lives. The annual rates of depreciation used are: –

Tunnels, dams, resumption and afforestation, etc.	1%
Civil engineering works	2%
Water mains – fresh	2%
– salt	5%
Mechanical/electrical works, plant and machinery	4%-14.29%
Meters	8.33%
Computer hardware, software and system	10%
Motor vehicles	10%-20%

(ii) No depreciation is provided on assets under construction.

(d) Stocks

Stocks are stated at the lower of cost and net realisable value, using the weighted average cost method to the extent that it is material.

(e) 稅項

名義利得稅乃按年度預期的應課溢利，以資產負債表結算日的現行稅率，及過往年度的應付稅項調整而作出所需要的撥備。由於水務監督於本年度沒有應課稅溢利，因此無需在帳目上作出名義利得稅的撥備。

(f) 遞延稅項

遞延稅項指就資產及負債帳面值與計算應課稅溢利所用相應稅基間之所有重大暫時差額而作出的適當確認。遞延稅項資產則於應課稅溢利有可能抵銷可扣稅暫時差額時予以確認。由於水務監督沒有應課稅溢利可用作抵銷可扣稅暫時差額，因此無需在帳目上就所有重大暫時差額作出遞延稅項撥備。

(g) 僱員福利

僱員福利包括薪金、酬金、退休金、房屋津貼和年假會被確認為對僱員當年度所提供之相關服務而列作的應計開支。

(h) 按固定資產平均淨值計算的實際回報率

按稅後溢利或虧損與固定資產平均淨值的比率計算。

(i) 固定資產平均淨值

這淨值是指總固定資產值減去累積折舊在期初及期末兩項數值的簡單平均數。

(j) 虧損

由於水務監督沒有獨立的法定身份，其財政資源或虧損均視為政府一般收入的一部分。而有關虧損亦會於公共資本帳目中調節。

(e) Taxation

Notional profits tax is provided, where necessary, based on the expected taxable surplus for the year, using the tax rates prevailing at the balance sheet date, and any adjustments to tax payable in respect of previous years. No provision for notional profits tax has been made in the accounts as the Authority has no taxable surplus for the year.

(f) Deferred Tax

Deferred tax is recognised, where appropriate, for all material temporary differences between the tax bases of assets and liabilities and their carrying amounts in the accounts. Deferred tax assets are recognised to the extent that it is probable that taxable surplus will be available against which the temporary differences can be utilised. No provision for deferred tax in respect of all material temporary differences has been made in the accounts as the Authority has no taxable surplus against which the temporary differences can be utilised.

(g) Employee Benefits

Employee benefits including salaries, gratuities, pensions, housing benefits and annual leave are accrued and recognised as an expense in the year in which the associated services are rendered by employees.

(h) Actual Return on ANFA

This is calculated as a percentage of surplus/deficit after taxation to average net fixed assets (ANFA).

(i) Average Net Fixed Assets

The average net fixed assets (ANFA) represents the simple average of the opening and closing value of total fixed assets less aggregate depreciation.

(j) Deficit

Since the Water Authority does not have a separate legal identity, its financial resources form part of the General Revenue. All deficits are deemed to be financed by the General Revenue and adjusted to the Public Capital Account of the Authority.

2. 收入

2. Revenue

		2014 （百萬元） **$M**	2013 （百萬元） $M
收費供水	Chargeable supplies	**2,555.8**	2,527.2
差餉的津貼	Contribution from rates	**2,236.4**	1,680.4
政府對寬免計劃的津貼	Contribution from Government on concessions	**1,734.2**	1,880.6
政府為用戶提供免費用水的津貼	Contribution from Government on free allowance to consumers	**918.7**	912.4
政府樓宇用水	Supplies to Government establishments	**159.0**	156.2
收費、牌照及可收回支出的工程	Fees, licences and reimbursable works	**22.7**	25.1
存款利息	Interest from deposits	**3.8**	5.9
		7,630.6	7,187.8

政府對寬免計劃的津貼是為彌補因該年度所作出差餉寬免措施所引至的差額。

The contribution from Government on concessions is to cover the shortfall in contribution from rates resulting from the concession of rates granted during the years.

3. 開支 3. Expenditure

		2014 （百萬元） $M	2013 （百萬元） $M
員工支出	Staff costs	**1,528.7**	1,486.0
經營及行政支出	Operating and administration expenses	**1,747.9**	1,698.3
購買東江水支出	Purchase cost of Dongjiang water	**3,802.2**	3,594.5
折舊	Depreciation	**1,482.7**	1,416.7
		8,561.5	8,195.5

4. 稅項 4. Taxation

		2014 （百萬元） $M	2013 （百萬元） $M
名義利得稅	Notional profits tax charge for the year	**0.0**	0.0
以下項目的遞延稅項資產／（遞延稅項負債）未被確認：–	Deferred tax assets/(liabilities) not recognized in respect of:–		
未使用的稅項虧損	Unused tax loss	**26,969.9**	24,626.6
由折舊免稅額所產生的重大暫時差異	Material temporary difference arising from depreciation allowances	**(18,415.3)**	(16,998.6)

5. 固定資產

5. Fixed Assets

		樓宇、過濾器、喉管等 Buildings, Filters, Mains, etc.	機器及設備 Plant and Machinery	電腦硬件、軟件及系統 Computer Hardware, Software & System	沖廁鹹水設施 Salt Water Flushing	船灣淡水湖 Plover Cove	萬宜水庫 High Island	水錶 Meters	車輛 Motor Vehicles	建造中的資產 Assets Under Construction	總額 Total
		(百萬元) $M	(百萬元) $M	(百萬元) $M	(百萬元) $M	(百萬元) $M	(百萬元) $M	(百萬元) $M	(百萬元) $M	(百萬元) $M	**(百萬元) $M**
成本	**Cost**										
二〇一三年四月一日	At 1 April 2013	45,021.7	279.8	339.8	8,907.1	702.0	1,661.2	421.3	76.0	8,306.6	**65,715.5**
添置	Additions	-	7.5	1.4	-	-	-	52.5	12.6	4,988.2	**5,062.2**
轉撥	Transfers	2,525.7	63.3	2.9	1,181.1	-	-	-	-	(3,773.0)	**-**
處置／註銷	Disposals/Write off	(58.5)	(1.1)	(0.6)	(30.0)	-	-	(37.3)	(5.0)	-	**(132.5)**
二〇一四年三月三十一日	**At 31 March 2014**	47,488.9	349.5	343.5	10,058.2	702.0	1,661.2	436.5	83.6	9,521.8	**70,645.2**
累積折舊	**Aggregate Depreciation**										
二〇一三年四月一日	At 1 April 2013	12,178.8	127.1	244.8	3,176.8	411.4	1,042.0	193.8	36.3	-	**17,411.0**
該年折舊	Charge for the year	973.4	25.9	31.2	370.4	9.3	29.1	35.5	7.9	-	**1,482.7**
處置／註銷後轉回	Written back on Disposals/Write off	(44.6)	(0.7)	(0.6)	(30.3)	-	-	(37.3)	(4.6)	-	**(117.8)**
二〇一四年三月三十一日	**At 31 March 2014**	13,107.6	152.3	275.4	3,517.2	420.7	1,071.1	192.0	39.6	-	**18,775.9**
帳面淨值	**Net Book Value**										
二〇一四年三月三十一日	**At 31 March 2014**	34,381.3	197.2	68.1	6,541.0	281.3	590.1	244.5	44.0	9,521.8	**51,869.3**
二〇一三年三月三十一日	At 31 March 2013	32,842.9	152.7	95.0	5,730.3	290.6	619.2	227.5	39.7	8,306.6	**48,304.5**

6. 流動資產 6. Current Assets

		2014 （百萬元） $M	2013 （百萬元） $M
存貨	Stocks	**106.2**	105.3
應收帳項	Debtors	**479.8**	520.9
與庫務署的往來帳	Current account with Treasury	**1,841.4**	1,681.7
		2,427.4	2,307.9

7. 流動負債 7. Current Liabilities

		2014 （百萬元） $M	2013 （百萬元） $M
用戶和承建商的按金	Consumers' and contractors' deposits	**1,870.6**	1,774.1
應付帳項	Creditors	**372.6**	349.8
		2,243.2	2,123.9

8. 公共資本帳目

公共資本帳目指政府在這項公用事業的投資。

8. Public Capital Account

The Public Capital Account represents Government's investment in this utility.

		2014 （百萬元） $M	2013 （百萬元） $M
四月一日結餘	Balance as at 1 April	**48,488.5**	45,758.5
本年度的虧損	Deficit for the year	**(930.9)**	(1,007.7)
政府的額外現金投資	Additional cash investment by the Government	**4,495.9**	3,737.7
三月三十一日結餘	Balance as at 31 March	**52,053.5**	48,488.5

9. 資本承擔

於二〇一四年三月三十一日，水務監督未於經營帳目作出撥備的資本承擔如下：

9. Capital Commitments

As at 31 March 2014, the Authority had capital commitments, so far as not provided for in the Operating Accounts, as follows:

		2014 百萬元 $M	2013 百萬元 $M
已簽約	Contracted for	**10,654.5**	11,708.1
已批准但未簽約	Authorised but not contracted for	**6,735.9**	3,076.6
		17,390.4	14,784.7

財政年度：由每年四月一日起至翌年三月三十一日止
年份：由每年一月一日起至十二月三十一日止

匯率
除另有說明外，本年報所用「元」均指港元。自一九八三年十月十七日起，政府透過一項有關發行紙幣的措施，將港元與美元聯繫，以7.8港元兌1美元為固定匯率。

Financial Year: April 1 to March 31
Year (Calendar Year): January 1 to December 31

Exchange Rates
When dollars are quoted in this report, they are, unless otherwise stated, in Hong Kong dollars. Since October 17, 1983, the Hong Kong dollar has been linked to the US dollar, through an arrangement in the note-issue mechanism, at a fixed rate of HK$7.80 = US$1.

水務署
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政府物流服務署印
Printed by the Government Logistics Department

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