培養節約用水文化
Fostering Water Conservation Culture

提倡節約用水

用水效益標籤計劃

本署於二零零九年開始實施自願參與的「用水效益標籤計劃」，鼓勵用戶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、小便器用具和節流器在內。

本署正在制訂計劃，以分階段強制推行用水效益標籤計劃。第一階段，本署將強制要求新建樓宇和進行大規模翻新的現有樓宇使用節水產品，並會在正式實施前評估其可能造成的影響。

Making Water Conservation Count

Water Efficiency Labelling Scheme (WELS)

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 the initial labelling of showers for bathing, the scheme has now expanded to include water taps, washing machines, urinal equipment and flow controllers.

The Department is formulating plans to mandate WELS in stages. In the first stage, we will mandate the use of water efficient products in new developments and existing buildings undergoing major renovation and will assess its probable impacts before implementation.

在政府大樓、學校及公共屋邨加裝節水裝置

截至二零一六年三月底，本署已為31個公共屋邨約52,600名租戶安裝花灑和水龍頭節流器，該等屋邨的耗水數據顯示節流器可有效幫助租戶減少用水。同時，在政府大樓和學校加裝節水設備的第一及第二階段工程完成後，本署已於二零一六年三月繼續展開第三階段工程，為約2,260幢政府大樓和學校安裝35,900個節流器。

「齊來慳水十公升」運動

截至二零一六年三月底，約140,000個參與家庭在「齊來慳水十公升」運動中免費獲贈節流器，鼓勵市民與我們一同加入節約用水的行列。

Retro-fitting Government Buildings, Schools and Public Housing Estates with Water-saving Devices

By the end of March 2016, the Department had installed flow controllers on the taps and showers of about 52,600 households at 31 public rental housing estates. Water consumption statistics from these estates show that the flow controllers are effective in helping households reduce water consumption. Moreover, following completion of the first and second phases of retrofitting plumbing fixtures with water-saving devices in government buildings and schools, we have been moving ahead with the third phase and have installed 35,900 flow controllers in nearly 2,260 government buildings and schools as of March 2016.

"Let's Save 10 Litres Water" Campaign

By the end of March 2016, nearly 140,000 participating households had been provided with complimentary flow controllers under the "Let's Save 10 Litres Water" Campaign. Individuals were encouraged to join forces with us to save water.

提高公眾節水意識

節水教育與宣傳

從二零零九年一月起，水務署已在「節約用水－從家開始」宣傳活動中為小學舉辦一系列節水教育活動，當中包括「保護水資源大使選拔賽」、「巡迴講座」及「校園用水考察」。過往多年，本署已在購物商場及屋苑舉辦超過260場巡迴展覽，向市民推廣節約用水。本署亦組織臨時「水資源教育中心」導賞參觀活動，讓小學生認識到本地水資源稀缺，並向他們講解香港供水系統的歷史，鼓勵他們實踐節約用水。

於二零一五／一六學年，水務署加強及整合校園活動，推出理論與實踐相結合的「惜水學堂」節約用水教育計劃（「惜水學堂」）。「惜水學堂」旨在拓寬學生的水資源知識，並提高他們對節約用水及水資源可持續性的認識，以應對氣候變化的影響。在「惜水學堂」中，水務署為學校提供教材，並開設教師培訓工作坊，藉以促使學生把知識及意識轉化為行動及宣傳。所有參與學校均會被評為「節約用水校園」，並就所完成的節約用水活動獲得獎勵。水務署於二零一六年一月二十三日舉辦了「惜水學堂」誓師典禮，標誌著教育計劃正式啟動。截至二零一六年三月底，超過170間學校參與「惜水學堂」節約用水教育計劃。

水務署於二零一二年在旺角辦事處設立臨時水資源教育中心，主要接待小學生到訪，同時亦歡迎學校及非盈利機構預約參觀。由於旺角辦事處計劃於二零一八年搬遷至天水圍，水務署已著手策劃在天水圍新辦事處設立永久水資源教育中心。永久水資源教育中心預計將於二零一八／一九年啟用，屆時將會增加展覽面積，以便向學生及不同年齡的社會各階層人士介紹更多關於節水及水資源的新措施及深入資訊。

Raising Public Awareness

Education and Promotion

Since January 2009, the WSD has run a series of educational programmes for primary schools including the "Water Conservation Ambassador Selection Scheme", "School Roadshow" and "School Water Audit" under the "Water Conservation Starts from Home" promotional campaign. Over the years, the Department has hosted over 260 roving exhibitions at shopping malls and housing estates to promote water conservation in the community. We have also organised guided tours to the temporary Water Resources Education Centre (WREC) to educate students about the scarcity of our local water resources, and explain to them the history of Hong Kong's water supply system while encouraging everyone to adopt water-saving practices.

During the 2015/16 school year, the WSD enhanced and combined these school programmes by launching the "Cherish Water Campus" integrating theory with practice. The aim is to broaden students' knowledge about water resources and raise their awareness of water conservation as well as water sustainability to address the effects of climate change. In "Cherish Water Campus", the WSD provides schools with teaching kits and conducts teacher training workshops with a view to facilitating the transformation of students' knowledge and awareness into action and advocacy. Each participating school is accredited as a "Cherish Water Campus" and receives awards for water conservation activities completed. On 23rd January 2016, the WSD hosted a "Cherish Water Campus" pledging ceremony to mark the launch of the programme. By the end of March 2016, more than 170 schools had joined the water conservation programme.

Established in 2012 in the WSD's Mong Kok Office, the temporary WREC received primary school students, and is open to schools and non-profit organisations for visits by appointment. With the Mong Kok Office scheduled to be relocated to Tin Shui Wai in 2018, the WSD has embarked on a project to establish a permanent WREC in its new Tin Shui Wai office. The permanent WREC, expected to be commissioned in 2018/19, will have an expanded exhibition area to introduce more new initiatives and in-depth materials covering various aspects of water conservation and water resources to cater for a wider spectrum of visitors of all ages from students to the general public.

保護水資源大使選拔賽

保護水資源大使選拔賽為「節約用水－從家開始」宣傳活動的重點，由水務署於二零零八／零九學年在所有小學推行，旨在鼓勵青少年珍惜本地水資源，並提醒他們身邊的同學和親友身體力行節約用水。保護水資源大使乃按參賽者的家庭成員人數及家庭用水數據，根據他們的節水成效進行評選。今年，來自41間小學約5,500名學生參與了該項選拔賽，參賽人數創新高，比上年增加約1,000人。其中15間學校至少連續五年參賽，與水務署攜手培養學生的節約用水文化，為奠定水資源可持續使用的基礎。於二零一五年七月十日，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。587名小學生獲委任為保護水資源大使，協助宣傳節約用水。

Water Conservation Ambassador Selection Scheme

The Water Conservation Ambassador Selection Scheme was the highlight of the "Water Conservation Starts from Home" promotional campaign which was launched by WSD in all primary schools during the 2008/09 school year to encourage youngsters to treasure our local water resources as well as to remind their classmates, family members and friends to participate in water conservation. The ambassadors are selected based on their achievements in water conservation taking into consideration the number of their household members as well as the data collected from participants about their domestic water consumption. This year, a record high of about 5,500 participants from 41 primary schools participated in the scheme. The number of participants has increased by about 1,000 compared with last year. Among the schools, 15 have joined the scheme for at least five consecutive years, working together with the WSD to nurture a culture of water conservation among young students and laying the foundations for future sustainable use of water resources. On 10th July 2015, the Department held a certificate presentation ceremony for the Water Conservation Ambassadors at the Kowloonbay International Trade & Exhibition Centre. 587 primary students were appointed as Water Conservation Ambassadors to help promote water conservation.

公開講座和展覽

為紀念東江水供港50週年，水務署於二零一五年六月至九月在全港各區舉行巡迴展覽。展出地點包括：香港歷史博物館、屯門大會堂、元朗劇院、香港文物探知館、高山劇場、九龍公園、稅務大樓及各區政府辦事處。

為響應「世界善用食水日」這個極具意義的日子，香港地球之友聯同水務署及香港中文大學賽馬會地球保源行動於二零一六年三月二十二假香港中文大學合辦「水論壇2016」，主題為「水資源安全：源起東江　海綿城市」。是次論壇邀請了來自中國內地及香港的水務研究專家學者及環保專業人士就水資源安全問題發表演講，內容涵蓋四大主題－「國家十三五計劃的水政策和氣候變化」、「水源保護及保育－東江」、「創新水願景及企業護水責任」和「海綿城市及其在香港的潛力」。論壇更設有圓桌討論及答問環節，以促進講者與聽眾交流觀點和分享經驗。

Public Lectures and Exhibitions

To commemorate the 50th anniversary of the Dongjiang water supply to Hong Kong, the Department organised roving exhibitions in various districts of Hong Kong between June and September 2015. Exhibition venues included: the Hong Kong Museum of History, Tuen Mun Town Hall, Yuen Long Theatre, Hong Kong Heritage Discovery Centre, Ko Shan Theatre, Kowloon Park, Revenue Tower and Government offices in various districts.

To mark the significance of the "World Water Day" on 22nd March, Friends of the Earth (Hong Kong) collaborated with the WSD and the CUHK Jockey Club Initiative Gaia to organise the Water Forum 2016 with the key theme: "Water Security: From Dongjiang to Sponge City" on the day. Experts in the fields of water supply and environmental protection from Mainland China and Hong Kong were invited to give talks on water resources security, covering four topics – "Water Policies in the 13th Five-Year Plan and Climate Change", "Water Conservation for Dongjiang (East River)", "Water Innovation and Social Responsibility for Water Corporate" and "Sponge City and its Potential in Hong Kong". Panel discussions and Q&A sessions were held to promote an exchange of views and encourage experience sharing between the speakers and the audience.

用水效益檢討

本署已完成對泳池、公園、街市、廁所、垃圾收集站和懲教所等政府管理設施的用水效益檢討，並發佈最佳實務指引。有關私人業界酒店及餐飲業的最佳實務指引將於二零一六年年底頒布。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，在制訂節約用水建議之餘，更有助我們保持一貫的服務水平。

Water Efficiency Review

We have completed water efficiency reviews and issued best practice guidelines for government-managed swimming pools, parks, markets, toilets, refuse collection points and correctional institutions. The best practice guidelines for hotel and catering operations in the private sector will be promulgated by the end of 2016. Our primary objective is to reduce overall water consumption. The review process gives us fact-based tools to formulate water-saving recommendations without having to compromise the overall level of services.

防止非法取水

本署負責執行《水務設施條例》及《水務設施規例》，並對違法人士採取法律行動。根據《水務設施條例》，除非水務監督批准，否則未經水錶量度取水屬違法行為。為協助阻止和打擊非法取水，本署於二零一三年增加檢控組的人手加強執法行動。因此，二零一三年至二零一五年，檢控組平均每月處理的個案數目達138宗，較增加人手前增長約1.4倍。宣傳方面，我們加快推出多個關於防止非法取水的教育和宣傳計劃，服務對象除本署內外的政府職員之外，亦包括市民大眾，有關教育和宣傳活動包括濾水廠開放日及學校巡迴探訪、港鐵車站廣告、研討會、水費通知，以及政府及私人物業、客戶諮詢中心及水資源教育中心張貼的海報及宣傳牌。

Preventing Illegal Water Use

The Department is responsible for administering the Waterworks Ordinance (WWO) and Waterworks Regulations as well as taking legal action against offenders. It is an offence under the WWO to draw water without a meter except with the permission of the Water Authority. To help deter and combat any illegal use of water, the Department's Prosecution Unit (PU) was strengthened in 2013 in order to enhance enforcement action. As a result, the average number of cases handled by the PU per month from 2013 to 2015 has increased by about 1.4 times to 138 cases compared to the period prior to the strengthening of manpower. In terms of publicity, we have accelerated a number of education and information programmes on preventing the illegal use of water not only to government officers within and outside the Department but also to the public during events such as Treatment Works Open Day and school tours, advertisements in MTR stations, and at seminars, notices on water bills as well as posters and promotion boards displayed at government and private properties, customer enquiry centres and at the WREC.

改善供水網絡

在過去十年間，本署在減少水管爆裂方面取得明顯成效，水管爆裂宗數由二零零零至零一年度的2,500宗下降至二零一五至一六年度僅148宗，主要歸功於本署在15年內更換及修復接近3,000公里的老化水管（全港水管總長度約為8,000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，我們採用無坑挖掘法，包括內喉緊貼法、原位內搪喉管法、水管推頂法和定向鑽挖法，以便減少路面施工的阻塞和對公眾的滋擾。

在鄉郊地區，水務署亦已於二零一三年十月開始更換海底水管，包括大嶼山至長洲、坪洲至周公島及周公島至喜靈洲的海底水管。為此，我們採用橫定向鑽挖法在海床岩層鋪設管道，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。定向鑽挖工程仍在繼續，預期將於二零一六年年中竣工。

Improving the Supply Network

Over the past ten years, the Department has made dramatic improvements in reducing water main bursts from 2,500 cases in 2000/01 to just 148 cases in 2015/16. This has been accomplished in large part through the success of our 15-year programme of replacement and rehabilitation of about 3,000 km of aged water mains out of a total of around 8,000 km of pipelines all across Hong Kong, resulting in significantly higher water supply reliability.

In carrying out this work, we apply 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 (HDD) to help reduce above ground construction and limit disturbances to the public and traffic.

Outside of the urban areas, starting from October 2013 the WSD also began replacing undersea pipelines, including the sections from Lantau to Cheung Chau, Peng Chau to Sunshine Island and Sunshine Island to Hei Ling Chau. To do this, we employed HDD to lay the pipelines at the seabed rock level to minimise the overall environmental impact as well as to avoid disrupting marine and terrestrial archaeological sites and marine traffic. The HDD works are still in progress and we anticipate completion by mid-2016.

用水流失管理措施

本署定期進行音聽視察、噪聲測井、最低晚間流量測試和分段流量測漏，以探測漏水情況，並應用最新區域持續監測及水壓管理技術，加強控制用水流失。我們全力盡早發現可疑漏水情況，以便即時採取措施避免進一步流失並防止情況惡化以致水管爆裂。

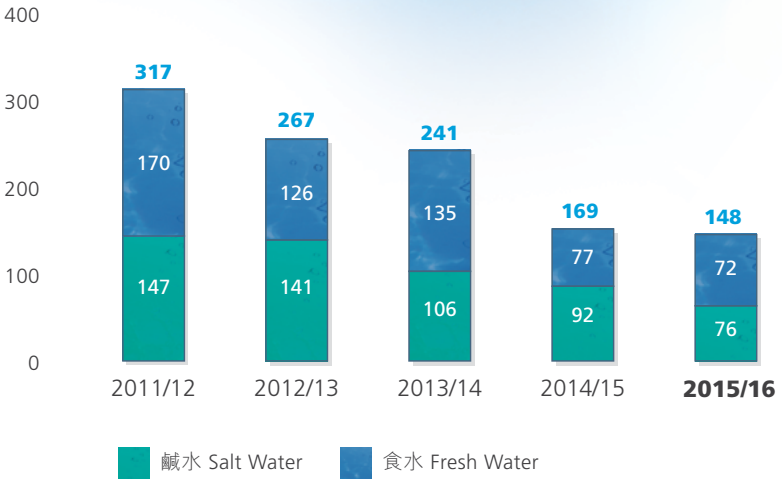
本署已將部分測漏工作外判予專門承造商，定期對全港的水務署水管進行有效檢測，同時我們以評估表現的方式鼓勵承建商進行更多檢測。迄今為止，九龍和新界的多條水管均成功採用評估表現的方式由專門承造商進行檢測。

Water Loss Management Initiatives

The Department conducts regular leak detection through sounding and visual inspections, noise logging, minimum night flow tests and step tests. The control of water loss has also been strengthened through the application of the latest district continuous monitoring and pressure management technologies. We are doing our best to detect suspected leaks as early as possible so that we can take immediate action to cut further losses and stop the deterioration that could lead to water main bursts.

Some leak detection work has been outsourced to specialist contractors to maintain effective regular leak detection of all WSD water mains in Hong Kong. We have also adopted a performance-based approach to motivate contractors to detect more leaks. To date, a number of the water mains in Kowloon and New Territories have been successfully inspected by the specialist contractors using this performance-based approach.

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



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

年份 Year	2011/12	2012/13	2013/14	2014/15	2015/16
最低晚間流量測試次數 No. of Minimum Night Flow Tests	174	139	92	63	39
分段流量測漏次數（或滲漏測試） No. of Step Tests (or Leakage Tests)	25	13	15	7	19
音聽視察次數 No. of Sounding & Visual Inspections	3,221	3,282	2,918	4,121	3,271
經發現的滲漏個案數目 No. of Leaks Detected	2,006	1,432	1,237	1,448	1,143
估計每日可節省的食水量（立方米/日） Estimated Quantity of Fresh Water Saved (cubic metres/day)	79,531	57,128	47,872	42,125	50,847

鹹水
Salt Water

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

年份 Year	2011/12	2012/13	2013/14	2014/15	2015/16
音聽視察次數 No. of Sounding & Visual Inspections	532	516	488	1,212	1,688
經發現的滲漏個案數目 No. of Leaks Detected	154	127	116	197	164
估計每日可節省的鹹水量（立方米/日） Estimated Quantity of Salt Water Saved (cubic metres/day)	21,719	35,040	19,881	30,561	21,447