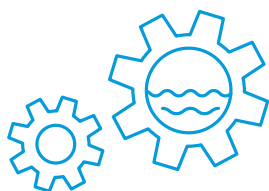


署長的話

Director's Statement



水務署同事緊守崗位，每日默默耕耘，為令香港供水服務更上一層樓。我們的工作涉及處理與可靠供水、安全食水及穩定水資源相關的各項事務。就此，我們定期和不同行業及供水專家合作以匯聚各方的力量，並與各個行業組織及學者建立夥伴關係，攜手尋求完善服務及運作的創新方法。我們亦加強宣傳及爭取持份者支持，在多方面致力提供超越顧客要求的表現，以達至提供世界級供水服務的終極目標。

Each day at Water Supplies Department, we work diligently to meet our obligations to improve the quality of Hong Kong's water supplies. This includes all issues that relate to reliability of water supplies, water safety and water security. To this end, we regularly join forces with various industry professionals and water supply experts whilst forming cooperative ties with a host of industry associations and academics to find new ways of improving our services and operation. We have also stepped up our publicity and stakeholder engagement efforts in order to initiate a multi-faceted mission to exceed customers' expectations to reach our ultimate aim to provide water supply services of world-class quality.



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水務署署長
Director of Water Supplies

全面水質資源管理策略

我們不斷追求加強香港整體供水安全的方法，所以早於二〇一八年我們已推行了全面水資源管理策略(「策略」)，以更好地在各方面管理及監察水資源，確保我們的水資源可持續運用。有賴這項策略，我們可以更加作好準備，應對氣候變化可能為香港帶來的負面影響。「策略」焦點是藉積極推廣節約用水以制約用水需求增長，同時採用最新技術開拓新的水源。自實施以來，「策略」一直為香港的供水安全作出貢獻。基於現時成果，我們展開了全面策略檢討，讓香港做好充足準備應對難料的情況及因而引起的負面影響，檢討將於二〇一九年完成。我們一直多管齊下，積極於住宅及非住宅界別推廣節約用水，並同時推出新穎而有效的硬件及軟件策略。

Total Water Management Strategy

As far back as 2008, our solemn quest has been to continually find better ways to enhance Hong Kong's overall water security. That is why we implemented our Total Water Management (TWM) Strategy in order to better manage and monitor all aspects of our water resources for their sustainable use. Through this strategy, we can better prepare the Territory for any future negative consequences that may result from climate change. TWM's focus mainly deals with limiting the growth of water demand by actively promoting efforts to conserve water, whilst at the same time apply the latest technologies to find and secure new water resources. Since its implementation, TWM has been contributing to water security for Hong Kong. Building on our achievements to date, we embarked on a comprehensive review that would be completed in 2019 in order to ensure water resilience whilst keeping us fully prepared to counter any uncertainties and negative consequences that may arise. Our department has been actively implementing a multi-faceted approach to promote water conservation in both the domestic and non-domestic sectors whilst at the same time unveiling new, effective hardware and software strategies.



節約用水的推廣及教育

在推動市民節約珍貴的水資源方面，教育及推廣計劃是本署的主要措施。因此，水務署自二〇一五／一六學年起為小學生舉辦「惜水學堂」節約用水教育計劃，提高學生對水資源的認識，並加深他們對節約用水及水資源持續性各項議題的了解，從而促請大家同心協力應對氣候變化帶來的嚴峻影響。承接著「惜水學堂」的成果，我們於二〇一七／一八學年推行先導計劃，將「惜水學堂」進一步擴展至幼稚園學生。

開拓新水源

「策略」及其多個措施將帶領香港逐步邁向多元供水布局，包括本地集水、東江水、沖廁用海水、海水化淡、中水重用及雨水回收和再造水。這些水源是確保香港供水穩定的基石。我很高興向大家報告，我們今年在開拓新水源方面有顯著進展，尤其是海水化淡方面。經過廣泛的可行性研究，我們確定在香港以逆滲透化淡海水是可行技術，提供的食水符合香港食水標準。因此該技術對香港而言是一個謹慎可行的選項，令我們可邁向海水化淡的發展。在完成將軍澳第137區海水化淡廠的策劃及勘查研究後，我們已於二〇一五年十一月委聘顧問為海水化淡廠展開設計工作。我們於二〇一八年年中就海水化淡廠

Promotion and Education Efforts in Water Conservation

Educational and promotional schemes are a major measure in helping us convince residents to conserve our precious water resources. For this reason, WSD has been organising the “Cherish Water Campus” integrated education programme for primary schools since the 2015/16 school year in order to enhance students’ understanding about water resources whilst raising overall awareness of a host of water conservation and water sustainability issues, with a view to calling for a concerted effort to address the serious consequences we all face with climate change. Leveraging on the success we have achieved in the “Cherish Water Campus” campaign, we further launched a pilot programme to extend the campaign for kindergarten students during the 2017/18 school year.

Securing New Water Resources

The TWM strategy and its various supporting initiatives are gradually driving Hong Kong towards a water supply matrix that comprises several independent sources, including local yield, Dongjiang water, sea water for flushing, desalinated water, treated grey water and harvested rainwater as well as reclaimed water. These supply sources are the cornerstones that will ensure Hong Kong’s water security and resilience. I am happy to report this year that we have been making solid progress in fully establishing new sources of water. This is especially true with desalination. Upon extensive feasibility studies, we can now conclude that sea water desalination by reverse osmosis is a viable technology for generating potable water in Hong Kong that meets the Hong Kong Drinking Water Standards. It is a prudent choice for Hong Kong to move forward with sea water desalination. After the planning and

建造工程的「設計—建造—運作」合約進行招標。擬建的海水化淡廠會採用逆滲透技術，每日食水產量為13萬5千立方米，日後並可擴展至每日27萬立方米，為本港供應約百分之五至十的食水用量。我們已開始敷設連接化淡廠至將軍澳配水庫的十公里輸水水管。

investigation study carried out on the Tseung Kwan O Area 137 desalination plant was completed, we hired consultants in November 2015 to begin the design work on the actual plant itself. We will issue tenders in mid 2018 for a “Design-Build-Operate” contract for the plant. The proposed desalination plant will, adopt reverse osmosis technology, and will have a water production capacity of 135,000 m³ per day expandable to 270,000 m³ per day to meet about 5% to 10% of the fresh water demand of Hong Kong. The construction of the associated 10 km water mains already from the future plant to the service reservoir in Tseung Kwan O has begun.



循環再用珍貴的水資源

經污水處理廠處理後的排放水可再加工成為再造水，它可以作為香港的非飲用水資源。使用再造水有助節省食水，尤其是在內陸地區，因在內陸地區使用海水沖廁不符合成本效益，這些地區現時使用食水沖廁。使用再造水亦有助減少排放經處理的污水。再造水是節省資源和環保的供水。水務署會繼續努力，把經石湖墟淨水設施三級處理的排放水轉變成再造水，供應至新界東北部作沖廁及其他非飲用用途，並於二〇二二年起在上水和粉嶺開始供應再造水。

從浴室、洗手盆、廚房洗滌盆和洗衣機收集得來經使用的水稱為中水。中水和回收雨水經處理後可以重用，作沖廁等非飲用用途。我們已就中水重用及應用雨水回收系統制訂了指引，該指引已被納入發展局及環境局有關環保政府樓宇的聯合技術通告中，以說明如何有效地推行這些系統，讓新建政府項目安裝所需設施，利用中水重用和雨水回收系統，減少在非飲用用途上的食水需求。水務署亦將興建一套中央中水重用系統，處理由安達臣道石礦場用地發展內收集的中水，供應區內作沖廁及其他非飲用用途。該系統包括中水處理廠、抽水系統、配水庫、收集中水的水管和運送經處理中水的供應管網。建造工程預計於二〇一九年開始動工，二〇二二年完成。

Recycling Valuable Water Resources

Water reclamation is a water resource generated by further processing treated effluent in sewage treatment works. It is a water resource that can be used for non-potable uses in Hong Kong. It helps save fresh water especially in inland areas where salt water supply for flushing is not cost effective and fresh water is being used for flushing, whilst use of reclaimed water helps reduction of the amount of treated effluent discharge. Water reclamation is a resource-saving and environmentally friendly water supply. We at WSD will continue to work hard to provide reclaimed water, converted from tertiary treated sewage effluent at the Shek Wu Hui Effluent Polishing Plant, to the north-eastern part of the New Territories for flushing and other non-potable uses, starting with Sheung Shui and Fanling from 2022 onwards.

Grey water is used water collected from baths, showers, wash basins, kitchen sinks and laundry machines. Grey water and harvested rainwater can be treated and reused for non-potable purposes such as toilet flushing. We have formulated guidelines on the implementation of grey water recycling and rainwater harvesting systems, which have been incorporated in the joint Development Bureau and Environment Bureau Technical Circular on Green Government Buildings on how to implement these systems effectively. This was done so that new government projects could reduce their fresh water demand for non-potable applications through grey water recycling or rainwater harvesting by installing the necessary facilities. WSD will also construct a centralised grey water recycling system to treat grey water collected from the Anderson Road Quarry Site Development for flushing and other non-potable uses in the development. The system comprises a grey water treatment plant along with a pumping system, a service reservoir, pipes to collect grey water and a supply network to deliver the treated grey water to customers. Construction is anticipated to commence in 2019 for completion in 2022.



提升食水安全

現時我們嚴格按照香港食水標準，監察食水水質，而該標準現時採用世衛公布的《飲用水水質標準》。水務署一直實施一連串有效措施，確保香港食水安全。根據發展局成立的食水安全國際專家小組的意見，以及多個國家的經驗及知識，發展局及水務署已開展了「提升香港食水安全行動計劃」。

Enhancing Water Safety

At present, we monitor drinking water quality in strict adherence to the Hong Kong Drinking Water Standards which currently follow the Guidelines for Drinking-water Quality published by the WHO. WSD has been implementing a wide range of effective measures for ensuring the safety of drinking water in Hong Kong. On the advice of the International Expert Panel on Drinking Water Safety established by the Development Bureau (DEVB), and drawing upon a wealth of overseas experience and knowledge, DEVB and WSD have already initiated an Action Plan on Enhancing the Drinking Water Safety in Hong Kong.

署長的話 Director's Statement

這計劃涵蓋五個重點範圍，包括食水標準及水質監測優化計劃、水喉物料監管及新建水喉裝置驗收規定、水安全計劃、食水安全規管制度，以及宣傳及公眾教育。此外，我們水務署正全面檢討現時的《水務設施條例》及其規例，探討如何改善法例以加強對水喉物料及建造水喉工程的監管。水務署已優先處理部分修訂，特別是有關持牌水喉匠及水喉工人的責任，以及最新水喉物料標準的修訂。立法會已通過這些修訂的法案。

展望來年，我們會繼續對眾多的挑戰保持警覺。惠於水務署紮實的根基、全面而積極的策略，我們有信心不管是現在還是未來，水務署的服務質素都會不斷提升。

This plan covers five areas of intense focus, including: drinking water standards and enhanced water quality monitoring programme, plumbing materials control and commissioning requirements for new plumbing installations, water safety plans, water safety regulatory regime, as well as publicity and public education. Moreover, we at WSD have embarked on a holistic review of the current Waterworks Ordinance and its regulations to see how we can improve legislation to enhance control of plumbing materials and construction of plumbing works. WSD has also prioritised a host of amendments, especially those that outline the responsibilities of licensed plumbers and plumbing workers, and those that relate to the updated standards for plumbing materials. The Legislative Council has passed the bills for these amendments.

As we look to the year ahead, we will remain ever vigilant against the wide ranging challenges. By leveraging on our solid foundations and the comprehensive and proactive strategies, we at WSD are confident of being able to ensure an improved level of service quality now and well into the future.



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