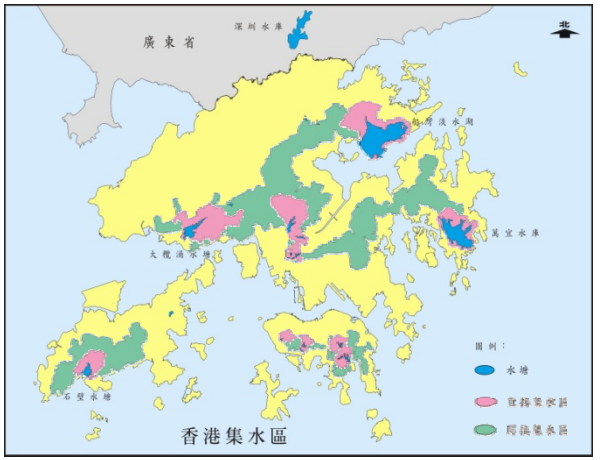
水務署
Water Supplies Department

香港水資源概況
Hong Kong Water Resources Overview

60年代香港的不穩定供水程況
Unstable Water Supply in 1960s

- 一九六零年代，雨水是香港食水的主要來源
  In 1960s, rain is the main source of potable water

- 因爲人口增加及天然雨量的不穩定性，香港在60年代經歷幾次大旱
  With the increase in population and the uncertainty of local yield in the 1960s, Hong Kong had experienced several severe droughts



從制水到穩定供水
From Water Restriction to Stable Water Supply

- 增加建造集水區及大型水庫
  Construction of more catchments and reservoirs

- 從廣東輸入原水，輸入東江水佔全港用水大約
  70 %– 80%
  About 70 % - 80 % of the fresh water supply is imported from Dongjiang

- 使用海水冲厠，目前，八成人口獲供應海水冲厠
  About 80 % of the Hong Kong population is using sea water for flushing

專用輸水管道
Dedicated Aqueduct

船灣淡水湖
Plover Cove Reservoir

海水抽水站
Sea water Pumping Station

萬宜水庫
High Island Reservoir

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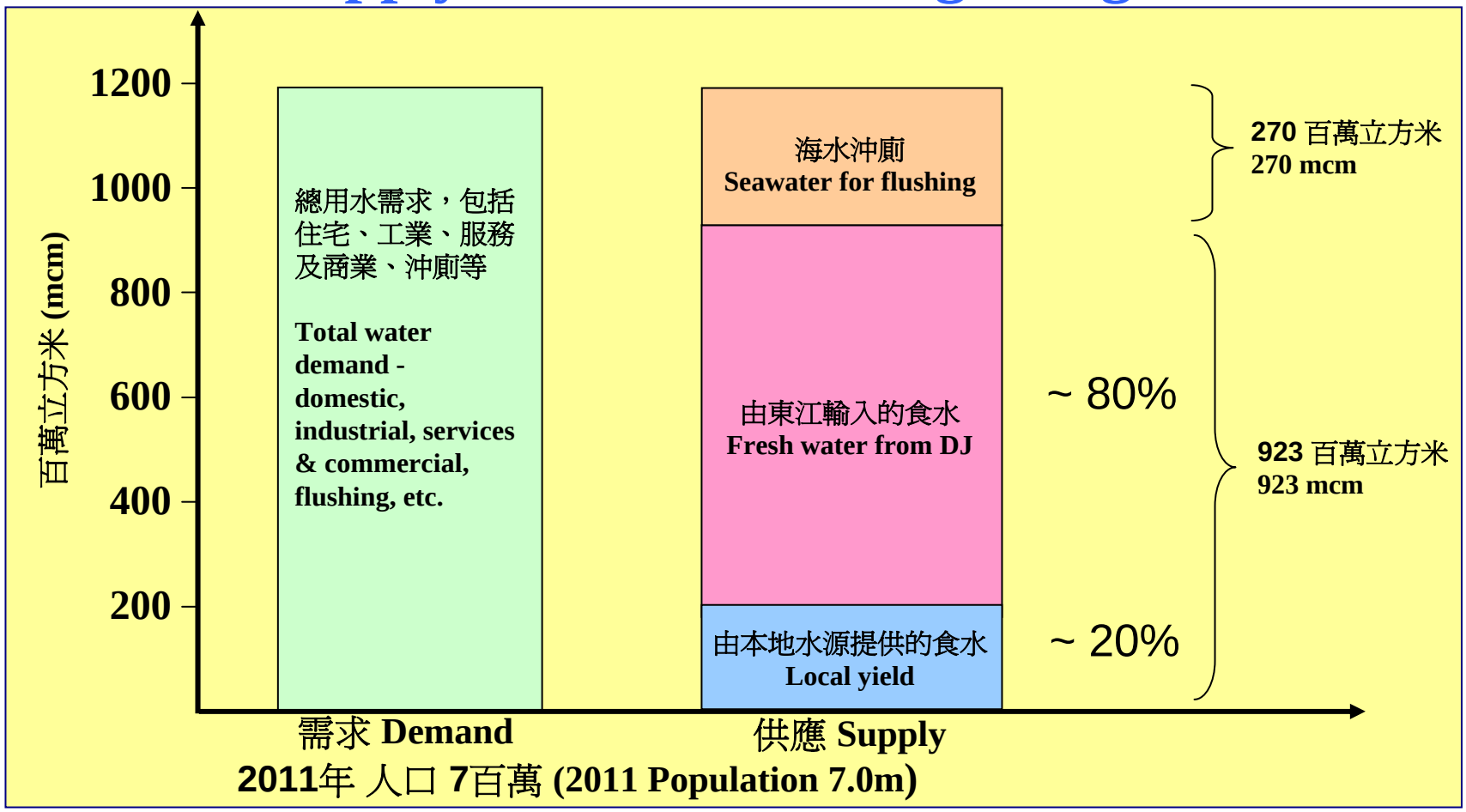
2011年的香港供水概況
Water Supply Situation in Hong Kong in 2011



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香港現時的供水情況
Current Water Supply in Hong Kong

- 現時的供水安排足以應付本地食水需求及其預測增長至2030年
  The current water supply arrangement is sufficient to meet the local demand for fresh water and its projected growth to 2030

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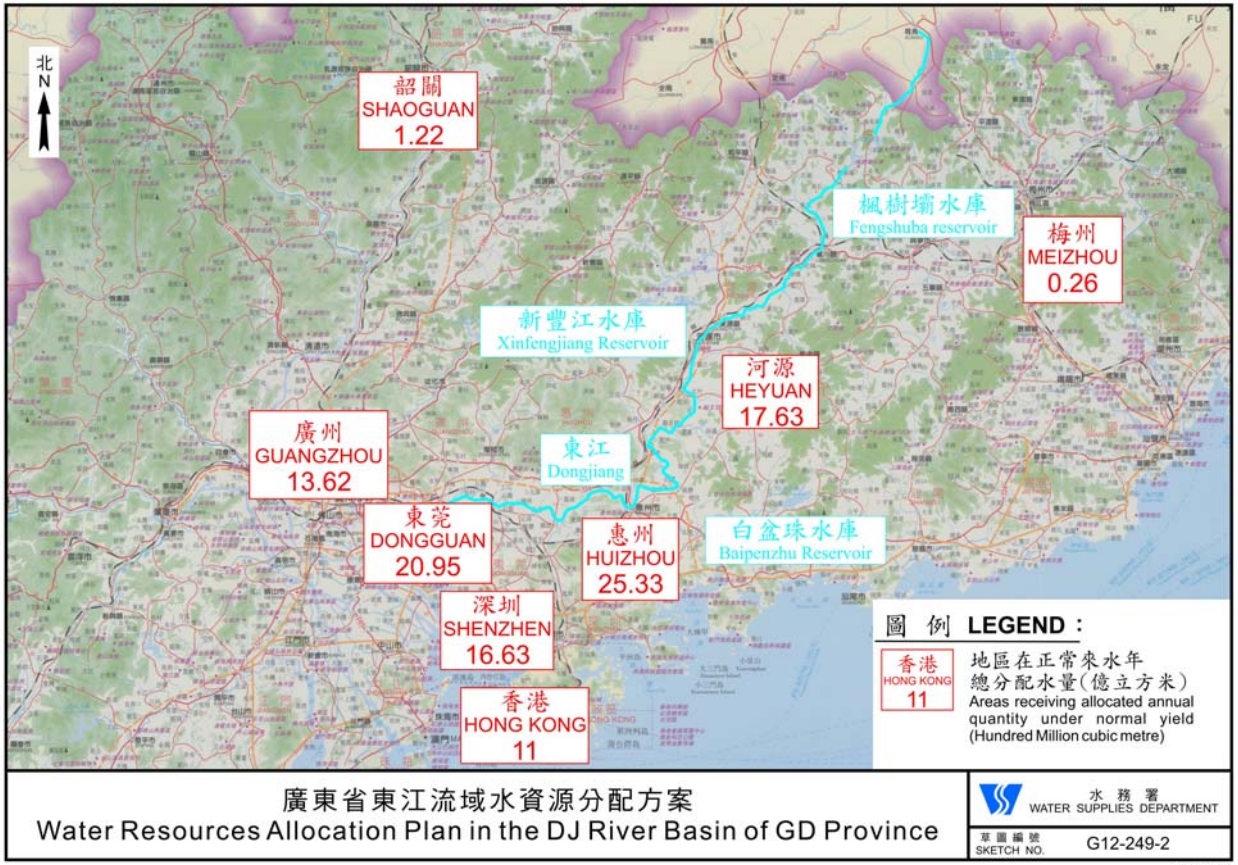
水資源面對的問題
The problems in Water Resources

- 全球氣侯暖化及極端氣侯變化影響東江水資源的穩定性
  Global warming and extreme weather conditions affect the sustainability of the Dongjiang water

- 廣東其他城市與香港就珍貴東江水資源都有殷切需求
  Other cities in Guangdong (GD) and Hong Kong have strong demand on the precious Dongjiang water

- 香港作爲珠江三角洲經濟負責任的一員，要致力探索其他供水水源，以滿足市民的需求
  As one of the responsible members of the Pearl River Delta area, Hong Kong should strive to explore alternative water resources to meet public need



推行全面水資源管理措施

Implementation of Total Water Management Strategy

- 香港特區政府2008年公布全面水資源管理策略

  The Hong Kong SAR Government announced the implementation of total water management strategy in 2008

- 水務署由2009起推行全面水資源供求管理措施，包括以下各項：

  Since 2009 WSD has implemented the demand and supply management measures of the total water management strategy including the following -

  - **用水需求管理措施**

    Water Demand Management

    - 加強公眾教育，宣傳節約用水

      To enhance public education on water saving and conservation
    - 推廣使用節約用水裝置

      To promote the use of water saving devices
    - 加強控制滲漏

      To enhance water leakage control
    - 擴大使用海水沖廁

      To extend the use of sea water for toilet flushing

先節後增

推行全面水資源管理措施

Implementation of Total Water Management Strategy

- 供水管理措施

  Water Supply Management

  - 加強保護水資源

    To strengthen protection of water resources
  - 積極考慮使用再造水 (包括洗盥污水回用和雨水集蓄)

    To actively consider water reclamation (including grey water reuse and rainwater harvesting)
  - 制訂海水化淡方案

    To develop sea water desalination

先節後增

推行全面水資源管理的進度
Implementation Progress of Total Water Management Strategy

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Water Supplies Department

不斷加強公眾教育，宣傳節約用水
Enhance Public Education on Water Conservation

選拔保護水資源大使
Water Ambassador Selection

- 由2009年開始舉辦，截至2012年6月已有超過1600名學童被選爲保護水資源大使
  The Scheme was launched in 2009, up to June 2012 more than 1600 students have been elected as water conservation ambassadors

知水、惜水通識教學材料套
Teaching Kit for Liberal Studies "Water: Learn & Conserve"

- 包含5本書冊，教導有關供水的正確知識及資料
  Comprises 5 booklets, for providing knowledge and information about water supply in Hong Kong to students

- 教學材料套連同光盤已派發給全港中學及公共圖書館
  Hard copies as well as CD-Rom of the teaching kit have been distributed to all secondary schools and public libraries

不斷加強公眾教育，宣傳節約用水
Enhance Public Education on Water Conservation

節約用水比賽
Water Conservation Competitions

通過有創意的概念，推廣節約用水
Promote water conservation through creative concepts

- 2010年：節約用水設計比賽
  Water Conservation Design Competition

- 2011年："心水創意、戶戶相傳"
  "Creative Water Saving Ideas to Share with Every Home" Design Competition

- 2012年：Cap帽設計比賽
  "Let's Save Water" Cap Design Competition

推行自願參與「用水效益標籤計劃」
Voluntary "Water Efficiency Labelling Scheme"

- 自願參與「用水效益標籤計劃」現已涵蓋四種產品: 沐浴花灑、水龍頭、洗衣機及小便器用具。
  Voluntary Water Efficiency Labelling Scheme now covers 4 products: showers for bathing, water taps, washing machines and urinal equipment

  - 由2009年9月開始，水務署首先推行自願參與「用水效益標籤計劃」- 首項產品是沐浴花灑。
    Starting from Sept 2009, the WSD has implemented a voluntary "Water Efficiency Labelling Scheme" (WELS) – The first product included in WELS was showers for bathing

  - 計劃其後涵蓋水龍頭及洗衣機，分別於2010年9月及2011年3月起接受註冊申請。
    Water taps and washing machines were also included in WELS starting from September 2010 and March 2011 respectively

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推行自願參與「用水效益標籤計劃」
Voluntary "Water Efficiency Labelling Scheme"

2012年3月29日開始

Staring from 29 March 2012

此計劃已擴展至小便器用具

WELS has been expanded to cover urinal equipment

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截至2012年11月6日止，已註冊爲不同程度的用水效益標籤的產品數字如下:
As of 6 Nov 2012, Registered Products with Different Water Efficiency Gradings :

用水效益標籤產品 WELS Products	第1級 (數量) Grade 1 (no.)	第2級 (數量) Grade 2 (no.)	第3級 (數量) Grade 3 (no.)	總共數量 Total No.
沐浴花灑 (Showers for bathing)	148	19	19	186
水龍頭 (Water taps)	60	34	25	119
洗衣機 (Washing machines)	90	13	0	103
小便器用具 (Urinal equipment)	4	2	2	8

爲政府建築物和學校安裝節水器具

Retrofitting Water Saving Devices in Government Buildings and Schools

- 節水器具包括：低流量花灑、低流量感應式水龍頭、雙掣式沖廁水箱和感應式尿廁。
  Water saving devices includes: low-flow showerheads, low-flow sensor type water taps, dual flush water cisterns and sensor type urinals.

- 第一期工程已於2011年8月完成，安裝32,000件節水器具。
  Phase I works were completed in August 2011, a total of 32,000 water saving devices have been installed.

- 第二期工程已於2012年4月開展，預期於2013底年完成，安裝20,600件節水器具。
  Phase II works have been commenced in April 2012 and is targeted for completion in end 2013, a total of 20,600 water saving devices will be installed.

積極管理・減少滲漏
Active Leakage Control

- 現正進行更換及修復水管計劃，更換及修復 3000 公里的老化水管

  Replace and rehabilitate about 3,000 km of water mains

- 分階段在所有供水區推行水壓管理

  Implement comprehensive pressure management in stages

- 採用先進技術，加強偵測和監察滲漏

  Enhance leakage detection and monitoring by adoption of new techniques

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水管更換及修復計劃
Replacement and Rehabilitation of Water Mains Programme

背景 Background

- 水管總長度約 7,800公里
  Total length of water mains: 7,800km

- 大部分在30年前左右敷設
  Mostly more than 30 years old

- 計劃於2000年展開
  Programme commenced in 2000

- 在2005年，整個計劃由20年縮短爲15年
  In 2005，programme duration compressed from 20 years to 15 years

- 整項計劃估計費用約 236 億元
  Estimated cost for the programme: 23.6 Billion

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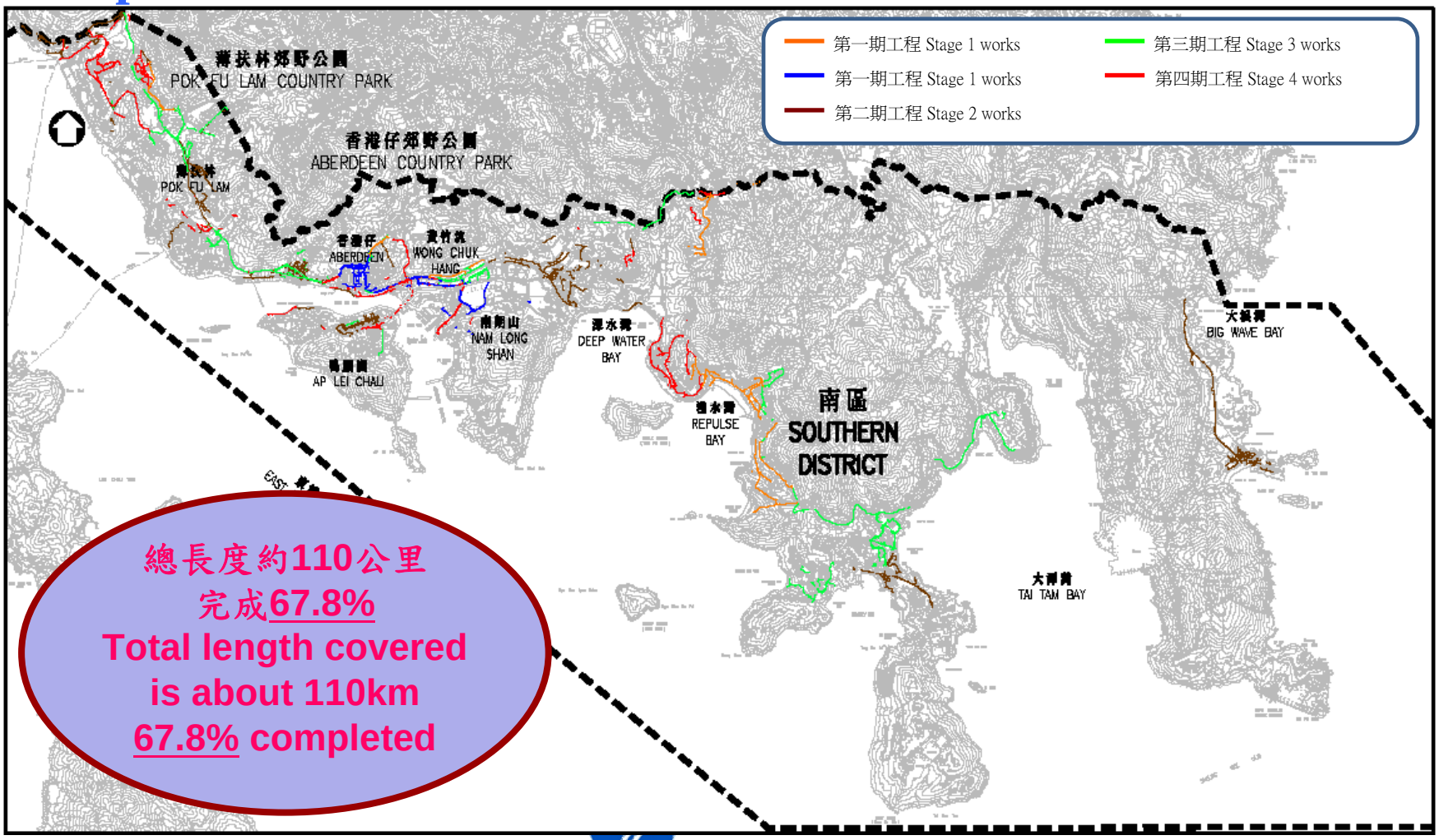
南區水管更換及修復工程

Replacement and Rehabilitation Works in Southern District



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自2008年以來南區水管爆裂的統計數據

Mains Burst Statistical Data since 2008 for Southern District

年份 Year	水管爆裂數目 No. of Mains Burst	
	食水 Fresh Water	鹹水 Salt Water
2012 **(截至9月30日止)** **(up to 30 Sep.)**	0	1
2011	5	8
2010	34	16
2009	24	22
2008	42	22

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水管更換及修復進度

Replace and Rehabilitate Progress

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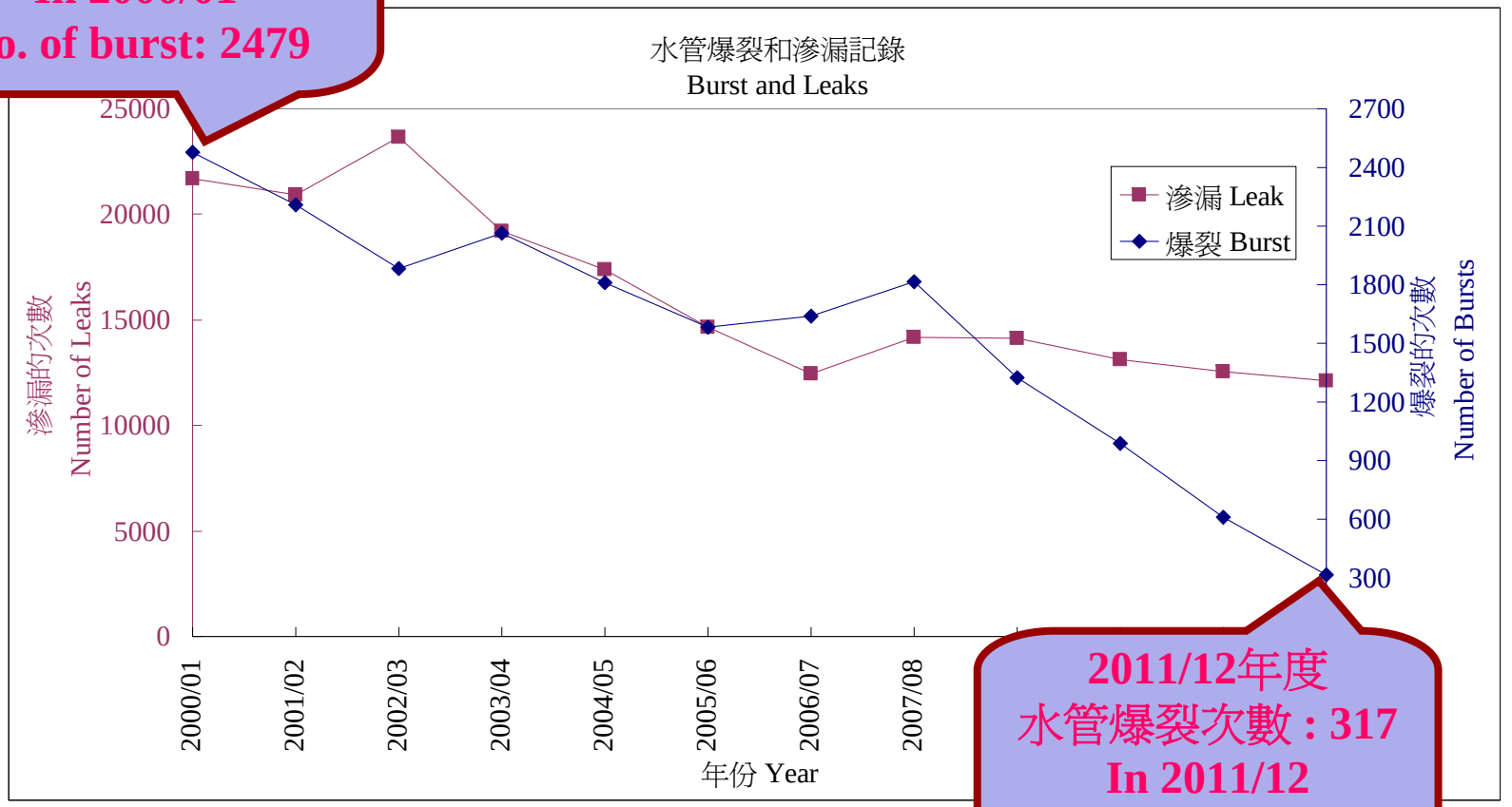
減少水管爆裂數目
Reduce Burst and Leaks

2000/01年度
水管爆裂次數：2479
In 2000/01
No. of burst: 2479



2011/12年度
水管爆裂次數：317
In 2011/12
No. of burst: 317

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香港人均耗水量
Per Capita Water Consumption in Hong Kong

- 由2009/2010年起不斷加強公眾教育，宣傳節約用水，推廣使用節約用水裝置，香港人均耗水量已漸見下滑。

  Since 2009/2010, we continue to strengthen public education, advocate water conservation, promoting the use of water saving devices, per capita water consumption in Hong Kong has gradually declined 。

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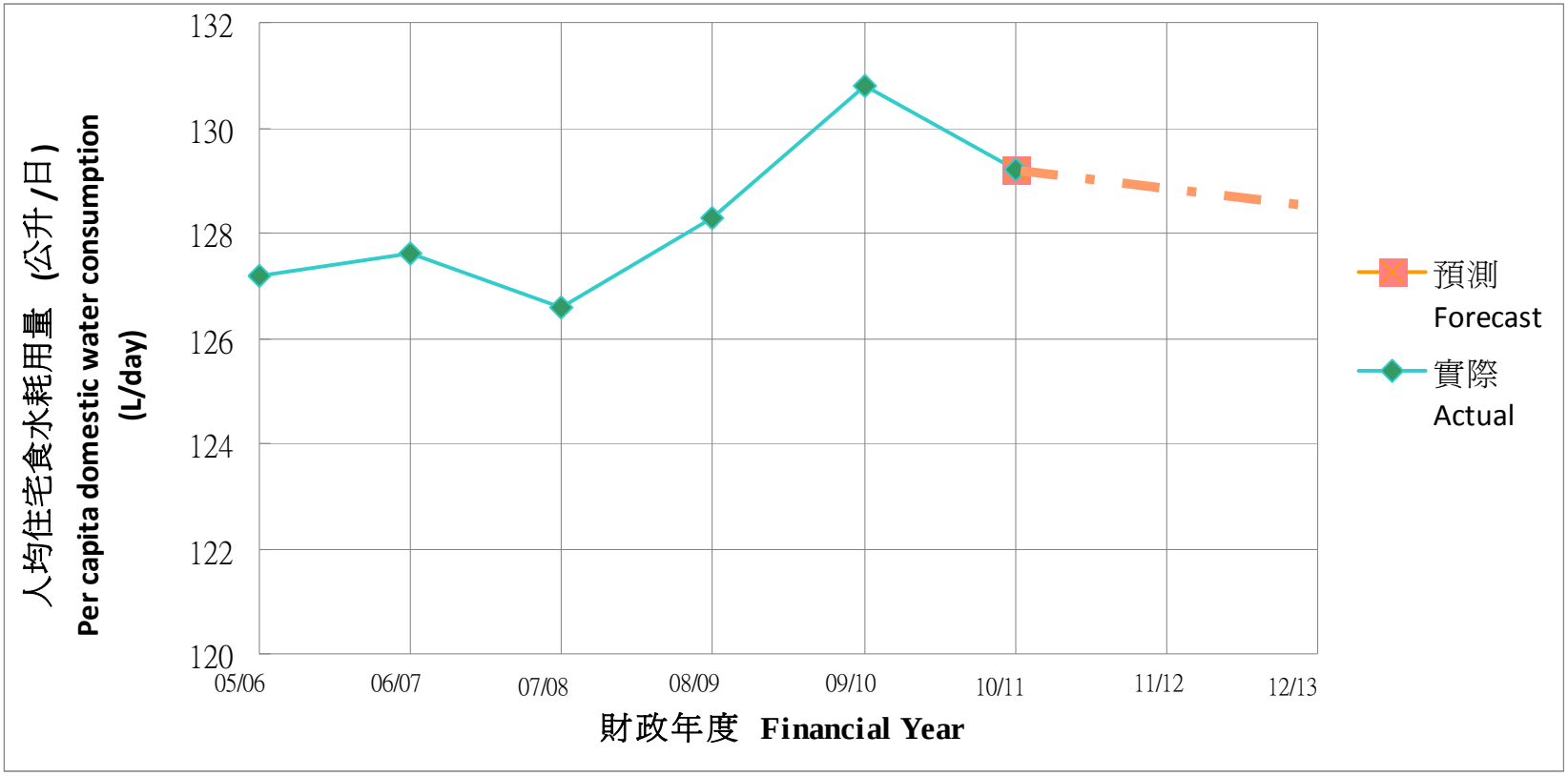
香港人均住宅食水耗用量

Hong Kong's per Capita Domestic Water Consumption



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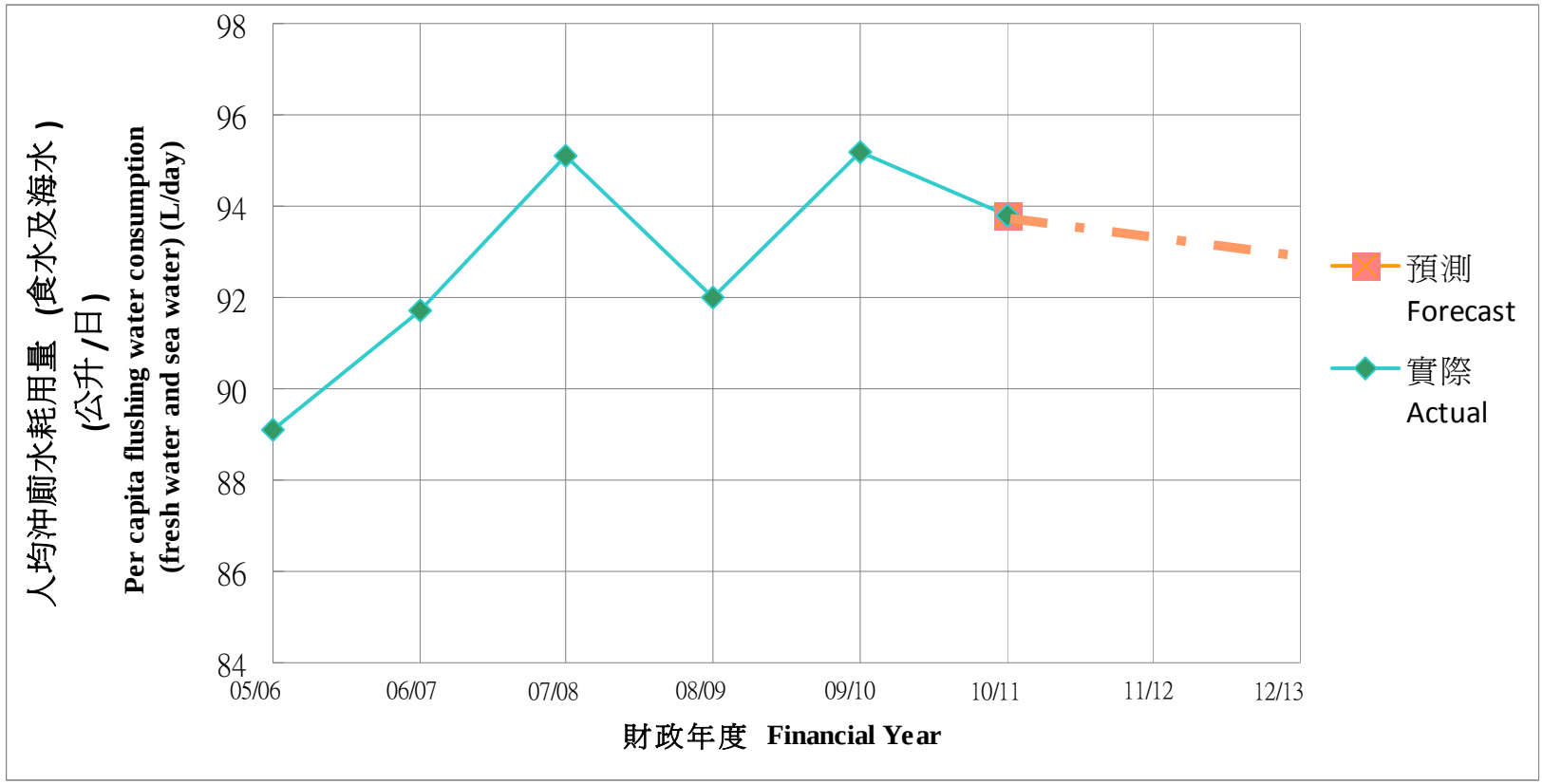
香港人均沖厕水耗用量

Hong Kong's per Capita Flushing Water Consumption



香港水資源：未來開拓新水源

Hong Kong Water Resources : New Water Resources in Future

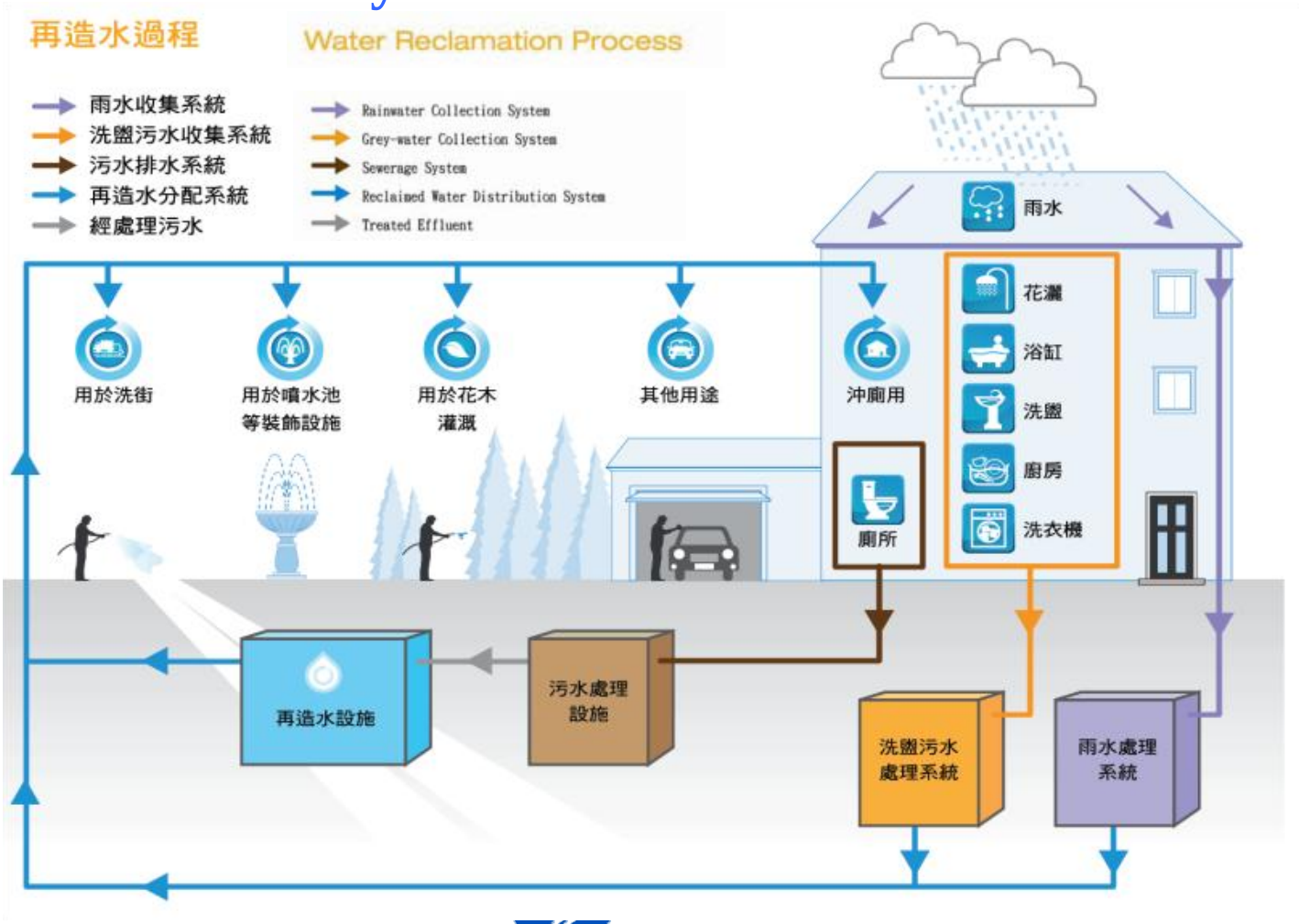
- 爲今後香港能夠更好地應付未來難測的變化，例如氣候劇變及雨量下降等，我們認爲需要開始開拓新的水資源。

  To better prepare Hong Kong for uncertainties such as acute climate changes and low rainfall, we need to explore new water resources.

再造水
Water Reclamation

積極考慮使用再造水

Actively Consider Water Reclamation



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計劃爲上水、粉嶺及新界東北新發展區供應再造水

Reclaimed Water Planned for Sheung Shui, Fanling and New Development Areas in Northeast New Territories

- 於昂坪及石湖墟進行的試驗計劃已完成，確認了再造水用於非飲用用途的可行性。

  The completed pilot schemes at Ngong Ping and Shek Wu Hui have confirmed the technical feasibility of reclaimed water supply for non-potable uses.

上水、粉嶺及新界東北新發展區位置圖

Location Plan of Sheung Shui, Fanling and New Development Areas in Northeast New Territories

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鼓勵於新發展計劃使用洗盥污水回用及雨水集蓄
Encourage New Development to Adopt Reuse of Grey Water and Rainwater Harvesting

- 從廚房、洗手盆等地方(厠所除外)收集及處理污水作循環再用。
  Collect grey water from kitchen, wash-basins, etc (expect toilets) for reuse after treatment

- 從屋頂和地面收集及處理雨水供循環再用。
  Reuse rainfall harvested from roofs and ground

- 現正在新建的政府樓宇及發展計劃進行試驗。
  Implement trial schemes in new government buildings and new developments

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海水化淡
Desalination

2007年完成海水化淡設施先導研究
Completion of the Desalination Pilot Plant Study in 2007

- 確立了在香港採用逆滲透海水化淡的技術可行性
  Established the feasibility of using reverse osmosis desalination technology in Hong Kong
- 同時證明生產的食水符合世界衞生組織所定的飲用水標準
  Also demonstrated that the production of potable water meets World Health Organization drinking water standards

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將軍澳137區興建海水化淡廠研究項目
Planning and Investigation Study for a Desalination Plant at Tseung Kwan O Area 137

- 計劃委聘顧問進行在將軍澳137區興建海水化淡廠的策劃及勘查研究
  Engage a consultant to conduct a planning and investigation study for a desalination plant at Tseung Kwan O

- 在將軍澳預留所需土地
  Land has been reserved at Tseung Kwan O Area

- 期望利用逆滲透海水化淡技術生產食水，再混和由傳統食水處理廠所生產的食水，以補充港島東、九龍東及將軍澳一帶居民的用水所需
  The water output from the desalination plant will be mixed up with the water produced from the traditional water treatment works before transferring to Hong Kong East, Kowloon East and Tseung Kwan O for our customers for consumption

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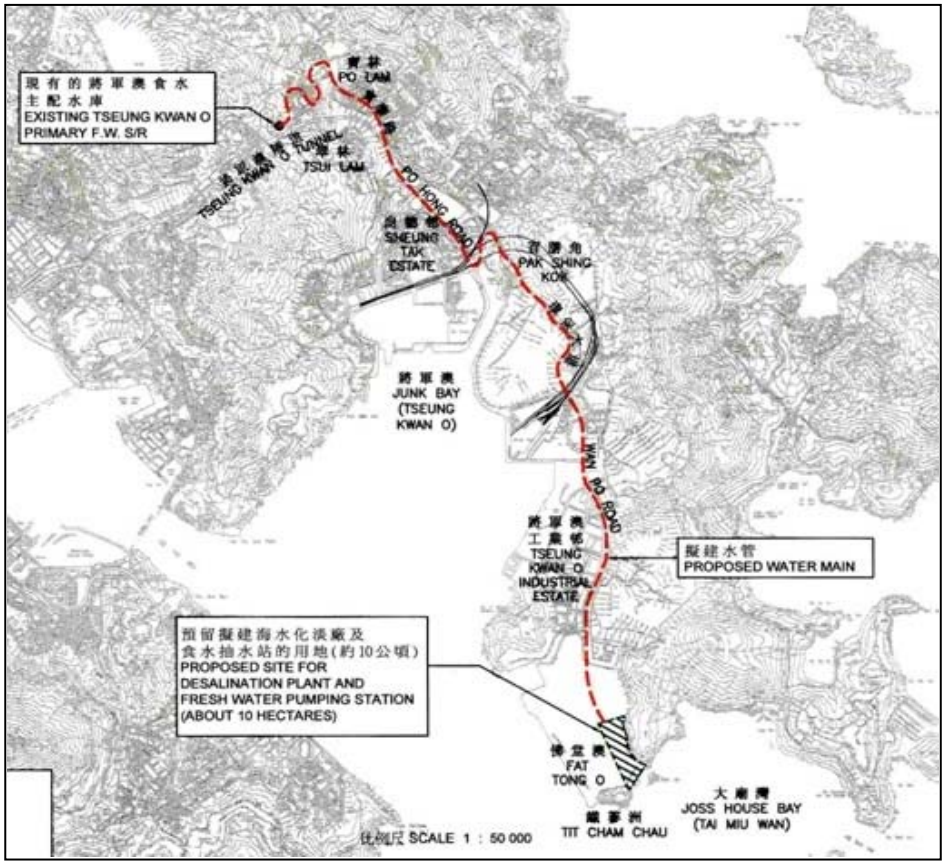
擬議的海水化淡廠及其食水輸送設施的位置平面圖

Plan Showing the Location of the Proposed Desalination Plant and the Associated Fresh Water Transfer Facilities



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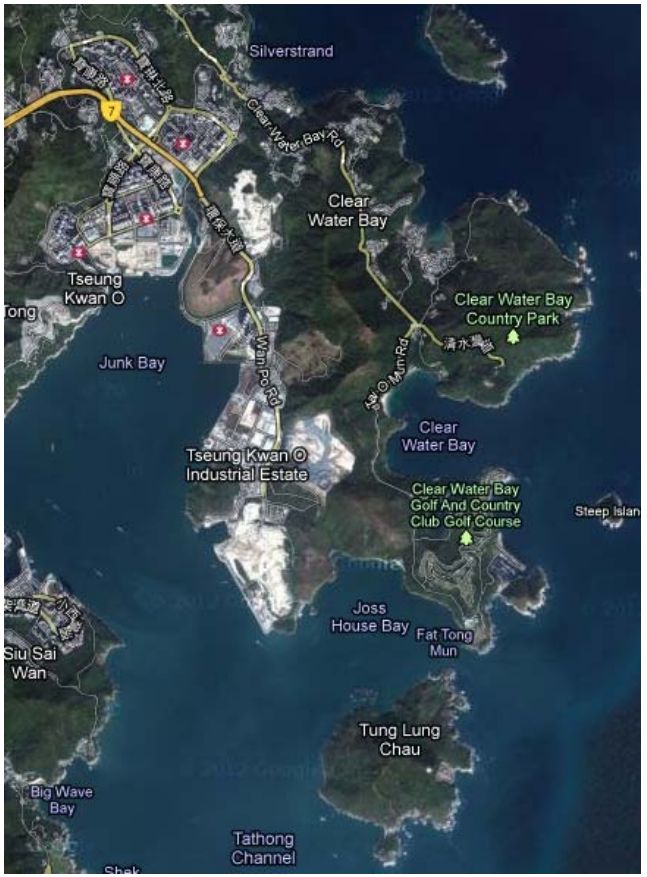
顧問研究的範圍
Scope of the Planning and Investigation Study

- 詳細勘查擬議工程的可行性、成本效益、及進行初步設計
  Detailed investigation on the feasibility and cost effectiveness of the proposed works and preliminary design of the works

- 策劃和制定實施策略及時間表
  Planning and formulation of implementation strrategy anf programme

- 環境、交通、排水及其他相關的影響評估
  Impact assessment on environment, traffic, drainage and other relevant aspects, and

- 相關的工地勘測及其工地監管
  Associated site investigation works and site supervision



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打擊非法取水
Combating Unauthorised Water Uses

非法取水的危害
Adverse consequences of unauthorised water uses

- 可造成食水污染
  Causing pollution to fresh water supply

- 可令消防系統發揮不到應有功能
  Impact on the proper functioning of fire services system

- 浪費食水
  Squander precious water resources

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非法取水的刑罰
Penalty of Unauthorised Water Uses

- 非法取水是違法行爲，屬刑事罪行。
  Illegal taking water is a criminal offence.

  一經定罪
  upon conviction

  - 可處罰款最高$25,000。
    liable for a maximum fine of $25,000。
  - 須繳付非法用水的費用。
    require to pay for the water illegally taken。
  - 如屬持續的罪行，可就罪行持續期間的每天另處罰款$1,000。
    if the offence persists, a further daily fine of $1000 will be levied。

如何打擊非法取水
Means to Combat Unauthorized Taking of Water

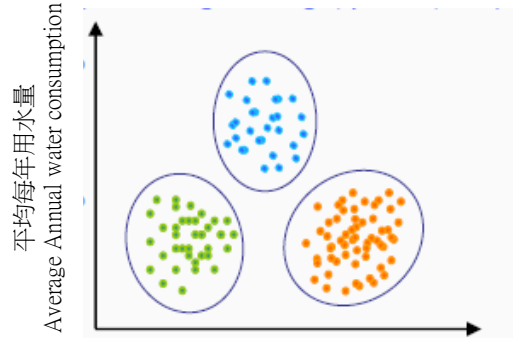
- 偵測及檢控
  Detection and Prosecution

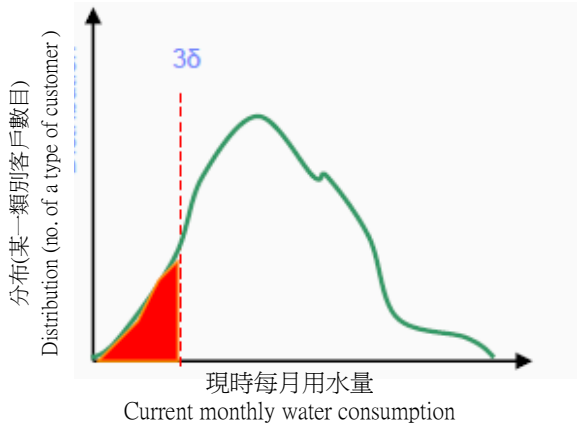
- 宣傳和教育
  Publicity and Education

偵測及檢控
Detection and Prosecution

- 採用以風險爲本的偵測方法偵測懷疑非法取水
  Using a risk-based detection method to detect suspected illegal taking of water

- 研究利用資料探勘技術
  Study the use of data mining technique





宣傳和教育
Publicity and Education

- 與社會各界合作
  Join forces with the community

- 聯絡各個需要管理場所設施及工地的政府部門
  Liaise with other government departments for managing construction sites and facilities

- 呼籲全港的物業管理公司共同打擊非法取水
  Appeal to property management companies to jointly combat illegal taking of water

宣傳和教育
Publicity and Education

- 聯同九個業界團體簽署防止非法取水約章
  Together with nine associations/institutions, signed a Charter to join forces against unlawful water tapping

  - 承諾打擊非法取水
    Pledge to combat unauthorised water uses
  - 舉報懷疑非法取水個案
    Report suspect unauthorised water uses
  - 向會員傳遞打擊非法取水信息
    Relay the message of combatting unauthorised water uses

- 懇請各位議員也提供協助
  Appeal to District Council Members for helping to

  - 向市民傳遞打擊非法取水的信息
    Disseminate to the general public the message of combating unauthorised water uses
  - 舉報懷疑非法取水個案
    Report suspect cases of unauthorised water uses

若懷疑有人非法取水，怎麼辦？

What you will do if you suspect someone is illegally taking water ?

- 盡快透過以下途徑向水務署舉報：
  Please report immediately the incident to：

a) 水務署檢控組電話：2829 4461
(辦公時間)
WSD Prosecution Unit
Tel：2829 4461
(During Office Hours)

b) 水務署客戶電話諮詢中心：2824 5000
(24小時熱線)
WSD Customer Telephone Enquiry Centre ： 2824 5000
(24 – Hour Hotline)

c) 電子郵遞 (E-mail)：
wsdinfo@wsd.gov.hk

水務署
Water Supplies Department

若懷疑有人非法取水，怎麼辦？

What you will do if you suspect someone is illegally taking water ?

- 記錄發生違例事件的確實地點、日期及時間， 及其他相關資料。
  Record the exact location of the occurrence of the illegal event, the date and time, and other relevant information.

- 舉報者的個人資料會絕對保密。
  The personal information of the reporter will be kept strictly confidential

查詢及聯絡:
Enquiries & Contact:

- 如對南區供水服務有任何查詢，可聯絡:

  For enquiries about the water supply matters, please contact:

- 總工程師/香港及離島區
  甘榮基先生
- **Chief Engineer/**
  Hong Kong
  Mr. KAM Wing Kee

- 電話 (Tel) : 2880 2555
- 傳真 (Fax) : 2811 8152
- 電郵 (Email) :
  wk_kam@wsd.gov.hk

- 如對客戶服務有任何查詢，可聯絡:

  For enquiries about the customer service matters, please contact:

- 總工程師/客戶服務部
  何應聰先生
- **Chief Engineer/**
  Customer Services
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Thank you

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