

For discussion on 24 March 2015
2015年3月24日討論文件

Legislative Council Panel on Development
立法會發展事務委員會

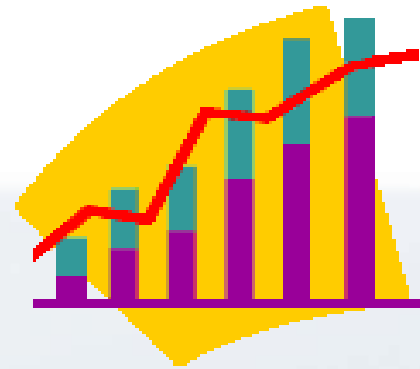
**357WF - 將軍澳海水化淡廠第一階段設計及建造 -
勘察研究檢討、設計及工工地勘察**

**(357WF - Design and Construction for
First Stage of Desalination Plant at Tseung Kwan O -
Investigation Study Review, Design and Site Investigation)**



理由 (Justification)

- ❖ 面對水資源各種不同的挑戰
- ❖ Fresh water resources are facing various challenges

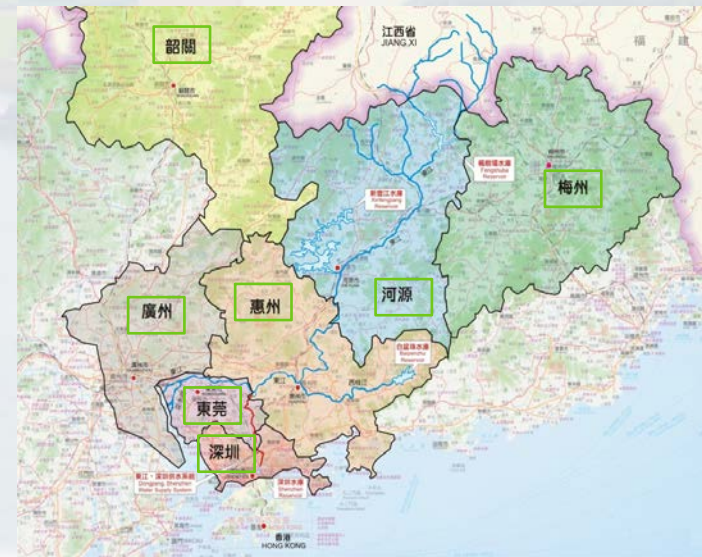


人口及經濟增長 (population and economic growth)

- ❖ 發展不受氣候變化影響的海水化淡技術作為新的水資源
- ❖ Develop alternative water source by seawater desalination which is not susceptible to climate change



氣候變化 (climate change)



策劃及勘察研究結果 (Key findings of planning and investigation study)

- ❖ 逆滲透技術成熟及在香港使用技術上可行。
- ❖ Reverse osmosis technology mature and technically feasible in Hong Kong.
- ❖ 研究確認將軍澳137區是興建海水化淡廠的合適地點
 - ❖ 海水水質合適
 - ❖ 毗鄰策略性供水網絡
 - ❖ 對附近環境構成影響較少
- ❖ TKO Area 137 is a suitable location for the proposed desalination plant
 - ❖ quality of nearby seawater
 - ❖ its close proximity to a strategic water supply network
- ❖ Environmental impact minimal



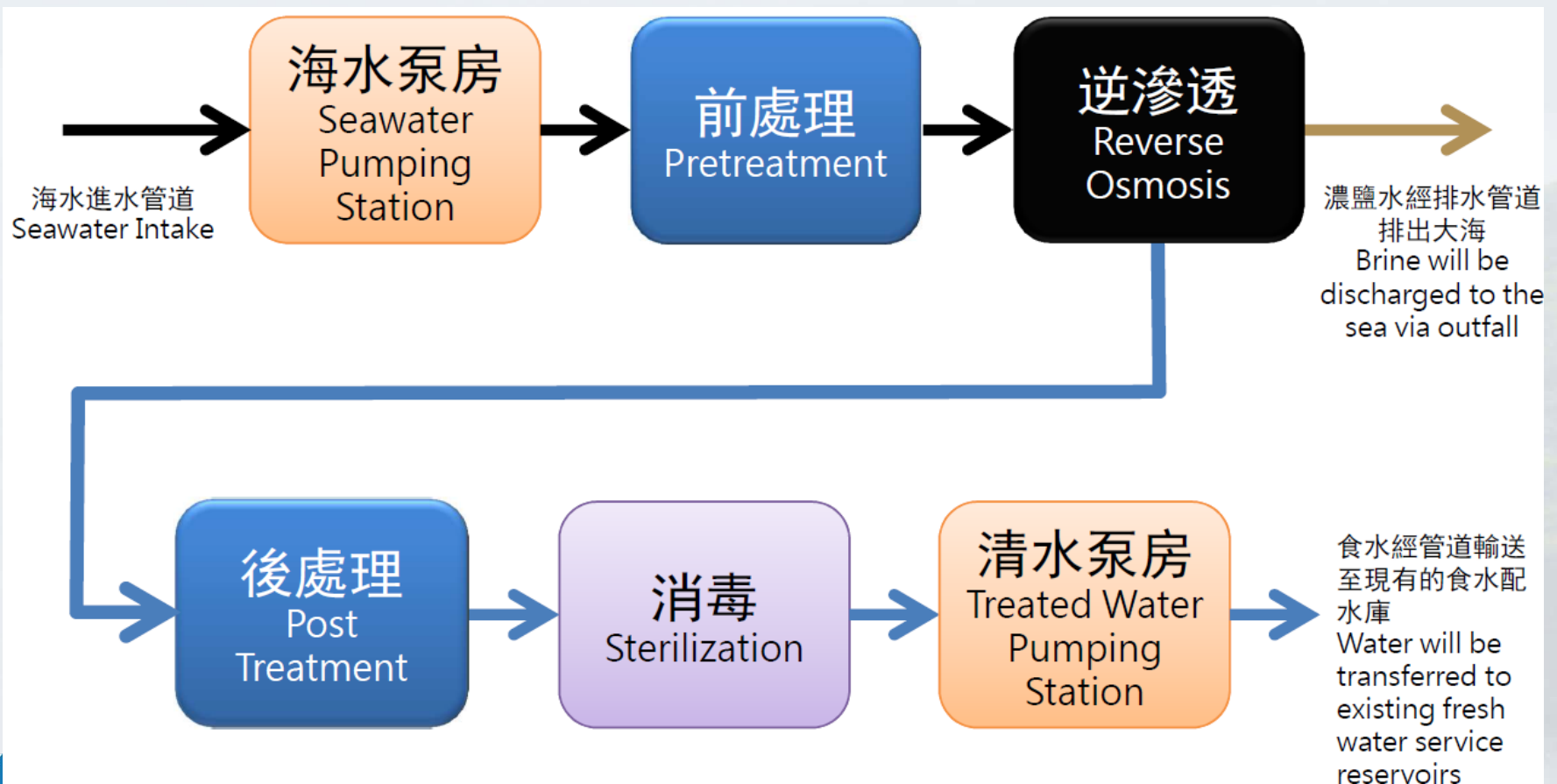
工程計劃 (Proposed works)

- ❖ 設計每日產量達13萬5千立方米的**第一階段海水化淡廠**
- ❖ Design of first stage of the desalination plant at 135,000 m³ per day
- ❖ 預留空間作未來海水化淡廠擴展至每日27萬立方米
- ❖ with provision for future expansion to the ultimate water production capacity up to 270,000 m³ per day



海水化淡廠處理工藝流程

Treatment Processes in Desalination Plant



設計目標 (Design objective)

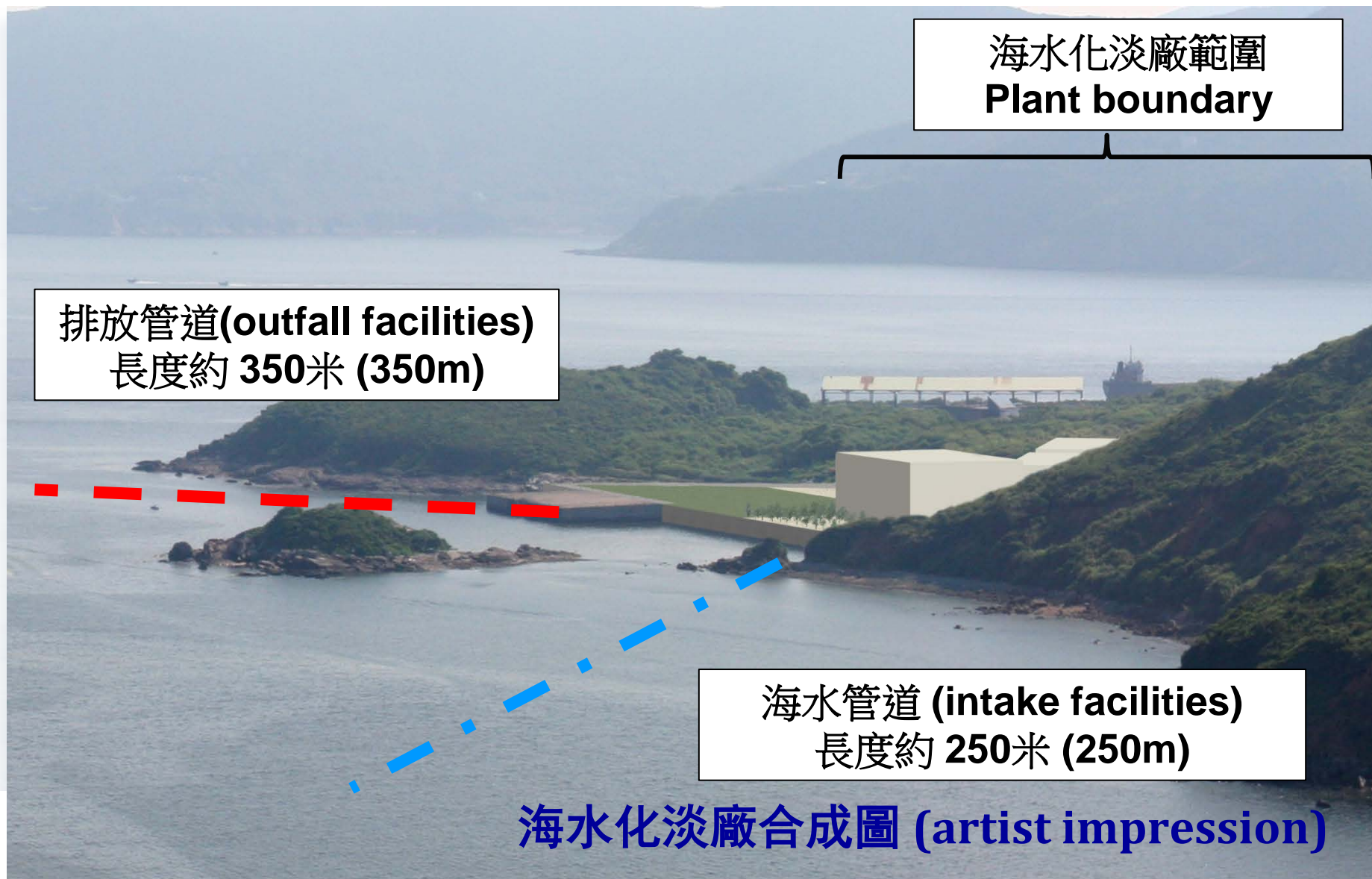
- ❖ 我們會應用最新的相關技術—
 - ❖ 提升能源效益
 - ❖ 減低成本
 - ❖ 減少對附近環境構成影響
- ❖ We shall apply the relevant state-of-the-art technology –
 - ❖ Greater energy efficiency
 - ❖ Lower cost
 - ❖ Minimise environmental impact



海水化淡廠合成圖 (artist impression)

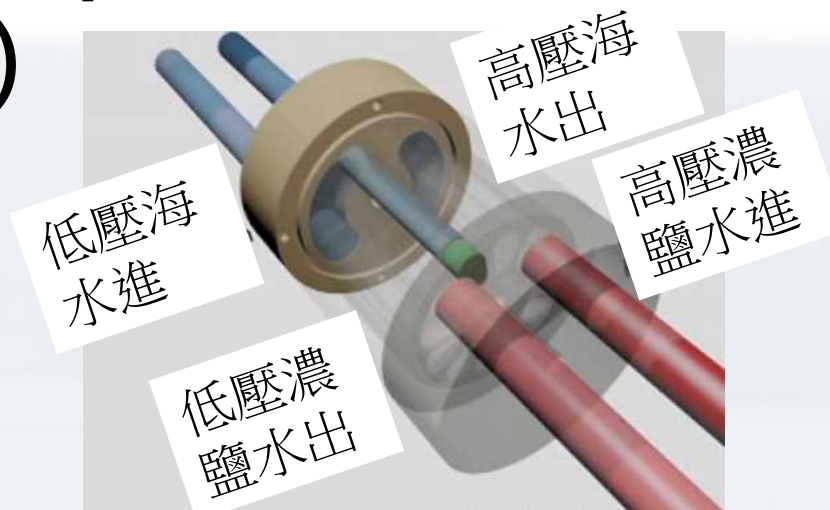


初步化淡廠佈局 (Preliminary plant layout)



探討使用的特點 (Special features being explored)

- ❖ 高效能的能源回收系統來提取濃鹽水中剩餘的能量 (最高達97%)。
- ❖ high efficiency energy recovery device
- ❖ 採用更大的逆滲透組件 (16吋逆滲透組件)。
- ❖ larger unit (16" RO unit)



預算費用和時間表 (Budget and Time Table)

- ❖ 估計所需費用：1億5,460萬元
- ❖ Estimated Cost: \$154.6 million
- ❖ 展開顧問工作：2015年年底
- ❖ Commencement of consultancy works: late 2015
- ❖ 完成顧問工作：2017年下半年
- ❖ Completion of consultancy works: later half of 2017



多謝

Thank you

