

Legislative Council Panel on Planning, Lands and Works

47WS – Uprating of Salt Water Supply to Northwest Kowloon

PURPOSE

This paper briefs Members on the proposal to upgrade **47WS** “Uprating of Salt Water Supply to Northwest Kowloon” to Category A, at an estimated cost of about \$53.1 million in money-of-the-day (MOD) prices, to provide adequate salt water supply to northwest Kowloon area^①.

BACKGROUND

2. Salt water supply to northwest Kowloon area is provided by Cheung Sha Wan salt water pumping station. According to the forecast on population growth and development proposals, the existing salt water system will become heavily overloaded soon and will require uprating works to be carried out as early as possible.

3. The project **47WS** was included in Category B in October 2005.

PROPOSAL

4. The scope of the works under **47WS** comprises –

- (a) demolition of the existing staff quarters and temporary store within the Cheung Sha Wan salt water pumping station compound, and subsequent construction of an annex building with total floor area of about 560m² at the same location;
- (b) modification works to the existing Cheung Sha Wan salt water pumping station; and
- (c) supply and installation of pumpsets, electrical and mechanical plants, including an electrochlorination plant, inside the new annex building and the existing Cheung Sha Wan Salt water Pumping Station.

^① Northwest Kowloon area covers Beacon Hill, Shek Kip Mei, Yau Yat Tsuen, Mong Kok, Tai Kok Tsui, Sham Shui Po, Cheung Sha Wan, Lai Chi Kok and Stonecutters Island.

5. A site plan showing the proposed works is at **Enclosure 1**. Upon completion of the works, the capacity of the existing Cheung Sha Wan salt water pumping station will be increased from 62 000 m³/day to 96 000 m³/day.

6. We plan to commence the proposed works in May 2007 for completion in December 2009.

JUSTIFICATION

7. The increase in the population being served by the existing Cheung Sha Wan salt water pumping station will lead to projected increase in demand for salt water from a mean daily demand of about 57 000 m³/day in 2003 to 69 000 m³/day beyond 2011. We anticipate that the existing salt water pumping station will become heavily overloaded around 2009.

8. To meet the growing demand, we need to uprate the output capacity of the Cheung Sha Wan salt water pumping station to 96 000 m³/day with sufficient provisions^② to cover daily fluctuation in demand and contingency. In order to relieve the overloading situation and ensure adequate salt water supply to future developments in northwest Kowloon area, it is necessary to commence the proposed uprating works as soon as possible to increase the pumping capacity of existing Cheung Sha Wan salt water pumping station.

FINANCIAL IMPLICATIONS

9. We estimate the capital cost of the proposed works to be about \$53.1 million in MOD prices made up as follows: -

	\$ million
(a) Demolition of existing staff quarters and temporary store, and construction of an annex building	11
(b) Modification of existing Cheung Sha Wan salt water pumping station	1
(c) Supply and installation of pumpsets, electrical, mechanical plants and electrochlorination plants	36

^② The provisions include the additional capacity of about 18 000 m³/day to cater for daily fluctuation in demand and 9 000 m³/day for contingency.

(d)	Environmental mitigation measures	0.1	
(e)	Contingencies	5	
	Total	<u>53.1</u>	(in MOD prices)

10. We estimate the annual recurrent expenditure arising from **47WS** to be about \$4 million.

ENVIRONMENTAL IMPLICATIONS

11. This is not a designated project under Environmental Impact Assessment Ordinance (Cap 499). The project would have no long-term environmental impact. We completed a Preliminary Environmental Review (PER) for the project in April 2006. The PER concluded and the Director of Environmental Protection agreed that the project would not have any long-term environmental impacts. We have included about \$0.1 million (in MOD prices) in the project estimates for the implementation of standard pollution control measures to mitigate short-term construction impacts and we will incorporate these requirements in the works contract.

12. We have considered the layout and foundation level of the proposed annex building in the planning and design stages to reduce the generation of construction and demolition (C&D) materials where possible. In addition, we will require the contractor to reuse inert C&D materials (e.g. excavated soil) on site or in other suitable construction sites as far as possible, in order to minimize the disposal of C&D materials to public fill reception facilities^③. We will encourage the contractor to maximize the use of recycled or recyclable C&D materials, as well as the use of non-timber formwork to further minimize the generation of construction waste.

13. We will also require the contractor to submit a waste management plan (WMP) for approval. The WMP will include appropriate mitigation measures to avoid, reduce, reuse and recycle C&D materials. We will ensure that the day-to-day operations on site comply with the approved WMP. We will control the disposal of public fill and C&D waste to public fill reception facilities and landfills respectively through a trip-ticket system. We will require the contractor to separate public fill from C&D waste for disposal at appropriate facilities and will record the disposal, reuse and recycling of C&D materials for monitoring purposes.

^③ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of public fill in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

14. We estimate that the project will generate about 3 490 tonnes of C&D materials. Of these, we will reuse about 165 tonnes (5%) on site, deliver 3 215 tonnes (92%) to public fill reception facilities for subsequent reuse. In addition, we will dispose of 110 tonnes (3%) at landfills. The total cost for accommodating C&D materials at public fill reception facilities and landfill sites is estimated to be \$0.1M for this project (based on an unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne^④ at landfills).

15. The proposed works will not involve any tree removal. Shrubs on planters will be considered to soften the appearance of the pumping station compound.

PUBLIC CONSULTATION

16. We consulted the Yau Tsim Mong District Council and Yau Tsim Mong West Area Committee in May 2006. Both the District Council and the Area Committee supported the project.

LAND ACQUISITION

17. The proposed works do not require any land acquisition.

JOB CREATION

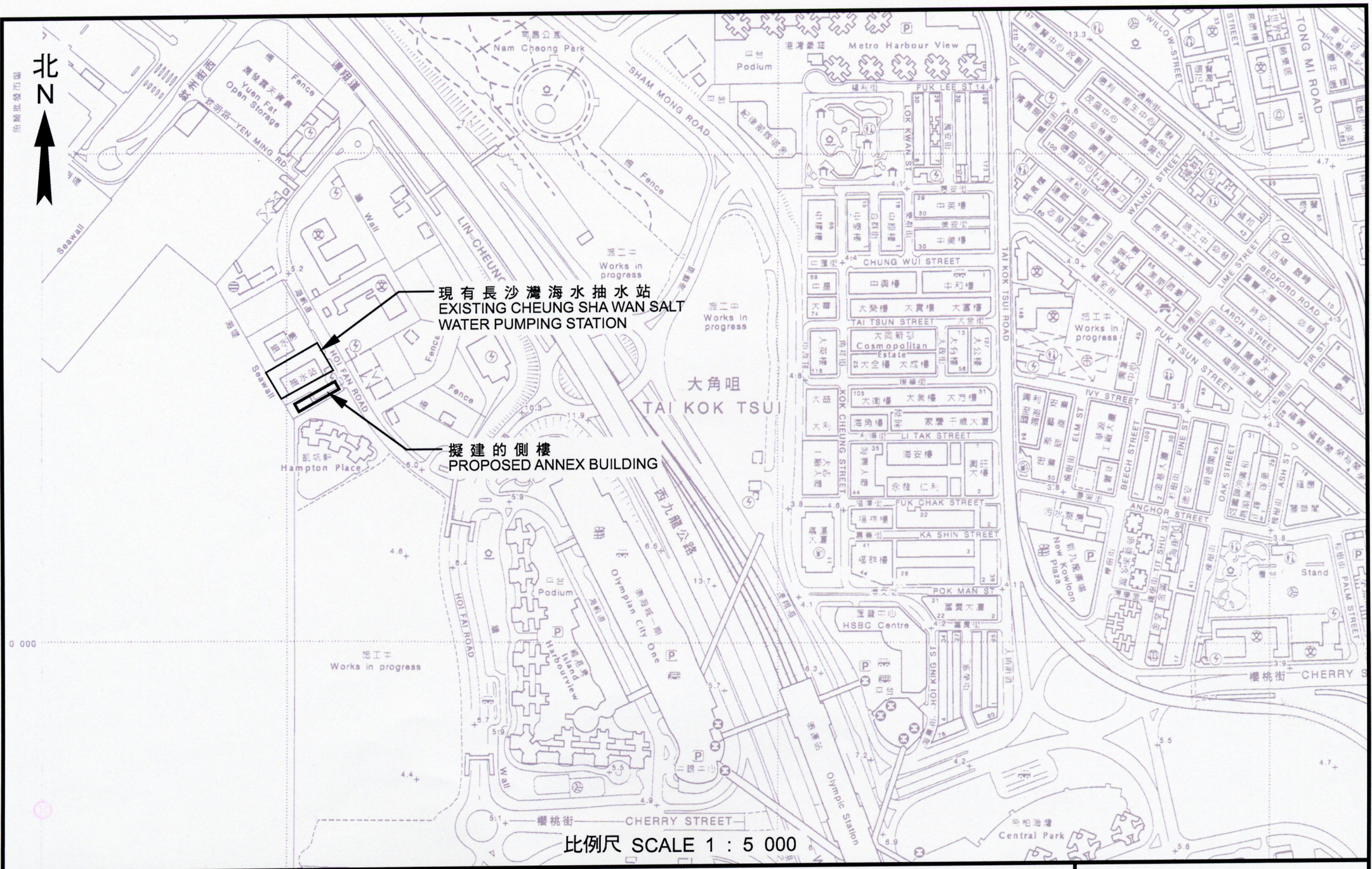
18. We estimate that the proposed works will create about 35 jobs (30 for labourers and another five for professional/technical staff) providing a total employment of 600 man-months.

WAY FORWARD

19. We intend to submit our proposal of upgrading **47WS** to Category A for consideration by the Public Works Subcommittee in January 2007 with a view to seeking funding approval from the Finance Committee.

Environment, Transport and Works Bureau
November 2006

^④ This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m³), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.



核准 APPROVED

[Signature]

總工程師/設計 CE/DES

6/10/2006

工務計劃項目第47WS號 — 西北九龍海水供應系統提升工程

P.W.P. Item no. 47WS — Uprating of salt water supply to northwest Kowloon

(甲級工程)
(CAT 'A' Submission)

 水務署
WATER SUPPLIES DEPT.

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附件1 ENCLOSURE 1