

**For discussion  
on 26 January 2021**

## **Legislative Council Panel on Development**

### **PWP Item No. 056WS Improvement of salt water supply to Tsuen Wan and Kwai Chung**

#### **PURPOSE**

This paper briefs Members on our proposal to upgrade **056WS** to Category A, entitled “**Improvement of salt water supply to Tsuen Wan and Kwai Chung**”, at an estimated cost of \$348.6 million in money-of-the-day (MOD) prices to carry out improvement works for salt water supply system in Tsuen Wan and Kwai Chung to cope with the anticipated increase in salt water demand and extension of supply areas to cover Lai King and Northwest Lai Chi Kok.

#### **PROJECT SCOPE**

2. The scope of works under **056WS** comprises –
  - (a) installation of two additional pumpsets and replacement of the existing electro-chlorination system by sodium hypochlorite solution dosing system with associated electrical and mechanical plant and equipment in the existing Tsuen Wan Salt Water Pumping Station (SWPS); and
  - (b) laying of about 3.3 kilometres (km) of salt water mains of 600 millimetres in diameter.
3. A layout plan showing the proposed works is at **Enclosure 1**.
4. We plan to commence the proposed works upon obtaining funding approval from the Finance Committee (FC) for completion in around four years.

## **JUSTIFICATION**

5. Currently, there is a salt water supply system in the Kwai Chung Hospital (KCH) for flushing within the hospital and Lai King and Northwest Lai Chi Kok areas while fulfilling the demand for cooling water for air-conditioning of the KCH. This salt water supply system will be disconnected under the programme of the redevelopment of KCH<sup>1</sup>. Extension of the existing Tsuen Wan SWPS's supply zone to cover Lai King and Northwest Lai Chi Kok areas is necessary in order to maintain the salt water supply to the aforesaid areas for flushing.

6. The Tsuen Wan SWPS supplies salt water to Tsuen Wan and Kwai Chung areas for flushing currently. Salt water from the pumping station is delivered to service reservoirs and consumers through water mains. Owing to the increase in salt water demand arising from the planned developments in Tsuen Wan, Kwai Chung and the extended supply zones covering Lai King and Northwest Lai Chi Kok areas, we anticipate that the mean daily salt water demand in the aforesaid areas will exceed the total maximum output capacity of the existing Tsuen Wan SWPS by year 2025.

7. To cope with the anticipated increase in salt water demand, we have to uprate the output capacity of the existing Tsuen Wan SWPS from 108 000 cubic metres per day (m<sup>3</sup>/day) to 141 000 m<sup>3</sup>/day and lay about 3.3 km long salt water mains to extend the supply zone to cover Lai King and Northwest Lai Chi Kok areas. As part of the uprating works, the existing electro-chlorination system of the Tsuen Wan SWPS will be replaced by a sodium hypochlorite solution dosing system for better cost effectiveness.

## **FINANCIAL IMPLICATIONS**

8. We estimate the cost of the proposed works to be \$348.6 million in MOD prices.

## **PUBLIC CONSULTATION**

9. We consulted the Traffic and Transport Committee of Kwai Tsing District Council and obtained a majority of support from the members on 18 December 2020.

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<sup>1</sup> The redevelopment of KCH commenced in June 2016 and is targeted for completion by the second quarter of 2025.

## **ENVIRONMENTAL IMPLICATIONS**

10. The proposed works is not a designated project under Schedule 2 of the Environmental Impact Assessment Ordinance (Cap. 499). We have carried out a Preliminary Environmental Review (PER) for the project concluding that the project would not have any long-term environmental impacts. We will incorporate the mitigation measures recommended in the PER into the works contract to control the environmental impacts arising from the construction works to within established standards and guidelines. These measures include frequent watering of the site, provision of wheel-washing facilities, covering of materials on trucks and use of silenced construction plant. We have included in the project estimate the cost for the implementation of these mitigation measures.

11. At the planning and design stages, we have optimised the design and layouts to reduce generation of construction waste. In addition, we will require the contractor to reuse inert construction waste (e.g. demolished concrete and excavated soil and rock) on site or in other suitable construction sites as far as possible, in order to minimize the disposal of inert construction waste at public fill reception facilities<sup>2</sup>. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce generation of construction waste.

12. At the construction stage, we will require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

13. We estimate that the proposed works will generate in total 18 095 tonnes of construction waste. Of these, we will reuse 11 370 tonnes (63%) of inert construction waste on site and deliver 5 820 tonnes (32%) of inert

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<sup>2</sup> Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste at public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 905 tonnes (5%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at public fill reception facilities and landfills is estimated to be about \$590,000 for this project (based on a unit charge rate of \$71 per tonne for disposal at public fill reception facilities and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation).

## **HERITAGE IMPLICATIONS**

14. The proposed works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites or buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

## **LAND ACQUISITION**

15. The proposed works do not involve resumption of private land.

## **TRAFFIC IMPLICATIONS**

16. We have carried out a Traffic Impact Assessment for the proposed works and would implement appropriate temporary traffic management schemes to ensure that the proposed works would not cause any significant impact on the traffic during the construction and operation stages. In case of any road closure or diversion, the temporary traffic arrangement concerned will be submitted to Transport Department, Hong Kong Police Force and other relevant departments for approval.

## **BACKGROUND**

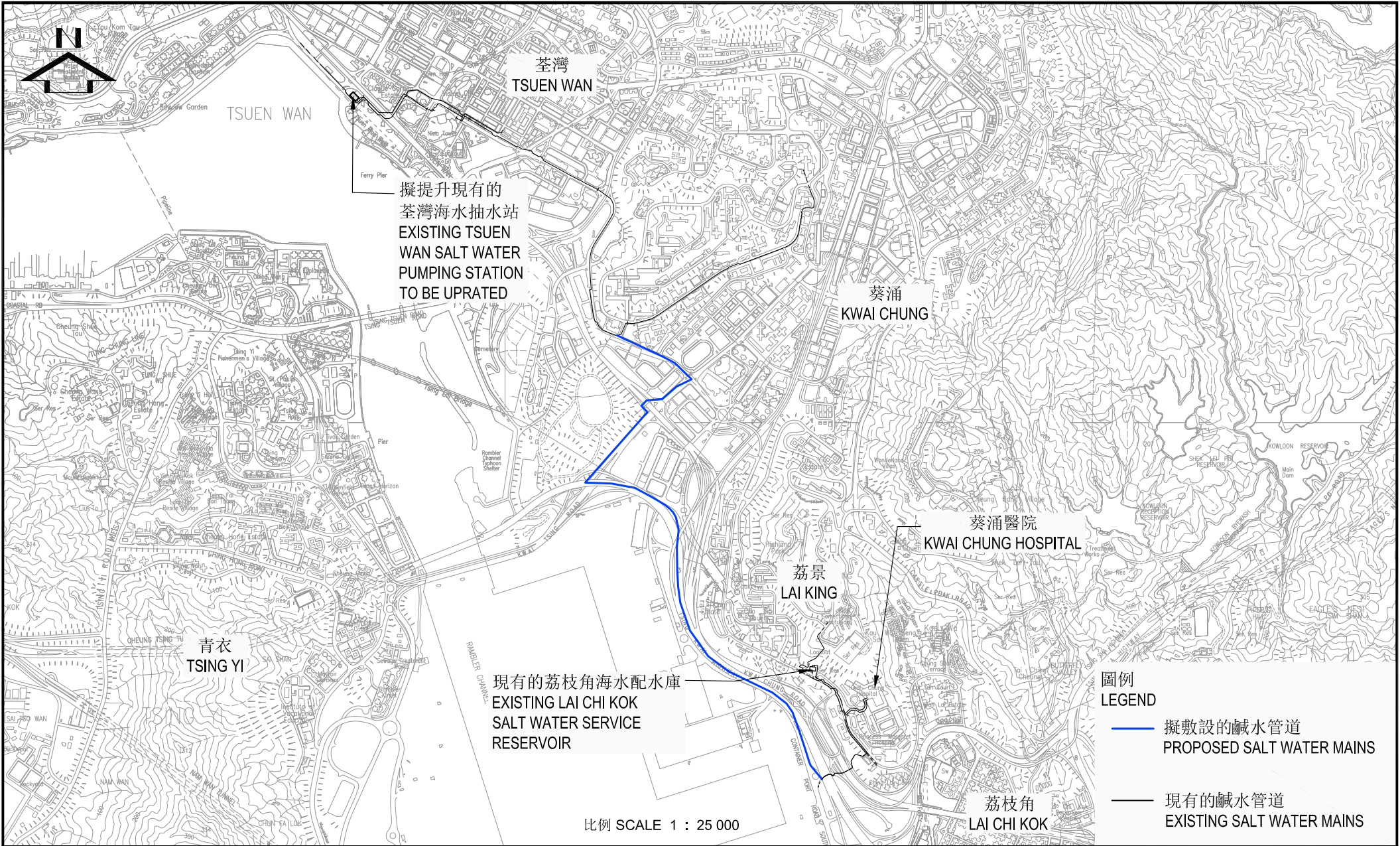
17. We upgraded **056WS** to Category B in September 2017.

18. In October 2020, we included an item under block allocation Subhead 9100WX “Waterworks, studies and investigations for items in Category D of the Public Works Programme” at an estimated cost of \$2.06 million in MOD prices for carrying out ground investigation and engagement of consultants to undertake the traffic impact assessment study.

## **WAY FORWARD**

19. We will seek support of the Public Works Subcommittee for the approval from the FC to upgrade **056WS** to Category A. We will invite tenders in parallel to enable early commencement of the proposed works, and will only award the contract after obtaining FC's funding approval.

**Development Bureau**  
**Water Supplies Department**  
**January 2021**



工務工程編號 56WS — 荃灣及葵涌鹹水供應系統改善工程

P.W.P. Item No. 56WS --- Improvement of Salt Water Supply to Tsuen Wan and Kwai Chung



水務署  
WATER SUPPLIES DEPARTMENT

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