

**For discussion
on 26 February 2018**

**Legislative Council
Panel on Environmental Affairs**

**4403DS — Upgrading of sewage pumping stations and sewerage along
Ting Kok Road**

PURPOSE

This paper seeks Members' views on our proposal to upgrade **4403DS — Upgrading of sewage pumping stations and sewerage along Ting Kok Road** to Category A at an estimated cost of \$847.3 million in money-of-the-day (MOD) prices in order to cope with the projected increase in sewage flow and improve the water quality of the Tolo Harbour.

PROJECT SCOPE

2. The proposed scope of works under **4403DS** comprises -
- (a) the construction of three new sewage pumping stations (Ting Kok Road Sewage Pumping Station (TKRSPS) Nos. 5, 7 and 8)^[1];
 - (b) the demolition of three existing sewage pumping stations (TKRSPS Nos. 5, 7 and 8);
 - (c) the construction of about 4.2 kilometres (km) of rising mains;
 - (d) the construction of about 2.1 km of gravity sewers; and
 - (e) ancillary works^[2].

A site plan showing the proposed works is at **Enclosure 1**.

¹ The existing TKRSPS No. 5 will be re-constructed in situ. Before the commissioning of the new TKRSPS No. 5, the conveyance of sewage flow will be taken up by a temporary sewage pumping station.

² Ancillary works include the utilities diversions, provision of manholes, temporary closure and reinstatement of carriageways/footpaths/open space and landscaping works that are required to complete the proposed works.

JUSTIFICATIONS

3. The existing Ting Kok Road sewerage system consists of four sewage pumping stations (SPSs) (ie TKRSPS Nos. 5 – 8) together with the associated rising mains and gravity sewers. The existing sewerage system serves people in Shuen Wan and Tai Mei Tuk areas. The capacity of the existing sewerage system is 11 500 cubic metres (m³) per day and is projected to serve at most a population of 34 500 in the Shuen Wan and Tai Mei Tuk areas. The system is anticipated to be fully utilised after 2021. The projected sewage flow could reach 21 200 m³ per day by 2036 as a result of population growth, potential developments, and progressive implementation of sewerage works for the villages and other unsewered areas within the Shuen Wan and Tai Mei Tuk areas. Therefore, we propose to increase the capacity of the existing sewerage system by 10 500 m³ to 22 000 m³ per day so as to serve a projected ultimate population of 64 000.

4. Subject to the approval of the Finance Committee (FC), we aim to commence construction of the proposed works in the third quarter of 2018 for completion in the fourth quarter of 2023.

FINANCIAL IMPLICATIONS

5. We estimate that the total cost of the project as detailed in paragraph 2 above to be \$847.3 million in MOD prices.

PUBLIC CONSULTATION

6. We consulted the Environment, Housing and Works Committee of the Tai Po District Council on 12 July 2017. The Committee supported the proposed works.

7. We gazetted the proposed sewerage works under **4403DS** in accordance with the Water Pollution Control (Sewerage) Regulation (Cap. 358AL) on 28 July 2017. No objection was received and the proposed works were subsequently authorised on 20 October 2017.

ENVIRONMENTAL IMPLICATIONS

8. The proposed works is a designated project under Schedule 2 of the Environmental Impact Assessment Ordinance (Cap. 499). Having regard to the project profile (PP), the Director of Environmental Protection (DEP) is satisfied that the environmental impact of the project can meet the requirements of the Technical Memorandum on Environmental Impact Assessment Process. With the consent of the Secretary for the Environment, the permission to apply directly for an environmental permit (EP) was granted on 24 January 2018. We will obtain the EP prior to the commencement of the construction works. We shall implement the mitigation measures set out in the PP and as required by the DEP. We have included in the project estimate of the proposed works the cost for implementing the environmental mitigation measures.

9. For the short-term environmental impacts during construction, we will make use of low-noise technology and equipment to minimise noise impact from the demolition works. In addition, water-spraying to the construction site will be applied regularly to minimise emission of fugitive dust, and on-site treatment of site run-off will be carried out to minimise potential water quality impact. We will also carry out regular site inspections to ensure that these recommended mitigation measures and good practices will be properly implemented on site. For the operation phase, we will also implement the measures recommended in the PP and stipulated in the EP. The key measures include enclosing all process equipment inside building structure, equipping the new and upgraded SPSs with deodourisation unit and fitting exhaust fans with acoustic louvre/ silencer.

10. At the planning and design stages, we have considered ways to reduce the generation of construction waste (e.g. to design the alignment of the proposed sewage rising mains in such a manner that excavation and modification of existing structures will be minimised) where possible. In addition, we will request the contractor to reuse inert construction waste (e.g. excavated soil) on site or in other suitable construction sites as far as possible in order to minimise the disposal of inert construction waste to the public fill reception facilities (PFRF^[3]). 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 the generation of construction waste.

11. We will also request the contractor to submit for approval a plan setting out the waste management measures, including appropriate mitigation

³ PFRF are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in PFRF requires a licence issued by the Director of Civil Engineering and Development.

measures 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 request the contractor to separate inert and non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert and non-inert construction waste at PFRF and landfills respectively through a trip-ticket system.

12. We estimate that the proposed works will generate 50 000 tonnes of construction waste. Of these, we will reuse 21 000 tonnes (42%) on site, and deliver 26 600 tonnes (53%) of inert construction waste to PFRF for subsequent reuse and 2 400 tonnes (5%) of non-inert construction waste to landfills for disposal. The total cost for disposal of the aforementioned construction waste at PFRF and landfill sites is estimated to be about \$2.4 million (based on a unit charge rate of \$71 per tonne for disposal at PFRF and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

13. 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.

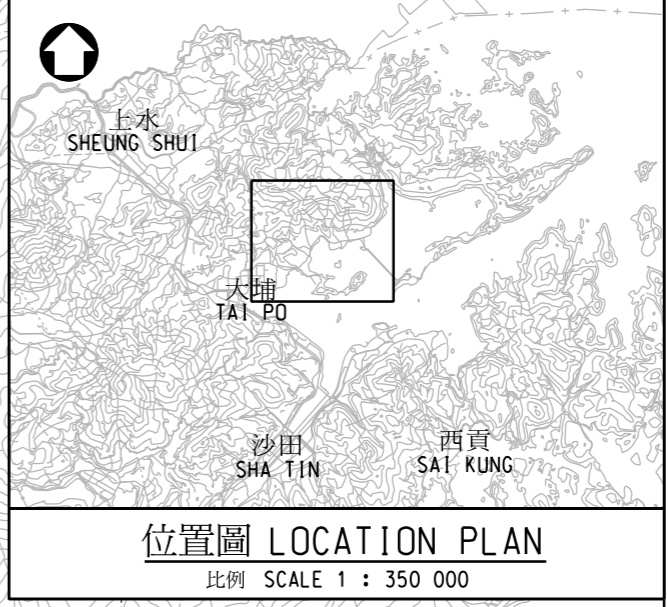
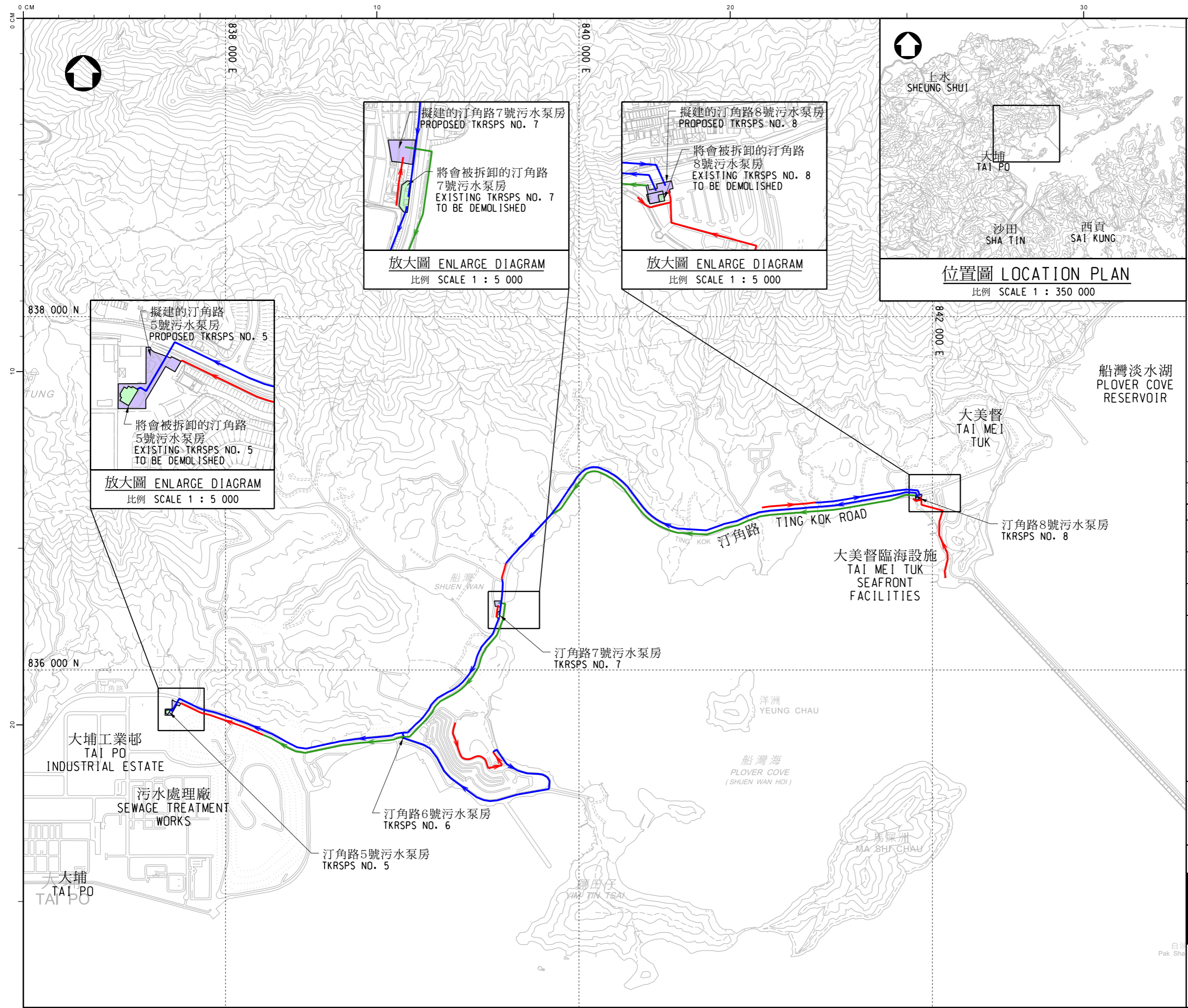
LAND ACQUISITION

14. The implementation of the proposed works will only involve government land. No land resumption is required.

WAY FORWARD

15. We plan to seek funding approval from the FC in May 2018 for the proposed works under **4403DS** after consulting the Public Works Subcommittee. Members are invited to comment on the proposed funding application.

**Environment Bureau
Drainage Services Department
February 2018**



- 圖例
LEGEND :
- 現有的污水渠
EXISTING SEWER
 - 擬建的無壓污水渠
PROPOSED GRAVITY SEWER
 - 擬建的污水泵喉
PROPOSED RISING MAINS

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		姓名 name	日期 date
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核對 checked		SIGNED Ir K. S. NG	13 FEB 2018
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圖則名稱 drawing title

工務工程計劃編號 4403DS
- 汀角路污水泵房及污水收集系統改善工程
PWP ITEM NO. 4403DS
- UPGRADING OF SEWAGE PUMPING STATIONS AND SEWERAGE ALONG TING KOK ROAD

圖則編號 drawing no.	比例 scale
DCM/2018/004	1 : 20 000 OR AS SHOWN

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部門 office

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CONSULTANTS MANAGEMENT DIVISION

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DRAINAGE SERVICES DEPARTMENT
GOVERNMENT OF THE
HONG KONG
SPECIAL ADMINISTRATIVE REGION