

**For discussion  
on 25 November 2019**

**Legislative Council  
Panel on Environmental Affairs**

**4339DS - North District sewerage, stage 1 phase 2C and stage 2 phase 1**

**PURPOSE**

This paper seeks Members' view on our proposal to upgrade part of **4339DS - North District sewerage, stage 1 phase 2C and stage 2 phase 1** to Category A at an estimated cost of \$179.7 million in money-of-the-day (MOD) prices for taking forward the provision of sewerage network to parts of the unsewered areas in Fanling.

**PROJECT SCOPE**

2. The part of **4339DS** that we propose to upgrade to Category A comprises –
  - (a) the construction of about 6 kilometres of gravity sewers in Fanling; and
  - (b) ancillary works<sup>1</sup>.

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A plan showing the locations of the proposed works is at Enclosure 1.

**JUSTIFICATIONS**

3. Currently, the majority part of Fanling is covered by public sewerage system, but some village areas in the district are still unsewered, with their sewage disposed of by individual and simple facilities on-site such as septic

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<sup>1</sup> Ancillary works include the utilities diversions, provision of manholes, temporary closure and reinstatement of carriageways/footpaths/open space, necessary landscaping works that are required to complete the proposed works.

tanks and soakaway (STS) systems<sup>2</sup>. Extension of the public sewerage system to these areas can help improve environmental hygiene and further reduce the amount of pollutants being discharged into the nearby River Indus and Deep Bay.

4. We now propose to provide public sewerage system for the five unsewered village areas in Fanling, which include three villages in Fanling Wai (Fanling Nam Wai, Fanling Pak Wai, and Fanling Ching Wai), So Kwun Po and Leng Pei Tsuen through the proposed works. The proposed sewerage system will serve an estimated population of 9 000.

5. Upon completion of the proposed works, sewage from Fanling Wai, So Kwun Po and Leng Pei Tsuen will be conveyed to the Shek Wu Hui Sewage Treatment Works for proper treatment and disposal.

6. Subject to the funding approval of the Finance Committee (FC), we aim to commence construction of the proposed works in the third quarter of 2020 for completion in the first quarter of 2025. The remainder of **4339DS** for the provision of public sewerage system for another ten unsewered areas in the North District will be retained in Category B, with funding to be sought at a later stage after completion of the design and preparatory works.

## **FINANCIAL IMPLICATIONS**

7. We estimate that the total capital cost of the proposed works as detailed in paragraph 2 above to be \$179.7 million in MOD prices.

## **PUBLIC CONSULTATION**

8. We consulted the Fanling District Rural Committee on 6 September 2017 and the District Minor Works and Environmental Improvement Committee of the North District Council on 20 November 2017. Both Committees supported the proposed works.

9. We gazetted the proposed sewerage works in four packages under the Water Pollution Control (Sewerage) Regulation (Cap. 358AL) between December 2018 and March 2019. There was no objection received against the three packages for So Kwun Po, Leng Pei Tsuen and Fanling Wai (Part 1), and they were authorised on 8 March 2019, 12 April 2019 and 24 May 2019

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<sup>2</sup> STS systems operate by allowing the effluent to percolate through soil layers so that pollutants may be removed in a natural manner. However, if a STS system is located in an area where the ground water table is high, such as an area in proximity to the seaside or watercourses, it will not function properly due to ineffective percolation. There are also maintenance problems with some STS systems.

respectively. There was one objection received against the package for Fanling Wai (Part 2). If the objection cannot be resolved, the proposed works will be submitted to the Chief Executive in Council for consideration.

## **ENVIRONMENTAL IMPLICATIONS**

10. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The Drainage Services Department completed a Preliminary Environmental Review (PER) for the proposed works in September 2016. The PER concluded and the Director of Environmental Protection agreed that, with the implementation of appropriate mitigation measures, the proposed works would not cause long-term adverse environmental impacts. We have included in the project estimate of the proposed works the cost for implementing the necessary environmental mitigation measures.

11. For the construction stage, we will control noise, dust and site run-off nuisances to within the established standards and guidelines through the implementation of the recommended mitigation measures. They include the use of silenced construction equipment and temporary noise barriers to reduce noise impact, water-spraying to the construction site regularly to minimise the emission of fugitive dust, and on-site treatment of site run-off 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.

12. At the planning and design stages, we have considered measures to reduce the generation of construction waste where possible. In addition, we will require the contractors to reuse inert construction waste (e.g. excavated soil) on site or in other suitable construction sites as far as possible in order to minimize the disposal of inert construction waste to public fill reception facilities (PFRF<sup>3</sup>). We will encourage the contractors 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.

13. We will also require the contractors 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

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<sup>3</sup> PFRF are specified in Schedule 4 of 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.

plan. We will require the contractors to separate 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 PFRF and landfills respectively through a trip-ticket system.

14. We estimate that the proposed works will generate in total about 15 140 tonnes of construction waste. Of these, we will reuse about 8 680 tonnes (57%) of inert construction waste on site and deliver another 6 290 tonnes (42%) of inert construction waste to PFRF for subsequent reuse. We will dispose of the remaining 170 tonnes (1%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRF and landfill sites is estimated to be \$480,590 for the proposed works (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**

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

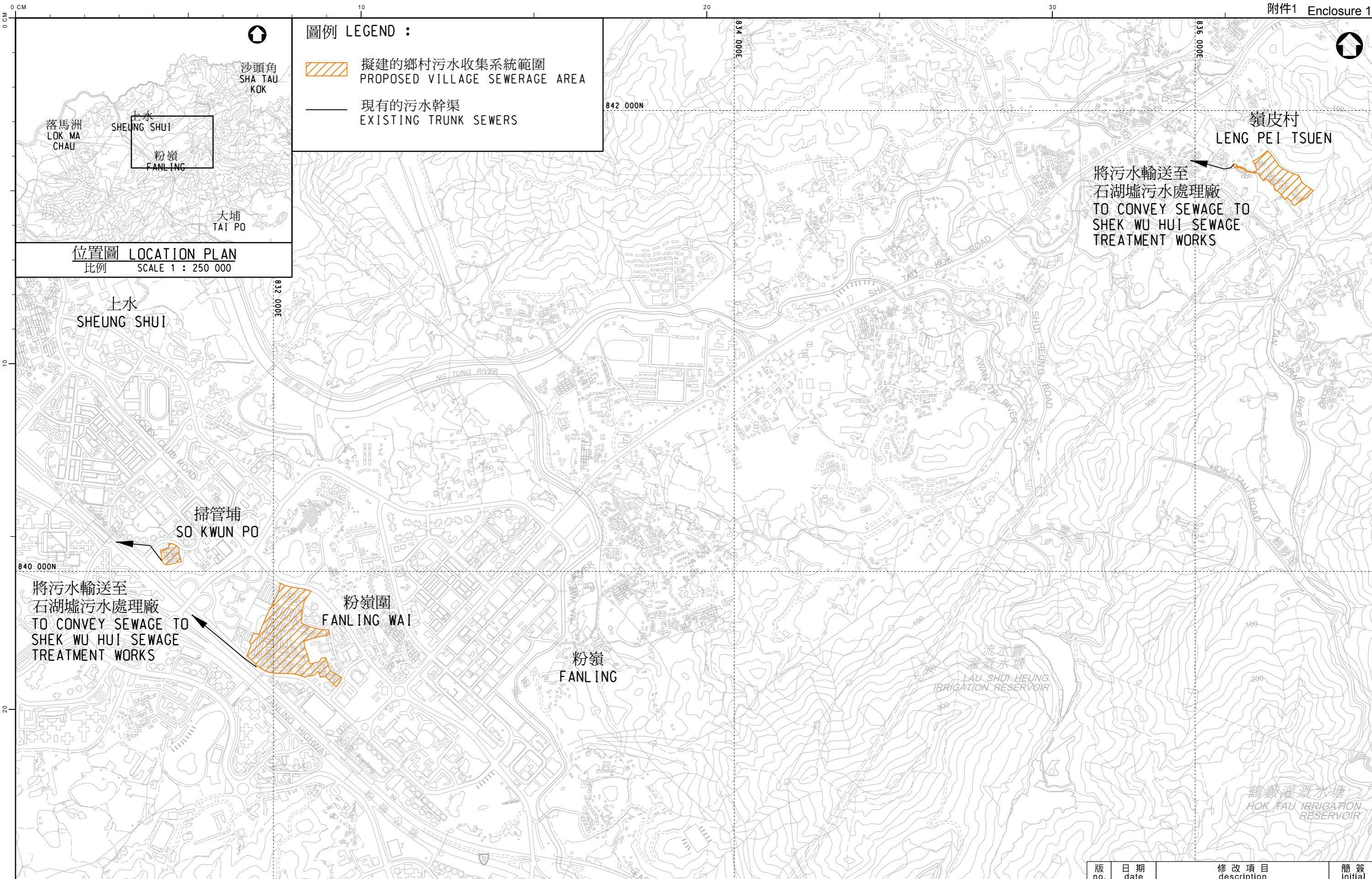
## **LAND ACQUISITION**

16. Thirteen private agricultural lots (about 551 square metres) that straddle the proposed sewer alignment will need to be resumed for implementing the proposed works. Site clearance will not affect any household but will affect three non-domestic structures located in Fanling Wai and Leng Pei Tsuen.

## **WAY FORWARD**

17. We plan to seek funding approval from the FC for the proposed works under part of **4339DS** after consulting the Public Works Subcommittee. Members are invited to comment on the proposed works.

**Environment Bureau**  
**Drainage Services Department**  
**November 2019**



**圖例 LEGEND :**

- 擬建的鄉村污水收集系統範圍  
PROPOSED VILLAGE SEWERAGE AREA
- 現有的污水幹渠  
EXISTING TRUNK SEWERS

**位置圖 LOCATION PLAN**  
比例 SCALE 1 : 250 000

圖則名稱 drawing title

工務工程計劃編號 4339號 - 北區污水收集系統第1階段第2C期及第2階段第1期  
PWP ITEM NO. 4339DS - NORTH DISTRICT SEWERAGE STAGE 1 PHASE 2C AND STAGE 2 PHASE 1

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批核 approved <i>SIGNED</i> Ir K. Y. HO	日期 date 03 JUNE 2019	保留版權 COPYRIGHT RESERVED	
部門 office <b>顧問工程管理部</b> <b>CONSULTANTS MANAGEMENT DIVISION</b>	香港特別行政區政府渠務署 DRAINAGE SERVICES DEPARTMENT GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION		