

**For discussion  
on 27 October 2020**

## **Legislative Council Panel on Development**

### **Improvement of water supply facilities in Sheung Wong Yi Au**

#### **PURPOSE**

This paper briefs Members on our proposal to upgrade the remaining part of **353WF**, entitled “Uprating of Sheung Wong Yi Au fresh water supply system”, to Category A at an estimated cost of \$136.5 million in money-of-the-day (MOD) prices for the construction of Sheung Wong Yi Au (SWYA) No. 3 fresh water service reservoir and laying of the associated fresh water mains.

#### **PROJECT SCOPE**

2. The remaining part of **353WF** which we propose to upgrade to Category A comprises the construction of Sheung Wong Yi Au No. 3 fresh water service reservoir and laying of the associated fresh water mains. The location of the proposed works is shown on the plan at **Enclosure 1**.

3. We plan to commence the proposed works upon obtaining funding approval from the Finance Committee (FC) for completion in around three and a half years.

#### **JUSTIFICATION**

4. At present, the SWYA fresh water supply system includes the Ha Wong Yi Au (HWYA) fresh water pumping station and the SWYA fresh water service reservoirs namely SWYA No. 1 and 2 service reservoirs, which can cater for a mean daily demand of about 10 500 cubic metres (m<sup>3</sup>) per day.

5. In order to cope with the increasing water demand arising from new housing developments within the supply zone and to enhance the reliability of water supply to the areas, we propose to uprate the existing SWYA fresh water supply system, including uprating the existing HWYA fresh water pumping station, the associated pumping mains, constructing a new fresh water service reservoir, namely SWYA No. 3 fresh water service reservoir, of a storage capacity of 6 000 m<sup>3</sup>, and laying of the associated fresh water mains.

6. The part of **353WF**, comprising the uprating of existing HWYA fresh water pumping station and laying of the associated pumping mains, was upgraded to Category A in July 2020, in order to meet the projected daily demand of 12 900 m<sup>3</sup> in 2022. As the projected daily demand will eventually increase to 15 600 m<sup>3</sup> in 2030, we propose to upgrade the remaining part of **353WF** for the construction of SWYA No. 3 fresh water service reservoir and laying of the associated fresh water mains.

## **FINANCIAL IMPLICATIONS**

7. We estimate the cost of the proposed works to be \$136.5 million in MOD prices.

## **PUBLIC CONSULTATION**

8. We consulted the Tai Po Rural Committee and Environment, Housing and Works Committee of Tai Po District Council on 7 November 2018. Members supported the proposed works.

## **ENVIRONMENTAL IMPLICATIONS**

9. The proposed works are not regarded as a designated project under the Environment Impact Assessment Ordinance (Cap. 499). We have carried out the Preliminary Environmental Review (PER) for the proposed works. The PER concluded 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 the environmental mitigation measures.

10. At the planning and design stages, we have considered design and layout optimisation 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 minimise the disposal of inert construction waste at public fill reception facilities (PFRF)<sup>1</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 where possible.

11. 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 also 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 in total about 23 320 tonnes of construction waste. Of these, we will reuse about 3 540 tonnes (15%) of inert construction waste on site and deliver 17 440 tonnes (75%) of inert construction waste to PFRF for subsequent reuse. We will dispose of the remaining 2 340 tonnes (10%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRF and landfills is estimated to be \$1.7 million for this project (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)).

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<sup>1</sup> Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste at public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

## HERITAGE IMPLICATIONS

13. 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

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

## TRAFFIC IMPLICATIONS

15. Traffic review has been carried out for the proposed works in the design stage and it concluded that the proposed works would not cause any significant impact on the traffic during the construction and operation stages. Temporary traffic arrangement scheme shall be submitted to the Transport Department and the Hong Kong Police Force and relevant departments for approval in case any road closure or diversion of the traffic on public roads are required.

## BACKGROUND

16. We upgraded **353WF** to Category B in September 2014.

17. In September 2015, we engaged contractors to carry out site investigations and consultants to undertake the landscape design for the proposed works at a total cost of \$1.8 million in MOD prices. We charged the amount to block allocation **Subhead 9100WX** “Waterworks, studies and investigations for items in Category D of the Public Works Programme”.

18. On 10 July 2020, we upgraded part of **353WF** to Category A as **369WF** “Upgrading of Sheung Wong Yi Au fresh water supply system - stage 1” at an approved project estimate of \$207.0 million in MOD prices to implement the upgrading of existing HWYA fresh water pumping station and laying of the associated pumping mains. The stage 1 works commenced in September 2020 for completion in the second half of 2023.

19. Of the 320 trees within the project boundary of the proposed works, 51 trees will be preserved and 269 trees will be felled. All trees to be removed are not important trees<sup>2</sup>. We will incorporate planting proposals as part of the proposed works, including planting of 128 trees and formation of 2 520 square metres of grassed area.

## **WAY FORWARD**

20. We will seek support of the Public Works Subcommittee for the approval from the FC to upgrade the remaining part of **353WF** 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**  
**October 2020**

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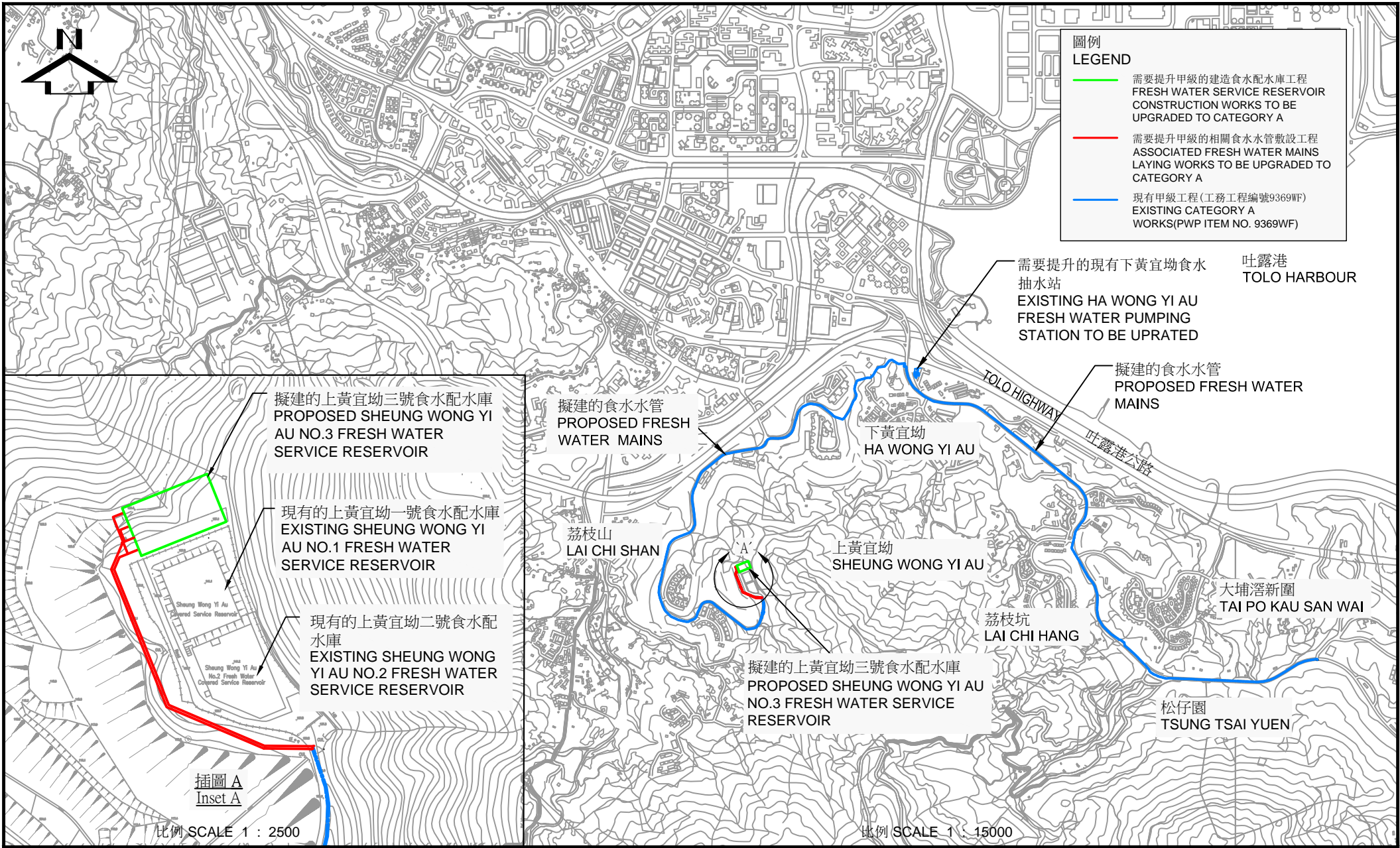
<sup>2</sup> "Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria-

- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees as landmark of monastery or heritage monument, and trees in memory of important persons or events;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal or exceeding 1.0 m (measured at 1.3 m above ground level), or with height or canopy spread equal or exceeding 25 m.



**圖例**  
**LEGEND**

- 需要提升甲級的建造食水配水庫工程  
FRESH WATER SERVICE RESERVOIR  
CONSTRUCTION WORKS TO BE  
UPGRADED TO CATEGORY A
- 需要提升甲級的相關食水水管敷設工程  
ASSOCIATED FRESH WATER MAINS  
LAYING WORKS TO BE UPGRADED TO  
CATEGORY A
- 現有甲級工程(工務工程編號9369WF)  
EXISTING CATEGORY A  
WORKS(PWP ITEM NO. 9369WF)



需要提升的現有下黃宜坳食水抽水站  
EXISTING HA WONG YI AU FRESH WATER PUMPING STATION TO BE UPDATED

吐露港  
TOLO HARBOUR

擬建的食水水管  
PROPOSED FRESH WATER MAINS

TOLO HIGHWAY  
吐露港公路

下黃宜坳  
HA WONG YI AU

擬建的食水水管  
PROPOSED FRESH WATER MAINS

荔枝山  
LAI CHI SHAN

上黃宜坳  
SHEUNG WONG YI AU

荔枝坑  
LAI CHI HANG

大埔滘新圍  
TAI PO KAU SAN WAI

松仔園  
TSUNG TSAI YUEN

擬建的上黃宜坳三號食水配水庫  
PROPOSED SHEUNG WONG YI AU NO.3 FRESH WATER SERVICE RESERVOIR

現有的上黃宜坳一號食水配水庫  
EXISTING SHEUNG WONG YI AU NO.1 FRESH WATER SERVICE RESERVOIR

現有的上黃宜坳二號食水配水庫  
EXISTING SHEUNG WONG YI AU NO.2 FRESH WATER SERVICE RESERVOIR

擬建的上黃宜坳三號食水配水庫  
PROPOSED SHEUNG WONG YI AU NO.3 FRESH WATER SERVICE RESERVOIR

插圖 A  
Inset A

比例 SCALE 1 : 2500

比例 SCALE 1 : 15000

工務工程編號 9353WF --- 上黃宜坳食水供應系統提升工程  
P.W.P. Item No. 9353WF --- Uprating of Sheung Wong Yi Au fresh water supply system

水務署  
WATER SUPPLIES DEPARTMENT

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草圖編號 SKETCH NO. SK 62019 / 172

附件一 ENCLOSURE 1