

For information

Legislative Council Panel on Planning, Lands and Works

325WF - Integration of Mount Davis Fresh Water Primary Service Reservoir with Central and Western Low Level Fresh Water Supply System

PURPOSE

This paper briefs Members on the Administration's proposal to upgrade **325WF** – “Integration of Mount Davis Fresh Water Primary Service Reservoir with Central and Western Low Level Fresh Water Supply System” to Category A, at an estimated cost of \$32.8 million in money-of-the-day (MOD) prices, to improve the reliability of fresh water supply to the residents in the low level areas of Central and Western district.

BACKGROUND

2. Fresh water supply to the low level areas of Central and Western district will be disrupted in case there is interruption or significant reduction in the inflow of water to the service reservoirs serving these areas. We need to improve the existing fresh water supply system to enhance the reliability of fresh water supply to Central and Western district.

3. The project **325WF** was included in Category B in October 2004.

PROPOSAL

4. The scope of works under **325WF** comprises the laying of an 800 millimetres diameter fresh water main of about 2 kilometres in Victoria Road and Mount Davis Path. The alignment of the water main is shown in the site plan at **Enclosure 1**.

5. We plan to start the proposed mainlaying works in late 2006 for completion in mid 2009. The works will be supervised by in-house staff.

JUSTIFICATION

6. The three fresh water service reservoirs, namely the Kennedy Town, Western and Gardens fresh water service reservoirs make up the core service reservoirs in the Central and Western low level fresh water supply system. They receive water from Sha Tin water treatment works via primary service reservoirs, trunk mains and pumping stations. In the event that the inflow of water to any one of these service reservoirs is interrupted or significantly reduced due to power failure of the pumping stations or emergency repair of the trunk mains between the water treatment works and the fresh water service reservoirs, water supply to the low level areas of Central and Western district will be disrupted.

7. To enhance the reliability of the supply system, we plan to implement the works under **325WF** to integrate Mount Davis fresh water primary service reservoir which is supplied by Silvermine Bay water treatment works with the Central and Western low level fresh water supply system. When the works are completed, the low level areas of Central and Western district can receive fresh water supply from Silver Mine Bay water treatment works via Mount Davis fresh water primary service reservoir in times of need.

8. Upon completion of the proposed works, the reliability of fresh water supply to the low level areas of Central and Western district will be improved.

FINANCIAL IMPLICATIONS

9. We estimate the cost of the proposed works to be \$32.8 million in MOD prices, made up as follows –

	\$ million
(a) Mainlaying	29.6
(b) Environmental mitigation measures	0.3
(c) Contingencies	2.9
Total	32.8

(in MOD prices)

10. We estimate the annual recurrent expenditure arising from this project to be \$113,000.

ENVIRONMENTAL IMPLICATIONS

11. This is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The project would have no long-term environmental impact. Short-term construction impacts could be mitigated through the implementation of standard pollution control measures. We have included \$0.3 million for the implementation of these mitigation measures in the project estimate and will incorporate these requirements in the works contract.

12. We have considered the alignment and level of the proposed water main 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 facilities¹. 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. We will record the disposal, reuse and recycling of C&D materials for monitoring purposes.

14. We estimate that the project will generate about 18 100 tonnes of C&D materials. Of these, we will reuse about 8 200 tonnes (45.3%) on site, deliver 9 400 tonnes (51.9%) to public fill reception facilities for subsequent reuse. In addition, we will dispose of 500 tonnes (2.8%) at landfills. The total cost for accommodating C&D materials at public fill reception facilities and landfill sites is estimated to be about \$316,300 for this project (based on an unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne² at landfills).

15. The proposed works will not involve any tree removal or planting proposal.

¹ 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.

² 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.

TRAFFIC IMPLICATIONS

16. We have carried out traffic impact assessments (TIA) for the proposed works. The TIA have concluded that the proposed works would not cause unacceptable traffic impact. We will closely liaise with Transport Department, Hong Kong Police Force, Highways Department and Central and Western District Office, and implement temporary traffic management schemes to minimise impacts on traffic during construction. Notice boards will be displayed on site to explain the reason of temporary traffic arrangements and the expected completion date of the concerned section of works. In addition, telephone hotlines will be set up for public enquiries or complaints.

PUBLIC CONSULTATION

17. We consulted the Food, Environment, Hygiene and Works Committee of the Central and Western District Council on 9 February 2006. The Committee supported the project.

LAND ACQUISITION

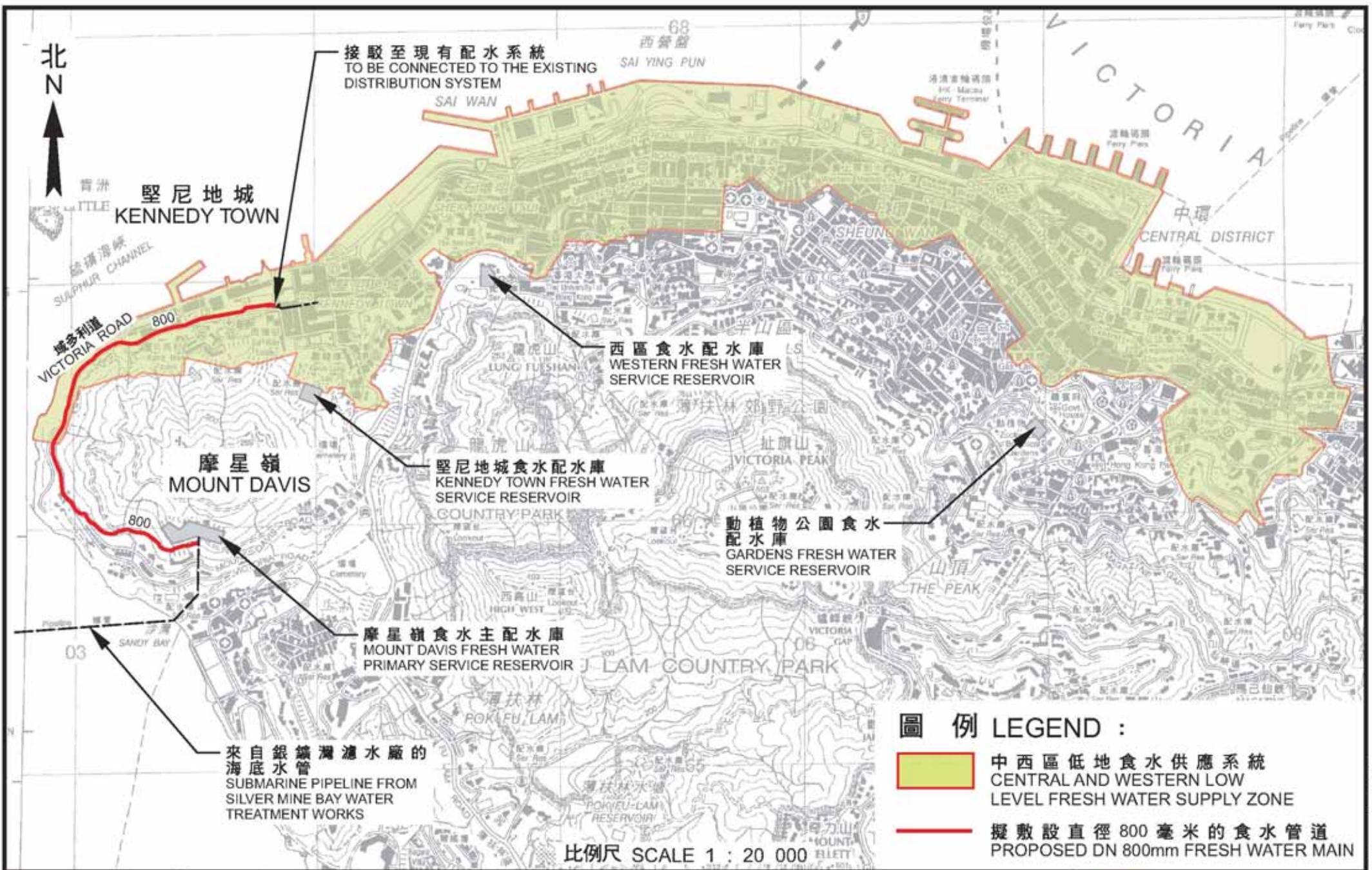
18. The project does not require any land acquisition.

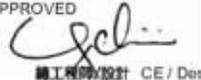
JOB CREATION

19. We estimate that the proposed works will create 24 jobs (20 for labourers and another four for professional/technical staff) providing a total employment of 520 man-months.

WAY FORWARD

20. We intend to submit our proposal of upgrading **325WF** to Category A for consideration by the Public Works Subcommittee in June 2006 with a view to seeking funding approval of the Finance Committee in July 2006.



核准 APPROVED

 總工程師/設計 CE/Des
 3 / 4 / 2006

工務計劃項目第 9325WF 號 — 連接摩星嶺食水主配水庫及中西區低地食水供應系統的合併工程
 P.W.P. Item no. 9325WF — Integration of Mt Davis fresh water primary service reservoir with Central and Western low level fresh water supply system

 水務署
 WATER SUPPLIES DEPT.
 草圖編號 SK 62005 / 196

- 圖例 LEGEND :**
-  中西區低地食水供應系統
CENTRAL AND WESTERN LOW LEVEL FRESH WATER SUPPLY ZONE
 -  擬敷設直徑 800 毫米的食水管
PROPOSED DN 800mm FRESH WATER MAIN

比例尺 SCALE 1 : 20 000