

CONTROLLING OFFICER'S REPLY

(Question Serial No. 2651)

Head: (39) Drainage Services Department

Subhead (No. & title): Not specified

Programme: (2) Sewage Services

Controlling Officer: Director of Drainage Services (MOK Wing-cheong)

Director of Bureau: Secretary for Development

Question:

Regarding the relocation of Sha Tin Sewage Treatment Works to caverns, would the Government inform this Committee:

1. of the progress of the project and the respective expenditures for its various stages;
2. of the measures taken to monitor the progress of the project and ensure it can be completed on schedule;
3. of the estimated expenditure on the management, maintenance and repair of the existing Sha Tin Sewage Treatment Works; and
4. in view of the population growth in Sha Tin and Ma On Shan, whether consideration will be given to upgrading the sewage treatment level of the Sha Tin Sewage Treatment Works to the tertiary level and exploring the feasibility of using reclaimed water to flush toilets?

Asked by: Hon LI Sai-wing, Stanley (LegCo internal reference no.: 33)

Reply:

The project concerning the relocation of Sha Tin Sewage Treatment Works (STSTW) to caverns aims to release the existing STSTW site mainly for development of innovation and technology and improve the existing site and its surrounding environment.

1. The entire project concerning the relocation of STSTW to caverns is mega in scale and complex, covering various professional disciplines and works categories. A large number of works items are interrelated and are currently being implemented in 4 stages in a proper and timely manner. Stage 1 works (including site formation, construction of access tunnels and retaining structures as well as associated roadworks), the approved project estimate for which is \$2.0775 billion in money-of-the-day (MOD) prices, commenced in 2019 and were completed in 2022. Stage 2 works (including excavation of the main cavern complex and construction of upstream sewerage works), the approved project estimate for which is \$14.0765 billion in MOD prices, have commenced in July 2021. Stage 3 works (including provision of buildings to the sewage treatment works and installation of a cavern ventilation system), the approved

project estimate for which is \$3.1238 billion in MOD prices, commenced in August 2023. Regarding the remaining works (including the construction and installation of sewage treatment facilities; construction of maintenance workshop buildings; and decommissioning and demolition of the existing STSTW), we plan to seek funding approval from the Finance Committee for commencement of works in 2024. We will continue to press ahead with the works in each stage, with a view to completing the entire relocation project in 2031.

2. To ensure the project can be completed on schedule, the Drainage Services Department (DSD), together with its resident site staff, will closely monitor works progress through various means such as regular meetings, site inspections and innovative technologies. With the introduction of an early warning mechanism in the New Engineering Contract (NEC) adopted in the project, both the client's representative and the contractor are encouraged to identify and raise potential risks that may affect the project as early as possible, and when construction difficulties and problems are encountered, to negotiate and formulate the optimal solution for the smooth implementation of the project according to the prescribed procedure framework and timeframes in the contract, so as to reduce the risk of project delay. At present, all stages of works are being implemented on schedule, with the entire project scheduled for completion in 2031.
3. The estimated expenditure on the management, maintenance and repair of the existing STSTW in 2024-25 is about \$160 million (excluding the salary for DSD staff members). The DSD will continue to optimise the operation of STSTW so as to keep the costs under control.
4. Currently, the STSTW is a secondary sewage treatment works. As the plan for relocation of STSTW to caverns will not involve any change in the flow, quality and discharge point of the effluent to be discharged, maintaining the secondary treatment level of STSTW is the most cost-effective way for relocation without affecting the quality of the receiving water bodies.

Besides, the Government has been implementing the Total Water Management Strategy, under which expanding the use of lower grade water (including seawater and reclaimed water) for non-potable purposes is one of the key initiatives to contain fresh water demand growth. Since seawater is currently being used for flushing toilets in Sha Tin and Ma On Shan, switching from seawater to reclaimed water would require the Government not only to bear an additional treatment cost for raising the sewage purification level to the reclaimed water quality standards, but also to carry out various roadworks in many parts of the district for provision and connection of a new network of water mains. Overall, it is more cost-effective to continue using seawater for flushing toilets in Sha Tin and Ma On Shan.