

**CONTROLLING OFFICER'S REPLY**

**(Question Serial No. 2458)**

Head: (39) Drainage Services Department

Subhead (No. & title): Not specified

Programme: (1) Stormwater Drainage

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

Director of Bureau: Secretary for Development

Question:

In 2019, the Drainage Services Department (DSD) identified three additional locations where the waterfronts were vulnerable to the impact of overtopping waves (i.e. overtopping wave spots), namely Tseung Kwan O South, Heng Fa Chuen and South Horizons. Would the Government advise this Committee of the following?

1. The DSD said it would set up a storm surge warning system under which residents of the buildings and housing estates affected by overtopping waves would be alerted around the clock and notified by short message service (SMS) regarding the forecast of storm surge and the water level. What is the progress of setting up the warning system? Please provide the list of buildings and housing estates covered by the warning system.
2. The DSD said it would provide earth bunds and drainage facilities at overtopping wave spots. How many improvement projects in connection with overtopping wave spots will be or are being carried out? Please give the details.
3. Regarding overtopping wave spots, the DSD conducted a pilot trial of temporary floating breakwaters anchored at the seabed. What is the result of the pilot trial? What is the cost of the pilot trial?
4. Can the temporary floating breakwater mentioned above be widely used in Hong Kong?
5. Will the Government plan to increase the number of overtopping wave spots in view of extreme weather?

Asked by: Hon LEUNG Hei, Edward (LegCo internal reference no.: 148)

Reply:

Our consolidated reply to Member's questions is as follows:

In 2021, having regard to extreme weather, the Government completed the relevant studies and identified 26 higher risk coastal low-lying or windy residential areas (including the 3 overtopping wave spots in Tseung Kwan O South, Heng Fa Chuen and South Horizons), and formulated plans for the necessary improvement works (such as raising the height of wave walls and installing demountable flood barriers) and management measures to cope with storm surges and overtopping waves. While the improvement works are scheduled for

completion in phases by 2027, the management measures have already been put in place to meet the emergency needs of the housing estates and the people affected.

Regarding the above-mentioned overtopping wave spots, upon the issuance of the storm surge alerts by the Hong Kong Observatory, relevant government departments including the Drainage Services Department (DSD) and the Home Affairs Department (HAD) will be notified. The DSD will immediately deploy the emergency response teams to assist the locals concerned in implementing appropriate management measures and handling flooding problems, while the HAD will notify the people affected via the property management companies of the housing estates concerned.

The DSD conducted a trial of temporary floating breakwaters at the waters off the Ap Lei Chau Preliminary Treatment Works. The trial results showed that the use of temporary floating breakwaters could not yield the expected wave attenuation effect. Thus, the protection it could offer to nearshore drainage facilities is quite limited. Therefore, the DSD does not have any plans for wider use of the technology at the moment. The total expenditure on the trial is approximately \$5 million.

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