

## LCQ11: Prevention of flooding in the rural areas

Following is a question by the Hon Chan Han-pan and a written reply by the Secretary for Development, Mr Michael Wong, in the Legislative Council today (November 11):

Question:

It is learnt that whenever there are rainstorms, some rural areas (e.g. Pui O and Shui Hau of Lantau Island, and Chuen Lung of Tsuen Wan) experience varying degrees of flooding, mainly because the natural river courses or drainage channels (collectively referred to as "river channels") in these areas have been blocked by debris and silt. Moreover, approval by the relevant government departments is required for any works to be carried out at river channels identified as "ecologically important streams or rivers". In this connection, will the Government inform this Council:

(1) of the number of reports on flooding incidents caused by blockage of river channels received by the authorities in the past five years, and whether flooding black spots are involved; if so, of the locations of the flooding black spots and details of the blockage of river channels;

(2) of the number of applications for river channel improvement works rejected by the authorities in the past five years and, among such applications, the number of those rejected on conservation grounds; whether a mechanism is currently in place to ensure that the authorities will strike a balance between protecting the lives and properties of the residents and conserving the ecological environment when considering river channel improvement proposals; if so, of the details; if not, the reasons for that; and

(3) whether any policy is currently in place to protect the lives and properties of residents in the rural areas from being endangered by flooding incidents caused by the lack of maintenance of river channels; if so, of the details; if not, whether the authorities will formulate such a policy?

Reply:

President,

Natural rivers or natural drainage channels (collectively known as "natural rivers") constitute part of the stormwater drainage system. If a natural river is blocked by soil, rock, debris, etc. affecting its drainage capacity, the Government and the private owners should be responsible for handling the matters according to their respective responsibilities. In general, the Drainage Services Department (DSD) and other relevant government departments are responsible for clearance of natural rivers on Government lands, while private owners are responsible for the maintenance of rivers

within their private lot boundaries.

From the environmental perspective, natural rivers can provide habitats for wildlife, encompassing important ecological functions. With a view to protecting natural rivers and the ecological environment, construction works on or affecting natural rivers should comply with, inter alia, the Environmental Impact Assessment Ordinance (Cap.499) (note) and the Town Planning Ordinance (Cap. 131).

Having consulted the DSD, the Environmental Protection Department (EPD), the Agriculture, Fisheries and Conservation Department, the Planning Department and the Home Affairs Department (HAD), I provide a reply to the three parts of the Hon Chan's question as follows:

(1) In the past five years, the DSD received three flooding cases of natural rivers in rural areas which were caused by blockage. None of them took place at flooding blackspots. Details of the cases are as follows:

Case	Location	Date	Details of Flooding
1	Ham Tin Village and San Wai Village in Pui O	June 7, 2020	Low-lying topography coupled with astronomical high tide, heavy rainstorm and cumulation of debris, which affected drainage capacity. The affected area restored to normal upon completion of emergency clearance.
2	Hing Keng Shek Village, Sai Kung	June 6, 2020	Aggregation effect of heavy rainstorm and cumulation of soil, rock/debris and vegetation, which affected drainage capacity. The affected area restored to normal upon completion of emergency clearance.
3	Ting Kok Shan Liu, Tai Po	July 18, 2017	Aggregation effect of heavy rainstorm and cumulation of soil, rock/debris and vegetation, which affected drainage capacity. The affected area restored to normal upon completion of emergency clearance.

(2) In the past five years, the EPD did not disapprove applications for river improvement works under the Environmental Impact Assessment Ordinance (Cap.499). Also, the Town Planning Board Secretariat did not receive planning applications related to river improvement works under the Town Planning Ordinance (Cap. 131).

The Government has issued three technical guidance documents with a view to facilitating government departments and other relevant stakeholders in planning construction works in or adjacent to natural rivers, namely:

(a) Technical Circular (Works) No. 5/2005 under the Development Bureau – "Protection of natural streams/ rivers from adverse impacts arising from

construction works"

(<https://www.devb.gov.hk/filemanager/technicalcirculars/en/upload/38/1/C-2005-5-0-1.pdf>);

(b) Buildings Department Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers No. ADV-27 – "Protection of natural streams/ivers from adverse impacts arising from construction works"

(<https://www.bd.gov.hk/doc/en/resources/codes-and-references/practice-notes-and-circular-letters/pnap/ADV/ADV027.pdf>); and

(c) Drainage Services Department Practice Note No. 1/2015 "Guidelines on Environmental and Ecological Considerations for River Channel

Design"([https://www.dsd.gov.hk/EN/Files/Technical\\_Manual/dsd\\_TechCirculars\\_n\\_PracticeNotes/DSDPN\\_201501.pdf](https://www.dsd.gov.hk/EN/Files/Technical_Manual/dsd_TechCirculars_n_PracticeNotes/DSDPN_201501.pdf)).

The above technical guidance documents stipulate the regulatory requirements and matters requiring attention when carrying out construction works in or affecting natural rivers. In summary, construction works in or affecting natural rivers should be avoided where possible. If there is a genuine need, the works should be carried out in an environmentally responsible manner with the relevant statutory requirements complied with, and appropriate mitigation measures should be adopted to minimise any adverse impact to the rivers.

(3) To enhance the flood prevention capability of the stormwater drainage facilities in the whole territory, the DSD adopts the strategy of "stormwater interception at upstream", "flood storage at midstream" and "drainage improvement at downstream" to formulate flood prevention measures. Since 1994, the DSD has been conducting Drainage Master Plan Studies in stages for the major areas of the territory, and analysing the causes of past flooding incidents, with a view to formulating appropriate drainage improvement measures. In the New Territories, the DSD has completed river management projects with a total length of over 100 km, including Kam Tin River, Shan Pui River, Shenzhen River, Ng Tung River, Sheung Yue River and Ping Yuen River, etc. The DSD has also implemented 27 village flood protection schemes in low-lying villages. In addition, the HAD will also conduct minor construction or improvement works to drainage facilities in the rural areas through the Minor Works Programme.

Before the rainy seasons, the DSD will strengthen the inspection, clearance and maintenance of the public stormwater drainage system, and work with the relevant government departments to check the road gullies, rainwater inlets, drainage channels and waterways to ensure smooth drainage discharge. During heavy rain, the DSD will deploy manpower to inspect locations that are vulnerable to blockages by rubbish, washout or other obstructions. If any flooding is reported or drainage inlets are found obstructed during inspection, the DSD will arrange clearances immediately. This is to ensure that the drainage system is inspected and cleared in a timely and effective manner. At the same time, the DSD will also provide emergency support to the public. Whether private or public drainage system is involved, the DSD will spare no efforts in clearing the blocked channels and rivers and draining

stormwater so as to protect the public's life and property.

Further, the DSD will distribute pamphlets at villages of rural areas through different District Offices, to remind the public to get prepared for rainy seasons, including maintenance and clearance of their drainage channels. Moreover, the DSD will arrange production of TV Announcements in the Public Interest to disseminate the importance of keeping drainage channels free of blockages.

Note: Certain construction works such as river training, dredging etc. involving major river streams or near environmentally sensitive areas (except for emergency conditions) should comply with the Environmental Impact Assessment Ordinance (Cap.499).