

# DEP hosts exchange meeting for delegation from China National Environmental Monitoring Centre of Ministry of Ecology and Environment (with photos)

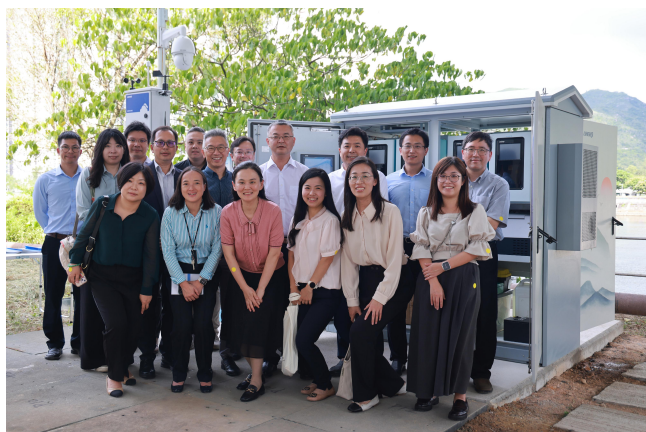
â€‹The Director of Environmental Protection, Dr Samuel Chui, hosted a technical exchange meeting for a delegation from the China National Environmental Monitoring Centre of the Ministry of Ecology and Environment this morning (July 17). The two sides discussed the Cooperation Arrangement on Technical Exchange on Environmental Monitoring signed last year to promote co-operation in areas such as the monitoring of environmental water quality, environmental air quality, ecology and new pollutants.

At the exchange meeting, Environmental Protection Department (EPD) officers and the delegation members had an in-depth discussion and technical exchange on environmental monitoring of surface water quality and new pollutants in the two places, covering monitoring standards and requirements, monitoring data network, related technology applications and the latest developments.

Dr Chui said, "The exchange meeting will strengthen the co-operation between the two places in areas such as environmental monitoring and assessment of surface waters, air, ecology, new pollutants, etc, monitoring standards and related technical requirements as well as applications of relevant smart technologies with a view to enhancing the capabilities of environmental monitoring and assessment in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) and working together to better protect and enhance the environmental quality in the GBA."

In the afternoon, the delegation visited the Smart Command and Control Centre of the EPD and the Real-time Online River Water Quality Monitoring Station at Shing Mun River, Sha Tin, to understand about the application of advanced technology and smart enforcement in water quality monitoring and environmental protection in Hong Kong.

Moreover, the delegation visited the Smart Water Science Centre of the EPD yesterday (July 16) and shared experiences and exchanged views with the EPD officers on the application of water quality models and smart technologies in water quality management. They will visit the EPD's air quality monitoring facilities (including the Central Air Quality Monitoring Station and the Cape D'Aguilar Super Air Monitoring Station) tomorrow (July 18). They will visit the Mai Po Nature Reserve as arranged by the Agriculture, Fisheries and Conservation Department on July 19.



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## [Tender awarded for site in Sha Tin](#)

The Lands Department announced today (July 17) that the tender for a site, Sha Tin Town Lot No. 623 at Yuen Shun Circuit, Siu Lek Yuen, Sha Tin, New Territories, has been awarded to the highest tenderer, Fair Opal Limited (parent company: Sun Hung Kai Properties Limited), on a 50-year land grant at a premium of \$619,000,000.

The tenderers, other than the successful tenderer, in alphabetical order, with the name of the parent company where provided by the tenderer in brackets, were:

- (1) Flylux Limited (China Merchants Land Limited);
- (2) Harbour Knight Investments Limited (Wheelock Properties Limited);
- (3) Keen Point Limited;
- (4) Make Glory Limited (Far East Consortium International Limited);
- (5) Sky Fly Development Limited (China Resources Land Limited);
- (6) Sunshine Strength Limited (Great Eagle Holdings Limited);
- (7) Top Global Investment Limited (China Overseas Land & Investment Limited);
- (8) United Victory Limited (Sino Land Company Limited);
- (9) Victory Rise Investments Limited (CK Asset Holdings Limited); and
- (10) Wise Guide Development Limited (CITIC Pacific Limited).

Sha Tin Town Lot No. 623 has a site area of about 2 425 square metres

and is designated for non-industrial (excluding godown, hotel and petrol filling station) purposes. The minimum gross floor area and the maximum gross floor area are 8 730 sq m and 14 550 sq m respectively. Both exclude the gross floor area of Government Accommodation, being a 60-place day care centre for the elderly, a centre for home care services for frail elderly persons and a lay-by, all to be constructed by the purchaser under the Conditions of Sale.

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## LCQ5: Flood prevention capacity in rural areas

Following is a question by the Hon Steven Ho and a reply by the Secretary for Development, Ms Bernadette Linn, in the Legislative Council today (July 17):

Question:

It has been reported that the frequent occurrence of extreme weather conditions in recent years has caused severe flooding problems in rural areas, and a pig farm in Ta Kwu Ling was even hit by flooding twice in three years, resulting in heavy losses. I have learnt that one of the main causes of flooding in some rural areas last year was illegal land-filling of watercourses, and the laying of drainage channels on top of certain land-filling locations by the Government as a solution to the problem has led to a much lower drainage capacity of the watercourses concerned than the original design, rendering them unable to withstand extreme weather conditions and hence the frequent flooding. In this connection, will the Government inform this Council:

(1) of the monthly numbers of flooding reports in rural areas and residents' expressions of views received by the Drainage Services Department in the past five years, with a breakdown by the 18 districts across the territory; whether it has reviewed if there is a need to update the flood protection standards for the drainage systems in rural areas;

(2) of the monthly number of complaints about illegal land-filling of watercourses in the 18 districts across the territory received by the authorities in the past five years, and the specific handling approach of such cases (including the average expenditure incurred in each case and the parties responsible for the costs); whether it will review the recovery plans for such cases to ensure that the drainage capacity of the watercourses concerned is restored to the original level; and

(3) of the number of instances where rural areas were hit by a "once-in-a-century" torrential rain or flooding in the past five years; the

Government's respective improvement measures in the four areas of planning and design of drainage facilities, disaster alert, emergency response capabilities, and disaster protection mechanism, so as to ensure that rural areas can cope with the rising trend of extreme weather conditions?

Reply:

President,

Regarding each part of the questions, my reply is as below:

(1) In the past five years (i.e. 2019 to June 2024), the Drainage Services Department (DSD) received 150 flooding reports in rural areas. The monthly flooding report figures by district are provided in Appendix.

The flood protection standards of main drainage channels in rural areas are generally based on a 50-year return period for design. The relative low population density and less economic and commercial activities in rural areas, striking a balance between the flooding risks involved and the corresponding social costs were considered. Such drainage design standard for rural areas is similar to those adopted in other advanced cities. Making reference to the report published by the Intergovernmental Panel on Climate Change of the United Nations and the results of its relevant studies, and the rainfall data of heavy rainstorm in Hong Kong in September last year, the DSD updated the Stormwater Drainage Manual (SDM). In the updated SDM, the design rainfall intensity for 50-year return period, i.e. the design standard for the main drainage channels in rural areas, is increased from 128 millimetres per hour to 134 mm per hour, in order to enhance the design drainage capacity of new stormwater drainage systems in rural areas. On the other hand, the DSD is conducting a long-term study to assess the impact of climate change on Hong Kong's stormwater drainage systems till the end of the century. It is anticipated that the study will be completed in the fourth quarter this year.

(2) In the past five years, the DSD received a total of 39 cases of suspected illegal landfilling in watercourses, and had carried out investigation and follow-up actions on these cases. Reinstatement works at the watercourses for six cases that posed a higher potential flooding risk were completed. The remaining 33 cases were referred to relevant departments for follow-up actions. For those illegal landfilling cases, the Government would charge the relevant cost of watercourse reinstatement works to the persons concerned with the illegal landfilling works.

(3) In the past five years, there were two rainstorms in the rural areas with rainfall intensities larger than that of a "100-year return period".

The DSD has been adopting various strategies to upgrade the flood protection ability of the stormwater drainage systems. The flood prevention works in rural areas mainly involve river training works and village flood protection scheme. Over some 30 years in the past, the DSD completed a total length of over 100 kilometres river training works in rural areas, and implemented village flood protection schemes for 27 low-lying villages. Upon

the completion of the above drainage improvement works, widespread flooding situation in relevant areas has been significantly reduced.

In response to the new land planning and developments, the DSD has conducted the Drainage Master Plan Review Studies for the rural areas in phases and formulated and progressively commenced relevant drainage improvement works. Currently, three drainage improvement works in North District and Yuen Long District are in progress. In addition, the two drainage improvement works in Tai Po, Sha Tin and Sai Kung Districts are targeted for commencement this year after obtaining the funding approval from the Finance Committee of the Legislative Council. Upon completion, the risk of flooding in the relevant rural areas will be greatly reduced.

In addition, the DSD keeps close liaison with the Hong Kong Observatory. For areas where flooding is anticipated to be caused by heavy rainstorm, the DSD will early deploy emergency teams for inspection. Currently, there are about 220 flooding prone locations, of which more than half are in rural areas.

The DSD also proactively applied innovative technology by making use of approximately 320 remote flood control devices, most of them in rural areas, to collect rainfall, tidal level and water level data for real-time monitoring to ascertain whether the water level would exceed the alert level in order to take appropriate contingency measures, notify relevant departments and evacuate residents. The department has planned to conduct trial on artificial intelligence flood monitoring system in Yuen Long this year, analysing real-time street footage to assist early detection and response to flooding incidents.

In addition, the DSD has increased the number of emergency response teams and emergency support stations covering 18 districts in Hong Kong to support emergency operations.

The Development Bureau will integrate and allocate the contractors' resources in various public works departments, including labours, machines and equipment to ensure that sufficient resources could be flexibly deployed during emergency situations.

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## [Flag-lowering ceremony cancelled](#)

Â Â Â Â Owing to the thunderstorm warning, the flag-lowering ceremony to be conducted at Golden Bauhinia Square, Wan Chai at 6pm today (July 17) will be cancelled.

Â Â Â Â If the thunderstorm warning is cancelled and weather conditions permit by then, the flag-lowering ceremony may be resumed without further



notice.

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## LCQ4: Prevention of flooding and landslides

â€‹Following is a question by the Hon Stanley Li and a reply by the Secretary for Development, Ms Bernadette Linn, in the Legislative Council today (July 17):

Question:

â€‹In recent years, there were severe flooding and landslides in many parts of Hong Kong under extreme and adverse weather conditions. In this connection, will the Government inform this Council:

(1) of the rainfall patterns in Hong Kong in the past five years; whether it has assessed if the design standards of the stormwater drainage systems in Hong Kong are sufficient to cope with extreme and adverse weather conditions in the future, and how the stormwater drainage systems can be upgraded to improve the flooding situation;

(2) whether the Government has assessed if the rise in sea level will affect the effectiveness of the stormwater drainage systems in Hong Kong, and how the Government will solve the problem of coastal and low-lying areas being vulnerable to flooding and seawater infusion or rainwater backflow under extreme and adverse weather conditions; and

(3) given that many districts were hard hit by flooding and landslides under extreme and adverse weather conditions, such as Tso Wo Hang and Marina Cove in Sai Kung, the outdoor car park outside LOHAS Park, as well as Wan Tsui Road in Chai Wan, of the Government's plans to improve the relevant infrastructure facilities and cope with emergencies?

Reply:

President,

â€‹Facing the extreme weather, the Government has been continuously strengthening its overall capability to respond to extreme weather through enhanced measures in four aspects including advanced emergency preparedness, enhanced early warning, decisive emergency response and speedy recovery.

â€‹Regarding each part of the question, my reply is as below:

(1) According to the information provided by the Environment and Ecology

Bureau and the Hong Kong Observatory, the annual rainfall recorded at the Hong Kong Observatory Headquarters in the past five years ranged from about 2 200mm to more than 2 700mm, with detailed figures as set out as follows:

2019	2020	2021	2022	2023
2396.2mm	2395.0mm	2307.1mm	2205.4mm	2774.5mm

Against the background of global warming, there is an increasing trend in Hong Kong's annual rainfall over a long period, and extreme rainfall events have become more frequent. Taking the hourly rainfall recorded at the Hong Kong Observatory Headquarters as an example, a record-breaking hourly rainfall of 158.1mm was recorded in September last year, breaking the record of 2008. In the past, record breaking events of hourly rainfall used to occur once every few decades. However, the occurrence of these events have become more frequent in the recent decades.

Hong Kong's flood protection standards, including the design return period of 200 years for trunk drains, are on par with major cities in the Mainland and overseas, including Beijing, Shanghai, Shenzhen, Singapore, Tokyo, London, Copenhagen and Amsterdam. To cope with the impacts of extreme rainstorms, the Drainage Services Department (DSD) updated the Stormwater Drainage Manual, making reference to the Sixth Assessment Report published by the Intergovernmental Panel on Climate Change of the United Nations and the results of its relevant studies, as well as the rainfall data collected from the heavy rainstorm in September 2023 in Hong Kong. Taking the standard of the return period of 200 years as an example, the hourly design rainfall parameter has been increased from 145mm to 155mm after the update. Moreover, new facilities will be designed with reference to projections in the United Nations' report for mid-century, with a view to ensuring that the design of drainage capacity of newly built stormwater drainage systems can cope with sea level rise and increase in rainfall in the mid-21st century.

The DSD is currently taking forward the construction of 11 major drainage improvement works and it is anticipated that these projects will be completed progressively from 2024 to 2030 in batches. Besides, subject to the funding approval from the Finance Committee of the Legislative Council, another seven drainage improvement works will commence within this year.

In addition, the DSD is conducting a study to further assess the impact of climate change on Hong Kong's stormwater drainage systems till the end of the century in order to formulate a long term integrated flood management strategy. It is expected that the study will be completed in the fourth quarter this year.

(2) In response to sea level rise and storm surges caused by climate change, the Civil Engineering and Development Department (CEDD) completed a coastal hazards study in end-2021, which identified 26 coastal low-lying or windy residential areas with higher risks for formulation of improvement works and management measures. The improvement works have been progressively taken

forward and are anticipated to be completed by 2027.

â€‹In the long term, the CEDD has also commenced a study on Shoreline Management Plan with an aim to formulating strategies and preventive measures in the longer term for planning and implementing coastal development and protection. It is expected that the study will be completed in the fourth quarter this year.

(3) It is a consensus amongst the international communities that it is impossible to pursue infrastructure facilities that can completely eliminate flooding as setting such an excessively high standard is neither practical nor cost-effective. While the Government continues to implement drainage improvement works and coastal improvement works across the territory, it will also adopt appropriate emergency response and management measures to deal with the challenges we are facing.

â€‹The DSD will continue to maintain liaison with the Hong Kong Observatory and make advance arrangements and preparations. Whenever a severe rainstorm is forecasted, the DSD will plan in advance and early deploy emergency teams to inspect about 220 locations prone to flooding and clear blocked drains to reduce flooding risk. The DSD will also review the causes of each flooding case and implement targeted mitigation measures through minor improvement works in district areas. Taking the locations mentioned in the question as examples, the minor drainage improvement works at Wan Tsui Road in Chai Wan have been completed; the minor improvement works to the outdoor car park opposite to LOHAS Park will be completed in the third quarter of this year; and the DSD is currently providing technical support to the Sai Kung District Lands Office and the Home Affairs Department for the follow-up drainage improvement works near Tso Wo Hang and Marina Cove in Sai Kung.

â€‹In relation to landslides, we have required government departments responsible for the maintenance of over 60 000 man-made slopes to conduct routine inspection and maintenance annually, and to engage engineers to conduct a more comprehensive inspection every five years. On top of the regular inspection, the Geotechnical Engineering Office under the CEDD has further identified approximately 500 government man-made slopes adjacent to sole accesses to community or important livelihood facilities, and has required relevant slope maintenance departments to complete special inspection for these slopes before the wet season so as to minimise the risks of slope incidents.