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1 March 2021

Ms Wendy JAN  
Clerk, Public Accounts Committee  
Legislative Council  
Legislative Council Complex,  
1 Legislative Council Road  
Central, Hong Kong

Dear Ms JAN,

**Public Accounts Committee  
Consideration of Chapter 2 of the Director of Audit's Report No. 75**

**Government's Efforts in Tackling Shoreline Refuse**

I refer to your letter dated 19 February 2021 under ref: CB4/PAC/R75. A consolidated reply from the Environment Bureau and Environmental Protection Department (EPD) is provided below.

**(I) For the Environment Bureau and Environmental Protection Department**

- (a) The Administration established an inter-departmental working group to tackle the marine refuse problem in 2012. Has the Bureau set a target and a timetable for reducing the quantity of refuse entering the sea? If no, what are the reasons? Has a review been conducted on the effectiveness of the working group?

**Reply:** In order to proactively tackle the marine refuse problem, the Inter-departmental Working Group on Clean Shorelines (hereinafter referred to as the "Working Group"), coordinated by the Environment Bureau, was established in 2012 to enhance the collaborative efforts among relevant government departments in tackling marine refuse.

The Working Group has not set a target nor a timetable for reducing the amount of refuse entering the sea for a number of reasons, some of which are uncontrollable, for example, refuse enters the marine environment through multiple channels and

locations by various means, and the overall quantity could not be accurately measured. Indeed, there are close ties between quantity of marine refuse and changes in season, weather and wind direction. In particular, there is more marine refuse in the wet seasons, especially after inclement weather such as typhoons or rainstorms, as in the case of surge of refuse after Mangkhut. Hence, year-to-year comparison of the figures are difficult.

The objectives for the Government to set up the Working Group are to enhance the efforts on marine environmental management and take effective measures to keep our shorelines and sea clean. In this connection, the Working Group adopted the approach of evaluating the cleanup effectiveness based on cleanliness conditions and devised a five-level cleanliness grading system : “Grade 1 - Clean”; “Grade 2 - Satisfactory”; “Grade 3 - Fair”; “Grade 4 - Unsatisfactory” and “Grade 5 - Poor”, for monitoring the priority sites. The Working Group has been regularly reviewing the cleanliness grading of the priority sites to gauge the cleaning efforts, enhance the cleansing services, review clean-up measures, and suitably allocate manpower and resources.

According to the grading statistics, the cleanliness condition of the priority sites has improved significantly since 2015. Currently, most of the priority sites have an average cleanliness grading ranging from “Grade 1 - Clean” to “Grade 3 - Fair” (see Table 1 and Table 2) and none of them is found to be in “Grade 5 - Poor” condition during regular inspections.

**Table 1 Average cleanliness gradings of priority sites from 2015 to 2017**

Average cleanliness grading	Number of priority sites		
	2015	2016	2017
1 to <2	17 (63%)	23 (85%)	23 (85%)
2 to <3			
3 to <4	7 (26%)	3 (11%)	2 (7.5%)
4 to ≤5	3 (11%)	1 (4%)	2 (7.5%)
Total	27	27	27

**Table 2 Average cleanliness gradings of priority sites from 2018 to 2020**

Average cleanliness grading	Number of priority sites		
	2018	2019	2020
1 to <2	27 (93%)	25 (86%)	28 (97%)
2 to <3			
3 to <4	-	4 (14%)	1 (3%)
4 to ≤5	2 (7%)	-	-
Total	29	29	29

Note: The EPD conducted a review in 2017 to update the list of priority sites. The new list comprises 29 sites, among which 14 are newly added.

## **(II) For the Environmental Protection Department**

- (b) According to paragraph 2.7, the Environmental Protection Department (EPD) commenced a trial project to deploy unmanned aircraft systems (UAS) for shoreline surveillance in May 2020. When will the EPD submit a report on the comparison of the merits and demerits as well as the evaluation analysis of on-site inspection and UAS inspection? What are the major considerations in conducting on-site inspection or UAS inspection?

**Reply:** Upon expiry of the contract term of the UAS trial project in May 2021, the EPD will carry out a detailed analysis of the inspection results for 64 coastal sites monitored by UAS over the past year (33 of which were monitored by on-site inspection in parallel over the same period) and conduct an in-depth comparison with the on-site inspection method. The main considerations include accuracy and flexibility in assessing the cleanliness condition, operational limitations of UAS (e.g. UAS no-fly zones, weather conditions, surrounding environment and buildings, aviation safety, etc.), geographical locations of the monitoring sites, time and manpower required in the inspection work, etc. It is expected that the report will be completed in the third quarter of 2021. Based on the comparison results, the EPD will adopt on-site inspection, UAS inspection, or a hybrid mode as the cleanliness monitoring strategies of individual coastal sites for making continuous improvement.

- (c) The EPD conducts regular monitoring on specific coastal sites (including engaging a contractor to conduct inspections since January 2020) and accords a cleanliness grading to these sites. Is there any review mechanism for the relevant monitoring and grading system?

**Reply:** For the inspections conducted by EPD staff, the staff will submit inspection reports with photos taken at designated points and proposed cleanliness gradings to their supervisors for vetting. For the inspection reports and photos submitted by the service contractor since January 2020, EPD staff will examine the cleanliness gradings rated, inspection coverage, locations of photo-taking and the information contained in the inspection reports. If there is any obvious discrepancy, the contractor is required to conduct re-inspection of individual sites according to the contract requirements. Besides, the EPD will deploy staff to conduct surprise on-site checks from time to time to ensure that the contractor has conducted shoreline cleanliness monitoring at the specified time and locations and fulfilled the relevant contract requirements.

Yours sincerely,



(CK Chen)

for Director of Environmental Protection

Encl.

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