

A. Introduction

The Audit Commission ("Audit") conducted a review to examine the Government's efforts in tackling shoreline refuse.

Background

2. Floating refuse (i.e. marine refuse¹ floating on sea surface) may be washed ashore and accumulated near the coastline as shoreline refuse. While floating refuse is collected by the Marine Department ("MD"),² shoreline refuse is collected by the Agriculture, Fisheries and Conservation Department ("AFCD"), the Food and Environmental Hygiene Department ("FEHD") and the Leisure and Cultural Services Department ("LCSD") according to the locations of which they are in charge.³ In 2019, 3 856 tonnes of shoreline refuse were collected by AFCD, FEHD and LCSD.

3. The Environment Bureau coordinated the establishment of the Inter-departmental Working Group on Clean Shorelines in 2012 (revamped and renamed as the Inter-departmental Working Group on Marine Environmental Management in January 2018) ("the Working Group") to enhance the collaborative efforts among relevant departments in tackling marine refuse. The Working Group is chaired by Permanent Secretary for the Environment, with the Environmental Protection Department ("EPD") as the secretariat.⁴ EPD is responsible for coordinating and strengthening member departments' efforts in addressing marine refuse problems. EPD also carries out community education and public engagement to enhance the public awareness of keeping the shorelines clean.

¹ According to the report of a Marine Refuse Study completed by the Environmental Protection Department ("EPD") in 2015, marine refuse refers to any solid waste, discarded or lost material, resulting from human activities, that has entered the marine environment irrespective of the sources.

² Please refer to Chapter 1 of Part 4 of this report on collection and removal of marine refuse by MD.

³ AFCD is responsible for the cleanliness of six Marine Parks, one Marine Reserve, and shorelines of 24 country parks and 11 designated special areas outside the country parks. LCSD is responsible for the cleanliness of 41 gazetted beaches. FEHD is responsible for the cleanliness of ungazetted beaches and coastal areas that are not under other departments' purview.

⁴ The Working Group's membership also includes representatives from MD, AFCD, LCSD, FEHD, the Drainage Services Department, the Fire Services Department, the Home Affairs Department and the Hong Kong Observatory.

4. The Committee held two public hearings on 12 and 27 March 2021 to receive evidence on the findings and observations of the Director of Audit's Report ("Audit Report").

The Committee's Report

5. The Committee's Report sets out the evidence gathered from witnesses. The Report is divided into the following parts:

- Introduction (Part A) (paragraphs 1 to 8);
- Monitoring of shoreline cleanliness by Environmental Protection Department (Part B) (paragraphs 9 to 17);
- Clean-up operations by Agriculture, Fisheries and Conservation Department (Part C) (paragraphs 18 to 35);
- Clean-up operations by Leisure and Cultural Services Department (Part D) (paragraphs 36 to 39);
- Clean-up operations by Food and Environmental Hygiene Department (Part E) (paragraphs 40 to 51);
- Other related issues (Part F) (paragraphs 52 to 62); and
- Conclusions and recommendations (Part G) (paragraphs 63 to 65).

Opening remarks

6. **Mr John CHU Nai-cheung, Director of Audit**, gave a brief account of the Audit Report at the beginning of the Committee's public hearing held on 12 March 2021. The full text of his speech is in *Appendix 11*.

7. **Mr WONG Kam-sing, Secretary for the Environment, Ms Maisie CHENG Mei-sze, Director of Environmental Protection, and Mr Vincent LIU Ming-kwong, Director of Leisure and Cultural Services**, made opening statements respectively at the Committee's public hearings held on 12 and 27 March 2021. **Miss Diane WONG Shuk-han, Director of Food and Environmental Hygiene (Acting)**, made a powerpoint presentation at the Committee's public hearing held on

27 March 2021. The full text of their opening statements as well as the powerpoint presentation materials are in *Appendices 12 to 15* respectively.

Performance target and timetable

8. Noting from the public hearings that the Working Group had not set any performance target or timetable for improving the cleanliness of shorelines, the Committee enquired how the Administration could evaluate the cost-effectiveness of its measures in tackling marine refuse. **Director of Environmental Protection** explained at the public hearings and in her letters dated 1 March and 31 March 2021 (*Appendices 16 and 17* respectively) that:

- the Working Group had not set a target or a timetable for reducing the amount of refuse entering the sea for a number of reasons, some of which were uncontrollable. For example, refuse entered the sea through multiple channels, locations and means, and the overall quantity could not be measured accurately. The quantity of marine refuse also had close links with changes in season, weather and wind direction, etc.;
- the Working Group evaluated the clean-up effectiveness based on cleanliness conditions and devised a cleanliness grading system⁵ for monitoring the specific coastal sites. The Working Group had been regularly reviewing the cleanliness grading of the priority sites;
- as government departments had strengthened their efforts to clean up marine refuse, the shoreline environment had improved notably. The quantity of shoreline refuse had decreased by about 13% from 2015 to 2020. All 29 priority sites had an average cleanliness grading ranging from "Grade 1 – Clean" to "Grade 3 – Fair" in 2020; and
- the Environment Bureau was open to having discussion with relevant departments at the platform of the Working Group with a view to examining the approach of evaluating the clean-up results and effectiveness based on cleanliness conditions of the coastal areas.

⁵ The system was devised by EPD to assess and evaluate the cleanliness conditions of coastal sites, but AFCD, LCSD and FEHD are not using the system to assess the cleanliness conditions of their respective service locations. Please refer to Figure 5 in paragraph 2.4 of the Audit Report for details of the system.

B. Monitoring of shoreline cleanliness by Environmental Protection Department

9. In response to the Committee's enquiry about the establishment, strength and division of roles of the staff working in EPD responsible for taking forward measures relating to shoreline cleanliness, **Director of Environmental Protection** said at the public hearings and advised in her letter dated 31 March 2021 (*Appendix 17*) that the current staff establishment of EPD for maintaining shoreline cleanliness was 15, including two Senior Environmental Protection Officers (one of them also covered other duties), five Environmental Protection Officers/Assistant Environmental Protection Officers, two Senior Environmental Protection Inspectors and six Environmental Protection Inspectors. Details of the roles and responsibilities of these staff were provided in the above letter.

10. Referring to paragraphs 2.7 and 2.9(b) of the Audit Report regarding the use of on-site inspections, unmanned aircraft systems ("UAS") and helicopter for shoreline surveillance, the Committee sought information on the merits, limitations and cost-effectiveness of these methods and how EPD would make effective use of these methods to better monitor the cleanliness conditions of shorelines.

11. **Director of Environmental Protection** and **Mr CHEN Che-kong, Assistant Director (Water Policy), EPD** said at the public hearings and **Director of Environmental Protection** supplemented in her letter dated 31 March 2021 (*Appendix 17*) that:

- on-site inspections allowed EPD to observe the coastal sites at close range and obtain clearer and more accurate data. The overall cost of on-site inspections was lower than using helicopters, but more inspection time was required as monitoring staff had to walk along shorelines. In addition, on-site inspections could not be carried out at some remote areas which were not accessible by vehicles/vessels;
- the flight paths, flying altitude, filming locations and angles of UAS could be repeated accurately, thus increasing the efficiency of the inspection work. However, UAS were subject to strict privacy and safety control, and the operation of UAS was easily affected by weather conditions. Furthermore, UAS could not be used for emergency or ad hoc inspections as an application had to be submitted to the Civil Aviation Department before the proposed date of flight. The cost of using UAS was currently lower than helicopters but higher

than on-site inspections. With advances in technologies, the cost of using UAS might drop in future;

- helicopter surveillance enabled EPD to quickly examine the distribution of marine and shoreline refuse over an extensive area in a short time. It was suitable to deploy helicopters in marine emergency incidents, marine refuse surges after inclement weather and marine incidents that aroused grave public concern. However, helicopter surveillance could not make an accurate assessment on the cleanliness grading for the inspection sites and the cost was very expensive; and
- upon expiry of the UAS contract in May 2021, EPD would conduct an in-depth comparison study between UAS inspection and on-site inspection.

12. According to paragraph 2.9 of the Audit Report, Audit analysis of the 691 inspections found that 24 re-inspections were conducted with deviations from the planned timeframe⁶ (up to a delay of 106 days in one case), and EPD only made short-term rescheduling⁷ for 8 of the 24 re-inspections. The Committee asked why the remaining 16 re-inspections were not conducted within the planned timeframe. **Director of Environmental Protection** said at the public hearings and supplemented in her letter dated 31 March 2021 (*Appendix 17*) that 9 out of the 16 re-inspections were conducted by helicopter surveillance flights. The remaining seven re-inspections were conducted 10 to 31 days after the planned timeframe as necessary temporary deployment had to be made due to manpower shortage.

13. With reference to paragraph 2.17 of the Audit Report, the Committee enquired why EPD considered there was no need to duplicate efforts to review the priority sites as conducted in 2017. The Committee further asked whether EPD would regularly update the list of priority sites as well as their coverage and inspection frequency. **Director of Environmental Protection** and **Assistant Director (Water Policy), EPD** said at the public hearings and

⁶ According to EPD's monitoring regime, it was planned that priority sites would be re-inspected within one to six months based on the cleanliness grading in the previous inspection.

⁷ According to EPD, short-term rescheduling within one week due to sudden change of weather conditions or logistics arrangement, reprioritization of work duty and resources in response to ad hoc urgent tasks, marine emergency incidents or marine refuse surge after inclement weather was considered acceptable.

Director of Environmental Protection supplemented in her letter dated 31 March 2021 (*Appendix 17*) that:

- EPD first drew up the list of priority sites in 2015 so that the Working Group could pool resources for various departments to clean up coastal sites that were of great concerns at that time and where the cleanliness conditions were poorer;
- as the cleanliness conditions of many coastal sites had improved quickly within two years after the formulation of the list, EPD conducted a comprehensive review and updated the list of priority sites in November 2017, covering 14 newly added sites and 15 existing ones;
- based on experience and observations accumulated, it was most appropriate to review the inspection list and frequency according to the cleanliness conditions of the sites. A large-scale review similar to the one conducted in 2017 was not required for the time being; and
- since the outsourcing of the on-site inspection in 2020, EPD had incorporated the 29 priority sites into the list of locations for conducting monthly inspections and added 90 other sites for conducting quarterly inspections under the contract. When renewing the contract, EPD would, having regard to the cleanliness conditions of the inspection locations in the past year, review and update the list of inspection locations and adjust the inspection frequencies.

14. With reference to paragraphs 2.17(a) and 2.19(a) of the Audit Report, the Committee asked about the mechanism/measure(s) in place to monitor the contractor's performance and ensure its compliance with EPD's specified requirements on site coverage and inspection frequency as stipulated in the contract. **Director of Environmental Protection** and **Assistant Director (Water Policy)**, EPD said at the public hearings and **Director of Environmental Protection** supplemented in her letter dated 31 March 2021 (*Appendix 17*) that:

- after awarding the contract, EPD held a kick-off meeting with the contractor to provide the latter with basic knowledge and background on shoreline cleanliness monitoring;
- EPD conducted joint inspections with the contractor to provide the latter with training and guidance in the field; and

- upon completion of each coastal inspection, the service contractor was required to submit an inspection report, photos taken, etc., within the specified time period. EPD staff would also conduct surprise checks at the inspection locations from time to time.

15. With reference to paragraph 2.19(b) of the Audit Report, the Committee asked how EPD would further enhance the provision of information on cleanliness conditions of coastal sites in the Clean Shorelines website for public inspection. **Director of Environmental Protection and Assistant Director (Water Policy), EPD** replied at the public hearings and **Director of Environmental Protection** supplemented in her letter dated 31 March 2021 (*Appendix 17*) that EPD would upload the updated information and photos of shoreline clean-up activities provided by the public onto the website on a weekly basis, and upload the updated annual average cleanliness grading for each of the 29 priority sites onto the website regularly (e.g. on a quarterly basis) starting from the second quarter of 2021.

16. Referring to paragraphs 2.22 to 2.25 of the Audit Report regarding the pork hocks found on the beaches in Tuen Mun and Tsuen Wan Districts in July 2020, the Committee noted that as pork hocks did not meet the broad classification of marine refuse, EPD had not activated the protocol for handling surge of marine refuse in Hong Kong ("the Protocol").⁸ The Committee asked about the follow-up actions taken by the Administration on the incident and the lessons learnt from the incident on the handling of large quantity of marine refuse in future.

17. **Director of Environmental Protection and Assistant Director (Water Policy), EPD** replied at the public hearings and **Director of Environmental Protection** supplemented in her letter dated 31 March 2021 (*Appendix 17*) that:

- upon receipt of sighting report on 13 July 2020, EPD promptly requested relevant departments to arrange for clean-up operations as

⁸ EPD and the authorities in Guangdong Province launched a regional notification and alert mechanism in May 2017 allowing one side to notify the other of heavy rain or significant environmental incidents. EPD has also compiled a protocol for handling surge of marine refuse in Hong Kong due to typhoon, heavy rainfalls, or significant environmental incidents. For the purpose of the Protocol, marine refuse referred to solid waste resulting from human activities, with unidentifiable owner(s) in general, that had entered the marine environment. Marine refuse under consideration largely resembled municipal solid waste and could be broadly classified into materials including plastics, metal, glass, processed timber, paper, porcelain, rubber and cloth.

soon as possible. On the same and subsequent few days, EPD conducted inspections at various sites, and notified the relevant departments immediately about where pork hocks had been found. EPD also collected water samples at the affected beaches for examination, and the results revealed that the beach water quality had not been affected;

- EPD liaised with the Department of Ecology and Environment of Guangdong Province on 13 July 2020 to understand the situation. According to the latter's reply, the investigations conducted by the relevant authorities of Guangdong Province could not identify the origin of the pork hocks;
- in February 2021, EPD updated the Protocol to include a new activation condition, so as to cover other possible scenarios of unusual objects arising on sea surfaces or at shores and beaches; and
- EPD would continue to enhance communication with the Mainland authorities on various regional marine environmental matters.

Director of Environmental Protection further provided a chronology of the follow-up actions taken by EPD for the pork hock incident in the above letter.

C. Clean-up operations by Agriculture, Fisheries and Conservation Department

18. Noting from paragraph 3.2 of the Audit Report that as at 1 July 2020, the cleansing work of the six Marine Parks and one Marine Reserve under AFCD's purview was outsourced to three contractors under five recurrent contracts, the Committee enquired about AFCD's manpower in monitoring the contractors' operations.

19. **Director of Agriculture, Fisheries and Conservation** advised in his letters dated 1 and 26 March 2021 (*Appendices 18 and 19* respectively) that:

- the supervision of cleansing service contractors for Marine Parks and Marine Reserve was mainly conducted by the patrol staff and supervisory staff of AFCD's Marine Parks (West) Section and Marine Parks (East) Section. The establishment mainly consisted of

three Fisheries Officer grade staff, nine Fisheries Supervisor grade staff and 39 Field Assistant and Artisan grade staff; and

- AFCD had been monitoring the work of cleansing contractors through spot checks. Patrol staff would conduct regular site inspections and record the conditions of the cleansing services. Supervisory staff would cross-check the cleansing service information submitted by contractors, and follow up specific findings observed during site inspections by patrol staff.

20. According to paragraphs 3.3 and 3.4 of the Audit Report, AFCD staff were required to complete an inspection form after each site inspection. However, Audit noted that three different inspection forms were used with different inspection reporting requirements. Besides, AFCD's staff were not required to provide important information, such as departure time of contractors' staff, in all these inspection forms. The Committee enquired about the reasons for the occurrence of the above problems.

21. **Dr LEUNG Siu-fai, Director of Agriculture, Fisheries and Conservation** and **Dr Jackie YIP Yin, Assistant Director (Country and Marine Parks) (Acting), AFCD** said at the public hearings and **Director of Agriculture, Fisheries and Conservation** supplemented in his letter dated 26 March 2021 (*Appendix 19*) that AFCD had been using three types of inspection forms having regard to various site characteristics and modes of operation of different Marine Parks and Marine Reserve.⁹ As AFCD patrol staff would not stay at the sites until the completion of cleansing services, it would not be practical for them to record the departure time of contractors' staff.

22. As revealed in paragraph 3.5 of the Audit Report, of the 772 inspection records of four Marine Parks from 1 April 2019 to 31 March 2020 examined by Audit, the inspection forms of 18 site inspections showed that AFCD staff either did not see the contractors' staff on site, or found that contractors' staff had left early.

⁹ For example, Sha Chau and Lung Kwu Chau Marine Park was relatively large (about 1 200 hectares) and each cleansing service day could normally cover part of either Sha Chau or Lung Kwu Chau. Therefore the inspection form had included two columns for recording the locations of work. Moreover, due to poor network coverage and unstable reception in Sha Chau and Lung Kwu Chau, the cleansing contractor would call AFCD when their staff were setting off for these areas for cleansing work. As such, the time of call would be recorded in the inspection form.

However, AFCD had only required the contractors to provide services on another day¹⁰ for 6 of these 18 cases. The Committee sought details of these 18 cases and the follow-up actions taken by AFCD. The Committee further asked whether there was penalty clause in the current cleansing contracts to deter contractors from breaching the terms of the contracts.

23. **Director of Agriculture, Fisheries and Conservation and Assistant Director (Country and Marine Parks) (Acting), AFCD** said at the public hearings and **Director of Agriculture, Fisheries and Conservation** supplemented in his letter dated 26 March 2021 (*Appendix 19*) that:

- some patrol staff had put down "did not see the vessel" if they did not see the cleaners at the time of patrol, but this did not mean "suspected absence" because the cleaners might be working at other locations in the Marine Park and could not be seen by patrol staff at the sea due to the terrain;
- in some cases, patrol staff had put down "leave early" if they observed the cleaners leaving the Marine Park earlier than usual. As some Marine Parks were located far away from land, cleaners might need to leave the park earlier when the weather was unstable and the sea was rough. AFCD's supervisory staff would follow up the above irregular site findings with the management team of the cleansing contractors;
- in those six cases in which AFCD had arranged cleansing services on another day, one of them showed irregularities in contractor's monthly attendance record (i.e. showing full service on the scheduled service day on which AFCD's inspection form marked "did not see", and an additional half-day service on the replacement day). Nevertheless, no additional payment was made to the contractor. In the remaining 12 cases, after further follow-up with the contractors and review of monthly attendance records, other patrol records, etc., AFCD found no evidence of non-provision of service by the contractors; and

¹⁰ According to AFCD's cleansing contracts, contractors should ensure that the number of cleaners deployed to perform a cleansing operation and the number of working hours are not less than that stipulated in the contracts. For any absence of cleaners from duty, the contractor should provide prompt replacement, and failure to comply with the requirement may result in reasonable sums being deducted from the monthly payments payable to the contractor.

- there was no penalty clause in the current cleansing contracts. Nevertheless, AFCD would consider introducing such clauses in future cleansing contracts to deter contractors from breaching the terms of the contracts.

24. At the Committee's request, **Director of Agriculture, Fisheries and Conservation** provided in his letter dated 9 April 2021 (*Appendix 20*) the investigation results of the aforesaid 18 cases as well as the details of a case where an amount was deducted by AFCD from the monthly payments payable to a cleansing contractor for absence of cleaners from duty.

25. The Committee noted from paragraph 3.7 of the Audit Report that for the five recurrent AFCD cleansing contracts (in force as of August 2020), only one contract specified that the contractor should submit digital images before and after completion of services, and the contract provisions of five Marine Parks and the Marine Reserve did not require the contractors to report the arrival and departure times of their staff. The Committee enquired how AFCD could ensure that the contractors had provided satisfactory services in the absence of digital images of the sites before and after services as well as the records of arrival and departure times of cleaners.

26. **Director of Agriculture, Fisheries and Conservation** said at the public hearings and supplemented in his letter dated 26 March 2021 (*Appendix 19*) that the inspection rate on the cleansing services during the period audited was over 70%. Patrol staff would observe the work of the contractors and record their performance and any irregular findings on an inspection form. Supervisory staff would follow up the irregular findings with the contractors and review other records provided by the contractors, including contractors' staff attendance records and other relevant records (e.g. photos and videos), for ensuring satisfactory performance of services.

27. In response to the Committee's enquiry on the measures taken by AFCD to enhance its monitoring of the performance of cleansing contractors, **Director of Agriculture, Fisheries and Conservation** and **Assistant Director (Country and Marine Parks) (Acting)**, AFCD said at the public hearings and **Director of Agriculture, Fisheries and Conservation** supplemented in his letters dated 26 March and 9 April 2021 (*Appendices 19* and *20* respectively) that:

- a new Guideline for Monitoring of Cleansing Services for Marine Parks and Marine Reserve (in *Appendix 18*) had been formulated including, among others, a standardized inspection form which required the recording of arrival and departure times of the patrol staff at a particular park, individual findings related to cleansing services and the relevant specific follow-up actions taken/to be taken by AFCD;
- guidance and training had been provided to relevant AFCD staff;
- AFCD had added a requirement in new cleansing contracts that contractors had to report the arrival and departure times of their staff, keep daily attendance records of the cleaners and provide photos or video clips before and after completion of services for checking by AFCD; and
- to enhance deterrent effect against possible provision of false attendance record by contractors, AFCD was considering adding a condition to the contracts specifying that wilful provision of false attendance record by contractors might result in a breach of the terms of the contracts.

28. Referring to paragraphs 3.11 to 3.14 of the Audit Report regarding the pipe structures washed ashore to Sha Chau and Lung Kwu Chau Marine Park, the Committee noted with concern that the structures were first found in December 2019, but AFCD took seven months to remove them on 29 July 2020 with the assistance from MD. The Committee enquired about the reasons for the long time taken to remove the structures and the lessons learnt from the incident on the handling of large objects washed ashore in future.

29. **Director of Agriculture, Fisheries and Conservation** said at the public hearings and supplemented in his letter dated 26 March 2021 (*Appendix 19*) that:

- from conservation perspective, the structures had no immediate direct impact on Sha Chau and Lung Kwu Chau Marine Park;
- AFCD tried as quickly as possible to engage cleansing service companies for arranging removal of the structures, but the removal was affected by the Coronavirus Disease 2019 outbreak and not considered urgent or essential at that time. AFCD was required to handle tasks of higher priorities e.g. arrangement of supplies and services for

combating the Coronavirus Disease 2019. Field work was also affected by the work-from-home arrangement. In addition, the companies contacted at that time were unable to arrange staff and vessel for site inspection. It was only until June 2020 that a few contractors had been able to arrange staff and vessels for inspecting the site and proposing means of removal; and

- the matter was discussed at a meeting of the Working Group in January 2021, and MD agreed to render assistance as appropriate when AFCD encountered difficulties in removing large floating objects found in Marine Parks and Marine Reserve in future.

Director of Agriculture, Fisheries and Conservation further provided a chronology of key events in respect of the handling of the incident in the above letter.

30. As revealed in paragraphs 3.15 to 3.18 of the Audit Report, Audit's site visits on 18 June, 24 July and 24 August 2020 found a large quantity of refuse at the areas beyond high water mark (i.e. back-of-beach area) of Sha Chau and Lung Kwu Chau. However, the cleansing contract of the Marine Park only covered areas near the high water mark and the edge of the sea on beaches, as well as all floating refuse within the Marine Park boundary, and AFCD was only responsible for clean-up of marine refuse within the boundary of the Marine Park, excluding the back-of-beach area. Under these circumstances, the Committee asked which department was responsible for cleaning up the back-of-beach area of Sha Chau and Lung Kwu Chau.

31. **Director of Agriculture, Fisheries and Conservation** said at the public hearings and supplemented in his letter dated 26 March 2021 (*Appendix 19*) that:

- as the landward boundary of Sha Chau and Lung Kwu Chau Marine Park was delineated by the high water mark along the coastline, general marine refuse cleansing work in the Marine Park under AFCD's responsibility only covered waters below the high water mark;
- refuse accumulated above the high water mark were found under very specific conditions, for example in relation to topography, vegetation, tidal action, wind direction, occasional typhoon or spring tides. In view of the complicated causes for accumulation of refuse and great disparity in the level of accumulation, as well as difficulty in removing the large-sized refuse manually by general cleaners, it would be more

efficient and cost-effective to handle this through focused and special in-depth cleansing operation. In recent years, all such special operations were co-organized by the Working Group and conducted by AFCD's cleansing contractors; and

- it was agreed at the Working Group meeting on 29 January 2021 that AFCD would conduct clean-up operation on the slope at the back-of-beach area of Lung Kwu Chau once a year during the dry season. In view of the level of refuse accumulation on site in recent years and very few visitors there, such arrangement was considered appropriate and cost-effective.

32. Noting from the public hearings that the cleanliness of some areas along Hong Kong shorelines, such as the back-of-beach area, did not fall within the purview of any bureaux/departments ("B/Ds"), the Committee asked whether EPD would take any measures to proactively improve the cleanliness of such areas.

33. **Director of the Environmental Protection** said at the public hearings and supplemented in her letter dated 31 March 2021 (*Appendix 17*) that:

- Hong Kong had very long shorelines and many small outlying islands. Many remote places were inaccessible by public transport and were thus rarely visited. It was difficult for the Administration to allocate resources for engaging contractors to conduct routine clean-up operations in these places as this would entail a huge contractual expenditure and was not cost-effective; and
- conducting targeted in-depth clean-up operations through special arrangement at the back-of-beach areas was applicable. In recent years, the Working Group had resolved the refuse accumulation problems at several back-of-beach areas with different solutions after discussion and co-ordination.

34. The Committee noted from paragraphs 3.19 to 3.20 of the Audit Report that according to the cleansing contract of the Brothers Marine Park, the contractor should clean West Brother and East Brother each once a month. However, Audit's site visits on 24 July and 24 August 2020 found a large quantity of refuse accumulated along the shorelines of the Marine Park. The Committee questioned if

the performance of the contractor was considered satisfactory and whether AFCD would increase the cleansing frequency of the Marine Park.

35. **Director of Agriculture, Fisheries and Conservation** and **Assistant Director (Country and Marine Parks) (Acting)**, AFCD explained at the public hearings and **Director of Agriculture, Fisheries and Conservation** supplemented in his letter dated 26 March 2021 (*Appendix 19*) that:

- in view of the large area of the Brothers Marine Park (970 hectares) and long coastline (three kilometres), the cleansing contractor could only be able to clean up a portion of the shoreline in a single working day, given its manpower specified in the cleansing contract (i.e. three cleaners);
- use of heavy machinery for refuse collection was not practicable on the islands due to lack of access roads and pier facilities;
- large amount of refuse was often washed ashore after heavy rains and typhoons during the wet season; and
- due to the above reasons, the cleaners might have difficulties in removing all accumulated wastes on the two islands in a prompt manner. In this connection, AFCD had increased the cleansing frequency of the Marine Park since November 2020 and would monitor the situation and consider further increase the cleansing frequency if necessary.

Director of Agriculture, Fisheries and Conservation provided photos (in *Appendix 21*) showing the condition of the Marine Park upon increasing the cleansing frequency.

D. Clean-up operations by Leisure and Cultural Services Department

36. According to paragraphs 4.13 to 4.14 of the Audit Report, detailed manpower requirements for each gazetted beach under LCSD's purview were laid down in the cleansing contracts taking into account the fluctuations in workload, but there might be ad hoc needs for additional cleansing workers. The Committee asked about the assessment criteria to ascertain the need of deploying additional cleansing workers to gazetted beaches.

37. **Director of Leisure and Cultural Services** and **Mr Horman CHAN Ming-cheong, Assistant Director (Leisure Services)1, LCS**D said at the public hearing and **Director of Leisure and Cultural Services** supplemented in his letter dated 1 March 2021 (*Appendix 22*) that:

- the aim of deploying additional cleansing workers to carry out cleansing operations at venue was mainly to clear or clean up a large amount of refuse or dirty environment owing to special circumstances, such as holiday celebrations or a sudden surge of refuse after typhoons or rainstorms, within a short time;
- according to LCSD's Guidelines on Management of Public Beaches (in *Appendix 22*), which was an in-house guidelines for staff to deal with a large amount of sea-borne refuse, additional manpower should be deployed for clearance if unusually large quantity of shoreline refused were identified at any gazetted beaches; and
- LCSD's Contract Management Manual had stipulated the matters requiring attention from venue management staff when requesting contractors to provide additional services under the contract, including the justifications for such requests and record of certification by supervisor. LCSD had also reminded the management staff of beaches to manage requests of providing additional cleansing workers in accordance with the established contract management mechanism.

38. With reference to paragraph 4.14(b) of the Audit Report, the Committee enquired about the justifications for requesting additional cleansing workers in Rocky Bay Beach from June 2018 to March 2020, in particular that the Beach was not open to the public for swimming during the period and did not have any related facilities (i.e. toilets, changing rooms and barbeque sites).

39. **Director of Leisure and Cultural Services** said at the public hearing and supplemented in his letter dated 9 April 2021 (*Appendix 23*) that:

- Rocky Bay Beach was unsuitable for swimming given its geographical condition and ancillary facilities (e.g. toilets and changing rooms) were therefore not provided. However, members of the public would go to the beach as it was situated in Shek O picnic area and adjacent to Shek O Beach; and

- additional cleansing workers were required to provide services for both Rocky Bay Beach and Shek O Beach. In view of the increase in the number of visitors to the two beaches during summer and weekends, additional cleansing workers were deployed to work on the two beaches every alternate Friday to ensure a hygienic environment. Besides, as the two beaches were adjacent to each other while Rocky Bay Beach was not provided with a beach building, the venue-based cleansing workers (including the additional cleansing workers) of Rocky Bay Beach would continue providing services at Shek O Beach after finishing their daily work, so as to assist in coping with the heavy cleaning workload at Shek O Beach.

E. Clean-up operations by Food and Environmental Hygiene Department

40. With reference to paragraph 5.3 of the Audit Report, the Committee asked about the staff establishment and strength of FEHD's Environmental Hygiene Branch responsible for monitoring the clean-up operations carried out by contractor at ungazetted beaches and coastal areas under FEHD's purview.

41. **Director of Food and Environmental Hygiene** advised in her letter dated 22 December 2020 (*Appendix 24*) that FEHD's Environmental Hygiene Branch monitored the clean-up operations of shoreline refuse and other outsourced public cleansing services (e.g. street cleansing and waste collection services) through the District Cleansing Section in 19 District Environmental Hygiene Offices. Each District Cleansing Section was supported by a number of officers, namely Senior Health Inspectors ("SHIs"), Health Inspectors ("HIs"), Overseers and Senior Foremen ("SF"). The staff establishment and strength of the District Cleansing Section for contract monitoring were provided in the above letter, but breakdown specifically for monitoring clean-up operations of shoreline refuse was not available.

42. With reference to paragraph 5.6(a) of the Audit Report, the Committee enquired about the measures in place to ensure that SF would inspect at least 50% of the scheduled work sites on the day the service was provided.¹¹ **Director of Food and Environmental Hygiene (Acting)** said at the public hearing and supplemented

¹¹ FEHD's Operational Manual for Management of Public Cleansing Contracts ("Operational Manual") stated that SF should inspect at least 50% of the scheduled work sites on the day the service was provided. However, according to paragraph 5.7(a) of the Audit Report, in three samples provided by the Islands District Environmental Hygiene Office, the work sites inspected had not been recorded on SF's Daily Inspection Reports.

in her letters dated 1 March and 10 April 2021 (*Appendices 25 and 26* respectively) that:

- in December 2020, FEHD had updated the inspection guidelines of the Operational Manual for Management of Public Cleansing Contracts ("Operational Manual") regarding the documentation of inspection frequency. SHIs in districts might exercise discretion to determine the most appropriate minimum number of inspections to be conducted at work sites in remote areas, and the relevant decisions were required to be properly documented; and
- district management had been advised to devise an inspection programme relating to SF inspection of at least 50% of the scheduled work sites on the day of providing the services.

43. Referring to paragraph 5.6(b) of the Audit Report, the Committee was concerned that there were cases of HIs and SHIs of FEHD not making use of the Contract Management System ("CMS")¹² to conduct checking on the Daily Inspection Reports submitted by SF at least twice and once a week respectively.¹³ **Director of Food and Environmental Hygiene (Acting)** and **Mr TSE Ki-cheong, Senior Superintendent (Cleansing and Pest Control)1, FEHD** said at the public hearing and **Director of Food and Environmental Hygiene (Acting)** supplemented in her letter dated 10 April 2021 (*Appendix 26*) that:

- in addition to Daily Inspection Reports, SHIs and HIs could use other means to assess the contractor's performance and the supervision work of SF, including paper records, contractor's webpage with geo-tagged photographs/videos taken by the contractor to show the conditions of each work site before, during and after clean-up operation, and a separate page on "Key Inspection Report" in CMS containing locations and time of inspection and photos uploaded by SF; and
- FEHD was enhancing CMS to facilitate its supervisory staff in complying with the monitoring requirements as stated in the

¹² FEHD implemented CMS in 2002 for managing the performance of public cleansing contracts. CMS contains a database of inspection records and default notices issued to contractors.

¹³ The Operational Manual specified that HIs and SHIs should conduct checking on the Daily Inspection Reports submitted by SF, by making use of CMS of FEHD, twice and once a week respectively. However, according to paragraph 5.7(b) of the Audit Report, Audit examination on the Daily Inspection Log Reports of two District Environmental Hygiene Offices revealed that such requirement had not been fully complied with.

Operational Manual. A function would be developed to assist the district management in checking compliance of SF with inspection rate. An enhanced feature would also be added to provide log records of viewing information under the separate page on "Key Inspection Report".

44. Regarding the suspected false declaration in tender submission by Contractor X in Case 1 in paragraph 5.18 of the Audit Report, the Committee noted with concern that FEHD allowed 3 out of the 11 contracts which had been awarded to Contractor X during the period concerned to continue until expiry. The Committee asked whether FEHD had sought legal advice from the Department of Justice ("DoJ") on the follow-up actions taken against Contractor X, and how FEHD would draw on the experience for better handling of similar cases in future.

45. **Director of Food and Environmental Hygiene (Acting)** explained at the public hearing and in her letter dated 10 April 2021 (*Appendix 26*) that:

- FEHD was notified by the Immigration Department ("ImmD") on 22 October 2019 that Contractor X had one conviction record. FEHD immediately liaised with ImmD to check that they were on the same page in terms of relevant contracts involved. FEHD referred the case to the Police on 5 November 2019 for investigation and actions on the suspected false declaration made by Contractor X. A separate need for FEHD to seek legal advice had thus not arisen;
- apart from Contract D,¹⁴ Contractor X was also awarded 10 contracts¹⁵ under FEHD from April 2017 to October 2019. Contract D had expired in May 2019. Among the 10 contracts, three contracts had already expired by 22 October 2019 (hence no follow-up action could be taken by FEHD);
- given the lead time required for obtaining DoJ's advice on terminating the contracts concerned and the fact that seven months or so was required for completing open tender exercises for appointing new contractors, FEHD had allowed the three contracts which were due to

¹⁴ Contract D was the contract for provision of clean-up (and waste removal) services for the ungazetted beaches and coastal areas and other territorial sites under FEHD's purview for the period from 1 June 2018 to 31 May 2019.

¹⁵ Director of Food and Environmental Hygiene (Acting) advised at the public hearing that these 10 contracts were street cleansing/pest control service contracts for various districts.

expire by end of April and June 2020 respectively to continue until expiry;

- FEHD had terminated the remaining four contracts before their expiry and Contractor X was not allowed to bid for non-skilled worker contracts for five years from the date of its conviction under the Immigration Ordinance (Cap. 115); and
- FEHD had followed up with ImmD and the Labour Department on the issue. In August 2020, the Labour Department provided a standardized proforma for conviction record checking for use by B/Ds.

46. Noting from Case 1 in paragraph 5.18 of the Audit Report that ImmD had inaccurately informed FEHD during the appeal period that Contractor X had no conviction under the Immigration Ordinance, the Committee asked ImmD about the follow-up actions taken to strengthen the checking procedures of conviction records and prevent recurrence of similar cases in future. **Director of Immigration** advised in his letter dated 12 April 2021 (*Appendix 27*) that in the case concerned, ImmD noticed that its officer had not updated the conviction record of the relevant contractor until the conclusion of the criminal appeal proceedings, which was not consistent with the requirement set out in the relevant Financial Circular.¹⁶ To ensure comprehensive understanding of the requirements in the relevant Financial Circular, ImmD had briefed the staff concerned at once whilst a new instruction was issued to all staff concerned for compliance. At the same time, ImmD had also strengthened the internal checking procedures to ensure that all replies were given accurately.

47. The Committee noted from paragraph 5.19 of the Audit Report that the Central Tender Board had commented that the over-reliance on a single contractor was undesirable from the risk management perspective in May 2018. In addition, it was stated in the Financial Services and the Treasury Bureau Circular Memorandum No. 4/2019 "Concentration Risk in relation to Cleansing and Security Service Contracts" ("Financial Circular No. 4/2019") that B/Ds were encouraged to, among others, restrict the number of contracts to be awarded to the same tenderer if a tender involved more than one contract. The Committee sought explanation as to why FEHD had not imposed any restriction on awarding the clean-up service for Districts Groups I and II under Contract E to Contractor Y.

¹⁶ Please refer to paragraph 5.18 of the Audit Report for details.

48. **Director of Food and Environmental Hygiene (Acting)** explained at the public hearing and in her letter dated 10 April 2021 (*Appendix 26*) that:

- the Central Tender Board advised in May 2018 in the context of Contract D (involving a one year contract from 1 June 2018 to 31 May 2019 covering all districts) that as Government's over-reliance on a single contractor was undesirable from the risk management perspective, FEHD should explore whether there would be better options, other than combining the three District Groups Contracts into one territory-wide Contract;
- in processing the tender exercise for Contract E since July 2018, FEHD had split the Contract into two District Groups Contracts (Groups I and II) having regard to its operational needs;
- decision on Contract E had already been made by the Central Tender Board before Financial Circular No. 4/2019 was issued. The Circular in force at the time of processing the tender for Contract E did not mention anything about restriction on the number of contracts to be awarded to the same tenderer if a tenderer was involved in more than one contract; and
- FEHD was about to renew the contracts for the clean-up service for Districts Groups I and II and would impose a restriction to the effect that the contracts could not be awarded to a single contractor.

49. The Committee further asked whether FEHD had taken due consideration of the prevailing market conditions and struck a balance between competition and efficiency when imposing the aforesaid restriction. **Director of Food and Environmental Hygiene (Acting)** said at the public hearing and supplemented in her letter dated 10 April 2021 (*Appendix 26*) that:

- with a view to promoting competition as required in Financial Circular No. 4/2019, FEHD had imposed tender clauses for the clean-up service for Districts Groups I and II from 1 June 2021 to 31 May 2023 ("the future Contract F") to restrict the number of contracts to be awarded to the same tenderer if a tenderer was involved in more than one contract;
- in considering the imposition of the restriction, FEHD had to strike a fine balance to all relevant factors. The restriction would help

manage the concentration risk of over-reliance on a single contractor. Other relevant factors included the feasibility of imposing the restriction in terms of the availability of service providers in the market, tender response rates, the terms of services obtained and the issue of fairness as perceived by tenderers; and

- to pre-empt any risk of tenderers challenging the restriction imposed, FEHD had obtained clearance from DoJ by justifying the restriction from the perspectives of safeguarding public interest or protecting public safety or health.

50. Noting from paragraph 5.23 of the Audit Report that the actual hours of service provided by the cleansing contractor for Islands and Sai Kung Districts from June 2019 to May 2020 were significantly less than the estimated hours included in the contract (38.3% of the estimated hours of service for Islands District and 53.3% for Sai Kung District), the Committee enquired how FEHD could come up with a more realistic estimation on the hours for completing the clean-up service in Contract F.

51. **Director of Food and Environmental Hygiene (Acting)** said at the public hearing and supplemented in her letter dated 10 April 2021 (*Appendix 26*) that FEHD had taken into consideration the actual hours of service provided by the contractor under Contract E and the information of refuse washed ashore at priority sites gathered by the 360-degree camera system to work out a more realistic estimation of hours of service in the future Contract F. The total estimated hours for clean-up service in the future Contract F were 157 358 (17.94% less than that in Contract E).

F. Other related issues

Publicity and public engagement efforts in promoting shoreline cleanliness

52. With reference to paragraphs 6.2 to 6.12 of the Audit Report, the Committee sought information on EPD's publicity and educational work on promoting shoreline cleanliness and the expenditure incurred. **Director of the Environmental Protection and Assistant Director (Water Policy), EPD** said at the public hearings and **Director of the Environmental Protection** supplemented in her letter dated 9 April 2021 (*Appendix 28*) that EPD had been promoting the message to the public through the Clean Shorelines thematic website, social media pages and on-site publicity and educational activities organized in collaboration with other departments.

The expenditures on the promotional and educational work conducted in the financial years from 2018-2019 to 2020-2021 were \$452,000, \$1,077,000 and \$1,062,000 respectively.

53. Referring to paragraph 6.3 of the Audit Report, the Committee asked about the details of the Clean Shorelines Liaison Platform ("the Platform"). **Assistant Director (Water Policy), EPD** said at the public hearings and **Director of the Environmental Protection** supplemented in her letter dated 9 April 2021 (*Appendix 28*) that:

- EPD had kept in contact with over 600 green groups, community organizations, individuals, schools, companies and other units through the Platform. The Platform comprised a thematic website, social media pages, a designated hotline and an e-mail box;
- the thematic website introduced the Administration's strategies and measures on marine refuse management, statistics, cleanliness gradings of priority sites, etc. and provided information required for organizing coastal clean-up activities, including support available from B/Ds, etc.; and
- EPD used the interactive functions of social media pages to make new public appeals and solicit feedback. For instance, EPD was producing promotional video clips on different topics about clean shorelines from multiple perspectives for posting on the social media pages.

54. Noting from paragraph 6.7 of the Audit Report that EPD had outsourced the maintenance of two Clean Shorelines social media pages to a contractor, the Committee enquired about the contractor's duties and the contract sum. **Assistant Director (Water Policy), EPD** said at the public hearings and **Director of the Environmental Protection** supplemented in her letter dated 9 April 2021 (*Appendix 28*) that the main duties of the contractor included the design and management of the social media pages, development of the social media plan/strategy, shooting and production of promotional video clips, interacting with the public, etc. The contract sum was \$1,190,000 for a period of 15 months.

Using 360-degree camera system to monitor remote coastal sites

55. With reference to paragraphs 6.14 to 6.17 of the Audit Report, the Committee enquired about the causes of malfunctioning of 360-degree cameras,¹⁷ the remedial actions taken by FEHD and the contractor, and the penalty measures instigated on the contractor in this regard. **Director of Food and Environmental Hygiene (Acting)** and **Senior Superintendent (Cleansing and Pest Control)1, FEHD** said at the public hearing and **Director of Food and Environmental Hygiene (Acting)** supplemented in her letter dated 10 April 2021 (*Appendix 26*) that:

- the application of the 360-degree camera system for monitoring remote and hard-to-reach coastal sites was a trial scheme. Teething problems encountered in pioneering an innovative venture were inevitable. Successful data transmission of the captured photos from the camera system presented great challenges. Other causes of malfunctioning of the camera system included delicate devices of the system were susceptible to the high salty and humid environment, the deposit of salt on the camera cover affected the capture of images, the camera was stolen, etc.;
- FEHD had deducted about \$364,000 of service charge upon detection of malfunctioned services provided by the contractor;
- the technical problems on the on-line data transmission were subsequently rectified. The contractor also carried out proactive improvements, e.g. using double water-proof casing to protect devices and installing remote control water sprayers to clear the salt deposit on the camera covers to capture better images;
- FEHD had sought advice from the Office of the Communications Authority to deal with weak mobile signals at some remote locations. The camera system worked well from January to March 2021;
- under the new contract (from 1 May 2021 to 30 April 2023), default notice might be issued in respect of substandard contractor's performance (e.g. failing to provide images) with deduction of service charge in the form of liquidated damages; and

¹⁷ FEHD extended the trial scheme of hiring 360-degree cameras at remote areas to cover 15 priority sites from March 2020 to February 2021. For the data received from the camera system from 1 March to 31 May 2020, no images were received from 10 (67%) of the 15 priority sites for a period of 31 to 91 days, and for the six cameras installed in the Islands District, there was a total of 301 camera-days without image received.

- FEHD had reminded its staff to keep proper record on the causes of malfunctioning of the camera system and the follow-up actions taken.

56. On the Committee's enquiry about the effectiveness of the 360-degree camera system in the monitoring of shoreline refuse in the 15 priority sites and whether FEHD would extend the camera system to cover other priority sites under FEHD's purview in future, **Director of Food and Environmental Hygiene (Acting)** said at the public hearing and supplemented in her letters dated 1 March and 10 April 2021 (*Appendices 25 and 26* respectively) that:

- the 15 priority sites were mostly located in remote areas that were not readily accessible. The use of 360-degree cameras enabled real-time monitoring by FEHD without having to travel for long time to these locations for site inspections. Monitoring work and the arrangement for clean-up operations could hence be expedited. The images could also assist in monitoring the contractor's clean-up performance;
- between March 2020 and January 2021, there were nine occasions in which FEHD found abnormal increase in the accumulation of shoreline refuse by reviewing the images captured by 360-degree cameras. Clean-up services were arranged to the relevant locations; and
- the 360-degree camera system could be extended to cover other priority sites under FEHD's purview if the situation warranted. The 15 priority sites in the contract had been reviewed with some changes.

57. Noting from Note 40 to paragraph 6.14 of the Audit Report that the 360-degree camera system would blur the face of any individuals in images captured to an unrecognizable level for privacy protection, the Committee enquired whether FEHD would consider seeking advice from DoJ on the feasibility of using the camera system to facilitate enforcement actions against marine or nearshore littering.

58. **Director of Food and Environmental Hygiene (Acting)** said at the public hearing and supplemented in her letter dated 10 April 2021 (*Appendix 26*) that images obtained from the 360-degree camera system were insufficient to serve as evidence for enforcement actions against littering offences. At present, FEHD had no plan to seek advice from DoJ or the Office of the Privacy Commissioner for Personal Data on using the camera system to facilitate the enforcement actions against shoreline littering.

Provision of more water dispensers at gazetted beaches

59. The Committee noted with concern that as revealed in Case 2 in paragraph 6.28 of the Audit Report, LCSD took more than four years to complete the installation of water dispensers in Tong Fuk Beach. The Committee asked for the reasons for the long time taken to install the water dispensers and the expenditure incurred.

60. **Director of Leisure and Cultural Services** and **Assistant Director (Leisure Services)**¹, LCSD explained at the public hearing and **Director of Leisure and Cultural Services** supplemented in his letter dated 9 April 2021 (*Appendix 23*) that:

- based on past experience, it normally took about two years to install water dispensers at LCSD's outdoor land-based venues (e.g. parks) served with a full range of infrastructure. As the ancillary facilities of beaches were generally not comparable with those of land-based venues, installation works at beaches usually took about three years;
- Tong Fuk Beach was relatively remote and lacked ancillary infrastructure, the works departments needed more time to carry out the preparatory work for the installation of water dispensers, such as assessment of implications to existing plumbing, drainage and electrical systems; exploration of design alternatives to cope with site constraints and the seeking of approval from the Water Services Department for the design proposal;
- LCSD proposed to the Architectural Services Department ("ArchSD") to increase the number of water dispensers to be installed at Tong Fuk Beach from one to two during the course of the preparatory work. As a result, ArchSD had to revise the proposal and submit revised drawings to the Water Services Department. Learning from the experience of this case, LCSD would avoid requesting for change of details of works after commencement of the project except when necessary; and
- the total expenditure for the installation of water dispensers at Tong Fuk Beach was \$240,000, including the works cost paid to ArchSD and the Electrical and Mechanical Services Department.

61. The Committee further sought information on the water dispensers installed at gazetted beaches in the past three years, including the time taken for installing the water dispensers and the expenditure involved. The Committee also asked about the timetable and latest progress of installing water dispensers in gazetted beaches and the measures to be taken by LCSD to expedite the progress.

62. **Director of Leisure and Cultural Services** advised in his letter dated 9 April 2021 (*Appendix 23*) that:

- LCSD provided water dispenser facilities at nine gazetted beaches over the past three years, involving a total of 19 water dispensers. The expenditure for each water dispenser ranged from \$50,000 to \$120,000 and installation took 23 to 56 months;
- as at 31 March 2021, 29 of 41 beaches of LCSD were provided with water dispensers;
- among the 12 beaches not yet provided with water dispensers, the installation works at two beaches (i.e. Ting Kau Beach and Hoi Mei Wan Beach) would be completed within 2021, and the installation at six beaches (i.e. Gemini Beaches, Kwun Yam Beach, Cheung Chau Tung Wan Beach, Silver Mine Bay Beach, Anglers' Beach and Trio Beach) were expected to be completed in 2022 and 2023. Casam Beach, Kiu Tsui Beach and Hap Mun Bay Beach could not be provided with water dispensers due to the lack of infrastructure, such as water supply or sewage disposal system. Regarding Rocky Bay Beach which was not provided with a beach building, associated ancillary facilities and lifesaving service, LCSD would assess whether there was a need to provide water dispenser facilities there as soon as possible;
- LCSD would enhance liaison with relevant works departments so as to speed up installation of water dispensers as far as practicable and explore the feasibility of applying innovative technology in future; and
- progress of any new installation of water dispensers at LCSD's venues had to be reported periodically to district management staff for the purposes of monitoring and escalating the issue to management staff for discussion with relevant works departments when necessary.

G. Conclusions and recommendations

<p style="text-align: center;">Overall comments</p>
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63. The Committee:

- notes that the Environment Bureau ("ENB") coordinated the establishment of the Inter-departmental Working Group on Clean Shorelines in 2012 (revamped and renamed as the Inter-departmental Working Group on Marine Environmental Management in 2018) (the "Working Group") to enhance the collaborative efforts among relevant departments¹⁸ in tackling marine refuse. The Working Group is chaired by Permanent Secretary for the Environment, with the Environmental Protection Department ("EPD") as the secretariat;¹⁹
- stresses that:
 - (a) a specific and measurable performance target and timetable for improving the cleanliness of shorelines are integral to creating a shared vision among member departments of the Working Group and enabling effective monitoring of the progress of the collaborative efforts in tackling marine refuse; and
 - (b) as the Agriculture, Fisheries and Conservation Department ("AFCD"), the Leisure and Cultural Services Department ("LCSD") and the Food and Environmental Hygiene Department ("FEHD") are all responsible for cleaning up shoreline refuse at the respective locations within their purviews,²⁰ their adoption and consistent use of a common set of criteria for assessing the cleanliness conditions of their respective service locations is of

¹⁸ While floating refuse is collected by the Marine Department, shoreline refuse is collected by the Agriculture, Fisheries and Conservation Department ("AFCD"), the Leisure and Cultural Services Department ("LCSD") and the Food and Environmental Hygiene Department ("FEHD"). Please refer to Chapter 1 of Part 4 of this report on collection and removal of marine refuse by the Marine Department.

¹⁹ The Working Group's membership also includes representatives from the four departments involved in collection of marine refuse, namely the Marine Department, AFCD, LCSD and FEHD, and four other departments, namely the Drainage Services Department, the Fire Services Department, the Home Affairs Department and the Hong Kong Observatory.

²⁰ The shoreline clean-up work of AFCD, LCSD and FEHD is mainly outsourced to contractors.

fundamental importance in achieving the common target of improving the cleanliness of shorelines;

Inter-departmental Working Group on Marine Environmental Management

- expresses concern that ENB has not demonstrated that it had exerted its best efforts to steer the Working Group towards maximizing the collaborative efforts made by member departments in tackling shoreline refuse, as evidenced by the following:
 - (a) no performance target nor timetable has been set by the Working Group for improving the cleanliness of shorelines; and
 - (b) there are some areas along Hong Kong shorelines which do not fall within the purview of any government bureaux/departments (e.g. the back-of-beach area of Lung Kwu Chau). Such an arrangement is not conducive to maintaining the cleanliness of such areas;
- urges that ENB should:
 - (a) set specific measurable performance target and timetable for improving shoreline cleanliness, for example, set a target and timetable for achieving "Grade 1 - Clean" of the Shoreline Cleanliness Grading System ("the System") devised by EPD²¹ in more coastal sites;
 - (b) assign a department to take up the responsibility to ensure the cleanliness of the shoreline areas which do not fall within the purview of any bureaux/departments; and
 - (c) explore the wider use of information technology to facilitate member departments' work in tackling shoreline refuse;
- expresses concern that AFCD, LCSD and FEHD are not using the System to assess the cleanliness conditions of their respective service locations, which is not conducive to achieving a common target of improving the cleanliness of shorelines;

²¹ The System was devised by EPD to assess and evaluate the cleanliness conditions of coastal sites. Please refer to Figure 5 in paragraph 2.4 of the Director of Audit's Report ("Audit Report") for details.

Government's efforts in tackling shoreline refuse

- notes that AFCD has formulated a new guideline which requires its staff to assess the cleanliness conditions of the service locations by making reference to the System. LCSD will incorporate the performance standards on cleanliness conditions of gazetted beaches in future tenders with reference to the System. FEHD will update its guidelines to set out a benchmark on the level of cleanliness for the contractor to achieve in the next contract;
- urges that ENB should require AFCD, LCSD and FEHD to adopt the same standard in the System in assessing the cleanliness conditions of their respective service locations;

Handling of surge of marine refuse by the Environmental Protection Department

- expresses concern about EPD's ineffectiveness in handling surge of marine refuse in Hong Kong, as evidenced by the pork hock incident revealed in the Director of Audit's Report ("Audit Report").²² As pork hocks did not meet the broad classification of marine refuse (i.e. plastics, metal, glass, processed timber, paper, porcelain, rubber and cloth), EPD had not activated the protocol for handling surge of marine refuse in Hong Kong ("the Protocol");²³
- notes that EPD has updated the Protocol in February 2021 to include a new activation condition, so as to cover other possible scenarios of unusual objects arising on sea surfaces or at shores and beaches;
- urges that EPD should:
 - (a) be alert to significant environmental incidents in neighbouring regions and implement the Protocol with flexibility and in a more vigilant and sensible manner; and

²² Some pork hocks were found on the beaches in Tuen Mun and Tsuen Wan Districts a few days after a large quantity of pork hocks had been found on the beaches in Humen, Dongguan, Guangdong Province in July 2020. Please refer to paragraphs 2.21 to 2.27 of the Audit Report for details.

²³ EPD and the authorities in Guangdong Province launched a regional notification and alert mechanism in May 2017 allowing one side to notify the other of heavy rain or significant environmental incidents. EPD has also compiled a protocol for handling surge of marine refuse in Hong Kong due to typhoon, heavy rainfalls, or significant environmental incidents.

- (b) improve collaboration with the Mainland authority under the existing regional notification and alert mechanism for better handling of similar incidents in future;

Handling of large floating objects by the Agriculture, Fisheries and Conservation Department

- expresses serious concern and disappointment that AFCD has taken seven months to remove two large pipe structures found at Sha Chau and Lung Kwu Chau Marine Park.²⁴ Such large floating objects may endanger the navigational safety of vessels;
- notes that the Marine Department has agreed to render assistance as appropriate when AFCD encounters difficulties in removing large floating objects in Marine Parks/Marine Reserve in future;
- urges that AFCD should develop a mechanism for better handling of large floating objects found in Marine Parks/Marine Reserve in future;

Requests for additional cleansing workers at gazetted beaches by the Leisure and Cultural Services Department

- expresses concern that LCSD staff had not documented justifications for the requests for additional cleansing workers. Moreover, the provision of four additional cleansing workers in Rocky Bay Beach from June 2018 to March 2020 did not appear to be justified as the beach was not open to the public for swimming and did not have any related facilities (i.e. toilets, changing rooms and barbeque sites);²⁵
- notes that:
 - (a) members of the public may visit Rocky Bay Beach, which is situated in Shek O picnic area and adjacent to Shek O Beach. In view of the increase in the number of visitors to the two beaches during summer and weekends, additional cleansing workers were deployed to work on the two beaches to ensure a hygienic environment; and

²⁴ Please refer to paragraphs 3.11 to 3.14 of the Audit Report for details.

²⁵ Please refer to paragraph 4.14 of the Audit Report for details.

- (b) LCSD has reminded its management staff of gazetted beaches to manage requests of providing additional cleansing workers in accordance with the established contract management mechanism, and document the justifications for and the approval of the requests;
- urges LCSD to strengthen the controls on the provision of additional workers and ensure that the requests for additional cleansing workers are fully justified, with justifications being properly documented and authorized;

Tendering of cleansing services by the Food and Environmental Hygiene Department

- expresses concern that while the Central Tender Board had commented that the over-reliance on a single contractor was undesirable from the risk management perspective in May 2018, FEHD had not imposed any restriction in the tender of the clean-up service contracts for the ungazetted beaches and coastal areas and other territorial sites under its purview in 2019, resulting in the award of the contracts to the same contractor;
- notes that FEHD has, upon obtaining clearance from the Department of Justice ("DoJ"), taken follow-up actions on imposing restriction to the effect that its next clean-up service contracts cannot be awarded to a single contractor; and
- urges that although awarding more than one contract to a single contractor is undesirable from the perspectives of risk management and promotion of competition, FEHD should also take due consideration of the prevailing market conditions and strike a balance between competition and efficiency when deciding whether to impose the above restriction in future.

<p style="text-align: center;">Specific comments</p>

64. The Committee:

Monitoring of shoreline cleanliness by the Environmental Protection Department

- expresses concern that there were inadequacies in the monitoring of shoreline cleanliness by EPD as evidenced by the following:
 - (a) the Audit Commission ("Audit") examined the inspection records of EPD between November 2017 and December 2019 and found deviations from the planned timeframe²⁶ in 24 re-inspections (up to a delay of 106 days in one case);²⁷
 - (b) EPD had not reported the monitoring records and statistics of priority sites from November 2017 to December 2019 to the Working Group;
 - (c) EPD had not regularly promulgated in the public domain the cleanliness conditions of coastal sites from April 2015 to August 2020; and
 - (d) while the cleanliness conditions of the 29 priority sites (updated in November 2017) generally improved from January 2018 to mid August 2020 and some non-priority sites (e.g. the Brothers Marine Park) attained worse cleanliness gradings as compared with the priority sites, EPD had not conducted another review of the priority sites;
- notes that:
 - (a) since mid January 2020, EPD has ceased deploying its staff to conduct routine inspections and engaged a contractor to conduct on-site inspections of the 29 priority sites monthly and 90 other

²⁶ According to EPD's monitoring regime, it was planned that priority sites would be re-inspected within one to six months based on the cleanliness grading in the previous inspection.

²⁷ Please refer to paragraph 2.9 of the Audit Report for details.

coastal sites quarterly.²⁸ When renewing the contract, EPD will, having regard to the cleanliness conditions of the inspection locations in the past year, review and update the list of inspection locations and adjust the inspection frequencies;

- (b) EPD has also engaged another contractor to deploy unmanned aircraft systems ("UAS") for shoreline surveillance since May 2020 under a trial project;
 - (c) upon expiry of the UAS contract in May 2021, EPD will conduct an in-depth comparison study between UAS inspection and on-site inspection;
 - (d) EPD will report the monitoring results of coastal sites to the Working Group in due course;
 - (e) EPD has uploaded the annual average cleanliness grading for each of the 29 priority sites onto the Clean Shorelines thematic website in February 2021 for public inspection; and
 - (f) Director of Environmental Protection has agreed with Audit's recommendation that it should draw on the experience of the in-house inspections in monitoring contractors' inspections of coastal sites and reporting of inspection results;
- recommends EPD to:
- (a) make effective use of UAS inspection and helicopter aerial surveillance to supplement on-site inspection so as to better monitor the cleanliness conditions of shorelines; and
 - (b) upload the updated photos of the 119 coastal sites onto the Clean Shorelines website for public inspection more frequently;

²⁸ In the 2018 Policy Address, the Government pledged to put in more efforts in enhancing the shoreline surveillance and clean-up programme to a territorial scale. The shoreline cleanliness monitoring programme was scaled up to cover 119 coastal sites (i.e. 29 priority sites and 90 non-priority sites) from January 2020.

Clean-up operations by the Agriculture, Fisheries and Conservation Department

- expresses serious concern about the inadequacies in the clean-up operations of AFCD as evidenced by the following:
 - (a) Audit examination of 772 inspection records of AFCD from 1 April 2019 to 31 March 2020 revealed that AFCD staff had not taken adequate follow-up actions on 12 cases of suspected absence from duty of contractors' staff;²⁹
 - (b) the inspection forms used by AFCD patrol staff were not standardized and some important information (such as departure time of the contractors' staff) was missing in the inspection forms;
 - (c) the contract provisions of five Marine Parks and the Marine Reserve³⁰ did not require the contractors to report the arrival and departure times of their staff, and only one cleansing contract specified that the contractor should submit digital images of the sites before and after completion of services;
 - (d) a large quantity of refuse was accumulated along the shorelines of the Brothers Marine Park as found in Audit's site visits on 24 July and 24 August 2020;³¹ and
 - (e) there is no penalty clause in the current cleansing contracts to deter contractors from breaching the terms of the contracts;
- notes that:
 - (a) AFCD has subsequently followed up the 12 cases of suspected absence from duty of contractors' staff and found no evidence of non-provision of service by contractors;
 - (b) AFCD has required contractors to report the arrival and departure times of their staff and provide photos/video clips before and after completion of services in new cleansing contracts. AFCD has

²⁹ Please refer to paragraph 3.5(a)(i) of the Audit Report for details.

³⁰ AFCD is responsible for the cleanliness of six Marine Parks, one Marine Reserve, and shorelines of 24 country parks and 11 designated special areas outside the country parks in Hong Kong.

³¹ Please refer to paragraphs 3.19 to 3.21 of the Audit Report for details.

also formulated a new guideline which requires its patrol staff to record findings of abnormalities related to cleansing services and the follow-up actions taken;

- (c) AFCD has increased the cleansing frequency of the Brothers Marine Park since November 2020;
 - (d) AFCD is considering adding a condition to the contracts specifying that wilful provision of false attendance record by contractors may result in a breach of the terms of the contracts; and
 - (e) Director of Agriculture, Fisheries and Conservation has agreed with Audit's recommendations relating to the monitoring of clean-up operations by AFCD and the cleanliness conditions of Marine Parks and Marine Reserve in paragraphs 3.8 and 3.22 of the Audit Report;
- recommends that AFCD should:
- (a) consider introducing penalty clauses in future cleansing contracts to deter contractors from breaching the terms of the contracts;
 - (b) ensure that its staff will closely monitor the performance of cleansing contractors and take effective follow-up actions against non-compliance with contract requirements by contractors; and
 - (c) consider further increasing the cleaning frequency of Marine Parks and Marine Reserve if necessary to ensure cleanliness of such areas;

Clean-up operations by the Leisure and Cultural Services Department

- expresses concern that there were inadequacies in the collection of shoreline refuse data by LCSD as evidenced by the following:
- (a) LCSD had not laid down procedures in contracts/guidelines on how to classify, count and weigh refuse collected;
 - (b) no record was available showing when and how LCSD determined the estimated weight for each bag/bin of refuse and whether LCSD had regularly calibrated the estimated weight.

Variations were found in the estimation of refuse weight in different beaches; and

(c) no record was available showing that LCSD had monitored the fluctuations in shoreline refuse data collected and investigated any abnormal fluctuations;

- notes that:

(a) LCSD will review and standardize the classification of shoreline refuse in bathing beaches, review the method of estimating refuse weight and pay attention to checking the shoreline refuse data accuracy; and

(b) Director of Leisure and Cultural Services has agreed with Audit's recommendations relating to the collection and removal of shoreline refuse at gazetted beaches in paragraph 4.16 of the Audit Report;

Clean-up operations by the Food and Environmental Hygiene Department

- expresses serious concern that there were inadequacies in the clean-up operations by FEHD as evidenced by the following:

(a) there were cases of work sites inspected by Senior Foremen of FEHD not recorded on their Daily Inspection Reports;³²

(b) there were cases of Health Inspectors and Senior Health Inspectors of FEHD not making use of the Contract Management System to conduct checking on the Daily Inspection Reports submitted by Senior Foremen at least twice and once a week respectively,³³ contrary to the requirement of FEHD's Operational Manual for Management of Public Cleansing Contracts;

(c) FEHD had not laid down procedures in the contract on how to estimate the quantity of shoreline refuse collected;

³² Without such information, Audit could not ascertain whether the 50% target inspection rate for Senior Foremen as stipulated in FEHD's Operational Manual for Management of Public Cleansing Contracts had been achieved. Please refer to paragraph 5.7(a) of the Audit Report for details.

³³ Please refer to paragraph 5.7(b) of the Audit Report for details.

- (d) a large quantity of refuse was found along the shoreline of Ting Kok Road and Shui Hau by Audit in June and August 2020 respectively, which had not yet been fully cleaned up by the contractor up to mid September 2020; and
 - (e) the actual hours of service provided by the cleansing contractor for Islands and Sai Kung Districts from June 2019 to May 2020 were significantly less than the estimated hours included in the contract (38.3% of the estimated hours of service for Islands District and 53.3% for Sai Kung District);
- notes that:
- (a) FEHD will lay down procedures for estimating the quantity of the shoreline refuse collected in the renewed contract in June 2021;
 - (b) FEHD has taken into consideration the actual hours of service provided by the contractor under the current contract, as well as the information of refuse washed ashore at priority sites gathered by the 360-degree camera system to work out a more realistic estimation of hours of service for future clean-up service contracts; and
 - (c) Director of Food and Environmental Hygiene has agreed with Audit's recommendations relating to the monitoring of clean-up operations, cleanliness of priority sites, supervision of contractor's work and tendering of clean-up services in paragraphs 5.10, 5.14 and 5.24 of the Audit Report;
- expresses grave concern and disappointment that regarding the suspected false declaration in tender submission by Contractor X in Case 1 in paragraph 5.18 of the Audit Report, FEHD had not sought legal advice from DoJ on the follow-up actions to be taken against Contractor X, but instead allowed 3 out of the 11 contracts which had been awarded to Contractor X during the period concerned to continue until expiry;
- notes that:
- (a) given the lead time required for obtaining DoJ's advice on terminating the contracts concerned and the fact that seven months or so was required for completing open tender exercises for

appointing new contractors, FEHD had, in late 2019, allowed the three contracts which were due to expire by end of April and June 2020 respectively to continue until expiry; and

(b) FEHD has referred the case of suspected false declaration made by Contractor X to the Police for investigation, terminated 4 out of the 11 contracts which had been awarded to Contractor X, and Contractor X was not allowed to bid for non-skilled worker contracts for five years from the date of its conviction under the Immigration Ordinance (Cap. 115);

- urges FEHD to consult DoJ for better handling of cases similar to Case 1 in future;

Other related issues

Publicity and public engagement efforts in promoting shoreline cleanliness by EPD

- expresses concern that there were a number of errors in the figures reported in the monthly analytical reports submitted by the contractor of two Clean Shorelines social media pages,³⁴ and EPD had cancelled a planned survey in 2016 to gauge the public impression on shoreline cleanliness;
- notes that Director of Environmental Protection has agreed with Audit's recommendations relating to the publicity and public engagement efforts in promoting shoreline cleanliness in paragraph 6.11 of the Audit Report;
- urges EPD to enhance its educational and promotion work to increase the public awareness of reducing marine refuse;

Using 360-degree camera system to monitor remote coastal sites by FEHD

- expresses concern about FEHD's inadequacies in using the 360-degree camera system to monitor the cleanliness conditions of remote coastal sites, as evidenced by the following:

³⁴ Please refer to paragraph 6.8 of the Audit Report for details.

- (a) from 1 March to 31 May 2020 (92 days), no images were received from 10 of the 15 priority sites for a period of 31 to 91 days. For the six cameras installed in the Islands District, there was a total of 301 camera-days without image received; and
 - (b) no follow-up actions on malfunctioning cameras were recorded by FEHD staff, rendering it difficult to ascertain whether the contractor complied with the contract requirement of 24-hour response time;
- notes that:
- (a) FEHD has deducted about \$364,000 of service charge upon detection of malfunctioned services provided by the contractor;
 - (b) the contractor has taken remedial actions to solve the connectivity problems. FEHD has sought advice from the Office of the Communications Authority on finding solutions to deal with weak mobile signals at some remote locations;
 - (c) FEHD has incorporated punitive clauses in the future two-year contract (from 1 May 2021 to 30 April 2023) which provide that default notice may be issued in respect of substandard contractor's performance (e.g. failing to provide images) with deduction of service charge in the form of liquidated damages; and
 - (d) FEHD has reminded its staff to keep proper record on the causes of malfunctioning of the camera system and the follow-up actions taken;
- urges FEHD to step up the monitoring of the performance of the contractor and impose penalties against the contractor as and when appropriate, with a view to deterring non-compliance with the terms of the contract;
- recommends FEHD to seek advice from DoJ or the Office of the Privacy Commissioner for Personal Data on using the 360-degree camera system to facilitate the enforcement actions against shoreline littering;

Enforcement against marine littering

- expresses grave concern and disappointment that from 2010 to 2019, AFCD only took enforcement actions on eight marine littering cases in 3 of the 10 years (2010, 2011 and 2014), and LCSD only gave verbal advice without taking any prosecution action;
- notes that Director of Agriculture, Fisheries and Conservation and Director of Leisure and Cultural Services have agreed with Audit's recommendation on stepping up enforcement actions against marine littering as stated in paragraph 6.23 of the Audit Report;

Provision of water dispensers at gazetted beaches by LCSD

- is surprised and expresses serious concern that as at 31 March 2021, water dispensers were only provided in 29 (71%) of 41 gazetted beaches and the time taken to install water dispensers in some beaches was long (it took more than four years to complete the installation of water dispensers in Tong Fuk Beach);
- notes that LCSD will enhance liaison with the relevant works departments so as to speed up installation of water dispensers as far as practicable and explore the feasibility of applying innovative technology in future; and
- urges LCSD to conduct a cost and benefit analysis for the installation of water dispensers at gazetted beaches and explore more effective measures to expedite the installation progress and lower the cost of installation.

<p>Follow-up action</p>

65. The Committee wishes to be kept informed of the progress made in implementing the various recommendations made by the Committee and Audit.