

*Planning, provision and management of public toilets by  
the Food and Environmental Hygiene Department*

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**A. Introduction**

The Audit Commission ("Audit") conducted a review to examine the planning, provision and management of public toilets by the Food and Environmental Hygiene Department ("FEHD") with a view to identifying areas for improvement.

Background

2. According to the Public Health and Municipal Services Ordinance (Cap. 132), FEHD may provide and maintain toilets where it considers such toilets to be required having regard to the general benefit of the public, and may equip any such toilets with all requisite furnishings, fittings and mechanical or other appliances for the use of the public. Public toilets (with flushing systems) and aqua privies (i.e. village-type dry toilets without any flushing system) managed by FEHD are available for public use free of charge and open 24 hours a day.<sup>1</sup> As of June 2019, FEHD managed 798 public toilets and 51 aqua privies throughout the territory (mainly provided at transport facilities, tourist spots and places with heavy transient pedestrian traffic or where crowds are likely to congregate).

3. The Architectural Services Department ("ArchSD") is the main works agent of FEHD's various public toilet works projects. From 2016-2017 to 2018-2019, 13 new public toilets were built, 10 public toilets were reprovisioned and 27 public toilets were refurbished, and the estimated total project costs for these projects were \$282.8 million. Between February 2005 and November 2014, 441 aqua privies were converted into flushing toilets with a total expenditure of \$740.2 million.

4. FEHD also manages public toilets and aqua privies to upkeep the conditions of toilet facilities and hygiene. As of June 2019, the cleansing services of 625 (78% of 798) public toilets and 31 (61% of 51) aqua privies were outsourced to

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<sup>1</sup> FEHD also provides toilets for use by the public in venues under its management which are not open 24 hours a day (e.g. toilets at public markets). Apart from FEHD, other government departments may also provide toilet facilities for use by the public in venues/facilities under their management (e.g. sports centres under the Leisure and Cultural Services Department, and country parks under the Agriculture, Fisheries and Conservation Department).

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contractors,<sup>2</sup> and the remaining 173 (22%) public toilets and 20 (39%) aqua privies were provided by FEHD in-house cleansing workmen. In 2018-2019, FEHD's expenditure in providing public cleansing services was \$3,096 million. To monitor the performance of contractors and in-house cleansing workmen, FEHD staff periodically conduct inspections of conditions of hygiene, cleanliness and facilities of the public toilets and aqua privies.

5. The Committee held three public hearings on 14 and 21 December 2019 and 8 January 2020 to receive evidence on the findings and observations of the Director of Audit's Report ("Audit Report").

#### The Committee's Report

6. 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 9);
- Planning and provision of public toilets (Part B) (paragraphs 10 to 41);
- Management of public toilet works projects (Part C) (paragraphs 42 to 73);
- Management of public toilets (Part D) (paragraphs 74 to 117); and
- Conclusions and recommendations (Part E) (paragraphs 118 to 120).

#### Speech by Director of Audit

7. **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 14 December 2019. The full text of his speech is in *Appendix 7*.

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<sup>2</sup> As of April 2019, FEHD had outsourced the cleansing services of the public toilets and aqua privies to contractors under 34 contracts for street cleansing services for a two-year period at a total cost of about \$2,584 million, with the direct costs related to cleansing services of public toilets amounting to about \$210 million (about 8% of the total contract cost). Other costs (e.g. management and administrative costs) were shared by all public cleansing services and could not be separately allocated to public toilet cleansing services.

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Opening statement by Secretary for Food and Health

8. **Prof Sophia CHAN Siu-chee, Secretary for Food and Health**, made an opening statement at the beginning of the Committee's public hearing held on 14 December 2019, the summary of which is as follows:

- the Administration had attached importance to improving both the hardware and software of public toilets and had allocated more resources in the past two years for these purposes; and
- as announced in the 2019-2020 Budget, the Government would allocate \$600 million for expediting the implementation of the Public Toilet Refurbishment Programme ("PTRP").<sup>3</sup>

The full text of Secretary for Food and Health's opening statement is in *Appendix 8*.

Opening statement by Director of Food and Environmental Hygiene

9. **Miss Vivian LAU Lee-kwan, Director of Food and Environmental Hygiene**, made an opening statement at the beginning of the Committee's public hearing held on 14 December 2019, the summary of which is as follows:

- FEHD would endeavour to upkeep the cleanliness of public toilets and step up cleansing services; and
- FEHD had made improvements with respect to the recommendations put forward in the Audit Report. Details of the follow-up actions in response to Audit's recommendations are provided in Director of Food and Environmental Hygiene's opening statement, the full text of which is in *Appendix 9*.

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<sup>3</sup> FEHD has implemented PTRP since 2000 as an annual programme to give a new look to public toilets with enhancements in design and facilities. Every year, a specific number of public toilets will be shortlisted for refurbishment under the Programme.

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**B. Planning and provision of public toilets**

10. According to paragraph 2.2 of the Audit Report, public toilets were classified by utilization rate into three categories, i.e. high (300 or more daily visitors on average), normal (100 to 299 daily visitors on average) and low (below 100 daily visitors on average). The Committee enquired how these categories were formulated. **Mr FORK Ping-lam, Assistant Director (Operations)3, Food and Environmental Hygiene Department**, explained at the public hearings and **Director of Food and Environmental Hygiene** added in her letter dated 3 January 2020 (*Appendix 10*) that FEHD had made broad categorization of the utilization rate largely in the light of experience. An utilization rate of 300 people each day meant an average hourly utilization of 30 people during the some 10-hour peak period.

11. In reply to the Committee's enquiry on whether there were any guidelines for conducting manual counting to collect utilization data of the public toilets, a method which had all along been used before 2019 (paragraph 2.4 of Audit Report refers), **Director of Food and Environmental Hygiene** said at the public hearings and supplemented in her letter dated 3 January 2020 (*Appendix 10*) that manual counting required manual data collection over a period of time, normally on a few consecutive days including weekends, which required projection to arrive at a full-day utilization rate. FEHD arranged manual counting exercises by in-house staff with the assistance of public toilet attendants if required, when refurbishment, reprovisioning or closure of the public toilet was being considered. There had been no written guidelines for conducting manual counting.

12. The Committee noted from paragraphs 2.5 and 2.7 of the Audit Report that FEHD was introducing infrared sensor counting technology and conducting a trial on the Smart Toilet System with fixed laser ranging sensors<sup>4</sup> respectively to collect utilization data of public toilets, and asked about the details of these systems, the implementation plan, and how the data collected could help improve the provision of public toilets.

13. **Director of Food and Environmental Hygiene** and **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public

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<sup>4</sup> The use of fixed laser ranging sensors for people counting is part of a trial of the Smart Toilet System at Canal Road Public Toilet and Man Yiu Street Public Toilet since June 2019.

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hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 3 January 2020 (*Appendix 10*) that:

- infrared sensor counting required the installation of two sensors at waist level on both sides of the entrance. Blocking of infrared beam of the patrons entering and exiting the public toilets would trigger the counting;
- fixed laser ranging sensor was installed above the entrance. It was able to detect an object under the door jam and determined the direction of travel. The device would use this information to determine whether the object was entering or exiting a public toilet;
- the data collected could be used for planning and management of public toilets including reviewing the mode and time coverage of cleansing services and planning of male-to-female compartment ratio and best timing for refurbishment; and
- FEHD arranged the infrared sensor counting exercise of all public toilets (except those under refurbishment works during the period) in three phases starting from February 2019 for completion by January 2020. The total cost was about \$0.98 million. Upon the completion of headcount by infrared sensors and the trial run of the Smart Toilet System, FEHD would review the cost effectiveness of these technologies. In the long run, FEHD might adopt the Smart Toilet System to continuously monitor public toilets with high utilization rates and use the data for analytic purpose and service improvement.

14. Noting from paragraph 2.11 of the Audit Report that the 1:2 male-to-female toilet compartment ratio was set about some 16 years ago in 2004, the Committee enquired whether FEHD would take into account the changing public needs and review its guidelines on provision of sanitary fittings for males and females in public toilets.

15. **Director of Food and Environmental Hygiene** said at the public hearings and supplemented in her letter dated 3 January 2020 (*Appendix 10*) that:

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- FEHD had not made reference to other guidelines and regulations when working out this 1:2 ratio. FEHD was mindful that the ratio might not be achieved in some public toilets due to site or space constraints;
- before the construction or refurbishment of a public toilet, design consultant would first strive to achieve the 1:2 male-to-female compartment ratio. Depending on the remaining space in male toilet, the consultant would consider providing as many urinals as possible so as to fully utilize the space available. FEHD had not set a number or ratio requirement for urinals; and
- FEHD began to assess the demand, usage pattern and ratio of male and female users of FEHD's public toilets with infrared sensors in early 2019. FEHD would make use of the information available to review the provision of sanitary fitments including urinals, how the 1:2 compartment ratio should apply to individual toilets, and whether sanitary fitments should be used as the basis of calculation instead. The review was expected to be completed in 2020.

16. At the request of the Committee, **Director of Food and Environmental Hygiene** provided in her letter dated 3 January 2020 (*Appendix 10*) details (i.e. the numbers of male compartments, urinals, female compartments and accessible unisex toilets ("AUTs"); male-to-female sanitary fitments ratio; male-to-female toilet compartment ratio; and male-to-female user ratio) of public toilets under FEHD's management.

17. According to paragraphs 2.24 and 2.25 of the Audit Report, FEHD had no guidelines elaborating the application of criteria concerning existing and anticipated utilization rates and availability of similar facilities in the vicinity, and it had not laid down criteria for defining whether certain public toilets were located within the areas of tourist hotspots. The Committee enquired how FEHD could ensure its staff applied the criteria consistently when assessing the need for new and reprovisioning public toilets in the absence of such guidelines.

18. **Director of Food and Environmental Hygiene** said at the public hearings and supplemented in her letter dated 3 January 2020 (*Appendix 10*) that:

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- in handling requests for provision of public toilets, FEHD would assess on a case by case basis having regard to the ground situation and consider but not be limited to the following factors:
  - (a) the need for provision of additional public toilets, e.g. the number of toilets available for the public and tourists (provided by government departments and the private sector), estimated number of users of new public toilets, and whether the current situation could be improved by the provision of new public toilets;
  - (b) the feasibility of provision of additional public toilets, e.g. land availability, environmental or technical constraints (including the impact of toilet facilities on surrounding environment), electricity, water supply and sewerage facilities; and
  - (c) other considerations for provision of additional public toilets, e.g. the resources required and the views of nearby residents, local communities and District Councils; and
  
- the following procedures had set out the framework to ensure that the provision of new and reprovisioned public toilets was arranged in a consistent manner:
  - (a) head counting would be conducted to collect the updated utilization rate of a particular public toilet;
  - (b) information on alternative toilet facilities in the vicinity would be collected by research and site visits;
  - (c) availability of government land would be checked; and
  - (d) information about site constraints would be obtained through technical feasibility study with the assistance from relevant departments e.g. the Planning Department, the Lands Department ("LandsD") and ArchSD.

19. Regarding the problem of inadequate public toilets at tourist spots (paragraph 2.28 of the Audit Report refers), the Committee asked whether the Tourism Commission ("TC") had provided views to FEHD, and the measures to be taken by FEHD to ensure that the relevant stakeholders would be well consulted.

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20. **Mr Joe WONG Chi-cho, Commissioner for Tourism**, said at the public hearing and supplemented in his letter dated 11 December 2019 (*Appendix 11*) that since there was no specific definition for tourist spots in Hong Kong, FEHD had consulted the tourism sector through TC in 2018 to gather their views on public toilets which were located at major tourist spots and required improvement, and TC had come up with a list of 23 public toilets in this regard. From 2017 to 2018, TC had also provided views to FEHD on the conditions of hygiene, cleanliness and facilities of the public toilets at Peak Tower, Star Ferry Multi Storey Car-park and Central Market, the Yim Tin Tsai Public Toilet and Lai Chi Wo Public Toilet.

21. **Director of Food and Environmental Hygiene** advised in her letter dated 3 January 2020 (*Appendix 10*) that FEHD was working with TC to put in place a mechanism to receive from the tourism trade their feedback on the public toilets which were of concern to them, to consult them on FEHD's planning of public toilets at scenic areas or tourist spots, and to report progress of such works. FEHD planned to consult TC at least once every year, while dialogue on specific issues would be maintained as necessary throughout the year.

22. In response to the Committee's enquiry on whether FEHD had considered providing portable toilets at tourist spots to address the problem of insufficient public toilets, **Director of Food and Environmental Hygiene** said at the public hearings and supplemented in her letter dated 3 January 2020 (*Appendix 10*) that as portable toilets were required to be desludged regularly and might create environmental nuisance and arouse public concern, FEHD would take this into account and consulted relevant stakeholders before taking forward any proposals of providing portable toilets at tourist attractions. FEHD considered that the planners or operators of new tourist attractions were in a better position to plan adequate toilet facilities to serve tourists at the planning stage.

23. With reference to paragraph 2.54 of the Audit Report, the Committee sought information on measures taken/to be taken by FEHD to improve the hygiene condition and facilities/features of portable toilets. **Director of Food and Environmental Hygiene** said at the public hearings and supplemented in her two letters dated 3 and 13 January 2020 (*Appendices 10 and 12* respectively) that:

- since 2019, FEHD had adopted new designs for portable toilets with enhanced facilities, including pedestal type water closets, LED lighting and exhaust fans operated by solar energy with motion sensor switch;



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- FEHD had commenced a one-year trial on the use of container-type portable toilets at two locations with high utilization rates, i.e. Lok Ma Chau Public Transport Interchange and Tai Lam Tunnel Bus-Bus Interchange,<sup>5</sup> from June and November 2019 respectively. The container-type toilets were equipped with up-to-date toilet facilities which were similar to the provision of permanent public toilets and solar power system to provide power for lighting, ventilation and pumping systems. Non-absorbing floor tiles and water seals of water closets were introduced to reduce the smell problem. Daily toilet attendant services were also provided in the above portable toilets;<sup>6</sup> and
- to improve the portable toilet services, FEHD would progressively replace the existing portable toilets at suitable locations by those with new designs upon renewal of the portable toilet services contracts.

24. The Committee noted from paragraph 2.32 of the Audit Report that FEHD had implemented PTRP annually since 2000 to give a new look to public toilets with enhancements in design and facilities, and enquired about details of the public toilets which had been included under PTRP since 2000.

25. **Director of Food and Environmental Hygiene** advised in her letter dated 3 January 2020 (*Appendix 10*) that of the 477 public toilets which had been included under the annual PTRP since 2000-2001, 114 (24%) were pending for completion (as at 31 December 2019). The project costs of completed projects under PTRP since 2000-2001 with project expenditure finalized ranged from \$0.8 million to \$10 million.

26. According to paragraph 2.35(a) of the Audit Report, FEHD had set a target that every public toilet would undergo major refurbishment every 10 years. The Committee asked whether any similar target was set before 2018 and how this target

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<sup>5</sup> According to FEHD, the needs for public toilets were established in both locations but there were constraints on the construction of permanent public toilets in the short term. The monthly rental costs of the container-type portable toilets at Lok Ma Chau Public Transport Interchange and Tai Lam Tunnel Bus-Bus Interchange were \$67,000 and \$88,500 respectively. It included the provision of the container-type toilet, transportation, installation of the container, warranty of the facilities and desludging for the portable toilet.

<sup>6</sup> According to FEHD, portable toilets were in general not provided with toilet attendant services.

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could facilitate the planning and estimation of the resources required given that it was not a rigid standard for refurbishing each and every public toilet.

27. **Director of Food and Environmental Hygiene and Assistant Director (Operations)**<sup>3</sup>, **Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 3 January 2020 (*Appendix 10*) that:

- FEHD had all along taken into account factors including internal and repair conditions, time of last refurbishment, patronage rate and location in identifying public toilets for inclusion into PTRP. FEHD used to work with ArchSD to come up with a priority list every year and a number of public toilets would be selected in view of other competing priorities; and
- FEHD had reviewed the overall progress of PTRP in 2018 and considered that more public toilets meeting the basic criteria should be included in PTRP. With a 10-year refurbishment cycle as a general indicator, FEHD had taken the initiative to bid for additional resources, leading to the earmarking of \$600 million for commencing full-scale refurbishment or facelifting of some 240 public toilets by phases from 2019-2020 to 2023-2024 under the Enhanced PTRP.<sup>7</sup>

28. In reply to the Committee's enquiry on the latest progress of the 61 toilets which had been included in PTRP in the past 10 years but refurbishment works were yet to be completed (paragraph 2.36(b)(i) of the Audit Report refers), **Director of Food and Environmental Hygiene** replied in her letter dated 3 January 2020 (*Appendix 10*) that refurbishment works for two public toilets (i.e. Chun Wah Road Public Toilet and Ngong Ping Bus Terminus Public Toilet) were completed in May and August 2019 respectively. The location, works programme and latest progress of the remaining 59 public toilets were provided in the above letter.

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<sup>7</sup> Under Enhanced PTRP introduced in August 2018, a subtype of works namely facelifting was introduced. The criteria for facelifting include public toilets with high utilization rates and already dilapidated rapidly but premature for another round of refurbishment and subject to serious criticisms, and public toilets which have not undergone refurbishment for quite a long period of time and with unsatisfactory internal condition/state of repairs without structural defects (e.g. spalling), and can be simply made good by facelifting without change of layout. The scope of works for facelifting covers mainly replacement of aged facilities and installation of new features, with the prevailing layout and exterior wall remaining unchanged.

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29. The Committee asked about details of additional resources allocated to FEHD and ArchSD to help expedite the refurbishment of public toilets, and the implementation timetable of the works of the 240 public toilets included in the Enhanced PTRP from 2019-2020 to 2023-2024.

30. **Director of Food and Environmental Hygiene** said at the public hearings and supplemented in her two letters dated 3 and 13 January 2020 (*Appendices 10 and 12* respectively) and **Mrs Sylvia LAM YU Ka-wai, Director of Architectural Services**, replied in her letter dated 29 January 2020 (*Appendix 13*) that additional manpower including 20 professional/technical/clerical/site supervisory staff and six officers had been or would be deployed to ArchSD and FEHD respectively to take forward the Enhanced PTRP. With the additional resources in place, the two departments were able to speed up planning of the refurbishment and facelifting works, better monitor the performance of the project consultants/contractors and works progress, and ensure timely commencement and completion of the project works.

31. On the progress of the works, **Director of Food and Environmental Hygiene** said at the public hearings and added in her letter dated 3 January 2020 (*Appendix 10*) that:

- 42 public toilets (comprising 20 toilets for refurbishment and 22 toilets for facelifting) had been selected with funding approval for implementation in 2019-2020. As of November 2019, for the 22 public toilets selected for facelifting works, one had been completed, 11 with works in progress, and the remaining 10 were expected to commence works in the first quarter of 2020 with expected completion dates in the second or third quarter of 2020; and
- FEHD had included/was planning to include a number of public toilets with high utilization rates in the Enhanced PTRPs in 2020-2021 and 2021-2022, with priority given to those with high utilization rates and in ageing conditions.

32. At the Committee's request, **Director of Food and Environmental Hygiene** provided in her letter dated 3 January 2020 (*Appendix 10*) the workflow for implementing public toilet refurbishment and facelifting projects under the Enhanced PTRP, as well as the location, estimated cost, progress, estimated works

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commencement and completion dates of the 42 public toilets under 2019-2020 PTRP.

33. As **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings that when implementing public toilet refurbishment projects, FEHD would consult the relevant District Councils and stakeholders on the provision of portable toilets in the vicinity, the Committee sought information about the time required for the consultation and the number of public toilets refurbished in the past five years but not provided with portable toilets.

34. **Director of Food and Environmental Hygiene** said at the public hearings and supplemented in her letter dated 13 January 2020 (*Appendix 12*) that generally speaking, FEHD would submit the proposal on refurbishment works of the public toilets (together with the temporary arrangement on provision of portable toilets if applicable) to respective District Councils about three months before the commencement of the proposed works. From 2015 to 2019, out of a total of 82 public toilets that were refurbished, 17 were not provided with portable toilets during the refurbishment works period due to site constraints and availability of other public accessible toilet facilities in the vicinities.

35. According to paragraph 2.47 of the Audit Report, it was the Government's established policy objective to provide barrier-free facilities for persons with disabilities. The Committee sought details of the public toilets which were newly built/reprovisioned/refurnished from 2015-2016 to 2019-2020 but not provided with AUTs, and the follow-up measures taken by FEHD and ArchSD regarding the 402 toilets<sup>8</sup> which were not provided with AUTs and not included in PTRP.

36. **Director of Food and Environmental Hygiene** said at the public hearings and supplemented in her letter dated 13 January 2020 (*Appendix 12*) that:

- from 2015-2016 to 2019-2020, out of the 97 public toilets which were newly built, reprovisioned or refurbished, 13 refurbished public toilets

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<sup>8</sup> In September 2019, ArchSD informed Audit that of the 418 public toilets which were not provided with AUTs as of June 2019: (a) 16 toilets had been included in PTRP; (b) further studies of the 139 toilets would be conducted; and (c) 263 toilets had been considered in the Retrofitting Programme for barrier-free facilities but the majority of them had been found infeasible.

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were not provided with AUTs due to site constraints or local objections. Local objections were received during acquisition of additional land for construction of the proposed AUTs mainly due to concerns over potential change of land use in the village, obstruction of village access and potential impact on "Feng Shui". In one case, the private land owner refused to grant the right of way to access the proposed AUT; and

- for the 263 public toilets which were found infeasible for provision of AUTs due to site constraints, local objections and complicated land issues and other reasons, accessible urinals, braille and tactile signs for toilets and handrails with braille and tactile information were provided as far as practicable to facilitate people with disabilities and the elderly to use the public toilet facilities. FEHD and ArchSD would continue to explore the feasibility of providing AUTs in these toilets under the Enhanced PTRP.

37. **Director of Architectural Services** advised in her letter dated 29 January 2020 (*Appendix 13*) that the Working Group on Upgrading of Public Toilets ("Working Group")<sup>9</sup> would regularly review the situation of those public toilets for which the provision of AUTs had been found infeasible. If there was any change in the external factors or situation which might make the provision of AUTs possible, the Working Group would proceed and review the feasibility study again. For the 139 toilets which would undergo further studies, ArchSD confirmed that 134 of them were found infeasible for provision of AUT when they were studied in either Phase 6 or Phase 7 of the aqua privy conversion programme, PTRP, or the Retrofitting Programme. FEHD would collaborate with ArchSD to complete feasibility study to the remaining five public toilets within six months.

38. Noting from paragraphs 2.55 to 2.59 of the Audit Report that FEHD would gradually provide or retrofit new and refurbished toilets with enhanced design features/installations to improve public toilet services, the Committee asked whether FEHD had made reference to overseas experiences and technologies or consulted other departments/parties for improving local public toilets.

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<sup>9</sup> The Working Group is chaired by a Deputy Director of FEHD, with members from FEHD and ArchSD.

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39. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her two letters dated 11 December 2019 and 13 January 2020 (*Appendices 14 and 12* respectively) that:

- FEHD had been actively exploring new facilities/technologies through various channels including the internet, by reaching out to the trade, local research and development institutions, and conducting field visits. FEHD would then conduct surveys and market research in studying the cost effectiveness and feasibility of application to public toilets and consult relevant departments (e.g. ArchSD and the Electrical and Mechanical Services Department ("EMSD")) on technical feasibility where appropriate. Upon conducting pilot trials at selected public toilets and considering the results satisfactory, FEHD would apply the technology to a larger scale testing covering more public toilets for evaluation before full implementation;
- with reference to the European experience, FEHD had worked in collaboration with ArchSD and EMSD since May 2019 to study the feasibility of introducing auto cleansing toilets<sup>10</sup> into Hong Kong; and
- FEHD conducted a duty visit to Singapore in August 2019 to better understand the latest developments there in the fields of environmental hygiene and pest control. Particularly, the Smart Toilet System with various sensors to detect the level of consumables and condition of the toilets was studied.

40. In response to the Committee's enquiry about the adoption of cabinet wash hand basin system in public toilets (paragraph 2.56 of the Audit Report refers), **Director of Food and Environmental Hygiene** and **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 3 January 2020 (*Appendix 10*) that the one-stop provision of wash hand basin, soap dispenser and hand dryer in the form of a cabinet wash hand basin system had recently been installed in Tsuen Wan Multi-storey Car Park Building Public

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<sup>10</sup> Auto cleansing public toilets are individual free-standing modules, each containing a water closet pan and a built-in wash hand basin. After the user has finished using the toilet, opening the door from inside would activate the flushing system and when the user comes out, the door would close and lock. Automatic cleaning and drying of floor and toilet seat would then be carried out within a short period of time before the toilet is ready for use again.

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Toilet and Tak Wah Park Public Toilet on a trial basis. High speed electric hand dryers with drip trays and modified blower fans under wash hand basins were installed in the system to alleviate the wet floor problem caused by dripping hands of toilet users. FEHD aimed to complete the evaluation of the system by the second quarter of 2020.

41. **Director of Architectural Services** added in her letter dated 29 January 2020 (*Appendix 13*) that the refurbishment projects of Tak Wah Park Public Toilet and Tsuen Wan Multi-storey Car Park Building Public Toilet were all procured through lump sum quotation contracts with a contract sum of approximately \$3.36 million and \$3.50 million respectively. As a rough indication based on a rudimentary market research on similar integrated wash hand basin system available locally as conducted by consultant in 2018, the procurement cost of the cabinet wash hand basin system (per wash hand basin) was approximately in the range of \$18,000 to \$26,000, excluding associated plumbing, drainage and electrical installations.

**C. Management of public toilet works projects**

42. Noting from paragraph 3.2 of the Audit Report that FEHD and ArchSD had set up the Working Group since 2000, the Committee enquired about the role and responsibilities of ArchSD in the Group. **Director of Architectural Services** said at the public hearings and supplemented in her letter dated 29 January 2020 (*Appendix 13*) that as members of the Group, ArchSD offered technical advice on the design and layout proposals as well as the colour/material schemes of the public toilet projects proposed by the project consultants/contractors from design and maintenance perspectives to ensure that FEHD's standards and requirements on the provision of toilet facilities as well as relevant barrier-free access requirements were complied with as far as practicable.

43. With reference to paragraph 3.6 of the Audit Report, the Committee enquired about the criteria adopted by ArchSD in deciding whether the public toilet projects should be implemented by term consultants, term contractors, term design-and-build contractors or engaging the contractors through open tender.

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44. **Director of Architectural Services** said at the public hearings and supplemented in her letter dated 29 January 2020 (*Appendix 13*) that ArchSD would normally assign toilet projects with higher degree of complexity and more design input to a term design consultant that possessed suitable experience and resources in handling designs and administration of public toilet projects to facilitate the design vetting process and overall project delivery. Toilet projects which required less design requirements would be assigned to a design-and-build term contractor. For projects assigned to a term design consultant, the construction works would be executed by a term contractor or a contractor via open tendering depending on the scale of the works. For toilet projects which were straightforward and did not involve design input (e.g. toilet facelifting or maintenance), they were normally assigned to a term contractor for execution of the construction works.

45. Noting that the target works period for construction or reprovisioning of a public toilet mentioned in paragraph 3.7 of the Audit Report (nine months) was different from Director of Architectural Services said at the public hearings (about one year), the Committee sought clarification on the discrepancy.

46. **Director of Architectural Services** explained in her letter dated 29 January 2020 (*Appendix 13*) that the target works period for the construction or reprovisioning of a public toilet of nine months was the anticipated duration for carrying out the works which did not include any allowance for slippage (e.g. inclement weather). From the perspective of project management of the toilet projects, ArchSD normally allowed an overall construction period of 12 months, which included a general allowance for possible slippage due to unforeseen site constraints and inclement weather. At the request of the Committee, tables were provided in the above letter to illustrate the workflow for the construction, reprovisioning, full-scale refurbishment and smaller-scale facelifting of public toilets.

47. With reference to Note 20 to paragraph 3.7 of the Audit Report, construction contracts or works orders of public toilets completed beyond the original target completion dates due to events which were outside the control of the contractors (e.g. inclement weather) could not be regarded as delay, and extensions of time would be granted to the contractors. The Committee enquired about the mechanism and guidelines for granting the extension and the penalty to be imposed on contracts which were regarded as delay.



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48. **Director of Architectural Services** said at the public hearings and supplemented in her letter dated 29 January 2020 (*Appendix 13*) that the events which would give rise to extensions of time being granted to contractors and the relevant procedures were detailed in the contract, e.g. Clause 53 of the General Conditions of Contract for Term Contracts for Building Works 2004 Edition.<sup>11</sup> When delays were caused by events not mentioned in the contract (e.g. delay due to contractor's inadequate resources or poor planning), extension of time would not be granted, and the Administration was entitled to recover from the contractor liquidated damages calculated using the daily rate stated in the contract.<sup>12</sup>

49. In reply to the Committee's enquiry about the follow-up actions taken by ArchSD on the unsatisfactory performance of term consultants/term contractors/term design-and-build contractors of public toilet projects, **Director of Architectural Services** advised in her letter dated 29 January 2020 (*Appendix 13*) that ArchSD could issue warning letters and/or adverse reports to the consultants/contractors and take regulating actions (e.g. suspension from tendering) and/or other actions in accordance with Sections 10.7 and 10.8 of the Architectural and Associated Consultants Selection Board Handbook (for term consultants) and Sections 4 and 5 of Contractor Management Handbook published by the Development Bureau (for term contractors/term design-and-build contractors).

50. The Committee noted from Case 1 in paragraph 3.7 of the Audit Report that inadequate resources, unsatisfactory performance and slow progress of Contractor A had led to a delay of about eight months in the construction of Toilet F. The Committee questioned why ArchSD decided to issue the works order to Contractor A in October 2016 while ArchSD was aware of the labour shortage problem of Contractor A before issuing the works order to it.

51. **Director of Architectural Services** said at the public hearings and supplemented in her letter dated 29 January 2020 (*Appendix 13*) that it was Contractor A's obligation under the contract to provide adequate resources in carrying out the works order in accordance with the terms of the contract. When

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<sup>11</sup> The General Conditions of Contract for Term Contracts for Building Works 2004 Edition is one of the standard contract forms commonly used in ArchSD for government projects including the construction and reprovisioning of public toilets.

<sup>12</sup> The liquidated damages stipulated in a public works contract represent the genuine estimate of the financial losses of the Government due to delays caused by the contractor. The calculation of liquidated damages is detailed in Development Bureau Technical Circular (Works) No. 4/2003.

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ArchSD noticed in July 2016 that Contractor A had encountered labour shortage problem, the project team discussed with Contractor A immediately on the scope and programme for the construction of Toilet F with a view to achieving a more reasonable and balanced workload on Contractor A. The project team noted that if the commencement of works for Toilet F was deferred to October 2016, Contractor A would be able to deploy enough resources for executing the works. Considering that a separate tendering exercise would cause an even longer delay, ArchSD issued a works order to Contractor A in October 2016.

52. In response to the Committee's enquiry on the reasons for certifying the construction of Toilet F as substantially completed in June 2018 while there were 21 items of defective or critical outstanding works, **Director of Architectural Services** said at the public hearings and supplemented in her letter dated 29 January 2020 (*Appendix 13*) that:

- the defects and outstanding works identified upon the substantial completion of the works order were minor in nature and would not affect the subsequent handover inspections with FEHD. Upon receipt of an undertaking from Contractor A for completion of the defects and outstanding works, the chief project manager issued a letter certifying that the works order had been substantially completed in accordance with the terms of the contract. Such an arrangement facilitated handing over the completed toilet to FEHD at the earliest opportunity;
- it was Contractor A's obligation under the contract to complete all outstanding works and rectification of defects in a timely manner. Payments for the non-completed works had been withheld until they were satisfactorily completed. Contractor A's progress in completing the outstanding works and rectification of defects were also duly reflected in its performance report; and
- all defects and outstanding works had been rectified/completed before the completed facilities were handed over to FEHD.

53. Noting from paragraph 3.7 of the Audit Report that apart from Toilet F, another four public toilet reprovisioning projects completed from 2016-2017 to 2018-2019 were also carried out by Contractor A and completed later than their

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respective original target completion dates,<sup>13</sup> the Committee enquired whether any sanctions were imposed on Contractor A in this regard. **Director of Architectural Services** advised in her letter dated 29 January 2020 (*Appendix 13*) that all delays in the completion of the construction contracts/works orders after taking into account all extension of time incidents had been duly reflected in the contractor's performance reports. Liquidated damages would also be imposed on the contractor for delays due to the contractor's faults.

54. The Committee asked about the mechanism in place for ArchSD to record and report the unsatisfactory performance of contractors for the reference of other works departments in future tenders. **Director of Architectural Services** said at the public hearings and supplemented in her letter dated 29 January 2020 (*Appendix 13*) that:

- in accordance with the Development Bureau's Contractor Management Handbook, all works departments were required to prepare reports on contractors' performance for all works contracts under their purview on a quarterly basis and upload the reports to the Development Bureau's computerized Contractor Management Information System, through which the performance reports of contractors were available to all works departments for reference during tender assessment; and
- according to Development Bureau Technical Circular (Works) No. 4/2014, under the two-envelope system, a tenderer should submit both technical submission and tender price documents. During the tender assessment stage, the technical submission would be evaluated in accordance with a marking scheme in which the tenderers' past performance was one of the attributes to be assessed in deriving the tenderers' technical score. For tenderers with unsatisfactory past performance, their overall technical score would be affected which would in turn affect their combined technical and price score and hence the opportunity of being awarded the contract.

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<sup>13</sup> According to ArchSD, after assessment of all extensions of time entitled by the contractor for three of the five public toilet reprovisioning projects, three public toilets were completed 5 to 10 months later than their respective extended completion dates. As of September 2019, extension of time assessment for the remaining two public toilet reprovisioning projects was still in progress and the delay period was yet to be ascertained.

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55. In response to the Committee's enquiry on the lessons learnt from Case 1 on the monitoring of contractors to carry out works projects, **Director of Architectural Services** advised in her letter dated 29 January 2020 (*Appendix 13*) that:

- ArchSD would remind its staff and consultants to pay particular attention to ensure that sufficient resources were deployed by a term contractor to carry out the projects. ArchSD would request the term contractors to advise their resources level from time to time and coordinate with them as far as possible before issuance of works orders to facilitate the contractors to plan ahead their resource requirements so as to minimize the risk of project delay due to insufficient resources of the contractors; and
- when it was found that the progress of works was unsatisfactory due to lack of resources, measures such as conducting high-level management interviews with the contractor and reflecting its inadequate resources in the contractor's performance reports would be implemented in a timely manner.

56. According to Case 1 of paragraph 3.7 of the Audit Report, local objections were also a main reason for the delay in completing the reprovisioning of Toilet F. The Committee enquired about the consultation procedures and process and the lessons learnt by FEHD.

57. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 13 January 2020 (*Appendix 12*) that:

- in general, while initiating consultation for a public toilet project, FEHD would, through District Office of the Home Affairs Department, inform stakeholders of the purposes, background, key issues requiring attention, and the departmental contact point for enquiries on the subject being consulted. The respective District Office would collate and forward the feedback of the stakeholders to District Environmental Hygiene Office ("DEHO") of FEHD together with District Office's assessment, where appropriate;
- for Toilet F, DEHO conducted local consultation through the Home Affairs Department's North District Office and received the

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feedback in May 2012. No objection was received. In February 2017, a village representative who was consulted in 2012 raised objection against the construction works. After discussion, FEHD agreed to conduct enhanced beautification works at Toilet F. Subsequent to the completion of construction works and the beautification works, the concerned village representative conducted a site visit to Toilet F on 15 July 2019 and raised objection to the opening of Toilet F due to dissatisfaction with the beautification works. ArchSD conducted further beautification works in September and October 2019, and Toilet F was eventually open for public use on 11 October 2019; and

- Toilet F was an isolated case in which objection was only received with change in circumstances after completion of the consultation process (i.e. villagers' plan to build village houses in front of the toilet site). For any future public toilet projects, FEHD would continue to provide details of proposals to all relevant stakeholders at an early opportunity to seek their understanding and support.

58. Referring to Table 6 of paragraph 3.9 of the Audit Report, the Committee asked why the 25 public toilets included in PTRP from 2011-2012 to 2015-2016 were still under design as of August 2019.

59. **Director of Architectural Services** said at the public hearings and supplemented in her letter dated 29 January 2020 (*Appendix 13*) that some individual projects, particularly those included in PTRP in earlier years, might require a longer lead time for completion and were still in the design stage due to special circumstances or factors, such as site constraints and additional user requirements requiring detailed technical assessments; complications involving land issues or private land; planning and interface issues involving other works or development projects; and the need to obtain stakeholders' support of the design proposals, etc.

60. According to Case 2 of paragraph 3.9 of the Audit Report, Consultant Y informed ArchSD in April 2015 that the refurbishment scheme for Toilet G was structurally feasible. It was later found in September 2018 that there was structural problem in the structural brick walls of Toilet G and the refurbishment works had to be suspended. The Committee enquired about ArchSD's views on the performance of Consultant Y.

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61. **Director of Architectural Services** said at the public hearings and supplemented in her letter dated 29 January 2020 (*Appendix 13*) that:

- Consultant Y was mainly responsible for conducting feasibility studies and project design, carrying out the tender phase work and supervising the works at construction stage till handover of the works to the user;
- the visual inspection to assess the structural feasibility for refurbishment of Toilet G conducted by Consultant Y was in line with general professional practice, based on the fact that no additional load would be imposed by the project scope and no major defects were observed during the site inspection. In addition, to avoid conducting destructive tests which would affect the normal use of the toilet, visual inspection was a preferred practice for toilet refurbishment projects at the preliminary feasibility study stage. ArchSD considered the performance of Consultant Y in this project generally acceptable; and
- ArchSD had commenced a stock taking exercise to identify the existence of structural brick walls for about 850 public toilets and aqua privies for completion by the first quarter of 2020.

62. Noting from paragraphs 3.8, 3.10 and 3.11 of the Audit Report that FEHD had reviewed the workflow of PTRP in 2016 and 2018 and shortened the overall timeline for taking forward refurbishment projects of public toilets from about four to five years to about two to three years, the Committee sought details of the measures taken to expedite the implementation of projects.

63. **Director of Food and Environmental Hygiene** replied in her letter dated 13 January 2020 (*Appendix 12*) and **Director of Architectural Services** supplemented in her letter dated 29 January 2020 (*Appendix 13*) that the following measures had been implemented to expedite the implementation of projects:

- applications for land allocations from LandsD would be made as soon as the public toilets were shortlisted for inclusion in PTRP pending funding approval or when the site boundaries were confirmed;
- once the designs of the toilets to be refurbished were available, FEHD would arrange early public consultations on the refurbishment works;

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- ArchSD would step up the monitoring of project consultants/contractors to expedite the submission of the design proposals for vetting; and
- ArchSD would expedite the vetting of the design proposals in order to commence the works as soon as possible.

64. **Director of Architectural Services** added in her letter dated 29 January 2020 (*Appendix 13*) that the Working Group would review approved projects so as to expedite the progress of projects. Should there be any projects with progress hindered by persistent external factors, another project would be considered to be injected into PTRP to replace the problematic one so as not to affect the overall delivery programme. ArchSD was also exploring the use of "Design for Manufacture and Assembly" to minimize on-site assembly works by means of off-site construction works (e.g. prefabrication of wall panels with urinals) to shorten the closure period in public toilet refurbishment and facelifting projects, and better ensure that the projects would be completed on time.

65. According to paragraphs 3.18 to 3.21 of the Audit Report, given that the absence of a flushing system in toilets might create hygiene, pest and odour problems, FEHD implemented a programme from February 2005 to November 2014 to convert aqua privies into flushing toilets by seven phases. The Committee asked why only 124 of the targeted 145 aqua privies under Phase 7 of the aqua privy conversion programme were converted to flushing toilets.

66. **Director of Food and Environmental Hygiene** explained in her letter dated 13 January 2020 (*Appendix 12*) and **Director of Architectural Services** said at the public hearings and supplemented in her letter dated 29 January 2020 (*Appendix 13*) that 21 aqua privies were not converted into flushing toilets mainly due to lack of water supply and/or sewerage system, complicated slope or land issues and local objections, and some were demolished or pending demolition due to low usage.

67. With reference to Case 3 in paragraph 3.22 of the Audit Report regarding the conversion of Toilet H from aqua privy into flushing toilet, the Committee noted that the water connection works of Toilet H had not fully conformed to the Waterworks Ordinance (Cap. 102) ("WWO") for nearly five years (counting from

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opening of the toilet in April 2013 to authorization of flushing water supply in February 2018). The Committee sought details of the non-compliance with WWO and difficulties encountered by ArchSD.

68. **Director of Architectural Services** said at the public hearings and supplemented in her letter dated 29 January 2020 (*Appendix 13*) that the water supply connection for Toilet H was much more complicated than those normally encountered in other aqua privy conversion projects. According to the proposed alignment accepted by the Water Supplies Department ("WSD") in October 2013 for Toilet H, the routing of the new water main would be about 60 metres long and encroached into private lot and slopes. Although the non-compliance lasted for nearly five years, it was essentially a procedural non-compliance as the plumbing works installed for flushing water supply when Toilet H was completed in 2013 technically complied with WWO's requirements. A chronology of key events in respect of the water connection works for converting Toilet H from aqua privy to flushing toilet was provided in the above letter.

69. In response to the Committee's enquiry on why the proposed alignments of the water main accepted by WSD in October 2013 and the revised one accepted by WSD in October 2014 were later considered infeasible, **Director of Architectural Services** replied in her letter dated 29 January 2020 (*Appendix 13*) that the proposed alignments would encroach into private lot and affect the stability of adjacent slope in case of leakage of the water main.

70. The Committee asked whether WSD had exercised any discretion in approving the flushing water supply system for Toilet H in February 2018. **Director of Water Supplies** advised in his letter dated 7 January 2020 (*Appendix 15*) that:

- while WWO did not apply to the Government, it had been a practice that ArchSD would follow the requirements of WWO in the delivery of its projects including seeking approval of WSD for its plumbing works;
- during the inspection in February 2017, WSD observed that there was an extension from the existing 20 millimetres ("mm") diameter connection water main (previously for providing water supply to the aqua privy for general ablution purpose) to provide water supply to the newly completed plumbing works in Toilet H. As the plumbing



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proposal submitted by Contractor C and approved by WSD for the water supply application for Toilet H proposed to lay a new 25 mm diameter connection water main from the government water main to provide water supply to Toilet H and no permission had been given by WSD for the extension from the existing 20 mm diameter connection water main,<sup>14</sup> it did not conform to the requirement of section 14 (1) of WWO that "no person shall alter an inside service without permission from Water Authority"; and

- Contractor C submitted a plumbing proposal proposing to use the existing 20 mm diameter connection water main for providing water supply to Toilet H. Since the plumbing proposal after being revised to address WSD's comments was in conformance with the requirements of WSD and WWO, WSD approved the new water supply application and the plumbing proposal without exercising any discretion.

71. In reply to the Committee's enquiry on the measures to ensure that the requirements of WWO and the hygienic requirements for water supply system were complied with in implementing aqua privy conversion programme in future, **Director of Architectural Services** advised in her letter dated 29 January 2020 (*Appendix 13*) that ArchSD would pay particular attention to projects with anticipated plumbing connection difficulties to ensure that the requirements of WWO were complied with. ArchSD would also remind its staff and consultants to allow reasonable time for the planning of water main connection works, for example to carefully review the site constraints affecting the proposed water main connection routing and to negotiate with WSD and LandsD (if land issues were involved) for an alternative solution in a timely manner in case the proposed routing was infeasible as far as practicable.

72. According to paragraphs 3.23 and 3.24 of the Audit Report, it was announced in the 2007-2008 Policy Agenda that the target of converting all aqua privies into flushing toilets was by 2012-2013, yet there were still 51 aqua privies as of June 2019. The Committee enquired about the updated status of the 51 aqua privies.

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<sup>14</sup> ArchSD only considered the temporary arrangement of making an extension from the existing 20 mm diameter connection water main to provide water supply to the newly completed plumbing works in Toilet H as an interim measure to facilitate early opening of Toilet H. WSD had not been informed of this temporary arrangement.

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73. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 13 January 2020 (*Appendix 12*) that:

- as at 31 December 2019, the updated status of the 51 aqua privies were as follows:
  - (a) six aqua privies would be demolished;
  - (b) eight aqua privies would be converted to flushing toilets. Conversion works of three of them were in progress. Another three were pending commencement of works. Local consultation on in-situ conversion for one aqua privy was underway. Another aqua privy was pending feasibility study by ArchSD;
  - (c) two aqua privies would be reprovisioned by flushing toilets under private development projects pending commencement;
  - (d) site search and land allocation had been initiated through the Planning Department and LandsD to reprovision 10 aqua privies. Sites had been identified for two aqua privies, and application for land allocation was in progress or would follow;
  - (e) 13 aqua privies were considered infeasible for in-situ conversion to flushing toilets due to the lack of water supply and/or sewerage system, encroachment to private lands or site constraints. Nine of them had completed in-situ refurbishment to improve their internal condition. FEHD was studying the alternatives of reprovisioning these 13 toilets at other sites or demolition altogether with regard to utilization level and actual needs; and
  - (f) 12 aqua privies were planned for demolition. Local consultation was completed for four of them and the proposals would be submitted to the relevant District Councils shortly. One aqua privy would be closed and handed over to LandsD for private development. Local consultation on the remaining aqua privies was in progress; and
- for the aqua privies which were in use, FEHD would review their wear and tear condition and plan for refurbishment if required. Apart from regular cleansing operations, FEHD would deploy deep cleansing

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teams ("DCTs") to improve the hygiene conditions of aqua privies. FEHD also applied Microbiological Odour Arresting Agent in the aqua privies on a regular basis for odour control purpose.

**D. Management of public toilets**

74. According to paragraphs 4.2 and 4.4(c) of the Audit Report, the cleansing services of 625 (78%) public toilets and 31 (61%) aqua privies were outsourced to contractors under the related contracts for street cleansing services. The Committee enquired about the tendering for these services, in particular how the performance of existing contractors would affect their bids for similar future tenders.

75. **Assistant Director (Operations)<sup>3</sup>, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 24 January 2020 (*Appendix 16*) that:

- open and competitive tendering procedures were adopted for Government procurement of street cleansing services;
- in evaluating the tenders, FEHD adopted two-envelope approach and first conducted a technical assessment of each tenderer's proposal and calculated the technical score. The assessment criteria for technical score included the quality of the proposed execution plans submitted by the tenderers, the proposed wage level and daily maximum working hours of the cleansing workers employed for executing the contract, and the tenderers' experience/performance track record for relevant government contracts. A price score would then be determined based on the price proposals;
- for the marking scheme adopted in FEHD's tender exercise for street cleansing contract, a weighting of 50% for technical score and 50% for price score was adopted since April 2019. The tender with the highest combined score would normally be accepted by the Government;
- FEHD had generally adopted an "outcome-based" approach in outsourcing cleansing services. Clear and precise performance-based service requirements including the scope of the services required, level of cleanliness expected, response time for rectification of unsatisfactory performance, etc. were incorporated in the tender document.

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Minimum requirements relating to manpower, work shift, and cleansing frequency might be stipulated in the tender document based on operational needs. The tenderers were required to apply their expertise and experience in devising the staff deployment plan and the mode of operation to provide cleansing services up to the performance standard as required by FEHD; and

- the number of default notices issued to a street cleansing contractor would be taken into account for assessment of technical score in future tender evaluations, if the contractor submitted a bid.

76. The Committee noted from paragraph 4.3 of the Audit Report that with a view to addressing the rising concerns and complaints on poor hygiene conditions of public toilets with very high utilization rates (particularly those at tourist spots), FEHD had selected 94 public toilets as target public toilets in May 2019 for service enhancement, including enhanced inspection and provision of additional deep cleansing services. The Committee sought details on the scope of the additional deep cleansing services.

77. **Assistant Director (Operations)<sup>3</sup>, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 24 January 2020 (*Appendix 16*) that FEHD had implemented the following enhancement measures for the target toilets to improve hygiene conditions and to better monitor the performance of contractors to provide quality service at public toilets:

- Foremen/Senior Foremen and Health Inspectors ("HIs") were assigned to the target public toilets to conduct enhanced inspections. The designated Foreman/Senior Foreman would inspect each target public toilet twice daily and to follow up irregularities identified with the contractor. The designated HI would conduct supervisory check on a weekly basis. Officers at district management level would conduct monthly inspections;
- four performance indicators, i.e. floor always dry; floor, wall and facilities free from stains and dirt; no strong foul smell; and no prolonged malfunctioning of toilet facilities, were devised and contractors must maintain these standards at all times; and

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- deep cleansing services were enhanced and carried out by DCTs on a regular basis.

78. On the Committee's enquiry on the establishment and annual budget of DCTs and whether FEHD would extend the enhanced services to more public toilets and aqua privies, **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 3 January 2020 (*Appendix 10*) that each DCT comprised one supervisor-cum-driver and four cleansing workmen, and was equipped with one tipper lorry, one high pressure hot water cleaner and other cleansing equipment, tools and materials. FEHD would extend DCT services to all street cleansing services contracts upon next contract renewal to be completed by November 2020. The annual estimated expenditure for the territory-wide deployment of DCTs was about \$60 million.

79. According to paragraphs 4.6 and 4.7 of the Audit Report, FEHD staff periodically conducted different levels of inspection on public toilets to monitor the cleansing services by contractors and in-house cleansing workmen and conditions of hygiene, cleanliness and facilities in public toilets. The Committee enquired about the guidelines on determining the inspection frequency and details and procedures of the inspection.

80. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 24 January 2020 (*Appendix 16*) that:

- during inspection, the principles of risk management would be integrated into the checking of contract compliance. Inspection of public toilets mainly covered the cleanliness, maintenance and operation of facilities and attendance-related matters of toilet attendants;
- supervisory staff, from District Environmental Hygiene Superintendents to HIs, performed surprise supervisory checks to monitor the performance of the cleansing supervisors within their districts. DEHOs would divide their districts into several cleansing sectors on a geographical basis. Each HI was required to inspect one to two cleansing sectors in a week and to cover all areas under

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respective responsibility within six weeks. Each Senior HI was required to inspect two cleansing sectors at a time, and to cover all the areas in the district within three months. Senior district management would inspect the toilets on a regular basis;

- Quality Assurance Section, a section set up with the primary objective of monitoring and improving service quality, would conduct regulatory inspections for different services delivered by FEHD, including that on cleansing services (comprising street cleansing and public toilet services); and
- Quality Assurance Section conducted inspections to public toilets in all districts during its Thematic Quality Assurance Inspections every two years. The inspection reports would be compiled and forwarded to the district concerned for reference and follow-up actions, if necessary. Re-inspections would be carried out a few months later and all irregularities detected in the last inspection would be checked again to see if there were any recurrence. Similarly, re-inspection reports would be issued to individual DEHOs for information and further follow-up actions, if necessary.

81. At the Committee's request, **Director of Food and Environmental Hygiene** provided in the above letter FEHD's guidelines for Foreman grade staff on the inspection frequency for public toilets with cleansing services provided by in-house staff and by contractors.

82. The Committee noted from paragraph 4.9(a)(ii) of the Audit Report that Yuen Long DEHO had exercised discretion to lower the inspection frequency of 103 toilets from once every 10 days (when they were aqua privies) to once every two weeks (after they were converted to public toilets). In view of the large number of public toilets converted from aqua privies, the Committee questioned if the reduction in frequency was considered reasonable and practicable and why the inspection frequency was not set out in FEHD guidelines.

83. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 24 January 2020 (*Appendix 16*) that different districts had their unique circumstances. The discretion for respective

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DEHOs to determine the most suitable minimum inspection frequency for facilities in remote areas would be exercised by respective districts based on their professional knowledge and experience having regard to the ground situation on a case-by-case basis. For Yuen Long DEHO, 103 out of the 127 contracted-out public toilets without toilet attendant services were converted from aqua privies and usually located at remote areas with low utilization rates. The conditions and facilities of these public toilets had been much improved after the conversion. This notwithstanding, FEHD was taking stock of the situation on the ground with a view to providing some form of guidelines to responsible officers in DEHOs in exercising the discretion to determine the inspection frequency for public toilet facilities in remote areas.

84. According to paragraphs 4.6 to 4.9 of the Audit Report, FEHD had maintained a computerized Contract Management System ("CMS") to monitor performance of cleansing contractors, and DEHO Foreman grade staff were required to input the inspection results of public toilets into mobile devices on site and uploaded the records into CMS. However, inspection results were not fully input to CMS and no regular management information was provided to FEHD senior management on cleanliness and conditions of facilities of public toilets. DEHO HI grade staff would only conduct surprise supervisory check on public toilets inspected by their subordinates every six weeks/three months. The Committee questioned how FEHD's senior management could ensure that the conditions of hygiene, cleanliness and facilities of public toilets were satisfactory.

85. **Director of Food and Environmental Hygiene** advised in her letter dated 24 January 2020 (*Appendix 16*) that the overall performance of contractors including provision of public toilet services was assessed through random checking with the principles of risk management integrated into the checking of contract compliance. The inspection findings including the actions taken would be recorded in CMS and would be reflected in monthly assessment reports of the contractors, which were submitted to and reviewed by district management. If any contractor was found to be in breach of contract terms, FEHD would take appropriate follow-up actions, including the issuance of verbal warnings, written warnings and default notices with deduction of monthly payment of service charge.

86. Noting that FEHD had revamped CMS and fully implemented the system from November 2019, the Committee asked about the operation and functions of the revamped CMS, and measures to ensure the strict compliance by all inspection

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officers with FEHD's requirements to input the inspection records into the revamped CMS properly.

87. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 24 January 2020 (*Appendix 16*) that:

- before implementation of the revamped CMS, inspecting officers were required to record inspection details of contractors' performance including the provision of public toilet services after each inspection into CMS via mobile devices. The operation remained the same in the revamped CMS;
- on top of monthly reports generated by the old CMS, the revamped CMS provided enhanced functions to summarize inspection details of public toilets including numbers of inspection and irregularities detected on a district basis for review by district management and senior management; and
- if an officer had forgotten to upload the inspection results to the system, alert messages would be sent to remind inspecting officers to comply with the requirements to input inspection details. Senior HIs or HIs of DEHOs, Operations Sections and Quality Assurance Section would also conduct checking on the status of compliance in inputting inspection details into the revamped CMS by inspecting officers based on the monthly reports generated by the revamped CMS.

88. In reply to the Committee's enquiry, **Director of Food and Environmental Hygiene** advised in her letter dated 24 January 2020 (*Appendix 16*) that FEHD was considering the use of mobile devices to record inspection details of the cleansing services provided by in-house cleansing workmen so as to enhance the record keeping and the effectiveness of supervision. FEHD estimated that the new system would be ready for trial run in the latter half of 2020 after the user requirements were confirmed.

89. According to paragraph 4.10 of the Audit Report, cleansing contractors were required to, among others, carry out minor repair and maintenance works of public toilets, while major repairs would be referred to maintenance agents such as ArchSD



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and EMSD for follow up. The Committee enquired about the reasons for these arrangements. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 24 January 2020 (*Appendix 16*) that to ensure prudent use of public money and timely response to restore normal service of public toilets, FEHD had assigned cleansing contractors to handle minor repair works which were simple and easy to be fixed. Staff of the contractors could provide a quick response and rectify the defects swiftly upon notification.

90. According to Table 10 of paragraph 4.11 and paragraph 4.13(a) of the Audit Report, the number of defects for public toilets and aqua privies referred to maintenance agents increased from 13 290 cases in 2015 to 17 732 cases in 2018. Noting that ArchSD would work with FEHD to analyse the repair requests and conduct joint investigation on the existing ageing public toilets to take measures to tackle the issues leading to the above problem, the Committee enquired about the progress and findings.

91. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 24 January 2020 (*Appendix 16*) that the findings of ArchSD's analysis on repair requests relating to public toilets and aqua privies would be available in the second quarter of 2020. FEHD would consider measures to tackle the issues leading to the increasing number of defects in public toilets requiring repair and maintenance. FEHD had not maintained its own computerized system for managing repair and maintenance requests for public toilets. In the longer term, FEHD would refer to the use of mobile devices and mobile applications ("mobile apps") in handling repair works to generate information and statistics to seek improvements to the design features, installations and other provisions in public toilets.

92. **Director of Architectural Services** added in her letter dated 3 February 2020 (*Appendix 17*) that with a view to strengthening the monitoring and the quality of the repair and maintenance works of public toilets and aqua privies, in the coming new maintenance term contracts which would commence in two batches in April 2020 and April 2021, ArchSD would require the contractors to set up a dedicated team to manage and monitor the works.

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93. As **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings that some items in the public toilets required frequent repair and maintenance, the Committee sought information on the items and measures to address the situation.

94. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 4 February 2020 (*Appendix 18*) that most of the repair requests were related to plumbing and drainage systems, such as defective flushing cisterns, sensor water taps and clearance of seriously choked drainage system. The defects usually arose from high utilization rate and might also be due to improper use of toilet facilities.

95. In reply to the Committee's enquiry on whether any persons were prosecuted for vandalizing the facilities in public toilets/aqua privies in the past five years, **Director of Food and Environmental Hygiene** said at the public hearings and supplemented in her letter dated 24 January 2020 (*Appendix 16*) that in general, FEHD would immediately refer any suspected vandalism or crime cases detected in public toilets to the Police for investigation and enforcement actions. FEHD was not notified by the Police of any prosecution against vandalism of facilities or committing crime in public toilets or aqua privies in the past five years.

96. The Committee enquired about the measures to facilitate the public for their use of toilet facilities. **Director of Food and Environmental Hygiene** said at the public hearings and supplemented in her letter dated 3 January 2020 (*Appendix 10*) that to improve the cleanliness of public toilets, the following facilities were provided on a trial basis:

- toilet seat sanitizer in toilet compartments was provided in a public toilet for disinfection of water closet seats;
- one stop wash hand basin, soap dispenser and hand dryer in the form of a cabinet wash hand basin system;
- anti-bacterial coating on urinals and water closets to inhibit bacterial growth and enhance cleanliness; and

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- nano-bubble technology and atomized ozonated water technology in the flushing system to inhibit bacteria growth and degrade odour molecules.

97. In response to the Committee's enquiry about the educational and promotional work in relation to the importance of toilet hygiene and proper use of public toilets, **Director of Food and Environmental Hygiene** said at the public hearings and supplemented in her letter dated 4 February 2020 (*Appendix 18*) that apart from the measures mentioned in paragraph 4.55 of the Audit Report, FEHD had also broadcast health messages through built-in broadcasting systems in 30 public toilets<sup>15</sup> to remind the public of the importance of toilet hygiene and the proper use of toilet facilities. FEHD would continue to appeal to the public to be mindful and considerate when using public toilets through promotional and educational activities. The total expenditure on education and publicity on toilet hygiene and proper use of toilet facilities for 2019-2020 (as at January 2020) was \$1,663,240.

98. Referring to paragraph 4.17 of the Audit Report about the discrepancy in the number of repair and maintenance requests between FEHD and ArchSD records, the Committee enquired about the reasons for the occurrence of the above issue.

99. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 24 January 2020 (*Appendix 16*) that the discrepancy on the repair and maintenance requests recorded by FEHD and ArchSD was due to inconsistent recording methods adopted by the two departments in some cases. **Director of Architectural Services** said at the public hearings and explained in her letter dated 3 February 2020 (*Appendix 17*) that the differences were due to different counting approaches being adopted by FEHD and ArchSD to suit different modes of operation. For example, when FEHD submitted one repair request to ArchSD, ArchSD might split it into different work items according to the work trades (such as plumbing and joinery works) to facilitate separate monitoring/administration, resulting in differences in the number of repair requests and number of repair works.

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<sup>15</sup> Currently, 36 public toilets are equipped with promotional booths and another 30 public toilets installed with background music and message broadcasting systems. In 2019-2020 (as at January 2020), \$396,240 was incurred for the provision of these booths and broadcasting systems.

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100. According to paragraphs 4.13(b) and 4.19(b) of the Audit Report and the letter from Director of Food and Environmental Hygiene dated 3 January 2020 (*Appendix 10*), a mobile app had been developed to record and transmit repair and maintenance requests among FEHD, ArchSD and EMSD to enhance the effectiveness of reporting defects in public toilets in terms of accuracy and timeliness. The Committee sought details of the mobile app, the implementation timetable, and whether the mobile app could help avoid the discrepancy on the repair and maintenance requests recorded by FEHD and ArchSD.

101. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her two letters dated 3 and 24 January 2020 (*Appendices 10 and 16* respectively) that:

- the mobile app allowed FEHD frontline staff to make use of mobile devices to take photos and record the details of defects in public toilets and transmit the repair and maintenance requests instantaneously to ArchSD or EMSD for follow-up actions. Since the mobile app would link with ArchSD's computer maintenance system to share relevant data, with introduction of the mobile app, the data source of repair and maintenance requests amongst relevant departments would be synchronized to avoid mismatch in maintenance records and discrepancies. It also allowed users to monitor the progress of repair and maintenance works. Management of the departments might make use of the data/information from the mobile app for analysis to improve public service and work efficiency;
- FEHD made ready the first batch of application functions in November 2019 for pilot use in three districts to transmit repair and maintenance requests for defects in public toilets to ArchSD. The second batch of application functions for transmitting repair and maintenance requests to EMSD on a pilot basis started in January 2020. The target was to extend the use of the mobile app to the remaining districts in March 2020 tentatively; and
- the estimated one-off cost for the development of the mobile app was about \$1.2 million.

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102. With reference to paragraph 4.22 of the Audit Report, the Committee enquired about the reasons for the delays in referring the defective items to contractors and maintenance agents and rectifying the defective items, and measures to identify and refer the defective items to contractors and maintenance agents in a timely manner.

103. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 24 January 2020 (*Appendix 16*) that according to DEHOs, majority of the defects stated in paragraph 4.22 of the Audit Report were recurring cases which had been rectified but found recurring between the first and the second site visits conducted by Audit. Nevertheless, the introduction of the mobile app to record and transmit repair and maintenance requests would facilitate the reporting of defective items identified by inspecting officers during inspection of public toilets, tracking of progress of repair and maintenance works and collation of management data for further analysis. Backend automation functions were also provided to ensure that repair and maintenance requests were directed to contractors and maintenance agents for timely follow-up actions.

104. According to paragraph 4.30 of the Audit Report, FEHD had not conducted surveys to collect public views on public toilets and data on the utilization of public toilets after 2008. The Committee asked about the reasons and the channels used by FEHD to collect public views on public toilets in the past 11 years.

105. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** explained at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 24 January 2020 (*Appendix 16*) that customer satisfaction surveys could only give a general impression of the situation of FEHD public toilets without reference to individual toilets for specific improvements. FEHD had been collecting views on public toilet services through various channels such as public complaints, comments from District Council members, suggestion from toilet attendants, etc.

106. Noting from paragraph 4.30 of the Audit Report that FEHD was arranging a trial use of visitor feedback system to gather user feedback of each toilet under monitoring in the new Smart Toilet System, the Committee sought details of the trial

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use of the system and whether FEHD would resume conducting public surveys so as to facilitate the planning and provision of public toilets.

107. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 24 January 2020 (*Appendix 16*) that as part of the trial of Smart Toilet System, FEHD was arranging to use visitor feedback system to gather specific comments on the toilets under monitoring. Visitor feedback system would gather instantaneous feedback over a much longer period of time on the toilets being monitored. FEHD considered that user feedback enabled FEHD to come up with a more timely response to the problems identified and provided FEHD with an important basis for the planning and provision of public toilets to better meet the needs of the public. FEHD aimed to come up with a specific plan in 2020 with regard to cost-effectiveness and the result of the trial on Smart Toilet System, etc.

108. According to paragraphs 4.34 and 4.35 of the Audit Report, 264 (33%) public toilets under the management of FEHD were provided with attendant services as of June 2019. The Committee enquired about the measures rolled out by the Administration to enhance the employment conditions of and protection for non-skilled workers (including toilet attendants) employed by its outsourced service contractors.

109. **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 11 December 2019 (*Appendix 14*) that:

- to implement the new policy announced by the Chief Executive in October 2018 to better protect non-skilled workers, FEHD had enhanced the marking scheme for procuring street cleansing services which covered cleansing services of public toilets and aqua privies for tenders issued on or after 1 April 2019. The weighting of the wage level of non-skilled workers had been increased from 16% to 25% in the technical assessment; and
- of the 34 outsourced street cleansing services contracts in force as at 1 December 2019, eight were tendered on or after 1 April 2019 and adopted the enhanced marking scheme. The average committed

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monthly wage for toilet attendants employed by the successful bidder of these outsourced services contracts was about \$12,810, which was about 20% above the average committed monthly wage at about \$10,610 for the other contracts tendered before introduction of the enhanced marking scheme.

110. In response to the Committee's enquiry about the work shifts and length of working hours of toilet attendants, **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 4 February 2020 (*Appendix 18*) that in general, there were two work shifts of toilet attendants, and the toilet attendants were on duty for about nine hours in day shift and six hours for the evening shift. The actual work shift pattern and working hours of toilet attendant of each public toilet were contingent upon service needs and might vary. The specific arrangements were stipulated in the service contracts of individual public toilets. As a contract requirement, cleansing workmen including toilet attendants were not allowed to work more than 10 hours per day.

111. The Committee noted from paragraphs 4.39 to 4.41 of the Audit Report that some public toilets provided with attendant services were not provided with adequate attendant rooms or power sockets/oscillating fans in accordance with FEHD's Handbook on Standard Features for Public Toilets.<sup>16</sup> The Committee enquired about the measures to improve the working conditions in public toilets for toilet attendants.

112. **Director of Food and Environmental Hygiene** and **Assistant Director (Operations)3, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 4 February 2020 (*Appendix 18*) that:

- FEHD and ArchSD had completed a review on the facilities in all public toilets with toilet attendants. Where circumstances permitted, FEHD would install oscillating fans; mechanical ventilation such as extraction fans, fresh air inlets or propulsion fans; power sockets; lockers; as well as rest and changing facilities in the existing attendant rooms to improve the working environment. The major difficulties

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<sup>16</sup> FEHD sets out the criteria for provision of public toilets under its management in the Handbook.

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encountered in improving facilities in attendant rooms were site constraints and the inherent layout which might not support the provision of certain facilities such as installation of ventilation equipment. FEHD would continue to work with ArchSD to iron out the technical problems as far as practicable;

- owing to site constraints in the existing public toilets without attendant rooms but provided with attendant services, FEHD and ArchSD would review the situation when these toilets were refurbished with a view to providing attendant rooms as far as practicable; and
- as at 10 January 2020, out of the 53 public toilets with only one attendant room, three were already provided with two attendant rooms (each at the male and female toilets), and 46 had attendant rooms located at the common area of the toilets that could be shared used by male and female toilet attendants. The attendant rooms of the remaining four public toilets were currently situated at either the male or female toilets. FEHD would as far as technically feasible make available attendant rooms for both male and female toilet attendants when the public toilets in question were refurbished.

113. **Director of Architectural Services** said at the public hearings and added in her letter dated 3 February 2020 (*Appendix 17*) that ArchSD had received requests from FEHD to improve/provide attendant rooms for 175 public toilets. After studying, 50 public toilets had been found technically infeasible. For the remaining 125 public toilets, 40 of them had been included in the Enhanced PTRP and were being studied for feasibility. 85 public toilets had been found technically feasible to improve/provide attendant rooms. Of these 85 public toilets, the works for 20 public toilets had been completed, 20 public toilets were in progress, the scope of works for 45 public toilets were being established, and the works of these 65 public toilets were anticipated to be completed by September 2020.

114. According to paragraph 4.45 of the Audit Report, FEHD maintained a computerized Complaints Management Information System ("CMIS") which provides a central record of information relating to complaints on public toilets. The Committee enquired about the measures to monitor and improve the handling of complaints and public toilet services.



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115. **Miss Diane WONG Shuk-han, Deputy Director of Food and Environmental Hygiene (Environmental Hygiene), and Assistant Director (Operations)<sup>3</sup>, Food and Environmental Hygiene Department** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 4 February 2020 (*Appendix 18*) that:

- FEHD had in place a departmental circular on "Handling of complaints" setting out the procedures and guidelines on how complaints generally should be processed;
- complaints received were input into CMIS with a view to ensuring that all complaints were dealt with properly and efficiently. Supervisors had the responsibility to ensure that complaint cases were handled appropriately and were properly recorded in CMIS in a timely manner in accordance with the laid down procedures. CMIS had built-in reminder and alert functions to assist case officers and their supervisors to identify cases with delays in reply to complainants (e.g. a monthly management information report showing the lapse time of overdue complaints). Supervisors would oversee the progress of cases, look into the reasons for long overdue cases or long period of inaction during investigation of the cases, and provide guidance/assistance to the case officers as necessary with a view to concluding the cases as soon as possible;
- long overdue cases and repeated complaints were included as standing agenda items for discussion at FEHD internal meetings at both the headquarters and district levels; and
- FEHD had commenced the feasibility study to enhance CMIS having regard to Audit's recommendations. FEHD was in the process of developing a prototype of the enhanced features for CMIS and aimed to put it into trial run in March 2020. Subject to the outcome of the trial run, FEHD expected to implement the enhanced features in the third quarter of 2020 tentatively.

116. Referring to paragraph 4.58 of the Audit Report, the Committee asked how FEHD would enhance the provision of information about public toilets on FEHD's Website and whether FEHD would consider developing a mobile app in this regard.

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117. **Deputy Director of Food and Environmental Hygiene (Environmental Hygiene)** said at the public hearings and **Director of Food and Environmental Hygiene** supplemented in her letter dated 4 February 2020 (*Appendix 18*) that name, address, opening hours, enquiry telephone number and geographical location of public toilets and a list of public toilets temporarily closed for renovation were currently available on FEHD's Website. FEHD would regularly update the webpage to ensure that the information was up-to-date. A mobile version of its Website was available for smart phone users to browse the information of FEHD public toilets. A mobile app for locating public toilets and other toilet facilities had already been provided by the non-government sector for public use.

**E. Conclusions and recommendations**

<b>Overall comments</b>
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118. The Committee:

- notes that:

- (a) according to the Public Health and Municipal Services Ordinance (Cap. 132), the Food and Environmental Hygiene Department ("FEHD") may provide and maintain toilets<sup>17</sup> where FEHD considers such toilets to be required having regard to the general benefit of the public, and may equip such toilets with all requisite fittings and appliances for the use or assistance of persons resorting to them;
- (b) from 2016-2017 to 2018-2019, 13 new public toilets were built, 10 public toilets were reprovisioned and 27 public toilets were refurbished at the estimated total project costs of \$282.8 million. Between February 2005 and November 2014, 441 aqua privies were converted into flushing toilets with a total expenditure of \$740.2 million. The Architectural Services Department

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<sup>17</sup> FEHD also provides toilets for use by the public in venues under its management which are not open 24 hours a day (e.g. toilets at public markets). Apart from FEHD, other government departments may also provide toilet facilities for use by the public in venues/facilities under their management (e.g. parks and sports centres under the Leisure and Cultural Services Department, and country parks under the Agriculture, Fisheries and Conservation Department).

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("ArchSD") is the main works agent of FEHD's various public toilet works projects;

- (c) as of June 2019, FEHD managed 798 public toilets with flushing systems and 51 aqua privies throughout the territory; and
  - (d) as of June 2019, the cleansing services of 625 (78% of 798) public toilets and 31 (61% of 51) aqua privies were outsourced to contractors, and the cleansing services of the remaining 173 (22% of 798) public toilets and 20 (39% of 51) aqua privies were provided by FEHD in-house cleansing workmen. In 2018-2019, FEHD's expenditure in providing public cleansing services<sup>18</sup> was \$3,096 million;
- stresses that:
- (a) while the vast majority of buildings and venues in Hong Kong are provided with toilet facilities, FEHD still plays an important and irreplaceable role in providing public toilets which are available over the territory, operated round the clock and free of charge at places with demands from members of the public and tourists;
  - (b) public toilets are provided to satisfy the basic physiological needs of the public, and public toilets in unsightly and poor hygiene conditions might cause public health problems and will project a poor image of Hong Kong. It should be the aim of FEHD to provide functional, cost-effective, hygienic and clean public toilets to the public; and
  - (c) public toilets are part of community infrastructure, FEHD should formulate holistic planning to ensure that the construction, reprovisioning and refurbishing of public toilet projects should align with changes in society, complement the community planning and developments, and meet the needs of the individual districts taking into account the characteristics of each district;
- expresses serious concern that FEHD does not have a holistic planning with the necessary data, in particular the needs of the public, in the

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<sup>18</sup> The expenditure in providing public cleansing services included street cleansing and household waste collection, and management of public cleansing facilities such as public toilets and refuse collection points.

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construction, reprovisioning and refurbishing of public toilets as evidenced by the following:

- (a) although FEHD's Handbook on Standard Features for Public Toilets had advised that consideration would be given to providing public toilets at tourist spots and locations with anticipated high utilization rates but lacking adequate alternative toilet facilities in the vicinity, FEHD had not laid down guidelines to elaborate the application of the above criteria;
  - (b) FEHD recorded visitor number of public toilets by manual counting to calculate the utilization rate which is one of the key criteria for considering the provision and management of public toilets, including assessing the need for new and reprovisioning public toilets and the deployment of resources for cleansing services. However, no written guidelines had been prepared for manual counting;
  - (c) FEHD accords priority to construct, reprovision and refurbish public toilets located at tourist spots, yet there are no criteria for defining whether certain public toilets are located within the areas of tourist hotspots. Prior to 2018, FEHD had not regularly consulted the Tourism Commission or other stakeholders of the tourism industry on the planning for refurbishment of public toilets at tourist spots; and
  - (d) FEHD had not made any references to overseas practices or local guidelines and regulations when setting the 1:2 male-to-female toilet compartment ratio as a general guideline in planning for construction, reprovisioning and refurbishment of public toilets;
- expresses serious concern and disappointment that FEHD had conducted three surveys between 2004 and 2008 to collect public views on public toilets and data on the utilization of public toilets but no similar survey was conducted after 2008;
  - notes that FEHD has initiated a review of provision of sanitary fitments including urinals taking into account up-to-date information on usage pattern of compartments and urinals as well as the ratio of male and female users of public toilets;

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- expresses serious concern and disappointment that FEHD has lagged behind in the adoption of technological advancements for better management of public toilets as evidenced by the following:
  - (a) FEHD had all along adopted manual counting method with combined means of actual counting and estimation to collect utilization data of public toilets before 2019;
  - (b) the standard inspection record for public toilets with cleansing services provided by in-house cleansing workmen was in manual form which would easily be prone to input errors; and
  - (c) FEHD had yet to maintain its own computerized system for managing repair and maintenance requests for public toilets and this had led to discrepancy in data records in FEHD and ArchSD.<sup>19</sup> It also affects FEHD's analysis on the pattern of such requests;
  
- notes that:
  - (a) FEHD was using infrared sensors and conducting a trial on using Smart Toilet System with fixed laser ranging sensors from 2019 to collect more precise, comprehensive and useful data for analysis of the utilization rates of public toilets; and
  - (b) a mobile application was being developed for FEHD frontline staff to use mobile devices to record the details of defects in public toilets and transmit the repair and maintenance requests instantaneously to ArchSD or the Electrical and Mechanical Services Department<sup>20</sup> for follow-up action. The first batch of application functions was ready for pilot use in three districts in November 2019;

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<sup>19</sup> ArchSD, being a main maintenance agent of FEHD for repair and maintenance works, had maintained a computerized system on repair and maintenance requests received from other government departments, including FEHD.

<sup>20</sup> FEHD has signed a Service Level Agreement with the Electrical and Mechanical Services Trading Fund on the repair and maintenance of mechanical equipment (such as malfunctioned hand dryer) in public toilets. For defects in respect of mechanical equipment, FEHD will report the defects to the Electrical and Mechanical Services Department for repair works.

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- expresses serious concern and disappointment that inadequate supervision on the contractors to carry out public toilet works projects will only exacerbate the problem of works delay as evidenced by the following incidents revealed in the Director of Audit's Report ("Audit Report"):
  - (a) as revealed in Case 1 in paragraph 3.7 of the Audit Report, a project for reprovisioning a public toilet (Toilet F) had a delay of about eight months in completing the construction works due to inadequate resources, unsatisfactory performance and slow progress of the contractor;
  - (b) FEHD implemented Public Toilet Refurbishment Programme ("PTRP") annually since 2000, but only a small number of public toilets could be approved for the works prior to 2018-2019. As of August 2019, for 160 public toilets included in PTRP between 2011-2012 and 2018-2019 after obtaining funding approval, 84 (52.5% of 160) were with works not yet completed, while 44 (52%) of these 84 toilets were included in PTRP between 2011-2012 and 2015-2016. As revealed in Case 2 in paragraph 3.9 of the Audit Report, the Administration had been working on the design of Toilet G for more than three years (from July 2014 to November 2017) to accommodate the views of the local community; and
  - (c) FEHD implemented a programme from February 2005 to convert aqua privies into flushing toilets by seven phases. According to the 2007-2008 Policy Agenda, the Administration targeted to convert all aqua privies into flushing toilets in phases by 2012-2013. As of June 2019, there were still 51 aqua privies;
- notes that:
  - (a) according to the 2019-2020 Budget, an additional funding of about \$600 million would be allocated under the Enhanced PTRP. Additional resources would hence be allocated to FEHD and ArchSD to help expedite the refurbishment of public toilets; and
  - (b) FEHD and ArchSD had implemented improvement measures to expedite the timeline for taking forward a standard refurbishment

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project, and the expedited timeline would be applied to the projects under the Enhanced PTRP from 2019-2020 onwards;

- urges FEHD to:
  - (a) proactively conduct surveys and use reliable methods/channels to collect public views on public toilets and data on the utilization of public toilets and maintain close communication with relevant government departments and the Tourist Commission so as to map out the policies and planning for the provision of public toilets;
  - (b) regularly review its guidelines and criteria in considering the provisioning/reprovisioning of new/existing public toilets to cater for the changing public needs; and
  - (c) improve the public consultation process for future public toilet projects with a view to minimizing works delay;
- urges ArchSD to closely monitor the works progress of public toilet projects and the performance of consultants and contractors, in particular the progress of refurbishment works, and take measures to complete the works on time so as to reduce the inconvenience caused to the community; and
- urges FEHD and ArchSD to make reference to overseas experience and practices to explore and enhance the use of new technologies in improving public toilet services and speeding up the public toilet works projects.

<b>Specific comments</b>
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119. The Committee:

Planning and provision of public toilets

- expresses serious concern and disappointment that:

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- (a) in 93 (62%) of the 149 public toilets installed with infrared sensors to count the number of visitors, there were considerable variances between the utilization rates found by manual counting (conducted by FEHD in 2018 or earlier) and infrared sensor counting. A public toilet at Tai Po with a high utilization rate (1 000 to 1 999 daily visitors on average) revealed by manual counting was found to have a low utilization rate (91 daily visitors on average) by infrared sensor counting;
  - (b) as of June 2019, 421 (53%) of the 798 public toilets managed by FEHD did not meet the 1:2 male-to-female toilet compartment ratio (i.e. with fewer female compartments than required), while 360 (86% of 421) public toilets were constructed or refurbished after FEHD had adopted the above ratio. In terms of sanitary fitments (i.e. including both compartments and urinals), 16 of 23 (70%) newly built or reprovisioned public toilets from 2016-2017 to 2018-2019 had fewer female sanitary fitments than male sanitary fitments;
  - (c) owing to the inherent factors of site constraints and the "not in my backyard" mindset of the general public, FEHD could only ameliorate the problem of inadequate public toilets at some tourist spots through the use of more efficient facilities/features to enhance the turnover of using toilets;
  - (d) as of June 2019, 418 (52% of 798) FEHD's public toilets were not provided with accessible unisex toilets, and 138 (17% of 798) FEHD's public toilets had not been included in PTRP in the past 10 years, of which 29 toilets (21% of 138) had high utilization rates; and
  - (e) among the 145 locations which are currently provided with portable toilets, portable toilets had been provided at some locations for a long time, with the longest case for 15 years;
- notes that:
- (a) Director of Food and Environmental Hygiene has agreed with the Audit Commission ("Audit")'s recommendations in paragraphs 2.9, 2.19, 2.30, 2.42 and 2.58 of the Audit Report; and



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- (b) Director of Architectural Services has agreed with Audit's recommendations in paragraphs 2.19(a), 2.42(a) and 2.58(a) of the Audit Report;

Management of public toilet works projects

- expresses serious concern and disappointment that:
  - (a) seven projects initiated by FEHD from 2016-2017 to 2018-2019 for construction or reprovisioning of public toilets were completed about 1 month to 11 months later than their respective original target completion dates;
  - (b) as revealed in Case 2 in paragraph 3.9 of the Audit Report, as of October 2019, refurbishment works for a public toilet (Toilet G) had not yet been completed eight years after funding was approved. In April 2015, the consultant for this project informed ArchSD that the refurbishment scheme for Toilet G was structurally feasible based on available information and visual inspection. In September 2018 after the works had commenced for a month, the refurbishment works were suspended due to structural integrity concern arising from the poor conditions of structural brick walls; and
  - (c) for Phase 7 of the aqua privy conversion programme, of the 135 works orders issued for carrying out conversion works and in-situ refurbishment works, the actual completion dates for 119 (88%) works orders were later than their respective original target completion dates, the longest case being 15 months. As revealed in Case 3 in paragraph 3.22 of the Audit Report, the water main connection works for converting an aqua privy into a flushing toilet (Toilet H) had not fully conformed to the Waterworks Ordinance (Cap. 102) for nearly five years since opening of the toilet;
- notes that:
  - (a) the works of Toilet G was completed on 29 November 2019;

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- (b) Director of Architectural Services has agreed with Audit's recommendations in paragraphs 3.13 to 3.15, 3.26 and 3.27 of the Audit Report; and
- (c) Director of Food and Environmental Hygiene has agreed with Audit's recommendations in paragraphs 3.14, 3.15 and 3.27 of the Audit Report;

Management of public toilets

- expresses serious concern and disappointment that:
  - (a) for four District Environmental Hygiene Offices ("DEHOs") (i.e. Central/Western DEHO, Mong Kok DEHO, Yau Tsim DEHO and Yuen Long DEHO) of FEHD selected by Audit for examination on their inspection records for the public toilets from January 2018 to June 2019:
    - (i) Central/Western DEHO and Yuen Long DEHO had respectively exercised discretion under FEHD guidelines to adjust downwards the frequencies of routine inspections for 1 public toilet and 103 public toilets which were converted from aqua privies and usually located at remote locations;
    - (ii) the actual numbers of routine inspections conducted by Mong Kok DEHO and Yuen Long DEHO were fewer than scheduled by 11% and 24% respectively. The reasons for the shortfall included staff forgetting to input the inspection reports to the computerized Contract Management System ("CMS") which was developed to, among others, facilitate FEHD's monitoring of contractors' performance, staff vacancies and redeployment of staff resources to other tasks;
    - (iii) for Central/Western DEHO, the results of 19% of the routine inspections conducted were recorded on manual inspection forms but not in CMS. In addition, only 2% of the inspection results for public toilets with attendant services were recorded in the specific inspection reports as required by FEHD;

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- (iv) no records were maintained for repair and maintenance requests to cleansing contractors;
- (v) for requests to maintenance agents, Central/Western DEHO and Yuen Long DEHO used computerized spreadsheets while Mong Kok DEHO and Yau Tsim DEHO used manual log-books to record the requests made and the work progress. There was also a discrepancy of 115 repair and maintenance requests between ArchSD's records (2 026 requests) and FEHD's records (1 911 requests); and
- (vi) Audit further conducted two rounds of site visits in May and June 2019 respectively to the 30 public toilets managed by these four DEHOs and discovered that:
  - the hygiene conditions and cleanliness of some public toilets were poor;
  - some public toilets had a large number of defective facilities involving various types of defects. One toilet was identified with 29 defective items involving six types of defects in June 2019 site visits; and
  - there were 181 defective items identified in May 2019 site visits that had not yet been rectified in June 2019 site visits, including 150 items involving minor repairs which should have been rectified by cleansing contractors within 24 hours after being informed by FEHD staff;
- (b) for those public toilets and aqua privies with cleansing services outsourced to contractors under the related contracts for street cleansing services, no regular management information on cleanliness and conditions of facilities was provided to FEHD senior management for their monitoring of the performance of the contractors;
- (c) upon receipt of ArchSD's enquiries in March 2019, FEHD identified that 19 repair and maintenance requests of public toilets which should be carried out by cleansing contractors had been wrongly referred to ArchSD;

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- (d) the number of defects of public toilets and aqua privies referred to the maintenance agents for rectification increased by 33% from 2015 to 2018, while the number of public toilets and aqua privies only increased by 1% during the same period. For six public toilets, the average number of their repair and maintenance requests reached 89 to 128 per year from January 2015 to June 2019;
- (e) toilet attendant services should be provided in public toilets with high utilization rates or at tourist spots. However, as of June 2019, 24 public toilets with high utilization rates and five public toilets located at tourist spots were not provided with attendant services, while 77 public toilets provided with attendant services were not having high utilization rates nor located at tourist spots;
- (f) as of June 2019, 33 (13%) of the 264 public toilets provided with attendant services were not provided with attendant rooms. Of the remaining 231 (87%) public toilets with attendant rooms, there were 53 toilets with only one toilet attendant room (which might need to be shared by the male toilet attendant and the female toilet attendant) and 178 toilets without power socket, fan or exhaust fan inside the attendant rooms;
- (g) of the 3 759 complaint cases completed by FEHD in the period from January 2018 to April 2019, FEHD took more than 1 month to 12 months to complete the handling of 614 (16%) cases;
- (h) there was no dedicated data field in FEHD's computerized Complaints Management Information System for capturing the name of a public toilet under complaint, and FEHD had not made use of the data field "subject" in the computer system to analyse the nature of complaint;
- (i) FEHD had uploaded the information about public toilets with location maps onto its Website, but the information about the closure of 27 public toilets under refurbishment was not uploaded onto FEHD Website as of August 2019; and
- (j) out of 10 public toilets in Central and Western District visited by Audit, four were not provided with directional signs; and

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- notes that:
  - (a) FEHD will:
    - (i) review the guidelines on the inspection frequency of public toilets including those public toilets converted from aqua privies and having low utilization rates;
    - (ii) make use of the revamped CMS<sup>21</sup> to prevent inspection officers from making improper data input as in the old system and remind its staff to strictly follow the guidelines for input of CMS properly;
    - (iii) remind staff to conduct monthly checking of the repair works orders and observe any particular types of facilities in the public toilets with abnormal or sudden increase of repair orders and report to the district management for necessary follow-up action;
    - (iv) continue to liaise with ArchSD to provide toilet attendant related facilities for existing attendant rooms, if circumstances permit;
    - (v) explore the feasibility of enhancing FEHD's Complaints Management Information System and strengthening the analysis of complaints for monitoring and enhancing public toilet services;
    - (vi) review to enhance provision of information (such as toilet types and closure of toilets) on its Website; and
    - (vii) consult the Highways Department to provide and enhance the directional signs for public toilets if necessary;

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<sup>21</sup> FEHD fully implemented the revamped CMS in November 2019 to: (a) facilitate management of major outsourced services; (b) enhance operational efficiency with new workflow and other functions in CMS to support field inspection and contract management tasks; (c) provide more effective sharing and retrieval of contract management information with online access of reference materials and enhanced query/report functions in CMS; (d) produce more timely and comprehensive information related to management of environmental hygiene service contracts in CMS for reference; and (e) promote green office with reduced printing and storage of paper documents.

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- (b) ArchSD will:
  - (i) analyse the repair requests and liaise closely with FEHD to conduct joint investigation on the existing ageing public toilets with a view to taking measures to address the issues leading to the increasing number of defects in public toilets requiring repair and maintenance, and inform FEHD of any observations relevant to the management of facilities;
  - (ii) liaise closely with FEHD to conduct joint investigation with a view to ascertaining the reasons for the discrepancy of the repair and maintenance records of public toilets between FEHD and ArchSD; and
  - (iii) provide appropriate support amongst other maintenance agents to FEHD for its development of the computerized system to interface with that of ArchSD's on reporting and monitoring of repair and maintenance requests;
- (c) Director of Food and Environmental Hygiene has agreed with Audit's recommendations in paragraphs 4.31, 4.42, 4.53 and 4.62 of the Audit Report; and
- (d) Director of Architectural Services has agreed with Audit's recommendations in paragraphs 4.31(f) and 4.42(c) of the Audit Report.

<b>Follow-up action</b>
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120. The Committee wishes to be kept informed of the progress made in implementing the various recommendations made by the Committee and Audit.