

CHAPTER 3

**Environment and Ecology Bureau
Environmental Protection Department**

**Management of food waste by the
Environmental Protection Department**

**Audit Commission
Hong Kong
31 March 2026**

This audit review was carried out under a set of guidelines tabled in the Provisional Legislative Council by the Chairman of the Public Accounts Committee on 11 February 1998. The guidelines were agreed between the Public Accounts Committee and the Director of Audit and accepted by the Government of the Hong Kong Special Administrative Region.

Report No. 86 of the Director of Audit contains 8 Chapters which are available on our website (<https://www.aud.gov.hk>).



Audit Commission
6th Floor, High Block
Queensway Government Offices
66 Queensway
Hong Kong

Tel : (852) 2867 3423
Fax : (852) 2824 2087
E-mail : enquiry@aud.gov.hk

MANAGEMENT OF FOOD WASTE BY THE ENVIRONMENTAL PROTECTION DEPARTMENT

Contents

	Paragraph
EXECUTIVE SUMMARY	
PART 1: INTRODUCTION	1.1 – 1.7
Audit review	1.8
General response from the Government	1.9
Acknowledgement	1.10
PART 2: MANAGEMENT OF FOOD WASTE COLLECTION SERVICES	2.1
Monitoring of food waste collection services	2.2 – 2.25
Audit recommendations	2.26
Response from the Government	2.27
Tendering of food waste collection service contracts	2.28 – 2.38
Audit recommendations	2.39
Response from the Government	2.40

	Paragraph
PART 3: PROVISION OF FOOD WASTE RECYCLING NETWORK	3.1
Provision of food waste smart recycling bins in public rental housing estates	3.2 – 3.10
Audit recommendations	3.11
Response from the Government	3.12
Provision of food waste smart recycling bins in private housing estates/buildings and villages	3.13 – 3.29
Audit recommendations	3.30
Response from the Government	3.31
Provision of public recycling points	3.32 – 3.41
Audit recommendations	3.42
Response from the Government	3.43
PART 4: OTHER RELATED ISSUES	4.1
Procurement of services for food waste smart recycling bins	4.2 – 4.7
Audit recommendations	4.8
Response from the Government	4.9 – 4.10
Publicity and educational programmes for reduction of food waste	4.11 – 4.13
Audit recommendations	4.14
Response from the Government	4.15
Other issues	4.16 – 4.22
Audit recommendations	4.23
Response from the Government	4.24

Appendices	Page
A : Environmental Protection Department: Organisation chart (extract) (31 October 2025)	80
B : Food waste collection service contracts (September 2021 to October 2025)	81
C : Acronyms and abbreviations	82

MANAGEMENT OF FOOD WASTE BY THE ENVIRONMENTAL PROTECTION DEPARTMENT

Executive Summary

1. Lucid waters and lush mountains are invaluable assets. According to the Environmental Protection Department (EPD), about 10,510 tonnes of municipal solid waste were landfilled in Hong Kong per day in 2024, of which around 29% (i.e. 3,001 tonnes) were food waste, constituting the largest municipal solid waste category. At present, most of Hong Kong's food waste is disposed of at landfills together with other municipal solid waste.

2. To reduce the amount of food waste to be disposed of at landfills, in 2018, the Government launched the Pilot Scheme on Food Waste Collection Service to examine the feasibility of implementing government-run food waste collection services in the long run. EPD is responsible for the reduction and collection of food waste. Since 2021, EPD has expanded the pilot scheme to provide point-to-point food waste collection services for public and private premises. With a view to strengthening the support for the collection of food waste from domestic and commercial and industrial (C&I) sectors, EPD has gradually expanded the food waste recycling network covering public rental housing (PRH) estates, private housing estates/buildings and villages, food waste producers of C&I sector and public recycling points. In 2024-25, the total operational expenses incurred for reduction and collection of food waste was \$292 million, including related staff expenditure of \$53.9 million. The Audit Commission (Audit) has recently conducted a review of EPD's work in the reduction and collection of food waste.

Management of food waste collection services

3. *Scope for increasing the quantity of food waste collected.* From August 2021 to September 2025, 11 food waste collection service contracts (i.e. Contracts A to H and J to L) were awarded to contractors by way of 5 tendering exercises (i.e. Tendering Exercises I to V) and 1 contract (i.e. Contract I) was awarded by way of direct engagement. As at 31 October 2025, EPD had 7 food waste

Executive Summary

collection service contracts with a total contract sum of \$524.4 million. According to EPD, the quantity of food waste collected under the food waste collection service contracts of EPD increased significantly from 990 tonnes in 2021 to 100,176 tonnes in 2025. Audit acknowledged EPD's efforts in the significant increase of food waste collected over the years and noted that there was scope for further increasing the quantity of food waste collected. While the quantity of domestic food waste collected had increased by 95% from 22,931 tonnes in 2024 to 44,729 tonnes in 2025, the quantity of C&I food waste collected had increased by 11% from 49,747 tonnes to 55,447 tonnes for the same period. In Audit's view, EPD needs to make continued efforts to increase the quantity of food waste collected (paras. 1.4, 2.2 and 2.5 to 2.7).

4. ***Scope for enhancing the quality of food waste collected.*** According to EPD, food waste would be delivered to the food waste treatment facilities managed by EPD for treatment. Staff at the food waste treatment facilities would reject food waste failing to meet the requirements specified in the food waste collection service contracts, including those with inert materials exceeding certain percentage that are not suitable for biological treatment. For contracts with operational performance requirements relating to non-compliant food waste collected and delivered to the food waste treatment facilities by the service contractors, any relevant complaints or reports from the operators of the food waste treatment facilities should be considered as a non-compliance with the operational performance requirement and relevant deductions would be made from the monthly operation fees to contractors. Audit noted that: (a) the annual proportion of inert materials by weight found in the food waste received at a food waste treatment facility increased from 13% in 2021 to 29% in 2025 (up to March); and (b) from September 2021 to October 2025, there were instances that the operators of the food waste treatment facilities identified and reported cases of non-compliant food waste and inert materials found in the food waste collected and delivered under certain food waste collection service contracts. According to EPD, the contractor had exercised due diligence in checking for inert materials in the incident and no deduction for non-compliance was thus made from the monthly operation fee. However, there were no records documenting the justifications of EPD regarding the case (paras. 2.5 and 2.8 to 2.10).

5. ***Scope for improvement in site inspections conducted by EPD staff.*** According to EPD, to monitor the service performance of food waste collection service contractors, EPD would conduct site inspections at food waste collection points (FWCPs). Audit noted that there was scope for improvement in site inspections conducted by EPD staff: (a) as at 31 October 2025, there were no guidelines setting

Executive Summary

out the requirements of site inspections conducted by EPD staff on food waste collection service contractors; (b) EPD did not compile management information summarising the site inspections conducted by its staff on food waste collection service contractors with the intended purposes and scope of each inspection conducted; and (c) in January 2026, Audit observed the routine inspections conducted by EPD at 7 FWCPs under 3 contracts and noted that the practices adopted by EPD staff during site inspections varied among inspection teams and the time during which some inspections were conducted did not match with the food waste collection schedule of contractors (paras. 2.15 and 2.16).

6. *Scope for improvement in evaluating the performance of contractors.* According to the Stores and Procurement Regulations, departments should evaluate the performance of contractors at least once every six months until completion of the contract for contracts lasting more than one year and upon completion of the contract for contracts lasting a year or less. Audit noted that, as at 31 October 2025, there were no guidelines setting out the requirements for preparing and endorsing the contractor's performance reports by EPD staff. Of the 27 contractor's performance reports that should be prepared by EPD for the evaluation period up to October 2025, the dates of preparing and endorsing the contractor's performance reports ranged from 5 to 583 days (averaging 128 days) and 5 to 593 days (averaging 132 days) respectively after the end of the respective evaluation periods (paras. 2.23 and 2.24).

7. *Need to ensure compliance with relevant rules and guidelines in conducting tendering exercises.* Food waste collection service contracts rely heavily on the deployment of non-skilled workers. According to the relevant Financial Circular, for service contracts that rely heavily on the deployment of non-skilled workers, government bureaux/departments should follow the standard marking scheme framework and the technical marks assigned to "wages" must be no less than 25% of the total technical marks. Audit noted that under Tendering Exercise I: (a) during technical assessment, the tender assessment panel (TAP) under EPD evaluated the technical proposals received from the tenderers based on an incorrect marking scheme, in which 18% of the total technical marks was allocated to the proposed monthly wage rates for the cleansing workers, instead of no less than 25% as specified in the Financial Circular, leading to the withdrawal of the tender report submitted to the Government Logistics Department Tender Board (GLDTB); and (b) in the event, after the approval of the revised tender report by GLDTB in July 2021, Contract A was awarded to Contractor A in August 2021 with service commencement on 30 September 2021, which was at least 4 months later than the target commencement date in May 2021 (paras. 2.29 and 2.30).

Executive Summary

8. *Scope for improving the accuracy of pre-tender estimates.* In July 2021, in considering Tendering Exercise I, in view of the pre-tender estimates appearing to be on the low side, GLDTB reminded EPD to review the pre-tender estimate formulation methodology. Moreover, according to the tender report submitted by TAP under EPD to GLDTB for Tendering Exercise III in November 2022, in order to provide more realistic pre-tender estimates, EPD would apply a more comprehensive pre-tender estimate formulation methodology and provide better tender information at the market research stage in future. However, Audit noted that significant differences were noted between the pre-tender estimates and the recommended tender prices for Contracts J to L under Tendering Exercise V. In particular, the recommended tender prices for Contracts J to L were lower than their respective pre-tender estimates by 43% to 69% (para. 2.32).

9. *Need to improve the planning of tendering schedule and expedite tendering exercises.* According to the Financial Services and the Treasury Bureau, as a matter of principle, contract extension should be avoided as far as possible and normally be used as a stop-gap measure. Audit noted that EPD issued variation orders at a total cost of \$34.4 million to extend the original contract periods of 4 contracts for 6 months (for Contracts A, C and D) or 3 months (for Contract B). In approving the contract extensions of Contracts A and B in July 2023 and January 2024 respectively, EPD was reminded by the Financial Services and the Treasury Bureau to expedite the tendering exercise to ensure that the follow-on contracts would commence before the end of their respective proposed extension periods and avoid the need for extending the other contracts providing food waste collection services in the districts as far as possible. Notwithstanding that, in February 2025, EPD sought the approval of the Financial Services and the Treasury Bureau for the extension of the contract periods of Contracts C and D (paras. 2.37 and 2.38).

Provision of food waste recycling network

10. *Scope for enhancing the provision of food waste smart recycling bins (FWSRBs) in PRH estates.* In October 2022, EPD launched the Food Waste Collection Scheme in PRH Estates to install FWSRBs for food waste collection in PRH estates. With a view to providing services for a wider coverage of FWSRBs in PRH estates, in May 2024, EPD awarded 3 service contracts (Contracts M to O) at a total contract sum of \$58.7 million to contractors (Contractors M to O). In October 2024, the Environment and Ecology Bureau (EEB) informed the Panel on Environmental Affairs of the Legislative Council that, under the 2024 Policy Address,

Executive Summary

the Government would progressively increase the number of FWSRBs in PRH estates with higher usage, with a view to achieving “one bin per block” in PRH estates by 2026. As at 31 October 2025, there were 218 PRH estates in Hong Kong with a total of 1,473 blocks covered under the Food Waste Collection Scheme in PRH Estates. Audit noted that, as at 31 October 2025, 955 FWSRBs under Contracts M to O had been deployed in 941 (64% of 1,473) blocks in 218 PRH estates and the target of “one bin per block” had been achieved in 110 (50% of 218) PRH estates. After the deployment of the remaining FWSRBs under Contracts M to O, there would be 445 FWSRBs yet to be secured if the target of “one bin per block” in all the 218 PRH estates was to be achieved. According to EPD, it plans to procure the services for simplified FWSRBs to cover the remaining blocks in PRH estates and replace all the existing FWSRBs by phases. In Audit’s view, EPD needs to expedite the procurement of services for simplified FWSRBs with a view to achieving the target of “one bin per block” in PRH estates by 2026 (paras. 1.5 and 3.2 to 3.5).

11. *Need to ensure timely submission of deliverables by contractors.* According to Contracts M to O, contractors should submit various deliverables relating to the performance of services (e.g. testing and commissioning reports and monthly reports) to EPD on a regular basis. Audit noted that, since the commencement of Contracts M to O in May 2024 and up to October 2025, there were late submission of some deliverables by Contractors M to O: (a) operation and training manuals were submitted late by 41, 41 and 47 days by Contractors M, N and O respectively; (b) all the eight testing and commissioning reports were submitted late by Contractors M to O, ranging from 20 to 67 days (averaging 35 days); (c) 9 (60%) of 15, 9 (60%) of 15 and 9 (56%) of 16 monthly reports were submitted late by Contractors M, N and O respectively, ranging from 1 to 79 days (averaging 12 days); and (d) no annual audited accounts had been submitted by Contractors M to O (paras. 3.9 and 3.10).

12. *Long processing time for some FWSRB applications under the Environmental Campaign Committee (ECC) Scheme.* Since December 2023, ECC has collaborated with EPD in implementing the Pilot Scheme on FWSRBs in Private Housing Estates which provides FWSRBs to eligible applicants for a period of two years. According to EPD, it processes all FWSRB applications under the ECC Scheme according to ECC’s Guidance Notes for Pilot Schemes on FWSRBs in Private Housing Estates. In particular, for applications received before 25 July 2025, EPD will notify applicants of the application results within six months (i.e. 180 days) from the date of receipt of the application. Before 25 July 2025, 251 applications were received (comprising 173 processed applications and 78 applications under

Executive Summary

processing as at 31 October 2025). Audit noted that: (a) of the 173 processed applications, the time taken to complete the processing of 84 (48%) applications were more than 180 days, ranging from 181 to 639 days (averaging 424 days), from the date of receipt of applications; and (b) of the 78 applications under processing, 62 (79%) applications had been received for more than 180 days, ranging from 199 to 652 days (averaging 517 days), from the date of receipt of applications (paras. 3.13, 3.19 and 3.20).

13. ***Scope for maintaining a consolidated big data platform under the ECC Scheme.*** According to the contracts for the provision of FWSRBs under the ECC Scheme, FWSRB contractors should provide their big data platforms (i.e. central data management systems) with their FWSRBs connected. As at 31 October 2025, there were four big data platforms provided by the contractors of FWSRBs under the ECC Scheme. Audit noted that: (a) while individual FWSRB contractors provided their own big data platforms for their respective FWSRBs, EPD did not maintain a consolidated platform for recording the food waste collection data obtained from the contractors' big data platforms; and (b) there were inconsistencies in the types of food waste collection data and analyses available from the big data platforms provided by different FWSRB contractors, which made comparison and consolidation difficult. In Audit's view, EPD needs to maintain a consolidated big data platform for recording the food waste collection data obtained from FWSRB contractors' big data platforms and standardise the data and analyses available from the platforms provided by all the contractors under the ECC Scheme (paras. 3.23 to 3.25).

14. ***Scope for enhancing the provision of FWSRBs in public markets.*** Since November 2022, to collect food waste generated by street-level eateries and residents of residential premises without food waste recycling bins, EPD has begun to set up public recycling points at "GREEN@COMMUNITY", refuse collection points and public markets, and food waste recycling spots in the street. With a view to further expanding the target users of FWSRBs to include residents who live in buildings without sufficient space to install food waste recycling bins, in November 2024, EPD awarded a contract (Contract P) to a contractor (Contractor P) to provide services for 45 FWSRBs in public markets at a contract sum of \$1.1 million for an 18-month trial until June 2026. Audit noted that, as at 31 October 2025 (i.e. 10 months after the commencement of the 18-month trial period), only 25 (56% of 45) FWSRBs had been deployed. According to EPD, given the practical difficulties encountered in the installation of FWSRBs at some of the markets identified, some of the FWSRBs had been deployed in locations other than public markets in order to better utilise the contract resources. In Audit's view, EPD needs to draw lessons from the provision

Executive Summary

of services for FWSRBs in public markets under Contract P with a view to facilitating the deployment of FWSRBs in the follow-on contracts for public markets (paras. 1.5, 3.33 to 3.35 and 3.37).

15. ***Scope for enhancing the collection service of food waste recycling spots.*** As at 31 October 2025, 104 food waste recycling spots had been set up in 17 districts across Hong Kong. Audit noted that some of the food waste recycling spots operated until 8 p.m. or before, which were earlier than the peak hours in the usage of FWSRBs (i.e. from 7 p.m. to 9 p.m.) as identified from the user behaviour in PRH estates (para. 3.39).

Other related issues

16. ***Scope for enhancing the procurement of services for FWSRBs under the ECC Scheme.*** According to EPD, ECC approved the allocation of funding of \$13 million and \$31 million from the Environment and Conservation Fund in June 2023 (i.e. Phase 1) and December 2024 (i.e. Phase 2) respectively for the provision of services for FWSRBs. Audit noted that:

- (a) ***Significant variance in contract sums for similar services.*** According to EPD, to minimise the risk of relying on a single contractor and in order to ensure a stable supply of FWSRBs and attract more suppliers to drive down future prices, it was specified in the tender documents under both tendering exercises for Phases 1 and 2 that ECC would award 2 contracts to different tenderers with the 2 highest combined scores based on the technical and price assessment. However, for the tendering exercise under Phase 1, despite the fact that the services to be provided under the 2 contracts awarded (i.e. Contracts R and S) were very similar, the contract sum of Contract S was 96% (i.e. \$2.6 million) higher than that of Contract R; and
- (b) ***Under-estimation of demand of FWSRBs.*** In the tendering exercise under Phase 1, EPD prepared to procure services for 120 FWSRBs to private housing estates. However, the response from private housing estates was overwhelming and ECC had received 190 applications (involving 710 FWSRBs). In the event, ECC approved the variation order under Contract R of \$4.8 million (i.e. 178% of the original contract sum of \$2.7 million).

Executive Summary

In Audit's view, EPD, in collaboration with EEB, needs to draw lessons from the previous procurement exercises in conducting future procurement of services for FWSRBs under the ECC Scheme (paras. 4.4 and 4.5).

17. ***Scope for reviewing the effectiveness of the Food Wise Hong Kong Campaign (FWHKC).*** In May 2013, EEB launched FWHKC with a view to promoting reduction of food waste at source and EPD is responsible for supporting EEB in implementing the initiative (paras. 1.6 and 4.11). Audit noted that:

- (a) ***Need to encourage participants to provide feedback for individual promotion and education activities.*** Since the implementation of the Food Wise Charter in May 2013 and up to October 2025, the return rate of the annual implementation proforma (for providing feedback) from the signees was less than 40%, ranging from 0.4% to 37% (averaging 16%). Besides, participants of the Food Wise Eateries Scheme were not required to submit regular reports to EPD on their latest food waste reduction practices or progress, nor to update EPD on any changes to their practices (para. 4.13(a));
- (b) ***Lack of quantifiable performance targets in the work plan for FWHKC.*** The expected results (i.e. performance targets) specified in the work plan for FWHKC were qualitative in nature and lacked quantifiable performance targets for assessing the effectiveness of the proposed events and activities (para. 4.13(b)); and
- (c) ***Need to conduct a review on the overall effectiveness of FWHKC.*** EPD had not conducted a review on the overall effectiveness of FWHKC since its launch in May 2013. As at 31 October 2025, FWHKC had been implemented for more than 12 years. Audit considers that it is an opportune time for EPD to conduct a review on the overall effectiveness of FWHKC with a view to determining its way forward (para. 4.13(c)).

18. ***Scope for enhancing the monitoring of the trial of technologies for on-site treatment of food waste.*** EPD has been actively exploring the feasibility of applying on-site food waste treatment technologies (e.g. Food TranSmarter and food waste composter) under different trial government projects (para. 4.16). Audit noted that:

Executive Summary

- (a) ***Scope for encouraging involvement of government departments and public in the trial projects.*** As at 31 October 2025, only 6 Food TranSmarters and 1 food waste composter had been installed under the trial government projects funded by EPD in 7 government premises for use by 4 government departments and 1 statutory body. In October 2025, the utilisation rates of the 6 Food TranSmarters and the food waste composter ranged from 31% to 90% (averaging 60%) (paras. 4.17 and 4.18(a)); and
- (b) ***Need to keep under review the operation of the Food TranSmarters by drawing lessons from the difficulties encountered.*** As at 31 October 2025, while the 6 Food TranSmarters had been operated by the participating government departments for 1 to 2.6 years, there were difficulties (e.g. odour problem and power outage caused by the food waste treatment process) encountered by these departments during the course of the trial projects that warrant the review of the operation of the Food TranSmarters (para. 4.18(b)).
19. ***Need to conduct a holistic review on the effectiveness of food waste reduction and collection.*** Audit noted that, from 2018 to 2024: (a) the total quantity of food waste generated in Hong Kong decreased by 10% from 3,639 tonnes per day (tpd) in 2018 to 3,287 tpd in 2024 and the proportion of food waste recovered for recycling increased from 2% in 2018 to 9% in 2024; and (b) of the total quantity of food waste generated in 2024 of 3,287 tpd, 91% (i.e. 3,001 tpd) was still disposed of at landfills, which was still a long way in achieving the vision of zero landfill as specified in the “Waste Blueprint for Hong Kong 2035”. While the food waste collection services and food waste recycling network had been expanded since 2021, EPD has not conducted any review on their overall effectiveness. In Audit’s view, it is an opportune time for EPD to conduct a holistic review to evaluate the effectiveness of reduction and collection of food waste and determine the way forward (paras. 4.21 and 4.22).

Audit recommendations

20. **Audit recommendations are made in the respective sections of this Audit Report. Only the key ones are highlighted in this Executive Summary. Audit has recommended that the Director of Environmental Protection should:**

Executive Summary

Management of food waste collection services

- (a) **make continued efforts to increase the quantity of food waste collected and take necessary actions to rectify the situation of high proportion of inert materials found in the food waste received at food waste treatment facilities (para. 2.26(a) and (b));**
- (b) **establish guidelines setting out the criteria for assessing and determining whether incidents relating to delivering non-compliant food waste to the food waste treatment facilities should be regarded as non-compliance events that warrant the deduction of monthly operation fees to the food waste collection service contractors, and document the justifications for cases when food waste is rejected by the operators of the food waste treatment facilities but not regarded as non-compliance events (para. 2.26(c) and (d));**
- (c) **establish guidelines relating to site inspections conducted by EPD staff on the food waste collection service contractors, including setting out the criteria for selecting FWCPs for site inspections, the required inspection procedures and the relevant scope (e.g. food waste collection process) to be covered in site inspections, and ensure compliance with the guidelines (para. 2.26(g));**
- (d) **compile regular management information summarising the site inspections conducted by EPD staff on the food waste collection service contractors with the intended purposes and scope of each inspection conducted for monitoring purpose (para. 2.26(h));**
- (e) **ensure that the contractor's performance reports are timely prepared and endorsed, including establishing guidelines setting out the requirements for preparing and endorsing the contractor's performance reports (para. 2.26(j));**
- (f) **strengthen the checking of the marking scheme to ensure accuracy and compliance with relevant rules and guidelines in conducting tendering exercises (para. 2.39(a));**
- (g) **step up efforts in reviewing and refining EPD's pre-tender estimate formulation methodology (para. 2.39(b));**

Executive Summary

- (h) **improve the planning of tendering schedule and expedite the tendering exercises with a view to avoiding the need for extending the contracts providing food waste collection services as far as practicable (para. 2.39(d));**

Provision of food waste recycling network

- (i) **expedite the procurement of services for simplified FWSRBs with a view to achieving the target of “one bin per block” in PRH estates by 2026 (para. 3.11(a));**
- (j) **ensure timely submission of deliverables by the contractors of services for FWSRBs in PRH estates (para. 3.11(d));**
- (k) **complete the processing of FWSRB applications received under the ECC Scheme as early as practicable (para. 3.30(b));**
- (l) **maintain a consolidated big data platform for recording the food waste collection data obtained from FWSRB contractors’ big data platforms and standardise the data and analyses available from the platforms provided by all the contractors under the ECC Scheme (para. 3.30(c));**
- (m) **draw lessons from the provision of services for FWSRBs in public markets under Contract P with a view to facilitating the deployment of FWSRBs in the follow-on contracts for public markets (para. 3.42(a));**
- (n) **consider adjusting the operating hours of the food waste recycling spots with a view to better catering for public’s needs (para. 3.42(e));**

Other related issues

- (o) **step up efforts in enhancing the response rate of the signees of the Food Wise Charter regarding their feedback on the Food Wise Charter, and consider requiring the participants of the Food Wise Eateries Scheme to provide their feedback on a regular basis (para. 4.14(a) and (b));**

Executive Summary

- (p) set quantifiable performance targets in the work plan for FWHKC and consider conducting a review on the overall effectiveness of FWHKC with a view to determining the way forward of FWHKC (para. 4.14(c) and (d));
 - (q) encourage government departments and public to participate in the trial projects for on-site treatment of food waste (para. 4.23(a));
 - (r) keep under review the operation of the Food TranSmarters by drawing lessons from the difficulties encountered by the participating government departments during the course of the trial projects (para. 4.23(b)); and
 - (s) conduct a holistic review to evaluate the effectiveness of reduction and collection of food waste and determine the way forward (para. 4.23(d)).
21. **Audit has *recommended* that the Director of Environmental Protection, in collaboration with the Secretary for Environment and Ecology, should draw lessons from the previous procurement exercises in conducting future procurement of services for FWSRBs under the ECC Scheme, including examining the costs and benefits of awarding contracts to multiple tenderers under each tendering exercise, and making better estimates of the demand of FWSRBs as far as practicable (para. 4.8(b)).**

Response from the Government

22. The Secretary for Environment and Ecology and the Director of Environmental Protection agree with the audit recommendations.

PART 1: INTRODUCTION

1.1 This PART describes the background to the audit and outlines the audit objectives and scope.

Background

1.2 Lucid waters and lush mountains are invaluable assets. According to the Environmental Protection Department (EPD), about 10,510 tonnes of municipal solid waste were landfilled in Hong Kong per day in 2024, of which around 29% (i.e. 3,001 tonnes) were food waste, constituting the largest municipal solid waste category. Food waste is any waste, whether raw, cooked, edible and associated with inedible parts generated during food production, distribution, storage, meal preparation or consumption of meals. It is generated from the domestic sector (e.g. households) and commercial and industrial (C&I) sector (e.g. restaurants and markets). At present, most of Hong Kong's food waste is disposed of at landfills together with other municipal solid waste. In 2024, domestic food waste and C&I food waste accounted for 67% and 33% of the total food waste disposed of at landfills respectively and the overall food waste recovery rate was 9%.

Food waste collection services

1.3 To reduce the amount of food waste to be disposed of at landfills, in 2018, the Government launched the Pilot Scheme on Food Waste Collection Service to examine the feasibility of implementing government-run food waste collection services in the long run. Under the pilot scheme, food waste were mainly collected from the C&I sector and public premises (e.g. public markets and cooked food centres managed by the Food and Environmental Hygiene Department (FEHD), and markets and shopping centres managed by the Hong Kong Housing Authority (HKHA)). Since 2021, EPD has expanded the pilot scheme to provide point-to-point food waste collection services for public and private premises (e.g. food processing factories, school lunchbox suppliers, restaurants, hotels and residential premises).

1.4 Food waste collection services are delivered by contractors engaged by EPD under different food waste collection service contracts based on geographical locations. The scope of services generally include the following:

Introduction

- (a) setting up an effective food waste recycling network within the service area;
- (b) collecting food waste from food waste collection points (FWCPs) and food waste producers within the service area (see Photographs 1(a) and 1(b));

Photographs 1(a) and (b)

Collection of food waste

(a)



(b)



Source: EPD records

- (c) carrying out preliminary screening of the collected food waste with a view to facilitating effective subsequent recycling processes; and
- (d) delivering all the collected food waste to the designated food waste treatment facilities, including the organic resources recovery centres and the food waste pre-treatment facilities at sewage treatment works (Note 1).

As at 31 October 2025, EPD had 7 food waste collection service contracts with a total contract sum of \$524.4 million. In 2024-25, the total contract expenditure was \$128.5 million. In 2025, the food waste collection service contractors collected 100,176 tonnes of food waste (Note 2).

Note 1: *An audit review on the management of food waste treatment facilities by EPD had been conducted by the Audit Commission and the results of which were reported in Chapter 3 of the Director of Audit's Report No. 85 of November 2025.*

Note 2: *According to EPD, in 2025, it also collected a total of 9,855 tonnes of liquid food waste by tanker trucks under other types of collection service contracts.*

Food waste recycling network

1.5 According to EPD, with a view to strengthening the support for the collection of food waste from domestic and C&I sectors, and encouraging participation in food waste recycling of various sectors and the general public, EPD has gradually expanded the food waste recycling network, as follows:

- (a) ***Public rental housing (PRH) estates.*** In October 2022, EPD launched the Food Waste Collection Scheme in PRH Estates to install food waste smart recycling bins (FWSRBs — Note 3) (see Photograph 2) for food waste collection in PRH estates under HKHA and the Hong Kong Housing Society. According to EPD, the scheme had been further expanded and 955 FWSRBs had been installed in all the 218 PRH estates as at 31 October 2025. FWSRBs and the related installation, operation and maintenance services are provided by contractors engaged by EPD under service contracts. As at 31 October 2025, EPD had 3 service contracts for the provision of services for FWSRBs in PRH estates with a total contract sum of \$58.7 million;

Note 3: *According to EPD, FWSRBs are equipped with overflow prevention and odour abatement devices to maintain environmental hygiene, as well as to enhance the food waste recycling efficiency and quantity. Residents can redeem gifts using “GREEN\$” points at the gift redemption machines installed at designated PRH estates (replaced by online redemption through “GREEN\$” mobile application) or “GREEN@COMMUNITY”.*

Photograph 2

FWSRB installed in a PRH estate



Source: EPD records

- (b) ***Private housing estates/buildings and villages.*** The purchase or rental of FWSRBs and the related installation, operation and maintenance services for private housing estates/buildings and villages have been subsidised through the following funding schemes:
- (i) ***Environment and Conservation Fund (ECF).*** ECF is a statutory trust fund established under the Environment and Conservation Fund Ordinance (Cap. 450) to provide funding support to local non-profit-making organisations for educational, research and other projects and activities in relation to environmental and conservation matters (Note 4) and came into operation in August 1994. ECF has been open for applications from villages, transitional housing and three-nil buildings relating to food waste recycling and the first

Note 4: *The Secretary for Environment and Ecology is the trustee of ECF. The Environment and Conservation Fund Committee is set up under the Environment and Conservation Fund Ordinance to advise the trustee on the use of funds. The Community Relations Unit of the Environment and Ecology Bureau provides secretariat support for the administration of ECF, including processing applications and monitoring the implementation of approved projects.*

application for provision of FWSRBs for food waste collection was received in November 2020 (Note 5);

- (ii) **Recycling Fund (RF).** RF was launched in October 2015 to promote the recovery and recycling of waste by facilitating the recycling industry to upgrade its operational capabilities and efficiency for the sustainable development of the recycling industry (Note 6). In June 2020, EPD reserved \$100 million and launched the Solicitation Theme under RF in November 2020 to support residential buildings in adopting smart bins technology in food waste collection and recycling, which was subsequently subsumed under the Environmental Campaign Committee (ECC) Scheme (see (iii) below) in October 2025 (Note 7). Since November 2020, RF has subsidised projects in providing private housing estates with FWSRBs for food waste collection (Note 8); and
- (iii) **ECC Scheme.** ECC has been set up since 1990 to promote public awareness of environmental issues and encourage the public to contribute actively towards a better environment (Note 9). With the

Note 5: *An audit review on ECF had been conducted by the Audit Commission and the results of which were reported in Chapter 5 of the Director of Audit's Report No. 72 of April 2019.*

Note 6: *EPD is responsible for the administration of RF, including developing overall policy and strategic plans in relation to RF and overseeing RF applications and agreements under different programmes. EPD engaged the Hong Kong Productivity Council as the implementation partner and the secretariat of RF to assist in the development, promotion, management, operation and monitoring of RF activities.*

Note 7: *According to EPD, all the approved projects under RF would continue to be subsidised by RF until the projects end.*

Note 8: *An audit review on RF had been conducted by the Audit Commission and the results of which were reported in Chapter 5 of the Director of Audit's Report No. 81 of October 2023.*

Note 9: *ECC is an advisory body which advises the Government on community environmental education matters and a close partner of ECF in pursuing community-wide environmental programmes. The Community Relations Unit of the Environment and Ecology Bureau provides secretariat support to ECC and administrative support to projects organised by ECC.*

Introduction

funding allocation from ECF, ECC organises various environmental events and activities for different sectors of the community (Note 10). In June 2023 and December 2024, ECC approved the allocation of funding of \$13 million and \$31 million from ECF respectively to support EPD in implementing the Pilot Scheme on FWSRBs in Private Housing Estates since December 2023. Under the Scheme, eligible applicants were provided with FWSRBs, including the installation, operation and maintenance services, for a period of two years;

- (c) ***Food waste producers of C&I sector.*** Food waste generated from the large C&I premises (e.g. food factories, central kitchens, hotels and shopping malls) would be collected by the contractors under the food waste collection service contracts; and

- (d) ***Public recycling points.*** Since November 2022, to collect food waste generated by street-level eateries and residents of residential premises without food waste recycling bins, EPD has begun to set up public recycling points at different venues by phases, as follows:
 - (i) public recycling points at “GREEN@COMMUNITY”, and refuse collection points (RCPs) (see Photograph 3(a)) and public markets managed by FEHD; and

 - (ii) food waste recycling spots in the street (see Photograph 3(b)).

Note 10: *According to EPD, in 2024-25 and 2025-26 (up to October 2025), the Environment and Conservation Fund Committee granted about \$103 million and \$116 million respectively to ECC for organising environmental education projects and publicity campaigns.*

Photographs 3(a) and (b)

(a) Public recycling point at an RCP



(b) Recycling spot in the street



Source: EPD records

Reduction of food waste

1.6 In May 2013, the Environment and Ecology Bureau (EEB — Note 11) launched the Food Wise Hong Kong Campaign (FWHKC) with a view to promoting reduction at source. EPD is responsible for supporting EEB in implementing the initiative. According to EPD, the campaign promotes a food wise and waste less culture through various schemes and activities such as the Food Wise Charter and the Food Wise Eateries Scheme (see Figure 1) as well as the publicity of the Big Waster, aiming to enhance public awareness of food waste issues and instil behavioural changes across different sectors of the community to avoid and reduce food waste at source.

Note 11: *In July 2022, EEB was formed to take over the policy responsibility for environmental matters from the then Environment Bureau, which is also referred to as EEB in this Audit Report for simplicity.*

Figure 1

Food Wise Eateries Scheme



Source: EPD records

Responsible division of EPD

1.7 The Waste Reduction and Community Recycling Group and the Waste Collection and Charging Group under EPD's Food Waste and Resources Recycling Division are responsible for the reduction and collection of food waste. As at 31 October 2025, under the Division, there were 72 staff (including 34 civil servants (Note 12) and 38 contract staff) involved in, among other things, reduction and collection of food waste. In 2024-25, the total operational expenses incurred solely for reduction and collection of food waste was \$292 million, including related staff expenditure of \$53.9 million. An extract of EPD's organisation chart as at 31 October 2025 is at Appendix A.

Audit review

1.8 The Audit Commission (Audit) has recently conducted a review of EPD's work in the reduction and collection of food waste. The audit review has focused on the following areas:

Note 12: *According to EPD, as at 31 October 2025, the approved staff establishment responsible for the reduction and collection of food waste was 24. In view of the workload in this area, 38 contract staff had been engaged and 10 civil servants responsible for other areas had been temporarily re-deployed to assist in the food waste reduction and collection work.*

- (a) management of food waste collection services (PART 2);
- (b) provision of food waste recycling network (PART 3); and
- (c) other related issues (PART 4).

Audit has found room for improvement in the above areas and has made a number of recommendations to address the issues.

General response from the Government

1.9 The Director of Environmental Protection thanks Audit for conducting the audit review of management of food waste and agrees with the audit recommendations. He has said that EPD will take follow-up actions and improvement measures as appropriate.

Acknowledgement

1.10 Audit would like to acknowledge with gratitude the full cooperation of the staff of EPD during the course of the audit review.

PART 2: MANAGEMENT OF FOOD WASTE COLLECTION SERVICES

2.1 This PART examines EPD's work in management of food waste collection services, focusing on:

- (a) monitoring of food waste collection services (paras. 2.2 to 2.27); and
- (b) tendering of food waste collection service contracts (paras. 2.28 to 2.40).

Monitoring of food waste collection services

2.2 In 2018, the Government launched the Pilot Scheme on Food Waste Collection Service to collect food waste from the C&I sector and public premises. Since 2021, EPD has expanded the pilot scheme to provide point-to-point food waste collection services for public and private premises. From August 2021 to September 2025, 11 food waste collection service contracts (i.e. Contracts A to H and J to L) were awarded to contractors by way of 5 tendering exercises (i.e. Tendering Exercises I to V) and 1 contract (i.e. Contract I — which was an extension of the scope of Contract D) was awarded by way of direct engagement (see Appendix B). As at 31 October 2025, EPD had 7 food waste collection service contracts (i.e. Contracts E to H and J to L) for food waste collection from some 1,500 FWCPs. In 2024-25, EPD incurred \$139.3 million for the Pilot Scheme on Food Waste Collection Service, including the contract expenditure of \$128.5 million for the food waste collection service contracts and expenses of \$10.8 million for other services (e.g. collection of liquid food waste).

2.3 According to the food waste collection service contracts:

- (a) contractors shall comply with the operational performance requirements in carrying out the food waste collection services; and
- (b) deductions would be made from the monthly operation fees to contractors for any non-compliance with the operational performance requirements (e.g. absence from duty, shortfall in the monthly minimum target of food waste collected and frequency and time of collection services).

Management of food waste collection services

2.4 According to EPD, in general, under the food waste collection service contracts, monthly operation fee payable to contractors comprises:

- (a) payment for basic services including:
 - (i) a fixed monthly payment subject to deduction as a result of any non-compliance with the operational performance requirements; and
 - (ii) other monthly payments (e.g. performance payment if the quantity of food waste collected and accepted by the food waste treatment facilities exceeded the monthly minimum target specified in the contract); and
- (b) payment for additional services (e.g. provision of additional FWCPs).

Scope for increasing the quantity of food waste collected

2.5 According to EPD, food waste (including food waste collected under the food waste collection service contracts of EPD and collected for self-delivery by organisations/premises) would be delivered to the food waste treatment facilities (Note 13) managed by EPD for treatment. Since the expansion of the food waste collection services to cover both public and private premises in 2021 and up to December 2025:

- (a) the number of FWCPs set up across the territory increased continuously from 65 as at 31 December 2021 to 1,529 as at 31 December 2025;

Note 13: *As at 31 December 2025, the food waste treatment facilities comprised 2 organic resources recovery centres (with the design treatment capacity of 200 and 300 tonnes per day respectively) commissioned in December 2018 and January 2025 respectively, and 2 pilot food waste pre-treatment facilities at sewage treatment works (with the design treatment capacity of 50 tonnes per day each) commissioned in August 2019 and November 2023 respectively.*

Management of food waste collection services

- (b) the number of FWSRBs installed at residential premises and public venues increased continuously from 19 as at 31 December 2021 to 1,592 as at 31 December 2025 (Note 14);
- (c) the quantity of food waste collected under the food waste collection service contracts of EPD increased significantly from 990 tonnes in 2021 to 100,176 tonnes in 2025. In particular, the domestic food waste collected increased from 17 tonnes in 2021 to 44,729 tonnes in 2025 (see Table 1 in para. 2.6(a)); and
- (d) the quantity of food waste delivered to food waste treatment facilities increased from 16,616 tonnes in 2021 to 126,549 tonnes in 2025.

2.6 Audit acknowledged EPD's efforts in the significant increase of food waste collected over the years and noted that there was scope for further increasing the quantity of food waste collected, as follows:

- (a) since the commencement of Contract A in September 2021, the quantity of C&I and domestic food waste collected increased continuously. While the quantity of domestic food waste collected had increased by 95% from 22,931 tonnes in 2024 to 44,729 tonnes in 2025, the quantity of C&I food waste collected had increased by 11% from 49,747 tonnes to 55,447 tonnes for the same period (see Table 1); and

Note 14: *According to EPD, the number of FWSRBs installed at residential premises and public venues from 2021 to 2025 (as at 31 December of the respective years) were 19, 48, 401, 1,228 and 1,592 respectively.*

Management of food waste collection services

Table 1

**Food waste collected under food waste collection service contracts of EPD
(September 2021 to December 2025)**

Year	Food waste collected from C&I premises (a) (tonnes)	Food waste collected from domestic premises (b) (tonnes)	Total food waste collected (Note) (c) = (a) + (b) (tonnes)
2021 (since September)	973	17	990
2022	9,238	356	9,594
2023	28,321	2,237	30,558
2024	49,747	22,931	72,678
2025	55,447	44,729	100,176

Source: EPD records

Note: According to EPD, a total of 963 tonnes, 3,753 tonnes and 9,855 tonnes of liquid food waste were collected by tanker trucks under other types of collection service contracts in 2023, 2024 and 2025 respectively.

- (b) in 2025, there were a total of 126,549 tonnes of food waste delivered to food waste treatment facilities, representing the utilisation rate of 58% of the food waste treatment facilities (Note 15).

2.7 In Audit's view, EPD needs to make continued efforts to increase the quantity of food waste collected.

Note 15: The utilisation rate is calculated by dividing the quantity of food waste delivered to food waste treatment facilities by the total design treatment capacity of the relevant facilities of the corresponding period.

Scope for enhancing the quality of food waste collected

2.8 According to the food waste collection service contracts, in general, contractors should use their reasonable endeavours to ensure that all the collected food waste belong to those recyclable types as set out in the contracts. According to EPD:

- (a) staff at the food waste treatment facilities would reject food waste failing to meet the requirements specified in the contracts, including those with inert materials (e.g. plastic utensils, packaging materials and cans) exceeding certain percentage and oversized and hard materials (e.g. oversized bones and oyster shells) that are not suitable for biological treatment and should be sorted out before entering the pre-treatment system. The rejected food waste should be excluded in the calculation of monthly payments to food waste collection service contractors; and
- (b) for contracts with operational performance requirements relating to non-compliant food waste collected and delivered to the food waste treatment facilities by the service contractors (i.e. Contracts E to H and J to L) (Note 16), any complaints or reports from the operators of the food waste treatment facilities regarding the receipt of non-compliant food waste should be considered as a non-compliance with the operational performance requirement and relevant deductions would be made from the monthly operation fees to contractors (Note 17).

Note 16: *According to EPD, adding the operational performance requirements for non-compliant food waste collected and delivered to the food waste treatment facilities was an enhancement measure to the contracts that were relatively recently entered into.*

Note 17: *According to EPD, it is specified in the contract requirements that the contractor may provide explanations with supporting documentary to show that the non-compliance with the operational performance requirements is solely due to causes beyond the control of the contractor in which event if EPD is satisfied with such explanation and documentary evidence, no deduction will be made.*

Management of food waste collection services

2.9 Audit noted that:

- (a) the annual proportion of inert materials by weight found in the food waste received at the Organic Resources Recovery Centre Phase 1 increased from 13% in 2021 to 29% in 2025 (up to March); and
- (b) from September 2021 to October 2025, there were instances that the operators of the food waste treatment facilities identified and reported cases of non-compliant food waste and inert materials (e.g. broken plastic chairs, foam boxes) found in the food waste collected and delivered under certain food waste collection service contracts, as follows:
 - (i) **Contract C.** In May and June 2023, there were a few occasions that the operators of the food waste pre-treatment facility at the Tai Po Sewage Treatment Works and the Organic Resources Recovery Centre Phase 1 reported that inert materials (e.g. broken plastic chairs) were found in the food waste delivered by Contractor C; and
 - (ii) **Contract E.** In October 2025, the operator of the Organic Resources Recovery Centre Phase 1 reported that high inert content waste (e.g. foam boxes and plastic bags) were found in the food waste delivered by Contractor E.

According to EPD, the inert materials had been taken back by Contractors C and E and were not included in the food waste intake of the food waste treatment facilities in calculating the monthly operation fees to Contractors C and E. However, while there were documents indicating that inspections had been conducted by EPD and follow-up actions had been taken by Contractor E, there were no records documenting the justifications of EPD for not regarding it as a non-compliance with the operational performance requirement in the case of Contractor E (see para. 2.8(b)) and made relevant deduction from the operation fee according to the contract provisions.

2.10 In response to Audit's enquiry, EPD informed Audit in March 2026 that:

- (a) the increase in inert materials was largely due to the change in government policy to accept food waste from the public packed in plastic bags. It was

Management of food waste collection services

announced in April 2024 that FWSRBs would accept domestic food waste packed in plastic bags and with large bones. These inert materials were allowed to be accepted by the food waste collection service contractors;

- (b) food waste containing small amount of inert materials would still be accepted by the food waste treatment facilities. The operators of the food waste treatment facilities had the right to reject non-permitted waste containing more than 20% inert materials or those damaging the downstream recycling equipment; and
- (c) regarding the incident mentioned in paragraph 2.9(b)(ii), Contractor E had exercised due diligence in checking for inert materials in the incident and no deduction for non-compliance was thus made from the monthly operation fee.

2.11 In Audit's view, EPD needs to:

- (a) take necessary actions to rectify the situation of high proportion of inert materials found in the food waste received at food waste treatment facilities (e.g. strengthening public education and publicity efforts to enhance environmental awareness and fostering proper food waste recycling habits in the community, and reminding food waste collection service contractors to identify and sort out non-compliant food waste and inert materials during the food waste collection process as far as practicable);
- (b) establish guidelines setting out the criteria for assessing and determining whether incidents relating to delivering non-compliant food waste to the food waste treatment facilities should be regarded as non-compliance events that warrant the deduction of monthly operation fees to the food waste collection service contractors; and
- (c) document the justifications for cases when food waste is rejected by the operators of the food waste treatment facilities but not regarded as non-compliance events and no deduction is made from the monthly operation fees to the food waste collection service contractors.

Suspected non-compliances with operational performance requirements

2.12 Up to October 2025, EPD had deducted a total of \$2 million from the operation fees to 5 contractors (i.e. under Contracts B, C, D, G and H) due to non-compliances with the operational performance requirements. Audit noted that, up to October 2025, operation fees had not been deducted for some suspected non-compliance cases reported by complainants in relation to the following aspects:

- (a) ***Operation of incentive scheme.*** According to the food waste collection service contracts, contractors should provide a suitable form of incentive under an incentive scheme to the food waste producers for paying extra effort in source separation of food waste and facilitating the collection of food waste during the food waste collection process. If EPD discovers any non-compliance in operating the incentive scheme after carrying out inspection and checking, such non-compliance would be considered as a substantiated non-compliance with the relevant operational performance requirement and monthly operation fee of up to 5% to contractor would be deducted. Audit noted that:
 - (i) in December 2024 and January 2025, EPD received several complaints under Contract F relating to the operation of a community FWCP, including delays by frontline staff in setting up the community FWCP, improper stamp distribution and gift redemption arrangement for food waste recycling; and
 - (ii) the issues were reported by EPD in the half-yearly contractor's performance report of Contractor F for the period from 31 July 2024 to 30 January 2025, and Contractor F was requested to submit investigation reports and implement a series of mitigation measures in handling the complaints received; and
- (b) ***Cleanliness of food waste collection bins.*** According to the food waste collection service contracts, contractors should conduct extra deep cleansing of all food waste collection bins at a designated frequency to maintain the food waste collection bins in a clean, tidy, odourless and good servicing condition. Any non-compliance should be considered as a substantiated non-compliance with the relevant operational performance requirement and monthly operation fee of up to 2% to contractor would be deducted. Audit noted that:

Management of food waste collection services

- (i) in May to July 2025, EPD received several complaints under Contract F from food waste producers relating to the cleanliness of the food waste collection bins provided by Contractor F; and
- (ii) the issues were reported by EPD in the half-yearly contractor's performance report of Contractor F for the period from 31 January to 30 July 2025 and Contractor F was requested to implement a series of mitigation measures.

In both cases, while the complaints were substantiated by EPD and included in the relevant half-yearly contractor's performance reports, there was no documentary evidence showing the justifications of EPD for not regarding these suspected cases as non-compliance events and not deducting the monthly operation fees to the contractor.

2.13 In response to Audit's enquiry, EPD informed Audit in March 2026 that:

- (a) necessary follow-up actions had been taken by Contractor F to enhance the service quality and operation upon receipt of the relevant complaints; and
- (b) while the incidents had been recorded in the half-yearly contractor's performance reports of Contractor F to reflect that there was room for improvement in the operation and service quality of Contractor F, they did not constitute non-compliances with Contract F and no deduction of monthly operation fees to Contractor F was thus required.

2.14 In Audit's view, EPD needs to:

- (a) establish guidelines setting out the criteria for assessing and determining whether suspected non-compliance cases should be regarded as non-compliance events that warrant the deduction of monthly operation fees to the food waste collection service contractors; and
- (b) maintain proper documentation on the justifications to indicate whether the suspected cases are substantiated and regarded as non-compliance events that warrant the deduction of monthly operation fees to the food waste collection service contractors.

Scope for improvement in site inspections conducted by EPD staff

2.15 According to EPD, to monitor the service performance of food waste collection service contractors, EPD would conduct site inspections at FWCPs (e.g. housing estates, RCPs and food waste recycling spots), as follows:

- (a) ***Routine inspections.*** They are conducted to inspect the routine operation of the food waste collection service contractors on a regular basis and the contractors are not informed of the inspection schedule of EPD. Different collection routes and FWCPs are inspected each time to check compliance of the services with the contract requirements; and
- (b) ***Surprise inspections.*** They are conducted at targeted FWCPs to investigate complaints received or follow up on substandard performance or services.

Inspections mainly cover aspects including delivery of food waste collection services at FWCPs (i.e. monitoring of quality of collected recyclable food waste, measurement of weight and record of data, transportation of collected recyclable food waste and set-up of food waste collection vehicles) and handling of food waste collection bins. EPD staff will complete an inspection checklist after each inspection.

2.16 Audit noted that there was scope for improvement in site inspections conducted by EPD staff, as follows:

- (a) as at 31 October 2025, there were no guidelines setting out the requirements of site inspections conducted by EPD staff on food waste collection service contractors, including the selection basis of FWCPs, frequency, time to conduct inspection, inspection procedures and preparation and approval of inspection checklist (e.g. submission requirement and approval authority);
- (b) EPD did not compile management information summarising the site inspections conducted by its staff on food waste collection service contractors with the intended purposes and scope of each inspection conducted. Upon Audit's enquiry, EPD provided some information on site inspections conducted from September 2021 to October 2025 for Audit examination and Audit noted that EPD conducted 5,992 site inspections

Management of food waste collection services

(including 5,605 routine inspections and 387 surprise inspections) (Note 18); and

- (c) in January 2026, Audit observed the routine inspections conducted by EPD at 7 FWCPs under Contracts E, G and L and noted that:
 - (i) the practices adopted by EPD staff during site inspections varied among inspection teams (e.g. the Global Positioning System tracker was only used by a team to monitor the actual location of the food waste collection vehicles); and
 - (ii) the time during which some inspections were conducted did not match with the food waste collection schedule of contractors. As a result, EPD staff could not observe the food waste collection process and was only able to observe the conditions of food waste collection bins at the FWCPs.

2.17 Audit further examined the inspection checklists of all the 247 routine inspections conducted in October 2025, and found that:

- (a) 86 (35%) inspections were conducted at food waste recycling spots (Note 19) and food waste collection process was not observed by EPD staff in 74 (86% of 86) inspections; and
- (b) for the remaining 161 (65%) inspections, food waste collection process was not observed by EPD staff in 42 (26% of 161) inspections.

2.18 In response to Audit's enquiry, EPD informed Audit in March 2026 that the primary purpose of inspection of food waste recycling spots was to check the

Note 18: *According to EPD, non-compliance events were not observed in all the 5,605 routine inspections and 5 non-compliance events were observed in 5 (1%) of the 387 surprise inspections.*

Note 19: *According to EPD, routine inspections would be conducted at food waste recycling spots for inspecting the operation by the food waste collection service contractors and did not normally cover food waste collection process.*

Management of food waste collection services

operation of the recycling spots and therefore food waste collection by collection vehicles would not normally be covered in such inspections. For other inspections, to avoid spending much time at each FWCP waiting for the collection vehicles, which might affect the efficiency of the inspections, it was not necessary for EPD to observe the food waste collection process at every FWCP.

2.19 In Audit's view, EPD needs to:

- (a) establish guidelines relating to site inspections conducted by its staff on the food waste collection service contractors, including setting out the criteria for selecting FWCPs for site inspections, the required inspection procedures and the relevant scope (e.g. food waste collection process) to be covered in site inspections, and ensure compliance with the guidelines; and
- (b) take measures to compile regular management information summarising the site inspections conducted by its staff on the food waste collection service contractors with the intended purposes and scope of each inspection conducted for monitoring purpose.

Scope for improvement in submission of deliverables by contractors

2.20 According to the food waste collection service contracts, contractors should submit the deliverables to EPD on a regular basis (Note 20), as follows:

- (a) monthly reports should be submitted within one week after the end of each reporting month; and
- (b) annual reports should be submitted within one month after the end of each reporting period.

Note 20: *No requirements on report submission deadlines had been set out in Contracts A and B.*

Management of food waste collection services

2.21 For the period from May 2023 to October 2025, a total of 132 monthly reports and 8 annual reports were due for submission by Contractors C to I. Audit noted that there were delays in some of the submissions. As at 31 October 2025:

- (a) of the 132 monthly reports due for submission, 89 (67%) were submitted 1 to 66 days (averaging 17 days) after the due dates;
- (b) of the 8 annual reports due for submission, 4 (50%) were submitted 9 to 28 days (averaging 21 days) after the due dates; and
- (c) there were no guidelines specifying the follow-up procedures in handling late submission of deliverables by contractors (e.g. issue of reminders and warning letters).

2.22 In Audit's view, EPD needs to take measures to ensure timely submission of deliverables by the food waste collection service contractors, including:

- (a) establishing guidelines specifying the follow-up procedures in handling late submission of deliverables by the food waste collection service contractors (e.g. issue of reminders and warning letters); and
- (b) taking follow-up actions in accordance with the guidelines where appropriate.

Scope for improvement in evaluating the performance of contractors

2.23 According to the Stores and Procurement Regulations:

- (a) departments should devise an effective monitoring mechanism to ensure that a contractor performs to standard and complies with the terms of a contract; and
- (b) departments should evaluate the performance of contractors:
 - (i) at least once every six months until completion of the contract for contracts lasting more than one year; and

Management of food waste collection services

- (ii) upon completion of the contract for contracts lasting a year or less.

2.24 According to EPD, it prepared contractor's performance reports to evaluate the performance of contractors under Contracts C to I (Note 21). Audit noted that, as at 31 October 2025, there were no guidelines setting out the requirements (e.g. timeframe) for preparing and endorsing the contractor's performance reports by EPD staff. According to EPD, 27 contractor's performance reports should be prepared for the evaluation period up to October 2025. Of these 27 contractor's performance reports, the dates of preparing and endorsing the contractor's performance reports ranged from 5 to 583 days (averaging 128 days) and 5 to 593 days (averaging 132 days) respectively after the end of the respective evaluation periods.

2.25 According to EPD, there was relatively longer delay in preparing and endorsing the contractor's performance reports during the first year of operation under the relevant contracts, as follows:

- (a) the dates of preparing and endorsing the 4 (15% of 27) contractor's performance reports in 2023 (i.e. the first year of operation under the relevant contracts) ranged from 395 to 583 days (averaging 489 days) and 399 to 593 days (averaging 496 days) respectively after the end of the respective evaluation periods; and
- (b) the dates of preparing and endorsing the remaining 23 (85% of 27) contractor's performance reports from 2024 onwards ranged from 5 to 231 days (averaging 65 days) and 5 to 232 days (averaging 69 days) respectively after the end of the respective evaluation periods.

Note 21: *According to EPD: (a) preparation of contractor's performance reports by EPD was not required for Contracts A and B because the requirement of preparing contractor's performance reports for procurement of services contracts with a value exceeding \$1.36 million was only in place since late July 2024; and (b) preparation of contractor's performance reports was not yet required as at 31 October 2025 for Contracts J, K and L (commenced in October 2025).*

Management of food waste collection services

In Audit's view, EPD needs to take measures to ensure that the contractor's performance reports are timely prepared and endorsed, including establishing guidelines setting out the requirements (e.g. timeframe) for preparing and endorsing the contractor's performance reports.

Audit recommendations

2.26 **Audit has *recommended* that the Director of Environmental Protection should:**

- (a) **make continued efforts to increase the quantity of food waste collected;**
- (b) **take necessary actions to rectify the situation of high proportion of inert materials found in the food waste received at food waste treatment facilities (e.g. strengthening public education and publicity efforts to enhance environmental awareness and fostering proper food waste recycling habits in the community, and reminding food waste collection service contractors to identify and sort out non-compliant food waste and inert materials during the food waste collection process as far as practicable);**
- (c) **establish guidelines setting out the criteria for assessing and determining whether incidents relating to delivering non-compliant food waste to the food waste treatment facilities should be regarded as non-compliance events that warrant the deduction of monthly operation fees to the food waste collection service contractors;**
- (d) **document the justifications for cases when food waste is rejected by the operators of the food waste treatment facilities but not regarded as non-compliance events and no deduction is made from the monthly operation fees to the food waste collection service contractors;**
- (e) **establish guidelines setting out the criteria for assessing and determining whether suspected non-compliance cases should be regarded as non-compliance events that warrant the deduction of monthly operation fees to the food waste collection service contractors;**

Management of food waste collection services

- (f) **maintain proper documentation on the justifications to indicate whether the suspected cases are substantiated and regarded as non-compliance events that warrant the deduction of monthly operation fees to the food waste collection service contractors;**
- (g) **establish guidelines relating to site inspections conducted by EPD staff on the food waste collection service contractors, including setting out the criteria for selecting FWCPs for site inspections, the required inspection procedures and the relevant scope (e.g. food waste collection process) to be covered in site inspections, and ensure compliance with the guidelines;**
- (h) **take measures to compile regular management information summarising the site inspections conducted by EPD staff on the food waste collection service contractors with the intended purposes and scope of each inspection conducted for monitoring purpose;**
- (i) **take measures to ensure timely submission of deliverables by the food waste collection service contractors, including:**
 - (i) **establishing guidelines specifying the follow-up procedures in handling late submission of deliverables by the food waste collection service contractors (e.g. issue of reminders and warning letters); and**
 - (ii) **taking follow-up actions in accordance with the guidelines where appropriate; and**
- (j) **take measures to ensure that the contractor's performance reports are timely prepared and endorsed, including establishing guidelines setting out the requirements (e.g. timeframe) for preparing and endorsing the contractor's performance reports.**

Response from the Government

2.27 The Director of Environmental Protection agrees with the audit recommendations. He has said that EPD will:

Management of food waste collection services

- (a) continue its efforts to increase the quantity of food waste collected by further expanding the food waste collection network;
- (b) strengthen public education and publicity efforts to foster proper food waste recycling habits in the community and require food waste collection service contractors to step up measures in screening for and removing unacceptable inert materials during the food waste collection process. All food waste collection service contractors have equipped their frontline staff with hand-held metal detectors since mid-January 2026, to help screen out large metal objects concealed in food waste collection bins. There was no large metal object found in the food waste collected by the food waste collection service contractors after implementation of this measure. EPD will also strengthen the requirements on screening out unacceptable inert objects in the future food waste collection service contracts;
- (c) establish guidelines setting out the criteria for assessing and determining whether the delivery of non-compliant food waste to food waste treatment facilities and other suspected non-compliance cases should be regarded as non-compliance events which require deduction of operation fee, as well as the requirements on the documentation of such assessments and justifications for proper record;
- (d) establish guidelines setting out the criteria for selecting FWCPs for site inspections, the purpose and scope of each type of site inspection for its staff to make reference and follow, and the requirement on compiling regular management information on site inspections conducted to facilitate monitoring;
- (e) establish guidelines setting out the follow-up procedures in handling late submission of deliverables by food waste collection service contractors and take follow-up actions in accordance with the guidelines;
- (f) hold up the monthly payments until the monthly and annual reports are duly submitted by food waste collection service contractors in accordance with the built-in contractual arrangement to incentivise the contractors to submit the deliverables timely. Late submission of deliverables is detrimental to the financial interest of contractors. Nevertheless, EPD will send reminders to contractors in case of undue delay in deliverable submission; and

Management of food waste collection services

- (g) enhance the internal monitoring system to remind the subject officers to prepare and endorse the contractor's performance reports timely.

Tendering of food waste collection service contracts

2.28 From October 2020 to April 2025, EPD conducted 5 tendering exercises (i.e. Tendering Exercises I to V) in selecting contractors for 11 food waste collection service contracts (Note 22) (see Table 2). Audit examined the 5 tendering exercises and identified room for improvement, as detailed in paragraphs 2.29 to 2.38.

Table 2

**Tendering exercises for food waste collection service contracts
(October 2020 to April 2025)**

Tendering Exercise	Date of tender invitation	Contract awarded	Total contract sum (\$ million)
I	30 October 2020	Contract A	22.7
II	30 April 2021	Contract B	31.9
III	27 May 2022	Contracts C and D	85.5
IV	15 September 2023	Contracts E to H	323.9
V	25 April 2025	Contracts J to L	200.5

Source: EPD records

Note 22: According to EPD, of the 12 food waste collection service contracts awarded between August 2021 and September 2025, 1 contract (i.e. Contract I) was awarded by way of direct engagement due to the urgency for the food waste collection services to be put in place in support of the implementation of the Municipal Solid Waste Charging.

Management of food waste collection services

Need to ensure compliance with relevant rules and guidelines in conducting tendering exercises

2.29 Food waste collection service contracts rely heavily on the deployment of non-skilled workers. According to Financial Circular No. 2/2019 “Pro-innovation Government Procurement”, for service contracts that rely heavily on the deployment of non-skilled workers, government bureaux/departments should follow the standard marking scheme framework specified in the Financial Circular. Under the framework, the assessment criterion “wages” is mandatory in the marking scheme and the technical marks assigned to “wages” must be no less than 25% of the total technical marks.

2.30 In October 2020, EPD invited open tender for the procurement of the food waste collection services in Hong Kong Island and Islands District (i.e. Contract A) under Tendering Exercise I, and targeted to commence the service in May 2021. The tender closed in December 2020 and EPD submitted the relevant tender report on 30 April 2021 to the Government Logistics Department Tender Board (GLDTB) for consideration. However, on 5 May 2021, EPD requested for withdrawing the tender report submitted. The salient points are as follows:

- (a) a two-envelope approach (Note 23) was adopted for tender evaluation for Tendering Exercise I. During technical assessment, the tender assessment panel (TAP) under EPD evaluated the technical proposals received from the tenderers based on an incorrect marking scheme, in which 18% of the total technical marks was allocated to the proposed monthly wage rates for the cleansing workers, instead of no less than 25% as specified in the Financial Circular. The results of the technical assessment were discussed and endorsed by TAP in February 2021; and
- (b) subsequent to the withdrawal of the tender report and after seeking legal advice from the Department of Justice in May 2021, EPD conducted tender negotiation with all conforming tenderers in June 2021 in order to adjust the technical marks for wages from 18% to 25% of the total technical

Note 23: *Under the two-envelope approach, Technical Proposals and Price Proposals should each be contained in a separate envelope by the tenderers. The overall assessment was based on the weighted score for the Technical Proposal and the Price Proposal with a weighting of 60:40 for this Tendering Exercise.*

Management of food waste collection services

marks. EPD then submitted a revised tender report to GLDTB for consideration in the same month.

In the event, after the approval by GLDTB in July 2021, Contract A was awarded to Contractor A in August 2021 with service commencement on 30 September 2021, which was at least 4 months later than the target commencement date in May 2021.

2.31 Audit noted that:

- (a) according to EPD's emails to the Department of Justice in May 2021 regarding this incident:
 - (i) EPD explained that the discrepancy in the marking scheme for wages to the cleansing workers was a clerical error unintentionally created in the course of tender drafting and the requirements promulgated in the Financial Circular had been overlooked; and
 - (ii) EPD stated that the rank of the conforming tenderers remained unchanged after the marking scheme was adjusted; and
- (b) in May 2021, EPD sought approval from EEB regarding the tender negotiation with the conforming tenderers under Tendering Exercise I and stated that, noting the requirements of the standard marking scheme framework stipulated in the Financial Circular, the marking scheme for tender assessment of Tendering Exercise II (tender was invited on 30 April 2021 and to be closed on 16 July 2021) was amended by EPD by way of tender addendum issued on 17 May 2021.

In Audit's view, EPD needs to take measures to strengthen the checking of the marking scheme to ensure accuracy and compliance with relevant rules and guidelines in conducting tendering exercises (e.g. providing adequate training to officers responsible for procurement matters).

Scope for improving the accuracy of pre-tender estimates

2.32 In July 2021, in considering Tendering Exercise I, in view of the pre-tender estimates appearing to be on the low side, GLDTB reminded EPD to review the

Management of food waste collection services

pre-tender estimate formulation methodology. Moreover, according to the tender report submitted by TAP under EPD to GLDTB for Tendering Exercise III in November 2022, in order to provide more realistic pre-tender estimates, EPD would apply a more comprehensive pre-tender estimate formulation methodology and provide better tender information at the market research stage in future. However, Audit noted that significant differences were noted between the pre-tender estimates and the recommended tender prices for Contracts J to L under Tendering Exercise V. Details are as follows:

- (a) in April 2025, EPD invited open tender for the procurement of food waste collection services in New Territories West, New Territories North and New Territories East (i.e. Contracts J, K and L) under Tendering Exercise V; and
- (b) in August 2025, EPD recommended the acceptance of the tenders of 3 tenderers at the tender price of \$55.3 million, \$81.8 million and \$63.4 million for Contracts J, K and L respectively and submitted the tender recommendations to the Central Tender Board (CTB) for consideration. The recommended tender prices for Contracts J to L were lower than their respective pre-tender estimates by 43% to 69% (see Table 3).

Table 3

Pre-tender estimates and recommended tender prices of Tendering Exercise V

Contract	Pre-tender estimate (a) (\$ million)	Recommended tender price (b) (\$ million)	Difference (c) = (b) - (a) (\$ million)
J	179.1	55.3	(123.8) (-69%)
K	196.5	81.8	(114.7) (-58%)
L	111.5	63.4	(48.1) (-43%)

Source: EPD records

Management of food waste collection services

2.33 According to the correspondence between EPD and CTB regarding Tendering Exercise V, EPD stated in August 2025 that:

- (a) the significant difference between pre-tender estimates and the recommended tender prices was because EPD did not share the tender assessment criteria (i.e. technical: price ratio of 50:50, which differed from the previous tenders of 60:40) during the market sounding exercise. This might have led to higher price quotes from potential tenderers;
- (b) during the tender briefing, EPD emphasised the importance of effective pricing while maintaining work quality, which likely encouraged more competitive pricing from tenderers; and
- (c) EPD would review and refine its pre-tender estimate formulation methodology to better reflect market responses for future tenders.

In Audit's view, EPD needs to step up efforts in reviewing and refining its pre-tender estimate formulation methodology with a view to obtaining more realistic estimates for future tenders for food waste collection service contracts and allowing it to serve as a useful benchmark.

Need to review the existing restriction rule imposed in tendering exercise

2.34 According to Financial Circular No. 2/2019, for non-skilled workers contracts, to cater for individual government bureaux/departments' own operational requirements and for risk management purpose, the Controlling Officer may approve the imposition of restriction on the maximum number of a particular type of contracts (contracts of the same nature within the same/in different geographical regions) to be undertaken by a single contractor through the same tendering exercise or different tendering exercises. According to EPD:

- (a) approvals had been obtained for the imposition of the restriction rule in the tendering of food waste collection service contracts since Tendering Exercise III in May 2022; and

Management of food waste collection services

- (b) with the restriction rule, no tenderer would be awarded more than one contract among the contracts in the tendering exercise and EPD would follow a least-cost approach (least expensive to the Government) in deciding the most preferred tender combination.

2.35 Audit noted that:

- (a) with the adoption of the restriction rule, the total tender price of Tendering Exercises IV and V increased. In particular, for Tendering Exercise V, the total tender price increased by \$31.9 million (i.e. 19%) as compared to the total tender price without the adoption of the restriction rule (see Table 4);

Table 4

Difference in total tender price with or without restriction rule for Tendering Exercises III to V

Tendering Exercise	Total tender price without restriction rule (a) (\$ million)	Total tender price with restriction rule (b) (\$ million)	Difference (c) = (b) - (a) (\$ million)
III	98.6	85.5	(13.1) (-13%)
IV	317.3	323.9	6.6 (2%)
V	168.6	200.5	31.9 (19%)

Source: EPD records

- (b) when considering the result of Tendering Exercise V, CTB commented in August 2025 that:
- (i) the restriction rule might inadvertently hinder the selection of the most capable and cost-effective tenderers, potentially compromising value for money procurement; and

Management of food waste collection services

- (ii) TAP under EPD was reminded to conduct a holistic review of the extent of concentration risk and reassess the necessity of retaining the restriction rule for future tenders to ensure value for money procurement; and
- (c) in response to CTB, EPD stated in August 2025 that:
 - (i) the main intention to impose tender restriction was to introduce more competent service providers while ensuring continuous food waste collection services. This approach was particularly important as food waste collection services only commenced a few years ago and there were not many service providers submitted bids in previous tenders;
 - (ii) the adoption of the restriction rule had successfully provided opportunities and encouraged more service providers to participate in these service contracts; and
 - (iii) given that the purpose of attracting more service providers had been achieved, EPD would consider carefully whether to remove the restriction rule in future tenders to optimise both market participation and cost-effectiveness.

2.36 Contracts E to H were awarded in Tendering Exercise IV and the contracts will end in March 2027. In Audit's view, EPD needs to critically review whether the restriction rule should be imposed in future tendering exercises for food waste collection service contracts with a view to ensuring value for money procurement.

Need to improve the planning of tendering schedule and expedite tendering exercises

2.37 According to the Financial Services and the Treasury Bureau, as a matter of principle, contract extension should be avoided as far as possible and normally be used as a stop-gap measure.

Management of food waste collection services

2.38 Audit noted that EPD issued variation orders (at a total cost of \$34.4 million) to extend the original contract periods of 4 contracts (Contracts A to D) for 6 months (for Contracts A, C and D) or 3 months (for Contract B) (Note 24). In this connection:

- (a) in seeking the approval of the Financial Services and the Treasury Bureau for the extension of the contract periods of Contracts A and B in June 2023 and December 2023 respectively, EPD explained that:
 - (i) additional time was required by EPD to finalise the tender documents for the follow-on contracts; and
 - (ii) contracts should be extended to maintain the continuity of the food waste collection services and allow a smooth transition to the follow-on contracts. Failure to do so would disrupt the operation of the food waste treatment facilities, discourage the existing participants in food waste recycling and generate negative public perception;
- (b) in approving the contract extensions of Contracts A and B in July 2023 and January 2024 respectively, the Financial Services and the Treasury Bureau commented that:
 - (i) although the contract extensions for Contracts A and B had been approved, they were approved on an exceptional basis; and
 - (ii) EPD was reminded to expedite the tendering exercise to ensure that the follow-on contracts would commence before the end of their respective proposed extension periods and avoid the need for extending the other contracts providing food waste collection services in the districts as far as possible; and
- (c) notwithstanding that, in February 2025, EPD sought the approval of the Financial Services and the Treasury Bureau for the extension of the contract periods of Contracts C and D. According to EPD, the extension for

Note 24: *According to EPD, Contract I, which was awarded by way of direct engagement, had also been extended for 3 months by issuing a variation order.*

Contracts C and D was considered necessary to provide sufficient time for revamping the follow-on contracts to improve its cost-effectiveness in light of the experience gained from other contracts (Note 25).

In Audit's view, EPD needs to take measures to improve the planning of tendering schedule and expedite the tendering exercises with a view to avoiding the need for extending the contracts providing food waste collection services as far as practicable.

Audit recommendations

2.39 **Audit has *recommended* that the Director of Environmental Protection should:**

- (a) **take measures to strengthen the checking of the marking scheme to ensure accuracy and compliance with relevant rules and guidelines in conducting tendering exercises (e.g. providing adequate training to officers responsible for procurement matters);**
- (b) **step up efforts in reviewing and refining EPD's pre-tender estimate formulation methodology with a view to obtaining more realistic estimates for future tenders for food waste collection service contracts and allowing it to serve as a useful benchmark;**
- (c) **critically review whether the restriction rule should be imposed in future tendering exercises for food waste collection service contracts with a view to ensuring value for money procurement; and**
- (d) **take measures to improve the planning of tendering schedule and expedite the tendering exercises with a view to avoiding the need for extending the contracts providing food waste collection services as far as practicable.**

Note 25: *The extension of contract periods of Contracts C and D was approved by the Financial Services and the Treasury Bureau in March 2025.*

Response from the Government

2.40 The Director of Environmental Protection agrees with the audit recommendations. He has said that EPD:

- (a) will review and strengthen internal checking arrangements to ensure that the marking schemes used fully comply with the requirements stipulated in the relevant Financial Circulars and procurement guidelines in all subsequent tenders, and explore the application of artificial intelligence tools to assist in the checking of tender documents;
- (b) will review the current methodology for compiling pre-tender estimates and consider better approaches to deriving more realistic estimates for future tenders;
- (c) will consider relaxing the restriction by allowing more than one contract (but not all contracts) to be awarded to a successful tenderer, and explore other ways to give more emphasis on the price factor in awarding contracts with a view to striking a proper balance between ensuring value for money and safeguarding public service against potential disruption; and
- (d) has put in place an enhanced system to monitor the progress of those contracts that are subject to tender in procurement and to allow early planning for follow-on procurement, thus minimising the need for extending the contracts as far as possible.

PART 3: PROVISION OF FOOD WASTE RECYCLING NETWORK

3.1 This PART examines EPD's work in provision of food waste recycling network, focusing on:

- (a) provision of FWSRBs in PRH estates (paras. 3.2 to 3.12);
- (b) provision of FWSRBs in private housing estates/buildings and villages (paras. 3.13 to 3.31); and
- (c) provision of public recycling points (paras. 3.32 to 3.43).

Provision of food waste smart recycling bins in public rental housing estates

3.2 In October 2022, EPD launched the Food Waste Collection Scheme in PRH Estates to install FWSRBs for food waste collection in PRH estates under HKHA and the Hong Kong Housing Society (Note 26). Up to September 2023, EPD installed 74 FWSRBs at 101 blocks in 13 PRH estates. With a view to providing services for a wider coverage of FWSRBs, in May 2024, EPD awarded 3 service contracts (Contracts M to O) at a total contract sum of \$58.7 million to contractors (Contractors M to O) for the provision of services for a total of 1,032 FWSRBs in PRH estates for a contract period of 47 months (see Table 5). Under Contracts M to O, Contractors M to O should:

Note 26: *According to EPD, the Food Waste Collection Scheme in PRH Estates covers PRH estates under HKHA and the Hong Kong Housing Society, but excludes the Light Public Housing and Transitional Housing under the Housing Bureau as well as the estates under the Tenants Purchase Scheme by HKHA.*

Provision of food waste recycling network

- (a) provide FWSRBs and spare FWSRBs (Note 27) for the operation, and manage and maintain the operation of FWSRBs throughout the contract period; and
- (b) set up and operate a central data management system (i.e. big data platform) for the operation of FWSRBs and the connection with EPD's common communication platform (Note 28).

Since the commencement of Contracts M to O in May 2024 and up to October 2025, total operation fee to Contractors M to O was \$26.4 million and a total of 37,011 tonnes of food waste had been collected by FWSRBs under Contracts M to O. In 2024-25, EPD incurred \$87 million for the Food Waste Collection Scheme in PRH Estates (Note 29).

Note 27: *According to Contracts M to O, in addition to the 1,032 FWSRBs, a total of 37 spare FWSRBs (15, 15 and 7 FWSRBs for Contracts M, N and O respectively) should also be provided and stored in the contractors' premises for urgent replacement.*

Note 28: *The common communication platform refers to an electronic platform developed by an organisation engaged by EPD to allow different brands of FWSRBs to communicate with EPD's cloud database system for the "GREEN\$" electronic participation incentive scheme. Under the Food Waste Collection Scheme in PRH Estates, residents are rewarded "GREEN\$" points as incentives to encourage active participation in food waste recycling.*

Note 29: *According to EPD, in 2024 and 2025, EPD incurred \$60 million and \$68.8 million respectively for the cleansing cost for FWSRBs in PRH estates. As at 31 January 2026, EPD and the Housing Department would continue to review the future arrangement of the cleansing duties and the funding arrangement of the related cleansing costs for 2026-27 onwards.*

Table 5

**Contracts awarded for the provision of services
for FWSRBs in PRH estates
(May 2024)**

Contract	Contractor	Number of FWSRBs	Contract sum (\$ million)
M	M	417	24.0
N	N	420	24.2
O	O	195	10.5
Total		1,032	58.7

Source: EPD records

Scope for enhancing the provision of FWSRBs in PRH estates

3.3 In October 2024, EEB informed the Panel on Environmental Affairs of the Legislative Council that, under the 2024 Policy Address, the Government would further enhance various food waste collection measures, including progressively increasing the number of FWSRBs in PRH estates with higher usage, with a view to achieving “one bin per block” in PRH estates by 2026. Audit noted that, as at 31 October 2025:

- (a) there were 218 PRH estates in Hong Kong with a total of 1,473 blocks covered under the Food Waste Collection Scheme in PRH Estates; and
- (b) of the provision of the 1,032 FWSRBs under Contracts M to O:
 - (i) 4 FWSRBs had been deployed in 4 “GREEN@COMMUNITY”;
 - (ii) 955 FWSRBs had been deployed in 941 (64% of 1,473) blocks in 218 PRH estates and the target of “one bin per block” had been achieved in 110 (50% of 218) PRH estates; and
 - (iii) the remaining 73 FWSRBs were yet to be deployed.

Provision of food waste recycling network

After the deployment of the remaining 73 FWSRBs, there would be 445 (i.e. 1,473 minus 955 minus 73) FWSRBs yet to be secured if the target of “one bin per block” in all the 218 PRH estates (Note 30) was to be achieved.

3.4 According to EPD:

- (a) with a view to exploring more cost-effective solutions to sustain the large-scale expansion of the food waste recycling network, it conducted a 3-month trial of the simplified FWSRBs (Note 31) in two PRH estates from February to May 2025. After the trial, it would study the results and review the technical feasibility of adopting the simplified FWSRBs to replace the existing FWSRBs installed in PRH estates; and
- (b) the results of the trial operation confirm the technical feasibility of the simplified FWSRBs and it plans to procure the services for simplified FWSRBs to cover the remaining blocks in PRH estates and replace all the existing FWSRBs by phases. In the event, the remaining 73 FWSRBs under Contracts M to O would be deployed by the first quarter of 2026 and 120 simplified FWSRBs were procured in January 2026 for installation in PRH estates since February 2026. As at 28 February 2026, 997 FWSRBs had been deployed in 983 (67% of 1,476) blocks in 221 PRH estates.

3.5 In Audit’s view, EPD needs to expedite the procurement of services for simplified FWSRBs with a view to achieving the target of “one bin per block” in PRH estates by 2026.

Note 30: *According to EPD, as at 28 February 2026, there were 1,476 blocks in 221 PRH estates.*

Note 31: *According to EPD, the simplified FWSRBs provide the same key functionality as the existing FWSRBs at a lower cost. To achieve greater cost efficiency and cost reduction, the simplified FWSRBs in the 3-month trial adopt a manually-operated recycling procedure, which no longer requires an electro-hydraulic actuator for the automatic opening and closing of the top cover. Despite the simplified design, the simplified FWSRBs retain the essential features of the existing FWSRBs (e.g. connection to EPD’s “GREEN\$” platform and activation by quick-response code scanning device).*

Scope for improvement in providing uninterrupted services for FWSRBs in PRH estates

3.6 According to Contracts M to O:

- (a) the contractors should comply with operational performance requirements relating to out-of-service hours of FWSRBs, testing and commissioning test of FWSRBs, and provision of responses to enquiries and complaints by contractors during the contract period;
- (b) the monthly operation fees to the contractors are adjusted to reflect the level of performance achieved, which is based on the number of failures by the contractors to comply with the operational performance requirements in the same reporting month;
- (c) to ensure that the services for FWSRBs are provided on an uninterrupted basis, the contractors should ensure that FWSRB deployed at any locations should not be in the out-of-service status for more than 48 hours counting from the time at which the FWSRB is first found to be out-of-service. In case it is anticipated that an FWSRB cannot be repaired in a short period of time and the operation of FWSRB cannot be resumed within 48 hours, contractors should arrange urgent replacement of the out-of-service FWSRB by a functional FWSRB immediately; and
- (d) to facilitate EPD's monitoring of the serviceability of FWSRBs, any out-of-service incident of an FWSRB for more than 3 hours or a total out-of-service hours of any FWSRB for more than 3 hours on the same day should be reported to EPD within 24 hours. In such report, the contractors should describe the problem, cause, remedial or mitigation measures taken or to be taken, time or expected time of rectification or preventive measures to prevent similar incident.

3.7 While the total uptime of all FWSRBs deployed under Contracts M to O in a given month remained above 99% of the total operation hours of the FWSRBs in

Provision of food waste recycling network

each month from January to October 2025 (Note 32), Audit noted that there was scope for improvement in providing uninterrupted services for FWSRBs in PRH estates, as follows:

- (a) since the commencement of Contracts M to O in May 2024 and up to October 2025, EPD had deducted a total of \$497,436 (comprising \$241,678 (49%), \$209,653 (42%) and \$46,105 (9%) for Contracts M, N and O respectively) from the monthly operation fees to Contractors M to O for non-compliances with the operational performance requirements relating to out-of-service hours of FWSRBs, representing 98% of the total deduction of \$505,250 for all kinds of non-compliances. In particular, from August 2024 to October 2025, deductions of monthly operation fees for non-compliances with the operational performance requirements relating to out-of-service hours of FWSRBs for Contracts M and N were noted continuously (Note 33), ranging from \$1,763 to \$33,178 (averaging \$17,263) for Contract M and from \$461 to \$33,546 (averaging \$13,977) for Contract N; and
- (b) the overall operational status of all deployed FWSRBs, including the out-of-service incidents for more than 3 hours (e.g. locations, natures of faults, causes and respective follow-up actions), were reported to EPD by the contractors via an instant messaging application twice per day. However, EPD did not compile management information summarising the out-of-service incidents for monitoring the timeliness of the contractors in reporting any out-of-service incidents in accordance with the contract requirements (e.g. out-of-service incident of an FWSRB for more than 3 hours should be reported to EPD within 24 hours).

3.8 In Audit's view, EPD needs to:

- (a) review and analyse the reasons for the non-compliances with the operational performance requirements relating to out-of-service hours of FWSRBs by

Note 32: *According to EPD, from January to December 2025, the monthly uptime percentages of all FWSRBs deployed under Contracts M to O ranged from 99.0% to 99.7% (averaging 99.5%).*

Note 33: *Except for July 2025 that no deduction of monthly operation fee to Contractor M was noted under Contract M.*

Provision of food waste recycling network

Contractors M and N, and take further measures to enhance the serviceability of FWSRBs as far as practicable; and

- (b) compile management information summarising the out-of-service incidents for monitoring the timeliness of the contractors of services for FWSRBs in PRH estates in reporting all out-of-service incidents in accordance with the contract requirements (e.g. by making better use of information technology).

Need to ensure timely submission of deliverables by contractors

3.9 According to Contracts M to O, contractors should submit various deliverables relating to the performance of services to EPD on a regular basis, including:

- (a) operation and training manuals should be submitted within four weeks after the contract commencement date;
- (b) testing and commissioning reports should be submitted within two working days upon the completion of testing and commissioning for each phase of FWSRBs as stipulated in the contracts;
- (c) monthly reports should be submitted within two weeks of the end of each reporting month; and
- (d) copy of contractors' annual audited accounts should be submitted each year.

3.10 Audit noted that, since the commencement of Contracts M to O in May 2024 and up to October 2025, there were late submission of some deliverables by Contractors M to O, as follows:

- (a) operation and training manuals were submitted late by 41, 41 and 47 days by Contractors M, N and O respectively;
- (b) all the eight testing and commissioning reports were submitted late by Contractors M to O, ranging from 20 to 67 days (averaging 35 days);

Provision of food waste recycling network

- (c) 9 (60%) of 15, 9 (60%) of 15 and 9 (56%) of 16 monthly reports were submitted late by Contractors M, N and O respectively, ranging from 1 to 79 days (averaging 12 days); and
- (d) no annual audited accounts had been submitted by Contractors M to O.

In Audit's view, EPD needs to take measures to ensure timely submission of deliverables by the contractors of services for FWSRBs in PRH estates.

Audit recommendations

3.11 Audit has *recommended* that the Director of Environmental Protection should:

- (a) **expedite the procurement of services for simplified FWSRBs with a view to achieving the target of “one bin per block” in PRH estates by 2026;**
- (b) **review and analyse the reasons for the non-compliances with the operational performance requirements relating to out-of-service hours of FWSRBs by Contractors M and N, and take further measures to enhance the serviceability of FWSRBs as far as practicable;**
- (c) **compile management information summarising the out-of-service incidents for monitoring the timeliness of the contractors of services for FWSRBs in PRH estates in reporting all out-of-service incidents in accordance with the contract requirements (e.g. by making better use of information technology); and**
- (d) **take measures to ensure timely submission of deliverables by the contractors of services for FWSRBs in PRH estates.**

Response from the Government

3.12 The Director of Environmental Protection agrees with the audit recommendations. He has said that EPD:

- (a) has commenced the procurement of services for simplified FWSRBs, and will continue its efforts to ensure sufficient supply of FWSRBs for achieving the target of “one bin per block” in PRH estates by 2026;
- (b) will continue its efforts to enhance the serviceability of FWSRBs;
- (c) will compile management information summarising the out-of-service incidents and follow-up actions, and will explore the application of suitable smart system/platform to assist its work; and
- (d) will take measures to ensure timely submission of deliverables by the contractors of services for FWSRBs in PRH estates.

Provision of food waste smart recycling bins in private housing estates/buildings and villages

3.13 The purchase or rental of FWSRBs and the related installation, operation and maintenance services for private housing estates/buildings and villages have been subsidised through the following funding schemes:

- (a) **ECF.** ECF has been open for applications from villages, transitional housing and three-nil buildings relating to food waste recycling and the first application for provision of FWSRBs for food waste collection was received in November 2020;
- (b) **RF.** Since the launch of the Solicitation Theme under RF in November 2020, RF has provided subsidy to projects to support residential

Provision of food waste recycling network

buildings in adopting smart bins technology in food waste collection and recycling (Note 34); and

- (c) ***ECC Scheme.*** Since December 2023, ECC has collaborated with EPD in implementing the Pilot Scheme on FWSRBs in Private Housing Estates which provides FWSRBs, including the installation, operation and maintenance services, to eligible applicants for a period of two years.

3.14 As at 31 October 2025, there were a total of 879 FWSRBs approved under ECF, RF and the ECC Scheme for use in private housing estates/buildings and villages, comprising 91, 165 and 623 FWSRBs funded by ECF, RF and the ECC Scheme respectively. Up to October 2025, a total of 8,610 tonnes of food waste had been collected by these FWSRBs. According to EPD, there were 577 FWSRBs in operation as at 28 February 2026 and EPD will keep expanding the coverage of FWSRBs in private housing estates progressively and plan to increase the number of FWSRBs to about 900 in 2026.

3.15 Instead of providing funding support for procuring the services for FWSRBs by the grantees themselves under ECF and RF, FWSRBs are centrally procured under the ECC Scheme. Under the ECC Scheme, EPD is responsible for the processing and approval of the relevant applications, performance monitoring of FWSRB contractors (including the maintenance service provided for FWSRBs) and conducting promotion and education work. Audit noted that there was room for improvement in the administration of the ECC Scheme, as detailed in paragraphs 3.16 to 3.29.

Scope for enhancing the promotion of the use of FWSRBs under the ECC Scheme

3.16 As at 31 October 2025, there were a total of 623 FWSRBs (including 70 FWSRBs funded and purchased by EPD — see Table 7 in para. 4.4) approved for 153 private housing estates under 156 FWSRB applications under the ECC Scheme. According to EPD, for each FWSRB application approved under the ECC Scheme,

Note 34: *According to EPD, the Solicitation Theme to support residential buildings in adopting smart bins technology in food waste collection and recycling under RF had been subsumed under the ECC Scheme since 16 October 2025.*

Provision of food waste recycling network

EPD would estimate the expected quantity of monthly food waste collected based on the number of households in the housing estate. Audit examined the food waste collection records of 50 FWSRB applications approved under the ECC Scheme and noted that while a total of 3,428 tonnes of food waste was collected from these 50 estates from January to October 2025 (i.e. higher than the overall estimated quantity of 3,104 tonnes), the average monthly quantity of food waste collected of 24 (48% of 50) estates did not meet the estimated quantity of monthly food waste collected with shortfall ranging from 0.1 to 6.2 tonnes (averaging 1.6 tonnes) (i.e. ranging from 4% to 76% (averaging 27%) of their respective estimates).

3.17 Besides, successful applicants under the ECC Scheme are provided with FWSRBs for a period of two years. After completion of the project, private housing estate can permanently own the FWSRBs without any purchase cost. Housing estate can choose to continue using these FWSRBs, with subsequent maintenance costs borne by the estate, or switch to other suitable food waste recycling methods to ensure residents can continue participating in food waste recycling. Audit noted that:

- (a) of the 156 FWSRB applications under the ECC Scheme as at 31 October 2025, the project periods of 14 were going to complete in the first half of 2026; and
- (b) EPD had taken the following measures to encourage private housing estates to continue their participation in food waste recycling after the project period:
 - (i) approval was sought from ECC on the procurement of the FWSRBs, using cost-saving from the original approved ECC funding. ECC agreed to transfer the ownership of FWSRBs to those private housing estates that are willing to take up the follow-on maintenance fees of the FWSRBs after the project period;
 - (ii) EPD negotiated with the FWSRB contractors regarding the maintenance package and asking for indicative quotations for reference to ensure that the follow-on maintenance fees quoted by the FWSRB contractors remain within a reasonable range;

Provision of food waste recycling network

- (iii) EPD approached private housing estates with project periods expiring in 2026 to explain the limited financial implication arising from the follow-on maintenance fees of FWSRBs on individual households (i.e. \$1 to \$2 per month per household) and encouraged them to continue recycling food waste with FWSRBs at their own cost after the project period; and
- (iv) for private housing estates that are willing to continue the operation of FWSRBs after the project period, EPD will continue to provide “GREEN\$” incentive and food waste collection services, and will arrange additional promotional activities for these housing estates where necessary.

3.18 In Audit’s view, EPD needs to make continued efforts in soliciting support from the residents of the private housing estates with FWSRBs to better utilise FWSRBs (e.g. increasing the amount of food waste collected) and enhancing the promotion of the use of FWSRBs under the ECC Scheme (e.g. encouraging the private housing estates participating in the ECC Scheme to continue the operation of FWSRBs after the project period).

Long processing time for some FWSRB applications under the ECC Scheme

3.19 According to EPD, it processes all FWSRB applications under the ECC Scheme according to ECC’s Guidance Notes for Pilot Scheme on FWSRBs in Private Housing Estates, as follows:

- (a) for applications received before 25 July 2025, EPD will notify applicants of the application results within six months (i.e. 180 days) from the date of receipt of the application; and
- (b) for applications received on or after 25 July 2025, EPD will contact applicants within 30 days of receiving the applications for arranging inspections and clarification of the information submitted. The actual processing of the applications is subject to the submissions of all the required information and supporting documents by applicants.

Provision of food waste recycling network

3.20 Of the 254 applications received since the commencement of the ECC Scheme in December 2023 and up to October 2025, 251 and 3 applications were received before 25 July 2025 and on or after 25 July 2025 respectively. Of the 251 applications, 173 were processed (comprising 156 approved, 12 withdrawn and 5 rejected applications) and 78 were under processing. Audit noted that some of the 251 applications had a long processing time (see Table 6). As at 31 October 2025:

- (a) ***Processed applications.*** Of the 173 processed applications, the time taken to complete the processing of 84 (48%) applications were more than 180 days, ranging from 181 to 639 days (averaging 424 days), from the date of receipt of applications; and

- (b) ***Applications under processing.*** Of the 78 applications under processing, 62 (79%) applications had been received for more than 180 days, ranging from 199 to 652 days (averaging 517 days), from the date of receipt of applications.

Provision of food waste recycling network

Table 6

**Time taken in processing FWSRB applications
received before 25 July 2025 under the ECC Scheme
(31 October 2025)**

Time taken	Number of applications	
<i>Processed applications (Note 1)</i>		
180 days or less	89 (52%)	
More than 180 days to 360 days	28 (16%)	84 (48%)
More than 360 days	56 (32%)	
Sub-total	173	
<i>Applications under processing (Note 2)</i>		
180 days or less	16 (21%) (Note 3)	
More than 180 days to 360 days	8 (10%)	62 (79%)
More than 360 days	54 (69%)	
Sub-total	78	
Total	251	

Source: EPD records

Note 1: The processing time for processed applications refers to the period from application date to approval date or case closing date.

Note 2: The processing time for applications under processing refers to the period from application date to 31 October 2025.

Note 3: Of these 16 applications, 14 resumed processing after the launch of the enhanced ECC Scheme on 16 October 2025 (see Note 34 to para. 3.13(b)). For these 14 applications (received during the period from February 2024 to May 2025), the resumed processing date (i.e. 16 October 2025) was used as the start date for calculating the processing time.

3.21 In response to Audit's enquiry, EPD informed Audit in March 2026 that the processing time of FWSRB applications largely depended on whether applicants had submitted all the required supporting documents and the information contained therein were complete and accurate, as well as confirmation by applicants on FWSRB installation locations that met requirements under the ECC Scheme, including availability of power supply (if not, the applicant would have to arrange for power supply). Additional time was required if applicants failed to provide the necessary supplementary documents promptly, or if the property management offices needed to

further consult the owners' committees or incorporated owners before finalising the suitable installation locations.

3.22 In Audit's view, EPD needs to take measures to complete the processing of FWSRB applications received under the ECC Scheme as early as practicable (e.g. advising potential applicants on the necessary information required to facilitate timely processing of applications).

Scope for maintaining a consolidated big data platform under the ECC Scheme

3.23 According to the contracts for the provision of FWSRBs under the ECC Scheme, FWSRB contractors should provide their big data platforms (i.e. central data management systems) with their FWSRBs connected, with the following functions:

- (a) real-time and detailed transaction information (e.g. membership identity, transaction time, quantity of food waste collected, abnormality or malfunction alert) of their FWSRBs;
- (b) relevant statistics and analyses (e.g. user behaviour, participation rate, district distribution, time preference); and
- (c) connection to EPD's common communication platform for the "GREEN\$" electronic participation incentive scheme (see Note 28 to para. 3.2(b)).

3.24 As at 31 October 2025, there were four big data platforms provided by the contractors of FWSRBs under the ECC Scheme. Audit noted that:

- (a) while individual FWSRB contractors provided their own big data platforms for their respective FWSRBs, EPD did not maintain a consolidated platform for recording the food waste collection data obtained from the contractors' big data platforms. As a result, EPD staff needed to manually consolidate the food waste collection data obtained from individual platform in order to obtain an overview of the food waste collection data under the ECC Scheme; and

Provision of food waste recycling network

- (b) there were inconsistencies in the types of food waste collection data and analyses available from the big data platforms provided by different FWSRB contractors, which made comparison and consolidation difficult. For example:
 - (i) the big data platform of an FWSRB contractor provided transaction analysis which only indicated the average quantity of food waste collected over a certain period and the accumulated quantity of food waste collected since the commencement of services for each private housing estate; and
 - (ii) for the big data platform of another FWSRB contractor, in addition to transaction analysis, it also provided peak usage analysis which indicated the peak times of usage and ranking of FWSRBs according to their popularity for each private housing estate.

3.25 In Audit's view, EPD needs to maintain a consolidated big data platform for recording the food waste collection data obtained from FWSRB contractors' big data platforms and standardise the data and analyses available from the platforms provided by all the contractors under the ECC Scheme to facilitate monitoring of food waste collection data.

Scope for strengthening the monitoring of maintenance and repair services provided by contractors of FWSRBs under the ECC Scheme

3.26 According to the contracts for the provision of FWSRBs under the ECC Scheme, contractors should:

- (a) provide standard maintenance and repair services during the contract period with on-site assessment within 24 hours upon receiving requests from EPD or the venue managers of the designated locations, or receiving signal of malfunction from FWSRBs;
- (b) resume normal operation of FWSRBs within a designated timeframe (i.e. 72 hours for contracts in Phase 1 and 48 hours for contracts as the stop-gap measures — see para. 4.4) upon receiving the request; and

Provision of food waste recycling network

- (c) arrange delivery of spare FWSRB to the designated location as an interim measure to replace malfunctioned FWSRB on site, in case of the operation of the malfunctioned FWSRB cannot resume within the designated timeframe.

3.27 Audit noted that there was scope for strengthening the monitoring of maintenance and repair services provided by the contractors of FWSRBs under the ECC Scheme, as follows:

- (a) the real-time operational status of all FWSRBs, including malfunctions detected (e.g. lid closure failures and connection errors), are monitored at the backend platforms provided by the contractors. EPD monitors these platforms daily and has made use of an instant messaging application with the contractors to enable instant communication and reporting on FWSRB status and the respective follow-up actions;
- (b) while the FWSRB contractors provided a listing of all the FWSRBs with downtime noted during the reporting period concerned in the quarterly reports submitted to EPD under the ECC Scheme, maintenance and repair records were not provided by the contractors and management information was not compiled summarising the out-of-service incidents (e.g. documentation of the problem and cause) and the respective follow-up actions taken for monitoring the timeliness of the contractors in carrying out maintenance and repair services in accordance with the contract requirements (e.g. whether they were provided within 24 hours upon receiving requests from EPD or the venue managers of the designated locations, or receiving signal of malfunction from FWSRBs); and
- (c) from January to October 2025, there were 11 out-of-service incidents with more than 72 out-of-service hours for contracts in Phase 1, ranging from 74 to 389 hours (averaging 131 hours — Note 35) and 8 out-of-service incidents with more than 48 out-of-service hours for contracts as the stop-gap measures, ranging from 51 to 97 hours (averaging 66 hours).

Note 35: *According to EPD, the case with 389 out-of-service hours was an outlier caused by vandalism. Excluding the case with 389 out-of-service hours, the out-of-service hours of the 10 remaining incidents ranged from 74 to 161 hours (averaging 105 hours).*

Provision of food waste recycling network

While these incidents were in contrary to the requirement of resuming normal operation of FWSRBs within the timeframes specified in the contracts, there were no readily available information showing the reasons attributable to the incidents and the respective follow-up actions taken.

3.28 In response to Audit's enquiry, EPD informed Audit in March 2026 that, according to the records in the instant messaging application, of the 19 (i.e. 11 + 8) out-of-service incidents mentioned in paragraph 3.27(c), 13 (68%) incidents, including the case with 389 out-of-service hours, were attributed to issues outside contractors' control which took time to resolve (e.g. power supply issues, vandalism and force majeure events (e.g. typhoon)). For the remaining 6 (32%) incidents, EPD had taken timely follow-up actions with the contractors to arrange maintenance for the affected units.

3.29 In Audit's view, EPD needs to take measures to strengthen the monitoring of the maintenance and repair services provided by contractors of FWSRBs under the ECC Scheme, including:

- (a) requiring contractors to provide maintenance and repair records that indicate the timeliness of the contractors to carry out maintenance and repair services; and
- (b) compiling management information summarising the out-of-service incidents and the respective follow-up actions taken for monitoring the timeliness of the contractors in carrying out maintenance and repair services in accordance with the contract requirements (e.g. by making better use of information technology).

Audit recommendations

3.30 **Audit has *recommended* that the Director of Environmental Protection should:**

- (a) **make continued efforts in soliciting support from the residents of the private housing estates with FWSRBs to better utilise FWSRBs (e.g. increasing the amount of food waste collected) and enhancing the promotion of the use of FWSRBs under the ECC Scheme**

- (e.g. encouraging the private housing estates participating in the ECC Scheme to continue the operation of FWSRBs after the project period);
- (b) **take measures to complete the processing of FWSRB applications received under the ECC Scheme as early as practicable (e.g. advising potential applicants on the necessary information required to facilitate timely processing of applications);**
 - (c) **maintain a consolidated big data platform for recording the food waste collection data obtained from FWSRB contractors' big data platforms and standardise the data and analyses available from the platforms provided by all the contractors under the ECC Scheme to facilitate monitoring of food waste collection data; and**
 - (d) **take measures to strengthen the monitoring of the maintenance and repair services provided by contractors of FWSRBs under the ECC Scheme, including:**
 - (i) **requiring contractors to provide maintenance and repair records that indicate the timeliness of the contractors to carry out maintenance and repair services; and**
 - (ii) **compiling management information summarising the out-of-service incidents and the respective follow-up actions taken for monitoring the timeliness of the contractors in carrying out maintenance and repair services in accordance with the contract requirements (e.g. by making better use of information technology).**

Response from the Government

3.31 The Director of Environmental Protection agrees with the audit recommendations. He has said that EPD:

- (a) is committed to making every effort to promote the use of FWSRBs in private housing estates;

Provision of food waste recycling network

- (b) will take further measures to advise potential applicants and remind the existing applicants on the necessary information required to facilitate timely processing of FWSRB applications under the ECC Scheme. EPD is committed to working with the applicants to further expedite the process;
- (c) is developing an Integrated Waste Management Information System, where all the FWSRBs will be connected to the system for monitoring, review and data analysis; and
- (d) will take measures to strengthen the monitoring of maintenance and repair services provided by FWSRB contractors under the ECC Scheme in future contracts, including strengthening the requirement for contractors to provide maintenance and repairs records. EPD will also compile the management information summarising the out-of-service incidents and follow-up actions, and explore the application of suitable smart system/platform to assist its work.

Provision of public recycling points

3.32 Since November 2022, to collect food waste generated by street-level eateries and residents of residential premises without food waste recycling bins, EPD has begun to set up public recycling points, including recycling points (e.g. “GREEN@COMMUNITY”, RCPs and public markets) and food waste recycling spots at different venues by phases. As at 31 October 2025, there were FWCPs at 5 “GREEN@COMMUNITY”, 109 RCPs, 20 public markets and 104 food waste recycling spots.

Scope for enhancing the provision of FWSRBs in public markets

3.33 Food waste collection services are provided to public markets to collect food waste arising from stalls in these markets. With a view to further expanding the target users of FWSRBs to include residents who live in buildings without sufficient space to install food waste recycling bins (e.g. single-block buildings, three-nil buildings and small private estates), in November 2024, EPD awarded a contract (Contract P) to a contractor (Contractor P) to provide services for FWSRBs in public markets managed by FEHD at a contract sum of \$1.1 million for a contract period of 20 months.

Provision of food waste recycling network

3.34 According to Contract P, Contractor P should:

- (a) provide 45 FWSRBs on a rental basis within one month upon the commencement of Contract P for operation in public markets for an 18-month trial until June 2026. The list of the locations would be advised by EPD upon contract award; and
- (b) submit quarterly report (e.g. reporting the total out-of-service hours for all commissioned items of FWSRBs) within one week after the end of every three months for the 18-month trial operation period.

3.35 Audit noted that there was scope for enhancing the provision of FWSRBs in public markets, as follows:

- (a) ***Long time taken in deploying FWSRBs in public markets.*** As at 31 October 2025 (i.e. 10 months after the commencement of the 18-month trial period under Contract P), only 25 (56% of 45) FWSRBs had been deployed, falling short of the 45 FWSRBs to be provided under Contract P. Notwithstanding that Contract P was aimed at providing FWSRBs in public markets, of the 25 FWSRBs deployed:
 - (i) only 19 (42% of 45) FWSRBs had been deployed in 19 public markets; and
 - (ii) the remaining 6 (14% of 45) FWSRBs had been deployed in locations other than public markets (including 4 in a government quarters, 1 in an RCP and 1 in a “GREEN@COMMUNITY”).

According to EPD, the installation of FWSRBs at public markets is subject to confirmation with relevant stakeholders on specific installation locations and site conditions (e.g. availability of electric sockets, space constraints and operational feasibility). As such, a time longer than originally expected was required to ascertain and agree on the exact locations for installation of FWSRBs. Given the practical difficulties encountered in the installation of FWSRBs at some of the markets identified (e.g. no proper locations, objections from relevant stakeholders and markets undergoing refurbishment), some of the FWSRBs had been deployed in locations other than public markets in order to better utilise the contract resources; and

Provision of food waste recycling network

(b) *Lack of monitoring of the performance of Contractor P.* Audit noted that:

- (i) no operational performance requirements (e.g. out-of-service hours of FWSRBs) were included in Contract P for monitoring the performance of Contractor P; and
- (ii) since the commencement of Contract P in December 2024 and up to October 2025, there were delays in submission of all the three quarterly reports by Contractor P, ranging from 55 to 147 days (averaging 102 days).

3.36 In response to Audit's enquiry, EPD informed Audit in March 2026 that:

- (a) it had worked out the schedule for deployment of the remaining 20 (i.e. 45 minus 25) FWSRBs (comprising 16 and 4 FWSRBs in public markets and government quarters respectively). While 16 FWSRBs had been installed by 4 March 2026, the deployment of the remaining 4 FWSRBs were expected to be completed by the end of March 2026; and
- (b) it was preparing to extend Contract P for a period of 6 months to allow time for procuring a new service for provision of FWSRBs in public markets and other venues (e.g. other public markets, private markets, government quarters, RCPs and "GREEN@COMMUNITY") to enable further expansion of the food waste collection services.

3.37 In Audit's view, EPD needs to:

- (a) draw lessons from the provision of services for FWSRBs in public markets under Contract P with a view to facilitating the deployment of FWSRBs in the follow-on contracts for public markets;
- (b) incorporate operational performance requirements into the contracts for the provision of services for FWSRBs in public markets and other venues in the future with a view to facilitating monitoring of the performance of contractors; and

- (c) take measures to ensure the timely submission of quarterly reports by Contractor P in accordance with the contract requirements.

Scope for enhancing the collection service of food waste recycling spots

3.38 According to EPD, to collect food waste generated by street-level eateries and residents of residential premises without food waste recycling facilities, food waste recycling spots were set up at different districts across Hong Kong. These recycling spots operate as kerbside booths or mobile truck at fixed hours and locations every night to provide food waste recycling service for nearby small business operators and residents (Note 36).

3.39 As at 31 October 2025, 104 food waste recycling spots had been set up in 17 districts across Hong Kong with an average of 6 (ranging from 2 to 10) food waste recycling spots in each district. Audit noted that there was scope for enhancing the collection service of food waste recycling spots, as follows:

- (a) there were no guidelines and no documentation on the justifications in selecting the locations in setting up the food waste recycling spots; and
- (b) some of the food waste recycling spots operated until 8 p.m. or before, which were earlier than the peak hours in the usage of FWSRBs (i.e. from 7 p.m. to 9 p.m.) as identified from the user behaviour in PRH estates.

3.40 In response to Audit's enquiry, EPD informed Audit in March 2026 that:

Note 36: *According to EPD, in August 2025, EPD awarded a service contract (Contract Q) with a contract sum of \$6.7 million for the provision of promotional services for 34 food waste recycling spots in the New Territories, including setting up food waste recycling spots, assisting public to conduct food waste recycling, awarding "GREEN\$" points to participants and conducting promotion. Prior to Contract Q, the promotional services provided at food waste recycling spots were covered by the food waste collection service contracts (i.e. Contracts E to H) mentioned in PART 2.*

Provision of food waste recycling network

- (a) the primary purpose of the food waste recycling spots was to provide recycling support to residential buildings that lack space to set up their own recycling facilities or without property management office to coordinate food waste recycling; and
- (b) the strategy for setting up food waste recycling spots was based on the locations and distribution of target buildings (i.e. single-block residential buildings, three-nil buildings, and rural villages), while taking into account the coverage of public and private food waste recycling facilities in the area and availability of suitable locations for setting up food waste recycling spots.

3.41 In Audit's view, EPD needs to:

- (a) document the strategy adopted in setting up food waste recycling spots (e.g. focusing at areas with fewer FWSRBs provided under other EPD's initiatives); and
- (b) consider adjusting the operating hours of the food waste recycling spots with a view to better catering for public's needs.

Audit recommendations

3.42 **Audit has *recommended* that the Director of Environmental Protection should:**

- (a) **draw lessons from the provision of services for FWSRBs in public markets under Contract P with a view to facilitating the deployment of FWSRBs in the follow-on contracts for public markets;**
- (b) **incorporate operational performance requirements into the contracts for the provision of services for FWSRBs in public markets and other venues in the future with a view to facilitating monitoring of the performance of contractors;**
- (c) **take measures to ensure the timely submission of quarterly reports by Contractor P in accordance with the contract requirements;**

- (d) **document the strategy adopted in setting up food waste recycling spots (e.g. focusing at areas with fewer FWSRBs provided under other EPD's initiatives); and**
- (e) **consider adjusting the operating hours of the food waste recycling spots with a view to better catering for public's needs.**

Response from the Government

3.43 The Director of Environmental Protection agrees with the audit recommendations. He has said that EPD:

- (a) has been working closely with relevant stakeholders in addressing the practical difficulties encountered during the identification of suitable locations at public markets (e.g. space constraints, power supply, availability of network signal and objections from stall operators) so as to expedite the installation of FWSRBs at public markets. EPD will take into account these practical difficulties in its future planning of the follow-on contracts;
- (b) will incorporate relevant operational performance requirements into future contracts with a view to strengthening performance monitoring and ensuring service quality and accountability of contractors;
- (c) will set up internal procedures to strengthen monitoring and take follow-up measures to ensure timely submission of quarterly reports by the contractor;
- (d) will document the strategy adopted in setting up food waste recycling spots for its staff to follow; and
- (e) was aware of the inconsistencies in operating hours of food waste recycling spots among different food waste collection service contracts and has planned to align the recycling spots in other areas with the 34 food waste recycling spots in the New Territories to 7 p.m. to 10 p.m. in the follow-on contracts to be commenced in March 2027.

PART 4: OTHER RELATED ISSUES

4.1 This PART examines other issues related to reduction and collection of food waste, focusing on:

- (a) procurement of services for FWSRBs (paras. 4.2 to 4.10);
- (b) publicity and educational programmes for reduction of food waste (paras. 4.11 to 4.15); and
- (c) other issues (paras. 4.16 to 4.24).

Procurement of services for food waste smart recycling bins

4.2 According to EPD, it is responsible for the procurement of services for FWSRBs under the Food Waste Collection Scheme in PRH Estates, under the ECC Scheme and in the public markets, whereas the services for FWSRBs in private housing estates/buildings and villages funded by ECF and RF are procured by the grantees themselves.

Scope for enhancing the procurement of services for FWSRBs under the ECC Scheme

4.3 According to EPD, the procurement of stores and services for the operation of the ECC Scheme is governed by ECC's Guidelines on procurement of stores and services (hereinafter referred to as ECC procurement guidelines). ECC procurement guidelines follow the spirit of the Stores and Procurement Regulations and set out the procedures for procurement of stores and services in relation to the ECC Scheme.

4.4 According to EPD, ECC approved the allocation of funding of \$13 million and \$31 million from ECF in June 2023 (i.e. Phase 1) and December 2024 (i.e. Phase 2) respectively for the provision of services for FWSRBs, and the related installation, operation and maintenance services from contractors under the ECC Scheme for a period of two years. ECC and EPD procured the services for

FWSRBs (Note 37) by 2 phases and a total of 620 FWSRBs (comprising 550 and 70 FWSRBs funded by ECC and EPD respectively) under the ECC Scheme had been procured from October 2023 to October 2025 (see Table 7). Details are as follows:

- (a) ***Phase 1.*** In October 2023, tenders were invited for the procurement of services for 120 FWSRBs for two years. In November 2023, Contracts R and S were awarded to Contractor R (for 60 FWSRBs) and Contractor S (for 60 FWSRBs) at a contract sum of \$2.7 million and \$5.3 million respectively;
- (b) ***Variation order under Contract R.*** As at 7 May 2024, ECC had received 190 applications (involving 710 FWSRBs) under the ECC Scheme. In order to maintain the provision of services for FWSRBs to applications received, in May 2024, a variation order under Contract R was approved by ECC to procure the services for an additional 100 FWSRBs at a cost of \$4.8 million;
- (c) ***Stop-gap measures.*** In August 2024 and January 2025, EPD invited quotations for procuring services for 35 FWSRBs each to test out distinct design and functional requirements of the FWSRBs, it also served as the stop-gap measures to avoid long waiting time to the approved private housing estates in installing the FWSRBs under the ECC Scheme. In November 2024 and April 2025, Contracts T and U were awarded to Contractor T (for 35 FWSRBs) and Contractor U (for 35 FWSRBs) at a contract sum of \$1.3 million and \$1.1 million respectively (Note 38); and

Note 37: *Under the ECC Scheme, EPD is responsible for drafting tender documents for the procurement of FWSRBs in consultation with ECC. ECC will issue the tenders and EPD will provide assistance in evaluating the technical submissions submitted by tenderers under a two-envelope arrangement and make recommendations for ECC's consideration. ECC will then approve the winning tenders, taking into account both the technical assessments by EPD and the fee proposals under its custody.*

Note 38: *According to EPD, the two contracts for stop-gap measures were funded by the departmental expenses of EPD, and the expenditure will not be reimbursed by ECC. As the ECC Scheme is a collaboration between EPD and ECC, both EPD funding and ECC funding are working together to ensure a smooth implementation of the scheme, and at the same time meeting the public's expectation.*

Other related issues

- (d) **Phase 2.** In June 2025, tenders were invited for the procurement of services for 330 FWSRBs for two years after securing approval from ECC for the necessary funding in January 2025. In August 2025, Contracts V and W were awarded to Contractor V (for 165 FWSRBs) and Contractor W (for 165 FWSRBs) at a contract sum of \$6 million and \$6.5 million respectively.

Table 7

**Procurement of services for FWSRBs under the ECC Scheme
(October 2023 to October 2025)**

	Phase 1 (funded by ECC)			Stop-gap measures (funded by EPD)		Phase 2 (funded by ECC)	
	Contract R	Contract S	Contract R	Contract T	Contract U	Contract V	Contract W
Procurement method	Tender		Variation order under Contract R	Quotation		Tender	
Tender / Quotation invitation date	October 2023		—	August 2024	January 2025	June 2025	
Contract / variation order award date	November 2023		May 2024	November 2024	April 2025	August 2025	
Contractor	R (Note)	S	R (Note)	T (Note)	U	V (Note)	W
No. of FWSRBs provided	60	60	100	35	35	165	165
No. of food waste collection buckets provided	30,000	30,000	50,000	—	—	24,000	24,000
Contract sum (\$ million)	2.7	5.3	4.8	1.3	1.1	6.0	6.5

Source: EPD records

Note: Contractors R, T and V referred to the same contractor.

4.5 Audit noted that:

- (a) ***Significant variance in contract sums for similar services.*** Two tendering exercises were conducted in Phases 1 and 2 respectively. According to EPD, to minimise the risk of relying on a single contractor and in order to ensure a stable supply of FWSRBs and attract more suppliers to drive down future prices, it was specified in the tender documents under both exercises that ECC would award 2 contracts to different tenderers with the 2 highest combined scores based on the technical and price assessment. However, for the tendering exercise under Phase 1, despite the fact that the services to be provided under Contracts R and S were very similar (both Contractors R and S were required to provide 60 FWSRBs and 30,000 food waste collection buckets), the contract sum of Contract S was 96% (i.e. \$2.6 million) higher than that of Contract R; and
- (b) ***Under-estimation of demand of FWSRBs.*** In the tendering exercise under Phase 1, EPD prepared to procure services for 120 FWSRBs to private housing estates. However, the response from private housing estates was overwhelming and ECC had received 190 applications (involving 710 FWSRBs). According to EPD, there was an urgency to address the demand and meet public expectation. In the event, with the support and justifications from EPD, ECC approved the variation order under Contract R of \$4.8 million (i.e. 178% of the original contract sum of \$2.7 million) which was issued to Contractor R in May 2024 (Note 39).

4.6 In response to Audit's enquiry, EPD informed Audit in March 2026 that:

- (a) at the time when the tender under Phase 1 was invited, the local market for supply of FWSRBs was still at the development stage. There was strong competition among the potential suppliers, in particular for those who were

Note 39: *According to ECC procurement guidelines, variations to a contract shall be approved by an officer at D1 Grade provided that the accumulated value of the contract variations would not exceed the quotation limit of procurement. For any variation exceeds 20% of the contract price or 6 months of the contract period, it shall be approved by the relevant committee/working group under ECC. In any case, the cumulative value of contract variations for all contracts should normally not exceed 50% of the original contract value. Excesses have to be approved with fully documented justifications.*

Other related issues

keen to enter into the market. In this case, the highest score tenderer submitted a tender sum much lower than the market price while most of the other tenderers' tender sums were more or less at similar level of the prevailing market price at that time, resulting in a large variance in contract sums. With the market getting more mature, it was noted that the price variance between the 2 contracts awarded in the tendering exercise under Phase 2 was much reduced to about 8%; and

- (b) to avoid over-purchasing of FWSRBs, when estimating the demand for FWSRBs under the ECC Scheme, EPD made reference to the number of applications received under RF and decided to acquire 120 FWSRBs for the ECC Scheme in October 2023. However, with the anticipation of the implementation of the Municipal Solid Waste Charging in 2024, the demand for food waste recycling increased significantly, resulting in a large number of applications for FWSRBs received under the ECC Scheme, which was unforeseeable at the time when the ECC Scheme was launched.

4.7 As at 31 October 2025, all the 620 FWSRBs procured by EPD had been allocated to the approved private housing estates and the procurement of services for FWSRBs was required for meeting the additional requirements of FWSRBs under the ECC Scheme (comprising 1 ECC application (involving 3 FWSRBs) approved and 81 ECC applications (involving 302 FWSRBs) under processing). According to EPD, another tendering exercise under Phase 2 of the ECC Scheme would be arranged for the procurement of services for about 400 FWSRBs in the second quarter of 2026.

Audit recommendations

4.8 **Audit has recommended that the Director of Environmental Protection, in collaboration with the Secretary for Environment and Ecology, should:**

- (a) **expedite the procurement of services for FWSRBs under the ECC Scheme in meeting the additional requirements of FWSRBs; and**
- (b) **draw lessons from the previous procurement exercises in conducting future procurement of services for FWSRBs under the ECC Scheme, including:**

- (i) examining the costs and benefits of awarding contracts to multiple tenderers under each tendering exercise; and
- (ii) making better estimates of the demand of FWSRBs as far as practicable.

Response from the Government

4.9 The Director of Environmental Protection agrees with the audit recommendations. He has said that EPD will:

- (a) expedite the procurement of services for FWSRBs under the ECC Scheme to meet the additional requirements; and
- (b) review the procurement of services for FWSRBs, including examining the costs and benefits of awarding contracts to multiple tenderers and improving the estimation of the demand of FWSRBs under the ECC Scheme as far as practicable.

4.10 The Secretary for Environment and Ecology agrees with the audit recommendations.

Publicity and educational programmes for reduction of food waste

4.11 In May 2013, EEB launched FWHKC with a view to promoting reduction of food waste at source. The Food Wise Hong Kong Steering Committee (FWHKSC — Note 40), chaired by the Secretary for Environment and Ecology, was established in December 2012 to formulate and oversee the implementation strategy of FWHKC to accomplish the objectives of the Campaign. To foster active participation in food

Note 40: *FWHKSC comprises both official and non-official members from various sectors (e.g. catering, hotel and property management) appointed by the Secretary for Environment and Ecology for a term of two years.*

Other related issues

waste reduction and recycling among stakeholders in the community, EPD launched the following major promotion and education activities under FWHKC:

- (a) ***Food Wise Charter.*** It was launched in May 2013 to encourage Hong Kong businesses/organisations of any sectors (e.g. property development and management, hotel, food and beverage) in adopting measures to reduce food waste generation and to recognise the waste reduction efforts of those organisations. As at 31 October 2025, there were 1,871 organisations participating the Food Wise Charter, including 1,007 (54%) organisations from the property development and management sector, 271 (14%) organisations from the hotel, food and beverage sector and 150 (8%) education institutions or schools; and

- (b) ***Food Wise Eateries Scheme.*** It was launched in November 2015 with the aim of reducing food waste at source by encouraging food and beverage outlets (including general restaurant, light refreshment restaurant and factory canteen) to implement food waste reduction initiatives (e.g. meal portioning) and socially mobilising more food and beverage outlets to participate in the FWHKC and make commitment to reduce food wastage. Participants will be awarded with accreditation status (namely “Diamond Class”, “Gold Class” and “Silver Class”) if they comply with the assessment criteria and will be granted with corresponding stickers for display at their shops for customers to identify. The accreditation of classes is valid for two years. As at 31 October 2025, there were 1,798 eateries participating the Food Wise Eateries Scheme (Note 41).

In 2024-25, the total expenditure incurred for FWHKC was \$3.4 million.

Scope for reviewing the effectiveness of FWHKC

4.12 Since 2017, the continuation of FWHKC had been reviewed by FWHKSC every two years. To sustain and strengthen community engagement and initiatives of food waste reduction and recycling, it was agreed by FWHKSC in August 2025 that FWHKC would be extended for two years from July 2025 to June 2027.

Note 41: *According to EPD, from November 2015 to October 2025, there were 2,255 eateries joining the Food Wise Eateries Scheme, including 457 eateries which had closed down as at 31 October 2025.*

4.13 Audit noted that there was scope for reviewing the effectiveness of FWHKC, as follows:

- (a) ***Need to encourage participants to provide feedback for individual promotion and education activities.*** The two major promotion and education activities under FWHKC are the Food Wise Charter and the Food Wise Eateries Scheme. Audit noted that:
 - (i) ***Food Wise Charter.*** In order to regularly review the progress and results of food waste reduction and for FWHKSC to better understand the progress and results of the signees' plan in reducing food waste and promoting food waste recycling, signees were invited to provide their feedback in the implementation proforma on an annual basis. Since the implementation of the Food Wise Charter in May 2013 and up to October 2025, the return rate of the annual implementation proforma from the signees was less than 40%, ranging from 0.4% to 37% (averaging 16%); and
 - (ii) ***Food Wise Eateries Scheme.*** According to EPD, participants of the Food Wise Eateries Scheme were not required to submit regular reports to EPD on their latest food waste reduction practices or progress, nor to update EPD on any changes to their practices. EPD would renew the accreditation status for eateries confirming before the expiration date that they would continue to take forward the committed measures;
- (b) ***Lack of quantifiable performance targets in the work plan for FWHKC.*** To enhance participation in food waste recycling across the community, EPD formulates a work plan for FWHKC (Note 42) on a biennial basis which includes enhancement of existing initiatives, and rolling out new events and activities under FWHKC. Audit noted that:

Note 42: *According to EPD, the proposed work plan for FWHKC includes the purpose, implementation period, delivery arrangements, resources requirements and expected results for each proposed events/activities. It is reviewed regularly and updated by EPD on a biennial basis for the consideration of FWHKSC.*

Other related issues

- (i) the expected results (i.e. performance targets) specified in the work plan for FWHKC were qualitative in nature (e.g. raising the public awareness, increasing the amount of food waste collected, growth in the number of signees to the Food Wise Charter and increasing the participation of eateries in food waste recycling) and lacked quantifiable performance targets for assessing the effectiveness of the proposed events and activities; and
- (ii) the number of new signees/participants for the Food Wise Charter and the Food Wise Eateries Scheme fluctuated over the years, as follows:
 - between 2013 and 2024, the number of new signees of the Food Wise Charter ranged from 47 to 433 organisations (averaging 135 organisations) each year. After the surge to 433 organisations in 2024, it dropped to 249 organisations in the first 10 months in 2025; and
 - between 2015 and 2024, the number of new participants of the Food Wise Eateries Scheme ranged from 52 to 270 eateries (averaging 180 eateries) each year.

Despite that the number of new signees/participants fluctuated widely in some years, there was no documentary evidence showing that analyses had been conducted by EPD to ascertain the reasons; and

- (c) ***Need to conduct a review on the overall effectiveness of FWHKC.*** While continuation of FWHKC had been determined by FWHKSC every two years since 2017, EPD had not conducted a review on the overall effectiveness of FWHKC since its launch in May 2013. Besides, some events and activities under FWHKC had been discontinued (e.g. the Food Wise Ambassador Scheme and roving exhibitions were discontinued after 2019). As at 31 October 2025, FWHKC had been implemented for more than 12 years. Audit considers that it is an opportune time for EPD to conduct a review on the overall effectiveness of FWHKC with a view to determining its way forward.

Audit recommendations

4.14 **Audit has *recommended* that the Director of Environmental Protection should:**

- (a) **step up efforts in enhancing the response rate of the signees of the Food Wise Charter regarding their feedback on the Food Wise Charter;**
- (b) **consider requiring the participants of the Food Wise Eateries Scheme to provide their feedback on a regular basis to facilitate the review of the progress and results of the Scheme;**
- (c) **set quantifiable performance targets in the work plan for FWHKC to facilitate effective performance monitoring and evaluation; and**
- (d) **consider conducting a review on the overall effectiveness of FWHKC with a view to determining the way forward of FWHKC, taking into account the audit observations and recommendations in this Audit Report.**

Response from the Government

4.15 The Director of Environmental Protection agrees with the audit recommendations. He has said that:

- (a) EPD will continue to implement measures to facilitate submission of feedback from signees of the Food Wise Charter and consider taking further measures to enhance the response rate of the signees;
- (b) EPD has conducted a survey to collect feedbacks from participants of the Food Wise Eateries Scheme and will report the survey results to FWHKSC for considering the necessity to include a regular feedback requirement to review the progress and effectiveness of the Food Wise Eateries Scheme;
- (c) a Subcommittee on Promotion of Food Wise Initiatives has been established under FWHKSC to devise and implement strategies to facilitate effective performance monitoring and evaluation of the effectiveness of the work

Other related issues

plan, including setting quantifiable targets for assessing the performance of the food wise initiatives; and

- (d) EPD will review the overall effectiveness of FWHKC, together with the results on completion of the promotion of food wise initiatives and food waste recycling under two new subcommittees established under FWHKSC.

Other issues

Scope for enhancing the monitoring of the trial of technologies for on-site treatment of food waste

4.16 According to EPD, with a view to enhancing the cost-effectiveness of food waste collection services and sustainability of food waste recycling in the long run, EPD has been actively exploring the feasibility of applying on-site food waste treatment technologies under different trial government projects, as follows:

- (a) ***Food TranSmarter.*** Since April 2023, EPD has implemented the trial projects on the use of Food TranSmarter (Note 43) at potential locations identified by EPD. The projects, funded by EPD, are implemented by partnership with other government departments. While the participating government departments are responsible for the procurement of machines, contract management and operations of the facilities, EPD assists in monitoring the performance of the Food TranSmarters (e.g. inspections and regular meetings with the participating government departments) in ensuring the effective utilisation of the machines to maximise productivity and efficiency; and

Note 43: *According to EPD, it is a locally developed food waste pre-treatment system. The system liquefies food waste on-site into slurry, which is then stored in sealed odour-controlled tanks for a few days before being delivered to EPD's food waste treatment facilities for conversion into energy. This technology enhances the flexibility of frontline food waste recycling operations, reduces the frequency of door-to-door food waste collection and related transportation cost, and eliminates the need for the pre-treatment process after the slurry has been delivered to the treatment facilities.*

- (b) ***Food waste composter.*** Since April 2025, EPD has implemented trial projects on the use of food waste composters (Note 44) at potential locations identified by EPD. EPD is responsible for the procurement of services for the installation and management of food waste composters and monitoring the performance of the food waste composters (e.g. ensuring that all generated compost meets the quality standards for immediate soil application) with a view to identifying suitable composters and operation modes which suits the food waste content of Hong Kong.

4.17 As at 31 October 2025, 6 Food TranSmarters and 1 food waste composter had been installed under the trial government projects funded by EPD, as follows:

- (a) 6 Food TranSmarters installed in 6 government premises (e.g. wholesale food markets, public markets and a shopping mall) for use by 4 government departments (i.e. the Agriculture, Fisheries and Conservation Department, the Correctional Services Department, FEHD and the Housing Department); and
- (b) 1 food waste composter installed in the Aberdeen Wholesale Fish Market for use by the Fish Marketing Organization (Note 45). In March 2025, EPD awarded a contract (Contract X) at an approved cost of \$1.3 million to a contractor (Contractor X) for the provision of services for the installation and management of the food waste composter at the Aberdeen Wholesale Fish Market.

As at 31 October 2025, \$8.6 million had been incurred by EPD in implementing these projects.

Note 44: *According to EPD, it is a food waste composting system which turns food waste on-site into compost such that no further treatment at EPD's food waste treatment facilities would be required.*

Note 45: *According to EPD, in August and September 2025, EPD further awarded 3 contracts for the trial implementation of 3 food waste composters in 3 private housing estates (at a total approved cost of \$2.5 million). As at 31 October 2025, no food waste composters had been installed yet.*

Other related issues

4.18 Audit noted that there was scope for enhancing the monitoring of the trial of technologies for on-site treatment of food waste, as follows:

- (a) ***Scope for encouraging involvement of government departments and public in the trial projects.*** Audit noted that:
 - (i) as at 31 October 2025, only 6 Food TranSmarters and 1 food waste composter had been installed in 7 government premises (e.g. wholesale food markets and public markets) for use by 4 government departments and 1 statutory body; and
 - (ii) in October 2025, the utilisation rates of the 6 Food TranSmarters and the food waste composter ranged from 31% to 90% (averaging 60%). In particular, some tenants in the shopping mall with a Food TranSmarter installed refused to participate due to insufficient manpower and inadequate knowledge of food waste separation;
- (b) ***Need to keep under review the operation of the Food TranSmarters by drawing lessons from the difficulties encountered.*** Audit noted that, as at 31 October 2025, the 6 Food TranSmarters had been operated by the participating government departments for 1 to 2.6 years. There were difficulties encountered by the participating government departments during the course of the trial projects that warrant the review of the operation of the Food TranSmarters, including:
 - (i) malfunctioning of the Food TranSmarters (e.g. damages of motor or sieve) due to impurities found inside the food waste, resulting in prolonged downtime of up to 166 hours;
 - (ii) odour problem and power outage caused by the food waste treatment process;
 - (iii) difficulties in treating certain kinds of food waste (e.g. fruits and vegetables of large size and with long fibre) by the Food TranSmarters; and

- (iv) inadequate collection services provided by EPD in collecting slurry produced.

According to EPD, regarding the prolonged downtime, odour problem and power outage, they were related to specific cases individually instead of the general issues of Food TranSmarters (e.g. mis-activation of bin lifter emergency stop and slurry pump malfunction), which had already been resolved. Regarding the difficulties in treating certain kinds of food waste by the Food TranSmarters, this was the inherent limitation of Food TranSmarters which had technical difficulties in treating a large amount of fruit and vegetable remains of large size and with long fibre (e.g. durian shell and pineapple crown). EPD would strengthen stakeholder education on the proper use of Food TranSmarters, including developing user guidelines. Regarding the inadequate collection services provided by EPD in collecting slurry produced, EPD had renewed the contract for slurry collection service on a quantity basis in October 2025 to enhance the collection service and its cost-effectiveness, and had been liaising closely with operators and slurry collection service contractors to maintain smooth collection service of food waste slurry; and

- (c) ***Scope for enhancing the monitoring of the quality of compost generated by food waste composter.*** Audit noted that, while Contract X required the compost generated by the food waste composter meeting the quality standards for immediate soil application, there were no specific or detailed requirements on the compliance of quality standards (e.g. the compliance level for different parameters) for the compost generated as specified in Contract X.

4.19 In Audit's view, EPD needs to:

- (a) take measures to encourage government departments and public to participate in the trial projects for on-site treatment of food waste;
- (b) keep under review the operation of the Food TranSmarters by drawing lessons from the difficulties encountered by the participating government departments during the course of the trial projects; and

Other related issues

- (c) take measures to enhance the monitoring of the quality of compost generated by the food waste composter under the trial project.

Need to conduct a holistic review on the effectiveness of food waste reduction and collection

4.20 According to EPD:

- (a) the Government announced in the 2013 Policy Address that FWHKC had been launched to mobilise the public as well as C&I sector to reduce food waste. Modern facilities would also be built in phases for the recovery of organic waste for conversion into energy, compost and other products;
- (b) with the scheduled completion of the Organic Resources Recovery Centre Phase 1 in 2018, the Government announced in the 2017 Policy Address to implement a pilot scheme to source separate food waste from government premises for delivery to the Organic Resources Recovery Centre Phase 1 for treatment. The Government further announced in the 2021 Policy Address that the pilot scheme would be expanded to extend their territorial coverage and service targets; and
- (c) having conducted a comprehensive review of the progress in waste management in Hong Kong (including food waste reduction and recycling), the Government published “Waste Blueprint for Hong Kong 2035” in February 2021 to set out the vision of “Waste Reduction · Resources Circulation · Zero Landfill” with long-term target to move away from the reliance on landfills for direct disposal of municipal solid waste by around 2035, providing policy steer for food waste reduction and recycling in Hong Kong.

4.21 Audit noted that, from 2018 to 2024 (see Table 8):

- (a) with the efforts of EPD in food waste reduction and recycling, the total quantity of food waste generated in Hong Kong decreased by 10% from 3,639 tonnes per day (tpd) in 2018 to 3,287 tpd in 2024 and the proportion of food waste recovered for recycling increased from 2% in 2018 to 9% in 2024; and

- (b) of the total quantity of food waste generated in 2024 of 3,287 tpd, 91% (i.e. 3,001 tpd) was still disposed of at landfills, which was still a long way in achieving the vision of zero landfill as specified in the “Waste Blueprint for Hong Kong 2035”.

Table 8

**Quantity of food waste generated in Hong Kong
(2018 to 2024)**

Year	Quantity of food waste		
	Disposed of at landfills	Recovered for recycling (Note)	Total
	(a)	(b)	(c) = (a) + (b)
	(tpd)		
2018	3,565 (98%)	74 (2%)	3,639 (100%)
2019	3,353 (96%)	126 (4%)	3,479 (100%)
2020	3,255 (96%)	150 (4%)	3,405 (100%)
2021	3,437 (95%)	181 (5%)	3,618 (100%)
2022	3,302 (94%)	197 (6%)	3,499 (100%)
2023	3,191 (94%)	216 (6%)	3,407 (100%)
2024	3,001 (91%)	286 (9%)	3,287 (100%)

Source: EPD records

Note: According to EPD, the quantity of food waste recovered for recycling included those recycled at the organic resources recovery centres, food waste pre-treatment facilities and Outlying Islands transfer facilities, and by non-governmental organisations and industrial operators.

Remarks: According to EPD, 2024 data was the latest available information as at 28 February 2026.

4.22 While the food waste collection services and food waste recycling network had been expanded since 2021, EPD has not conducted any review on their overall effectiveness. In Audit’s view, it is an opportune time for EPD to conduct a holistic review to evaluate the effectiveness of reduction and collection of food waste and

Other related issues

determine the way forward, taking into account the audit observations and recommendations in this Audit Report.

Audit recommendations

4.23 **Audit has *recommended* that the Director of Environmental Protection should:**

- (a) **take measures to encourage government departments and public to participate in the trial projects for on-site treatment of food waste;**
- (b) **keep under review the operation of the Food TranSmarters by drawing lessons from the difficulties encountered by the participating government departments during the course of the trial projects;**
- (c) **take measures to enhance the monitoring of the quality of compost generated by the food waste composter under the trial project; and**
- (d) **conduct a holistic review to evaluate the effectiveness of reduction and collection of food waste and determine the way forward, taking into account the audit observations and recommendations in this Audit Report.**

Response from the Government

4.24 The Director of Environmental Protection agrees with the audit recommendations. He has said that EPD:

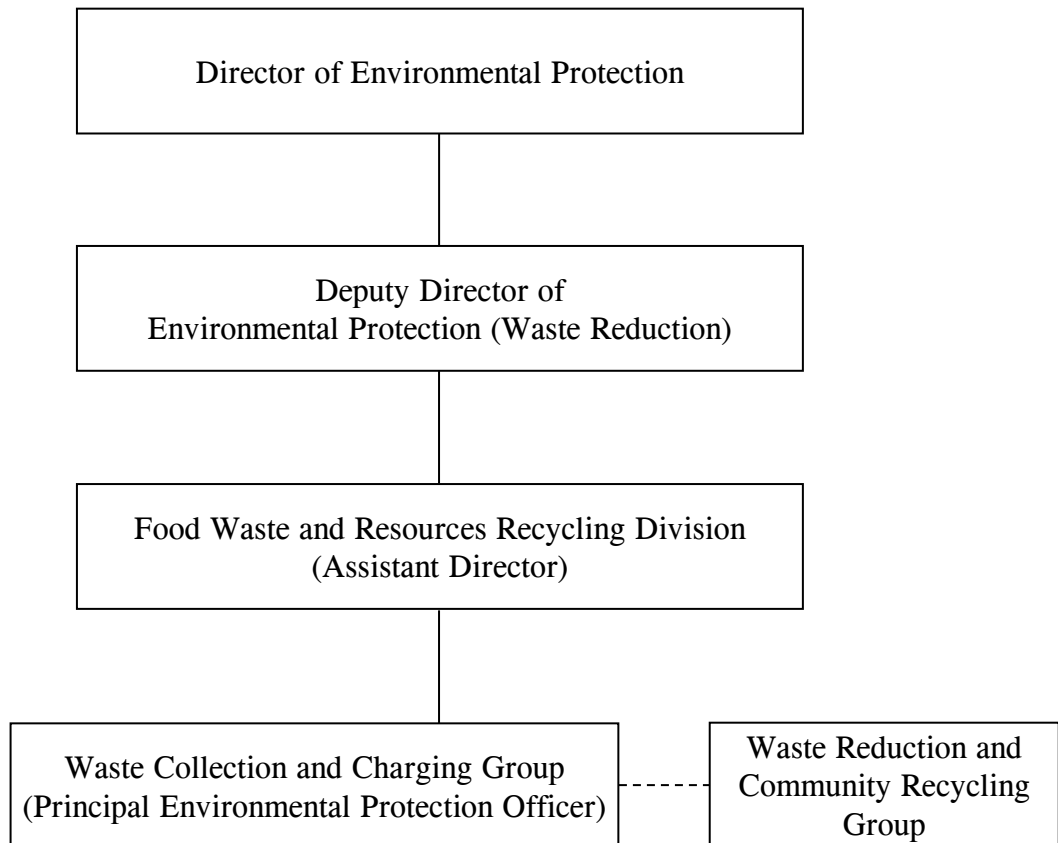
- (a) has taken measures to enhance the utilisation rates of the Food TranSmarters and will continue to explore possible arrangements to further increase their utilisation;
- (b) has consolidated the experience gained from the operation of Food TranSmarters, has developed guidelines for users' reference, and has strengthened stakeholder education for proper operation of Food TranSmarters;

Other related issues

- (c) will follow up with the contractors regarding the quality of compost generated by the food waste composters, and will assess its quality and potential applications in Hong Kong; and

- (d) will conduct a holistic review of the waste management strategy at a suitable juncture, taking into account the audit observations and recommendations in this Audit Report.

**Environmental Protection Department:
Organisation chart (extract)
(31 October 2025)**



Source: EPD records

Appendix B
(para. 2.2 refers)

**Food waste collection service contracts
(September 2021 to October 2025)**

Contract	Contractor	Service commencement date	Service end date	Duration	Contract sum (\$ million)
A	A	30 September 2021	29 March 2024	30 months (Note 2)	22.7
B	B	21 February 2022	29 March 2024	25 months (Note 2)	31.9
C	C	1 April 2023	30 September 2025	30 months (Note 2)	48.5
D	D	1 April 2023	30 September 2025	30 months (Note 2)	37.0
E	E	30 March 2024	29 March 2027	36 months	98.7
F	F	30 March 2024	29 March 2027	36 months	84.3
G	G	30 March 2024	29 March 2027	36 months	87.3
H	H	30 March 2024	29 March 2027	36 months	53.6
I (Note 1)	I	1 September 2024	30 June 2025	10 months (Note 2)	9.8
J	J	1 October 2025	30 September 2028	36 months	55.3
K	K	1 October 2025	30 September 2028	36 months	81.8
L	L	1 October 2025	30 September 2028	36 months	63.4

Source: EPD records

Note 1: Contract I was an extension of the scope of Contract D and was awarded by way of direct engagement.

Note 2: The original contract periods of Contracts A to D (i.e. 24 months) and I (i.e. 7 months) had been extended for 6 months (for Contracts A, C and D) or 1 month (for Contract B) or 3 months (for Contract I) by issuing variation orders.

Acronyms and abbreviations

Audit	Audit Commission
C&I	Commercial and industrial
CTB	Central Tender Board
ECC	Environmental Campaign Committee
ECF	Environment and Conservation Fund
EEB	Environment and Ecology Bureau
EPD	Environmental Protection Department
FEHD	Food and Environmental Hygiene Department
FWCPs	Food waste collection points
FWHKC	Food Wise Hong Kong Campaign
FWHKSC	Food Wise Hong Kong Steering Committee
FWSRBs	Food waste smart recycling bins
GLDTB	Government Logistics Department Tender Board
HKHA	Hong Kong Housing Authority
PRH	Public rental housing
RCPs	Refuse collection points
RF	Recycling Fund
TAP	Tender assessment panel
tpd	tonnes per day