

立法會
Legislative Council

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Panel on Environmental Affairs

Meeting on 23 November 2020

**Background brief on management of restored landfills
prepared by the Legislative Council Secretariat**

Purpose

This paper provides background information on the management of restored landfills and gives a brief account of the views and concerns expressed by Members when the subject was discussed by relevant committees of the Legislative Council ("LegCo").

Background

Restoration of closed landfills

2. There are 16 landfill sites in Hong Kong, among which three large strategic landfills are being used for final waste disposal and 13 relatively small landfills were closed between 1975 and 1996. The 13 closed landfills were not designed according to contemporary environmental standards and demand dedicated efforts of restoration over an aftercare period of 30 years or more. The landfilled waste is continuously undergoing biodegradation, and the generated landfill gas and leachate present environmental and safety hazards to the surrounding areas. The landfills are also subject to differential ground settlement during the process.

3. Restoration of the 13 closed landfills comprises two stages: (a) restoration works including construction and installation of restoration facilities, and (b) aftercare work commencing after completion of restoration works to ensure that the landfill is maintained in a safe condition and is

environmentally acceptable for appropriate future beneficial use.¹ The Environmental Protection Department ("EPD") adopts a design-build-operate contract for the restoration and management of the 13 closed landfills under which a contractor is responsible for the design and construction of restoration facilities and aftercare of a landfill for 30 years after completion of the restoration facilities.

Afteruse projects at restored landfills

4. According to EPD, except for areas occupied by restoration facilities, all the remaining areas of restored landfills would in principle be available for afteruses as long as the nature of afteruse projects could fulfil the specified conditions and overcome the relevant site constraints. As there are many development restrictions at restored landfills (e.g. excessive loading should be avoided due to ground settlement problem), recreational use is generally considered the most suitable afteruse option.

5. Since the early 2000s, the Government has planned/implemented projects for developing recreational facilities at seven restored landfills.² These projects relate to the development of parks and gardens for the Leisure and Cultural Services Department, which is responsible for the management of the completed facilities upon their commissioning. In addition, with delegated authority from the Lands Department, EPD grants land licences to applicants (mainly non-governmental organizations and National Sports Associations ("NSAs")) to develop and operate recreational facilities at restored landfills on a self-financing basis for use by the general public and/or members of the licensees. Five land licences have been granted to five licensees concerning four restored landfills (two land licences have been granted for one of the landfills).³

¹ Aftercare work includes operation and maintenance of leachate management systems and landfill gas management systems, environmental monitoring and auditing, and maintenance of landscape and site infrastructure.

² The seven restored landfills are Tseung Kwan O Stage I, Gin Drinkers Bay, Jordan Valley, Ma Yau Tong Central, Sai Tso Wan, Ngau Chi Wan, and Ma Yau Tong West. Some of the projects mentioned in paragraph 5 above cover only certain portions of the relevant landfill sites.

³ At some restored landfills, such as Tseung Kwan O Stage I and Gin Drinkers Bay, multiple afteruse projects have been implemented or planned by the Government and/or non-governmental bodies on different portions of the sites.

Restored Landfill Revitalisation Funding Scheme

6. As announced in the 2014 Policy Address, the Government has set up the Restored Landfill Revitalisation Funding Scheme ("the Funding Scheme") with a funding commitment of \$1 billion. Under the Funding Scheme, funding support is provided to non-profit-making organizations ("NPOs") for development of recreational facilities at restored landfills, with a view to providing a practical alternative for the effective use of restored landfills. According to EPD, as six restored landfills have been developed for public use or reserved for conservation or other uses,⁴ the Funding Scheme covers the other seven restored landfills.⁵ A Steering Committee has been established to assist in assessing the applications. Subject to the satisfaction of the Steering Committee with a detailed proposal, the Steering Committee will make recommendation to the Secretary for the Environment to grant an approval-in-principle to the selected NPO to take forward the project.

7. In Batch 1 of the Funding Scheme, the Select Committee selected two NPOs to formulate detailed proposals for revitalizing the Tseung Kwan O Stage I Landfill and the Ma Yau Tong Central Landfill. For the project proposal concerning approximately 2 hectares of flat area in the Tseung Kwan O Stage I Landfill, approval-in-principle had been granted to the applicant, the Tung Wah Group of Hospitals, for development of a camp site-cum-green education ground. Regarding the revitalization project at the Ma Yau Tong Central Landfill, the NPO concerned had completed the detailed proposal and found that the estimated capital cost of the project had exceeded the cost estimated during the application stage as well as the capital grant ceiling of \$100 million under the Funding Scheme. The NPO had decided not to pursue the project further.

Malpractice at Pillar Point Valley Restored Landfill

8. From January to April 2016, EPD received complaints on suspected malpractice of the landfill restoration contractor of Pillar Point Valley Restored Landfill ("PPVRL") in the operation of some restoration facilities. EPD's investigation found that between May 2016 and July 2017, the contractor had contravened various statutory requirements of the licence issued by EPD under the Water Pollution Control Ordinance (Cap. 358) ("WPCO") for PPVRL; and between December 2015 and November 2017, the contractor committed various

⁴ The six restored landfills not covered by the Funding Scheme are Shuen Wan, Gin Drinkers Bay, Jordan Valley, Sai Tso Wan, Ngau Chi Wan, and Ma Tso Lung.

⁵ The seven restored landfills covered by the Funding Scheme are Ma Yau Tong Central, Ma Yau Tong West, Ngau Tam Mei, Pillar Point Valley, Siu Lang Shui, Tseung Kwan O Stage I, and Tseung Kwan O Stages II & III.

non-compliances with the contractual requirements. The contractor had been convicted and fined \$208,000 for 21 offences under WPCO, and up to November 2017, payments totalling about \$7.7 million had been deducted from the contractor.

Director of Audit's Report No. 70

9. In October 2017, the Director of Audit commenced a review to examine the Government's efforts in the management of restored landfills, and a relevant report was published in the Director of Audit's Report No. 70 ("the Audit Report"). The Audit Report made a number of recommendations on, among other things, enhancing the monitoring and control of contractors' aftercare work, expediting the development of planned government recreational facilities at restored landfills, enhancing the monitoring of licensees' development and operation of afteruse facilities, and making additional efforts in implementing the Funding Scheme.

10. The Public Accounts Committee ("PAC") of LegCo considered the Audit Report and emphasized that as land resources were scarce and valuable in Hong Kong, the restored landfills should be put into gainful use for public enjoyment as early as practicable. In respect of the development of government facilities at restored landfills, PAC recommended strengthening interdepartmental coordination in addressing site constraints as well as hiring consultants to assist in identifying viable development options and supervising the development of afteruse facilities, so as to facilitate consultation with stakeholders and speed up the development process.

Major views and concerns expressed by Members

11. The Panel on Environmental Affairs ("EA Panel") discussed the proposal for setting up the Funding Scheme at its meetings on 23 June and 23 July 2014. Relevant issues including the afteruses of restored landfills were raised at several other Panel meetings and during the examination of the Estimates of Expenditure in recent years. Members' major views and concerns are summarized in the ensuing paragraphs.

Restored Landfill Revitalisation Funding Scheme

12. Members expressed concern about the slow progress in the development of various restored landfills for gainful uses. They enquired how the Administration would enhance the operation of the Funding Scheme, such as whether consideration would be given to raising the grant ceiling for each application and providing infrastructure and/or public facilities for the restored landfills concerned in advance. Members also urged the Administration to

launch Batch 2 of the Funding Scheme expeditiously.

13. The Administration advised that during the implementation of Batch 1 of the Funding Scheme, it was noted that NPOs might encounter technical constraints and challenges in developing large-scale recreational facilities at restored landfills, such as restrictions on loading capacities of landfills, the needs for land formation and infrastructure (e.g. proper vehicular access and feeder transport), ecology of surrounding environment and planning requirements. As such, the Steering Committee on the Funding Scheme proposed that the Government should actively consider providing suitable guidelines and infrastructure and adopt a more proactive approach to expedite the development of restored landfills.

14. The Administration further advised that EPD was considering/developing suitable long-term beneficial uses of restored landfills and the necessary infrastructure, as well as exploring feasible interim uses, having regard to the surrounding environment and site constraints. EPD was also preparing to commence a consultancy study in 2020, with a view to formulating implementation plans for the necessary infrastructure and facilities at restored landfills. In the meantime, EPD would continue to consider proposals from NPOs for development of various recreational and sports facilities at restored landfills on a self-financing basis.

15. Some Members queried whether NPOs/NSAs had the capability to implement and manage afteruse projects at restored landfills in a sustainable manner, given that some of these organizations might lack experience in business operation, and projects approved under the Funding Scheme could not be profit-making.

16. The Administration responded that it observed that some NPOs/NSAs were interested in developing recreational or sports facilities at restored landfills but they did not have adequate funding for their projects. The establishment of the Funding Scheme was therefore essential for these NPOs/NSAs to take forward their proposals. A successful applicant who received approval-in-principle under the Funding Scheme would be provided with the necessary funding to bring forward the preparatory work for its project to the next stage. With the initial funding, the applicant could engage consultants to conduct detailed planning and engineering studies to ascertain the technical feasibility and viability of its project before formal approval and implementation. While all approved projects should be non-profit-making, a certain extent of income-generating activities would be allowed in their business plans to help maintain

the financial viability and sustainability of the projects.⁶

Other suggested afteruses of restored landfills

17. Some Members considered it more practicable for the Government to develop recreational facilities at restored landfills by itself instead of inviting NPOs/NSAs to develop the facilities through the Funding Scheme. Some other Members suggested that the Administration should consider using restored landfill sites for other purposes, such as for developing solar power plant or industrial cluster for plastics recycling.

18. The Administration advised that the Funding Scheme was expected to promote public participation in the development of suitable facilities at restored landfills and provide an opportunity for NPOs/NSAs to take forward their innovative proposals. A long lead time would still be required for implementing government projects at restored landfills under the public works programme. The Administration also indicated that restored landfills far away from residential areas and unsuitable for development of leisure, recreational or sport facilities might be considered for development of yard waste recovery bases.

Council question

19. At the Council meeting of 7 December 2016, Dr Hon Fernando CHEUNG raised a question about the malpractice of the landfill restoration contractor of PPVRL. The question and the Administration's written reply are hyperlinked in the **Appendix**.

Latest development

20. At the meeting on 23 November 2020, the Administration will brief EA Panel on the Tung Wah Group of Hospitals "E-Co Village" project proposed to be implemented at the Tseung Kwan O Stage I Landfill as well as the management of restored landfills and the latest development of their beneficial afteruses.

⁶ Any revenue earned from a project under the Funding Scheme has to be ploughed back to a dedicated account for operation of the project and any surplus should be returned to the Government upon completion of the project or expiry of the land licence.

Relevant papers

21. A list of relevant papers is set out in the **Appendix**.

Council Business Division 1
Legislative Council Secretariat
17 November 2020

Management of restored landfills

List of relevant papers

Date	Event	Paper
23 June 2014	Meeting of the Panel on Environmental Affairs ("EA Panel")	Administration's paper on "Restored Landfill Revitalisation Funding Scheme" (LC Paper No. CB(1)1634/13-14(03)) Minutes of meeting (LC Paper No. CB(1)1949/13-14)
23 July 2014	EA Panel meeting	Administration's supplementary information note on "Restored Landfill Revitalisation Funding Scheme" (LC Paper No. CB(1)1814/13-14(02)) Minutes of meeting (LC Paper No. CB(1)61/14-15) Administration's follow-up paper (LC Paper No. CB(1)137/14-15(01))
23 January 2017	Policy briefing cum meeting of EA Panel	Administration's paper on "2017 Policy Address — Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. CB(1)451/16-17(01)) Minutes of meeting (LC Paper No. CB(1)683/16-17)
25 June 2018	EA Panel meeting	Letter dated 25 May 2018 from Hon Kenneth LEUNG on the restored landfills management policy (LC Paper No. CB(1)1023/17-18(01)) (Chinese version only)
26 November 2018	EA Panel meeting	Fact Sheet on "Management of restored landfills in selected places" prepared by the Research Office of the Legislative Council Secretariat (FS02/18-19)

Date	Event	Paper
9 April 2019	Special meeting of the Finance Committee for examination of Estimates of Expenditure 2019-2020	Written questions raised by Members and Administration's replies (Reply serial numbers: ENB057, 129, 133 and 160) Report
29 April 2019	EA Panel meeting	Minutes of meeting (LC Paper No. CB(1)1191/18-19)
6 April 2020	Special meeting of the Finance Committee for examination of Estimates of Expenditure 2020-2021	Written questions raised by Members and Administration's replies (Reply serial numbers: ENB122, 126 and 149) Report
22 June 2020	EA Panel meeting	Administration's paper on "Management of yard waste" (LC Paper No. CB(1)766/19-20(03)) Minutes of meeting (LC Paper No. CB(1)961/19-20)

Hyperlinks to Director of Audit's Report No. 70 and Public Accounts Committee Report:

Date of issuance/tabling	Report
3 April 2018	Director of Audit's Report No. 70 Chapter 1 on "Management of restored landfills"
14 November 2018	Public Accounts Committee Report No. 70A Chapter 1 of Part 4 on "Management of restored landfills"
30 January 2019	The Government Minute in response to the Report of the Public Accounts Committee No. 70A of November 2018

Hyperlink to relevant Council question:

Date	Council Question
7 December 2016	Press release on Council question (oral) raised by Dr Hon Fernando CHEUNG