

**For Discussion on  
26 March 2018**

**LEGISLATIVE COUNCIL  
PANEL ON ENVIRONMENTAL AFFAIRS**

**Enforcement Against Illegal Land Filling and  
Fly-tipping of Construction Waste**

**Purpose**

This paper seeks to update Members on the enforcement actions taken by the Government to combat illegal land filling<sup>1</sup> and fly-tipping<sup>2</sup> of construction waste.

**Background**

2. In general, construction and demolition materials of different nature are generated and abandoned from the daily construction works, most of them are reusable inert materials such as rock, rubble, boulder, earth, soil, sand, concrete, asphalt, brick, tile, masonry and used bentonite. These inert materials can be reused in land formation, ground levelling and other construction works. However, there are incidents of illegal dumping of construction waste in public places or rural areas, leading to public concerns and resulting in complaints. Apart from causing environmental nuisance and hygiene issues, some are also concerned that such illegal land filling activities may cause slope safety concerns or blockage of streams and watercourses. While the disposal of construction

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<sup>1</sup> Land filling refers to depositing or placement of construction waste as fill material on land, which results in an elevation of ground level. Land filling activities are usually carried out for the purposes of filling up ponds, levelling off uneven ground surfaces, forming sites for development, stockpiling in the form of a fill bank, or depositing of construction waste onto land as dumping ground.

<sup>2</sup> Fly-tipping refers to illegal depositing of construction waste, which is often associated with haphazard and casual dumping from vehicles. Fly-tipped construction waste is usually scattered, left in heaps, and in small quantities. Most of these illegal dumping activities take place in urban built-up areas at locations with good vehicular access, such as at kerb sides or side roads branched off from main roads.

waste is subject to a statutory charge under the Construction Waste Disposal Charging Scheme, some free-riders may seek to evade the charge through illegal land filling or fly-tipping.

3. Tackling illegal land filling and fly-tipping activities has been difficult and challenging, since these activities are mostly conducted at inconspicuous/remote locations, at odd hours and as a transient act. Nevertheless, relevant Government departments have been attaching great importance to taking enforcement action against such illegal activities.

### **Existing Statutory Control**

4. Illegal land filling and fly-tipping activities involve various policy aspects, with the concerned activities regulated by existing legislation on environment, town planning, land management, buildings, drainage, public safety, public health or country parks. Relevant Government departments enforce these legislation according to their respective jurisdiction and statutory powers, and they will arrange joint operation as and when necessary. The relevant legislation are outlined at **Annex 1**.

### **Progress on Enforcement and Control**

5. The Environmental Protection Department (“EPD”) is responsible for the enforcement of the Waste Disposal Ordinance (“WDO”), section 16A(1) of which states that a person commits an offence if he deposits or causes or permits to be deposited waste in any place except with lawful authority or excuse, or except with the permission of any owner or lawful occupier of the place. Notwithstanding the above control, enforcement against fly-tipping on private land had been challenging as it was sometimes difficult to prove that the depositor did not obtain the permission from the landowner or lawful occupier.

6. To step up the enforcement against illegal disposal of construction waste on private land, the Legislative Council enacted in 2013 the Waste Disposal (Amendment) Ordinance 2013 (“Amendment Ordinance”). With effect from 4 August 2014, any person who deposits construction waste on private land shall, in accordance with the Amendment Ordinance, obtain the prior written permission of all relevant landowners given in a specified form. The form and relevant information shall be submitted to EPD 21 days before the depositing activity, and acknowledged in writing by EPD. The prior notification mechanism under Amendment Ordinance

aims to enhance the effectiveness of enforcement action, and facilitate EPD in taking immediate prosecution against any depositing activities of construction waste conducted without written permission from all landowners of private land. It also enables EPD to notify other relevant departments before the depositing activities, which may then take follow-up actions under their respective jurisdiction to ensure that the intended deposition is in compliance with the relevant legislative requirements. Besides, for land under multiple ownership, these requirements can also ensure that all landowners are informed when giving permission for the depositing activities. Since the commencement of the Amendment Ordinance, EPD has taken enforcement actions under section 16B(3) of the WDO (i.e. the new provision added by the Amendment Ordinance), resulting in a total of 21 prosecution cases up to December 2017. If the activities are regarded as unauthorised developments under the Town Planning Ordinance, the Planning Department (“PlanD”) may also take control and prosecution actions. A total of 86 summonses were issued by PlanD in 2017.

7. In each of the past four years (2014-2017), the Government handled some 400 to 600 reports of illegal land filling and some 7 000 to 10 000 reports of fly-tipping of construction waste received from members of the public. Reports of illegal land filling on private land received from members of the public decreased from around 600 cases in 2016 to around 400 cases in 2017. There were about 50 prosecution cases in 2016 and about 100 cases in 2017. The number of reports of fly-tipping of construction waste on public places and on Government land received from members of the public by the Highways Department (“HyD”), the Food and Environmental Hygiene Department (“FEHD”) and EPD increased from about 6 300 cases in 2016 to about 8 400 cases<sup>3</sup> in 2017. The total number of prosecutions on fly-tipping of construction waste in public places and on Government land handled by the above three departments were 80 cases in 2017. In the past four years, the quantity of fly-tipped construction waste removed by the Government accounted for less than 0.05% of the total quantity disposed of at designated Government construction waste reception facilities during the same period. We will continue to closely monitor the situation and enhance the effectiveness of

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<sup>3</sup> The reports handled by HyD increased from about 3 700 cases in 2016 to about 5 400 cases in 2017, while the number of reports handled by FEHD rose from around 800 cases in 2016 to around 1 200 cases in 2017. Most of these cases involved small-scale fly-tipping of construction waste on roadsides. The numbers of reports handled by EPD in 2016 and 2017 remained at some 1 800 cases.

the enforcement actions. Statistics of illegal land filling on private land as well as fly-tipping in public places and on Government land are at **Annexes 2** and **3** respectively.

## **Inter-Departmental Coordination Mechanism**

8. For more effective coordination of the inter-departmental efforts to combat fly-tipping of construction waste and to promote information sharing amongst departments on suspected cases, so as to facilitate the departments to discharge their respective statutory duties, the Government established an inter-departmental coordination mechanism in 2008. Under the coordination of EPD with nine relevant Government departments, namely the Agriculture, Fisheries and Conservation Department, Buildings Department, Civil Engineering and Development Department, Drainage Services Department, FEHD, HyD, Home Affairs Department, Lands Department and PlanD, inter-departmental meetings are held and the departments share intelligence and information on illegal disposal cases of construction waste from time to time.

9. To strengthen the monitoring of illegal disposal of construction waste, EPD has arranged liaison meetings with the relevant departments more frequently to enhance the efforts in combating illegal disposal of construction waste and review the relevant lists of black spots on a regular basis. As at end 2017, the number of fly-tipping black spots was 57 (67 as at end 2016) and the number of black spots of illegal land filling on private land stayed at around 30 in 2016 and 2017.

## **Enhanced Regulatory Measures**

### *Installation of Surveillance Camera Systems*

10. EPD continues to procure and install surveillance camera system with enhanced and more advanced technical specifications, including surveillance cameras with photovoltaic panel, small batteries, and mobility feature, with a view to more effectively capturing images of the registration marks of vehicles suspected of committing fly-tipping of construction waste in different circumstances, and thereby facilitating law enforcement and imposing a greater deterrent effect. The two examples at **Annex 4** illustrate the improvements achieved at construction waste fly-tipping black spots as a result of the installation of surveillance cameras. By

using surveillance camera systems, the patterns of fly-tipping by hand or by handcart may also be analysed to provide clues for planning relevant ambush operations.

11. Currently, EPD has installed surveillance cameras with the new specifications at about 50 construction waste fly-tipping black spots (locations shown at Annex 5). Preparation for tendering for the procurement of additional units is also underway to further extend the coverage to a total of about 70 black spots by the end of this year. We will also review the situations at various black spots from time to time and flexibly deploy the surveillance cameras for maximising the effectiveness. These surveillance cameras are installed in public places with notices or banners posted in conspicuous positions to alert the public. We also communicate with local stakeholders and District Council members to seek their views when formulating the black spots list with a view to facilitating smooth installation. In the past two years (2016-2017), making use of the information obtained from the surveillance camera system, there were 69 successful prosecution cases and 23 fixed penalty notices issued against fly-tipping of construction waste. The highest fine handed down was \$25,000.

12. To curb illegal disposal of refuse, FEHD also implemented a pilot scheme to install Internet Protocol (“IP”) cameras at six illegal disposal black spots for refuse from late December 2016 to 2017. The pilot scheme was effective in curbing illegal disposal of refuse and inducing behavioural change of repeated offenders, thereby effectively improving hygiene conditions of the black spots. In view of this, FEHD has decided to progressively extend the scheme to all districts across Hong Kong, and will start installing IP cameras at certain illegal disposal black spots for refuse (including refuse collection points) in the second quarter of 2018 on a trial basis for one year. Further review will be conducted after completion of the trial.

13. Besides, the Chief Executive announced in the 2017 Policy Address the proposal to implement a pilot scheme of “Multi-functional Smart Lampposts” at selected urban locations to collect real-time city data to strengthen city management. EPD and other relevant departments will participate in this scheme, and plan to progressively introduce surveillance cameras with smart technology in the trial installation of “Multi-functional Smart Lampposts” in four districts including Central/Admiralty, Causeway Bay/Wan Chai, Tsim Sha Tsui and Kwun Tong/ Kai Tak Development Area, to further step up the monitoring of fly-tipping and enhance deterrence

against illegal behaviours. We expect that the smart lampposts under the trial scheme will be gradually commissioned by mid-2019.

### *Enhanced Inspection*

14. To better tackle illegal dumping activities, EPD will continue to flexibly deploy manpower to increase inspections during and outside office hours and on holidays according to specific needs. It will also step up proactive inspections of black spots for illegal disposal of construction waste to enhance monitoring and enforcement.

15. Apart from enforcement actions under the relevant legislation, relevant departments will also adopt other supporting measures, including erection of bollards, fencing and suitable railings to restrict human and vehicular access to black spots, and step up enforcement at the black spots.

### *Use of Global Positioning System (“GPS”) on Construction Waste Collection Vehicles*

16. Apart from using technologies like surveillance camera system to tackle illegal dumping activities, EPD has been studying the feasibility and merit of adopting GPS in construction waste collection vehicles to facilitate more effective prevention and tackling of such illegal activities. We had earlier conducted a two-phase trial study to test out the technical feasibility of applying the GPS technology for this purpose. In the first phase of the study, the Civil Engineering and Development Department (“CEDD”) installed GPS devices on five construction waste collection vehicles. The result of the trial revealed that the system successfully recorded the vehicles’ locations, travelling routes and other supporting information (such as vehicle registration marks, the time and location of the data transmission). Such initial findings laid the ground work for the second-stage trial to further evaluate the technical specification and acceptance by relevant stakeholders. In 2016, CEDD engaged a consultant to conduct a 3-month long trial involving 23 construction waste collection vehicles and three GPS service providers.

17. The results of the second-stage trial have affirmed that the GPS technology is technically mature and reliable. Additional features such as geo-fencing<sup>4</sup> and browser-based or web-based reporting platforms have

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<sup>4</sup> Through the “geo-fencing” function, when a vehicle equipped with GPS enters a

also been tested out. The consultant has also drawn up the detailed technical specifications of the GPS, including backend data management and data enquiry system. The consultant has also advised that there would be readily available and affordable applications in the market, and that the use of GPS in fleet management in the trade has become more common.

18. After careful consideration, EPD is of the view that GPS is useful in facilitating enforcement, and its operation and technological development (including the technical specifications of the tracking devices, and the principles over data collection and use) is mature. This being the case, some members of the trade however expressed worries about the compliance cost and the detailed operational arrangements, as well as the confidentiality and protection of the data collected. Individual trade stakeholders also raised uncertainty on the effectiveness of the use of GPS as a tool to facilitate enforcement against illegal dumping, and cautioned the potential problem of negative stigmatisation on the trade members. To further ascertain the necessary arrangements for the adoption of GPS devices in the actual operating environment and to address the trade's concerns, the Government will take the lead, and plans to adopt the practice of requiring contractors to install GPS tracking devices in their construction waste collection vehicles in larger-scale public works contracts. Recently, the Government has for the first time specified the requirement of installation of GPS tracking devices in all dump trucks engaged on site in the public works contract "Tung Chung New Town Extension – Reclamation and Advance Works". The relevant project office is now working with the contractor on the detailed implementation and supervisory arrangements and requirements. Subject to the progress made, the tracking device will be adopted progressively in other larger-scale public works contracts. Taking into account the experience gained and the overall effectiveness in facilitating monitoring and enforcement actions, we will review and consider how to implement the initiative in the construction industry.

#### *Adoption of the Trip Ticket System ("TTS")*

19. Since 1999, the Government has adopted the TTS in all public works projects, and subsequently extended it to housing development projects under the Housing Authority. Contractors and site supervisory staff are required to undertake duties and responsibilities in tracking the

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certain specified zone, the device will emit an audible alert to remind the driver, and the backend data system will also keep a record of that entry.

movement of construction waste generated from work sites to designated destinations. The TTS has been operating well and served the purpose of facilitating the management of construction waste and prevention of unauthorised dumping of construction waste. In early 2017, the Government invited various public organisations (including the Hong Kong Airport Authority, the MTR Corporation Ltd, the Hong Kong Housing Society and the Hospital Authority) to adopt TTS in their works projects. These organisations responded positively to our appeal and undertook to adopt TTS or equivalent control measures to all of their major works projects or new development projects with effect from April 2017.

20. We have also been encouraging the construction industry to adopt TTS in the private sector. For example, the adoption of a TTS has been a prerequisite for obtaining BEAM (“Building Environmental Assessment Method”) Plus certification for new buildings for application of gross floor area concessions since 2011. In addition, EPD has maintained close dialogue with the Hong Kong Construction Association (“HKCA”) to promote proper management of construction waste in private works projects. In October 2017, HKCA issued a practical guide on the proper disposal arrangements for construction waste, and encourage its members to adopt best practices of proper control and record similar to the TTS. The Association also reminds its members of their obligations to reduce the generation of construction waste and ensure proper disposal of construction waste in compliance with the relevant legal requirements. We will continue our collaboration with the construction sector on this front.

### **Advice Sought**

21. Members are invited to note the content of the paper.

**Environmental Protection Department**  
**March 2018**



## Statutory Control over Illegal Land Filling and Fly-tipping Activities for Construction Waste

Illegal land filling and fly-tipping activities (including construction waste) are regulated by various pieces of environmental, land management, planning, drainage, public health or country parks legislation, which are enforced by a number of Government departments under their respective purview.

<b>1. Environmental Protection Department (EPD): <i>Waste Disposal and Pollution Control</i></b>	
Waste Disposal Ordinance (Cap. 354)	Enforce against illegal land filling and fly-tipping activities for waste deposition on Government land, or on private land without the consent of the land owners or lawful occupiers.
Air Pollution Control Ordinance (Cap. 311), Noise Control Ordinance (Cap. 400) and Water Pollution Control Ordinance (Cap. 358)	Control dust emission, noise and wastewater discharges arising from illegal land filling activities.
<b>2. Lands Department (LandsD): <i>Land Management</i></b>	
Land (Miscellaneous Provisions) Ordinance (Cap. 28)	Remove construction waste illegally dumped on unallocated Government lands (excluding Government land under the control of other Government departments where formal land allocation is not required) and take preventive measures, for instance, fencing the relevant land as necessary.
<b>3. Planning Department (PlanD): <i>Planning Control</i></b>	
Town Planning Ordinance (Cap. 131)	Enforce against unauthorised land filling activities falling within the Development Permission Areas (“DPAs”) in the rural area when provisions of statutory plans are not complied with. (Planning permission from the Town Planning Board is required for land filling activities in zones with ecological and conservation value,

	“Green Belt” and “Agriculture” zones (except laying of soil not exceeding 1.2 metres in thickness for cultivation) within DPAs.)
<b>4. Food and Environmental Hygiene Department (FEHD): <i>Environmental Hygiene</i></b>	
Public Health and Municipal Services Ordinance (Cap. 132)	Enforce against the responsible person if filling or dumping of construction waste on a particular piece of private land gives rise to sanitary nuisances. Also against deposition that leads to an accumulation of water resulting in breeding of mosquitoes.
Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK)	Enforce against littering offences.
<b>5. Buildings Department (BD): <i>Slope Safety</i></b>	
Buildings Ordinance (Cap. 123)	Enforce against dangerous slopes on private land arising from land filling activities.
<b>6. Agriculture, Fisheries and Conservation Department (AFCD): <i>Country Park Management</i></b>	
Country Parks and Special Areas Regulations (Cap. 208A)	Enforce against illegal dumping on Government land within country parks and special areas.
<b>7. Drainage Services Department (DSD): <i>Flood Control</i></b>	
Land Drainage Ordinance (Cap. 446)	Gain access onto private land to remove illegal structure that causes stormwater drainage obstructions to designated watercourses so as to control flooding.

**Note:** Fixed Penalty (Public Cleanliness and Obstruction) Ordinance (Cap. 570) is also applied by various Government departments (Hong Kong Police Force, Housing Department, Leisure and Cultural Services Department, Marine Department, AFCD, EPD and FEHD) to tackle certain public cleanliness offences including littering and minor waste deposition.

**Private Land Filling Figures (Involving Construction Waste)**

	2014					2015					2016					2017				
	EPD	Lands D	Plan D	Other Departments#	Sub-total	EPD	Lands D	Plan D	Other Departments#	Sub-total	EPD	Lands D	Plan D	Other Departments#	Sub-total	EPD	Lands D	Plan D	Other Departments#	Sub-total
<b><u>Reports</u></b>																				
Public reports received	170	100	185	9	464	203	72	171	10	456	201	145	183	42	571	153	93	146	5	397
<b><u>Prosecution</u></b>																				
No. of prosecutions (by summonses)	1	0	4	0	5	8	0	20	0	28	11	0	41	0	52	10	0	86	0	96
<b><u>Actions taken</u></b>																				
Warning letters issued	0	2	400	0	402	4	1	293	0	298	3	0	274	0	277	0	0	154	0	154
Enforcement/Stop Notices issued	n/a	0	512	0	512	n/a	0	311	0	311	n/a	0	499	16	515	n/a	0	610	1	611
Reinstatement Notices issued	n/a	0	174	0	174	n/a	0	350	0	350	n/a	0	415	7	422	n/a	0	420	0	420

# Other departments include the BD, Civil Engineering and Development Department (“CEDD”), DSD, FEHD and Home Affairs Department (“HAD”).

## Fly-tipping Figures (Involving Construction Waste in Public Places and on Government Land)

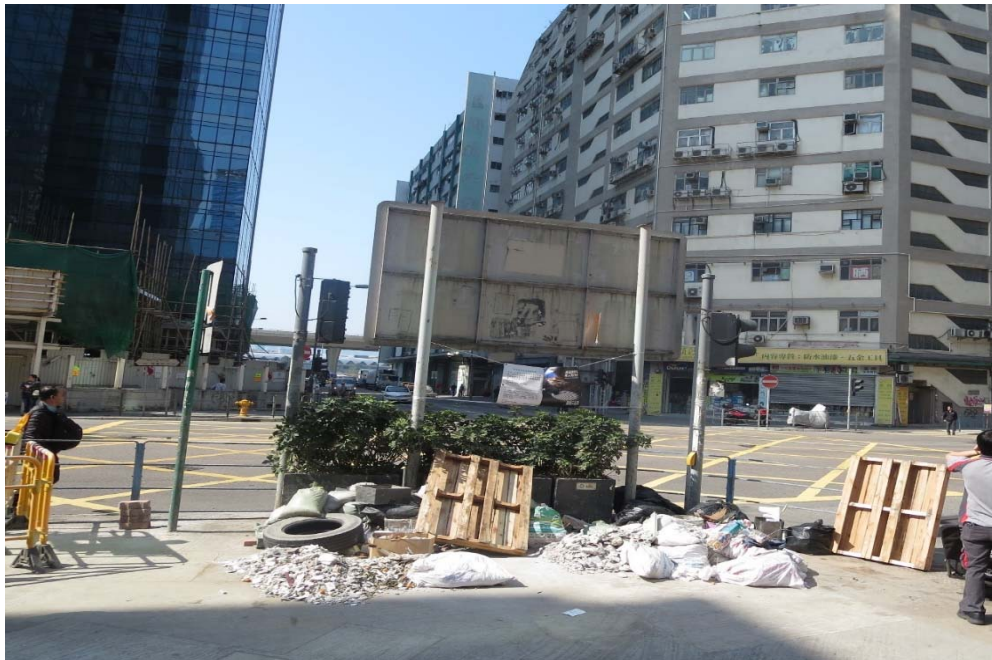
	2014						2015						2016						2017					
	EPD	Lands D	HyD	FEHD	Other Departments#	Sub-total	EPD	Lands D	HyD	FEHD	Other Departments#	Sub-total	EPD	Lands D	HyD	FEHD	Other Departments#	Sub-total	EPD	Lands D	HyD	FEHD	Other Departments#	Sub-total
<b><u>Reports</u></b>																								
Public reports received	1525	2296	2890	835	19	7565	1638	1734	2427	687	13	6499	1761	1868	3762	819	15	8225	1850	1957	5429	1253	18	10507
<b><u>Prosecution</u></b>																								
No. of prosecutions (by summonses)	43	0	0	15	0	58	52	0	0	19	0	71	99	0	0	6	0	105	75	0	0	5	0	80
Fixed Penalty Tickets issued*	18	0	0	17	0	35	18	0	0	14	0	32	29	0	0	16	0	45	23	0	0	10	0	33
<b><u>Actions taken</u></b>																								
Warning letters issued	32	1	0	0	0	33	15	5	0	0	0	20	10	0	0	0	0	10	3	0	0	0	0	3

\* For cases involving unlawful deposition of small quantity of construction wastes, EPD and FEHD enforcement officers will issue Fixed Penalty Tickets (\$1,500) to offenders.

# Other departments include AFCD, BD, CEDD, DSD and HAD.

**Improvements Achieved at Construction Waste Fly-tipping Black Spots after Installation of Surveillance Camera Systems**

**Example 1 - Wai Yip Street J/O Tsun Yip Street, Kwun Tong, Kowloon**



**Before Installation of Surveillance Camera System**



**After Installation of Surveillance Camera System**



**Example 2 - Public Car Park at the Entrance of Kowloon Reservoir, Tai Po Road (Shatin Heights Section), New Territories**



Before Installation of Surveillance Camera System



After Installation of Surveillance Camera System

## Surveillance Camera System Installed at Construction Waste Fly-tipping Black Spots

