

**For discussion
on 14 November 2017**

LegCo Panel on Food Safety and Environmental Hygiene

Extension of the Internet Protocol Camera Scheme to all districts and other keep clean measures for enhancing environmental hygiene and eradicating rodent infestation

Purpose

This paper briefs Members on the keep clean measures for improving environmental hygiene and eradicating rodent infestation implemented by the Food and Environmental Hygiene Department (“FEHD”) in 2017, as well as the proposed extension of the Internet Protocol (IP) Camera Scheme to all districts in Hong Kong and other major initiatives in 2018.

Background

2. The Government launched the “Keep Clean 2015@Hong Kong: Our Home” Campaign (“Keep Clean Campaign”) in August to September 2015, which garnered the full support of the 18 District Councils (“DCs”) and different sectors in the community. With regard to the views of DCs and the unsatisfactory, if not deteriorating, hygienic situation in some streets, the Government has adopted a multipronged approach by deploying additional manpower and resources to strengthen street cleansing services and enforcement actions, including efforts to curb illegal disposal of rubbish at hygiene blackspots. Nevertheless, at some blackspots, despite more frequent cleansing (with up to eight rounds per day), the hygienic conditions remained undesirable. While the enforcement action has obtained a certain degree of success at some blackspots, it was less successful at many other

problematic locations, as the conventional enforcement approach had its own limit. After considering the suggestions of DCs, FEHD conducted a pilot scheme to install IP cameras at six refuse dumping blackspots in Central & Western, Sham Shui Po and Yuen Long Districts from late December 2016 to June 2017. The trial has proven that the installation of IP cameras could have a deterrent effect and is helpful in improving the hygiene condition at the blackspots (relevant photos are at **Appendix 1**). Other DCs thus also request the Government to install IP cameras at hygiene blackspots within their districts. Building on the spirit of the Keep Clean Campaign, FEHD has come up with new strategies and measures for the keep clean cause. These include more extensive installation of IP cameras at all districts in Hong Kong, the formation of Dedicated Enforcement Teams (“DETs”) to step up enforcement action against public cleanliness offences, and the implementation of the enhanced rodent control measures.

Extension of the IP Camera Scheme

3. FEHD conducts periodic reviews of its cleansing and enforcement actions at the hygiene blackspots in different districts, with a view to tackling the environmental hygiene problems caused by frequent deposits of refuse at individual sites, in particular during midnight or small hours. Apart from stepping up publicity, education, cleansing and enforcement efforts, FEHD has installed IP cameras at refuse dumping blackspots, with the following objectives:

- (a) to increase surveillance on illegal dumping of refuse; and
- (b) to facilitate the planning of more effective enforcement actions, with the help of the time and patterns of irregularities identified in the footage captured by the IP cameras.

4. While the IP camera as a tool can assist in the enforcement actions, some preparations are necessary for using the camera effectively to deter illegal activities by enforcement actions. In particular, we need to identify the likely offenders and pinpoint the pattern of their illegal activities as well as the causes of such irregularities, in order to formulate a targeted publicity and educational programme and a set of enforcement strategies, aiming at changing the behaviour and attitude of the offenders within a short period of time, and encouraging them to become law-abiding citizens and form good habits.

5. FEHD attaches great importance to personal privacy. It has solicited the views of the Department of Justice and followed the “Guidance on CCTV Surveillance and Use of Drones” issued by the Office of the Privacy Commissioner for Personal Data in the implementation of the pilot scheme. Clear operational guidelines have been promulgated for strict compliance by staff. Measures have been taken to ensure all footage recorded would be kept in safe custody. The disclosure of the footage captured was restricted to the extent necessary for legal action to be taken. If no prosecution was instituted against the offences within 6 months, the footage so captured would be deleted.

6. FEHD has reviewed the situation upon the completion of the pilot scheme, which is considered very effective in helping to curb illegal dumping activities and prompting change to the behaviours of the habitual offenders. The amount of refuse illegally deposited at the blackspots and the number of complaints received have dropped significantly after the installation of the IP cameras. FEHD further examined the situation in late July and late August 2017, and noted that the improved hygiene condition at

the blackspots was sustainable. It is fair to say that, with continuous publicity and enforcement efforts, the improved condition can be maintained following the pilot scheme.

7. The installation of IP cameras is especially effective in tackling direct deposit of refuse from vehicles or unloading of refuse from vehicles by offenders at blackspots, as the cameras can capture the registration information of the offenders' vehicles, which can be a cue for investigation by enforcement officers, making evasion of liability less likely. As for the other category of illegal acts, i.e. delivery and deposit of refuse at blackspots by handcarts, IP cameras have certain deterrent effects, though their primary function here is to collect information (such as the time and pattern of the irregularities), which are useful for planning targeted enforcement actions. Based on the intelligence collected by the footage, blitz operations can be scheduled at the peak time of the illegal dumping activities. However, these results cannot be achieved solely by the use of IP cameras, which are merely a tool to assist in the enforcement actions. Effective enforcement strategy and other supportive measures are also necessary to obtain the desirable effects.

8. Given the encouraging result, we are considering gradually extending the pilot scheme to other districts on a trial basis for one year. We have completed consultations with DCs on the installation of IP cameras and the hygiene blackspots at which IP cameras should be installed. Feedbacks from DC members were very positive. We aim to install IP cameras at some hygiene blackspots in the second quarter of 2018 and conduct further review when the trial ends. When, in one day, it is concluded that the scheme has effectively brought about change to the habit of illegal dumping with the environmental hygiene of individual blackspots

thoroughly improved, the Government will not rule out the possibility of terminating the IP camera scheme.

Enhancing Environmental Hygiene

9. With rising living standard, members of the public have higher expectation for better environmental hygiene and streetscape. Meanwhile, FEHD has been asked by different sectors to strengthen law enforcement action against public cleanliness offences including littering, spitting, dog fouling and illegal bills. Since late June 2017, FEHD has set up six DETs, with each team comprising one Senior Foreman and four Foremen, to step up enforcement action against public cleanliness offences.

10. Performing enforcement duties in plain clothes, DETs are deployed to various littering blackspots, such as blackspots of illegal dumping of bagged refuse, public transport interchanges, in the vicinity of Jockey Club Off-course Betting Centres and Mass Transit Railway Stations, and public places with conglomeration of food premises and shops, to take enforcement action against public cleanliness offences, for example, improper feeding of feral birds, dog fouling in public place, indiscriminate disposal of used vehicle tyres, littering and obstruction in connection with parallel trading activities at blackspots and littering from vehicles onto public places (including the planters or landscape areas at central dividers, roadsides and cross road facilities). DETs also organise blitz operations based on the intelligence of illegal dumping activities, including the intelligence collected by IP cameras, to catch offenders red-handed for littering on the spot. From late June 2017 to September 2017 (about three months), DETs had dealt with 75 hygiene blackspots, of which 21 were eliminated or markedly improved. Apart from enforcement action, DETs

would also convey health message, distribute leaflets and issue warning notices to arouse public awareness of maintaining street cleanliness and the proper way for disposal of refuse.

11. To implement the measures stated in the Chief Executive's 2017 Policy Address for stepping up law enforcement and prosecution, FEHD will set up additional DETs to take stringent enforcement actions against public cleanliness offences.

Eradicating Rodent Infestation

12. Since 2000, FEHD has been making use of the rodent infestation rate¹ ("RIR") and its trend to gauge the general situation of rodent infestation in individual districts and as the basis for devising anti-rodent measures and assessing the overall efficacy of rodent prevention and disinfestation work. FEHD conducts RIR surveys in rodent-infested areas or places likely to have rodent problems, in particular areas bustling with human activities. The survey is conducted every six months. The selection of bait locations is based on established scientific criteria. Around 100 to 150 baits, with each one placed at least 50 metres apart, are set in selected localities to gather statistics on the ratio of baits bitten by rodents for the purpose of making meaningful comparison of RIRs using the same standard. Changes to the RIR readings in individual districts over time facilitate FEHD's assessment of progress made in containing rodent infestation and the overall efficacy of the work, as well as provide an informed basis for allocation of resources. While FEHD would review bait locations from time to time, it would not change the locations within the same year in order to compare RIRs of the same localities on the same basis.

¹ Rodent Infestation Rate = $\frac{\text{Number of baits bitten by rodent}}{\text{Total number of baits collected from the selected areas}} \times 100\%$

13. In the first half of 2017, RIRs obtained in the 19 districts ranged from 0% to 7.1%, and the overall RIR was 3.4% which was lower than the Annual RIR of 4.0% in 2016. A summary of the RIRs for the whole territory from 2000 to 2016 and for each of the 19 districts in the first half of 2017 is at **Appendix II**.

14. FEHD will strengthen rodent disinfestation operations in the surrounding areas of locations where activities of rodent are detected. In general, the relatively higher RIRs in some districts are mainly caused by the less than satisfactory hygiene conditions at specific spots and rear lanes (including accumulation of disused articles, indiscriminate disposal of refuse and improper handling of food remnants), which provide feeding and shelter for rodents. When the RIR reaches 10% or higher, FEHD will step up effort by carrying out block control operation, viz. by extending the disinfestation operations to nearby areas for treating a rodent population in its entirety in one operation. If the RIR further reaches 20% or higher, FEHD will set up a task force to liaise and coordinate anti-rodent work among relevant departments and local organisations such as DCs, area committees and owners' committees. Rodent disinfestation, cleansing work and public education in the community will be stepped up comprehensively.

15. In addition to about 700 departmental staff deployed on pest control (including rodent control), FEHD engages private contractors to provide pest control services across the territory through roving teams. Together with the additional roving teams under the District-led Actions Scheme, the number of roving teams has increased by 7% [from 270 (with a private contractor workforce of about 1 620) in October 2016 to 289 in

October 2017 (with a private contractor workforce of about 1 730)] to strengthen pest control in the season. A total of 47 roving teams have been added during dry season (November 2017 to February 2018) so as to maintain the same number of roving teams as in wet season 2017.

16. FEHD has been adopting a comprehensive multi-pronged approach in its rodent prevention and control work. Targeting districts with relatively high RIRs, FEHD will take a variety of rodent control measures, including poisoning and trapping of rodents, and destroying rat holes in rear lanes in the vicinity, strengthening street cleansing, encouraging active participation of the public in anti-rodent work, and strengthening publicity and education programmes in rodent prevention and control. The approach and measures are basically the same as those adopted in major overseas and Mainland cities. The rodenticides used by FEHD are also widely adopted in different countries/cities and are regularly tested to ensure their effectiveness.

17. Apart from combating rodent infestation in individual districts on a regular basis, FEHD also organises anti-rodent campaigns on an annual basis to remind the public of the importance of rodent prevention and control and to coordinate community efforts to tackle the problem. When planning anti-rodent campaigns, FEHD makes appropriate adjustments to the overall strategy in the light of the actual state of rodent infestation across the territory and in different districts, as well as the effectiveness of previous anti-rodent campaigns. Particular attention will be given to target areas including markets/municipal services buildings, hawker bazaars, typhoon shelters and rear lanes adjacent to food premises, and other rodent-infested locations and their vicinity. In addition to disinfestation operations, the anti-rodent campaigns also aim at enhancing public knowledge and

awareness of ways of prevention and control of rodents. FEHD will also distribute promotional leaflets, display posters, organise talks and disseminate messages through the facebook page “Ah Tak” to promote anti-rodent knowledge and awareness, with a view to fortifying public education in this respect.

18. In 2017, the anti-rodent campaign was conducted in two phases from 2 January 2017 to 10 March 2017 and 3 July 2017 to 8 September 2017 respectively. During the two campaign periods, FEHD carried out a total of 28 926 inspections with 7 492 dead rodents and 4 388 live rodents collected, 2 219 rat holes destroyed, and 1 471 warnings issued. 82 655 leaflets and 23 720 posters were distributed (**Appendix III**).

19. In spite of the use of effective rodenticides and trapping devices, the ultimate success in rodent control depends on scrupulous implementation of fundamental control measures by depleting food attractions and harbourages for rodents as well as comprehensive rodent-proof measures to prevent re-infestation. In this connection, FEHD applied a new “multi-pronged” strategy in conducting a two-month anti-rodent operation in designated target areas² in all districts commencing on 8 May 2017. The multi-pronged strategies adopted a comprehensive approach in rodent control with emphasis on fundamental control by improving hygienic condition to deplete food, harbourages and dispersal routes of rodents, and supplemented by a variety of direct control measures including poisoning, trapping, destroying rat holes, etc. The operations applied simultaneously all dimensions of control measures viz. public education and publicity,

² Each District Environmental Hygiene Office of FEHD took into account factors including RIR, the number of rodent complaints received, views of the local community, the number of food premises and "three-nil" buildings in identifying a designated target area (covering a few thoroughfares) in each district to carry out targeted anti-rodent operations.

cleansing, rodent disinfestation and enforcement action, to combat the rodent problem in a defined area. Considerable improvement on the site condition was observed after the series of operations.

20. In order to sustain the effect of the second phase of the anti-rodent campaign 2017 from 3 July to 8 September, FEHD rolled out another two-month anti-rodent operation in designated target areas commencing on 11 September 2017. FEHD will continue to monitor the situation of rodent infestation in the districts and implement appropriate control measures.

21. To further enhance the methods and techniques for rodent prevention and control, FEHD shares experience with relevant organisations of other countries/cities from time to time. These exchanges have helped FEHD to ensure that the methodologies and technique currently adopted are in line with those promoted in the international arena. In the past two years, FEHD has attended the pest prevention and control meeting in Chongqing City for the purpose of sharing with each other practices in rodent prevention and control. FEHD staff have also attended international conferences held in Malaysia, Gold Coast of Australia, Seattle and Nashville of the United States of America for sharing experience with overseas experts and keeping abreast of latest development in rodent disinfestation methodology.

Advice Sought

22. Members are invited to note the content of this paper.

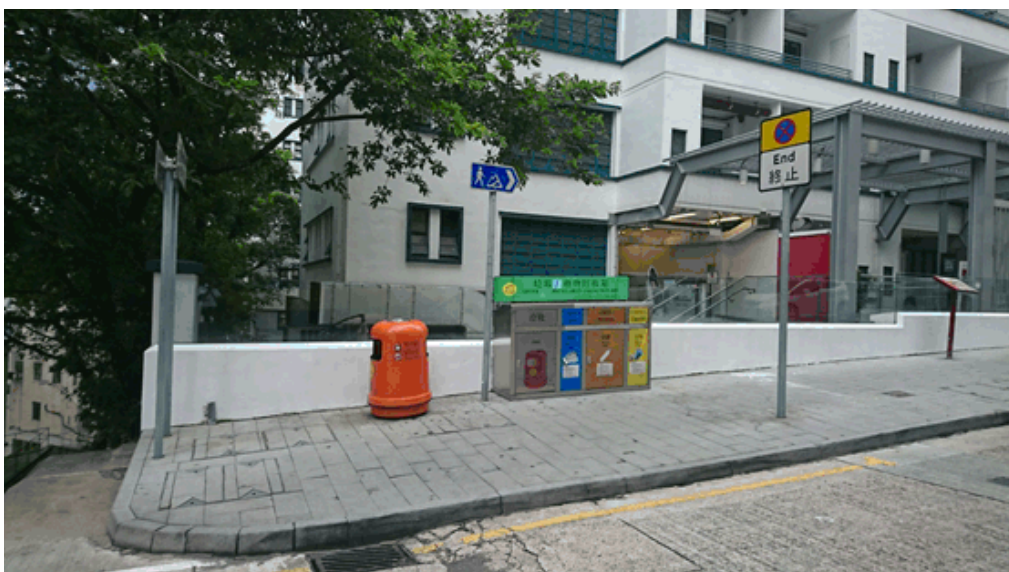
**Food and Health Bureau
Food and Environmental Hygiene Department
November 2017**

On-site Situations Before and After Implementation of the Pilot Scheme

1. Shing Wong Street off Police Married Quarters



Before the Pilot Scheme



After the Pilot Scheme

2. Cheung Wah Street RCP



Before the Pilot Scheme



After the Pilot Scheme

3. In front of Tung Tai Street RCP



Before the Pilot Scheme



After the Pilot Scheme

4. Pak Sha Tsuen RCP, Shap Pat Heung



Before the Pilot Scheme



After the Pilot Scheme

Appendix II

Annual Rodent Infestation Rates for 2000 – 2016

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Rodent Infestation Rate	16.0%	8.8%	9.0%	5.6%	4.1%	4.4%	2.9%	4.8%	6.3%
Year	2009	2010	2011	2012	2013	2014	2015	2016	
Rodent Infestation Rate	6.1%	1.5%	1.7%	2.4%	3.1%	3.2%	3.0%	4.0%	

Rodent Infestation Rates in 1st Half of 2017

District	First half of 2017
Central/Western	3.8%
Eastern	6.3%
Southern	3.3%
Wan Chai	5.7%
Islands	3.8%
Kowloon City	1.9%
Kwun Tong	5.2%
Mong Kok	7.1%
Sham Shui Po	5.9%
Wong Tai Sin	0.0%
Yau Tsim	0.9%
North	1.9%
Sai Kung	1.8%
Sha Tin	2.6%
Tai Po	1.8%
Tsuen Wan	4.1%
Tuen Mun	1.7%
Yuen Long	2.6%
Kwai Tsing	5.1%
Rodent Infestation Rate	3.4%

Appendix III**Results of Anti-rodent Campaign 2017**

	1st Phase 2017	2nd Phase 2017	2017 Whole Year
No. of inspections	14 135	14 791	28 926
No. of dead rodents collected	3 719	3 773	7 492
No. of live rodents collected	2 003	2 385	4 388
No. of rat holes treated	1 074	1 145	2 219
No. of leaflets distributed	41 223	41 432	82 655
No. of posters distributed	12 379	11 341	23 720
No. of warnings issued	825	646	1 471