中華人民共和國香港特別行政區政府總部食物及衞生局
Food and Health Bureau, Government Secretariat
The Government of the Hong Kong Special Administrative Region
The People's Republic of China

香港中區
立法會道1號
立法會綜合大樓
立法會秘書處
食物安全及環境衞生事務委員會秘書
（經辦人：蘇淑筠女士）

蘇女士：

食物安全及環境衞生事務委員會
防治鼠患工作跟進事宜

就2019年12月10日舉行的委員會會議中有關上述標題事宜，我們的回覆如下：

（一） 食物環境衞生署（食環署）現時進行的鼠患參考指數調查，是在選定範圍放置鼠餌，統計鼠餌被老鼠咬嚙的百分比，從而推斷老鼠在公眾地方的分布情況。鼠患參考指數調查現時涵蓋的41個調查範圍及將於2020年新增的九個調查範圍載於**附件一**。

（二） 食環署一直在街市內恆常進行防鼠及滅鼠工作，並從中收集數據，此舉能更準確地反映鼠患情況。食環署的鼠患參考指數調查現已覆蓋23個公眾街市、三個房屋署街市及14個私營街市的範圍。

香港添馬添美道2號政府總部東翼17–19樓　電話：(852) 3509 8765　傳真：(852) 2541 3352
17–19/F, East Wing, Central Government Offices, 2 Tim Mei Avenue, Tamar, Hong Kong　Tel: (852) 3509 8765　Fax: (852) 2541 3352

（三）由世界衞生組織介紹的英國鼠患專家曾在 2019 年 11 月到訪香港，為本港的防治鼠患工作提供意見，其報告的行政摘要（只有英文文本）載於**附件二**。

（四）食環署一直推行全方位的防治鼠患措施，採用的方法已參照世界衞生組織的建議及技術指引，採取環境改善，配合有毒鼠餌及捕鼠器等綜合方法。目前，以有毒鼠餌及捕鼠器來滅鼠仍是世界各地採用的主流方法。

食環署已初步選定三個額外街市，測試由英國鼠患專家建議的滅鼠方法。如效果理想，該署會將有關方法推展至其他街市。食環署亦會就執行細節與該專家保持聯繫。

此外，食環署會繼續留意世界各地有關防鼠及滅鼠的設備及方法，並評估在本港實際環境下使用的可行性。該署亦會透過參加國際會議及研討會，與世界各地的專家交流及搜集最新資訊。我們亦對邀請其他從氣候環境與本港相近的地方（如國內或東南亞等地）的專家來港持開放態度。

（五）我們的防治鼠患策略務求針對性消除老鼠在「食」、「住」、「行」三方面的基本生存條件，即斷絕老鼠食物來源、清除老鼠藏匿點及堵塞老鼠通道，透過多管齊下的策略，包括改善環境衞生、滅鼠及執法行動，加強防治鼠患。

在應用科技方面，食環署正研究以熱能探測攝錄機，配以人工智能分析技術，監察老鼠的活動範圍和活躍程度。初步測試結果顯示數據能直接比較滅鼠行動前後的老鼠數目，從而量化及評估滅鼠工作成效。而且，有關技術可偵測老鼠活動的進入點、路徑和經常出沒的範圍，從而更有效放置殺鼠劑及捕鼠器，執行更具針對性的滅鼠工作。食環署已於 2020 年年初在九龍城區進行實地測試，以更新及提升鼠患參考指數的量化功能。此外，該署在個別小區進行目標小區滅鼠行動時，均會在行動前後安裝攝錄機進行分析，以量化及檢視行動的成效。食環署

會繼續留意防鼠及滅鼠設備的最新資訊，並對引進科技持開放態度，以提升防鼠及滅鼠工作。

（六）在監察防治蟲鼠服務承辦商方面，食環署設有嚴謹的外判承辦商管理機制。現時，防治蟲鼠服務的投標文件中均清楚列出服務表現的標準，並按照運作需要訂明人手、工作更次及服務次數方面的最低要求。食環署人員會按防治蟲鼠服務合約管理工作守則，監察承辦商是否遵從合約條款提供服務，並透過實地巡查、突擊檢查及查核工作記錄，監察承辦商的工作表現。如發現承辦商有違規、失責行為或沒有按照合約條文提供相關服務，食環署會採取跟進行動，包括發出口頭警告、書面警告及失責通知書並扣減服務月費。有關服務表現記錄會影響投標者日後競投該署的外判服務合約。

為進一步加強對防治蟲鼠服務承辦商的管理，食環署將在 2020 年 4 月起生效的防治蟲鼠服務合約加入新的合約條款，規範承辦商使用及放置殺鼠劑及捕鼠器，包括放置的方向及位置等。如發現承辦商沒有按照合約條文提供相關服務，食環署會按合約規定採取跟進行動。

食物及衞生局局長

（羅莘桉 代行）

副本送：食物環境衞生署署長

2020 年 2 月 25 日

附件一

鼠患參考指數調查範圍

地區	調查範圍
中西區	皇后大道中
	荷理活道
	第三街
東區	豐業街
	電氣道
	七姊妹道
南區	利興街
	華富路
	香港仔海傍道#
灣仔區	駱克道
離島區	海傍街
	富東街
九龍城區	馬頭圍道
	衙前圍道
	沐翠街#
觀塘區	康寧道
	開源道
	鯉魚門道#
旺角區	花園街
	太子道西
深水埗區	昌華街
	保安路
	醫局街
黃大仙區	清水灣道
	雙鳳街
	大有街#
油尖區	彌敦道

地區	調查範圍
	上海街
葵青區	青敬路及担杆山路
	大窩口道
	昌榮路#
北區	安居街
	新康街
	百和路
西貢區	寶寧路
	萬年街
	寶琳北路#
沙田區	恆康街
	沙角街
	禾輋街#
大埔區	廣福道
	安埔路
荃灣區	眾安街
	沙咀道
屯門區	蝶景路
	河田街
	青田路#
元朗區	青山公路-元朗段
	天瑞路
	洪元路#

註：2020 年新增的九個調查範圍以#號標示。

Executive Summary

Hong Kong's dense human population and tropical climate create highly favourable conditions for the proliferation of rats, particularly cosmopolitan species such as the brown rat (*Rattus norvegicus*) and black rat (*Rattus rattus*). Although eradication of rats is possible on small uninhabited islands, all experts agree that eradication is simply not feasible for most parts of the world. Eradication of rodent pests in the highly urbanised environment of Hong Kong is simply not possible, and efforts aimed at total eradication would come at a very high price, both financially and to the environment, and would most likely fail. So Hong Kong is left with trying to manage rodent populations and keep them below an agreed threshold, below which the negative socio-economic impacts are considered to be minimal and for which the cost of implementation is acceptable. This is the challenge faced by Hong Kong and, indeed, the world, where finding cost-beneficial strategies and technology to sustainably manage rodent pests is a never-ending quest.

Hong Kong has not been complacent in trying to manage its rodent pest problems. The Food and Environmental Hygiene Department has well-established procedures for monitoring rodent activity and for reducing rodent pest numbers. Systems exist for the public to notify authorities about rodent pests, and there are good follow up procedures to try to tackle such problems. Refuse collection systems are well-established and work very well, with overall sanitation issues to be considered very good. There is certainly room for improvement in Hong Kong's procedures, policies and training, but there are no quick fixes or new innovations that will lead to dramatic changes in Hong Kong's rodent management activities. In comparison to other similar cities, Hong Kong should be considered one of the very best in terms of its rodent management activities, and this is reflected in evidence, presented below.

Estimating the exact number of rodents in Hong Kong would not be easy, with such knowledge coming at considerable cost. Such data do not exist for any city in the world, and any mention of how many rodents there are in a given city is entirely anecdotal. However, there is evidence that existing rodent numbers should be considered very low in Hong Kong when comparing Hong Kong to other cities around the world. Cities with very high rodent numbers, such as New York City, will observe changes in rodent behaviour. Rodents are normally nocturnal and neophobic (fear of new objects). When rodent density becomes high, rodents will change their behaviour and start seeking food during the day and will be less affected by the presence of humans or other animals. New Yorkers regularly see rodents around during the day, which are not easily scared away, suggesting very high rodent density. As most sightings of rats in Hong Kong are around dusk and dawn, this tells us that

rodent numbers have not reached the extraordinarily high numbers that would lead to intra-specific food competition avoidance. Furthermore, the expected disease burden from rodent-related disease is surprisingly low in Hong Kong. Recent cases of rat hepatitis E in Hong Kong are certainly of concern and may point to a larger undiagnosed problem in Hong Kong and elsewhere. However, the burden of other more common rodent borne diseases, such as leptospirosis, is extremely low in Hong Kong. Human leptospirosis cases are generally high and severe throughout the wet tropics, whilst in Hong Kong it is largely a problem in domestic dogs, with human cases extremely rare. Other rodent borne diseases that should be expected in Hong Kong, such as Rickettsia, are also generally low in the number of human cases. Food contamination through rodent urine or faeces does not appear to be severe; however, the causes of severe gastroenteritis are not routinely diagnosed, but where many other causative agents/practices are more likely to explain food poisoning cases. Rodent damage to infrastructure is noted, particularly to electrical cables, and although more could be done to try to quantify infrastructure damage caused by rodents, the scale of such damage seems to be minimal.

In conclusion, evidence suggests rodent pests are low in Hong Kong with minimal impacts on people's livelihoods, health and wellbeing, particularly when compared to other cities in tropical and temperate zones. This is in no doubt because Hong Kong has some very good procedures and practices in tackling the causes (good sanitation and hygiene to prevent rodent access to food), good proofing (closed sewer system), good management strategies (rodent surveillance, trapping/poisoning campaigns) and good public awareness and practices (community sanitation programmes, communication campaigns, low tolerance to seeing rodents). The Food and Environmental Hygiene Department should be applauded for the high quality work they carry out to keep the citizens of Hong Kong safe from large-scale rodent disease outbreaks and other negative livelihood impacts. Increased vigilance is highly recommended in terms of maintaining sanitation standards with special attention to continued communication engagement with the public to increase individual responsibility within a shared community problem. It should be accepted that continued public sightings of rats are very likely to continue for some time. It is not yet clear whether substantial increases in investment can lead to substantial reductions in complaints. In order to do this, there needs to be improvements in data capture and analysis, particularly in surveillance and monitoring, that could empower authorities to increase their evidential support on the work they do.

This report is based on the expert opinion of Professor Steven Belmain, Professor of Ecology at the Natural Resources Institute, University of Greenwich, United Kingdom. On invitation from the Pest Control Advisory Section, Prof Belmain visited Hong Kong during 4 – 8 November 2019. Field visits to different parts of the city, particularly to known hot spots of rodent activity, and discussions with different stakeholders took place. The information gathered during this visit forms the basis of this report, where a detailed itinerary of the visit can be obtained from the Pest Control Advisory Section.