

For discussion on
27 May 2013

**THE LEGISLATIVE COUNCIL
PANEL ON ENVIRONMENTAL AFFAIRS**

ENVIRONMENTAL INFRASTRUCTURE PROJECTS

- (i) **5163DR: Northeast New Territories (NENT) landfill extension**
- (ii) **5164DR: Southeast New Territories (SENT) landfill extension**
- (iii) **5165DR: West New Territories (WENT) landfill extension**

1. PURPOSE

The provision of adequate waste treatment and disposal infrastructure is indispensable in any sustainable waste management strategy. This paper seeks Members' support for our proposal to –

- (a) upgrade **5163DR** to Category A at an estimated cost of \$7,026.9 million in money-of-the-day (MOD) prices;
- (b) upgrade **5164DR** to Category A at an estimated cost of \$1,886.4 million in MOD prices; and
- (c) upgrade part of **5165DR** to Category A at an estimated cost of \$35.1 million in MOD prices.

2. ACTION BLUEPRINT 2013 – 2022 AND RELATED ISSUES

2.1 The Environment Bureau released the “Hong Kong Blueprint for Sustainable Use of Resources 2013–2022” (hereafter referred to as the

“Action Blueprint”) on 20 May 2013^[1], which maps out a comprehensive strategy, with targets, policies and action plans for waste management for the coming 10 years to tackle our imminent waste challenge. We have set an aggressive target to reduce the per capita disposal rate of municipal solid waste (MSW) by 40% by 2022. To achieve this goal, the Action Blueprint proposes policies and actions in three areas, with multiple and concurrent actions to:

- (a) drive behavioural change for waste reduction through policies and legislation, including MSW charging and producer responsibility schemes;
- (b) roll out targeted territory-wide waste reduction campaigns to mobilize the public; and
- (c) allocate resources for waste-related infrastructure, including organic waste treatment facilities (OWTFs), waste-to-energy integrated waste management facilities etc.

2.2 Yet, even if measures and facilities are taken forward as planned, and waste reduction targets are achieved as set, there will still be about 10,000 tonnes of waste that require disposal every day in 2017. With the three existing landfills to be exhausted one by one by 2019 (see **Annex A**), while large scale waste-to-energy facilities yet to come on stream by then, we have no means to tackle such waste apart from extending landfills in time.

3. LANDFILL EXTENSION PROJECTS

3.1 Landfills in Hong Kong

3.1.1 Landfills are an essential and ultimate part of the waste management chain everywhere in the world and the same applies to Hong Kong. No matter how hard we work to reduce waste, there will still be inert materials, non-recyclables, construction waste and post-treatment residues that need to be disposed of, and in the case of Hong Kong, MSW that could not be otherwise treated due to lack of modern waste treatment facilities.

¹ The blueprint is available at the website of the Environmental Protection Department (www.epd.gov.hk).

3.1.2 Today, there are three modern strategic landfills established in three corners of Hong Kong – Northeast New Territories, West New Territories and Southeast New Territories. The locations of the three existing landfills were chosen for transport optimization in terms of emissions and costs for waste arising from all over the territory^[2].

3.1.3 Hong Kong’s landfills are engineered to a very high standard, including stringent control measures to prevent potential nuisances caused by odour, landfill gas and leachate to its surrounding environment. The implementation of the following measures and facilities will bring further improvements to the surrounding environment:

- (a) the odourous **sludge** will no longer be landfilled upon the commissioning of Sludge Treatment Facility (STF) by end 2013;
- (b) there will be progressive **reduction in food waste** to be landfilled with the commissioning of OWTFs and reduction through Food Wise Hong Kong Campaign; and
- (c) as all the **refuse collection vehicles (RCVs)** are diesel commercial vehicles, the scheme on early retirement of pre-Euro IV diesel commercial vehicles will greatly reduce the age of the fleet and improve its environmental performance; and
- (d) the promotion of Code of Practice on the Operation of RCVs and the stepping up of monitoring (e.g. through blitz

² According to the White Paper “Pollution in Hong Kong – A Time to Act” issued on 5 June 1989 and the subsequent Waste Disposal Plan issued in the same year, there should be three new landfills in Hong Kong distributed on a regional basis for the following reasons:

- (a) the daily quantity of MSW could not be handled by one or two landfills simply because of the strain that would be placed on the surrounding road network and on the landfill sites themselves;
- (b) the increases in MSW were projected for the western and north-eastern New Territories and provision of disposal facility in each of these areas would help reduce transportation costs; and
- (c) there would continue to be a need for a final disposal facility in reasonable proximity to Hong Kong Island in order to contain the transportation cost for waste arising from urban areas.

The existing 3 strategic landfills were therefore located at the western, north-eastern and south-eastern New Territories regions within the territory in the absence of other alternative site available in Kowloon and Hong Kong Island.

operations) will help reduce the **environmental nuisance of such vehicles**.

3.2 Landfill Extensions

3.2.1 As mentioned above, even with our best efforts, it is estimated that by 2017, there will still be about 10,000 tonnes of waste requiring disposal every day. Given the rapid successive filling up of existing landfills, we need to secure new landfill capacity urgently and we affirm that we will proceed with the three landfill extension projects. The three extension projects are crucial in providing adequate disposal outlets in time to serve the whole territory under the proximity principle and maintain a balanced geographical distribution of disposal facilities. The details of the three landfill extension projects, **5163DR**, **5164DR** and **5165DR**, are set out in sections 4.1 to 4.3 below.

4 FUNDING APPLICATIONS

4.1 5163DR: NENT Landfill Extension

4.1.1 Proposal and Justification

4.1.1.1 The existing NENT Landfill is expected to be exhausted in 2016/17. In early 2008, we completed an engineering feasibility and environmental impact assessment (EIA) study of the proposed site in the Ta Kwu Ling and Sha Tau Kok area, south east of the existing NENT Landfill. The extension site covers about 70 hectares (ha) of land, comprising mainly the stockpile and borrow area (SBA)^[3] and the waste reception area (WRA)^[4] of the existing NENT Landfill (about 38 ha) with some additional land (about 32 ha) at the north-western side and south-western side of the SBA. According to the engineering feasibility study, the NENT Landfill Extension could provide about 19 million cubic metres of additional landfill capacity to cope with the continuous need for final waste disposal in the north-eastern part of the territory.

³ The SBA is a borrow area for the existing NENT Landfill contract. The existing contractor can excavate material including soil and rock, and use as cover material for daily operation and capping material during restoration works.

⁴ The WRA is the area where the weighbridges are installed to facilitate the ingress and egress of waste collection vehicles. Utilities and other infrastructures including office buildings are also located in WRA for the operation of the landfill.

4.1.1.2 The scope of **5163DR** comprises all works necessary for the development of NENT Landfill Extension including –

- (a) landfill design^[5] and site formation (including utilities provision and drainage diversion);
- (b) provision and relocation of landfill infrastructure;
- (c) provision of landfill liner system^[6];
- (d) provision of leachate collection and treatment system^[7];
- (e) provision of landfill gas (LFG) collection and management system^[8];
- (f) implementation of measures to mitigate environmental impacts and environmental monitoring and auditing for construction works;
- (g) engagement of community stakeholders; and
- (h) construction of restoration and aftercare^[9] facilities.

A plan showing the location of the proposed NENT Landfill Extension is at **Annex B1**. Subject to funding approval of the Finance Committee (FC), tendering will start in early 2014 and the construction works are scheduled to start in late 2014 with a view to commencing waste intake in late 2016.

⁵ The landfill is designed as a secure containment system, which primarily consists of multilayer impermeable composite liners to contain landfill gas and leachate generated, so that the waste is deposited and treated under a controlled environment.

⁶ The landfill liner system consists of multilayer impermeable composite liners installed at the formation level to contain landfill gas and leachate produced during the degradation process and prevent them from leaving the landfill to the surrounding environment.

⁷ Leachate is the liquid that has percolated through solid waste. The source of the liquid is primarily the water already present in the waste and any water induced from an external source such as rain water and ground water. The leachate management system comprises leachate collection network, pump sumps, storage lagoons, rising mains and treatment plants for handling and treating leachate.

⁸ LFG is produced during the waste degradation process. It is made up of several gases such as methane which are potentially flammable and harmful to health. The LFG management system comprises collection network, gas extraction system and flaring unit for handling and treating **landfill gas**.

⁹ Restoration and aftercare facilities include the installation of the capping system, sub-surface drainage system, monitoring facilities and landscape works.

4.1.2 Financial Implications

4.1.2.1 We estimate that –

- (a) the capital cost of the proposed landfill extension project to be about \$7,026.9 million in MOD prices;
- (b) the additional annual recurrent expenditure arising from the NENT Landfill Extension is about \$81 million; and
- (c) the proposed works will create about 682 jobs (540 for labourers and another 142 for professional/technical staff) providing a total employment of 46,770 man-months.

4.1.3 Public Consultation/ Engagement

4.1.3.1 We have adopted a continuous public involvement approach during the planning and development stages of the project, including the statutory EIA process. We have conducted a series of public consultation/engagement sessions through which we considered and addressed the concerns of relevant stakeholders and other interested parties on the landfill extension project. A summary of the key public consultation/engagement activities held is at **Annex B2**.

4.1.3.2 We have consulted the North District Council (NDC) since 2004 on the proposal to conduct engineering feasibility and EIA study for the project, and from time to time reported to NDC on the study progress. We consulted the NDC on 12 April 2007 regarding the EIA findings and the latest development of the project, a motion objecting to the NENT Landfill Extension was moved by the NDC at the meeting.

4.1.3.3 As the proposed NENT Landfill Extension site is located between Ta Kwu Ling (TKL) and Sha Tau Kok (STK), the Ta Kwu Ling District Rural Committee (TKLDRC) and the Sha Tau Kok District Rural Committee (STKDRC) are also key stakeholders and local objections to the project had been received from them. In response to local concerns, the North District Office (NDO) and the Environmental Protection Department (EPD) have taken the lead to set up a Working Group with representatives from the TKLDRC and STKDRC in early 2009. The Working Group provides a forum for stakeholders to express their views and map out measures and betterment programmes to address their concerns. Liaison meetings under this Working Group had been held regularly to brief and update stakeholders of the latest development of the

landfill extension project. Ten meetings have been held so far, with most of the requests under the betterment programmes (mainly concerning improvement to local environment like greening or community facilities) successfully met or being explored. We will continue to carry out enhancement and associated works, and consider actively the requests for implementation of local enhancement works.

4.1.3.4 Subsequently, in a consultation with the NDC on 9 June 2011 regarding Hong Kong's latest waste management strategy and the action plan, including the implementation of the NENT Landfill Extension project, the NDC members were generally supportive of the waste management strategy. We will continue to maintain close liaison with the NDC, local community and other relevant stakeholders in taking forward the project.

4.1.4 Environmental Implications

4.1.4.1 **5163DR** is a designated project and the EIA report was completed and approved under the EIA Ordinance on 20 September 2007 after consulting the general public and the Advisory Council on the Environment (ACE). The Environmental Permit (EP) for the construction and operation of the landfill was issued on 26 November 2007. The project would need to comply with the requirements in accordance with the EP conditions.

4.1.4.2 For impacts during construction stages, we will control noise, dust and site run-off to levels within the established standards and guidelines, through the implementation of mitigation measures such as the use of quiet construction plants to reduce noise generation, water-spraying to reduce dust emission as well as proper containment and treatment of site run-off.

4.1.4.3 During the operation phase, we will control the size of the active tipping area to minimize odour nuisance and the assessment shows that there would be no adverse impact on the nearby air sensitive receivers except Tong To Shan Tsuen which has been unoccupied for more than a decade. Impact due to odour is scarce and transient in nature. Odour nuisance will be mitigated with good site practices, including applying daily cover on waste, covering up of inactive tipping face with plastic sheets, positioning of active tipping face further away from air sensitive receivers, etc. To further minimize the odour issue, we will include a condition in the contract provisions requiring the landfill operator to cover up all (both temporary and permanent) leachate

storage tanks.

4.1.4.4 The landfill design is a containment design and its impermeable bottom liner provides a barrier separating the waste cells from the environment. Leachate and LFG generated during biodegradation process will be contained, collected and properly treated in a control environment. Under the landfill contract, we will require the contractor to implement a LFG utilization and export scheme to make full beneficial use of all collected LFG both on site and off site. For on site utilization, LFG will be used as fuel for generating electricity for site operation and converting to heat energy for leachate treatment process. For off site utilization, LFG is delivered via a 19 km pipeline to the production plant of the Hong Kong & China Gas Company Limited in Tai Po for use as alternative fuel. Leachate generated will be contained and collected by pipe networks and treated at the leachate treatment plant within the landfill before discharged to the public sewerage system for further treatment. We shall ensure that both LFG and leachate would have no adverse impact on the air and water quality of the environment respectively.

4.1.4.5 Among the possible layout options, we have chosen an option with total exclusion of the Lin Ma Hang Stream and its catchment area to avoid potential losses, damages and impacts to the existing flora, fauna and natural habitats. The selected option also avoids any potential impact on areas containing archaeological potential, built heritage and cultural landscape, etc.

4.1.4.6 At the planning and schematic design stages, we have considered adopting a balance cut and fill design to reduce the generation of construction waste where possible. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated soil and rock) on site or in other suitable construction sites as far as possible, in order to minimize the disposal of inert construction waste at public fill reception facilities. We will require the contractor to maximize the use of recycled/ recyclable inert construction waste and the use of non-timber formwork as far as practicable and cost-effective to further reduce the generation of construction waste.

4.1.4.7 At the construction stage, we will require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation measures to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will

require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of non-inert construction waste to landfills through a trip-ticket system.

4.1.4.8 We estimate that the project will generate in total about 117 600 tonnes of construction waste. Of these, we will reuse about 105 840 tonnes (90%) of inert construction waste on site. We will dispose of the remaining 11 760 tonnes (10%) of non-inert construction waste at landfill. The total cost for accommodating construction waste at landfill is estimated to be about \$1.5 million for this project (based on a unit cost of \$125 per tonne for disposal at landfill).

4.1.4.9 Compensatory tree planting and greening work will be required under the contract to compensate for the loss of existing woodland and shrubland within the site boundary. When the landfill is fully filled and restored, the site will be planted with vegetation to match with its surrounding landform and patterns.

4.1.4.10 The approved EIA report has provided a comprehensive assessment of the potential environmental impacts associated with the construction, operation, restoration and aftercare phases of the project. With the implementation of the proposed mitigation measures, the EIA concluded that the potential environmental impacts of the NENT Landfill Extension would be controlled to within established standards and guidelines. An environmental monitoring and audit programme is also recommended to ensure the effectiveness of the proposed mitigation measures.

4.2 5164DR: SENT Landfill Extension

4.2.1 Proposal and Justification

4.2.1.1 The SENT Landfill is expected to be exhausted in 2014/15, the first among the three existing landfills. It is essential to extend the SENT Landfill because it is the territory's single largest disposal outlet for construction waste due to the synergy created by the proximity of the SENT Landfill, the construction waste sorting facility and a public fill bank in TKO Area 137. Some 2,320 tonnes of construction waste are being disposed of at the SENT Landfill each day, which account for about 67% of the overall construction waste disposed of daily at the three landfills. The proposed scheme of the Extension, which will occupy about 13 ha of land in TKO Area 137 and about 30 ha of land within the

existing SENT Landfill, will provide a total capacity of about 6.5 million cubic metres.

4.2.1.2 The scope of **5164DR** comprises all works necessary for the development of SENT Landfill Extension including –

- (a) landfill design and site formation (including utilities provision and drainage diversion);
- (b) provision and relocation of landfill infrastructure (including demolition of existing infrastructure and reprovision of new infrastructure);
- (c) provision of landfill liner system;
- (d) provision of leachate collection and treatment system;
- (e) provision of LFG collection and management system;
- (f) implementation of measures to mitigate environmental impacts, and environmental monitoring and auditing for construction works;
- (g) engagement of community stakeholders; and
- (h) construction of restoration and aftercare facilities.

A plan showing the location of the proposed scheme of the SENT Landfill Extension is at **Annex C1**. Subject to the funding approval by the FC, we will commence with tender procurement and seek to start the construction works in mid 2014 with a view to commencing waste intake in early 2016.

4.2.2 Financial Implications

4.2.2.1 We estimate that:

- (a) the capital cost of the proposed landfill extension project to be about \$1,886.4 million in MOD prices;
- (b) the annual recurrent expenditure will be reduced by about \$22 million after commissioning the SENT Landfill Extension; and

- (c) the proposed works will create about 360 jobs (282 for labourers and another 78 for professional/technical staff) providing a total employment of 10,600 man-months.

4.2.3 Public Consultation/Engagement

4.2.3.1 We have adopted a continuous public involvement approach with the statutory bodies, non-statutory organizations and local representatives since the inception of the project in 2004. A summary of the key public consultation/engagement activities is at Annex C2. We have consulted the Sai Kung District Council (SKDC), the ACE, green groups, professional bodies and institutions, education institutions and the TKO community. In addition, we have organized over 500 site visits (with some 15,000 visitors) to SENT Landfill, roving exhibitions and road shows in TKO and arranged outreach programmes for schools and residents in TKO to introduce the SENT Landfill Extension project to the local community.

4.2.3.2 Among the three landfills, SENT Landfill is the closest to major residential developments, thus called for extra efforts in addressing community concerns on air quality, odour and dust. On **odour** concerns, apart from measures set out in paragraph 3.1.3, we will designate the proposed SENT Landfill Extension for the reception of only construction waste with no odour concern. MSW will no longer be accepted upon the designation, resulting in reduction of relevant vehicle count by half when only construction waste is received. And from mid-2013, an on-site odour monitoring team will operate from 6am to 2am every day to enhance monitoring on and provide swift response to odour issue. To step up monitoring on **air quality**, we will measure PM2.5 at Wan Po Road from July 2013 onwards, and establish an air monitoring station in Tseung Kwan O. For addressing concerns on **dust**, frequent cleansing of Wan Po Road has been arranged.

4.2.3.3 We last consulted SKDC on 3 May 2011 on the project. The meeting concluded that most SKDC members present at that meeting supported or had no objection to the scheme under which the landfill extension will be reduced and only construction waste will be received and thereby addressed the community's concern on the odour problem. We will continue to maintain close liaison with SKDC and other relevant stakeholders in taking forward the extension project. We will also continue to carry out enhancement and associated work, and consider actively the requests for implementation of local improvement works.

4.2.4 Environmental Implications

4.2.4.1 **5164DR** is a designated project and the EIA report for the original scheme of the Extension was approved under the EIA Ordinance on 6 May 2008 after consulting the general public and the ACE. The EP for the construction and operation of the landfill was issued on 5 August 2008. The project would need to comply with the requirements in accordance with the EP conditions.

4.2.4.2 With the proposed scheme of the Extension and keeping odourous waste away from the extended landfill, it is anticipated that the environmental impacts and the traffic impact of the proposed scheme will be significantly reduced. An environmental review report with an application for variation of EP was submitted to the EIA Authority on 9 December 2011. The report concluded that with the implementation of the proposed mitigation measures, the environmental impacts of the proposed scheme are acceptable. On 6 January 2012, the Director of Environmental Protection issued an amended EP for the proposed scheme of the Extension. We will continue to comply with the conditions in the amended EP.

4.2.4.3 For impacts during construction stage, we will control noise, dust and site run-off to levels within established standards and guidelines, through the implementation of mitigation measures such as the use of quiet construction plant to reduce noise generation, water-spraying to reduce dust emission and proper pre-treatment of site run-off. We will also carry out close site inspections to ensure that these recommended mitigation measures and good site practices are properly implemented.

4.2.4.4 During the operation phase, we will control the size of the active tipping area even though the proposed extension scheme will only receive construction waste for disposal.

4.2.4.5 The landfill design is a containment design and its impermeable bottom liner provides a barrier separating the waste mass from the environment. LFG and leachate will be contained, collected and properly treated by treatment facilities to be reprovided on site. LFG will be utilized on site for generating electricity for site operation and converting to heat energy for leachate treatment process and can be exported off site for other beneficial uses. All leachate storage tanks will be covered up. We shall ensure that both LFG and leachate would have no adverse impact on air and water quality of the environment.

4.2.4.6 At the planning and schematic design stages, we have considered setting the base of the landfill above the ground water table to reduce the generation of construction waste where possible. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated soil and demolished concrete) on site or in other suitable construction sites as far as possible, in order to minimize the disposal of inert construction waste at public fill reception facilities. We will require the contractor to maximize the use of recycled/ recyclable inert construction waste, and the use of non-timber formwork as far as practicable and cost-effective to further reduce the generation of construction waste.

4.2.4.7 At the construction stage, we will also require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip-ticket system.

4.2.4.8 We estimate that the project will generate in total about 7 450 tonnes of construction waste. Of these, we will reuse about 5 600 tonnes (75%) of inert construction waste on site. We will dispose of the remaining 1 850 tonnes (25%) of non-inert construction waste at landfill. The total cost for accommodating construction waste at landfill is estimated to be about \$0.23 million for this project (based on a unit cost of \$125 per tonne for disposal at landfill).

4.2.4.9 Mixed woodland planting will be provided under the landfill extension contract to compensate the loss of shrubland and grassland in the extension area. Advance screen planting will also be provided along the High Junk Peak Trail. When the landfill is fully filled and restored, the site will be planted with vegetation to match with its surrounding landform and patterns.

4.2.4.10 The approved EIA report and subsequent environmental review report have provided comprehensive assessments of the potential environmental impacts associated with the construction, operation, restoration and aftercare phases of the project. With the implementation of the proposed mitigation measures, the reports concluded that the

potential environmental impacts of the SENT Landfill Extension would be controlled to within established standards and guidelines. An environmental monitoring and audit programme is also recommended to ensure the effectiveness of the proposed mitigation measures.

4.3 5165DR: WENT Landfill Extension

4.3.1 Proposal and Justification

4.3.1.1 The WENT Landfill is forecast to be exhausted in 2019. The proposed WENT Landfill Extension site covers some 200 ha of land and could provide about 81 million cubic metres of additional landfill capacity to cope with the continuous need for final waste disposal in the western part of the territory, and in a longer term for the whole territory. The scope of the extension project comprises site formation, backfilling of a stream outfall, construction of surface water and ground water management systems, installation of leachate and LFG management systems, restoration works after landfill closure and aftercare, as well as realignment of a section of the Nim Wan Road. A layout plan showing the location of the proposed WENT Landfill Extension is at **Annex D1**.

4.3.1.2 We have substantially completed an engineering feasibility and EIA study for the WENT Landfill Extension project, which confirms the engineering feasibility of the WENT Landfill Extension project and that with appropriate environmental mitigation measures, the project will be environmentally acceptable. Since the engineering feasibility and EIA study was conducted a few years ago and in the light of the latest development at the vicinity including the STF and the proposed columbarium development at Tsang Tsui, and other interfacing issues, it will be prudent to update the study findings. We plan to commission a consultancy study with an estimated cost of \$35.1 million in MOD prices to undertake the updating and to make the necessary preparation for the project.

4.3.1.3 The scope comprises mainly –

- (a) a consultancy for conducting the proposed study, which includes –
 - (i) outline design of the extension scheme;
 - (ii) gazette arrangement for Nim Wan Road realignment and backfilling of a stream outfall, and associated revision to

- outline design;
- (iii) study on interfacing and handing-over issues;
 - (iv) arrangement and supervision of site investigation and baseline surveys^[10] in (b) below;
 - (v) tender document preparation, tender assessment and contract procurement; and
 - (vi) contract management and administration of resident site staff in the initial four years of the design-build-operate contract, and
- (b) associated site investigation works, baseline surveys and publicity programme.

Subject to FC's funding approval, we plan to commission the consultancy study by late 2013. Approval for full-upgrading of the WENT Landfill Extension project will be sought in 2015 with a view to commencing the construction works of the initial development of the landfill extension in 2016 for timely commencement of waste intake in 2018/19.

4.3.2 Financial Implications

4.3.2.1 We estimate that the cost of the proposed consultancy study is about \$35.1 million in MOD prices. The proposed consultancy study will not give rise to any recurrent consequence. We estimate that the proposed works under this part-upgrading of **5165DR** will create about 12 jobs (2 for labourers and another 10 for professional/technical staff) providing a total employment of 290 man-months.

4.3.2.2 For the remaining part of the project to be full-upgraded in the future, which would involve the award of a design-build-operate contract, we estimate that the cost is over \$9,000 million in September 2012 prices. More updated cost estimate will be provided when we conduct the full-upgrading exercise in the next stage.

4.3.3 Public Consultation/Engagement

¹⁰ Baseline surveys include topographic survey, environmental survey, tree survey, utilities survey, etc. to collect the most updated information to facilitate the engineering and environmental reviews and necessary modifications.

4.3.3.1 We have adopted a continuous public involvement approach during the planning and development stages of the project, including the statutory EIA process. We have conducted a series of public consultation/engagement sessions through which we considered and addressed the concerns of relevant stakeholders and other interested parties. A summary of the key public consultation/engagement activities held is at **Annex D2**.

4.3.3.2 We have been consulting the Tuen Mun District Council (TMDC) since 2004 on the proposal to conduct engineering feasibility and EIA study for the project, and from time to time reported to TMDC on the study progress. During the TMDC consultation in January and September 2009, TMDC members passed a motion objecting to further waste facilities in Tuen Mun, and requested the Government to review the overall planning on the long-term development of Tuen Mun. To address members' concern, the Environment Bureau (ENB) took the lead and set up the Tuen Mun Development Liaison Working Group, with representatives from ENB, Development Bureau, Transport and Housing Bureau, Food and Health Bureau, Home Affairs Department and TMDC members, to look into strategic matters relating to the long-term development of the district. Ten meetings have been held since March 2009 to follow up TMDC members' proposals and to report on the progress and development of the action items. A number of improvement and betterment measures have been or are being undertaken, including the improvement of the Tuen Mun transport system and public transport services, enhancement of Tuen Mun Area 46 for high value usage, vitalization of Tuen Mun industrial area and establishment of an air monitoring station in Tuen Mun town centre. We will continue to maintain close liaison with TMDC, the local community and other relevant stakeholders in taking forward the project.

4.3.4 Environmental Implications

4.3.4.1 In view of the work nature of the proposed study, we consider that there is little environmental implication to be incurred by this consultancy study. We will implement suitable mitigation measures to control the short-term environmental impacts from the site investigation works. The proposed consultancy study which includes site investigation works will only generate very little construction waste. We will require the consultant to fully consider measures to minimize the generation of construction waste and to reuse/recycle the construction waste as much as possible in the future implementation of the construction projects.

4.3.4.2 The project **5165DR** is a designated project under the EIA Ordinance. The EIA report for the project was approved on 20 November 2009 after consulting the general public and the ACE. The EP for the construction and operation of the landfill was issued on 3 June 2010.

4.3.4.3 The approved EIA report has provided a comprehensive assessment of the potential environmental impacts associated with the construction, operation, restoration and aftercare phases of the project. With the implementation of the proposed mitigation measures, the EIA concluded that the potential environmental impacts of the WENT Landfill Extension would be controlled to within the established standards and guidelines. An environmental monitoring and audit programme is also recommended to ensure the effectiveness of the proposed mitigation measures.

5. ADVICE SOUGHT

5.1 Members are invited to support our proposal for putting forward the proposed upgrading of **5163DR**, **5164DR** and part of **5165DR** to Category A to the LegCo Public Works Subcommittee (PWSC) for approval. Subject to Members' advice, we plan to submit our proposals for consideration by the LegCo PWSC in June 2013 with a view to seeking the FC's approval in July 2013.

**Environment Bureau/Environmental Protection Department
May 2013**

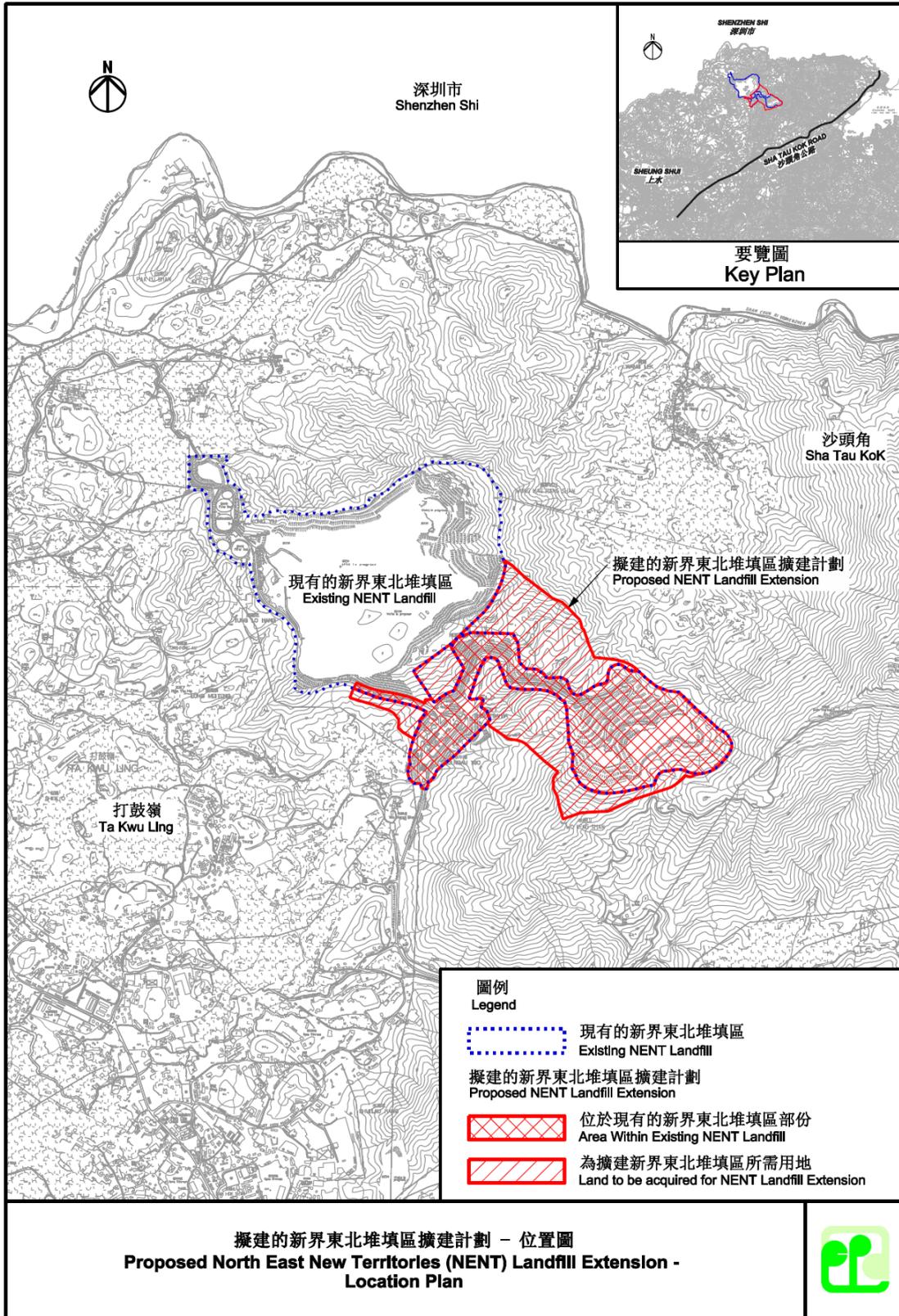
Annex A

**Remaining Capacities of Existing Landfills
(Scenario: Without Extensions)**

	Average Daily Intake (in 2012)	Filling Capacity		Anticipated Year of Exhaustion
		Design	Remaining (as at end 2011)	
	(Unit: tpd)	(Unit: Mm ³)	(Unit: Mm ³)	[Note 1]
SENT Landfill	MSW: 2,080 Construction Waste: 2,320 Other Waste: 400	43	8	2014/15
NENT Landfill	MSW: 1,940 Construction Waste: 520 Other Waste: 220	35	19	2016/17
WENT Landfill	MSW: 5,260 Construction Waste: 600 Other Waste: 500	61	33	2018/19
Total	MSW: 9,280 Construction Waste: 3,440 Other Waste: 1,120	139	60	--

Note 1 In assessing the anticipated year of exhaustion of the landfill, certain planning assumptions have been adopted to allow for fluctuation in waste disposal notwithstanding the continuing efforts in waste reduction and recycling. As landfills are the last resort for waste disposal, prudent and realistic planning assumptions are applied. Such assumptions include moderate growth in wastes due to population growth, increases in economic activities and major development projects having regard to historical trend and economic forecasts. For planning purposes, the amount of construction waste is also assumed to remain constant.

Location Plan of the proposed NENT Landfill Extension



**Northeast New Territories (NENT) Landfill Extension
Summary of Key Public Consultation/ Engagement Events**

Date	Event
13 Feb 2004	Attended North District Council (NDC) Meeting to brief members on the planned commission of the Feasibility Study and Environmental Impact Assessment (EIA) for the proposed NENT Landfill Extension
Since Feb 2005 (on going)	More than 170 visits to NENT Landfill visits for the public to understand the waste management strategy in Hong Kong including the NENT Landfill Extension project
20 May 2005	Meeting with World Wild Fund (WWF) to introduce the NENT Landfill Extension project
22 Jun 2005	Meeting with Ta Kwu Ling District Rural Committee (TKLDRC) and Sha Tau Kok District Rural Committee (STKDRC) to introduce the NENT Landfill Extension project
23 Jun 2005	Meeting with Conservation Association (CA) to introduce the NENT Landfill Extension project
24 Jun 2005	Meeting with Hong Kong Waste Management Association (HKWMA) & Friends of the Earth (FoE) to introduce the NENT Landfill Extension project
25 Jun 2005	Meeting with TKLDRC and its village representatives (VRs) to introduce the NENT Landfill Extension project
27 Jun 2005	Meeting with STKDRC and its VRs to introduce the NENT Landfill Extension project
Aug 2005	Launched a dedicated project website to introduce the NENT Landfill Extension project and collect views from the public
16 Sep 2005	Meeting with HKWMA to discuss the engineering issues of the NENT Landfill Extension project.
7 Oct 2005	Site visit to NENT Landfill & restored Shuen Wan Landfill for WWF, CA & FoE to understand the landfill operation, the aftercare and afteruse of closed landfills
14 Oct 2005	Site visit to NENT Landfill & restored Shuen Wan Landfill for STKDRC to understand the landfill operation, the aftercare and afteruse of closed landfills

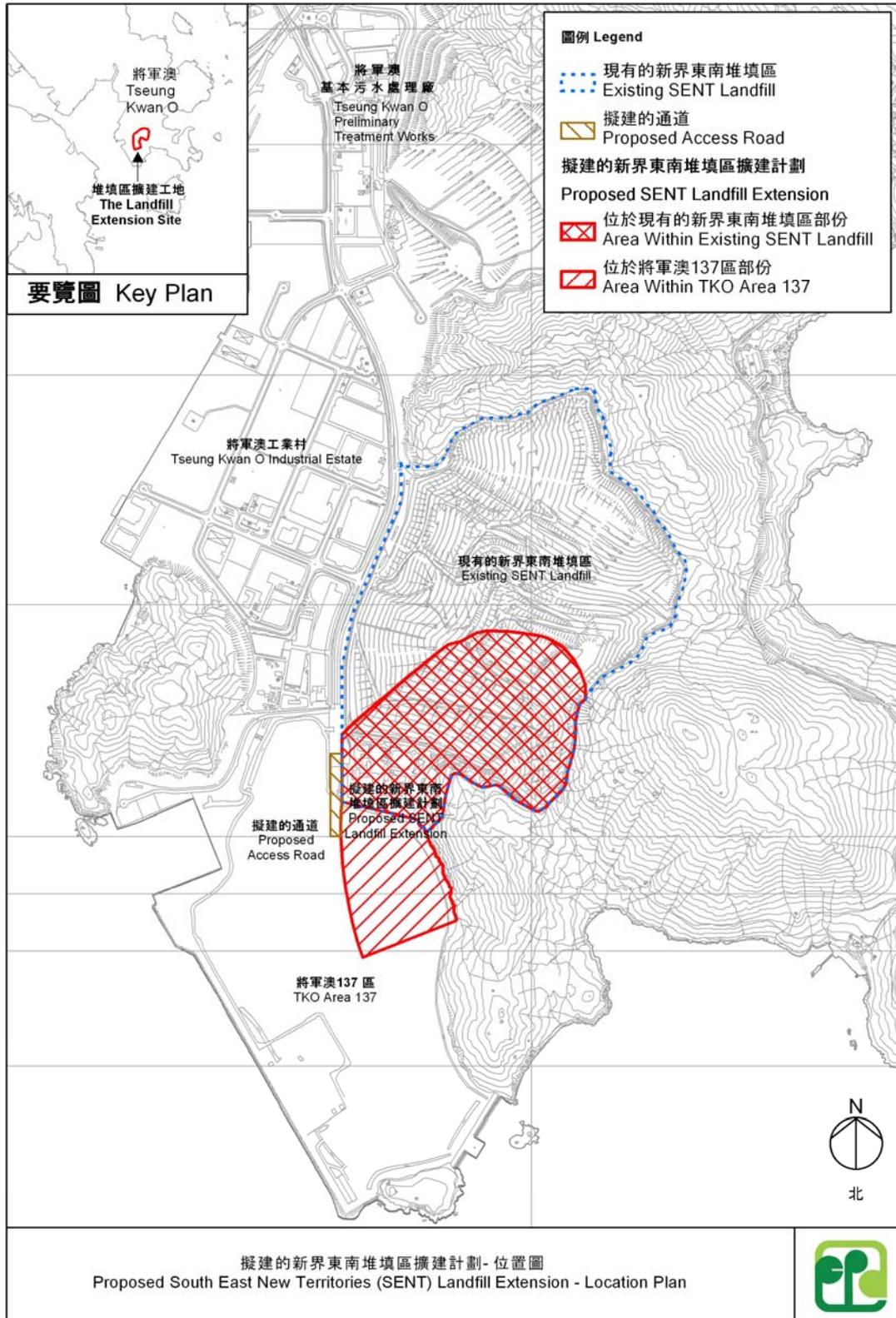
Date	Event
11 Nov 2005	Meeting with villagers and VRs of Man Uk Pin Village of Sha Tau Kok (STK) to introduce the NENT Landfill Extension project
18 Nov 2005	Meeting with villagers and VRs of Lin Ma Hang Village of STK to introduce the NENT Landfill Extension project
9 Dec 2005	Meeting with villagers and VRs of Tai Tong Wu Village of STK to introduce the NENT Landfill Extension project
9 Dec 2005	Meeting with villagers and VRs of Loi Tung Village of STK to introduce the NENT Landfill Extension project
20 Jan 2006	Meeting with HKWMA, WWF, Green Power (GP) & Kadoorie Farm & Botanic Garden (KFBG) to discuss further views of the preliminary findings of the study of the project
21 Jan 2006	Meeting with TKLDRC & its VRs to discuss further views of the preliminary findings of the study of the project
21 Jan 2006	Meeting with STKDRC & its VRs to discuss further views of the preliminary findings of the study of the project
20 Jun 2006	Meeting with WWF, GP, KFBG, HKWMA, University of Hong Kong (HKU) to discuss the EIA findings of the project
21 Jul 2006	Meeting with CA to discuss the EIA findings of the project
11 Aug 2006	Meeting with TKLDRC and VRs of Cheung Shan Monastery at Wo Keng Shan to discuss the proposed planter wall outside the Monastery
Sep & Dec 2006	Education programme for schools in Tai Po & North District on waste reduction and waste management in Hong Kong
22 to 27 Dec 2006	Participated in “North District (2006) Flower, Bird, Insect & Fish” Show” at Fanling to promote HK’s waste management strategy
12 Apr 2007	Consulted NDC on findings of the Environmental Impact Assessment (EIA)
20 Apr 2007	Site visit to NENT Landfill for EIA Subcommittee of the Advisory Council on the Environment (ACE)
25 Jun to 24 Jul 2007	Public inspection of the EIA Report

Date	Event
10 Jul 2007	Meeting with green groups (WWF, CA, KFBG, HKWMA) to collect views and comments on EIA findings
23 Jul 2007	Consulted the EIA Subcommittee of ACE on EIA findings
23 Aug 2007	Consulted the ACE on the EIA Report (EIA Report was endorsed by circulation)
21 to 26 Dec 2007	Participated in “North District (2007) Flower, Bird, Insect & Fish” Show” at Fanling to promote HK’s waste management strategy
24 to 29 Dec 2008	Participated in “North District (2008) Flower, Bird, Insect & Fish” Show” at Fanling to promote HK’s waste management strategy
14 Jan 2009	The Secretary for the Environment (SEN) met with the representatives of TKLDRC and STKDRC & the Vice-Chairman of Heung Yee Kuk New Territories (HYK), to understand the RCs’ concerns and to brief them on the need of the project
14 Jan 2009	Consulted STKDRC on the amendment of Wo Keng Shan Outline Zoning Plan (WKS-OZP) to rezone the required site to OU (landfill)
15 Jan 2009	Consulted TKLDRC on the amendment of WKS-OZP to rezone the required site to OU (landfill)
19 Jan 2009	Consulted NDC’s Works & Environmental Improvement Committee on the amendment of WKS-OZP to rezone the required site to OU (landfill)
18 Mar 2009	1 st Working Group (WG) Meeting with TKLDRC and STKDRC to address concerns of the stakeholders and discuss the local improvement programme
27 Apr 2009	The Permanent Secretary for the Environment (PS(Env)) attended the HYK meeting to brief members on the waste management strategy and the three landfill extension projects
26 May 2009	2 nd WG Meeting with TKLDRC and STKDRC to update the progress of the project, address concerns of the stakeholders and discuss the local improvement programme <i>[Note: The many meetings and visits with village representatives in between the WG meetings were not included here.]</i>

Date	Event
30 Jun 2009	3 rd WG Meeting with TKLDRC and STKDRC to update the progress of the project, address concerns of the stakeholders and discuss the local improvement programme
29 Sep 2009	4 th WG Meeting with TKLDRC and STKDRC to update the progress of the project, address concerns of the stakeholders and discuss the local improvement programme
23 to 28 Dec 2009	Participated in “North District (2009) Flower, Bird, Insect & Fish” Show” at Fanling to promote HK’s waste management strategy
24 Feb 2010	5 th WG Meeting with TKLDRC and STKDRC to update the progress of the project, address concerns of the stakeholders and discuss the local improvement programme
25 Oct 2010	6 th WG Meeting with TKLDRC and STKDRC to update the progress of the project, address concerns of the stakeholders and discuss the local improvement programme
23 to 28 Dec 2010	Participated in “North District (2010) Flower, Bird, Insect & Fish” Show” at Fanling to promote HK’s waste management strategy
7 Jan 2011	7 th WG Meeting with TKLDRC and STKDRC to update the progress of the project, address concerns of the stakeholders and discuss the local improvement programme
9 Jun 2011	Attended NDC Meeting to brief members on the waste management strategy for Hong Kong, including the NENT Landfill Extension
28 Jul 2011	PS(Env) attended NDC Meeting to brief members on the latest environmental protection issues including the waste management strategy and the three landfill extension projects
4 Aug 2011	8 th WG Meeting with TKLDRC and STKDRC to update the progress of the project, address concerns of the stakeholders and discuss the local improvement programme
21 Oct 2011	Meeting with STKDRC Chairman Mr. Lee Koon Hung and VRs of Lin Ma Hang, Loi Tung, Man Uk Pin & Tai Tong Wu of STK
23 to 28 Dec	Participated in “North District (2011) Flower, Bird,

Date	Event
2011	Insect & Fish” Show” at Fanling to promote HK’s waste management strategy
8 Mar 2012	9 th WG Meeting with TKLDRC and STKDRC to update the progress of the project, address concerns of the stakeholders and discuss the local improvement programme
26 Mar & 20 Apr 2012	Attended EA Panel Meeting of LegCo to seek support for further consideration by PWSC of LegCo
4 Nov 2012	SEN officiated and attended the Green Carnival (沙打區環保嘉年華暨美化環境日) organised by TKLDRC and STKDRC and supported by EPD
7 Dec 2012	10 th WG Meeting with STKDRC & TKLDRC (in 2 separate sub-groups) to update the progress of the project, address concerns of the stakeholders and discuss the local improvement programme
22 to 27 Dec 2012	Participated in “North District (2012) Flower, Bird, Insect & Fish” Show” at Fanling to promote HK’s waste management strategy

Location Plan of the proposed SENT Landfill Extension



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**Southeast New Territories (SENT) Landfill Extension
Summary of Key Public Consultation/ Engagement Events**

Date	Event
23 Dec 2003	Meeting with members of the EIA Subcommittee of the Advisory Council on the Environment (ACE) on the way forward of the SENT Landfill Extension project (the “extension project”)
6 Apr 2004	Attended Sai Kung District Council (SKDC) Meeting to brief members on the planned commissioning of the Feasibility Study and Environmental Impact Assessment (EIA) for the proposed SENT Landfill Extension
4 May 2004	Visit to the proposed Extension site with SKDC members
11 to 24 Jun 2004	Invited the public to comment on the EIA Project Profile
18 Aug 2005	Attended SKDC Food and Environmental Hygiene Committee (FEHC) Meeting to introduce the operation of the landfill
10 Sep 2005	Site visit to SENT Landfill with representatives of TKO owners incorporations and Joint Association of TKO South Owners Committees to introduce the operation and environmental management measures of the landfill
6 Dec 2005	Liaison meeting with SKDC members to seek views on the extension project
13 Dec 2005	Attended Country and Marine Parks Board (CMPB) Country Parks Committee (CPC) Meeting to introduce the extension project
3 Jan 2006	Meeting with World Wide Fund to introduce the extension project
5 Jan 2006	Meeting with Conservancy Association to introduce the extension project
12 Jan 2006	Meeting with Waste Subcommittee and EIA Subcommittee of ACE members to introduce the extension project
11 Apr 2006	Meeting with Hong Kong Institute of Planners, Hong Kong Waste Management Association and Environmental Contractors Management Association to introduce the project

Date	Event
26 Apr 2006	Meeting with Kadoorie Farm & Botanic Garden to introduce the extension project
Since 27 Apr 2006	Launched dedicated project web site to introduce the extension project and collect views from the public
28 Apr 2006	Meeting with Green Lantau Association to introduce the extension project
8 Jun 2006	Visit to the proposed extension site for CMPB members
31 Aug 2006	Attended CMPB CPC Meeting to introduce the extension project
5 Sep 2006	Attended SKDC FEHC Meeting to explain the operation of SENT Landfill
19 Sep 2006	Visit to the proposed extension site with CMPB members
26 Sep 2006	Attended CMPB Meeting to seek views on the extension project
20 Jan 2007	Meeting and site visit with SKDC members to introduce the extension project
22 May 2007	Attended CMPB Meeting to introduce the extension project
31 May 2007	Visit to the proposed extension site with SKDC members
26 Jun 2007	Attended SKDC FEHC Meeting to present the findings of odour audit report for SENT Landfill
25 Aug 2007 & 9 Dec 2007	Meeting with Alliance of TKO Incorporated Owner Associations to explain the need and odour control measures of the extension project
17 Sep 2007	Attended SKDC FEHC Meeting to report the completion of the implementation of odour improvement measures for SENT Landfill
19 Dec 2007	Visit to the proposed extension site with ACE members
Jan 2008 to Mar 2013	41 site visits (participated by 992 residents/ Incorporated Owners' Committees/ Property Management Ambassadors from housing estates in Tseung Kwan O and other districts) under an ongoing Outreach Programme to introduce the extension project
Jan 2008 to Mar 2013	439 site visits and 20 school talks (participated by 19,640 principals, teachers and students from primary and secondary schools and universities in Hong Kong) under an ongoing Outreach Programme to introduce the extension project
26 Feb to 26 Mar 2008	Public inspection of the EIA Report for the SENT Landfill Extension project

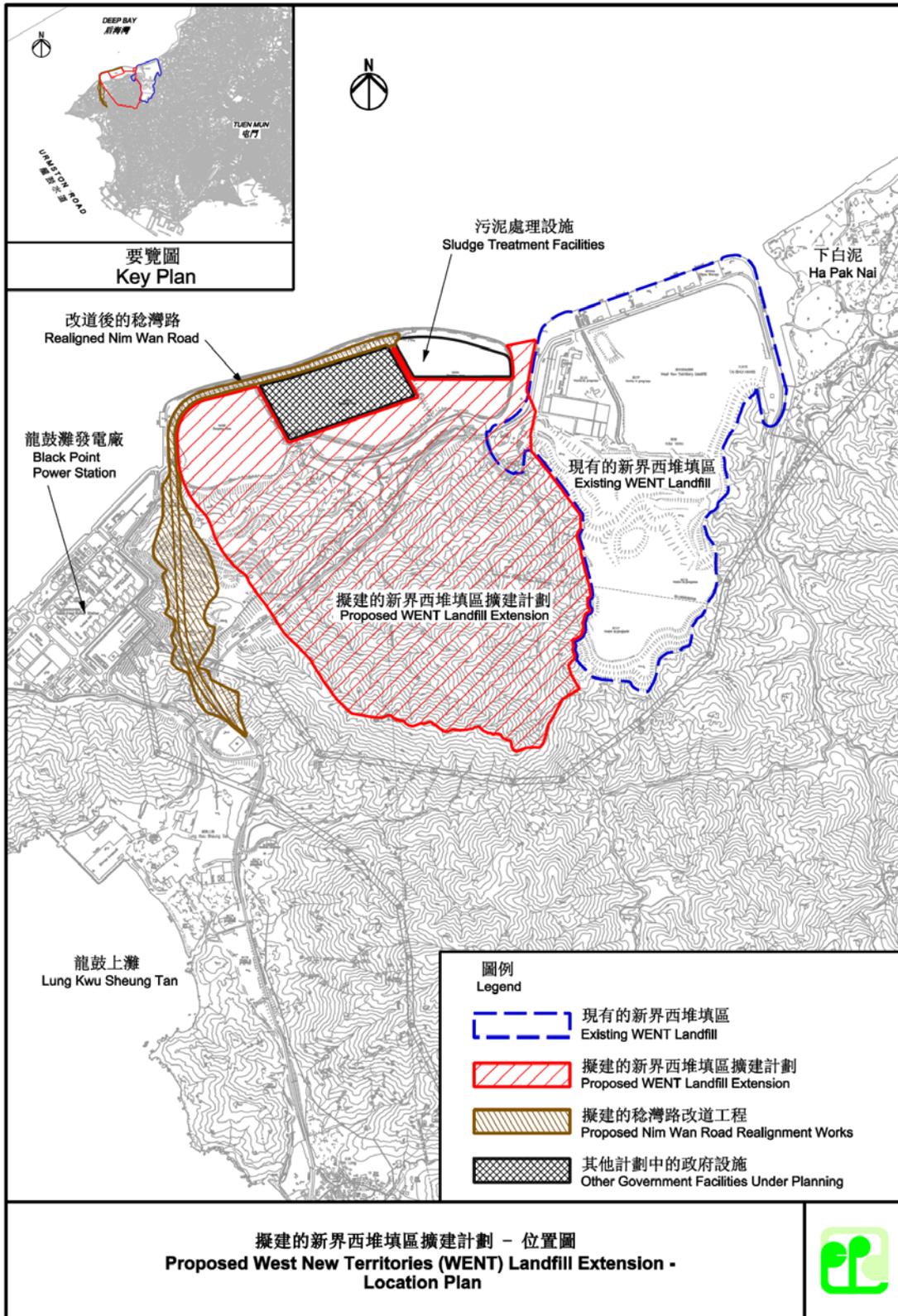
Date	Event
4 Mar 2008	Consulted SKDC on the findings of the Feasibility Study and EIA of the extension project
11 Mar 2008	Consulted Hang Hau Rural Committee (HHRC) on the findings of the Feasibility Study and EIA of the extension project
17 Mar 2008	Consulted EIA Sub-committee of ACE on the EIA findings of the extension project
15, 16, 28 Mar 2008	Road shows at Metro City Plaza and East Point City in TKO to introduce the extension project to TKO community
25 Mar 2008	Visit to the extension site with HHRC members
25 Mar 2008	Meeting with Ocean Shores Owners' Committee to introduce the extension project
17 Apr 2008	Meeting with a representative from Legislative Council (LegCo) on the extension project
23 Apr 2008	Meeting with Park Central Owners' Committee on the extension project
18 Jul 2008	Attended SKDC Meeting to report the odour management measures at the SENT Landfill
26 Aug to 14 Oct 2008	Roving exhibition in 6 estates in TKO to introduce the extension project
5 Sep 2008	Site visit to TKO areas with SKDC members and representatives of government departments
11 Sep 2008	Attended SKDC working group meeting to report the odour management of the SENT Landfill
11 Sep 2008	Attended CMPB Meeting to report the EIA findings of the extension project
27 Oct 2008	Attended LegCo Panel on Environmental Affairs Meeting on the EIA findings of the extension project
14 Nov 2008	Attended SKDC working group meeting on study and investigation of odour conditions in TKO
18 Nov 2008	Attended SKDC Meeting to report the progress of the extension project
12 Dec 2008	Attended SKDC working group meeting on scope of study for odour conditions in TKO
2, 3, 4, 6, 27 & 30 Mar 2009	Attended CMPB hearings on the extension project
12 Mar 2009	Attended SKDC working group meeting to discuss the scope of study for odour conditions in TKO

Date	Event
17 Mar 2009	The Permanent Secretary for the Environment (PS(Env)) attended SKDC Meeting to present EPD's work on air pollution and waste management
27 Apr 2009	PS(Env) attended Heung Yee Kuk Meeting to brief members on the waste management strategy and the three landfill extension projects
12 Jun 2009	Attended SKDC working group meeting to provide technical advice on landfill operation and odour control
27 Aug 2009	Site visit to TKO areas with representatives of LegCo and SKDC
29 Sep 2009	Attended SKDC working group meeting to provide technical advice on landfill operation and odour control
27 Oct 2009	Attended SKDC working group meeting to provide technical advice on landfill operation and odour control
18 Mar 2010	Attended SKDC Housing and Environmental Hygiene Committee (HEHC) Meeting to update the progress of odour control enhancement measures at SENT Landfill
9 Apr 2010	Meeting with Hong Kong Science and Technology Parks Corporation to introduce SENT Landfill operation and odour control measures implemented
15 Apr 2010	Meeting with the management office of The Capitol, LOHAS Park, Mass Transit Railway Corporation (MTRC), to introduce SENT Landfill operation and odour control measures implemented
23 Apr 2010	Attended Town Planning Board (TPB) Rural and New Town Planning Committee (RNTPC) Meeting on land rezoning application for SENT Landfill Extension
4 May 2010	Attended SKDC Meeting on amendments to the Outline Zoning Plan (OZP) for the extension project
7 May to 7 Jul 2010	Public inspection of amended draft Outline zoning Plan (OZP) for the SENT Landfill Extension
14 May 2010	Site visit to SENT Landfill with tenants of TKO Industrial Estate to introduce the landfill operation and odour control measures
19 May 2010	Site visit to SENT Landfill with representatives from MTRC to introduce the landfill operation and odour control measures
28 May 2010	Attended SKDC working group meeting to provide technical advice on landfill operation and odour control
22 Jun, 13 Jul, 29 Jul,	Meetings with LegCo and its subcommittee for Country Parks (Designation) (Consolidated) (Amendment) Order

Date	Event
27 Sep, 4 Oct, 6 Oct, 7 Oct & 13 Oct 2010	2010 for the extension project
23 Jun 2010	Site visit to a TKO residential estate with SKDC members
2 & 3 Jul 2010	Site visit to SENT Landfill with representatives from MTRC and The Capitol, LOHAS Park to introduce the landfill operation and waste management strategy
26 Jul 2010	Site visit to SENT Landfill with representatives from LegCo Subcommittee for Country Parks (Designation) (Consolidated) (Amendment) Order 2010 and SKDC
30 Jul to 20 Aug 2010	Public inspection of representations and comments on the draft OZP for the extension project
23 Aug 2010	Meeting with The Capitol Owners Sub-Committee
15 Sep 2010	Attended SKDC HEHC Meeting to update members of implemented odour improvement measures of SENT Landfill
28 Sep 2010	Site visit to LOHAS Park and nearby areas with a SKDC member, The Capitol Owners Sub-Committee and MTRC
28 Sep 2010	Meeting with SKDC members and a resident of TKO Plaza
3 Oct 2010	The Secretary for the Environment's (SEN) site visit to the SENT Landfill with the media to introduce waste management strategy and the extension site
8 Oct 2010	Meeting with representatives of LegCo and SKDC on the extension project
3 Nov 2010	Site visit to SENT Landfill with SKDC members
4 Jan 2011	SEN conducted press conference to announce a comprehensive waste management strategy and the proposed revised scheme of Extension
17 Jan 2011	Attended ACE Meeting to brief members on the waste management strategy including the extension of all three landfills
18 Jan 2011	Meeting with a LegCo member and the trade to discuss issues related to refuse collection vehicles
24 Jan 2011	SEN attended LegCo Panel on Environmental Affairs Meeting to introduce the comprehensive waste management strategy and the proposed revised scheme of the extension project
28 Jan 2011	Attended CMPB Meeting to introduce the revised scheme of the extension project

Date	Event
25 Feb 2011	Attended TPB Meeting to introduce the revised scheme of the extension project
3 May 2011	PS(Env) attended SKDC Meeting to introduce the revised scheme of the extension project
13 Jul 2011	Site visit to SENT Landfill with members of a political party to introduce the design and operation of the landfill
30 Nov, 1- 3, 7, 9 & 13 Dec 2011	Attended hearings at TPB for amendment to the TKO OZP
17 Feb 2012	Attended TPB Meeting to brief members on the progress of action items requested by the TPB
26 Mar & 20 Apr 2012	Attended EA Panel Meeting of LegCo to seek support for further consideration by PWSC of LegCo
20 Jul 2012	Meeting with The Capitol Owners Sub-Committee
14 Sep 2012	Attended TPB Meeting to brief members on the progress of action items requested by the TPB
26 Oct 2012	The Under Secretary for the Environment (USEN) visited SENT Landfill with SKDC members to gather views on SENT Landfill operation and SENT Landfill Extension. USEN also visited LOHAS Park with SKDC members to meet representatives of The Capitol's Owners Subcommittee and the Le Prestige's Owners Committee for views on SENT Landfill and its Extension.
11 Jan 2013	Site visit to SENT Landfill with members of LegCo and DCs and TKO residents to brief them on the operation of the landfill and its extension scheme.
11 May 2013	Site visit to SENT Landfill with members of LegCo Panel on Environmental Affairs to brief them on the operation of the landfill and its extension scheme.

Location Plan of the proposed WENT Landfill Extension



**West New Territories (WENT) Landfill Extension
Summary of Key Public Consultation/ Engagement Events**

Date	Event
22 Mar 2004	Attended Tuen Mun District Council (TMDC) Meeting to brief members on the planned commission of the Feasibility Study and Environmental Impact Assessment (EIA) for the proposed WENT Landfill Extension
3 Jan 2006	Attended TMDC Meeting to collect views on preparation of EIA and feasibility study of the extension project
Since Mar 2007 (ongoing)	More than 170 visits to WENT Landfill for the public, including residents/students from housing estates, primary schools, secondary schools and tertiary education institutions, etc to understand the waste management strategy including the WENT Landfill Extension project
13 Mar 2007	Attended TMDC Meeting to brief members on the waste management strategy, including landfill extension schemes and other waste management projects
25 Jun 2007	Meeting to introduce the extension project with: <ul style="list-style-type: none">• The Conservancy Association• Hong Kong Waste Management Association• Kadoorie Farm & Botanic Garden• World Wild Fund for Nature Hong Kong
Mar to Dec 2008	Launched an outreach programme for schools in Tuen Mun to introduce the WENT Landfill Extension project and other waste management projects in Tuen Mun
22 & 29 Apr 2008	Visits to WENT Landfill for TMDC members to report on the latest position of the extension project
May to Nov 2008	Exhibitions at shopping malls in Tuen Mun to introduce the WENT Landfill Extension project and other waste management projects in Tuen Mun
26 May 2008	Attended the Working Group Meeting on Development and Planning of Tuen Mun District to report on the latest position of the extension project
Since Jul 2008	Launched a dedicated project website to introduce the extension project and collect views from the public
21 Jul 2008	Attended Tuen Mun North East Area Committee Meeting to collect views on the extension project

Date	Event
7 Aug 2008	Attended Tuen Mun South East Area Committee Meeting to collect views on the extension project
7 Aug 2008	Attended Tuen Mun South West Area Committee Meeting to collect views on the extension project
8 Aug 2008	Attended Tuen Mun North West Area Committee Meeting to collect views on the extension project
20 Aug 2008	Attended Tai Hing and Shan King Area Committee Meeting to collect views on the extension project
26 Nov 2008	Meeting to collect further views on latest study progress and preliminary EIA findings of the extension project with: <ul style="list-style-type: none"> • Hong Kong Waste Management Association • Kadoorie Farm & Botanic Garden • World Wild Fund for Nature Hong Kong
6 Jan 2009	Attended TMDC Meeting to collect views on the layout and preliminary EIA findings of the extension project
20 Mar 2009	Visit to WENT Landfill for members of the EIA Subcommittee of the Advisory Council on the Environment (ACE) to report on the latest progress of the extension project
27 Mar 2009	1 st Tuen Mun Development Liaison Working Group (TMDLWG) Meeting to report on the progress and follow-up actions related to the overall planning on the long-term development of Tuen Mun
27 Apr 2009	The Permanent Secretary for the Environment attended Heung Yee Kuk Meeting to brief members on the waste management strategy and the three landfill extension projects
4 May 2009	2 nd TMDLWG Meeting to report on the progress and follow-up actions related to the overall planning on the long-term development of Tuen Mun
3 Jun 2009	3 rd TMDLWG Meeting to report on the progress and follow-up actions related to the overall planning on the long-term development of Tuen Mun
17 Aug 2009	4 th TMDLWG Meeting to report on the progress and follow-up actions related to the overall planning on the long-term development of Tuen Mun
18 Aug 2009	Meeting with green groups and other parties to present the EIA report of the extension project and advise the commencement date of the 30-day public inspection period, including:

Date	Event
	<ul style="list-style-type: none"> • The Conservancy Association • Hong Kong Waste Management Association • Kadoorie Farm & Botanic Garden • World Wild Fund for Nature Hong Kong
1 Sep 2009	Consulted TMDC to collect views on the EIA findings of the extension project
25 Aug to 23 Sep 2009	Public inspection of the EIA Report of the extension project
19 Oct 2009	Consulted ACE EIA Subcommittee on the EIA findings of the extension project
9 Nov 2009	ACE Meeting endorsed the EIA Report of the extension project
6 Jan 2010	Attended Ha Tsuen Rural Committee Meeting to brief members on the extension project
3 Aug 2010	5 th TMDLWG Meeting to report on the progress and follow-up actions related to the overall planning on the long-term development of Tuen Mun
6 Jan 2011	6 th TMDLWG Meeting to report on the progress and follow-up actions related to the overall planning on the long-term development of Tuen Mun
1 Mar 2011	Attended TMDC Meeting to present the waste management strategy including landfill extensions and other waste management projects
31 Mar 2011	7 th TMDLWG Meeting to report on the progress and follow-up actions related to the overall planning on the long-term development of Tuen Mun
24 Aug 2011	8 th TMDLWG Meeting to report on the progress and follow-up actions related to the overall planning on the long-term development of Tuen Mun
26 Mar & 20 Apr 2012	Attended EA Panel Meeting of LegCo to seek support for further consideration by PWSC of LegCo
12 Jun 2012	9 th TMDLWG Meeting to report on the progress and follow-up actions related to the overall planning on the long-term development of Tuen Mun
11 Dec 2012	10 th TMDLWG Meeting to report on the progress and follow-up actions related to the overall planning on the long-term development of Tuen Mun