

For discussion
on 22 October 2014

PWSC(2014-15)49

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 704 – DRAINAGE

Environmental Protection – Sewerage and sewage treatment

160DS – Tuen Mun sewerage, stage 1

346DS – Upgrading of Tuen Mun sewerage, phase 1

Members are invited to recommend to the Finance Committee –

- (a) the upgrading of part of **160DS** and part of **346DS**, entitled “Tuen Mun sewerage – Castle Peak Road trunk sewer and Tuen Mun village sewerage” to Category A at an estimated cost of \$722.5 million in money-of-the-day prices; and
- (b) the retention of the remainders of **160DS** and **346DS** in Category B.

PROBLEM

Sewage from unsewered areas in Tuen Mun is a source of pollution to nearby watercourses and the receiving waters of Urmston Road.

/PROPOSAL

PROPOSAL

2. The Director of Drainage Services, with the support of the Secretary for the Environment, proposes to upgrade part of **160DS** and **346DS** to Category A at an estimated cost of \$722.5 million in money-of-the-day (MOD) prices for implementing sewerage works in seven unsewered areas and Siu Lam in Tuen Mun.

PROJECT SCOPE AND NATURE

3. The part of **160DS** that we propose to upgrade to Category A comprises the construction of –

- (a) about 3.7 kilometres (km) of sewers with diameters ranging from 200 millimetres (mm) to 600 mm for three unsewered areas, namely Kei Lun Wai, Yeung Siu Hang and Lam Tei;
- (b) one sewage pumping station (SPS) at Lok Chui Street;
- (c) about 720 metres (m) of twin rising mains with diameter of 350 mm along Castle Peak Road – Tai Lam and in association with construction of the SPS in (b) above;
- (d) about 200 m of branch sewers with diameter of 225 mm along Lok Yi Street and Lok Chui Street; and
- (e) ancillary works.

4. The part of **346DS** that we propose to upgrade to Category A comprises the construction of –

- (a) about 5.4 km of sewers with diameters ranging from 150 mm to 300 mm for four unsewered areas, namely Tsing Shan Tsuen, Tseng Tau Sheung Tsuen, Fuk Hang Tsuen (Upper) and Fu Tei Ha Tsuen;
- (b) two SPSs at Siu Lam Psychiatric Centre and Fu Tei Ha Tsuen respectively;
- (c) about 600 m of twin rising mains with diameter of 100 mm in association with construction of the SPSs in (b) above;

/(d)

- (d) about 2.8 km of gravity trunk sewers with diameters ranging from 200 mm to 750 mm within Siu Lam area connecting to the SPS at Lok Chui Street; and
- (e) ancillary works.

————— A site plan showing the proposed works is at Enclosure 1.

5. Subject to funding approval of the Finance Committee, we plan to commence the proposed works in March 2015 for completion in April 2019.

6. We will retain the remainders of **160DS** and **346DS** in Category B, which comprise the construction of sewers for seven and 11 other unsewered areas respectively in Tuen Mun. Planning and design of the relevant works are in progress. Funding for the remainders of **160DS** and **346DS** will be sought at a later stage after completion of the design and preparatory work.

JUSTIFICATION

7. At present, sewage from the unsewered areas in Kei Lun Wai, Yeung Siu Hang, Lam Tei, Tsing Shan Tsuen¹, Tseng Tau Sheung Tsuen¹, Fuk Hang Tsuen (Upper) and Fu Tei Ha Tsuen (the seven villages) is mostly treated and disposed of by means of private on-site treatment facilities (such as septic tank and soakaway (STS) systems). Such facilities might however be ineffective in removing pollutants due to their close proximity to watercourses² and inadequate maintenance³. Sewage from these unsewered areas has been identified as a source of water pollution to the nearby watercourses and the receiving waters of Urmston Road. The aforesaid situation will persist unless sewerage infrastructure is made available to collect and treat sewage from the areas concerned properly.

/8.

¹ Part of the areas in Tsing Shan Tsuen and Tseng Tau Sheung Tsuen would be provided with sewerage infrastructure under PWP item **371DS** "Sewerage in western Tuen Mun". The related works had commenced in December 2009 for completion by December 2015.

² STS systems operate by allowing the effluent to percolate through sub-soil whereby pollutants would be removed in a natural manner. However, if the STS system is located in an area where the underground water table is high, such as an area in proximity to watercourses, it will not be able to function properly due to ineffective percolation.

³ Inadequate maintenance of STS systems would affect their pollutant removal efficiency and might even lead to overflow of effluent.

8. Furthermore, the existing sewerage network in Tuen Mun is provided eastwards up to So Kwun Wat only. To cope with the existing and planned residential developments in Tuen Mun East, extension of the sewerage infrastructure further eastwards to Siu Lam for collecting the sewage arising is necessary.

9. The Environmental Protection Department (EPD) has formulated a long-term programme to expand the public sewerage in the Tuen Mun catchment to serve unsewered areas including those mentioned in paragraphs 7 and 8 above.

10. We now propose to upgrade parts of **160DS** and **346DS** to Category A for taking forward the proposed sewerage works at the seven unsewered areas and providing the required public sewers to serve the existing and planned residential developments in Tuen Mun East. Upon completion of the proposed sewerage works, sewage collected from these areas will be conveyed to the Pillar Point sewage treatment works for proper treatment and disposal. It will minimise the discharge of pollutants into the environment and bring about sustainable improvement to the sanitary condition in the villages and the water quality of the nearby watercourses in Tuen Mun.

11. Based on the house connection survey results within the seven unsewered areas conducted between June and August 2007 and the recent site inspections and verifications, the proposed sewerage facilities for the seven unsewered areas mentioned in paragraph 7 above will be able to serve some 617 village houses comprising about 586 existing houses and 31 planned houses.

FINANCIAL IMPLICATIONS

12. We estimate the cost of the proposed works to be \$722.5 million in MOD prices (please see paragraph 13 below), broken down as follows –

	\$ million		
	160DS	346DS	Total
(a) Construction of sewers within villages	87.3	91.9	179.2

/(b)

		\$ million			
		160DS	346DS	Total	
(b)	Construction of three SPSs (one for 160DS and two for 346DS)	57.0	32.8	89.8	
(i)	civil engineering works	33.8	9.6	43.4	
(ii)	electrical and mechanical works	23.2	23.2	46.4	
(c)	Construction of rising mains	41.2	8.7	49.9	
(d)	Construction of trunk and branch sewers	3.4	157.6	161.0	
(e)	Ancillary works	2.1	1.1	3.2	
(f)	Environmental mitigation measures	3.9	2.9	6.8	
(g)	Consultants' fees for	2.2	3.5	5.7	
(i)	contract administration	0.2	0.4	0.6	
(ii)	management of resident site staff	2.0	3.1	5.1	
(h)	Remuneration of resident site staff	24.7	39.7	64.4	
(i)	Contingencies	21.0	30.3	51.3	
	Sub-total	242.8	368.5	611.3	(in September 2014 prices)

/(j)

		\$ million		
		160DS	346DS	Total
(j)	Provision for price adjustment	43.5	67.7	111.2
Total		<u>286.3</u>	<u>436.2</u>	<u>722.5</u> (in MOD prices)

A detailed breakdown of the estimates for the consultants' fees and resident site staff costs by man-months is at Enclosure 2.

13. Subject to funding approval, we will phase expenditure as follows –

Year	\$ million (Sept 2014)		Price adjustment factor	\$ million (MOD)	
	160DS	346DS		160DS	346DS
2015 – 2016	55.2	77.5	1.06000	58.5	82.2
2016 – 2017	60.7	97.0	1.12360	68.2	109.0
2017 – 2018	61.0	77.3	1.19102	72.7	92.1
2018 – 2019	28.0	59.0	1.26248	35.3	74.5
2019 – 2020	21.0	34.0	1.32876	27.9	45.2
2020 – 2021	14.5	21.7	1.39519	20.2	30.3
2021 – 2022	2.4	2.0	1.46495	3.5	2.9
	<u>242.8</u>	<u>368.5</u>		<u>286.3</u>	<u>436.2</u>

14. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period from 2015 to 2022. We will deliver the works under two contracts, one for civil engineering works and the other for electrical and mechanical works. We will deliver the civil engineering works under a re-measurement contract because of the uncertain underground conditions that may affect the alignments of the sewers. The contract will provide for price adjustment. We will deliver the electrical and mechanical works under a lump-sum contract as the scope of works can be well defined.

15. We estimate the additional annual recurrent expenditure arising from the proposed works to be \$5.7 million (\$2.7 million for the part of **160DS** and \$3 million for the part of **346DS**). The recurrent expenditure attributable to sewage charges has been taken into account in determining the sewage charges for the years 2008-09 to 2017-18 stipulated in the Sewage Services (Sewage Charge) Regulation (Cap. 463A) and the recurrent expenditure attributable to trade effluent surcharges will be taken into account in reviewing the trade effluent surcharge rates in future.

PUBLIC CONSULTATION

16. We consulted the Environment, Hygiene and District Development Committee of the Tuen Mun District Council on 17 July 2009, 26 November 2010, 20 July 2012 and 24 January 2014 and obtained its support for the proposed works. We also consulted the Village Representatives of the seven villages concerned and they expressed support to the implementation of the proposed works.

17. We gazetted the proposed sewerage works under **160DS** in accordance with the Water Pollution Control (Sewerage) Regulation (WPC(S)R) under four schemes between January 2012 to November 2013. Except for the scheme covering the proposed village sewerage works at Yeung Siu Hang (the YSH Scheme), we did not receive any objection during the respective statutory objection periods. The Director of Environmental Protection (DEP) authorised the proposed sewerage works (except that at Yeung Siu Hang) between November 2013 and February 2014. For the objection to the YSH Scheme concerning sewer alignment, we explained to the objector via telephone conversations and an objection hearing meeting to clarify details of the proposed works and associated impacts. Nevertheless, the objection remained unresolved. The Chief Executive-in-Council authorised the YSH Scheme without modification in April 2014.

18. We gazetted the proposed sewerage works under 346DS in accordance with the WPC(S)R under three schemes⁴ between January to December 2013. No objection was received and all the three schemes were subsequently authorised by DEP between November 2013 and March 2014.

19. The residents of a private residential estate near Lok Chui Street expressed concerns in February 2014 on the proposed location of the SPS and the potential impacts that may arise from the construction and operation of the SPS and its associated sewerage collection system at Lok Chui Street. The Drainage Services Department (DSD) met the residents in April 2014 and explained the mitigation measures that would be adopted for avoiding and minimising the potential impacts due to the construction and operation of the SPS. DSD provided further information on the details of the project to address the residents' concerns in May and June 2014 as requested. Resident site staff will be employed to closely supervise the contractor's construction works for ensuring compliance with the stringent environmental performance requirements of the contract specifications.

20. We consulted the Legislative Council Panel on Environmental Affairs on 28 April 2014 on the proposed works. Members raised no objection to the proposed works.

ENVIRONMENTAL IMPLICATIONS

21. The proposed Lok Chui Street SPS is a designated project under the Environmental Impact Assessment Ordinance (EIAO) (Chapter 499). We have assessed its potential environmental impacts and concluded that it will not cause long-term adverse environmental impacts. We obtained an environmental permit (EP) for the construction and operation of the Lok Chui Street SPS on 25 July 2000. We shall implement the mitigation measures set out in the EP and comply with the requirements contained therein.

22. Apart from the proposed Lok Chui Street SPS, the other proposed works in paragraphs 3 and 4 above are not designated projects under the EIAO. We have completed an environmental review for the works and concluded that the works would not cause any long-term adverse environmental impacts.

/23.

⁴ Out of the four unsewered areas under 346DS, the sewerage works in Tseng Tau Sheung Tsuen has been authorised by the Drainage Services Department (DSD) as delegated by Secretary for the Environment as minor works.

23. Regarding short-term environmental impacts arisen during the construction stage, we will implement environmental mitigation measures for the project to control the nuisance of noise, dust and site run-off to levels within established standards and guidelines. These measures include the use of silenced construction equipment and noise barriers to reduce noise generation, water-spraying to reduce emission of fugitive dust, and proper treatment of site run-off before discharge. We will carry out regular site inspections to ensure that these recommended mitigation measures and good site practices will be properly implemented on site. We have included in paragraph 12(f) above a sum of \$3.9 million and \$2.9 million (in September 2014 prices) in the project estimates of the proposed works under **160DS** and **346DS** respectively for implementation of the necessary environmental mitigation measures.

24. At the planning and design stages, we have considered ways to reduce generation of construction waste where possible, including optimisation of the sewerage design to minimise the extent of excavation and to avoid as far as practicable demolition of existing structure. In addition, we will require the contractors to reuse inert construction waste (e.g. excavated soil) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities (PFRF)⁵. We will encourage the contractors to maximise the use of recycled/recyclable inert construction waste and non-timber formwork to further reduce the generation of construction waste.

25. At the construction stage, we will require the contractors 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 contractors to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert and non-inert construction waste at PFRF and landfills respectively through a trip-ticket system.

/26.

⁵ PFRF are specified in Schedule 4 of Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in PFRF requires a licence issued by the Director of Civil Engineering and Development.

26. We estimate that the proposed works will generate in total about 194 700 tonnes of construction waste which will be disposed of as shown below –

	160DS <i>(part)</i>	346DS <i>(part)</i>	Total
		Tonnes	
Inert construction waste to be reused on site	33 400	72 300	105 700 (54%)
Inert construction waste to be delivered to PFRF for subsequent reuse	26 400	52 500	78 900 (41%)
Non-inert construction waste to be disposed of at landfills	3 400	6 700	10 100 (5%)
Total construction waste generated	63 200	131 500	194 700 (100%)

The total costs for accommodating construction waste at PFRF and landfill sites are estimated to be \$1.14 million and \$2.26 million for the proposed works under **160DS** and **346DS** respectively (based on a unit charge rate of \$27 per tonne for disposal at PFRF and \$125 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation).

HERITAGE IMPLICATIONS

27. The proposed works under **160DS** and **346DS** in Kei Lun Wai and Fu Tei Ha Tsuen fall within Sites of Archaeological Interest in the area. We will conduct an archaeological watching brief in the course of the proposed sewerage works in Kei Lun Wai and Fu Tei Ha Tsuen to ensure that archaeological resources, if identified, could be properly recorded and recovered. Subject to the actual site condition, the mitigation measures for archaeological resources, including but not limited to the watching brief, will be conducted in sequence or in parallel at the same or different locations with archaeological potential.

/LAND

LAND ACQUISITION

28. We have reviewed the design of the proposed works to minimise the extent of land acquisition. We have to resume a total of 36 private agricultural lots or agricultural portion of mixed lots (about 1 731 square metres (m²)) for implementation of the proposed works. Of the 36 lots, eight (about 515 m²) are for **160DS** and 28 (about 1 216 m²) are for **346DS**. The land resumption and clearance will not affect any households or domestic structures. We will charge the cost of land resumption and clearance estimated at \$17.3 million to **Head 701 – Land Acquisition**. A breakdown of the land resumption and clearance costs is at Enclosure 3.

BACKGROUND INFORMATION

29. In October 1993, EPD completed the “Tuen Mun Sewerage Master Plan Study” and established a long-term sewerage improvement plan for Tuen Mun. In May 1994, we upgraded **160DS** to Category B.

30. We upgraded respectively three parts of **160DS** to Category A as **196DS** entitled “Tuen Mun sewerage, stage I phase I” at an approved project estimate (APE) of \$62.4 million in MOD prices in July 1995, **280DS** entitled “Tuen Mun sewerage, stage I phase II – trunk sewers to Siu Hong Road pumping station” at an APE of \$28.9 million in MOD prices in July 1996 and **321DS** entitled “Tuen Mun sewerage, stage I phase III – enhancement of Siu Hong Road low-flow interceptor” at an APE of \$30.1 million in MOD prices in February 1998. **196DS**, **280DS** and **321DS** were completed in September 2000, January 1999 and September 2000 respectively.

31. In January 2003, EPD completed a Sewerage Master Plan review study entitled “Review of Tuen Mun and Tsing Yi Sewerage Master Plans” (the Review Study), which assessed the adequacy of the existing sewerage system in Tuen Mun and Tsing Yi for meeting future demands. The Review Study recommended, amongst other things, implementation of the sewerage works mentioned in paragraph 4. In October 2005, we upgraded **346DS** “Upgrading of Tuen Mun sewerage, phase 1” to Category B.

32. In January 2007, we engaged consultants to carry out investigations and design for **346DS** and the remaining works of **160DS** at an estimated cost of \$14.3 million and \$8 million respectively in MOD prices. We charged this amount to block allocation **Subhead 4100DX** “Drainage works, studies and investigations for items in Category D of the Public Works Programme”. We have completed the detailed design of the proposed works mentioned in paragraphs 3 and 4 above.

33. In October 2007, we upgraded part of **346DS** to Category A as **360DS** “Sewerage at Tseng Tau Chung Tsuen, Tuen Mun” at an APE of \$33 million in MOD prices. The construction works commenced in December 2007 and were completed in October 2010.

34. With a view to facilitating early provision of sewer collection system to the remaining unsewered areas recommended by the Review Study, the sewerage works were grouped in packages for implementation in phases. In July 2009, we upgraded part of **346DS** to Category A as **371DS** “Sewerage in western Tuen Mun” at an APE of \$1,340 million in MOD prices for construction of the main sewerage facilities along Ming Kam Road, Tsing Wun Road and Lung Mun Road and sewerage works in two unsewered areas (Tsing Shan Tsuen and Tseng Tau Sheung Tsuen). In June 2011, we upgraded part of **160DS** to Category A as **374DS** “Tuen Mun sewerage, stage 1 - village sewerage in Tsing Chuen Wai and Tuen Tsz Wai” at an APE of \$21.7 million in MOD prices for construction of the sewerage works in these two unsewered areas. **371DS** is scheduled for completion by December 2015 and **374DS** was completed in May 2014.

35. Of the approximately 600 numbers of trees within the project boundary, the proposed works will involve the felling of nine trees. All the trees to be felled are not important trees⁶. We will incorporate planting proposal as part of the project, including an estimated quantity of 13 compensatory trees and 131 m² of green roof.

/36.

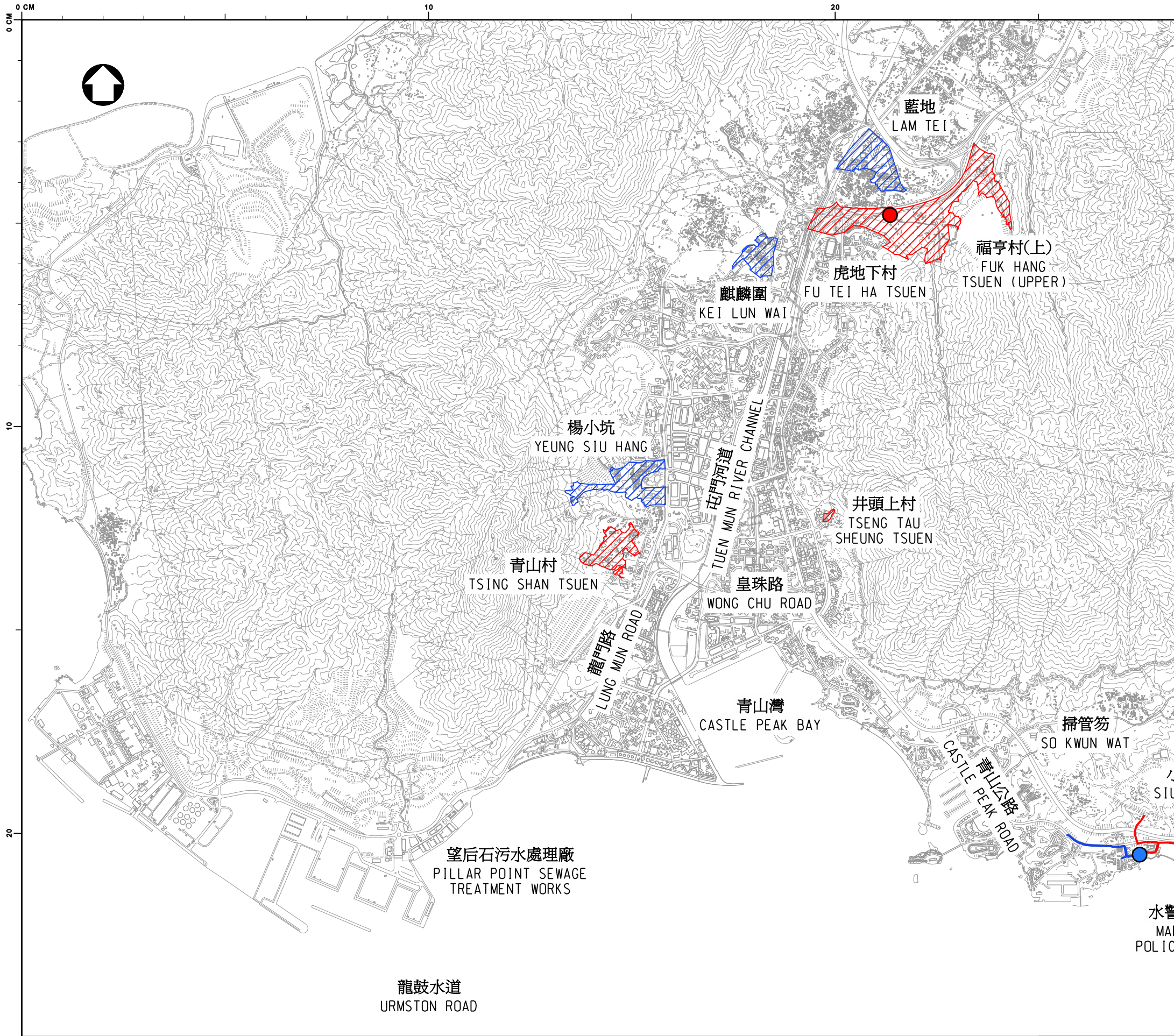
⁶ “Important trees” refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees as landmark of monastery or heritage monument, and trees in memory of important persons or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal or exceeding 1.0 m (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

36. We estimate that the proposed works under **160DS** and **346DS** will create about 81 jobs (66 for labourers and another 15 for professional/technical staff) and 126 jobs (102 for labourers and another 24 for professional/technical staff), providing a total employment of 3 590 and 5 580 man-months respectively.

37. This paper supersedes PWSC(2014-15)20 which was not discussed by the Public Works Subcommittee during the 2013-14 legislative session. The programme, phasing of expenditure and estimated cost of the project have been updated due to the lapse of time.

Environment Bureau
October 2014



圖例：
LEGEND :

擬提升至甲級的工程部份
PROPOSED PART OF WORKS TO BE UPGRADED TO CAT A

- 擬建的污水收集系統工程 (160DS)
PROPOSED SEWERAGE WORKS (160DS)
- 擬建的污水收集系統工程 (346DS)
PROPOSED SEWERAGE WORKS (346DS)
- 擬建的污水泵房 (160DS)
PROPOSED SEWAGE PUMPING STATION (160DS)
- 擬建的污水泵房 (346DS)
PROPOSED SEWAGE PUMPING STATION (346DS)
- ▨ 在該鄉村範圍內擬建污水渠 (160DS)
VILLAGE AREAS INSIDE WHICH PROPOSED SEWERS TO BE LAID (160DS)
- ▨ 在該鄉村範圍內擬建污水渠 (346DS)
VILLAGE AREAS INSIDE WHICH PROPOSED SEWERS TO BE LAID (346DS)

圖則名稱 drawing title
 工務工程計劃編號160DS及346DS
 屯門污水收集系統第1階段及屯門污水收集系統改善計劃第1期
 PWP ITEM NOS.160DS AND 346DS
 TUEN MUN SEWERAGE, STAGE 1 AND UPGRADING OF TUEN MUN SEWERAGE, PHASE 1

繪畫 drawn	SIGNED T.M. SIU	日期 date	20 MAY 2014
核對 checked	SIGNED F.C. CHAN	日期 date	20 MAY 2014
批核 approved	SIGNED C.K. LAM	日期 date	20 MAY 2014
部門 office	工程管理部 PROJECT MANAGEMENT DIVISION		

圖則編號 drawing no. 比例 scale
 DPM0214 N.T.S.

保留版權 COPYRIGHT RESERVED

香港特別行政區政府渠務署
 DRAINAGE SERVICES DEPARTMENT
 GOVERNMENT OF THE HONG KONG
 SPECIAL ADMINISTRATIVE REGION

160DS — Tuen Mun sewerage, stage 1
346DS — Upgrading of Tuen Mun sewerage, phase 1

**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2014 prices)**

160DS – Tuen Mun sewerage, stage 1

			Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated Fee (\$ million)
(a)	Consultants' fees for contract administration (Note 2)	Professional	-	-	-	0.1
		Technical	-	-	-	0.1
					Sub-total	0.2
(b)	Resident site staff costs (Note 3)	Professional	90	38	1.6	10.3
		Technical	421	14	1.6	16.4
					Sub-total	26.7
	Comprising –					
(i)	Consultants' fees for management of resident site staff				2.0	
(ii)	Remuneration of resident site staff				24.7	
					Total	26.9

* MPS = Master Pay Scale

346DS – Upgrading of Tuen Mun sewerage, phase 1

			Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a)	Consultants' fees for contract	Professional	-	-	-	0.3
	administration (Note 2)	Technical	-	-	-	0.1
					Sub-total	0.4
(b)	Resident site staff costs (Note 3)	Professional	143	38	1.6	16.3
		Technical	679	14	1.6	26.5
					Sub-total	42.8
Comprising –						
(i)	Consultants' fees for management of resident site staff				3.1	
(ii)	Remuneration of resident site staff				39.7	
					Total	43.2

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS salary point to estimate the cost of resident site staff supplied by the consultants. (Subject to approval of the Finance Committee, MPS salary point 38 = \$71,385 per month and MPS salary point 14 = \$24,380 per month.)
2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of the project. The construction phase of the assignment will only be executed subject to Finance Committee's approval to upgrade parts of **160DS** and **346DS** to Category A.
3. The actual man-months and actual costs will only be known after the completion of the construction works.

160DS — Tuen Mun sewerage, stage 1
346DS — Upgrading of Tuen Mun sewerage, phase 1

Breakdown of the land resumption and clearance costs

160DS – Tuen Mun sewerage, stage 1

		\$ million
(I) Estimated resumption cost		4.5
(a) Agricultural land ex-gratia compensation	4.5	
<p>8 agricultural lots or agricultural portion of mixed lots (with a total area of 5 538 square feet (ft²) or 514.6 m²) will be resumed.</p> <p>3 149 ft² x \$969.6 per ft² (Zone A) and 2 389 ft² x \$606 per ft² (Zone B) (see Notes 1 and 2)</p>		
(II) Estimated clearance cost		0.08
(a) Ex-gratia allowance of crop compensation	0.02	
(b) Ex-gratia allowance for “Tun Fu”	0.06	
(III) Contingency payment		0.46
(a) Contingency on the above costs	0.46	
Total costs		5.04

346DS – Upgrading of Tuen Mun sewerage, phase 1

		\$ million
(I) Estimated resumption cost		10.8
(a) Agricultural land ex-gratia compensation	10.8	
<p>28 agricultural lots (with a total area of 13 090 ft² or 1 216.1 m²) will be resumed.</p> <p>7 989 ft² x \$969.6 per ft² (Zone A) and 5 101 ft² x \$606 per ft² (Zone B) (see Notes 1 and 2)</p>		
(II) Estimated clearance cost		0.2
(a) Ex-gratia allowance of crop compensation	0.1	
(b) Ex-gratia allowance for “Tun Fu”	0.1	
(III) Contingency payment		1.3
(a) Contingency on the above costs	1.3	
Total costs		12.3

Notes

- There are four ex-gratia compensation zones, namely Zones A, B, C and D, for land resumption in the New Territories as approved by the Executive Council in 1985 and 1996. The boundaries of these zones are shown on the Zonal Plan for Calculation of Compensation Rates. Part of the land to be resumed in the projects **160DS** and **346DS** is agricultural land currently within Zone A, while remaining land is currently within Zone B. The land required is for implementing sewerage works, which are for local improvement.
- In accordance with G.N. 5692 dated 24 September 2014 on the revised ex-gratia compensation rates for resumed land, the ex-gratia compensation rate of agricultural land for Zone A is at \$969.6 per square foot whereas that for Zone B is 75% of the Basic Rate at \$808 per square foot. With this, the ex-gratia compensation rate used for Zone B is \$606 per square foot.