For discussion **PWSC(2009-10)87**
on 10 February 2010

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 704 – DRAINAGE
Environmental Protection – Sewerage and sewage treatment
341DS – Harbour Area Treatment Scheme, stage 2A – upgrading of Stonecutters Island sewage treatment works and preliminary treatment works

Members are invited to recommend to Finance Committee the upgrading of **341DS** to Category A at an estimated cost of $7,913.4 million in money-of-the-day prices for the upgrading of Stonecutters Island sewage treatment works and eight associated preliminary treatment works on Hong Kong Island.

PROBLEM

At present, around 450 000 cubic metres (m^3) of sewage generated daily from the northern and south-western parts of Hong Kong Island (from North Point to Ap Lei Chau) are not handled by stage 1 of the Harbour Area Treatment Scheme (HATS) and are receiving only preliminary treatment at existing preliminary treatment works (PTWs) before being discharged into the Victoria Harbour (the harbour). This is a major pollution source which has a significant impact on the water quality of the harbour.

/PROPOSAL …..

PROPOSAL

2. The Director of Drainage Services, with the support of the Secretary for the Environment, proposes to upgrade **341DS** to Category A at an estimated cost of $7,913.4 million in money-of-the-day (MOD) prices for the expansion and upgrading of Stonecutters Island sewage treatment works (SCISTW) to increase its treatment capacity and the upgrading of eight PTWs on Hong Kong Island under HATS stage 2A.

PROJECT SCOPE AND NATURE

3. The scope of **341DS** comprises –

(a) provision of a new main pumping station (MPS) at SCISTW;

(b) expansion and modification of the chemically-enhanced primary treatment (CEPT) facilities, and provision of permanent disinfection facilities, at SCISTW;

(c) construction of an approximately 880 metres long effluent tunnel on Stonecutters Island;

(d) expansion of facilities at SCISTW for sludge treatment, handling, transportation and disposal;

(e) upgrading of sludge reception facilities at the existing West New Territories (WENT) landfill piers;

(f) upgrading of eight PTWs on Hong Kong Island along the route of the sewage conveyance system (SCS);

(g) other ancillary works; and

(h) the monitoring of the harbour water quality for reviewing the performance of the HATS stage 2A.

——— Layout plans showing the proposed works are at Enclosure 1.

4. We plan to start construction of the proposed works in June 2010 for commissioning HATS stage 2A in December 2014.

/JUSTIFICATION …..

JUSTIFICATION

5. The HATS is one of the most important environmental protection programmes undertaken in Hong Kong to improve the water quality of the harbour. It is an integrated sewerage system for collecting and treating sewage generated around the harbour in an efficient, effective and environmentally sustainable manner. The implementation of HATS proceeds in two stages. Completed in 2001, HATS stage 1 now collects 1.4 million m^3 of sewage generated daily in Kowloon and north-eastern Hong Kong Island (representing about 75% of the total sewage generated from the harbour catchment) via deep tunnels to SCISTW for centralised treatment before disposal. HATS stage 2A is the next phase in the programme to further improve the water quality of the harbour and also to cater for future growth in sewage flows. Stage 2A will collect 450 000 m^3 of sewage generated daily from the northern and south-western parts of Hong Kong Island (representing the remaining 25% of the sewage generated from the harbour catchment) not handled by stage 1 and transfer them via the SCS for CEPT and disinfection at the expanded SCISTW before discharge. Upon commissioning of HATS stage 2A, the volume of sewage to be treated at SCISTW will increase from around 1.4 million m^3 daily at present to around 1.85 million m^3 daily. To cater for future development and population growth in the HATS catchment under the ultimate development scenario, we will expand the SCISTW with a design daily treatment capacity of 2.44 million m^3 under this project. We envisage that water quality in the harbour will further improve as a result of reduction in pollution loads. The benefits to our environment will be significant[1].

6. Before entering into the SCS, the sewage must be preliminarily treated at the PTWs to remove large solids and grit to avoid deposition in the deep tunnels and to protect downstream treatment facilities. Otherwise, there will be significant sediment deposition in the SCS and maintenance implications. As some of the eight PTWs on Hong Kong Island have been in use for more than 20 years, their capacities and facilities need to be upgraded to cater for the new requirements of HATS stage 2A and the projected increase in population of the respective districts. In addition, comprehensive deodourisation systems will be installed at PTWs to eliminate odour nuisance, and the aesthetic and landscaping design of the PTWs improved. At SCISTW, a new MPS is required to lift the

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[1] HATS stage 2A would provide the following benefits to the water quality of the harbour when completed, further to those achieved in stage 1 –

(a) eliminate the discharge of about 450 000 m^3 of virtually untreated sewage into the harbour;
(b) reduce levels of *E.coli*, an indicator of disease-causing organisms, by 90%;
(c) reduce toxic ammonia by 10% on average;
(d) reduce nutrients in terms of total inorganic nitrogen and phosphorus by 5% and 8% respectively; and
(e) increase dissolved oxygen levels by 5%.

additional sewage from the deep tunnels to surface level for treatment. We also need to increase the capacities of the CEPT facilities and the disinfection facilities at SCISTW for handling the additional sewage.

7. The quantity of dewatered sludge generated from SCISTW is estimated to increase from about 600 tonnes per day at present to more than 1 000 tonnes per day under the ultimate development scenario of the SCISTW operating at its design treatment capacity of 2.44 million m^3 per day. It is therefore necessary to upgrade the facilities at SCISTW for sludge handling and treatment. Also, the existing sludge reception facilities at WENT landfill piers need to be upgraded for receiving and conveying the sludge to the Sludge Treatment Facilities (STF) at Tsang Tsui for further treatment and disposal.

8. Construction of the time-critical components of HATS stage 2A (i.e. the construction of SCS and the advance preparation works for the expansion and upgrading of SCISTW as well as the provision of covers and deodourization facilities to the existing sedimentation tanks at SCISTW), funded by **369DS** "Harbour Area Treatment Scheme, stage 2A – construction of the sewage conveyance system and advance works for upgrading of Stonecutters Island sewage treatment works" approved in June 2009 by Finance Committee (FC), commenced in July 2009. Subject to FC's approval, we will commence construction of the proposed works under **341DS** as covered in this paper by mid-2010. The timely commencement will minimize any interfacing problems between the works of **341DS** and the construction of SCS and the advance preparation works under **369DS**, hence allowing HATS stage 2A to proceed more smoothly and help maintain the target commissioning timeframe of December 2014.

FINANCIAL IMPLICATIONS

9. We estimate the capital cost of the proposed works to be $7,913.4 million in MOD prices (please see paragraph 10 below), broken down as follows –

		$ million
(a)	Construction works	5,895.9
	(i) provision of new MPS	1,198.7

/(ii) …..

	(ii)	expansion and modification of CEPT facilities and provision of permanent disinfection facilities	576.7		
	(iii)	construction of effluent tunnel	603.1		
	(iv)	expansion of facilities at SCISTW for sludge treatment, handling and transportation	1,633.4		
	(v)	upgrading of sludge reception facilities at the existing WENT landfill piers	10.9		
	(vi)	upgrading of eight PTWs	1,114.4		
	(vii)	other ancillary works	758.7		
(b)	Harbour water quality monitoring			16.0	
(c)	Consultants' fees			49.1	
	(i)	contract administration	35.0		
	(ii)	management of resident site staff	14.1		
(d)	Remuneration of resident site staff			531.5	
(e)	Environmental mitigation measures			57.0	
(f)	Contingencies			650.0	
		Sub-total		7,199.5	(in September 2009 prices)
(g)	Provision for price adjustment			713.9	
		Total		7,913.4	(in MOD prices)

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

10. Subject to approval, we will phase the expenditure as follows –

Year	$ million (Sept 2009)	Price adjustment factor	$ million (MOD)
2010 – 2011	539.2	1.02000	550.0
2011 – 2012	832.1	1.04040	865.7
2012 – 2013	1,180.8	1.06121	1,253.1
2013 – 2014	1,545.1	1.08243	1,672.5
2014 – 2015	1,053.8	1.11220	1,172.0
2015 – 2016	946.2	1.14557	1,083.9
2016 – 2017	663.4	1.17993	782.8
2017 – 2018	438.9	1.21533	533.4
	7,199.5		7,913.4

11. We have derived the MOD estimate on the basis of the Government's latest forecast of the trend rate of change in the prices of the public sector building and construction output for the period from 2010 to 2018. We will implement the works under seven combined civil engineering and electrical and mechanical works contracts. We will adopt re-measurement construction contracts with provision for price adjustment.

12. We estimate the additional annual recurrent expenditure arising from the proposed works to be $377.5 million. 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

13. We have consulted the relevant committees under seven District Councils (DCs), namely Central and Western DC, Eastern DC, Kwai Tsing DC, Sham Shui Po DC, Wan Chai DC, Southern DC and Tsuen Wan DC regarding the proposed works in the first quarter of 2009, as detailed at Enclosure 3. We have also consulted the Subcommittee on Harbour Plan Review of the Harbourfront Enhancement Committee regarding the proposed layout design of PTW upgrading works at Wanchai East and Central in March 2009. They all had no objection to the proposed works.

14. We gazetted the HATS stage 2A works for the effluent tunnel under the Sewage Tunnels (Statutory Easements) Ordinance (Cap. 438) on 31 August 2007 and did not receive any objection. The works were subsequently authorized on 7 November 2008.

15. We consulted the Environmental Impact Assessment (EIA) Subcommittee of the Advisory Council on the Environment (ACE) on 18 September 2008 and the ACE on 8 October 2008. No comment was received and the EIA report was endorsed.

16. We consulted the Legislative Council Panel on Environmental Affairs (the EA Panel) on 15 December 2009 on the proposed works. Some Members requested the Administration to provide supplementary information on the chronology and details of the works completed, underway and contemplated. We submitted an information note to Panel Members on 22 December 2009. The EA Panel then further discussed the proposed works on 25 January 2010. Members raised no objection to the submission of the funding proposal to the Public Works Subcommittee. Nevertheless, some Members requested the Administration to provide supplementary information on the progress of planning work for the HATS stage 2B, and the prosecution statistics on illegal sewerage connections within the past three years. We submitted a follow-up reply to Panel Members on 2 February 2010.

ENVIRONMENTAL IMPLICATIONS

17. HATS stage 2A is a designated project under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) and an Environmental Permit is required for its construction and operation. The EIA report for HATS stage 2A was endorsed by the ACE on 8 October 2008 and approved under the EIAO on

30 October 2008. The EIA report concluded that HATS stage 2A will significantly reduce the pollution loads being discharged into Victoria Harbour and improve the water quality of the harbour. The report further confirmed that with the implementation of the recommended mitigation measures, the environmental impacts of the proposed works can be controlled to within the standards and guidelines under the EIAO and the Technical Memorandum on the EIA Process. We obtained the Environmental Permit for HATS stage 2A (which covers the proposed works and those works commenced earlier) on 19 November 2008. We will implement the mitigation measures recommended in the approved EIA report. Furthermore, the STF Feasibility Study EIA Report, which was approved under the EIAO on 19 February 2009, confirmed that the environmental impacts of the proposed HATS stage 2A works at the existing WENT landfill piers would be within the standards and guidelines.

18. For short-term impacts during construction, 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 noise enclosures to reduce noise generation, water-spraying to reduce dust emission and proper pre-treatment of site run-off. We will carry out a comprehensive Environmental Monitoring and Audit (EM&A) programme to ensure compliance with the environmental permit requirements. We will also carry out site inspections to ensure that these recommended mitigation measures and good site practices are properly implemented on site. We have included in paragraph 9(e) above a sum of $57.0 million (in September 2009 prices) in the project estimate for implementation of the environmental mitigation measures.

19. We have considered minimising the excavation for structures in the planning and design stage to reduce the generation of construction waste where possible. In addition, we will require the contractors to reuse inert construction waste (e.g. excavated rock and soil and demolished concrete) 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[2]. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

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[2] Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

20. 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 at public fill reception facilities and landfills respectively through a trip-ticket system.

21. We estimate that the project will generate in total about 308 000 tonnes of construction waste. Of these, we will reuse about 10 000 tonnes (3.3%) of inert construction waste on site, deliver 156 800 tonnes (50.9%) of inert construction waste which are granitic rocks to Lam Tei Quarry or Anderson Road Quarry for processing into aggregate, and deliver 131 600 tonnes (42.7%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 9 600 tonnes (3.1%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be $4.8 million for this project (based on a unit cost of $27 per tonne for disposal at public fill reception facilities and $125 per tonne[3] at landfills).

HERITAGE IMPLICATIONS

22. The proposed works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

23. The proposed works do not require any land acquisition.

/BACKGROUND …..

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[3] This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at $90 per m^3), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

BACKGROUND INFORMATION

24. The HATS involves the implementation of an integrated sewerage system for collecting and treating sewage generated around the harbour in an efficient, effective and environmentally sustainable manner. The HATS has been subject to many studies and many rounds of consultation and discussions. HATS stage 1 construction commenced in early 1995 and was completed at the end of 2001. Sewage from Tsuen Wan, Kwai Tsing, Tseung Kwan O, the urban areas of Kowloon and northeastern Hong Kong is collected and treated at the SCISTW. HATS stage 1 now collects 1.4 million m^3 of sewage every day, representing about 75% of the total sewage generated from the harbour catchment, via deep tunnels to the SCISTW for treatment before disposal. The SCISTW is one of the most efficient chemical treatment plants in the world, with high pollutant removal efficiencies. These include removal of 70% of the organic pollutants, 80% of suspended solids and 50% of sewage bacteria, *E.coli*. This has resulted in significant improvement of the marine environment.

25. Following the review by an International Review Panel (IRP) in 2000, the Environmental and Engineering Feasibility Assessment Studies in 2004 and the public consultation from June to November 2004, the Government has adopted a two-phase implementation strategy, dividing HATS stage 2 into stage 2A and stage 2B.

26. On 25 May 2001, the Finance Committee approved $73.6 million for upgrading **5227DS** "Trials and studies in relation to the way forward for the Harbour Area Treatment Scheme" to Category A to carry out a series of trials and studies to evaluate and select a final configuration for the remaining stages of HATS based on the options recommended by the IRP. The trials and studies were completed in June 2004. They confirmed that the recommended options were environmentally acceptable and technically feasible. Among the options, the centralised treatment at SCISTW was the preferred one in terms of cost, environmental and engineering aspects. It comprises –

(a) Stage 2A – the provision of additional facilities, including the upgrading of existing PTWs in the harbour area catchment on the northern and western sides of Hong Kong Island, the construction of about 20 km of deep tunnels to convey sewage from the above PTWs to Stonecutters Island, and the upgrading of the existing SCISTW to provide chemical treatment and disinfection; and

/(b) …..

(b) Stage 2B – the provision of biological treatment facility at a site adjacent to the existing SCISTW.

27. In April 2005, we reported to the EA Panel the results of an intensive five-month public consultation exercise (from June to November 2004) on the way forward for HATS together with the proposed implementation programme. Subsequently, another two meetings of the Panel, with deputations invited, were held to discuss the findings of the studies relating to HATS stage 2 and the two-phase approach for the second stage. We further consulted the Panel in July 2005 on the initial funding for the time-critical elements of stage 2A, including the design of the SCS and the EIA, and secured the Panel's support.

28. In April and July 2005, we included two items under block allocation **Subhead 4100DX** "Drainage works, studies and investigations for items in Category D of the Public Works Programme" at a total cost of $14.0 million, for engaging consultants to undertake the site investigations, surveys and an EIA for the advance disinfection facilities at SCISTW, and carrying out advance site investigation works for collecting ground information, in particular under the sea, so as to facilitate early planning and design of the HATS stage 2A SCS and the full scale ground investigation. The Category D items were completed in 2007.

29. In December 2005, we upgraded **238DS** "Harbour Area Treatment Scheme stage 2A – environmental impact assessment, investigations, tunnel conveyance system design" to Category A at an estimated cost of $166.5 million in MOD prices, for carrying out the EIA study, site investigations, and preliminary planning and design of the SCS for HATS stage 2A. The works under **238DS** commenced in January 2006 and were substantially completed in December 2009.

30. In September 2006, we upgraded **341DS** to Category B for the construction works under the HATS stage 2A. In early 2007, Members of the Panel were also provided with progress updates on HATS stage 2 during the discussion on the proposal for applying the polluter-pays principle in the provision of sewage services. In July 2007, we upgraded **351DS** "Harbour Area Treatment Scheme, stage 2A – planning and design of the upgrading works of Stonecutters Island sewage treatment works and the preliminary treatment works" to Category A at an estimated cost of $105.6 million in MOD prices, for the planning and design of the upgrading works of SCISTW and the PTWs of HATS stage 2A. The work under **351DS** commenced in August 2007 for completion in August 2010.

/31. …..

31. In January 2008, we upgraded **352DS** "Harbour Area Treatment Scheme, stage 2A – construction of advance disinfection facilities at Stonecutters Island sewage treatment works" to Category A at an estimated cost of $109.9 million in MOD prices, for the construction of the advance disinfection facilities at SCISTW. In April 2008, an increase in the approved project estimate by $9.8 million to $119.7 million in MOD prices for **352DS** was approved under delegated authority for covering the increased cost for the construction of the advance disinfection facilities as a result of the high tender prices which were not foreseen at the time of preparing the estimate for the project. The works under **352DS** commenced in April 2008 and were substantially completed in December 2009.

32. In September 2008, we included an item under block allocation **Subhead 4100DX** "Drainage works, studies and investigations for items in Category D of the Public Works Programme" at a total cost of $0.8 million in MOD prices, for engaging consultants to conduct the tendering exercise for the construction contracts under the project. The Category D item commenced in December 2008 and was completed in September 2009.

33. In June 2009, we upgraded part of **341DS** to Category A as **369DS** "Harbour Area Treatment Scheme, stage 2A – construction of the sewage conveyance system and advance works for upgrading of Stonecutters Island sewage treatment works" at an estimated cost of $9,286.5 million in MOD prices, for the construction of sewage conveyance system and the advance preparation works for the expansion and upgrading of SCISTW as well as the provision of covers and deodourization facilities to the existing sedimentation tanks at SCISTW. The construction works commenced in July 2009 for completion in September 2014.

34. Of the 321 trees within the project boundary, 271 trees will be preserved. The proposed works will involve the removal of 50 trees, including six trees to be felled, 23 trees to be replanted within the project site and 21 trees to be transplanted offsite. All trees to be removed are not important trees[4].

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[4] "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 metre (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

35. We estimate that the proposed works will create about 1 455 jobs (1 180 for labourers and another 275 for professional/technical staff) providing a total employment of about 59 600 man-months.

Environment Bureau
February 2010

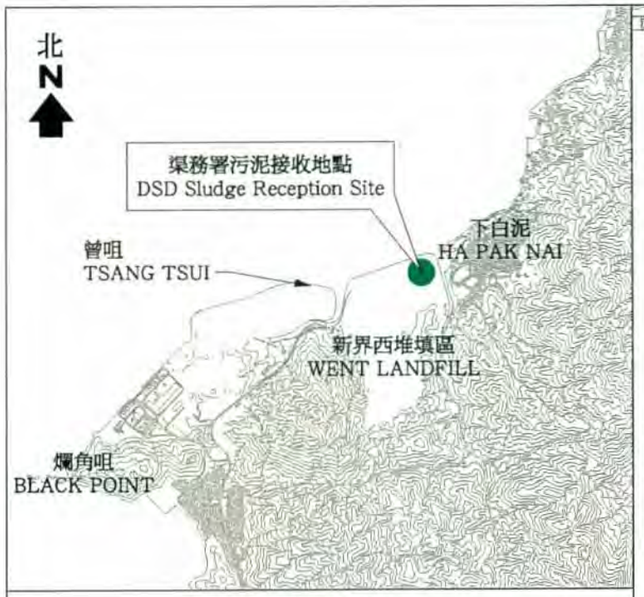
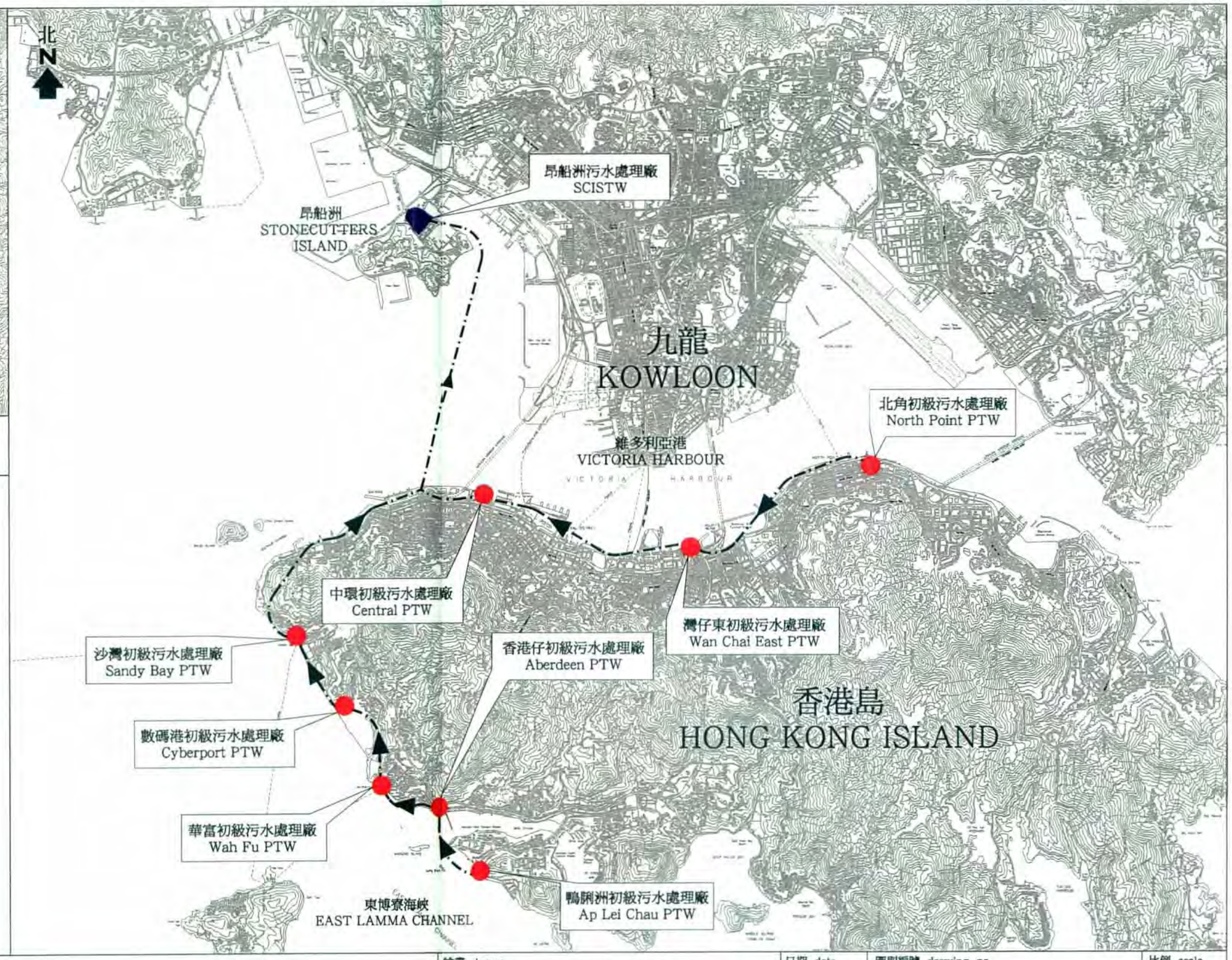


插圖 INSET
N.T.S.

圖例:
LEGEND:

- 擬改善的昂船洲污水處理廠 STONECUTTERS ISLAND SEWAGE TREATMENT WORKS (SCISTW) TO BE UPGRADED
- 擬改善的初級污水處理廠 PRELIMINARY TREATMENT WORKS (PTW) TO BE UPGRADED
- 渠務署污泥接收地點 DSD SLUDGE RECEPTION SITE
- 污水輸送系統（已於2009年6月隨369DS工程計劃提升為甲級） SEWAGE CONVEYANCE SYSTEM (UPGRADED TO CATEGORY A AS 369DS)



圖則名稱 drawing title

工務工程計劃第341DS號
淨化海港計劃第二期甲 - 改善昂船洲污水處理廠及初級污水處理廠工程
PWP ITEM No. 341DS
HARBOUR AREA TREATMENT SCHEME, STAGE 2A -
UPGRADING OF STONECUTTERS ISLAND SEWAGE TREATMENT WORKS
AND PRELIMINARY TREATMENT WORKS

繪畫 drawn	*ORIGINAL SIGNED* W.Y. HUI	日期 date	29-12-2009
核對 checked	*ORIGINAL SIGNED* C.Y. LAI	日期 date	29-12-2009
批核 approved	*ORIGINAL SIGNED* K.M. HO	日期 date	29-12-2009
部門 office	淨化海港計劃部 HARBOUR AREA TREATMENT SCHEME DIVISION		

圖則編號 drawing no. DSS/2009/006

比例 scale N.T.S.

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

A3 420x297

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KEY PLAN 示意圖

污泥處理及棄置設施
SLUDGE TREATMENT, HANDLING AND DISPOSAL FACILITIES

新主泵房
NEW MAIN PUMPING STATION

廢水隧道
EFFLUENT TUNNEL

八號貨櫃碼頭
CONTAINER TERMINAL 8

八號幹線 ROUTE 8

擴建化學強化一級處理設施
EXTENSION OF EXISTING CHEMICALLY ENHANCED PRIMARY TREATMENT FACILITIES

昂船洲污水處理廠
STONECUTTERS ISLAND SEWAGE TREATMENT WORKS

圖例 LEGEND :

擬於昂船洲污水處理廠改善工程興建的新設施
PROPOSED NEW FACILITIES FOR UPGRADING OF STONECUTTERS ISLAND SEWAGE TREATMENT WORKS

圖則名稱 drawing title

工務工程計劃第341DS號
淨化海港計劃第二期甲 - 改善昂船洲污水處理廠及初級污水處理廠工程

PWP ITEM No. 341DS
HARBOUR AREA TREATMENT SCHEME, STAGE 2A -
UPGRADING OF STONECUTTERS ISLAND SEWAGE TREATMENT WORKS AND PRELIMINARY TREATMENT WORKS

繪畫 drawn	W.Y. HUI	日期 date	
核對 checked	C.Y. LAI	日期 date	
批核 approved	K.M. HO	日期 date	
部門 office	淨化海港計劃部 HARBOUR AREA TREATMENT SCHEME DIVISION		

圖則編號 drawing no.	比例 scale
DSS/2009/007	1 : 5000

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

A3 420x297

341DS – Harbour Area Treatment Scheme, stage 2A – upgrading of Stonecutters Island sewage treatment works and preliminary treatment works

Breakdown of estimates for consultants' fees and resident site staff costs (in September 2009 prices)

			Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee ($million)
(a)	Consultants' fees for contract administration (Note 2)	Professional	-	-	-	30.4
		Technical	-	-	-	4.6
					Sub-total	35.0
(b)	Resident site staff costs (Note 3)	Professional	3 858	38	1.6	353.6
		Technical	6 049	14	1.6	192.0
					Sub-total	545.6
	Comprising –					
	(i) Consultants' fees for management of resident site staff					14.1
	(ii) Remuneration of resident site staff					531.5
					Total	580.6

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff supplied by the consultants. (As at now, MPS point 38 = $57,280 per month and MPS point 14 = $19,835 per month).

2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement of **351DS** for the design and construction of the project. The assignment will only be executed subject to the Finance Committee's approval to upgrade **341DS** to Category A.

3. The actual man-months and actual costs for site supervision will only be known after completion of the construction works.

Enclosure 3 to PWSC(2009-10)87

341DS – Harbour Area Treatment Scheme, stage 2A – upgrading of Stonecutters Island sewage treatment works and preliminary treatment works

Details of Consultation with District Councils (DCs)

DC	Committee consulted on the proposed works	Date
Central and Western District	Food, Environment, Hygiene and Works Committee	15 January 2009
Eastern District	Planning, Works and Housing Committee	15 January 2009
Kwai Tsing District	Community Affairs Committee	10 February 2009
Sham Shui Po District	Environment and Hygiene Committee	12 February 2009
Wan Chai District	Development, Planning and Transport Committee	17 February 2009
Southern District	District Development and Environment Committee	23 February 2009
Tsuen Wan District	Environmental and Health Affairs Committee	5 March 2009