

For Information

**Legislative Council
Panel on Environmental Affairs**

**Sewage Services Operating Accounts
Actual Outturn in 2009-10 and Projected Outturn in 2010-11**

PURPOSE

This information note presents the actual and projected outturns of Sewage Services Operating Accounts (SSOA) in 2009-10 and 2010-11 respectively. It also briefs Members on the outcome of our mid-term review on the schedule of annual increments of Sewage Charge (SC) and provides supplementary information for reference.

BACKGROUND

2. In May 2007, we obtained approval from the Legislative Council (LegCo) to increase the level of SC by ten increments of 9.3% per annum with a view to recovering 80% of the respective operating cost by 2017-18. Throughout the ten-year period from 2008-09 to 2017-18 when the scheduled increments gradually take place, Members will be provided with annual summaries of the outturn of SSOA for monitoring. This is the third annual summary which covers the actual and projected outturns in 2009-10 and 2010-11 respectively¹.

3. Trade Effluent Surcharge (TES) is also applied to 27 trades in addition to SC². In July 2008, the LegCo approved our proposal to revise the TES rates with effect from 1 August 2008 in accordance with the polluter-pays principle³. This information note also contains a

¹ Please refer to LC Papers No. CB(1)1681/08-09(01) and CB(1)2376/09-10(01) for the first annual summary and the second annual summary respectively.

² The trades covered under the TES Scheme and their respective TES rates are specified in Schedule 1 to Sewage Services (Trade Effluent Surcharge) Regulation (Cap. 463B).

³ Based on the results of effluent survey, the TES rates of 13 trades (including the restaurants trade) were reduced on 1 August 2008 whereas the rates of 14 trades were increased in either one increment (on 1 August 2008) or two increments (on 1 August 2008 and 1 August 2009) with a view to achieving 100% operating cost recovery by 2009-10. Three trades were removed from the TES Scheme as they were found to discharge effluents not stronger than domestic sewage.

summary of the revenue from TES and the respective operating expenditure over the same period.

SEWAGE SERVICES OPERATING ACCOUNTS

4. A summary of the actual and projected outturns of SSOA in 2009-10 and 2010-11 respectively with breakdowns by SC and TES is provided at Annex A.

Sewage Charge

5. Between 2007-08 and 2009-10, the growth in revenue from SC is largely in pace with increase in the respective operating expenditure to maintain the level of cost recovery. Specifically, the revenue from SC attained a compounded annual growth rate of 9.0% from \$490.9 million in 2007-08 to \$583.5 million in 2009-10 as a result of two consecutive increases in SC rate. Over the same period, there was an increase in the respective operating expenditure from \$951.7 million to \$1,143.5 million which reflects, among others, the effect of one-off adjustment to the apportionment ratio of SSOA operating expenditure on 1 August 2008⁴. On the overall, the operating cost recovery rate (OCRR) stayed between 51% and 52% throughout the period.

6. Moving into 2010-11, the revenue from SC is projected to grow further to \$638.9 million (+9.5%) following the third increment of SC rate, whereas the respective operating expenditure is projected to expand to \$1,186.5 million (+3.8%) in light of rising price levels. The OCRR is projected to improve by three percentage points to 54%.

7. The revenue from SC is projected to achieve gradual and modest growth in the medium term when successive scheduled increases in SC rate take effect. The respective operating expenditure will see the largest increase between 2013-14 and 2015-16 when Stage 2A of Harbour Area Treatment Scheme (HATS) and Sludge Treatment Facilities (STF) commence operation. Please refer to Annex B for an updated projection on SSOA outturn in respect of SC for each financial year up to 2017-18. With the OCRR projected to be 60% by 2017-18, overcharging of sewage services would be very unlikely up to the end of the ten-year period.

⁴ In accordance with the polluter-pays principle, the average ratio for apportioning the operating expenditure of sewage services between SC and TES was adjusted from 78:22 to 85:15 on 1 August 2008 to reflect the effects of revision to generic chemical oxygen demand values of the TES trades.

Trade Effluent Surcharge

8. As regards TES, the revenue from TES has decreased from \$209.1 million in 2007-08 to \$191.8 million in 2009-10 following the TES review in 2008³. The respective operating expenditure has also been reduced from \$265.3 million to \$198.9 million over the same period as a result of one-off adjustment to the apportionment ratio of SSOA operating expenditure on 1 August 2008⁴. The OCRR has improved from 79% in 2007-08 to 96% in 2009-10 accordingly.

9. Comparing with the outturn in 2009-10, we expect to maintain the revenue from TES at a comparable level of \$192.9 million (+0.6%) in 2010-11, while the respective operating expenditure is projected to increase to \$205.8 million (+3.5%). The OCRR is expected to remain at a relatively high level of 94% in 2010-11.

UPDATED ASSESSMENT OF ECONOMIC IMPACTS

On households

10. We have also carried out an updated assessment of economic impacts of the increases in SC level. Regarding the inflationary impact on the household front, SC accounts for only about 0.1% of the Composite Consumer Price Index (CCPI) basket. The increases in SC rate have raised the CCPI by about 0.01 percentage point per annum in the three-year period from 2008-09 to 2010-11. The impact on CCPI would also be about 0.01 percentage point per annum for the remaining seven years. The impact on inflation and hence on the purchasing power of household income is thus expected to be insignificant.

On businesses

11. On the business front, SC generally takes up a very small percentage of business operating costs in Hong Kong, so the impact on business costs for most sectors should be minimal. An analysis was carried out on the restaurants sector in view of its relatively high water consumption. With SC roughly accounting for only 0.1% to 0.2% of the total operating costs of the restaurants sector⁵, the annual increases in SC rate in the past three years have raised the total operating costs of the sector by only about 0.02% a year, and the impact should remain small

⁵ Staff cost is included in the total operating costs.

also at around 0.02% a year over the remaining seven years. Moreover, the one-off reduction in TES rate of the restaurants sector in August 2008 has to some extent mitigated the impact of SC rate increment in that year.

Benefits arising from a better environment

12. Apart from the above, the consecutive increases in SC rate should help incentivise households and businesses to economise on using water resources. These increases also contribute to our further efforts in improving the water quality of Victoria Harbour, which is an invaluable natural asset of Hong Kong. This would help enhance Hong Kong's reputation as an environmentally responsible city and our competitiveness as an international business and financial centre.

ENHANCING ENERGY EFFICIENCY OF SEWAGE SERVICES

13. Sewage treatment consumes a significant amount of energy. Improving the energy efficiency of operations at sewerage facilities will thus facilitate better control over the operating cost of sewage services in the long run. On the other hand, the more extensive use of renewable energy sources can contribute towards environmental sustainability of sewage services. Paragraphs 14 to 18 give a brief account on the efforts by Drainage Services Department (DSD) on these fronts.

Renewable energy

14. DSD has been making use of biogas⁶ as an energy source in Sha Tin sewage treatment works (STW) and Shek Wu Hui STW. With the commissioning of a new biogas fuelled generator at Tai Po STW in July 2010, biogas utilisation for sewage treatment has increased by 19.5% from 5.9 million cubic metres (m³) in 2006-07 to 7.1 million m³ in 2010-11. Three more sets of biogas fuelled generators are being installed for commissioning by 2013 to harvest renewable energy from biogas more intensively.

15. DSD has also started utilising solar energy at various sewerage facilities since 2008-09. By 2010-11, solar panels have been installed at 11 sewerage facilities to supply around 71,000 kWh of electricity. The number of such facilities will further increase to 12 by end-2011.

⁶ The sludge generated from sewage treatment has to undergo anaerobic treatment in digesters before disposal. This process releases Methane, a combustible biogas which can be used for electricity generation by a biogas fuelled generator.

16. With the wider use of both biogas and solar energy, the proportion of renewable energy usage in sewage treatment has increased from 3.8% of the total electricity consumption in 2006-07 to 4.8% of that in 2010-11. DSD will continue to explore the feasibility of using more renewable energy in its retrofitting exercises and new projects.

Energy saving technologies in sewage treatment

17. The Pillar Point STW, which is being upgraded to provide chemically enhanced primary treatment (CEPT) for commissioning by 2014, will apply advanced technologies extensively for achieving higher energy efficiency. With the adoption of design-build-operate (DBO) approach, the upgraded plant will leverage on innovative treatment technologies to achieve higher energy efficiency in subsequent operations⁷. Specifically, the upgraded Pillar Point STW will adopt a type of proprietary high-rate multi-compartment CEPT reactors optimised for enhanced hydraulic and treatment efficiencies, which is to be used for the first time in STWs under DSD's management. Sewage will also be re-circulated within the sedimentation compartments of the reactors to enhance the chemical flocculation of pollutants, thus achieving 8% energy saving in dewatering the denser raw sludge as compared against a conventional CEPT setup. The latest estimate for operating the upgraded STW for 15 years is only \$900 million as compared with our original estimate of \$1,350 million.

Retrofitting programme

18. DSD has also formulated an ongoing programme for retrofitting energy demanding devices and mechanical parts (such as motors and lightings) with types that can achieve higher energy efficiency. The improvement in energy efficiency between 2006-07 and 2010-11 could offset the additional energy demand arising from increase in sewage volume and commissioning of new facilities within the same period. It is expected that further improvement in energy efficiency could be achieved when the majority of existing sludge dewatering centrifuges at Stonecutters Island STW are retrofitted with energy saving devices by 2012.

⁷ Under the DBO arrangement, the contractor will carry out the design and construction works and operate the upgraded STW for 15 years. This puts the responsibilities of design, construction and operation of the STW into a single party which will be solely responsible for achieving the specified performance standards. It also helps optimise the interfaces among design, construction and operation of the STW at early stages of the project.

PROGRESS OF WORKS RELATING TO SEWAGE SERVICES

19. We have been closely monitoring the progress of three major infrastructural projects relating to sewage services, namely Advance Disinfection Facilities (ADF), Stage 2A of HATS and STF, all of which were still under planning or design at the time of passage of the schedule of SC increments. Paragraphs 20 to 24 present the latest progress of each of these major projects.

Advance Disinfection Facilities

20. The main function of the ADF is to disinfect the treated effluents from Stonecutters Island STW with a view to improving the water quality of western Victoria Harbour and Tsuen Wan ahead of time. Since approval of the schedule of increases in SC, we obtained funding approval of the Finance Committee (FC) for construction of the ADF by upgrading **352DS** – “Harbour Area Treatment Scheme, stage 2A – construction of advance disinfection facilities at Stonecutters Island sewage treatment works” to Category A in January 2008. The project involved a capital cost of \$119.7 million in money-of-the-day (MOD) price. Full commissioning of the facilities began on 1 March 2010 and 1.4 million m³ of sewage is being disinfected before discharge everyday.

21. The environmental benefits brought about by the ADF were obvious soon after its commissioning. Together with the efforts in controlling pollution at the local level, disinfection of treated effluents from SCISTW has led to further reduction in bacterial levels in the water at all seven closed beaches in Tsuen Wan. According to the monitoring programme of Environmental Protection Department (EPD), the water quality at all these beaches has met the Water Quality Objective for bathing beaches throughout the 2010 bathing season such that all the closed beaches are considered suitable for swimming. In view of this, Leisure and Cultural Services Department is arranging to re-open these beaches for public use in phases. The first batch involving four beaches, namely Approach Beach, Casam Beach, Hoi Mei Wan Beach and Lido Beach were re-opened on 15 June 2011⁸. The water quality of western Victoria Harbour also benefited from reduction in bacterial level by an average of about 60% in the twelve months after full commissioning of the ADF on 1 March 2010.

⁸ The water quality at the other three beaches in Tsuen Wan, namely Anglers’ Beach, Gemini Beaches and Ting Kau Beach, has also improved. Due to the need to carry out improvement works in these beaches, they will be re-opened for public use after completion of the works.

Stage 2A of Harbour Area Treatment Scheme

22. HATS Stage 2A serves to collect the sewage generated within northern and south-western parts of Hong Kong Island for centralised treatment at Stonecutters Island STW. It mainly comprises construction of a sewage conveyance system, upgrading of eight preliminary treatment works on Hong Kong Island and expansion of Stonecutters Island STW. The project is expected to bring about significant improvement to the water quality of Victoria Harbour upon commissioning by December 2014.

23. We obtained funding approval from FC for implementing the project in two parcels, namely **369DS** “Harbour Area Treatment Scheme, stage 2A – construction of the sewage conveyance system and advance works for upgrading of Stonecutters Island sewage treatment works” and **341DS** “Harbour Area Treatment Scheme, stage 2A – upgrading of Stonecutters Island sewage treatment works and preliminary treatment works” in June 2009 and April 2010 respectively at an estimated cost of \$17,199.9 million altogether in MOD price. The project is in construction phase and DSD has awarded nine out of a total of 12 civil engineering and electrical and mechanical works contracts since then. By the second quarter of 2011, construction of vertical shafts for the deep tunnels of the sewage conveyance system and excavation of diaphragm walls for the main pumping station at Stonecutters Island STW were in full swing. Piling, ground investigation, installation of covers and pre-drilling works were also in progress. Apart from the above, EPD has commissioned a consultancy study in June 2010 on the timing for implementation of HATS Stage 2B. The study is expected to be completed within 18 months.

Sludge Treatment Facilities

24. The STF is a centralised solution to the anticipated increase in sewage sludge volume upon commissioning of HATS Stage 2A as well as other upgraded/expanded regional STWs in the next few years. It will be located in Nim Wan with a design capacity of 2 000 tonnes of sewage sludge per day. With FC’s approval of upgrading **233DS** – “Sludge Treatment Facilities” at an estimated cost of \$5,154.4 million (in MOD price) for construction of the facilities in June 2009, we invited tenders for the design-build-operate contract in October 2009. The DBO contract was awarded in September 2010 and construction is now in progress. The overall programme has been advanced and we expect that the STF will be ready for commissioning to its full capacity in a single

phase by November 2013.

Other sewerage projects in progress

25. Apart from the three major projects, DSD is also implementing a number of other sewerage projects of smaller scale such as upgrading and expansion of regional STWs, local sewerage improvement works and extension of public sewerage to rural areas. Among the 41 projects of smaller scale which were planned in 2007 or commenced thereafter⁹, DSD has completed nine projects while another 20 projects are being implemented. The rest, as well as remainders of those projects being implemented in phases, are at different stages of planning and necessary preparations. Please refer to Part 2 of Annex C for information on the progress of each project.

26. As mentioned in our annual summary last year, we have all along attached importance to the timely implementation of sewerage projects and exercised our best endeavour to minimise any unnecessary rescheduling of their programmes. However, like many other public works projects, their progress may inevitably be affected by uncertainties such as longer engagement processes with stakeholders and additional time taken for finalising the project alignments before commencing land acquisitions. In such cases their programmes would have to be reviewed. So far the majority of projects facing such circumstances are village sewerage projects which involve relatively low operating expenditure. Their implications to the overall expenditure trend of SSOA should be quite limited. We shall continue to monitor the progress of these sewerage projects and expedite their implementation through adopting phased approach where appropriate and feasible.

REVIEW ON SCHEDULE OF INCREMENTS

27. The remaining six scheduled annual increments in SC are subject to a mid-term review in mid-2011. We have recently completed the review taking into account the relevant factors and considered that the

⁹ These 41 projects of smaller scale refer to –

- (a) 38 projects of smaller scale of which their implications on the operating expenditure of SSOA have been taken into account in formulating the schedule of SC increments in 2007. A list of these projects (together with the three major projects discussed in paragraphs 20 to 24) was provided at Annex C to LC Paper No. CB(1)1435/06-07(02); and
- (b) Three other sewerage projects commenced after the review on SC.

schedule should be kept intact for the time being. The assessment is presented below –

- (a) With firm progress in implementing the major projects as set out in paragraphs 20 to 24, the operating expenditure of SSOA will soon enter a stage of steep increases as envisaged in previous occasions. It has now become much more certain that the remaining scheduled increases in SC rate will be quintessential to the provision of sewage services in accordance with the polluter-pays principle, without which our efforts for protecting the marine environment cannot sustain; and
- (b) While we are facing a scenario underpinned by more challenging assumptions (such as escalating price levels and shifting patterns in water consumption), it is uncertain how these externalities will eventually influence the actual SSOA outturns beyond the near term. In contrast, the prospective growth in revenue is considered more reliable and predictable given a definitive increment schedule in SC rate. On balance, at this stage we expect that the fiscal fundamentals of SSOA should remain sufficiently robust throughout remaining period of the ten-year horizon.

28. We will continue to closely monitor the SSOA outturn with particular attention to the actual recurrent implications of HATS Stage 2A upon its commissioning by 2014. Members will be kept informed of the latest situation through the annual summaries of SSOA.

ADVICE SOUGHT

29. Members are invited to note the content of this information note.

**Environmental Protection Department
Drainage Services Department
July 2011**

Sewage Services Operating Accounts

Actual Outturn in 2009-10 and Projected Outturn in 2010-11

	<i>(X)</i>		<i>(Y)</i>		<i>(Y) - (X)</i>	
	Outturn in 2009-10		Outturn in 2010-11		Variance	
	<i>(Actual)</i>		<i>(Projected)</i>			
	<i>SC</i>	<i>TES</i>	<i>SC</i>	<i>TES</i>	<i>SC</i>	<i>TES</i>
<i>(A)</i> Revenue (\$ million)	583.5	191.8	638.9	192.9	55.4	1.1
<i>(B)</i> Expenditure [#] (\$ million)	1,143.5	198.9	1,186.5	205.8	43.0	6.9
<i>(A) - (B)</i> Operating Deficit (\$ million)	560.0	7.1	547.6	12.9	(12.4)	5.8
<i>(A) / (B)</i> Cost Recovery Rate	51%	96%	54%	94%	3% point	(2% point)

[#] Excluding depreciation

Sewage Services Operating Accounts**Actual Outturn from 2007-08 to 2009-10 and
Projected Outturn from 2010-11 to 2017-18 in respect of Sewage Charge**

	Outturn in			Outturn in							
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
	<i>(Actual)</i>			<i>(Projected)</i>							
(A) Revenue (\$ million)	490.9	531.6	583.5	638.9	706.6	781.3	863.5	953.9	1,053.3	1,162.7	1,284.0
(B) Expenditure [#] (\$ million)	951.7	1,023.6	1,143.5	1,186.5	1,246.9	1,295.0	1,361.0	1,642.7	2,037.2	2,084.5	2,131.0
(A) - (B) Operating Deficit (\$ million)	460.8	492.0	560.0	547.6	540.3	513.7	497.5	688.8	983.9	921.8	847.0
(A) / (B) Cost Recovery Rate	52%	52%	51%	54%	57%	60%	63%	58%	52%	56%	60%

Excluding depreciation

**Latest Position of Sewage Services-related Infrastructure Projects and Other projects
(July 2011)**

Part 1 Major Projects

PWP Item No.	Project Title	Progress as at July 2011
1	341DS Harbour Area Treatment Scheme, stage 2A – upgrading of Stonecutters Island sewage treatment works and preliminary treatment works	The project was part-upgraded to Category A for implementation 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” in June 2009, while the remaining part of 341DS was also upgraded to Category A in April 2010. Both parts are on schedule for completion by December 2014.
2	352DS Harbour Area Treatment Scheme, stage 2A – construction of advance disinfection facilities at Stonecutters Island sewage treatment works	The project was completed in October 2009. With full commissioning of the advance disinfection facilities since March 2010, there have been sustained improvements in the water quality of the seven beaches in Tsuen Wan.
3	233DS Sludge treatment facilities	With approval by the Finance Committee (FC) for upgrading the project to Category A in June 2009, we have commenced the design and construction of the project in October 2010. Construction is in progress for commissioning by November 2013.

Part 2 Other Sewerage Projects of Smaller Scale

	PWP Item No.	Project Title	Progress as at July 2011
4	344DS	Upgrading of Central and East Kowloon sewerage	Both projects, together with 356DS “Upgrading of Central and East Kowloon sewerage – package 4”, were combined and re-packaged for implementation in three phases. The project is being implemented in phases, with phases 1 and 2 having already been upgraded to Category A as 367DS “Upgrading of Central and East Kowloon sewerage – phase 1” and 377DS “Upgrading of Central and East Kowloon sewerage – phase 2” for completion by June 2012 and December 2015 respectively.
5	337DS	Upgrading of Central and East Kowloon sewerage – packages 2 and 3	
6*	357DS	Sewage interception scheme in Kowloon City	Construction is in progress for completion of the project by July 2012.
7*	363DS	Provision of interception facilities at Jordan Valley box culvert	Construction is in progress for completion of the project by June 2014.
8	125DS	Tolo Harbour sewerage of unsewered areas, stage 2	The project is being implemented in phases. We obtained FC’s approval to upgrade part of the project to Category A as 365DS “Tolo Harbour sewerage of unsewered areas, stage 1 phase 2C” for completion by February 2013.
9	222DS	Tai Po sewage treatment works, stage 5 phase 1	The project was completed in February 2010.
10	342DS	Tai Po sewage treatment works, stage 5 phase 2A – disinfection	The project was completed in March 2010.
11	236DS	Tai Po sewage treatment works, stage 5 phase 2B	Construction is in progress for completion of the project by September 2013.

PWP Item No.	Project Title	Progress as at July 2011
12	237DS Tai Po Tai Wo Road sewage pumping station and rising mains	Construction is in progress for completion of the project by December 2011.
13	332DS Lam Tsuen Valley sewerage	The project is being implemented in phases. We obtained FC's approval to upgrade two parts of the project to Category A as 364DS "Lam Tsuen Valley sewerage – trunk sewers, pumping station and rising mains" and 373DS "Lam Tsuen Valley sewerage, stage 1" for completion by September 2012 and August 2015 respectively.
14	338DS Improvement and upgrading of the sewerage systems in Shatin / Ma On Shan New Town	The project was completed in May 2011.
15*	372DS Rehabilitation and construction of trunk sewers underneath Shing Mun River Channel	Construction is in progress for completion of the project by November 2015.
16	52DS Ting Kau sewerage, stage 2	The project was completed in September 2009.
17	126DS Sham Tseng sewerage, stage 3	The project was completed in September 2009.
18	358DS Sewerage to Chuen Lung Village, Kau Wa Keng Old Village and Lo Wai	The implementation programme is under review with a view to re-packaging part of the works for early commencement in light of the additional time needed for further consulting certain local communities and obtaining their support.
19	226DS Sai Kung sewage treatment works, phase 2 upgrading	The implementation programme is under review to align with the programmes of other village sewerage projects around Port Shelter.
20	272DS Port Shelter sewerage, stage 2	The implementation programme is under review for better coordination with the proposed improvement works at Hiram's Highway and in light of the additional time needed for obtaining support from the local communities.

PWP Item No.	Project Title	Progress as at July 2011
21	273DS Port Shelter sewerage, stage 3	The implementation programme is under review in light of the additional time needed for further consulting the local communities and obtaining their support.
22	347DS Port Shelter sewerage, stage 3 – Sai Kung Area 4 sewerage	The project was completed in February 2011.
23	235DS Yuen Long and Kam Tin sewerage and sewage disposal	The project is being implemented in phases. We obtained FC's approval to upgrade two parts of the project to Category A as 368DS "Yuen Long South sewerage and expansion of Ha Tsuen sewage pumping station" and 376DS "Trunk sewerage at Lau Fau Shan" for completion by October 2013 and December 2015 respectively.
24	350DS Yuen Long and Kam Tin sewerage and sewage disposal – consultants' fees and investigations	This is a consultancy study on the detailed planning and design of 235DS "Yuen Long and Kam Tin sewerage and sewage disposal" (item 23). Subject to the programme of the remaining part of 235DS , the study is anticipated to be completed by February 2013.
25	215DS Yuen Long and Kam Tin sewerage and sewage disposal – Kam Tin trunk sewerage, phase 1 and Au Tau trunk sewers	The project was completed in February 2010.
26	223DS Yuen Long and Kam Tin sewerage treatment upgrade – upgrading of San Wai sewage treatment works	The implementation programme is under review in light of a change in sewage flow build-up and the additional time needed for obtaining support from the local communities.
27	157DS Yuen Long and Kam Tin sewerage, stage 2 phase 3B, 3C, 3D, 4B, 4C, 5A, 5B, 5C, 5D and 5E	The implementation programme is under review in light of the additional time needed for further consulting the local communities and obtaining their support.

PWP Item No.	Project Title	Progress as at July 2011
28	274DS Yuen Long and Kam Tin sewerage, stage 3	The project is being implemented in phases. We obtained FC's approval to upgrade part of the project to Category A as 370DS "Village sewerage at Wang Chau of Yuen Long" for completion by June 2013.
29	160DS Tuen Mun sewerage, stage 1	The project is being implemented in phases. We obtained FC's approval to upgrade part of the project to Category A as 374DS "Tuen Mun sewerage, stage 1 – village sewerage in Tsing Chuen Wai and Tuen Tsz Wai" for completion by August 2014.
30	181DS Tuen Mun sewerage, stage 2	The implementation programme is under review in light of the additional time needed for further consulting the local communities and obtaining their support.
31	329DS Upgrading of Pillar Point sewage treatment works	With FC's approval of increase in the approved project estimate (APE), we have awarded the design-build-operate contract for upgrading the sewage treatment works (STW) in July 2010 for completion by November 2013.
32	346DS Upgrading of Tuen Mun sewerage, phase 1	The project is being implemented in phases. We obtained FC's approval to upgrade two parts of the project to Category A as 360DS "Sewerage at Tseng Tau Chung Tsuen, Tuen Mun" and 371DS "Sewerage in western Tuen Mun". The former was completed in February 2011 whereas the latter is scheduled for completion by December 2015.
33	229DS North District and Tolo Harbour sewerage, sewage treatment and disposal – high priority works – expansion of Shek Wu Hui sewage treatment works and Ting Kok Road pumping station No. 5	The project was completed in February 2009.

PWP Item No.	Project Title	Progress as at July 2011
34	348DS North District and Tolo Harbour sewerage, sewage treatment and disposal – regional sewerage works, part 1 – sewerage upgrade	DSD has commenced construction on site subsequent to FC’s approval for upgrading the project to Category A. The completion timeframe has been re-scheduled from the original target of December 2013 to July 2014 as more time was needed to resolve the disruption to operation of the existing sewerage, and to minimise the traffic impact during construction phase.
35	339DS North District sewerage, stage 1 phase 2C and stage 2 phase 1	The project is being implemented in phases. We obtained FC’s approval to upgrade three parts of the project to Category A as 359DS “North District sewerage, stage 1 phase 2B”, 366DS “Kau Lung Hang sewerage – trunk sewers, pumping station and rising mains” and 375DS “Sewerage in Ping Kong, Fu Tei Pai and Tai Wo”. The works under 359DS were completed in January 2011 and those for 366DS and 375DS are scheduled for completion by September 2012 and November 2015 respectively.
36	345DS North District sewerage, stage 2 part 2A	The project is being implemented in phases. We obtained FC’s approval to upgrade part of the project to Category A as 378DS “North District sewerage, stage 2 part 2A – Pak Hok Lam trunk sewer and Sha Tau Kok village sewerage” for completion by December 2015.
37	203DS North District sewerage, stage 2 part 2B	The implementation programme is under review in light of the additional time needed for further consulting the local communities and obtaining their support.
38	211DS Outlying Islands sewerage, stage 1 phase 2 – upgrading of Peng Chau sewage treatment works	The project was completed in March 2008.

PWP Item No.	Project Title	Progress as at July 2011
39 230DS	Outlying Islands sewerage, stage 1 phase 1 part 2 – Yung Shue Wan sewerage, sewage treatment works and outfall	We first obtained FC’s approval to upgrade both projects to Category A in November 2007. Part of the sewerage works has been completed while, on the other hand, DSD was required to re-tender the works contract for construction of the STWs as the first tendering exercise was unsuccessful.
40 234DS	Outlying Islands sewerage, stage 1 phase 2 – Sok Kwu Wan sewage collection, treatment and disposal facilities	With FC’s approval for increasing the APE of both projects, DSD has commenced construction of the remaining works for completion of both projects by February 2014.
41 343DS	Outlying Islands sewerage, stage 2 – Peng Chau village sewerage phase 2	The implementation programme is under review in light of the additional time needed for further consulting the local communities and obtaining their support.
42 353DS	Outlying Island sewerage, stage 2 – upgrading of Mui Wo Village sewerage phase 2 and Mui Wo sewage treatment works	The three projects were split from 331DS “Outlying Islands sewerage, stage 2”. Their respective implementation programmes are under review in light of the additional time needed for further consulting the local communities and obtaining their support. The review on the programme of 354DS is also subject to further upgrading in treatment level of the proposed STWs under the project.
43 354DS	Outlying Islands sewerage, stage 2 – upgrading of Cheung Chau and Tai O sewage collection, treatment and disposal facilities	
44 355DS	Outlying Islands sewerage, stage 2 – Lamma Village sewerage phase 2	

* These are projects commenced only after the review of sewage charges in 2007. In other words, they have *not* been included under the list of sewage services-related infrastructure projects and other projects for the purpose of determining sewage charge increment levels at that time.