

**立法會**  
**Legislative Council**

LC Paper No. CB(1) 604/08-09  
(These minutes have been seen  
by the Administration)

Ref : CB1/PL/EA/1

**Panel on Environmental Affairs**

**Minutes of meeting**  
**held on Monday, 15 December 2008, at 4:30 pm**  
**in Conference Room A of the Legislative Council Building**

- Members present** : Hon Audrey EU Yuet-mee, SC, JP (Chairman)  
Hon CHAN Hak-kan (Deputy Chairman)  
Ir Dr Hon Raymond HO Chung-tai, SBS, S.B.St.J., JP  
Hon James TO Kun-sun  
Hon LAU Kong-wah, JP  
Hon Miriam LAU Kin-yee, GBS, JP  
Hon Andrew CHENG Kar-foo  
Hon Albert CHAN Wai-yip  
Hon LEE Wing-tat  
Hon Jeffrey LAM Kin-fung, SBS, JP  
Hon CHEUNG Hok-ming, SBS, JP  
Prof Hon Patrick LAU Sau-shing, SBS, JP  
Hon KAM Nai-wai, MH  
Hon Cyd HO Sau-lan  
Hon CHAN Kin-por, JP
- Members absent** : Hon WONG Yung-kan, SBS, JP  
Dr Hon Priscilla LEUNG Mei-fun
- Public officers attending** : **For item IV**
- Mr Edward YAU  
Secretary for the Environment
- Mr Roy TANG  
Deputy Secretary for the Environment
- Mr Alfred SIT  
Assistant Director/Energy Efficiency  
Electrical and Mechanical Services Department

**For item V**

Mr Edward YAU  
Secretary for the Environment

Mr Albert LAM  
Deputy Director of Environmental Protection (2)

Mr Elvis AU  
Assistant Director (Water Policy)  
Environmental Protection Department

Mr SHIU Wing-yu  
Assistant Director (Sewage Services)  
Drainage Services Department

Mr CHUI Wing-wah  
Chief Engineer (Harbour Area Treatment Scheme)  
Drainage Services Department

**For item VI**

Mr Elvis AU  
Assistant Director (Water Policy)  
Environmental Protection Department

Mr TSUI Wai  
Assistant Director/Projects & Development  
Drainage Services Department

Mr MAK Ka-wai  
Chief Engineer/Consultants Management  
Drainage Services Department

**Clerk in attendance** : Miss Becky YU  
Chief Council Secretary (1)1

**Staff in attendance** : Mrs Mary TANG  
Senior Council Secretary (1)2

Miss Mandy POON  
Legislative Assistant (1)4

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**I. Confirmation of minutes**

(LC Paper No. CB(1) 307/08-09 — Minutes of the meeting held on 24 October 2008)

The minutes of the meeting held on 24 October 2008 were confirmed.

**II. Information paper issued since last meeting**

2. Members noted that no information paper had been issued since last meeting.

**III. Items for discussion at the next meeting**

(LC Paper No. CB(1) 363/08-09(01) — List of follow-up actions

LC Paper No. CB(1) 36308-09(02) — List of outstanding items for discussion)

3. Members agreed to discuss the following items at the next regular meeting scheduled for Monday, 21 January 2009, at 2:30pm -

(a) 4357DS - Sewage Interception Scheme in Kowloon City;

(b) 805TH - Retrofitting of noise barriers on Fanling Highway (MTR Fanling Station to Wo Hing Road), and 807TH - Retrofitting of noise barriers on Fanling Highway (Po Shek Wu Road to MTR Fanling Station); and

(c) Banning of commercial fishing in marine parks.

4. Members also agreed to postpone the starting time of the special meeting to be held on Thursday, 15 January 2009, from 4:30 pm to 5:00 pm to avoid clashing with the Chief Executive's Question and Answer Session held on the same day.

**IV. District Cooling System at the Kai Tak Development**

(LC Paper No. CB(1) 363/08-09(03) — Administration's paper on District Cooling System at the Kai Tak Development

LC Paper No. CB(1) 363/08-09(04) — Paper on the provision of a District Cooling System at the Kai Tak Development prepared by the Legislative Council Secretariat (Background brief))

5. The Secretary for the Environment (SEN) briefed members on the proposal to upgrade the project of implementing a District Cooling System (DCS) at the Kai Tak Development (KTD) (5045CG) to Category A at an estimated cost of about

\$1,402 million, prior to the submission to the Public Works Subcommittee (PWSC) and Finance Committee (FC) for funding approval.

6. Professor Patrick LAU sought elaboration on the implementation details of DCS. He enquired whether the estimated cost of \$1,402 million would include the provision of pipeworks and connection facilities at user buildings at KTD and if so, whether it would be more practical and cost-effective to make the use of DCS mandatory. The Deputy Secretary for the Environment (DS(Env)) said that DCS was a large-scale centralized air-conditioning system which produced chilled water at the central chiller plants and distributed the chilled water to user buildings for air-conditioning purpose. It was intended for public and private non-domestic developments at KTD. The estimated cost of \$1,402 million would include the provision a northern chiller plant, a southern underground chiller plant and underground seawater pumphouse, seawater pipeworks, chilled water pipeworks and connection facilities at user buildings at KTD. Connection to the proposed DCS by private users would be on a voluntary basis, in line with the experience of most countries. As connection to DCS would dispense with the need for installation of separate air-conditioning plants, this could reduce the construction cost by about 10%, which would serve as an incentive for connection to DCS.

7. Professor Patrick LAU expressed concern that it would be difficult to work out the design capacity of DCS if connection to it was on a voluntary basis. He further asked if residential developments could also connect to DCS. DS(Env) said that of the estimated 1.73 million square metres of air-conditioned floor area in KTD, about 35% would be public developments which would all connect to DCS as a demonstration of Government's determination to reduce energy consumption, provided that their implementation programme could match the development schedule of DCS. The Electrical and Mechanical Services Department would approach the developers of the remaining 65% private developments at an early stage to promote the service. Besides, DCS would be developed and commissioned for operation in three phases to suit the three major groups of developments with potential of using DCS services. The design and construction would commence in the second quarter of 2010 for completion of the first phase in end 2012 for operation from 2013 onward. The second and third phases would be completed in end 2016 and end 2021 for operation from 2017 and 2022 respectively.

8. Given the unsuccessful experience of the Administration in implementing large-scale projects, such as the Harbour Area Treatment Scheme which had given rise to a host of environmental problems, Mr Albert CHAN was concerned about the provision of DCS in KTD. He was also dissatisfied that the Administration had only provided the conceptual plan for DCS without some basic information, such as the annual maintenance cost, electricity savings for individual users, outcome of consultation, and overseas experience etc. It would be difficult for members to consider the funding for such a large-scale project of \$1,402 million in the absence of such information. SEN explained that the proposal was meant to outline the conceptual plan on the provision of DCS in KTD. More detailed information would be made available to members when the relevant funding proposal was submitted to

PWSC and FC. DS(Env) supplemented that DCS had been adopted since 1960s. Nowadays, many overseas cities including Tokyo and Singapore, were using DCS and its effectiveness had been proven. As regards the savings to be achieved, DS(Env) said that apart from construction cost, DCS would consume 35% and 20% less electricity as compared to traditional air-cooled air-conditioning systems and individual water-cooled air-conditioning systems using cooling towers respectively.

9. Noting that DCS had been in use by other countries some 40 years ago, Mr Albert CHAN queried why such an energy efficient system was not introduced to Hong Kong earlier. He considered that more information on the overseas experience in using DCS should be provided. SEN said that water-cooled air-conditioning systems had been installed in some developments in Hong Kong. These were not applied on a district basis before possibly due to the remoteness of water sources. Apart from technical considerations, the economy of scale and the cost-effectiveness would also have to be taken into account in the development of DCS. KTD was considered a suitable site for the development of DCS because it was a new town which was close to the waterfront. With its higher energy efficiency, the DCS project was expected to bring about significant environmental benefits.

#### Environmental impacts of DCS

10. Mr Jeffrey LAM was concerned about the environmental impact of DCS on the receiving waters and ecological sensitive receivers in these waters. Mr Albert CHAN echoed that study on the ecological impacts of DCS would need to be conducted, particularly the effects of the increase in temperature of the receiving waters arising from seawater discharges from DCS. The Assistant Director/Energy Efficiency (AD/EE) said that according to the findings of a consultancy study on the project, the temperature and residual chlorine in the seawater discharges would only have minimal impacts on the receiving marine waters. It was estimated that the temperature increase of the surrounding waters within a range of 100 metres from the seawater discharges of DCS would be up to 2°C while the concentration of residual chlorine in the surrounding waters around the seawater discharges of DCS within the similar range would decline to 0.0075 mg per litre which would be well below the prevailing licensing requirements. The slight increase in temperature on the surrounding waters was not expected to have impact on the marine ecology. As regards short-term impacts during construction, he said that efforts would be made to 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. Mr LAM enquired about the water flow at the point of discharge as this would affect the dispersal of seawater discharges from DCS. AD/EE explained that the study on seawater discharges from DCS was based on a slow tidal flow, and it was concluded that the impact would be minimal.

#### Cost and tariff level of DCS

11. Mr Jeffrey LAM enquired about the tariff level to be set in order to recoup the

capital and operating costs of DCS. DS(Env) said that as taxpayers should not subsidize the air-conditioning charges of users, the Government should be provided sufficient flexibility to determine the charging structure, tariff levels and adjustment mechanism for DCS to ensure that the capital and operating costs could be recovered from users. The tariff would be set at a competitive level not higher than traditional water-cooled air-conditioning systems so as to attract a critical mass of private users to connect to DCS. A study on the tariff levels would be conducted with reference to overseas experience.

12. Ms Miriam LAU was pleased to note that the proposed DCS could achieve maximum annual savings in electricity consumption of up to 85 million kWh, and reduction of 59 500 tonnes of carbon dioxide emission per annum. In view of the significant environmental benefits which the DCS project would bring, she opined that the tariff should not only be set at a competitive level but aim at an attractive level to encourage more users to connect to the system. She further enquired about the timeframe for the cost recovery of the project and its annual rate of return. DS(Env) said that based on the study conducted by financial advisors, it would take about 27 years to recoup the cost on the assumption that 50% of the total planned public and private non-domestic air-conditioned floor area would connect to DCS. AD/EE added that the cost recovery period of 27 years was within the service life of electrical and mechanical installations of the plant, which was generally estimated at 30 years.

13. Ms Miriam LAU questioned why the assumption was based on 50% and not 100% usage, and whether the environmental benefits arising from DCS were based on 50% or 100% usage. As the tariff for connecting to DCS would likely be much lower than the electricity charges for traditional air-cooled air-conditioning systems, the Chairman held the view that most users would connect to DCS which would indeed help shorten the recovery period for DCS. She therefore considered the Administration's assumption of 50% usage overly conservative. DS(Env) said that the financial estimates were worked out on the assumption that 50% of the total planned air-conditioned floor area in KTD would connect to DCS. While a 100% subscription rate would mean lower tariff, shorter recovery period and more environmental benefits, a more conservative estimate had to be used for the purpose of financial planning. SEN supplemented that while the Administration would be targeting at 100% subscription rate, it would need to adopt a more cautious approach when making its financial estimates. With the proposed phased implementation of DCS, it was expected that DCS would be well received because consumers could benefit from lower tariffs while developers could benefit from lower construction cost. Ms LAU remarked that by making DCS more attractive to users, the Administration could set a more aggressive target. She therefore suggested that the financial estimates should be revised on the assumption that 90% of the total planned floor area would connect to DCS.

14. Given that DCS was more energy efficient than traditional air-cooled air-conditioning systems, Mr LEE Wing-tat agreed that efforts should be stepped up to promote its use in an attempt to reduce global warming. To attract more private users, the tariff should be set at a reasonable level. SEN said that while water-cooled

air-conditioning systems could be installed in individual buildings as in the case of some developments in Wan Chai, it would be more cost-effective to develop DCS in new town development which was close to the waterfront, such as KTD where a large number of public developments like the cruise terminal and sports stadium which would connect to DCS. It was expected that private users in KTD would be attracted to connect to the proposed DCS in view of its cost-effectiveness and environmental friendliness. Given the environmental benefits which DCS could bring, Mr LEE opined that it should not be confined to new town developments, but should be broadly applied to other districts, including developed districts, even on a smaller scale. To this end, consideration should be given to conducting studies on the feasibility of extending DCS to other districts in the form of a pilot scheme.

15. Mr CHAN Kin-por was more concerned about the under-usage of DCS since connection to it was on a voluntary basis. It would be a waste of resources if only public developments would connect to DCS. As such, there was a need for incentives to attract more private users to connect to the system. SEN said that the Government had been advocating a low carbon economy to achieve energy efficiency and the DCS project was a step in the right direction. As DCS was an energy-efficient air-conditioning system, its connection was expected to help cut down the electricity charge for air-conditioning when compared to using traditional air-conditioning systems.

16. Mr Jeffrey LAM sought clarification on the substantial increase in estimated capital cost for the DCS project which had risen from \$655 million in 2001 price level to \$1,402 million. DS(Env) explained that the cost estimate made in 2001 was based on a total planned air-conditioned floor area of 1.1 million square metres while the latest estimate was based on a floor area of 1.73 million square metres, representing an increase of 50%. The increase in capital cost was also partly due to increase in cost of construction materials. Mr LAM remarked that the capital cost should not expect to further increase beyond \$1,402 million given that construction and material costs would unlikely rise amid the financial turmoil.

17. In response to the Chairman's enquiry on the types of developments which would choose not to connect to DCS, AD/EE said that some developers might prefer to have their own central air-conditioning systems for better control. To boost the confidence of users in DCS, the Government would assume leading role in the project. To facilitate better understanding of the DCS project, the Administration undertook to include additional information on the detailed cost breakdown, including operating and connection costs, of the project as well as overseas experience in the use of DCS, in its submission to PWSC and FC.

18. In concluding, the Chairman said that members did not object to the submission of the proposal for consideration by PWSC.

**V. 341DS - Harbour Area Treatment Scheme Stage 2A - construction of the sewage conveyance system and upgrading of Stonecutters Island Sewage Treatment Works and preliminary treatment work**

(LC Paper No. CB(1) 363/08-09(05) — Administration's paper on 341DS - Harbour Area Treatment Scheme Stage 2A - construction of the sewage conveyance system and upgrading of Stonecutters Island Sewage Treatment Works and preliminary treatment works

LC Paper No. CB(1) 363/08-09(06) — Paper on the Harbour Area Treatment Scheme prepared by the Legislative Council Secretariat (updated background brief)

19. The Assistant Director (Water Policy) (ADEP(WP)) and Chief Engineer (Harbour Area Treatment Scheme) (CE(HATS)) gave a power-point presentation on the Administration's proposal to upgrade part of 341DS Harbour Area Treatment Scheme (HATS) Stage 2A - construction of the sewage conveyance system and upgrading of Stonecutters Island Sewage Treatment Works (SCISTW) and preliminary treatment work to Category A at an estimated cost of about \$7,000 million in money-of-the-day prices, prior to submission to PWSC for consideration with a view to seeking funding approval from FC.

Environmental implications

20. Given that the discharge of treated effluent from SCISTW under the HATS Stage 1 had adversely affected the water quality of the surrounding waters, resulting in the closure of a number of beaches, Mr LEE Wing-tat enquired whether the improvements to be made upon commissioning of HATS Stage 2A in 2014 could enable the re-opening of the beaches in Tsuen Wan, Kwai Tsing and Tuen Mun to the public, and resumption of the annual cross-harbour swimming event. Mr KAM Nai-wai hoped that apart from swimming, fishing in the harbour which was presently not advisable on account of the water pollution could also be resumed after the commissioning of HATS Stage 2A. He therefore supported the early implementation of HATS Stage 2A. ADEP(WP) said that according to the Environmental Impact Assessment (EIA) study conducted for the project, the *E Coli* level of the treated effluent was expected to decrease by 99% with the commissioning of the advance disinfection facilities under HATS Stage 2A in late 2009, representing a significant improvement as compared to the 50% reduction using the Chemically Enhanced Primary Treatment under HATS Stage 1. Further improvements to the water quality would be made through the completion of new sewerage facilities in the beach hinterlands at Sham Tseng and Ting Kau, which was expected to complete in end 2009. Water pollution would be reduced upon connection of unsewered properties to the public sewers. The beach water quality would be closely monitored, and consideration would be given to re-opening the beaches in 2010/2011 if the water quality was found to be of an acceptable standard. Regarding the resumption of the



annual cross-harbour swimming event, ADEP(WP) said that this would be considered provided that the *E Coli* count in the harbour area dropped from the present 2200 counts per 100 ml to below 610 counts per 100 ml following the commissioning of disinfection facilities, and that suitable marine traffic arrangements were in place. However, it would not be advisable to fish in locations of sewage discharge or storm water discharge as the surrounding waters were more polluted.

21. Mr Albert CHAN hoped that with the improvements to the water quality of the harbour through HATS Stage 2, the odour problem arising from the polluted waters along Tsuen Wan and Tsing Yi could be resolved, and that the closed beaches could be re-opened. However, as the seabed near Tsuen Wan was heavily polluted, resulting in irreparable damage to the marine ecology, effort should be made to resolve the problem through excavation of soil or covering of the seabed with sand to allow for the revival of the marine ecosystem. Consideration should also be given to banning fishing in the area in view of the heavy pollution. Given that substantial resources had already been put in the project, Mr CHAN hoped that the current funding proposal was once and for all, and that no further funding would be required. ADEP(WP) said that significant improvements to the water quality of the harbour would be expected following the commissioning of HATS Stage 2A. The anticipated reduction in *E Coli* level as well as inorganic nitrogen and other toxic substances would be beneficial to the marine ecology. As regards the seabed near Tsuen Wan, ADEP(WP) said that regular monitoring had been conducted and improvements had been seen in recent years. SEN added that while the treatment of the seabed did not fall within the HATS Stage 2A project, the matter would be looked into separately. At members' request, the Administration undertook to provide a written response on the measures to be taken to deal with the problem of polluted seabed near Tsuen Wan.

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22. Ms Cyd HO noted with concern the substantial amount of inert construction and demolition (C&D) materials to be generated under HATS Stage 2A as well as other major infrastructure projects on the pipeline. Given the lack of reclamation projects in Hong Kong to absorb these C&D materials, she enquired if there were any sustainable ways to deal with the over-supply of these materials which the existing public fill reception facilities could not be able to accommodate. Consideration should be given to conducting a study on the best means to recycle inert C&D materials. CE(HATS) said that about 1 940 000 tonnes of C&D materials were expected to be generated from the HATS Stage 2A. Of these, 840 000 tonnes of inert C&D materials, mainly granitic rocks, would be delivered to Lam Tei Quarry for processing into aggregate for commercial use, while 1 090 000 tonnes of other inert C&D materials would be delivered to public fill reception facilities for later use. The remaining 10 000 tonnes of non-inert C&D materials, representing about 1% of the total C&D materials generated, would be disposed of at landfills. It was worth noting that the amount of non-inert C&D materials to be deposited at landfills was very small for a large-scale project like HATS Stage 2A. A committee had been set up under the Civil Engineering and Development Department to monitor the use of fill materials by different construction projects to ensure the optimal use of these materials. SEN added that agreement had been reached with the State Oceanic Administration (SOA) on the delivery of inert C&D materials to the Mainland for reclamation purposes. A trial reclamation site in Guanghaiwan of Taishan had started in July 2007 and efforts would continue to be made to explore with SOA on

the feasibility of identifying more sites for reusing these materials.

23. While supporting the proposal in principle, Mr CHAN Hak-kan expressed concern about the possible recurrence of ground settlement problem in Tseung Kwan O associated with the excavation of tunneling works under HATS Stage 1. This had resulted in the forfeiture and re-tendering of contracts. As the tunneling works under the HATS Stage 2A project would be carried out in the northern part of the Victoria Harbour, the impact of these works on underground water conditions might affect the developments on the Hong Kong Island. Hence, every effort should be made to avoid the recurrence of the same problem under HATS Stage 1. ADEP(WP) said that the problem of underground water inflows to the tunnels was of much concern to the Drainage Services Department (DSD) when carrying out design works for underground tunnels. Taking account of the experience gained in HATS Stage 1, improvements had been made in the planning, design and contractual arrangements for HATS Stage 2A. AD/SS said that apart from conducting more investigative works to assess the underground conditions, grouting works would be carried out in advance of excavation works to prevent the problem of underground water inflows to the tunnels. As regards the contractual problems associated with the construction works for HATS Stage 1, ADEP(WP) said that this had been looked into by the Director of Audit, and a number of recommendations had been made. The Administration would make reference to these recommendations when proceeding with the construction works for HATS Stage 2A.

24. Ir Dr Raymond HO enquired whether the tunneling works under HATS Stage 2A would traverse geological faults, which might result in ground water inflows to the deep tunnels. CE(HATS) said that the tunnels to be built were deep tunnels within bed rock. Detailed geological investigation had been carried out using the latest boring machines to better understand the underground conditions. At present, about 149 boreholes had been drilled along tunnel alignment which had provided useful data for the modeling study on underground conditions. Besides, contractors would be required to apply effective measures, including systematic grouting, to prevent underground water inflows to the tunnel which might result in ground settlement.

#### Sludge treatment and disposal

25. Mr CHAN Hak-kan was concerned about the management and disposal of sludge, the quantity of which would be increased from the present 600 tonnes per day to more than 1000 tonnes per day upon full commissioning of HATS Stage 2A. ADEP(WP) said that a Sludge Treatment Facility (STF) was being planned by the Environmental Protection Department for commissioning in 2012 to provide a sustainable sludge treatment and disposal solution for the dewatered sludge generated by SCISTW as well as other sewage treatment works. An EIA study was being conducted on the implementation of STF and members would be consulted on the outcome of the assessment. Mr CHAN enquired about the impact on existing landfill capacity if STF could not be commissioned on time. Ir Dr Raymond HO also asked if the construction of STF could be expedited. ADEP(WP) said that as the disposal of excessive amount of sludge would undermine the safety of landfills, this would not be sustainable in the

long run. STF was needed as there was very limited opportunity to reuse the sludge because of its high chloride content due to the general use of seawater for flushing. Incineration technology would need to be applied to deal with the problem of sludge. SEN advised that the construction of STF would proceed in tandem with that of HATS Stage 2A. Separate funding would be sought next year after the completion of the EIA study for STF. The proposed STF would have a maximum capacity of 2 000 tonnes and would be able to treat about 1 600 tonnes of sludge per day.

26. As STF would be an obnoxious facility not to be welcome in any district, Mr KAM Nai-wai enquired about the proposed location for STF. He also enquired about the means through which the highly polluted sludge was delivered to STF. SEN said that tentatively, a site had been chosen at the Tsang Tsui Ash Lagoon in Tuen Mun for STF. The use of advanced incineration technology in the treatment of sludge would be both clean and efficient. ADEP(WP) said that the Tuen Mun District Council would be consulted on the outcome of the EIA study on STF. The EIA study for HATS Stage 2A had recommended, inter alia, that the sludge would be transferred from SCISTW by suitable marine transport to reduce the odour nuisance. More details on STF would be provided to members when funding for STF was sought.

#### HATS Stage 2B

27. In response to the Chairman's enquiry on the progress of HATS Stage 2B, ADEP(WP) said that a feasibility study was being conducted on the co-use by HATS Stage 2B of the site opposite the SCISTW which was presently used as container storage. The study had commenced in May 2008 and the first phase of the study was expected to complete in June 2009. If the proposal was found to be feasible, the Administration would proceed with land use planning for HATS Stage 2B, and apply for amendment of land use plan from the Town Planning Board. These might take about one year to complete. Meanwhile, a review of the implementation of HATS Stage 2B would be conducted in 2010/2011 taking into account the latest population, the projected sewage flows, and water quality trends. The Chairman supported the need to expedite the implementation of HATS Stage 2B.

#### Contractual arrangements

28. Given the scale of the HATS Stage 2A project, Mr LEE Wing-tat enquired about the feasibility of splitting the project into smaller contracts to enable participation of local construction companies. Sharing similar view, Ir Dr Raymond HO said that the Administration should learn from the previous experience of the former Strategic Sewage Disposal Scheme (SSDS) Stage 1 and avoid awarding major projects under a single contract. Ms Cyd HO echoed that the Administration should adopt a more cautious approach to avoid the contractual problems encountered in the former SSDS Stage 1, which had resulted in claims from contractors, forfeiture of contracts and delay in the completion of works. Mr KAM Nai-wai added that measures should be taken under HATS Stage 2A to avoid the mistakes made in the former SSDS Stage 1. The Assistant Director

(Sewage Services) said that the HATS Stage 2A project would be carried out under several works contracts and local construction companies could participate in the tendering of these contracts. He also added that DSD had critically reviewed the contractual problems encountered in Stage 1 and provisions made in the Stage 2 contracts to avoid similar problems.

29. In concluding, the Chairman said that members did not object to the submission of the proposal for consideration by PWSC.

**VI. 348DS - North District and Tolo Harbour sewerage, sewage treatment and disposal - regional sewerage works, part 1 - sewerage upgrade**

(LC Paper No. CB(1) 363/08-09(07) — Administration's paper on 348DS - North District and Tolo Harbour sewerage, sewage treatment and disposal - regional sewerage works, part 1 - sewerage upgrade)

30. The Assistant Director/Projects & Development (AD(P&D)) gave a power-point presentation on the Administration's proposed funding application to PWSC and FC for upgrading "348DS - North District and Tolo Harbour sewerage, sewage treatment and disposal - regional sewerage works, part 1 - sewerage upgrade" to Category A at an estimated cost of about \$870 million in money-of-the-day prices.

31. Noting that the need for sewerage upgrading works for the North District and Tolo Harbour catchments was assessed based on forecast population change and planned developments, Ms Cyd HO enquired about the means through which population growth was forecast. She also enquired about the coverage of catchment of the proposed sewerage project. The Chief Engineer/Consultants Management (CE/CM) said that in planning for sewerage upgrading works, allowances for expansion in capacity were made to cater for population growth. In this connection, DSD maintained close liaison with the Planning Department, which had established mechanisms in assessing population growth. The demographic statistics were updated from time to time taking into account latest developments. It was forecast that the population growth would be about 10% in Shatin and less than 10% in Tai Po by 2031, whereas a higher population growth was expected in North District as the catchment included new development areas. Reference would be made to the latest demographic statistics available when finalizing the design for the works.

32. Mr CHAN Hak-kan questioned why out of the three pumping stations to be upgraded under the proposal, only the Chinese University of Hong Kong (CUHK) sewage pumping station was a designated project under the Environmental Impact Assessment Ordinance (Cap.499) (EIAO). ADEP(WP) explained that under EIAO, designated projects referred to those projects that met certain thresholds. The upgrading of the CUHK sewage pumping station was classified as a designated project on account of its scale and installed capacity. Notwithstanding, the Administration would still consider the environmental impact of the upgrading works

for the other two pumping stations. CE/CM said that upgrading of the CUHK sewage pumping station would involve expansion of the system to cater for the changes in academic structure and the new hotel developments in the vicinity, while the upgrading of the Sha Tin Main sewage pumping station involved mainly replacement of equipment to existing facilities. Both the Sha Tin Main sewage pumping station and the CUHK sewage pumping station were Government-owned facilities operated by DSD.

33. Mr KAM Nai-wai stressed the need to minimize road opening works which was the major cause of nuisances associated with sewerage projects. AD(P&D) said that DSD would be coordinating the road opening works with other works departments and utility companies with a view to minimizing disturbance to the local community. Mr KAM sought assurance that there would not be road opening works within the same site for the next five years after completion of the proposed project. AD(P&D) said that this might not be feasible as emergency repair works leading to road opening could not have been prevented. He nevertheless reiterated that efforts would be made to minimize the disturbance arising from road opening works as far as possible. Given that flooding often occurred in the North District in times of heavy rain, Mr KAM further enquired if drainage impact assessments would be conducted. AD(P&D) said that the scale of works for the proposed project was not expected to give rise to flooding problems.

34. In concluding, the Chairman said that members did not object to the submission of the proposal for consideration by PWSC.

## **VII. Any other business**

35. There being no other business, the meeting ended at 6:30 pm.