Responses to Points raised by Albert Koenig in his submission on 25 April 2007 to the Subcommittee on Sewage Services (Sewage Charge) (Amendment) Regulation 2007, Sewage Services (Trade Effluent Surcharge) (Amendment) Regulation 2007 and Technical Memorandum on Procedures and Methods for Sampling and Analysis of Trade Effluents

Points	Points raised by Albert Koenig	EPD's Responses
1	It appears highly unusual to ask for approval of sewage charges in advance of completion of projects not even vetted yet. Since sewage charges cover only recurrent costs, they occur only after completion of projects and are independent of the capital costs (which should also include the project design and planning cost).	At any one point under our projection for the sewage charge (SC) increment projection, the recurrent cost of projects not yet commissioned will not be factored in. Indeed, at any one point in time we will only be partially recovering the recurrent costs of commissioned projects. The proposed increases in Sewage Charges (SC) are devised based on the commissioning dates of the upcoming sewage infrastructure projects that will come on stream in the next 10 years. Before a project is commissioned, there are no operating costs incurred and therefore such a project will not contribute to the recovery rate calculation. We need to raise the existing recovery rate which is standing at about 54% to about 80% in 10 years' time. We will not at any time be recovering more than 80% of the costs then incurred. It is more sensible to have a gradual approach over a long period than one subject to sudden sharp increases. Even if we werre not to build further sewage infrastructure projects as from today, we would still need to raise rates by about 50% initially to achieve the target 80% recovery rate.

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<td>The list of capital projects with recurrent consequences does not indicate the intended treatment level for sewage treatment works. For example, the upgrading of Pillar Point Sewage Treatment Works (STW) may provide only CEPT plus disinfection but no secondary treatment. Among the listed future projects, the advance chlorination facility of HATS Stage 2A is highly controversial. Capital outlay for these and other facilities is subject to vetting by LegCo, so how can charges be collected not even existing yet? On the other hand, there seems to be no provision made for consultants fees and investigations for HATS Stage 2B, while such provision is made for Yuen Long and Kam Tin sewerage and sewage disposal project. Does this mean that there is no intention to start design work for HATS Stage 2B even by 2016/17 ?</td>
<td>Please refer to the response to Point 1 above on the coverage concept of the SC increases. We have put forward the project list as currently envisaged. We have explained that our sewerage planning is driven by the water quality objectives and hence suitable treatment levels be decided to achieve such goals. To provide unnecessarily high levels of treatment and then force users to pay for it would be highly irresponsible. Stage 2B is not included in the list of projects presented because its timing for implementation is subject to review in 2010/11.
In Hong Kong, our sewerage planning is driven primarily by the water quality objectives to meet the functional uses of our waters. Following this approach, the Drainage Services Department now operates 70 treatment works with different treatment levels as follows:
<table>
<tr><th>Treatment Level</th><th>No. of Plant</th></tr>
<tr><td>Preliminary</td><td>23(Note)</td></tr>
<tr><td>Primary</td><td>2</td></tr>
<tr><td>Chemically-enhanced Primary</td><td>4</td></tr>
<tr><td>Secondary</td><td>40</td></tr>
<tr><td>Tertiary</td><td>1</td></tr>
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If significant increase in flow is predicted for any plant, its treatment level will be reviewed to determine whether a higher level of treatment is required.</td>
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		Note : Among these 23 screening plants, six of them is to screen the sewage for intermediate pumping, rather than for discharge. With the implementation of HATS Stage 1, seven preliminary treatment works (PTWs), which formerly discharged into the harbour, are now connected to the CEPT treatment system. When HATS Stage 2A, and other upgrading works is completed, effluents from nine more PTWs will receive at least CEPT treatment, and by that time, only one PTW will still discharge into marine waters through a deep sea outfall.
3	It would seem fair to me, to implement adjustment of sewage charges in two phases: - First phase: raise charges to 80% of current operating costs of existing facilities. - Second phase: raise charges in line with completion of approved projects.	If we raise charges to achieve the 80% recovery rate in one go, there will be an immediate 50% increase in the sewage charge. Sharp increases will also result if increments only take place at the year when a project is commissioned. For example. when HATS Stage 2A is commissioned in 2014, this will give rise of an increase of over 20%. We consider it is more sensible to have a gradual approach over a long period. We have a comprehensive programme to enhance the sewage treatment services and further improve the water quality of Hong Kong. We believe it is desirable to give the full picture to LegCo and the public so that everyone is clear about what they will be asked to fund in due course. Members of the public have clear aspirations for improving the water quality of Victoria Harbour. Given that the implementation of HATS Stage 2A can bring about further improvement to the water quality of the harbour, we consider it sensible to implement Stage 2A as soon as

		possible. If the period of increment is shortened, we would not be able to meet the objective of supporting the operation of Stage 2A in the future.
4	It is important that the proposed increases in sewage charges is not linked to HATS. There are many other sewerage and sewage treatment works projects in the pipeline, which contribute to an increase in overall operating costs, but are not as closely scrutinized as HATS. For example, Sha Tin and Tai Po STWs provide secondary and tertiary treatment, yet they discharge via the effluent export scheme to the same Victoria Harbour, for which Stonecutters Island STW, by far the largest STW in Hong Kong, does not need to provide even secondary treatment, according to Government.	As HATS Stage 2A will incur an annual operating cost of $420 million, this large sum would need to be recovered through SC under the polluter-pays principle. High levels of treatment are provided to Shatin and Tai Po effluent because they discharge to a storm drain which flows through a residential area in close proximity to the urban areas. Furthermore, the effluent discharges into a typhoon shelter with very little dilution and dispersion capacity. On the other hand, the HATS effluent is discharged into the open western harbour with good dispersion characteristics and as a result secondary treatment of its effluent is not anticipated to be needed until the later part of the next decade. It is not appropriate to compare HATS with the Shatin and Tai Po effluent arrangement as we need to take into account the respective assimilative capacities of the receiving water bodies.

5	The 10-year blanket approval requested apparently precludes any possibility that the Government will adopt a minimum effluent standard of secondary treatment for all sewage discharges within the next 10 years. This is not in line with the national standards of China or the Macau SAR. Since the clean up the Pearl River estuary should be a common effort by all jurisdiction, Hong Kong should equally contribute by requiring a minimum level of secondary treatment.	We understand that different grades of waters surrounding cities in China are specified depending on the different designated functional uses of the waters in question. We also understand that the "Discharge Standards of Pollutants for Municipal Wastewater Treatment Plant of the National Standard", which applies to areas of China except HKSAR, stipulates that the level of treatment depends on the designated functional uses and hence the different grades of the receiving water bodies. As a matter of fact, the Mainland standard, i.e. "Standard for pollution control of sewage marine disposal engineering" (GB 18486-2001) does allow marine discharge of effluent which has been subject to primary treatment. So, in effect, the level of treatment would depend very much on where the effluent will be discharged and therefore it varies on a case-by-case basis. In Hong Kong, we adopt very similar approach, namely our sewerage planning is driven primarily by the water quality objectives to meet the functional uses of our waters. While we recognize that secondary treatment will be needed in future, we do not agree that it is necessary now. We consider it more important that we press ahead with Stage 2A which will deal with the major problem of the continuing discharge of nearly half a million tonnes of largely untreated effluent into our harbour each day.

Environmental Protection Department
May 2007