

For discussion  
on 20 December 1999

**Legislative Council  
Panel on Environmental Affairs**

**Review of Strategic Sewage Disposal Scheme**

**Introduction**

This paper provides further information on how the review of the Strategic Sewage Disposal Scheme (SSDS) is intended to be conducted.

**Background**

2. At the Panel meeting on 25 November 1999, Members considered a paper which explained how it was intended to conduct the SSDS review. Members raised questions about the composition of the International Review Panel (IRP), the role of the Local Chairperson, the terms of reference for the review, the prevention of conflict of interest and the impacts of any conclusions of the review on SSDS Stage I.

**Composition of the IRP**

3. At the last meeting Members put forward many different proposals on the composition of the IRP, but the general view was for the appointment of a wider variety of experts to the panel, including more local representatives. We have considered Members' views carefully, having regard to the main objective of the review and the logistical constraints involved. It is now proposed that the new IRP will comprise:

- (a) Professor Qian Yi – Mainland expert and member of the previous IRP.
- (b) Professor Donald Harleman – US expert and member of previous IRP.
- (c) Dr Albert Koenig- Nominated by the Hong Kong Institution of Engineers.
- (d) An internationally renowned tunnelling expert.
- (e) An internationally renowned wastewater treatment expert with specialist knowledge of biological nutrient removal. A nomination has been sought from The International Water Association.
- (f) A marine ecologist. A nomination has been sought from The Marine Biological Association of Hong Kong.

- (g) An economist/financial analyst. Leading local experts are being approached.

### **Role of The Local Chairperson**

4. The paper presented to the Panel on 25 November 1999 noted that the participation in the review process of local interest groups, such as academics, green groups, and professional institutions would be encouraged. The review is intended to serve as a consensus building process. It requires the engagement of different stakeholders and to be conducted in an open manner.

5. It was from this thinking that we proposed to appoint a Local Chairperson to manage the public consultation meetings between the IRP and the public. Apart from making the meetings more efficient and focussed, the Local Chairperson will ensure fair play, so that the IRP members have access to all the views of different interest groups. The Local Chairperson will also ensure transparency in the review process.

6. It should be stressed that the Local Chairperson will not be a member of the IRP and will not be involved with the detailed assessment and deliberation of technical matters. Neither will he/she take part in drawing up the IRP's conclusions and recommendations nor will he/she be asked to endorse them. In other words, he/she will play the role of the umpire more than that of the player.

7. We have proposed to appoint the Hon Christine Loh, in her personal capacity, as the Local Chairperson. The role of the Local Chairperson in managing the public consultation meetings during the review process would not imply any agreement or disagreement with the views of the IRP or of the other stakeholders in the review process.

8. An alternative would be for the public process to take place in the context of meetings of the Environmental Affairs Panel, as was done, for example, by the Planning, Lands and Works Panel on review of the South East Kowloon Development Plan.

### **Terms of Reference for the IRP**

9. The proposed terms of reference for the IRP are annexed.

### **Conflict of Interest**

10. We are very mindful of the need to ensure that no member of the IRP has any vested interest in the outcome of the review. Conflict of interest, whether real or apparent, must be avoided in order to uphold the integrity of the review process.

11. We have already written to some and will write to other proposed members of the IRP asking them to confirm in writing that they have no such conflict of interest. We will ensure that this process is completed prior to the finalisation of appointment agreements.

12. In addition, we will include in the appointment agreements, a clause requiring that the member must declare, before and on appointment and during the currency of the agreement, any interest which is considered to be in real or apparent conflict with the duties to be performed. Appointment agreements will have to be signed by each IRP member. The agreement also will require that the member should not undertake any services which could give rise to a conflict of interest.

### **Stage I Works**

13. At the meeting on 25 November Members asked about the extent to which the stage I works currently in hand might be affected by the review. This is impossible to judge at this stage. All that can be said is that any recommendations in respect of the treatment of sewage from Hong Kong Island; the deep oceanic outfall; or the level of treatment provided at Stonecutters Island would not affect the stage I tunnels. A change in treatment level might have some impact on the facilities already built at Stonecutters. The capital investments already made in stage I would need to be taken into account in the economic and financial assessment of any proposals that did not make use of the facilities already built under stage I, and of the tunnels which are now over 70% complete.

## **Review of Strategic Sewage Disposal Scheme Proposed Terms of Reference**

### **1. International Review Panel (IRP) Members**

The IRP will comprise seven members with differing expertise as follows:

#### ***Sewage Treatment***

There will be 4 members and they will provide expert advice on treatment processes and systems. The proposed members include the two previous IRP members, Prof. Harleman and Prof. Qian, HKIE's nomination, Dr. Koenig and a nomination from the International Water Association. In seeking nomination from the International Water Association, we will ask them to find an expert with experience in designing a Biological Nutrient Removal (BNR) system.

#### ***Tunnelling***

There will be 1 member and he/she will provide expert advice on tunnelling. Nomination is being sought from the International Tunnelling Association, the American Underground-Construction Association, and the British Tunnelling Society.

#### ***Marine Ecology***

There will be 1 member and he/she will provide expert advice on the impact of discharges from SSDS and the other alternatives on marine ecology. A nomination will be sought from The Marine Biological Association of Hong Kong.

#### ***Economic/Finance***

There will be 1 member and he/she will provide expert advice on cost estimates and financial evaluation of alternative schemes.

### **2. Terms of Reference (ToR)**

The ToR of the International Review Panel will be, in broad terms, to:

- ✧ review in terms of risks and cost-effectiveness the implementation of SSDS Stage I remaining works;
- ✧ review in terms of cost, programme and environmental benefits SSDS Stages II, III and IV based on the experience gained from the SSDS Stage I tunnelling works;

- ✧ review alternative solutions to SSDS Stages II, III and IV presented by members of public and the government, in terms of cost, programme and environmental benefits;
- ✧ propose the most sustainable way forward for SSDS;
- ✧ attend meetings and present findings.
- ✧ provide advice and assistance on other matters as directed; and

More specifically, the IRP will perform the following tasks:

- i. To review all the previously completed and on-going study reports on SSDS.
- ii. To attend meetings to gather views from the public and the government on SSDS;
- iii. To review the engineering feasibility and associated risks of constructing deep tunnels in Hong Kong with particular reference to the experience gained on SSDS Stage I tunnel excavation;
- iv. To compare the benefits and disbenefits of completing the remaining SSDS Stage I works as scheduled. Recommend whether the works should proceed as planned, or be suspended or be aborted;
- v. To endorse a Technical Digest to be prepared by the government which sets out the common basis on which the public will be invited to submit alternative proposals;
- vi. Based on the experience of Stage I tunnel excavation, review the cost estimate, programme and environmental benefits of the planned Stages II, III and IV. Recommend changes to the cost estimates and/or the programme as appropriate;
- vii. Evaluate alternative schemes submitted by the government and the public in terms of cost, programme and environmental benefits. Discuss with and seek further information from the proponents, if appropriate;
- viii. Compare the alternatives schemes with the planned Stage II, III and IV and recommend the most sustainable way forward;
- ix. In case an alternative scheme is recommended, advise what additional detailed studies will be required;
- x. In case stages II, III and IV or any modification of them, or any alternative scheme that will still require the construction of deep tunnels is recommended, advise on the requirement for ground investigation works including the use of latest technology in the field and the optimum construction methods including safety measures and measures to control ground water ingress and surface settlement;
- xi. To review and recommend the contractual arrangements for SSDS and the proposed alternatives.
- xii. To attend meetings to present the IRP's findings and recommendations and to address questions raised.
- xiii. To provide regular reports to the EA Panel and ACE.