

For discussion  
on 12 January 2000

EC(1999-2000)30

## ITEM FOR ESTABLISHMENT SUBCOMMITTEE OF FINANCE COMMITTEE

### HEAD 91 - LANDS DEPARTMENT Subhead 001 Salaries

Members are invited to recommend to Finance Committee the conversion of the following supernumerary post in the Slope Maintenance Section of the Lands Department to a permanent post -

1 Chief Geotechnical Engineer  
(D1) (\$98,250 - \$104,250)

### PROBLEM

The existing supernumerary post of Chief Geotechnical Engineer (CGE) (D1) in the Slope Maintenance (SM) Section of the Lands Department (Lands D) will lapse on 1 April 2000. The Director of Lands (D of Lands) needs continued directorate support to plan and implement the maintenance works for unallocated man-made slopes<sup>1</sup> on Government land falling under his management responsibility.

### PROPOSAL

2. D of Lands proposes to convert the supernumerary post of CGE (D1) heading the SM Section of Lands D to a permanent post.

**/JUSTIFICATION .....**

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<sup>1</sup> "Unallocated" Government slopes refer to man-made slopes not clearly falling within the responsibility of a particular Government department. As the Government's land manager, Lands D has taken up the responsibility for the maintenance of these slopes with effect from 1 April 1998.

## JUSTIFICATION

3. Vide EC(97-98)78, Members approved the creation of one supernumerary CGE (D1) post, designated as Chief Geotechnical Engineer (Slope Maintenance) (CGE(SM)), for two years up to 31 March 2000 to head the SM Section which was set up on 1 April 1998. The SM Section is responsible for planning, implementing and managing slope maintenance and improvement programmes for Government slopes which come under the responsibility of Lands D.

4. The total number of slopes recently identified as unallocated Government man-made slopes falling under Lands D's responsibility is about 14000, against our original estimate of 8000 in early 1998 when the supernumerary CGE (D1) post was created. According to the slope maintenance standards prescribed by the Geotechnical Engineering Office (GEO) of the Civil Engineering Department, routine inspection of each and every slope should be conducted annually while an Engineer Inspection is required every five years. After each inspection, regular or enhanced maintenance is to be carried out as necessary. Regular maintenance of slopes is needed to maintain the continued stability of all slopes, irrespective of whether they have attained the required safety standard. For substandard slopes, enhanced maintenance by applying standardised preventive measures is required to improve their stability. About 80% of the slopes under Lands D's responsibility were formed more than 20 years ago. Many of these slopes are in relatively poor maintenance condition and likely to be below current safety standards. In order to ensure the safety and stability of these slopes, enhanced maintenance is required.

5. In developing strategies to improve the condition of the huge number of slopes allocated to Lands D for maintenance as quickly and cost-effectively as possible, the SM Section has focused its efforts on dealing with those slopes which present the highest risk to life and property.

### **Slope Inspection Programmes**

6. Two geotechnical consulting firms have been appointed to undertake Engineering Inspections of some 9 000 slopes, and another consultant will be commissioned in mid-2000 to inspect the remaining 5 000 slopes. In this way, Lands D plans to complete the first round of Engineer Inspection of the 14 000 slopes for which it has responsibility by end 2002. In addition, the SM Section

/undertakes .....

undertakes routine inspection of some 1 000 slopes annually. After the initial round of the more intensive Engineer Inspection of all slopes has been completed, the SM Section will review its inspection programmes with a view to attaining the slope maintenance standards prescribed by the GEO.

### **Slope Maintenance Programmes**

7. Lands D has employed a maintenance term contractor since February 1999 to undertake improvement work to slopes under its supervision over a contract period of three years. To date, maintenance and improvement works for 92 high-priority slopes<sup>2</sup> have been completed and improvement works for 50 slopes are in progress. By March 2000, the number of slopes with improvement works completed will rise to about 200. A further maintenance term contract is scheduled to commence in June 2000, and the target will be to improve the stability and maintenance condition of about 300 high-priority slopes per year.

### **Proposed Conversion to Permanent Post**

8. The SM Section, comprising two Consultancy Management Units and one Works Unit, is responsible for planning, implementing and managing the inspection and maintenance programmes for slopes under Lands D's responsibility. The main duties of the Section are -

- (a) formulating, monitoring and reviewing policies, procedures and programmes for the timely maintenance of the unallocated Government slopes;
- (b) appointing and managing the geotechnical consultants to carry out Engineer Inspections;
- (c) following up recommendations made by the Engineering Inspections consultants and designing the slope maintenance and improvement programmes;
- (d) undertaking routine inspection of slopes; and
- (e) supervising and monitoring the slope improvement and maintenance works carried out by the maintenance contractors.

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<sup>2</sup> The relative priority of a slope is based on a combination of the probability of failure and consequence of failure of the slope.

9. The Head of the SM Section is the key professional overseeing the slope inspection, improvement and maintenance programmes. He is responsible for the overall management of consultants and contractors engaged to undertake slope inspection and maintenance works. He needs to formulate geotechnical policies and procedures and follow through their implementation to ensure that they are in line with the overall landslide risk-reduction strategy for Hong Kong. As the adviser to D of Lands on slope safety issues, he represents Lands D on inter-departmental committees that deal with slope safety issues, and explains the department's policies on slope maintenance and repairs to the public, the District Councils and the Legislative Council as necessary. D of Lands considers that the Head of the SM Section should be a highly experienced professional geotechnical engineer at D1 level, well-versed in slope maintenance and improvement works. As the number of slopes allocated to Lands D is substantial and slope inspection and maintenance work is an on-going commitment, the directorate post is needed on a permanent basis. Accordingly, D of Lands proposes the conversion of the existing supernumerary post of CGE (D1) in the SM Section, designated as CGE(SM), to a permanent post. The job description of the post is at Enclosure 1.

Encl. 1

10. Apart from the CGE post, there are 43 non-directorate posts in the SM Section, including three Senior Geotechnical Engineers, six Geotechnical Engineers and 34 other supporting staff. The organisation chart of the SM Section is at Enclosure 2.

Encl. 2

## **FINANCIAL IMPLICATIONS**

11. The additional notional annual salary cost of this proposal at mid-point is \$1,213,200. The full annual staff cost of the proposal, including salaries and staff on-costs, is \$1,984,000. We have included sufficient provision in the 2000-01 draft Estimates to meet the cost of this proposal.

## **BACKGROUND INFORMATION**

12. The Director of Civil Engineering has recently compiled a New Catalogue of Slopes to replace the old Catalogue of 1977-78, registering all sizable man-made slopes in Hong Kong. A total of 54 000 slopes have been registered, of which 37 000 are slopes on Government land, including 14 000 unallocated slopes which fall under Lands D's responsibility. A Legislative Council brief on the maintenance and upgrading of man-made slopes registered in the New Catalogue of Slopes was issued to Members on 20 July 1998.

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**CIVIL SERVICE BUREAU COMMENTS**

13. The Administration has considered carefully alternative means to provide the level of service required, including redeployment, bearing in mind the need for greater efficiency and productivity under the Enhanced Productivity Programme. We are satisfied that the proposal contained in the paper is the most appropriate way to proceed. Civil Service Bureau supports the proposed conversion of the post to a permanent post, having regard to the long-term operational requirements.

**ADVICE OF THE STANDING COMMITTEE ON DIRECTORATE SALARIES AND CONDITIONS OF SERVICE**

14. The Standing Committee on Directorate Salaries and Conditions of Service has advised that the grading proposed for the post would be appropriate if the post were to be created on the permanent establishment.

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Planning and Lands Bureau  
January 2000



**Job Description  
Chief Geotechnical Engineer(Slope Maintenance)**

**Rank : Chief Geotechnical Engineer (D1)**

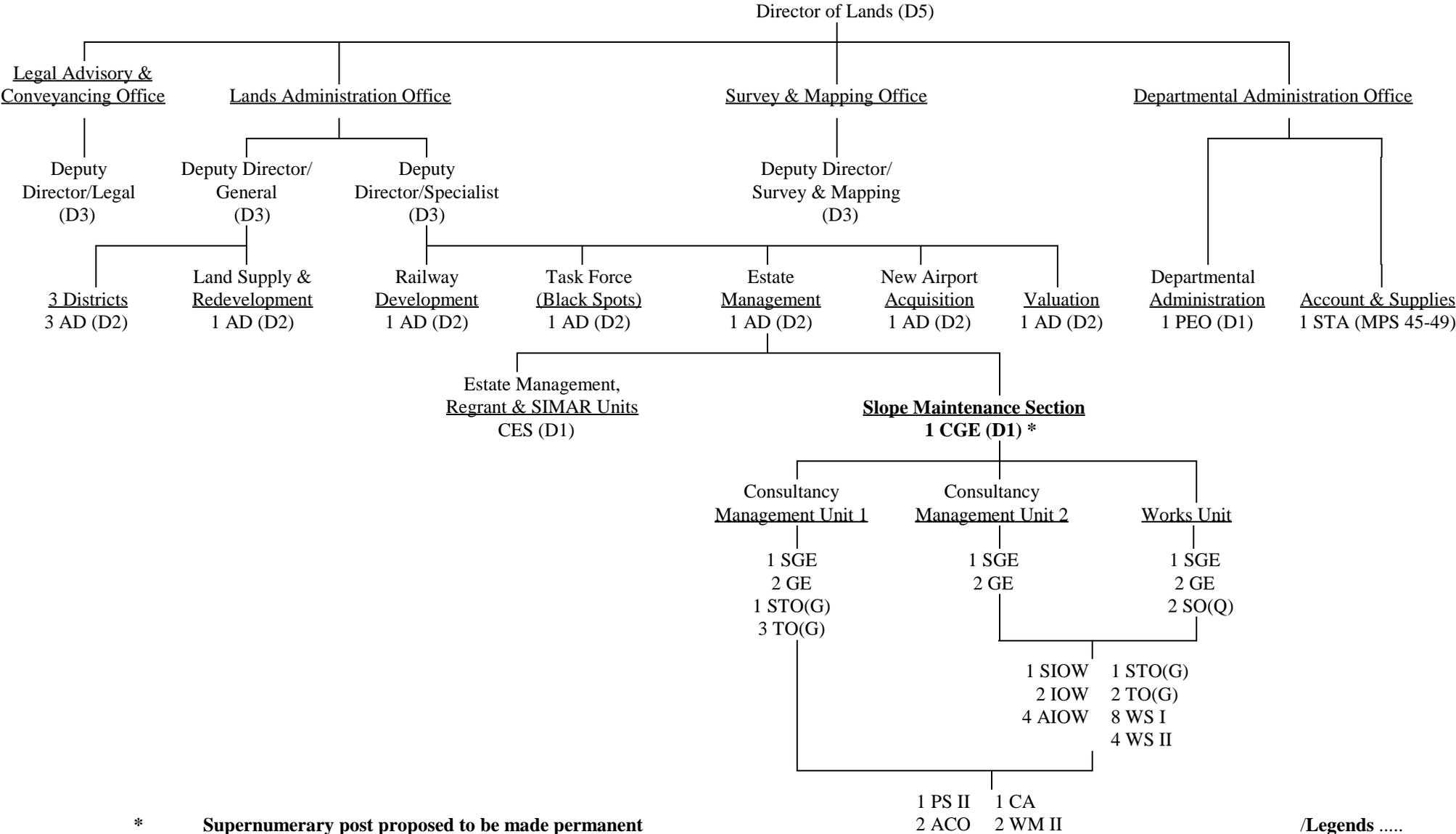
**Main Duties and Responsibilities :**

Responsible to Assistant Director/Estate Management for the planning and implementation of programmes to maintain the sizeable Government man-made slopes and retaining walls which are not allocated to any other departments for maintenance (the unallocated Government slopes). Duties include -

- (1) to formulate, monitor and review policies and procedures, apart from setting out the required geotechnical and engineering standards under the context, for timely maintenance of the unallocated Government slopes;
- (2) to monitor the progress of slope maintenance works and control the relevant expenditure under the prescribed programmes, including the appointment of contractors and overseeing their performance;
- (3) to prepare detailed planning of and secure funds for the maintenance programmes, including emergency inspections and repairs, for the unallocated Government slopes;
- (4) to prepare consultants' briefs and agreements and manage consultants to carry out Engineer Inspections, design and supervise slope maintenance and improvement work to ensure that cost-effective and timely slope maintenance is implemented;
- (5) to establish rapport and maintain close liaison with the relevant Government policy bureaux and departments so as to sort out the best overall approach towards slope safety;
- (6) to advise Director of Lands on slope safety issues and represent Lands Department in presenting the policy of maintenance and repair of unallocated Government slopes under its maintenance programme to the public, the District Councils, Legislative Councils, etc.; and
- (7) to be responsible for the overall management of the Slope Maintenance Section.



**Organisation Chart of the Slope Maintenance Section of Lands Department**



\* Supernumerary post proposed to be made permanent

/Legends .....

|                  |     |                              |        |   |       |  |
|------------------|-----|------------------------------|--------|---|-------|--|
| <b>Legends :</b> | AD  | Assistant Director           | STO(G) | Senior Technical Officer (Geotechnical) | WS I  | Works Supervisor I   |
|                  | PEO | Principal Executive Officer  | TO(G)  | Technical Officer (Geotechnical)        | WS II | Works Supervisor II  |
|                  | STA | Senior Treasury Accountant   | SO(Q)  | Survey Officer (Quantities)             | PS II | Personal Secretary II  |
|                  | CES | Chief Estate Surveyor        | SIOW   | Senior Inspector of Works               | ACO   | Assistant Clerical Officer   |
|                  | CGE | Chief Geotechnical Engineer  | IOW    | Inspector of Works                      | CA    | Clerical Assistant   |
|                  | SGE | Senior Geotechnical Engineer | AIOW   | Assistant Inspector of Works            | WM II | Workman II   |
|                  | GE  | Geotechnical Engineer        |        |   | SIMAR | Systematic study to identify the maintenance responsibility for all man-made slopes in Hong Kong |

