

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 705 – CIVIL ENGINEERING Public Safety – Landslide Prevention Subhead 5001BX – Landslip Preventive Measures

Members are invited to recommend to Finance Committee to increase the approved allocation for **Subhead 5001BX** by \$100 million from \$1,100 million to \$1,200 million in 2009-10.

PROBLEM

The approved allocation for **Subhead 5001BX** for 2009-10 is insufficient to meet the estimated expenditure for the advanced commencement of landslip preventive works for some 40 substandard slopes.

PROPOSAL

2. The Director of Civil Engineering and Development (DCED), with the support of the Secretary for Development, proposes to increase the approved allocation for **Subhead 5001BX** by \$100 million from \$1,100 million to \$1,200 million in order to advance the landslip preventive works for some 40 substandard slopes so that the works can commence before the onset of the coming rainy season and additional jobs can be created for the construction sector.

PROJECT SCOPE AND NATURE

3. The ambit of **Subhead 5001BX** covers landslip preventive works and related studies, other than those directly related to specific development projects in the Public Works Programme.

/JUSTIFICATION

JUSTIFICATION

4. Following an exceptionally wet year of 2008 with widespread significant landslides, the weather in 2009 is relatively dry. The cumulative rainfall from January 2009 to September 2009 is just about 2 000 mm, which is 14% lower than the average of the corresponding figures in the same period since 2001. As a result of the relatively dry weather in 2009, our landslip preventive and remedial works in 2009 has been ahead of schedule. The Civil Engineering and Development Department (CEDD) has the capacity to implement more landslip preventive works in 2009-10 so that slope safety can be further improved before the onset of the coming rainy season and additional jobs created for the construction sector.

5. The landslip preventive works for about 40 slopes (please see the list in Enclosure) that are originally scheduled for commencement in March 2010 (with expenditure to be incurred in 2010-11) can be brought forward by about four months to November 2009 (with expenditure advanced to 2009-10). The studies for these slopes had been completed and the slopes were found to be substandard and requiring landslip preventive works. The advancement of the works requires an increase in allocation of \$100 million for **Subhead 5001BX** in 2009-10.

FINANCIAL IMPLICATIONS

6. The proposal will require an injection of \$100 million into **Subhead 5001BX**, bringing the overall provision for the block allocation to \$1,200 million for 2009-10. We anticipate that the additional allocation, if approved, can be spent within the current financial year. We set out below our expenditure forecast for the block allocation –

	\$ million
Expenditure	
(a) Actual expenditure as at 30 September 2009	599.49
(b) Anticipated expenditure from 1 October 2009 to 31 March 2010	600.51
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Total anticipated expenditure	1,200.00
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The proposed increase in allocation has no additional recurrent financial implications.

/PUBLIC

PUBLIC CONSULTATION

7. The implementation of landslip preventive works reinforces Government's determination to improve public safety in line with our key policy objective to develop Hong Kong into a quality city. The proposed advancement of landslip preventive works is expected to receive support from the public.

8. We consulted the Legislative Council (LegCo) Panel on Development on the proposed increase in block allocation by circulation of an information paper on 20 October 2009. Members raised no objection to the proposal.

ENVIRONMENTAL IMPLICATIONS

9. The proposed landslip preventive works are not designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The proposed increase in allocation will not have any long-term environmental implications. We have included in the project estimates the cost to implement suitable mitigation measures to keep any short-term environmental impact to a minimum.

10. We will adopt a range of measures to reduce the generation of construction waste where possible. We will, for example, use soil nailing to minimise bulk excavation in the planning and design stages. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated soil) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste to public fill reception facilities¹. We will also encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

11. On disposal of construction waste, we will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

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¹ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the DCED.

12. We estimate that the project will generate about 19 800 tonnes of construction waste in total. Of these, we will reuse about 1 600 tonnes (8%) of inert construction waste on site and 2 200 tonnes (11%) of inert construction waste in other construction sites, while delivering 13 000 tonnes (66%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 3 000 tonnes (15%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be \$726,000 for this project and will be charged to the block allocation (based on a unit cost of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne² at landfills).

HERITAGE IMPLICATIONS

13. The project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

14. The proposed works do not involve any land acquisition.

BACKGROUND INFORMATION

15. **Subhead 5001BX** is a block allocation for landslip preventive works and related studies approved together with other block allocations on an annual basis by the Finance Committee under the Capital Works Reserve Fund. Under the Subhead, CEDD selects the most deserving slopes, based on a risk priority ranking system, for stability studies and the necessary follow up landslip preventive works. Once a slope is confirmed to be substandard, landslip preventive works will commence as early as practicable. The approved allocation for **Subhead 5001BX** in the current financial year is \$1,100 million.

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² This estimate has taken into account the cost of developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90 per m³), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

16. In November 2008, the LegCo expressed concern on the progress of the landslip preventive works undertaken by CEDD and was keen to ensure sufficient allocation to meet the expenditure for landslip preventive works to safeguard public safety. CEDD has made every effort to expedite the landslip preventive works.

17. The studies for the some 40 substandard slopes in Enclosure had all been completed and the slopes were confirmed to be substandard and requiring landslip preventive works. With the good progress of works resulting from the relatively dry weather in 2009, CEDD can advance and commence the works for the substandard slopes in late 2009, provided that additional allocation of \$100 million is approved. Another \$68.3 million is expected to be incurred in 2010-11 for the proposed slope-related works and the expenditure will be charged to the 2010-11 block allocation.

18. The proposed landslip preventive works will not involve any tree removal. Appropriate landscaping measures will be applied to enhance the visual appearance of the slopes.

19. With the occurrence of the financial tsunami, the public and the Administration share the view that concerted efforts should be made to preserve and create jobs. There is a general consensus that the Administration should undertake more minor works to create additional employment opportunities in the construction sector. On 10 December 2008, the LegCo unanimously passed a resolution urging the Government to speed up infrastructure development. We estimate that the proposal will create about 665 jobs (580 labourers and 85 professional/technical staff) providing a total employment of about 2 650 man-months.

Development Bureau
October 2009

List of Slopes for Advancement of Landslip Preventive Works

Slope Reference Number	District (abbrev. at end of Table)	Original Schedule			Proposed Schedule		
		Date of Works Commencement	Estimated Spending (\$M)		Date of Works Commencement	Estimated Spending (\$M)	
			2009-10	2010-11		2009-10	2010-11
11SW-C/C943	C&W	Mar-10	0	1.92	Nov-09	1.50	0.42
11SW-D/FR157	C&W	Mar-10	0	2.21	Nov-09	1.40	0.81
11SE-A/C179	E	Mar-10	0	2.80	Nov-09	1.60	1.20
11SE-A/C277	E	Mar-10	0	1.91	Nov-09	1.40	0.51
11SE-A/FR452	E	Mar-10	0	3.12	Nov-09	2.50	0.62
11SE-D/CR625	E	Mar-10	0	3.51	Nov-09	2.70	0.81
11SE-D/FR222	E	Mar-10	0	1.22	Nov-09	1.10	0.12
11SE-D/R142	E	Mar-10	0	1.17	Nov-09	1.00	0.17
13NE-A/FR59	Is	Mar-10	0	8.50	Nov-09	4.00	4.50
14NW-B/C1	Is	Mar-10	0	2.24	Nov-09	1.30	0.94
15NW-A/C91	Is	Mar-10	0	1.48	Nov-09	1.20	0.28
11NW-B/C153	KC	Mar-10	0	3.45	Nov-09	2.50	0.95
7SW-C/F344	KT	Mar-10	0	5.00	Nov-09	3.00	2.00
7SW-C/FR408	KT	Mar-10	0	3.13	Nov-09	2.00	1.13
11NW-A/C158	KT	Mar-10	0	1.66	Nov-09	1.30	0.36
11NW-A/F60	KT	Mar-10	0	2.72	Nov-09	2.30	0.42
11NW-A/FR84	KT	Mar-10	0	4.50	Nov-09	3.00	1.50
3SE-B/C95	N	Mar-10	0	3.96	Nov-09	3.30	0.66
11SE-C/F159	S	Mar-10	0	3.20	Nov-09	2.10	1.10
11SE-C/R7	S	Mar-10	0	2.50	Nov-09	2.20	0.30
11SW-A/C719	S	Mar-10	0	1.30	Nov-09	1.00	0.30
11SW-D/C114	S	Mar-10	0	2.25	Nov-09	1.90	0.35
8SW-A/FR7	SK	Mar-10	0	4.81	Nov-09	3.20	1.61

Slope Reference Number	District (abbrev. at end of Table)	Original Schedule			Proposed Schedule		
		Date of Works Commencement	Estimated Spending (\$M)		Date of Works Commencement	Estimated Spending (\$M)	
			2009-10	2010-11		2009-10	2010-11
7NE-C/C76	ST	Mar-10	0	4.56	Nov-09	3.00	1.56
7SW-B/C216	ST	Mar-10	0	2.52	Nov-09	2.10	0.42
7SW-D/C285	ST	Mar-10	0	2.50	Nov-09	1.70	0.80
7SW-D/C409	ST	Mar-10	0	1.46	Nov-09	1.10	0.36
7SW-D/C497	ST	Mar-10	0	4.31	Nov-09	2.90	1.41
7SW-D/C558	ST	Mar-10	0	11.85	Nov-09	4.30	7.55
7SW-D/C565	ST	Mar-10	0	1.43	Nov-09	1.10	0.33
7SW-D/FR152	ST	Mar-10	0	2.72	Nov-09	1.90	0.82
8NW-C/C37	TP	Mar-10	0	5.64	Nov-09	3.00	2.64
6SE-B/CR247	TW	Mar-10	0	4.40	Nov-09	2.50	1.90
6SE-B/CR248	TW	Mar-10	0	4.95	Nov-09	2.70	2.25
6SE-B/CR249	TW	Mar-10	0	4.70	Nov-09	2.10	2.60
6SE-B/CR250	TW	Mar-10	0	4.98	Nov-09	2.90	2.08
6SE-B/F56	TW	Mar-10	0	2.36	Nov-09	1.90	0.46
6SE-B/F57	TW	Mar-10	0	3.27	Nov-09	2.20	1.07
6SE-C/C246	TW	Mar-10	0	2.23	Nov-09	2.00	0.23
7SW-A/F9	TW	Mar-10	0	2.62	Nov-09	1.90	0.72
7SW-C/C562	TW	Mar-10	0	3.91	Nov-09	2.00	1.91
11SW-D/CR2243	WC	Mar-10	0	8.95	Nov-09	3.50	5.45
11SW-D/F641	WC	Mar-10	0	11.38	Nov-09	4.00	7.38
11NW-B/FR491	WTS	Mar-10	0	9.00	Nov-09	3.70	5.30
Total			0	168.30		100.00	68.30

Abbreviations:

C&W	- Central and Western	E	- Eastern	Is	- Islands
KC	- Kowloon City	KT	- Kwai Tsing	N	- North
S	- Southern	SK	- Sai Kung	ST	- Sha Tin
TP	- Tai Po	TW	- Tsuen Wan	WC	- Wan Chai
WTS	- Wong Tai Sin				