

## Head 43 — CIVIL ENGINEERING DEPARTMENT

**Controlling officer:** the Director of Civil Engineering will account for expenditure under this Head.

**Estimate 2003–04** ..... **\$938.7m**

**Establishment ceiling 2003–04** (notional annual mid-point salary value) representing an estimated 1 487 non-directorate posts as at 31 March 2003 and as at 31 March 2004 ..... **\$489.8m**

In addition there will be an estimated 35 directorate posts as at 31 March 2003 and as at 31 March 2004.

**Capital Account commitment balance** ..... **\$23.5m**

### Controlling Officer's Report

#### Programmes

- |  |   |
|--|---|
| <b>Programme (1) Tourism and Recreational Development</b>                | This programme contributes to Policy Area 5: Travel and Tourism (Secretary for Economic Development and Labour).  |
| <b>Programme (2) Port and Marine Facilities</b>                          | This programme contributes to Policy Area 3: Air and Sea Communications and Logistics Development (Secretary for Economic Development and Labour).  |
| <b>Programme (3) Site Formation and Reclamation</b>                      | This programme contributes to Policy Area 22: Buildings, Lands and Planning (Secretary for Housing, Planning and Lands) and Policy Area 23: Environmental Protection and Conservation (Secretary for the Environment, Transport and Works). |
| <b>Programme (4) Slope Safety and Geotechnical Standards</b>             | These programmes contribute to Policy Area 27: Intra-Governmental Services (Secretary for the Environment, Transport and Works).  |
| <b>Programme (5) Geotechnical Services</b>                               |   |
| <b>Programme (6) Supervision of Mining, Quarrying and Explosives</b>     |   |
| <b>Programme (7) Management of Construction and Demolition Materials</b> | This programme contributes to Policy Area 23: Environmental Protection and Conservation (Secretary for the Environment, Transport and Works).   |

#### Detail

##### Programme (1): Tourism and Recreational Development

	2001–02 (Actual)	2002–03 (Approved)	2002–03 (Revised)	<b>2003–04 (Estimate)</b>
Financial provision (\$m)	46.7	50.7 (+8.6%)	50.6 (–0.2%)	<b>52.5 (+3.8%)</b>

#### Aim

- 2 The aim is to plan, design and implement tourism and recreational developments in Northeast Lantau.

#### Brief Description

3 In accordance with the Government's decision to develop Northeast Lantau into a tourism and recreational area, the department undertook the planning, design and implementation of the site formation together with the associated infrastructure for the development of Hong Kong Disneyland at Penny's Bay, Northeast Lantau. Reclamation works for Phase 1 of Hong Kong Disneyland at Penny's Bay were substantially completed in December 2002. The first and second infrastructure contracts to support the development of Penny's Bay were awarded in October 2001 and August 2002 respectively. The contract for the watermains and sewerage works from Siu Ho Wan to Yam O was awarded in July 2002. The contracts for construction of public pier, fire station and police post in Penny's Bay also commenced in December 2002. The design of the public transport interchange and Government Landscaped Area at Penny's Bay and the detailed design for the reclamation works for the future expansion of Hong Kong Disneyland are in progress.

- 4 The key performance measures relating to tourism and recreational development are:

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### *Targets*

	Target	2001 (Actual)	2002 (Actual)	2003 (Plan)
complete design and tender documents for the second infrastructure contract associated with Phase 1 of Hong Kong Disneyland (%).....	100	60	100	—
complete design and tender documents for the reclamation works at Penny's Bay associated with Phase 2 of Hong Kong Disneyland (%)†.....	100	—	90	100
complete construction under the first infrastructure contract associated with Phase 1 of Hong Kong Disneyland in 2005 (%)†.....	100	—	31	58
complete construction under the second infrastructure contract associated with Phase 1 of Hong Kong Disneyland in 2005 (%)†.....	100	—	5	30

† New target as from 2003.

### *Indicators*

	2001 (Actual)	2002 (Actual)	2003 (Estimate)
value of projects under planning and design (\$m).....	9,034	6,298	2,895
expenditure on works under construction (\$m).....	2,372	2,365	2,040

### *Matters Requiring Special Attention in 2003–04*

5 During 2003–04, the department will:

- commence the construction of the public transport interchange and Government Landscaped Area at Penny's Bay;
- continue the construction of the first and second infrastructure contracts for Phase 1 of Hong Kong Disneyland;
- complete the construction of watermains and sewerage works from Siu Ho Wan to Yam O;
- continue the construction of the public pier, fire station and police post for Penny's Bay Development for Phase 1 of Hong Kong Disneyland; and
- commence the reclamation works for future expansion of Hong Kong Disneyland.

### **Programme (2): Port and Marine Facilities**

	2001–02 (Actual)	2002–03 (Approved)	2002–03 (Revised)	2003–04 (Estimate)
Financial provision (\$m)	194.5	192.0 (-1.3%)	195.9 (+2.0%)	194.8 (-0.6%)

### *Aim*

6 The aim is to implement the port development programme; to design, construct and maintain public marine facilities, including seawalls, mooring areas and piers; to maintain adequate water depth in navigation channels in the harbour; and to provide advice and service to other departments on matters relating to marine works.

### *Brief Description*

7 In 2002, the department made satisfactory progress in the implementation of projects for improving marine facilities. The re-construction of the public piers at Tung Lung Chau and Pak Sha Wan and the piers at Tai Lam Chung, Hei Ling Chau and Tsing Shan Wan, the environmental impact assessment study for the Lung Kwu Chau Jetty and the planning and design for the sheltered boat anchorage at Tai O were completed. The department started the re-construction of the piers at Peng Chau, Kat O Chau, Cheung Chau and Wu Kai Sha. It also made plans for a strategic overview of the enhancement works at government piers and landing facilities.

8 The department satisfactorily maintained 116 kilometres of seawalls, 298 piers including franchised and licensed ferry piers, all fairways, anchorage areas and major tidal river channels. The department continued to maintain the immersed tubes of the Hung Hom Cross Harbour Tunnel.

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9 The department continued to check submissions for private marine facilities and to provide advice to other departments on matters relating to marine works.

10 The key performance measures relating to port and marine facilities are:

### *Targets*

	Target	2001 (Actual)	2002 (Actual)	2003 (Plan)
inspect each public pier (urban: twice a year; rural: once a year) (%).....	100	100	100	100
respond to enquiries on information about marine structures and facilities within eight days (%) .....	100	100	100	100

### *Indicators*

	2001 (Actual)	2002 (Actual)	2003 (Estimate)
expenditure on maintenance works and maintenance dredging (\$m) .....	83	118.2	91.9
submissions processed and advice provided.....	2 439	2 459	2 500
length of seawalls maintained (km) .....	116	116	117
number of piers maintained .....	298	298	298
value of marine facilities and port projects under planning and design (\$m) .....	35,467	4,989	742
expenditure on marine facilities and port construction works (\$m) .....	58	51	141

### *Matters Requiring Special Attention in 2003–04*

11 During 2003–04, the department will:

- continue the re-construction of the public piers at Cheung Chau and Wu Kai Sha;
- complete the re-construction of the piers at Peng Chau and Kat O Chau;
- commence the construction of the Lung Kwu Chau Jetty; and
- commence the strategic overview of the enhancement works at government piers and landing facilities.

### **Programme (3): Site Formation and Reclamation**

	2001–02 (Actual)	2002–03 (Approved)	2002–03 (Revised)	2003–04 (Estimate)
Financial provision (\$m)	132.0	132.0 (0.0%)	125.8 (-4.7%)	104.4 (-17.0%)

### *Aim*

12 The aim is to undertake site formation and reclamation projects required for development; and to advise and comment on land formation proposals.

### *Brief Description*

13 In 2002, the department implemented land formation projects, forming 32.7 hectares of land to cope with development needs. The department continued to plan various projects, including the land formation at Cha Kwo Ling to provide land for housing and related developments; site formation to provide three sites for school developments; the road construction at Kong Sin Wan, Shatin Area 11 and Nam Fung Path to provide access roads and the associated infrastructure works for housing and school developments; and helipads at Peng Chau and Yung Shue Wan in Lamma Island. The environmental impact assessment of Yung Shue Wan (Phase 2), the design for the land formation at Anderson Road for housing and related developments and the design for demolition and decontamination at the Kwai Chung and Kennedy Town Incineration Plant sites continued. A number of land formation projects, including those at Tseung Kwan O Area 137 (Stage 2), Fanling Area 36 (Phase 2), West Kowloon Reclamation (Southern), Tuen Mun Area 38 (Stage 2), Sai Kung Area 4, Ma Liu Shui, Tai Tsoi Yuen (at Cheung Chau), North Tsing Yi, Tung Tau cottage area, Lei Yue Mun, Jordan Valley (near Choi Wan Road) and Kennedy Town (Lung Wah Street), and the roads and drainage projects in Tuen Mun Area 56 and Wo Yi Hop Village in Tsuen Wan were under construction. The department completed the formation projects at Yung Shue Wan (Phase 1) and Pak Shek Kok, the land contamination study for North Tsing Yi and the Stage 1 environmental improvement works to Shing Mun River using the bioremediation technique.

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14 The key performance measures relating to site formation and reclamation are:

### *Indicators*

	2001 (Actual)	2002 (Actual)	2003 (Estimate)
area of land formed (hectares).....	37.9	32.7	32.2
road constructed/widened for development (m).....	885	2 010	1 620
value of land formation projects under planning and design (\$m).....	12,962	10,631	8,456
expenditure on construction for land production (\$m).....	368	941	757

### *Matters Requiring Special Attention in 2003–04*

15 During 2003–04, the department will:

- commence treatment work on contaminated soil in North Tsing Yi;
- commence the detailed design of the access road and the associated infrastructure works at Shatin Area 11 and Nam Fung Path for school developments; and
- commence the stage 2 environmental improvement of the Shing Mun River.

### **Programme (4): Slope Safety and Geotechnical Standards**

	2001–02 (Actual)	2002–03 (Approved)	2002–03 (Revised)	2003–04 (Estimate)
Financial provision (\$m)	272.6	273.8 (+0.4%)	273.3 (–0.2%)	272.8 (–0.2%)

### *Aim*

16 The aim is to check the geotechnical aspects of designs for building and civil engineering works; to identify and register man-made slopes and retaining structures; to implement the 10-year (2000–2010) Extended Landslip Preventive Measures (LPM) Programme; to investigate serious landslides; to identify squatter dwellings which are especially vulnerable to landslides during heavy rainfall; to undertake public education related to slope safety; to set standards for geotechnical work; to provide advisory services to private slope owners on slope maintenance and improvement; and to audit slope maintenance by government departments.

### *Brief Description*

17 A strategic plan has been developed to cover the work of the department, including further development of the slope safety system. Regarding landslip risk control, the checking of geotechnical aspects of construction works continues to be the foremost duty in terms of staff deployed. Geotechnical checks were made on 13 966 design submissions in 2002. The department assisted the Buildings Department in vetting the qualifications and experience of site supervisory personnel for ground investigation and geotechnical works for private projects. During 2002, a total of \$938 million was spent on the LPM Programme, with upgrading and landscaping works completed on 266 government slopes and safety screening studies completed on 320 private slopes. Some 135 landslide incidents were reported in 2002, about 4% of which were greater than 50 cubic metres in volume. Serious landslides were investigated as part of the long-term implementation of the landslide investigation initiative. The department inspected about 90 squatter villages in 2002 and made rehousing recommendations on slope safety grounds.

18 The department continued the public education work to promote and disseminate slope safety and slope maintenance messages to the public, including slope safety talks at schools, production and distribution of slope safety cartoon books and an animated Video Compact Disc on landslip warning and a 2-month special exhibition titled “Discover Soil and Slope” at the Hong Kong Science Museum to raise the awareness of the public on slope safety and preparedness against landslide risk. A new Television-Announcement of Public Interest is being prepared to further strengthen the landslip warning and personal preparedness messages. The Community Advisory Unit continued to provide advice to private slope owners helping them maintain and improve their slopes. The Hong Kong Slope Safety Website has been enhanced further to include more slope related information. In particular, a Slope Safety Island was launched in July 2002 which provides a source of educational materials on slope safety for free dissemination to the public. A wealth of general information and reference materials on slope safety and slope maintenance, such as the Bibliography of Geology and Geotechnical Engineering of Hong Kong, could be downloaded from this Slope Safety Island. A Layman’s Guide to Landscape Treatment of Slopes and Retaining Walls has been published to provide general guidance on landscape treatment for slopes to improve the living environment. The results of research work on slope safety and other geotechnical topics were disseminated through the publication of geotechnical reports. Technical guidelines for natural terrain hazard studies were produced and distributed to geotechnical practitioners.

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19 The key performance measures in respect of slope safety and geotechnical standards are:

### *Target*

	Target	2001 (Actual)	2002 (Actual)	2003 (Plan)
provide information about a slope within five days of an application (%).....	100	100	100	100

### *Indicators*

	2001 (Actual)	2002 (Actual)	2003 (Estimate)
new slope features registered.....	550	1 303	1 300
detailed stability studies completed on government slopes .....	272	270	250
slope features upgraded and landscaped† .....	250	266	250
safety screening studies of private slopes .....	316	320	300
value of LPM (\$m) .....	982	938	896
submissions checked .....	13 029	13 966	13 500
inspections of active construction sites.....	2 213	2 747	2 800
guidance documents produced .....	25	28	25

† The indicator was rephrased to reflect the landscaping input in slope works with retrospective effect from 1.1.2002.

### *Matters Requiring Special Attention in 2003–04*

20 During 2003–04, the department will:

- assist government departments in prioritising slopes for maintenance action;
- strengthen the education campaign on slope safety and landscape improvement;
- continue to closely monitor construction safety measures in slope works with a view to further reducing construction accidents;
- enhance the appearance of slopes upgraded under the LPM Programme;
- conclude trials of growing new vegetation mixes and applying new planting techniques on steep slopes;
- continue to provide advisory services to private slope owners on slope maintenance, safety improvement works and aesthetic improvement; and
- ensure adequate geotechnical input to slope design and construction by professionally qualified geotechnical engineers.

### **Programme (5): Geotechnical Services**

	2001–02 (Actual)	2002–03 (Approved)	2002–03 (Revised)	2003–04 (Estimate)
Financial provision (\$m)	128.0	133.9 (+4.6%)	129.3 (–3.4%)	125.6 (–2.9%)

### *Aim*

21 The aim is to provide ground investigation, materials testing, geological survey and other geotechnical services; and to manage Hong Kong's marine fill resources and mud disposal capacity.

### *Brief Description*

22 In 2002, the department met its targets in respect of geotechnical services. Thirteen new contracts were awarded for ground investigation and testing of construction materials. The Public Works Laboratories (PWL) continued to serve the construction industry by undertaking some 700 000 tests on construction materials. New tests are being developed for geotextile products to be used as construction materials. The feasibility study on the development of a Laboratory Information Management System for the PWL was completed. The Geographic Information System and related information technology are being applied to geotechnical work. The department provided geotechnical advisory services to government departments on a wide range of projects. The Civil Engineering Library contains a large collection of geotechnical data on Hong Kong and served more than 37 500 users including members of the public during the year.

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23 The department, on behalf of the Marine Fill Committee, continues to undertake studies to examine the effects of the dredging and mud disposal activities, to allocate marine borrow areas and mud disposal capacity to reclamation and other works projects and to provide technical advice for the projects on sand dredging and mud disposal matters. A site selection and environmental impact study was commenced in June 2002 for a new facility for confined disposal of mud.

24 The key performance measures in respect of geotechnical services are:

### *Targets*

	Target	2001 (Actual)	2002 (Actual)	2003 (Plan)
provide assistance at the registration counter of the Civil Engineering Library within ten minutes waiting time (%).....	100	100	100	100
provide information about geology and natural resources within five days of a request (%).....	100	100	100	100

### *Indicators*

	2001 (Actual)	2002 (Actual)	2003 (Estimate)
ground investigation and laboratory soil and rock testing term contracts:			
total number of trial pits excavated\$ .....	639	593	450
total length of drilling carried out in soil (m) .....	10 500	20 100	18 600
total length of drilling carried out in rock (m).....	4 900	6 500	5 750
total number of triaxial tests on soil specimens.....	2 000	2 200	1 900
material tests conducted in the PWL and in contract laboratories managed by the PWL (thousand) .....	490	716	630
land-use planning and engineering feasibility study advisory cases handled .....	1 400	1 360	1 360
geotechnical engineering advisory cases handled.....	472	465	450
value of fill management investigations and studies (\$m).....	7	5.6	7
fill management reports and major papers.....	34	37	35

§ A new indicator as from 2003.

### *Matters Requiring Special Attention in 2003–04*

25 During 2003–04, the department will:

- continue to implement the centralised monitoring and management scheme for disposal of uncontaminated mud;
- continue to provide technical advice and support for reclamation and other marine works projects to minimise marine mud dredging and disposal;
- commence a new contract to provide service for laboratory chemical and biological testing of dredged mud; and
- complete the development of geotextile-related tests.

### **Programme (6): Supervision of Mining, Quarrying and Explosives**

	2001–02 (Actual)	2002–03 (Approved)	2002–03 (Revised)	2003–04 (Estimate)
Financial provision (\$m)	67.2	66.2 (–1.5%)	65.9 (–0.5%)	64.7 (–1.8%)

### *Aim*

26 The aim is to supervise contracts for quarrying in Hong Kong; to enforce the Mining Ordinance; to enforce the Dangerous Goods Ordinance in connection with the use of explosives; and to safeguard the public from the misuse of explosives.

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### *Brief Description*

27 The department made satisfactory progress in respect of supervision of quarrying in 2002. The Mines and Quarries Division continued to supervise the Lam Tei Quarry Contract and the rehabilitation contracts for Shek O Quarry, Lamma Quarry and Anderson Road Quarry. The department issued permits under the Sand Ordinance for the importation and transportation of sand, regulated the use of site crushers on both public and private construction sites, and maintained regular inspections of quarry sites to enforce safety regulations.

28 The department made satisfactory progress in respect of supervision of the use of explosives during the year. To protect the public from the misuse of explosives, the department maintains strict control over the storage, handling, transportation and use of explosives from their manufacture or importation to their firing on construction sites.

29 The key performance measures in respect of supervision of quarrying and explosives are:

### *Targets*

	Target	2001 (Actual)	2002 (Actual)	2003 (Plan)
issue a Sand Removal Permit within two days of an application which has satisfied government requirements (%)..	100	100	100	<b>100</b>
issue a Licence to Manufacture Explosives within three days of an application, where pre-licensing requirements have been satisfied (%).....	100	100	100	<b>100</b>
issue a Permit to Remove Explosives within one day of an application (%).....	100	100	100	<b>100</b>
issue a Licence to Store Explosives within three days of an application where pre-licensing requirements have been satisfied (%)† .....	100	99	100	<b>100</b>
issue a Licence to Use Explosives within four days of an application where pre-licensing requirements have been satisfied (%) .....	100	98	100	<b>100</b>
endorse a Licence to Import or Export Explosives within one day of an application (%).....	100	100	100	<b>100</b>
issue a Mine Blasting Certificate within two days of an applicant passing an examination (%)§ .....	100	100	100	<b>100</b>

† The target will be improved from four days to three days in 2003.

§ The target was improved from three days to two days in 2002.

### *Indicators*

	2001 (Actual)	2002 (Actual)	2003 (Estimate)
aggregates processed by contract quarries (million tonnes) ....	5.8	5.2	<b>8.0</b>
revenue from royalty and rental payments (\$m) .....	24.3	18.3	<b>22.7</b>
Sand Removal Permits issued.....	400	313	<b>250</b>
quarrying and rock crushing contracts supervised.....	4	4	<b>3</b>
safety inspections of quarries .....	48	48	<b>36</b>
tonnes of explosive consumed.....	2 110	1 792	<b>1 800</b>
number of blasting activities.....	2 155	1 770	<b>1 800</b>
inspections of blasting sites .....	1 524	1 781	<b>1 800</b>
inspections of pre-licensed sites, magazines, manufacturing plants and stores.....	1 399	1 192	<b>1 200</b>
warnings issued .....	32	6	<b>6</b>
licences and permits granted .....	5 741	5 560	<b>5 500</b>
licences and permits renewed.....	148	197	<b>200</b>
tonnes of explosives delivered from government explosives depots.....	321	108	<b>110</b>
number of deliveries of explosives.....	1 270	813	<b>800</b>

### *Matters Requiring Special Attention in 2003–04*

30 During 2003–04, the department will initiate legislative amendments to the Regulations in the Dangerous Goods Ordinance in respect of the use of explosives together with the Security Bureau and other departments.

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### Programme (7): Management of Construction and Demolition Materials

	2001-02 (Actual)	2002-03 (Approved)	2002-03 (Revised)	<b>2003-04 (Estimate)</b>
Financial provision (\$m)	38.3	66.6 (+73.9%)	65.6 (-1.5%)	<b>123.9 (+88.9%)</b>

#### *Aim*

**31** The aim is to ensure good management and utilisation of inert construction and demolition materials.

#### *Brief Description*

**32** The department, on behalf of the Public Fill Committee, continued to scrutinise submissions from proponents of public works projects with a view to maximising the reuse of public fill in land formation projects. The department continued to monitor progress of reclamation projects. For daily receipt of public fill, the department continued to co-ordinate the operation of public filling area at Tuen Mun, and to liaise with stakeholders concerned such as dump truck drivers and members of the District Councils. The public filling areas at Tseung Kwan O, Pak Shek Kok and Tung Chung have stopped accepting public fill. To tackle the shortfall in public filling capacity and to minimise the disposal of public fill at landfills, the department has started the operation of the fill bank at Tseung Kwan O Area 137. To tie in with the commissioning of the fill bank, the department has started the operation of the temporary public filling barging point at Kai Tak.

**33** To enhance the scrutiny of public works projects for reduction in the generation of public fill, the department advised proponents of public works projects on guidelines to formulate a construction and demolition materials management plan at an early design stage of the projects so as to minimise the generation of construction and demolition materials at source and maximise their reuse.

**34** The public filling barging points at Sha Tin, Tseung Kwan O and Tuen Mun Area 38 have stopped operation. To maintain adequate outlets on Hong Kong Island for inert construction and demolition materials prior to commissioning of the long-term barging facilities, two short-term barging facilities at Quarry Bay and Sai Ying Pun are in operation. The department continued to operate the public fill stockpiling area at Mui Wo.

**35** The department continued to plan mixed construction and demolition materials temporary sorting facilities in Tuen Mun and Tseung Kwan O, and to examine the need for recycling facilities for inert hard construction and demolition materials in Kai Tak. The department has started the operation of the recycling facility in Tuen Mun Area 38.

**36** The department continued with the studies on the long-term arrangements to accommodate inert construction and demolition materials, and on feasibility of recycling inert hard construction and demolition materials. The department also planned for the setting up of the fill bank at Tuen Mun Area 38.

**37** The key performance measures relating to management of construction and demolition materials are:

#### *Targets*

	Target	2001 (Actual)	2002 (Actual)	<b>2003 (Plan)</b>
issue dumping licence within four days (%)†.....	100	100	100	<b>100</b>
issue dumping licence within half day for applications submitted in person (%) .....	100	—	100	<b>100</b>

† The target was six days in 2001.

#### *Indicators*

	2001 (Actual)	2002 (Actual)	<b>2003 (Estimate)</b>
volume of public fill accepted for use in public filling areas (million m <sup>3</sup> ).....	6.6	6.7	<b>6.8</b>
recycling inert hard construction and demolition materials (million tonne) .....	—	0.05	<b>0.2</b>
number of submissions processed .....	140	120	<b>110</b>
number of assignment of public fill outlet through trip ticket system .....	146	110	<b>130</b>



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### *Matters Requiring Special Attention in 2003–04*

**38** During 2003–04, the department will:

- plan for temporary sorting facilities at Tuen Mun and Tseung Kwan O to tie in with the introduction of the proposed landfill charging scheme;
- operate the temporary recycling facility at Tuen Mun Area 38 and examine the need for a recycling facility at Kai Tak;
- start the operation of the fill bank at Tuen Mun Area 38; and
- formulate long-term strategy to accommodate inert construction and demolition materials.

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### ANALYSIS OF FINANCIAL PROVISION

Programme	2001-02 (Actual) (\$m)	2002-03 (Approved) (\$m)	2002-03 (Revised) (\$m)	2003-04 (Estimate) (\$m)
(1) Tourism and Recreational Development.....	46.7	50.7	50.6	52.5
(2) Port and Marine Facilities.....	194.5	192.0	195.9	194.8
(3) Site Formation and Reclamation.....	132.0	132.0	125.8	104.4
(4) Slope Safety and Geotechnical Standards...	272.6	273.8	273.3	272.8
(5) Geotechnical Services.....	128.0	133.9	129.3	125.6
(6) Supervision of Mining, Quarrying and Explosives.....	67.2	66.2	65.9	64.7
(7) Management of Construction and Demolition Materials.....	38.3	66.6	65.6	123.9
	879.3	915.2 (+4.1%)	906.4 (-1.0%)	938.7 (+3.6%)

#### Analysis of Financial and Staffing Provision

##### Programme (1)

Provision for 2003-04 is \$1.9 million (3.8%) higher than the revised estimate for 2002-03. This is mainly due to recurrent consequence of capital works project, partly offset by full-year effect of civil service pay cut.

##### Programme (2)

Provision for 2003-04 is \$1.1 million (0.6%) lower than the revised estimate for 2002-03. This is mainly due to reduced operating expenses, partly offset by salary increments for staff.

##### Programme (3)

Provision for 2003-04 is \$21.4 million (17.0%) lower than the revised estimate for 2002-03. This is mainly due to full-year effect of civil service pay cut, partly offset by increased operating expenses.

##### Programme (4)

Provision for 2003-04 is \$0.5 million (0.2%) lower than the revised estimate for 2002-03. This is mainly due to full-year effect of civil service pay cut and reduced operating expenses, partly offset by increased cashflow requirements for capital account items.

##### Programme (5)

Provision for 2003-04 is \$3.7 million (2.9%) lower than the revised estimate for 2002-03. This is mainly due to full-year effect of civil service pay cut and reduced operating expenses, partly offset by increased cashflow requirements for capital account items.

##### Programme (6)

Provision for 2003-04 is \$1.2 million (1.8%) lower than the revised estimate for 2002-03. This is mainly due to full-year effect of civil service pay cut.

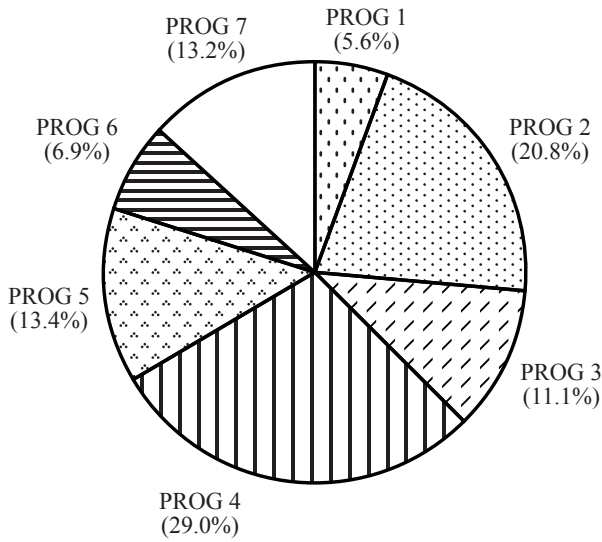
##### Programme (7)

Provision for 2003-04 is \$58.3 million (88.9%) higher than the revised estimate for 2002-03. This is mainly due to the full-year provision for the operation of fill bank at Tseung Kwan O.

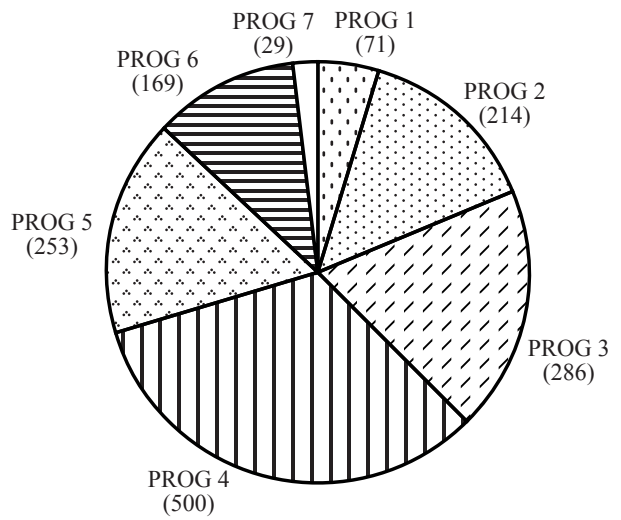
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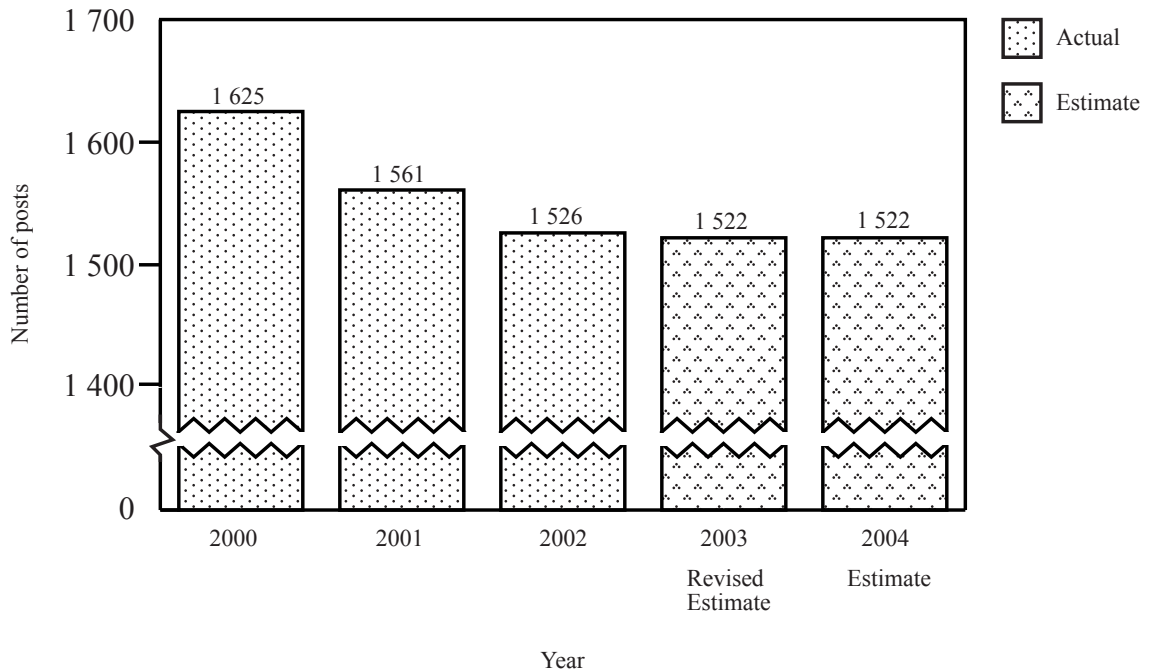
*Allocation of provision  
to programmes  
(2003-04)*



*Staff by programme  
(as at 31 March 2004)*



*Changes in the size of the establishment  
(as at 31 March)*



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Sub-head (Code)	Actual expenditure 2001-02	Approved estimate 2002-03	Revised estimate 2002-03	<b>Estimate 2003-04</b>
	\$'000	\$'000	\$'000	<b>\$'000</b>
<b>Recurrent Account</b>				
000	Operational expenses.....	—	—	<b>922,906</b>
	Salaries .....	656,007	648,241	653,290
	Allowances .....	16,088	19,903	15,054
	Job-related allowances .....	1,252	1,500	1,300
	Contract maintenance .....	116,751	137,536	137,536
	General departmental expenses .....	77,822	92,090	87,080
	Total, Recurrent Account .....	867,920	899,270	894,260
<b>Capital Account</b>				
I — Plant, Equipment and Works				
603	Plant, vehicles and equipment .....	1,740	4,000	1,600
	Minor plant, vehicles and equipment (block vote) .....	1,992	2,106	2,106
	Total, Plant, Equipment and Works .....	3,732	6,106	3,706
II — Other Non-Recurrent				
700	General other non-recurrent .....	7,492	8,470	7,160
841	Minor consultancy studies (block vote).....	163	1,311	1,311
	Total, Other Non-Recurrent .....	7,655	9,781	8,471
	Total, Capital Account .....	11,387	15,887	12,177
	Total Expenditure.....	879,307	915,157	906,437

## Head 43 — CIVIL ENGINEERING DEPARTMENT

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### Details of Expenditure by Subhead

The estimate of the amount required in 2003–04 for the salaries and expenses of the Civil Engineering Department is \$938,725,000. This represents an increase of \$32,288,000 over the revised estimate for 2002–03 and of \$59,418,000 over actual expenditure in 2001–02.

#### *Recurrent Account*

**2** Provision of \$922,906,000 under *Subhead 000 Operational expenses* is for the salaries and allowances of staff of the Civil Engineering Department and its other operating expenses.

**3** The establishment as at 31 March 2003 will be 1 520 permanent posts and two supernumerary posts. No change in establishment is expected in 2003–04. Subject to certain conditions, the controlling officer may under delegated powers create or delete non-directorate posts during 2003–04, but the notional annual mid-point salary value of all such posts must not exceed \$489,798,000.

**4** An analysis of financial provision under *Subhead 000 Operational expenses* is as follows:

	2001–02 (Actual) (\$'000)	2002–03 (Original Estimate) (\$'000)	2002–03 (Revised Estimate) (\$'000)	<b>2003–04 (Estimate) (\$'000)</b>
Personal Emoluments				
- Salaries.....	656,007	648,241	653,290	<b>636,940</b>
- Allowances.....	16,088	19,903	15,054	<b>15,600</b>
- Job-related allowances .....	1,252	1,500	1,300	<b>1,200</b>
Personnel Related Expenses				
- Mandatory Provident Fund contribution.....	—	—	—	<b>756</b>
Departmental Expenses				
- Contract maintenance.....	116,751	137,536	137,536	<b>181,976</b>
- General departmental expenses.....	77,822	92,090	87,080	<b>86,434</b>
	867,920	899,270	894,260	<b>922,906</b>

#### *Capital Account*

##### Other Non-Recurrent

**5** Provision of \$1,311,000 under *Subhead 841 Minor consultancy studies (block vote)* is for engaging consultants to conduct minor studies costing above \$150,000 but not exceeding \$2,000,000 each.

## Head 43 — CIVIL ENGINEERING DEPARTMENT

### Capital Account

#### Commitments

Sub-head (Code)	Item (Code)	Ambit	Approved commitment	Accumulated expenditure to 31.3.2002	Revised estimated expenditure for 2002-03	Balance
			\$'000	\$'000	\$'000	\$'000
603		<i>Plant, vehicles and equipment</i>				
	325	Replacement of Universal Testing Machine of 2000 KN .....	4,000	—	1,600	2,400
700		<i>General other non-recurrent</i>				
	523	Quantitative risk assessment of landslide hazard .....	8,500	6,148	910	1,442
	527	Study on the use of prescriptive measures in slope improvement works .....	5,000	2,980	950	1,070
	528	Provision of warning signs in squatter areas .....	5,000	2,534	200	2,266
	534	Monitoring of uncontaminated mud disposal area at South Cheung Chau and East Ninepins .....	7,800	4,959	1,450	1,391
	535	Monitoring of uncontaminated mud disposal area at north of Lantau and south of Tsing Yi .....	17,100	7,385	2,650	7,065
	536	Publication of a Geoguide on Engineering Geology .....	2,500	—	—	2,500
	537	Upgrading of Lotus Notes System for Civil Engineering Department .....	1,750	—	500	1,250
	538	Data collection on slopes within squatter villages .....	3,060	—	500	2,560
	539	Setting up of wave monitoring stations ..	1,550	—	—	1,550
			<u>52,260</u>	<u>24,006</u>	<u>7,160</u>	<u>21,094</u>
		Total .....	<u>56,260</u>	<u>24,006</u>	<u>8,760</u>	<u>23,494</u>