Head 48 — GOVERNMENT LABORATORY

Controlling officer: the Government Chemist will account for expenditure under this Head.

Estimate 2004–05	**$244.7m**
Establishment ceiling 2004–05 (notional annual mid-point salary value) representing an estimated 377 non-directorate posts as at 31 March 2004 reducing by 18 posts to 359 posts as at 31 March 2005	**$153.9m**
In addition there will be an estimated seven directorate posts as at 31 March 2004 reducing by one post to six posts as at 31 March 2005.	
Commitment balance	**$7.8m**

Controlling Officer's Report

Programmes

Programme (1) Statutory Testing	This programme contributes to Policy Area 2: Agriculture, Fisheries and Food Safety (Secretary for Health, Welfare and Food) and Policy Area 15: Health (Secretary for Health, Welfare and Food).
Programme (2) Advisory and Investigative Services	This programme contributes to Policy Area 9: Internal Security (Secretary for Security), Policy Area 15: Health (Secretary for Health, Welfare and Food), Policy Area 23: Environmental Protection and Conservation (Secretary for the Environment, Transport and Works) and Policy Area 32: Environmental Hygiene (Secretary for Health, Welfare and Food).
Programme (3) Forensic Science Service	This programme contributes to Policy Area 9: Internal Security (Secretary for Security).

Detail

Programme (1): Statutory Testing

	2002–03 (Actual)	2003–04 (Original)	2003–04 (Revised)	**2004–05 (Estimate)**
Financial provision ($m)	83.8	88.1	81.3 (–7.7%)	**76.8** (–5.5%)
				(or –12.8% on 2003–04 Original)

Aim

2 The aim is to carry out statutory functions as referee analyst under a number of ordinances and regulations.

Brief Description

3 The Government Chemist discharges statutory functions as referee analyst under various ordinances and regulations. The work involves the analysis of food products for regulatory compliance, the examination of western and Chinese medicines for registration and quality control, the testing of dutiable commodities for tariff classification, the assessment of toys, children's products and consumer articles for health and safety hazards, the determination of tar and nicotine yields in cigarettes, the assay of gold and platinum articles for fineness and the verification of products and equipment for compliance with the Weights and Measures Ordinance. The Government Laboratory provides 24-hour on-call service to assist the Fire Services Department and Labour Department at scenes of accidents involving hazardous chemicals.

4 The Laboratory achieved all its performance targets in 2003. The Laboratory continued its participation in the development of the Hong Kong Chinese Materia Medica Standards for selected Chinese medicinal herbs. In combating illicit diesel fuel, the Laboratory provided technical support to the Customs and Excise Department in the evaluation of alternative markers. In the area of consumer protection, the Laboratory conducted urgent hygienic tests on a number of personal protection products including face masks, disposable towels and latex gloves. In another area of health protection, the Laboratory continued to provide urgent analytical services for the detection of beta-agonists and the routine monitoring of seven prohibited chemicals and ten restricted agricultural and veterinary chemicals in food, and extended its scope of services for the monitoring of nine more restricted chemicals to facilitate the second phase enforcement of the Public Health (Animals and Birds) (Chemical Residues) Regulation and the Harmful Substances in Food (Amendment) Regulation. The Laboratory also provided analytical services for the detection of genetically

modified soya and maize in food products and continued to extend its scope of analysis to cover other genetically modified organisms. Construction of a cleanroom according to US Federal Standard 209E (Class 4.5) will be completed in early 2004, providing an improved environment for conducting ultra-trace analysis.

5 The key performance measures in respect of statutory testing are:

Targets

	Target	2002 (Actual)	2003 (Actual)	**2004 (Plan)**
Testing of:				
samples relating to food poisoning within one working day (%)#	100	100	100	**100**
food samples for regulatory compliance purposes within target reporting time averaging 19 working days (%)#	95	96	96	**95**
pharmaceuticals (quality control) within target reporting time averaging 14 working days (%)#	92	94	95	**92**
pharmaceuticals (registration) within target reporting time averaging 30 working days (%)#	90	85	93	**90**
Chinese medicines within target reporting time averaging 30 working days (%)#	95	98	97	**95**
dangerous goods within target reporting time averaging 14 working days (%)#	90	97	98	**92**
dutiable and other commodities within target reporting time averaging ten working days (%)#	90	92	95	**90**
toys and children's products within target reporting time averaging 15 working days (%)#	95	97	97	**95**
consumer goods within target reporting time averaging 35 working days (%)#	95	93	95	**95**

Different samples require different analytical procedures, thus different target reporting time applies. The quoted number of working days required represents an average of target reporting time for the different samples within the category.

Indicators

The key indicators for statutory testing are the numbers of tests performed on the various samples submitted.

	2002 (Actual)	2003 (Actual)	**2004 (Estimate)**
tests performed			
food samples for regulatory compliance purposes	80 201	92 052	**82 000**
pharmaceuticals (quality control)	23 003	23 520	**23 000**
pharmaceuticals (registration)	16 564	16 609	**16 000**
Chinese medicines	41 481	58 268	**51 000**
dangerous goods	6 021	6 488	**6 000**
dutiable and other commodities	31 926	27 709	**28 000**
cigarette samples	11 718	12 000	**12 000**
toys and children's products	10 099	8 020	**8 500**
consumer goods	16 633	13 864	**16 000**

Matters Requiring Special Attention in 2004–05

6 During 2004–05, the Laboratory will:

- continue to participate in the development of the Hong Kong Chinese Materia Medica Standards;
- provide analytical support to the analysis of animal tissues, feeds and food for the presence of 18 agricultural and veterinary chemicals for the final phase enforcement of the Public Health (Animals and Birds) (Chemical Residues) Regulation and the Harmful Substances in Food (Amendment) Regulation; and
- develop testing methods to cater for the implementation of the Dangerous Goods (Amendment) Ordinance 2002.

Programme (2): Advisory and Investigative Services

	2002–03 (Actual)	2003–04 (Original)	2003–04 (Revised)	**2004–05 (Estimate)**
Financial provision ($m)	63.8	60.5	58.6 (–3.1%)	**57.0** (–2.7%) (or –5.8% on 2003–04 Original)

Aim

7 The aim is to provide a wide range of primarily chemical testing and advisory services to other government departments and public institutions.

Brief Description

8 The Laboratory provides comprehensive analytical and advisory services to the Government in the management and monitoring of the environment and in the enforcement of various pollution control measures. Chemical testing of air, water and waste samples for a variety of pollution indicators constitutes the main activity under this programme. Specific incidents of emission or leakage of gaseous substances into the environment also involve the Laboratory in on-site investigations. Analytical support is also provided to the Hong Kong Observatory's Environmental Radiation Monitoring Programme as well as the Daya Bay Contingency Plan. Other activities include the examination of seepage and swimming pool water samples for the Food and Environmental Hygiene Department, evaluation of workplace exposure of occupational hazards for the Labour Department, testing of government supplies for conformity to tender specifications and identifying products made from endangered species.

9 The Laboratory achieved all work targets set for 2003 except for the examination of seepage and swimming pool water samples. High output of seepage samples arising from an exceedingly high input led to the reporting of 91% of the samples on target. The Laboratory continued to render analytical support and professional advice to the Government in improving the quality of the environment of Hong Kong as well as engaging in scientific research to further extend its analytical capabilities in environmental analysis. In addition to its routine commitments, the Laboratory was actively involved in various environmental impact studies and ad-hoc projects including the analysis of spent oil samples and the "Unpolluted Water" study for the control of discharge of waste water under the Water Pollution Control Ordinance.

10 The key performance measures in respect of advisory and investigative services are:

Targets

	Target	2002 (Actual)	2003 (Actual)	**2004 (Plan)**
Testing of:				
air monitoring samples within target reporting time averaging 20 working days (%)#	95	100	99	**96**
other field investigation samples within target reporting time averaging 12 working days (%)#	95	100	100	**95**
air samples for litigation purposes within target reporting time averaging 20 working days (%)#	97	100	100	**97**
water monitoring samples within target reporting time averaging 20 working days (%)#	95	95	98	**95**
waste monitoring samples within target reporting time averaging 27 working days (%)#	95	96	98	**95**
waste samples for litigation purposes within target reporting time averaging 12 working days (%)#	95	97	98	**97**
radioactivity monitoring samples within target reporting time averaging 12 working days (%)#	95	99	99	**95**
pesticides formulation samples within target reporting time averaging 38 working days (%)#	85	80	100	**90**

	Target	2002 (Actual)	2003 (Actual)	**2004 (Plan)**
seepage and swimming pool water samples within target reporting time averaging ten working days (%)#	95	95	91	**95**
other samples within target reporting time averaging 25 working days (%)#	90	94	95	**90**

Different samples require different analytical procedures, thus different target reporting time applies. The quoted number of working days required represents an average of target reporting time for the different samples within the category.

Indicators

The key indicators for advisory and investigative services are the numbers of tests performed on the various samples submitted.

	2002 (Actual)	2003 (Actual)	**2004 (Estimate)**
tests performed			
air monitoring samples	125 279	119 551	**95 000**
air samples for litigation purposes	1 010	663	**600**
field investigation samples	4 856	2 458	**2 500**
water samples	130 215	127 623	**125 000**
waste monitoring samples	24 765	23 334	**25 000**
waste samples for litigation purposes	874	555	**1 000**
pesticides formulation samples	788	920	**1 000**
seepage and swimming pool water samples	25 984	35 504	**25 000**
miscellaneous			
radioactivity monitoring samples	4 363	4 916	**4 700**
other samples	11 035	7 521	**8 000**

Matters Requiring Special Attention in 2004–05

11 During 2004–05, the Laboratory will:

- continue to develop sensitive and advanced analytical techniques to cater for the measurement of ultra-trace levels of environmental pollutants;
- continue to provide analytical services according to international protocols in support of the implementation of new fuel specifications as stipulated in Air Pollution Control (Motor Vehicle Fuel) Regulations;
- continue to provide analytical support for preparing the HKSAR to participate in the National Marine Environmental Monitoring Network;
- strengthen the analytical and advisory services to the analysis of pesticides formulation; and
- provide analytical and advisory services to government departments in support of the implementation of the Chemical Weapons (Convention) Ordinance in Hong Kong.

Programme (3): Forensic Science Service

	2002–03 (Actual)	2003–04 (Original)	2003–04 (Revised)	**2004–05 (Estimate)**
Financial provision ($m)	110.0	121.3	115.4 (–4.9%)	**110.9** (–3.9%) (or –8.6% on 2003–04 Original)

Aim

12 The aim is to provide a comprehensive and unbiased forensic science service to the criminal justice system.

Brief Description

13 The Laboratory provides comprehensive forensic science services to law enforcement departments, which include mainly the Hong Kong Police Force, the Customs and Excise Department, the Immigration Department and the Independent Commission Against Corruption. Additionally, urinalysis monitoring is conducted for the Department of Health (Methadone Maintenance Scheme), the Social Welfare Department, the Correctional Services Department and other organisations requiring this service.

14 The services are grouped into two main work areas: i) criminalistics and quality management, and ii) drugs, toxicology and documents. A 24-hour service is also provided for the scientific examination of crime scenes. It covers general crime scenes and scenes requiring specialist knowledge, such as fire investigation, traffic accident reconstruction, blood pattern analysis and illicit drug manufacturing.

15 The Laboratory's performance in many areas in 2003 improved over 2002. The application of the database of DNA profiles of persons convicted of serious crimes for investigating unsolved criminal cases has continued to produce rapid developments in the application of DNA analytical techniques and affected the performance in biochemical grouping. On areas where targets were not met owing to sustained demands in 2003, the Laboratory is striving to enhance efficiency to improve the situation.

16 The key performance measures in respect of the forensic science services are:

Targets

Targets are defined as the number of working days required to complete 80% of cases in each category to accommodate the wide variations experienced in forensic casework.

	Target Working Days Per Case	2002 (Actual)	2003 (Actual)	**2004 (Plan)**
biochemical grouping (DNA profiling)	88	139	215	**175**
DNA database (DNA profiling).....	22	22	22	**22**
parentage testing (DNA profiling)#	22	21	25	**22**
trace evidence	66	112	90	**80**
accident reconstruction	66	90	89	**75**
routine illicit drug seizures.....	11	11	10	**11**
major drug seizures and manufacturing	44	58	50	**50**
analytical toxicology.....	33	41	37	**35**
drug urinalysis (methadone clinics)	11	11	9	**9**
drug urinalysis (judicial-screening).....	11	14	10	**11**
drug urinalysis (judicial-confirmation)	22	22	20	**22**
drink-driving.....	11	8	8	**9**
handwriting examination.....	66	86	77	**85**
counterfeiting/forgery	33	29	28	**30**
express counterfeiting/forgery service	1	1	1	**1**

"22 days" represents the time lapsed between the reception by the Laboratory of samples for genetic testing and the issuing of genetic data after completion of DNA analysis of these samples within the Laboratory.

Indicators

Key indicators for the forensic science services are the number of cases investigated, urinalysis samples tested, statutory certificates or technical reports/witness statements issued and crime scenes attended.

	2002 (Actual)	2003 (Actual)	**2004 (Estimate)**
Criminalistics and Quality Management Group			
Samples tested			
DNA database	3 543	3 506	**4 000**
Cases investigated			
biochemical sciences	2 011	4 214	**4 200**
parentage testing.....	542	2 800	**3 000**
chemical sciences§	1 708	900	**1 000**
physical sciences§	3 948	1 580	**1 500**
Total	8 209	9 494	**9 700**
Drugs, Toxicology and Documents Group			
Cases investigated			
controlled drugs.....	8 806	7 600	**8 000**
analytical toxicology	3 008	2 952	**3 000**
drink-driving.....	167	171	**180**
questioned documents	2 799	2 640	**2 700**
Total	14 780	13 363	**13 880**
Test conducted#			
drug urinalysis (methadone clinics).....	25 744	21 331	**24 000**
drug urinalysis (judicial-screening)	21 926	14 733	**15 400**
drug urinalysis (judicial-confirmation).....	60 350	65 366	**68 000**
Total	108 020	101 430	**107 400**

	2002 (Actual)	2003 (Actual)	**2004 (Estimate)**
Forensic Science Division			
statutory certificates issued	9 149	7 904	**8 000**
technical reports/statements	17 301	19 613	**20 000**
crime scenes attended	815	702	**710**

§ The decrease in the number of cases investigated by the Physical Sciences Section and the Chemical Sciences Section was caused by a sharp decline in the submission of counterfeit HK$10 coins. It is expected that the workload from these cases will be stabilised in 2004.

Owing to changes in drug abuse trends, only one urine sample for urinalysis instead of two is now needed. As the indicator for urinalysis is more accurately represented by number of tests instead of sample numbers, the number of samples will no longer be used as the indicator for urinalysis services.

Matters Requiring Special Attention in 2004–05

17 During 2004–05, the Laboratory will:

- enhance the efficiency in DNA profiling services in the detection and investigation of crime, management of the DNA database and genetic parentage testing;
- maintain the efficiency in the examination of suspected forged identity cards and travel documents in express cases, and improve the turnover of non-express cases; and
- endeavour to improve efficiency by refining methodology and administration.

ANALYSIS OF FINANCIAL PROVISION

Programme	2002–03 (Actual) ($m)	2003–04 (Original) ($m)	2003–04 (Revised) ($m)	**2004–05 (Estimate) ($m)**
(1) Statutory Testing.....	83.8	88.1	81.3	**76.8**
(2) Advisory and Investigative Services.....	63.8	60.5	58.6	**57.0**
(3) Forensic Science Service	110.0	121.3	115.4	**110.9**
	257.6	269.9	255.3 (–5.4%)	**244.7 (–4.2%)**
				(or –9.3% on 2003–04 Original)

Analysis of Financial and Staffing Provision

Programme (1)

Provision for 2004–05 is $4.5 million (5.5%) lower than the revised estimate for 2003–04. This is mainly due to the effect of the 2004 and 2005 civil service pay cut, reduced requirement for procurement of capital equipment and deletion of six posts for efficiency savings, partly offset by procurement of specialist stores and services to strengthen the analytical capabilities of existing services.

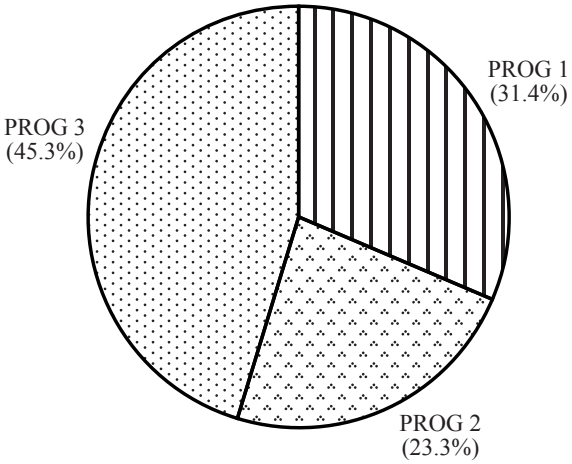
Programme (2)

Provision for 2004–05 is $1.6 million (2.7%) lower than the revised estimate for 2003–04. This is mainly due to the effect of the 2004 and 2005 civil service pay cut and deletion of two posts for efficiency savings, partly offset by creation of two posts for improving the control of pesticides formulation and increased requirement for procurement of capital equipment and specialist stores to strengthen the analytical capabilities of existing services.

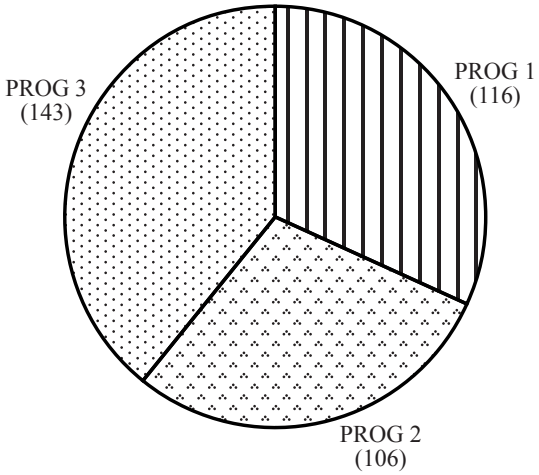
Programme (3)

Provision for 2004–05 is $4.5 million (3.9%) lower than the revised estimate for 2003–04. This is mainly due to the effect of the 2004 and 2005 civil service pay cut, reduced requirement for procurement of capital equipment and deletion of 13 posts for efficiency savings, partly offset by procurement of specialist stores and services to strengthen the analytical capabilities of existing services.

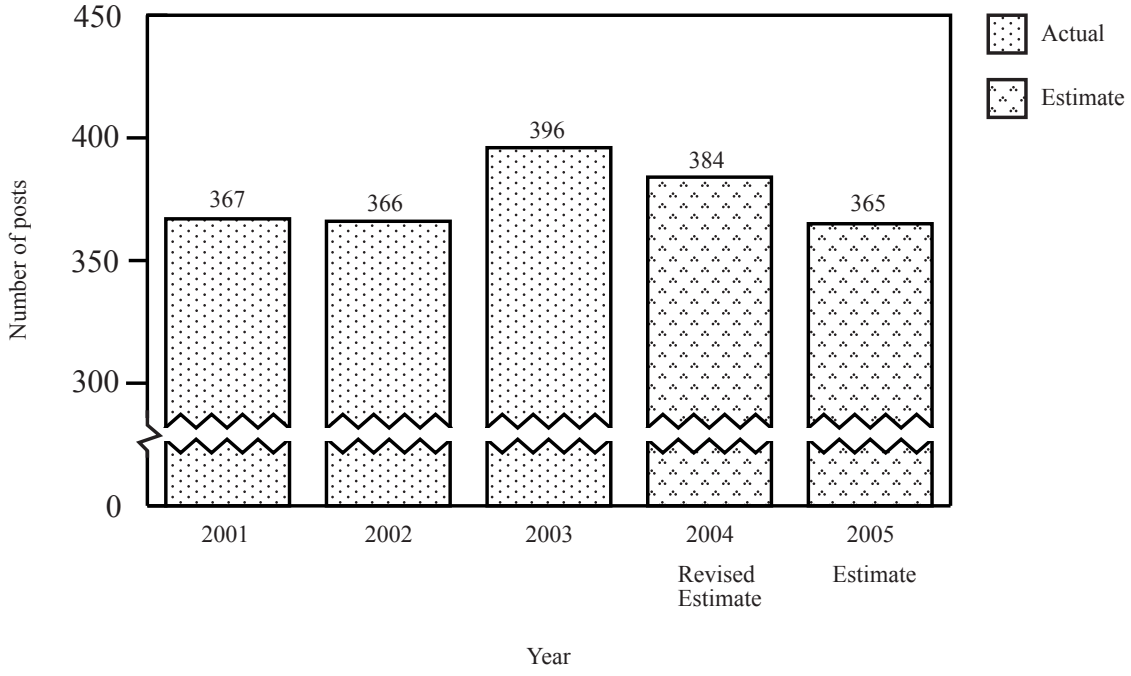
Allocation of provision to programmes (2004-05)



Staff by programme (as at 31 March 2005)



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



Head 48 — GOVERNMENT LABORATORY

Sub-head (Code)		Actual expenditure 2002–03	Approved estimate 2003–04	Revised estimate 2003–04	**Estimate 2004–05**
		$'000	$'000	$'000	**$'000**
	Operating Account				
	Recurrent				
000	Operational expenses	—	244,706	236,596	**231,288**
	Salaries	179,188	—	—	**—**
	Allowances	1,568	—	—	**—**
	Job-related allowances	146	—	—	**—**
	General departmental expenses	48,276	—	—	**—**
	Total, Recurrent	229,178	244,706	236,596	**231,288**
	Total, Operating Account	229,178	244,706	236,596	**231,288**
	Capital Account				
	Plant, Equipment and Works				
603	Plant, vehicles and equipment	13,228	9,770	3,300	**7,826**
661	Minor plant, vehicles and equipment (block vote)	15,235	15,404	15,404	**5,604**
	Total, Plant, Equipment and Works	28,463	25,174	18,704	**13,430**
	Total, Capital Account	28,463	25,174	18,704	**13,430**
	Total Expenditure	257,641	269,880	255,300	**244,718**

Details of Expenditure by Subhead

The estimate of the amount required in 2004–05 for the salaries and expenses of the Government Laboratory is $244,718,000. This represents a decrease of $10,582,000 against the revised estimate for 2003–04 and of $12,923,000 against actual expenditure in 2002–03.

Operating Account

Recurrent

2 Provision of $231,288,000 under *Subhead 000 Operational expenses* is for the salaries, allowances and other operating expenses of the Government Laboratory.

3 The establishment as at 31 March 2004 will be 384 permanent posts. It is expected that one directorate post and a net 18 non-directorate posts will be deleted in 2004–05. Subject to certain conditions, the controlling officer may under delegated power create or delete non-directorate posts during 2004–05, but the notional annual mid-point salary value of all such posts must not exceed $153,856,000.

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

	2002–03 (Actual) ($'000)	2003–04 (Original) ($'000)	2003–04 (Revised) ($'000)	**2004–05 (Estimate) ($'000)**
Personal Emoluments				
- Salaries	179,188	182,150	178,706	**168,847**
- Allowances	1,568	1,740	1,278	**1,291**
- Job-related allowances	146	101	—	**—**
Personnel Related Expenses				
- Mandatory Provident Fund contribution	—	434	560	**560**
Departmental Expenses				
- General departmental expenses	48,276	60,281	56,052	**60,590**
	229,178	244,706	236,596	**231,288**

Capital Account

Plant, Equipment and Works

5 Provision of $5,604,000 under *Subhead 661 Minor plant, vehicles and equipment (block vote)* represents a decrease of $9,800,000 (63.6%) against the revised estimate for 2003–04. This is mainly due to fewer replacement items required in 2004–05.

Commitments

Sub-head (Code)	Item (Code)	Ambit	Approved commitment	Accumulated expenditure to 31.3.2003	Revised estimated expenditure for 2003–04	Balance
			$'000	$'000	$'000	$'000
Capital Account						
603		*Plant, vehicles and equipment*				
	323	Setting up a DNA database laboratory ...	9,209	4,410	1,646	3,153
	326	Acquisition of an integrated liquid chromatograph-tandem mass spectrometer with automated sample preparation system	4,200	—	—	4,200
	327	Acquisition of equipment for DNA analysis on samples collected from crime scenes	2,500	373	1,654	473
		Total	15,909	4,783	3,300	7,826