

## Head 194 — WATER SUPPLIES DEPARTMENT

**Controlling officer:** the Director of Water Supplies will account for expenditure under this Head.

**Estimate 2016–17** ..... **\$7,923.9m**

**Establishment ceiling 2016–17** (notional annual mid-point salary value) representing an estimated 4 429 non-directorate posts as at 31 March 2016 rising by 45 posts to 4 474 posts as at 31 March 2017 ..... **\$1,459.2m**

In addition, there will be an estimated 23 directorate posts as at 31 March 2016 and as at 31 March 2017.

### Controlling Officer's Report

#### Programmes

**Programme (1) Water Supply: Planning and Distribution**  
**Programme (2) Water Quality Control**  
**Programme (3) Customer Services**

These programmes contribute to Policy Area 24: Water Supply, Drainage and Slope Safety (Secretary for Development).

#### Detail

##### Programme (1): Water Supply: Planning and Distribution

	2014–15 (Actual)	2015–16 (Original)	2015–16 (Revised)	<b>2016–17 (Estimate)</b>
Financial provision (\$m)	6,542.4	6,924.6	6,996.0 (+1.0%)	<b>7,241.1</b> (+3.5%)
				(or +4.6% on 2015–16 Original)

#### Aim

**2** The aim is to plan and develop water resources and to design, construct, maintain and operate water supply systems in order to provide round-the-clock supplies throughout the year to meet the demands of the territory.

#### Brief Description

**3** The Department is responsible for providing adequate and satisfactory supplies of water to the territory. This work involves:

##### *Fresh water*

- assessing fresh water supply requirements on the basis of providing round-the-clock supply of water throughout the year to meet the demand of the territory;
- developing fresh water resources to cope with such requirements;
- planning, designing and constructing reliable and efficient fresh water supply and distribution systems to meet such requirements in good time; and
- operating and maintaining fresh water supply and distribution systems.

##### *Salt water for flushing*

- assessing salt water supply requirements;
- planning, designing and constructing reliable and efficient salt water supply and distribution systems to meet such requirements in good time; and
- operating and maintaining salt water supply and distribution systems.

**4** In 2015, the Department was able to plan, design and construct new projects for extension of fresh and salt water supplies to new developments and to operate and maintain water supply systems to provide adequate and uninterrupted supplies of water throughout the year. Besides, the 15-year programme for replacement and rehabilitation of water mains was substantially completed whilst the advance works for the in-situ reprovisioning of the Sha Tin Water Treatment Works (South Works) has commenced.

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5 The key performance measures in respect of water supply are:

### *Targets*

	Target	2014 (Actual)	2015 (Actual)	2016 (Plan)
supply pressure				
fresh water supply—maintaining normally a minimum residual head of between 15 and 30 metres in the distribution systems except at their extremities (%) .....	100	100	100	100
salt water supply—maintaining normally a minimum residual head of 15 metres in the distribution systems except at their extremities (%) .....	100	100	100	100

### *Indicators*

	2014 (Actual)	2015 (Actual)	2016 (Estimate)
projects under planning .....	29	30	29
value of projects under planning (\$m) .....	7,475.9	7,125.6	6,819.0
projects under design .....	26	27	24
value of projects under design (\$m) .....	4,811.7	4,597.0	4,623.0
projects under construction .....	39	40	36
expenditure of works under construction (\$m) .....	4,521.1	4,134.8	4,001.1
fresh water supplied (m <sup>3</sup> ) .....	959 462 000	972 708 000	975 000 000
salt water supplied (m <sup>3</sup> ) .....	271 023 000	272 380 000	281 000 000
days on full supply .....	365	365	366
total treatment works capacity (m <sup>3</sup> /day) .....	5 015 600	5 015 600	5 015 600
total pumping plant capacity (megawatts) .....	346	349	349
leakage rate of water mains (%) .....	16.0	15.0	15.2
education programmes / promotion campaigns on water conservation§ .....	—	—	3
schools joining education programmes on water conservation§ .....	—	—	160

§ New indicator as from 2016.

### *Matters Requiring Special Attention in 2016–17*

6 During 2016–17, the Department will:

- establish progressively the Water Intelligent Network which dovetails with the completion of the 15-year programme for replacement and rehabilitation of water mains;
- continue with the implementation of the total water management strategy for sustainable use of water resources with focuses on water conservation and water loss management as well as on development of new water resources;
- continue with the review study on the total water management strategy;
- continue with the design for a desalination plant and related infrastructure in stages at Tseung Kwan O;
- continue to carry out study on financial and legal frameworks, and carry out design of infrastructures for supplying reclaimed water for toilet flushing and other non-potable purposes in the north-eastern part of the New Territories including Sheung Shui and Fanling;
- continue with the feasibility study for the relocation of service reservoirs at Diamond Hill to cavern; and
- commence the construction of the fresh and salt water supply systems to meet the increase in demand arising from housing development in Sheung Shui and Fanling area, and Chai Wan area respectively.

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### Programme (2): Water Quality Control

	2014–15 (Actual)	2015–16 (Original)	2015–16 (Revised)	<b>2016–17 (Estimate)</b>
Financial provision (\$m)	174.2	176.1	192.5 (+9.3%)	<b>210.2</b> (+9.2%)
				(or +19.4% on 2015–16 Original)

#### *Aim*

7 The aim is to control the quality of water supplied to consumers in accordance with international and the Department's standards.

#### *Brief Description*

8 The Department is responsible for ensuring that the purity, wholesomeness and safety of treated fresh water conform to international standards, i.e. the World Health Organization's Guidelines for Drinking-water Quality (WHO Guidelines), in all respects and at all times. The Department is also responsible for ensuring that the quality of salt water for flushing conforms to the Department's standards. This work involves:

##### *Fresh water*

- water treatment—ensuring that treated water conforms chemically and bacteriologically to the standards stipulated in the WHO Guidelines; and
- water quality control—ensuring that test samples taken from treatment works, service reservoirs, connection points, consumers' taps, etc., conform to the standards stipulated in the WHO Guidelines.

##### *Salt water for flushing*

- water treatment—ensuring that the water supplied conforms chemically and bacteriologically to the Department's standards; and
- water quality control—ensuring that test samples taken from pumping stations, service reservoirs, connection points, etc., conform to the Department's standards.

9 In 2015, the Department achieved the set quality standards in the treatment of water and maintained effective measures in monitoring and controlling the quality of the water supplied to consumers. In response to excess lead found in drinking water in public rental housing estates, the Department has stepped up monitoring of lead in drinking water.

10 The key performance measures in respect of water quality control are:

#### *Targets*

	Target	2014 (Actual)	2015 (Actual)	<b>2016 (Plan)</b>
fresh water quality—water supplied to customers at the connection points complies with the standards stipulated in the WHO Guidelines (%).....	100	100	100	<b>100</b>
salt water quality—water supplied to customers at the connection points complies with Water Quality Objectives set by Water Supplies Department (%).....	96	96	96	<b>96</b>

#### *Indicators*

	2014 (Actual)	2015 (Actual)	<b>2016 (Estimate)</b>
<i>Treated fresh water</i>			
sampling visits at treatment works, service reservoirs, connection points and consumers' taps <sup>^</sup> .....	26 129	26 455	<b>26 000</b>
chemical quality satisfying standards (%).....	100	100	<b>100</b>
bacteriological quality satisfying standards (%).....	100	100	<b>100</b>

<sup>^</sup> Revised description of the previous indicator "samples taken from treatment works, service reservoirs, connection points and consumers' taps" as from 2016 to better reflect the actual work carried out by the Department. Normally two samples are collected per visit.

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### *Matters Requiring Special Attention in 2016–17*

11 During 2016–17, the Department will:

- continue to execute a water safety plan for the Department according to the WHO Guidelines; and
- enhance the monitoring and control of the quality of water in inside service, including a review of the existing Waterworks Ordinance (Cap. 102) and Waterworks Regulations (Cap. 102A), in accordance with international standards.

### **Programme (3): Customer Services**

	2014–15 (Actual)	2015–16 (Original)	2015–16 (Revised)	<b>2016–17 (Estimate)</b>
Financial provision (\$m)	466.8	464.1	465.1 (+0.2%)	<b>472.6</b> (+1.6%)
				(or +1.8% on 2015–16 Original)

### *Aim*

12 The aims are to provide customer services and to enforce the Waterworks Ordinance and Waterworks Regulations.

### *Brief Description*

13 The Department is responsible for the provision of efficient and effective services to customers and for taking enforcement action on offences under the Waterworks Ordinance and Waterworks Regulations. This work involves:

- improving efficiency and effectiveness in dealing with customer enquiries and complaints,
- enforcing the Waterworks Ordinance and Waterworks Regulations,
- ensuring timeliness of billing and promptness in updating consumer accounts,
- monitoring closely the level of arrears of water charges, and
- coping with the growth in the number of consumer accounts.

14 In 2015, the Department implemented enhancement measures on the control of the construction, installation, etc. of the inside service, including the control of pipes and fittings, inspection of plumbing works and the management of licensed plumbers, for the safety and quality of drinking water in the inside service.

15 The key performance measures in respect of customer services are:

### *Targets*

	Target	2014 (Actual)	2015 (Actual)	<b>2016 (Plan)</b>
processing application for taking up of consumership				
by post within seven days (%).....	100	100	100	<b>100</b>
in person at Customer Enquiry Centres (all-purpose counter)				
within 15 minutes (%).....	100	100	100	<b>100</b>
issue of final bill upon closure of account				
within three days (%).....	100	99.7	99.8	<b>99.8</b>
refund of water deposit within				
nine days (%).....	100	99.8	99.9	<b>99.9</b>
processing application for meter test				
within eight days (%).....	100	100	100	<b>100</b>
processing application for autopay service (upon receipt of notification from banks) within three days (%).....	100	100	100	<b>100</b>
accuracy of water meters (inaccuracy not exceeding +/- 3%) (%).....	100	96.7	97.0	<b>97.3</b>
response time for attendance to fault complaints				
within half a day for fresh water				
supply fault (%).....	100	100	100	<b>100</b>
within 24 hours for others (%).....	100	100	100	<b>100</b>

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	Target	2014 (Actual)	2015 (Actual)	<b>2016 (Plan)</b>
notice for planned suspension of water supply issued not less than four days in advance (%) .....	100	100	100	<b>100</b>
conducting publicity campaigns and seminars for promotion of combating unauthorised water consumption.....	60	73	71	<b>70</b>
initiating an investigation after receiving a complaint on suspected unauthorised water consumption within one day (%) .....	85	91	91	<b>90</b>

### *Indicators*

	2014 (Actual)	2015 (Actual)	<b>2016 (Estimate)</b>
no. of consumer accounts.....	2 880 000	2 903 000	<b>2 937 000</b>
fees, water charges and deposits demanded (\$m) .....	2,829.0	2,821.0	<b>2,826.0</b>
arrears of water charges at year end in terms of no. of days of water charges demanded .....	0.8	0.8	<b>0.8</b>
prosecutions.....	225	245	<b>245</b>
finances imposed (\$).....	876,400	606,600	<b>610,000</b>
house service inspections due to irregular consumption .....	7 830	8 182	<b>8 500</b>
public enquiries and requests for services.....	1 349 667	1 329 349	<b>1 340 000</b>
disputes and complaints handled.....	16 681	15 581	<b>15 400</b>

### *Matters Requiring Special Attention in 2016–17*

**16** During 2016–17, the Department will:

- continue to review and enhance the control of the construction, installation, etc. of the inside service including the control of pipes and fittings, inspection of plumbing works and the management of licensed plumbers;
- continue to strengthen regulatory control on inside service leakage to minimise water loss in inside service;
- review the support and maintenance of information technology systems to ensure the continual operation and delivery of customer services in a cost-effective manner;
- promote e-billing and enhance the billing system; and
- continue to review the water tariff.

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### ANALYSIS OF FINANCIAL PROVISION

Programme	2014-15 (Actual) (\$m)	2015-16 (Original) (\$m)	2015-16 (Revised) (\$m)	2016-17 (Estimate) (\$m)
(1) Water Supply: Planning and Distribution .....	6,542.4	6,924.6	6,996.0	7,241.1
(2) Water Quality Control.....	174.2	176.1	192.5	210.2
(3) Customer Services.....	466.8	464.1	465.1	472.6
	7,183.4	7,564.8	7,653.6 (+1.2%)	7,923.9 (+3.5%)
				(or +4.7% on 2015-16 Original)

#### Analysis of Financial and Staffing Provision

##### Programme (1)

Provision for 2016-17 is \$245.1 million (3.5%) higher than the revised estimate for 2015-16. This is mainly due to the increased provision for purchase of water under the water supply agreement, electricity expenses and increase in requirement for replacing ageing plant and equipment, partly offset by reduced provision for expenses on contract maintenance and non-civil service contract staff. There will be creation of one civil service post for the initiative on meeting the Public Housing Production Target and six civil service posts in 2016-17 which will be offset by a reduction of six contract driver positions.

##### Programme (2)

Provision for 2016-17 is \$17.7 million (9.2%) higher than the revised estimate for 2015-16. This is mainly due to the increased provision for creation of 36 civil service posts for initiatives on safeguarding drinking water safety, strengthening the regulatory control of pipes and fittings and inspections of plumbing works.

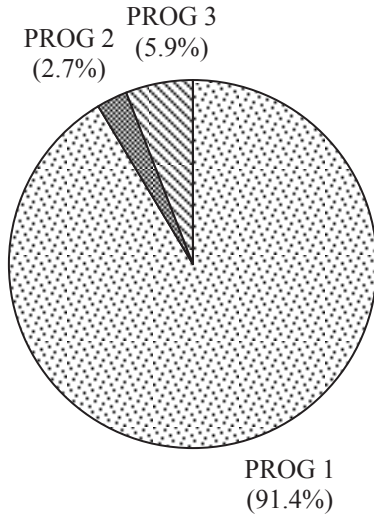
##### Programme (3)

Provision for 2016-17 is \$7.5 million (1.6%) higher than the revised estimate for 2015-16. This is mainly due to the increased provision for creation of two civil service posts for processing new applications for salt water supply for flushing and conversion of fresh water for flushing to salt water for flushing in Pok Fu Lam area and the full-year effect of vacancies filled in 2015-16.

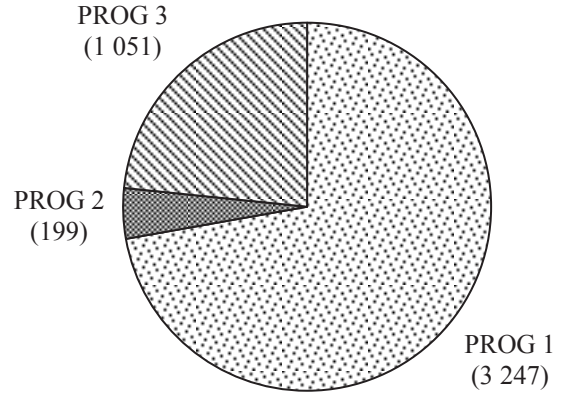
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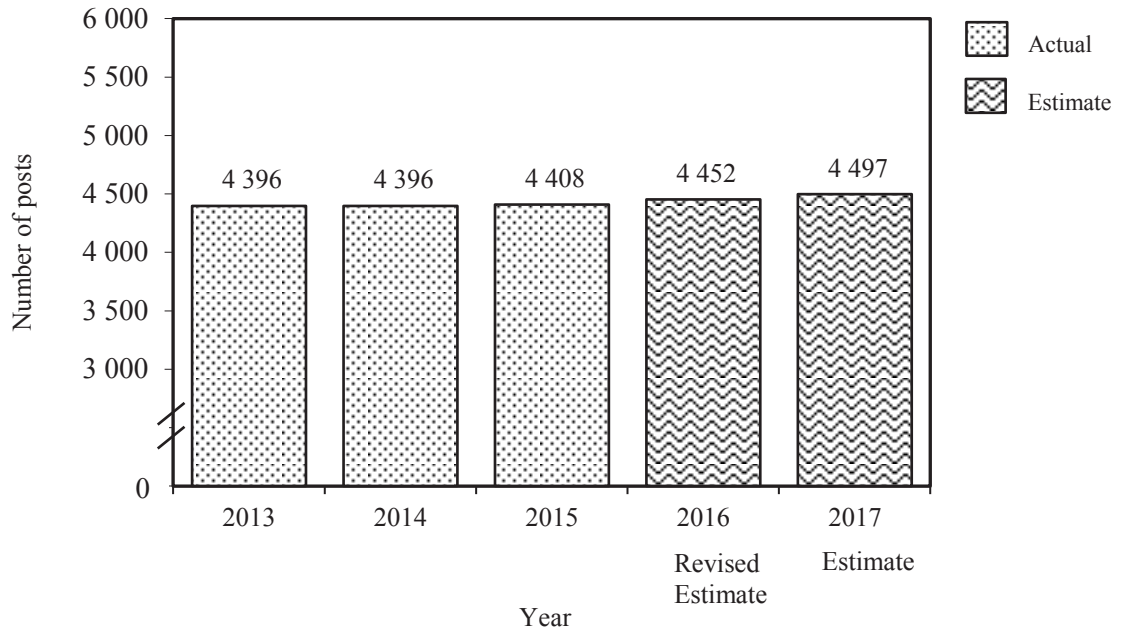
*Allocation of provision  
to programmes  
(2016-17)*



*Staff by programme  
(as at 31 March 2017)*



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



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Sub-head (Code)	Actual expenditure 2014–15	Approved estimate 2015–16	Revised estimate 2015–16	Estimate 2016–17	
	\$'000	\$'000	\$'000	\$'000	
<b>Operating Account</b>					
Recurrent					
000	Operational expenses .....	3,212,470	3,241,569	3,320,896	<b>3,361,935</b>
223	Purchase of water .....	3,959,340	4,319,550	4,319,550	<b>4,543,660</b>
	Total, Recurrent.....	7,171,810	7,561,119	7,640,446	<b>7,905,595</b>
	Total, Operating Account .....	7,171,810	7,561,119	7,640,446	<b>7,905,595</b>
<b>Capital Account</b>					
Plant, Equipment and Works					
661	Minor plant, vehicles and equipment (block vote).....	7,308	—	9,500	<b>18,322<sup>η</sup></b>
	Plant, vehicles and equipment.....	4,324	3,675	3,675	—
	Total, Plant, Equipment and Works.....	11,632	3,675	13,175	<b>18,322</b>
	Total, Capital Account.....	11,632	3,675	13,175	<b>18,322</b>
	Total Expenditure .....	7,183,442	7,564,794	7,653,621	<b>7,923,917</b>

η Provision of \$18,322,000 under *Subhead 661 Minor plant, vehicles and equipment (block vote)* represents an increase of \$8,822,000 (92.9%) over the revised estimate of 2015–16. This reflects the updating of the ambit of this block vote subhead as set out in the Introduction to the Estimates and the increased requirements in 2016–17 for acquisition of laboratory equipment for safeguarding drinking water safety and replacement of ageing plant and equipment.



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### Details of Expenditure by Subhead

The estimate of the amount required in 2016–17 for the salaries and expenses of the Water Supplies Department is \$7,923,917,000. This represents an increase of \$270,296,000 over the revised estimate for 2015–16 and \$740,475,000 over the actual expenditure in 2014–15.

#### *Operating Account*

##### Recurrent

**2** Provision of \$3,361,935,000 under *Subhead 000 Operational expenses* is for the salaries, allowances and other operating expenses of the Water Supplies Department.

**3** The establishment as at 31 March 2016 will be 4 452 permanent posts. It is expected that there will be an increase of 45 permanent posts in 2016–17. Subject to certain conditions, the controlling officer may under delegated power create or delete non-directorate posts during 2016–17, but the notional annual mid-point salary value of all such posts must not exceed \$1,459,246,000.

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

	2014–15 (Actual) (\$'000)	2015–16 (Original) (\$'000)	2015–16 (Revised) (\$'000)	2016–17 (Estimate) (\$'000)
Personal Emoluments				
- Salaries.....	1,483,622	1,519,649	1,555,425	<b>1,594,373</b>
- Allowances.....	115,322	114,924	120,375	<b>120,360</b>
- Job-related allowances.....	8,653	8,970	8,656	<b>9,156</b>
Personnel Related Expenses				
- Mandatory Provident Fund contribution.....	5,848	8,117	6,866	<b>7,896</b>
- Civil Service Provident Fund contribution.....	22,305	29,360	30,658	<b>39,076</b>
Departmental Expenses				
- Light and power.....	658,831	653,523	664,800	<b>689,800</b>
- Hire of services and professional fees .....	101,315	98,832	105,368	<b>105,368</b>
- Fuel and lubricating oil.....	141	170	170	<b>170</b>
- Specialist supplies and equipment.....	93,237	93,141	86,621	<b>90,235</b>
- Maintenance materials.....	56,428	57,276	57,653	<b>57,653</b>
- Contract maintenance.....	533,757	519,334	541,540	<b>505,596</b>
- General departmental expenses.....	133,011	138,273	142,764	<b>142,252</b>
	3,212,470	3,241,569	3,320,896	<b>3,361,935</b>

**5** Provision of \$4,543,660,000 under *Subhead 223 Purchase of water* is for the purchase of water from Guangdong.

#### *Capital Account*

##### Plant, Equipment and Works

**6** Provision of \$18,322,000 under *Subhead 661 Minor plant, vehicles and equipment (block vote)* represents an increase of \$8,822,000 (92.9%) over the revised estimate of 2015–16. This reflects the updating of the ambit of this block vote subhead as set out in the Introduction to the Estimates and the increased requirements in 2016–17 for acquisition of laboratory equipment for safeguarding drinking water safety and replacement of ageing plant and equipment.