

## Head 194 — WATER SUPPLIES DEPARTMENT

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

**Estimate 2018–19** ..... **\$8,404.0m**

**Establishment ceiling 2018–19** (notional annual mid-point salary value) representing an estimated 4 458 non-directorate posts as at 31 March 2018 rising by 83 posts to 4 541 posts as at 31 March 2019..... **\$1,610.7m**

In addition, there will be an estimated 25 directorate posts as at 31 March 2018 and as at 31 March 2019.

### 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

	2016–17 (Actual)	2017–18 (Original)	2017–18 (Revised)	<b>2018–19 (Estimate)</b>
Financial provision (\$m)	7,253.1	7,510.9	7,526.5 (+0.2%)	<b>7,571.7</b> (+0.6%)

(or +0.8% on  
2017–18 Original)

#### *Aim*

**2** The aim is to develop water resources and to plan, design, construct, operate and maintain 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 2017, the Department was able to plan, design and construct new projects for the development of fresh water resources and extension of fresh and salt water supplies to new developments and to operate and maintain water supply and distribution systems to provide adequate and uninterrupted supplies of water throughout the year.

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

### *Targets*

	Target	2016 (Actual)	2017 (Actual)	2018 (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*

	2016 (Actual)	2017 (Actual)	2018 (Estimate)
projects under planning .....	29	30	29
value of projects under planning (\$m) .....	6,800.0	6,565.0	6,718.0
projects under design .....	24	23	26
value of projects under design (\$m) .....	6,594.8	7,352.4	9,258.7
projects under construction .....	37	38	38
expenditure of works under construction (\$m) .....	3,673.7	3,115.8	3,108.4
fresh water supplied (m <sup>3</sup> ) .....	987 224 000	979 798 000	988 000 000
salt water supplied (m <sup>3</sup> ) .....	260 061 000	277 951 000	281 000 000
days on full supply .....	366	365	365
total treatment works capacity (m <sup>3</sup> /day) .....	5 015 600	5 015 600	5 415 600
total pumping plant capacity (megawatts) .....	349	357	357
leakage rate of water mains (%) .....	15.2	15.2	15.2
education programmes / promotion campaigns on water conservation .....	3	3	4
schools joining education programmes on water conservation .....	210	240	400

### *Matters Requiring Special Attention in 2018–19*

6 During 2018–19, the Department will:

- continue to establish the Water Intelligent Network;
- 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 construction of the advance works for in-situ reprovisioning of Sha Tin water treatment works (South Works);
- invite tender for construction of a desalination plant at Tseung Kwan O whilst continuing the laying of the trunk water mains;
- continue with the construction of infrastructure in stages for supplying reclaimed water for non-potable purposes in the north-eastern part of the New Territories including Sheung Shui and Fanling, and develop the legal framework for the supply of reclaimed water;
- commence investigation and detailed design for the relocation of Diamond Hill fresh water and salt water service reservoirs to caverns, and carry out the feasibility studies for the relocation of Yau Tong fresh water and salt water service reservoirs and Tsuen Wan fresh water service reservoir to caverns; and
- continue with the planning, design and construction of the fresh and salt water supply systems to meet the increase in demand arising from housing development.

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### Programme (2): Water Quality Control

	2016–17 (Actual)	2017–18 (Original)	2017–18 (Revised)	<b>2018–19 (Estimate)</b>
Financial provision (\$m)	254.7	271.4	275.7 (+1.6%)	<b>298.2</b> (+8.2%)
				(or +9.9% on 2017–18 Original)

#### *Aim*

7 The aim is to control the quality of water supplied to consumers in accordance with the Hong Kong Drinking Water Standards and the Department’s standards for salt water for flushing.

#### *Brief Description*

8 The Department is responsible for ensuring that the purity, wholesomeness and safety of treated fresh water conform to the Hong Kong Drinking Water Standards, which adopts the corresponding guideline values set out in 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 Hong Kong Drinking Water Standards; and
- water quality control—ensuring that test samples taken from treatment works, service reservoirs, connection points, consumers’ taps, etc., conform to the Hong Kong Drinking Water Standards.

##### *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 2017, the Department achieved the water quality standards in the treatment of water and maintained effective measures in monitoring and controlling the quality of water supplied to consumers.

10 In September 2017, the Action Plan on Enhancing Drinking Water Safety in Hong Kong was launched, comprising (i) establishing Hong Kong Drinking Water Standards and implementing the Enhanced Water Quality Monitoring Programme (Enhanced Programme); (ii) strengthening plumbing material control and commissioning requirements for new plumbing installations; (iii) promoting development and implementation of Water Safety Plan (WSP) for Buildings; (iv) enhancing publicity and public education; and (v) establishing drinking water safety regulatory regime.

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

#### *Targets*

	Target	2016 (Actual)	2017 (Actual)	<b>2018 (Plan)</b>
fresh water quality—water supplied to customers complies with the Hong Kong Drinking Water Standards (%) <sup>^</sup> ....	100	100	100	<b>100</b>
salt water quality—water supplied to customers complies with Water Quality Objectives set by Water Supplies Department (%)#.....	96	96	96	<b>96</b>

<sup>^</sup> Revised description of the previous target “fresh water quality—water supplied to customers at the connection points complies with the standards stipulated in the WHO Guidelines” as from 2018 in order to reflect the extension of the point of compliance from connection points to customer ends as well as the adoption of Hong Kong Drinking Water Standards since September 2017, which follow the corresponding guideline values set out in the WHO Guidelines, for compliance monitoring.

<sup>#</sup> Revised description of the previous target “salt water quality—water supplied to customers at the connection points complies with Water Quality Objectives set by Water Supplies Department” as from 2018 to reflect the extension of compliance monitoring from connection points to customer ends.

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### Indicators

	2016 (Actual)	2017 (Actual)	2018 (Estimate)
<i>Treated fresh water</i>			
sampling visits at treatment works, service reservoirs, connection points and consumers' taps .....	26 055	26 478	<b>26 670</b>
chemical quality satisfying standards (%).....	100	100	<b>100</b>
bacteriological quality satisfying standards (%) .....	100	100	<b>100</b>

### Matters Requiring Special Attention in 2018–19

12 During 2018–19, the Department will carry out the following work to safeguard the quality and safety of drinking water:

- continue the implementation of the Enhanced Programme;
- continue to encourage building owners and property management agents to develop and implement WSP for their buildings and provide technical advice to them;
- continue the publicity and public education on safe use of water; and
- continue to review the Waterworks Ordinance (Cap. 102) and Waterworks Regulations (Cap. 102A) to safeguard the drinking water quality through enhanced regulatory control of the inside services.

### Programme (3): Customer Services

	2016–17 (Actual)	2017–18 (Original)	2017–18 (Revised)	2018–19 (Estimate)
Financial provision (\$m)	493.3	499.8	515.4 (+3.1%)	<b>534.1</b> (+3.6%)
				(or +6.9% on 2017–18 Original)

### Aim

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

### Brief Description

14 The Department is responsible for the provision of efficient and effective services to customers and for enforcing 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.

15 In 2017, the Department continued to improve the efficiency and effectiveness in providing services to customers and enforcing the Waterworks Ordinance and Waterworks Regulations including tightening plumbing material control and commissioning requirements of new plumbing installations.

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

### Targets

	Target	2016 (Actual)	2017 (Actual)	2018 (Plan)
processing application for taking up of consumership				
by post within seven working 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>

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	Target	2016 (Actual)	2017 (Actual)	2018 (Plan)
issue of final bill upon closure of account				
within three working days (%)§ .....	100	100	100	<b>100</b>
refund of water deposit within				
nine working days (%)§ .....	100	99.9	99.9	<b>99.9</b>
processing application for meter test				
within eight working days (%)§ .....	100	99.5	100	<b>100</b>
processing application for autopay				
service (upon receipt of notification				
from banks) within three working				
days (%)§ .....	100	100	100	<b>100</b>
accuracy of water meters (inaccuracy not				
exceeding +/- 3%) (%) .....	100	97.3	97.5	<b>97.5</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>
notice for planned suspension of				
water supply issued not less than				
four working days in advance (%)§ .....	100	100	99.9	<b>100</b>
conducting publicity campaigns and				
seminars for promotion of combating				
unauthorised water consumption .....	60	71	68	<b>70</b>
initiating an investigation after				
receiving a complaint on suspected				
unauthorised water consumption				
within one working day (%)§.....	85	91	92	<b>90</b>

§ Revised description from “day(s)” to “working day(s)” as from 2017 to avoid ambiguity. Basis for measuring performance remains unchanged.

### *Indicators*

	2016 (Actual)	2017 (Actual)	2018 (Estimate)
no. of consumer accounts.....	2 942 000	2 984 000	<b>3 031 000</b>
fees, water charges and deposits demanded (\$m).....	2,871.0	2,936.5	<b>2,993.6</b>
arrears of water charges at year end in terms of no. of days			
of water charges demanded .....	0.9	0.7	<b>0.7</b>
prosecutions.....	229	199	<b>235</b>
finest imposed (\$).....	636,800	532,050	<b>550,000</b>
house service inspections due to irregular consumption.....	8 400	9 232	<b>9 500</b>
public enquiries and requests for services.....	1 387 824	1 454 855	<b>1 465 000</b>
disputes and complaints handled.....	15 684	14 525	<b>15 600</b>

### *Matters Requiring Special Attention in 2018–19*

17 During 2018–19, the Department will continue to:

- review and enhance the control of the construction of the inside service including the review of the Waterworks Ordinance and Waterworks Regulations,
- 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,
- enhance the billing system, and
- review the water tariff.

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### ANALYSIS OF FINANCIAL PROVISION

Programme	2016-17 (Actual) (\$m)	2017-18 (Original) (\$m)	2017-18 (Revised) (\$m)	2018-19 (Estimate) (\$m)
(1) Water Supply: Planning and Distribution .....	7,253.1	7,510.9	7,526.5	7,571.7
(2) Water Quality Control.....	254.7	271.4	275.7	298.2
(3) Customer Services.....	493.3	499.8	515.4	534.1
	8,001.1	8,282.1	8,317.6 (+0.4%)	8,404.0 (+1.0%)
				(or +1.5% on 2017-18 Original)

#### Analysis of Financial and Staffing Provision

##### Programme (1)

Provision for 2018-19 is \$45.2 million (0.6%) higher than the revised estimate for 2017-18. This is mainly due to the increased provision for purchase of water under the water supply agreement, electricity expenses and personal emoluments, partly offset by reduced provision for expenses on contract maintenance. There will be a net increase of 26 civil service posts primarily for handling water supply planning and distribution matters.

##### Programme (2)

Provision for 2018-19 is \$22.5 million (8.2%) higher than the revised estimate for 2017-18. This is mainly due to the increased provision for personal emoluments and acquisition and upgrade of laboratory equipment. There will be an increase of 33 civil service posts for enhancing drinking water safety.

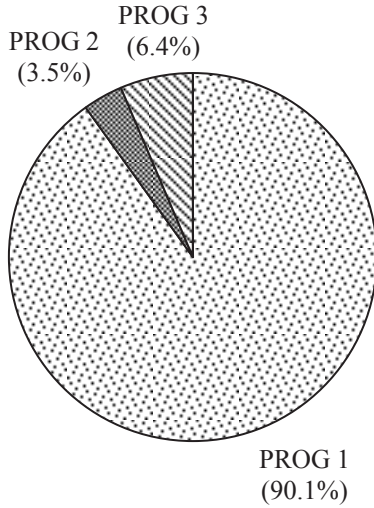
##### Programme (3)

Provision for 2018-19 is \$18.7 million (3.6%) higher than the revised estimate for 2017-18. This is mainly due to the increased provision for personal emoluments and other operating expenses. There will be an increase of 24 civil service posts for the conversion of non-civil service contract positions and agency staff positions, the enforcement of Waterworks Ordinance and meter reading.

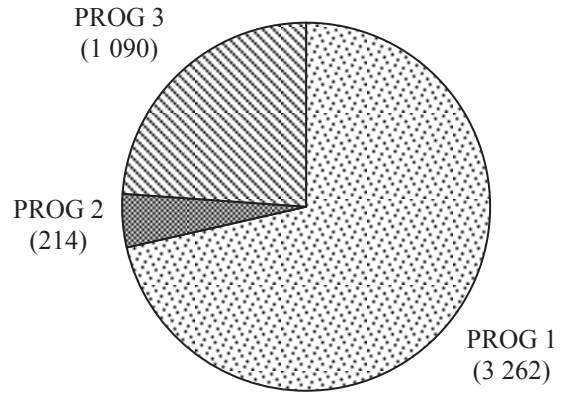
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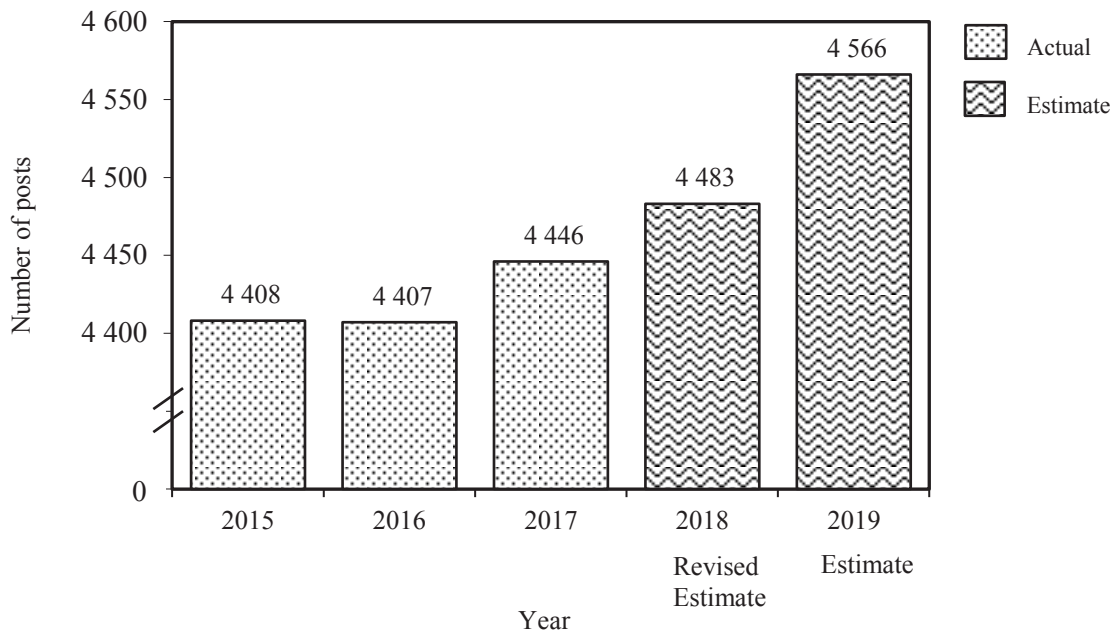
*Allocation of provision  
to programmes  
(2018-19)*



*Staff by programme  
(as at 31 March 2019)*



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



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Sub-head (Code)	Actual expenditure 2016-17	Approved estimate 2017-18	Revised estimate 2017-18	<b>Estimate 2018-19</b>	
	\$'000	\$'000	\$'000	<b>\$'000</b>	
<b>Operating Account</b>					
Recurrent					
000	Operational expenses .....	3,439,725	3,482,132	3,525,023	<b>3,596,097</b>
223	Purchase of water .....	4,543,660	4,788,290	4,780,890	<b>4,795,210</b>
	Total, Recurrent.....	7,983,385	8,270,422	8,305,913	<b>8,391,307</b>
	Total, Operating Account .....	7,983,385	8,270,422	8,305,913	<b>8,391,307</b>
<b>Capital Account</b>					
Plant, Equipment and Works					
661	Minor plant, vehicles and equipment (block vote).....	17,682	11,672	11,672	<b>12,669</b>
	Total, Plant, Equipment and Works.....	17,682	11,672	11,672	<b>12,669</b>
	Total, Capital Account.....	17,682	11,672	11,672	<b>12,669</b>
	Total Expenditure .....	8,001,067	8,282,094	8,317,585	<b>8,403,976</b>



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### Details of Expenditure by Subhead

The estimate of the amount required in 2018–19 for the salaries and expenses of the Water Supplies Department is \$8,403,976,000. This represents an increase of \$86,391,000 over the revised estimate for 2017–18 and \$402,909,000 over the actual expenditure in 2016–17.

#### *Operating Account*

#### Recurrent

**2** Provision of \$3,596,097,000 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 2018 will be 4 483 posts including two supernumerary posts. It is expected that there will be a net increase of 83 posts in 2018–19. Subject to certain conditions, the controlling officer may under delegated power create or delete non-directorate posts during 2018–19, but the notional annual mid-point salary value of all such posts must not exceed \$1,610,702,000.

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

	2016–17 (Actual) (\$'000)	2017–18 (Original) (\$'000)	2017–18 (Revised) (\$'000)	2018–19 (Estimate) (\$'000)
Personal Emoluments				
- Salaries.....	1,609,853	1,653,125	1,653,606	1,712,487
- Allowances.....	133,361	127,207	137,905	137,905
- Job-related allowances.....	9,903	9,442	9,944	9,944
Personnel Related Expenses				
- Mandatory Provident Fund contribution.....	7,306	9,304	8,783	11,286
- Civil Service Provident Fund contribution.....	39,650	52,992	50,342	64,789
Departmental Expenses				
- Light and power.....	648,601	667,992	645,000	670,000
- Hire of services and professional fees .....	112,661	110,058	119,963	114,113
- Fuel and lubricating oil .....	195	170	170	170
- Specialist supplies and equipment .....	108,546	124,495	108,243	110,289
- Maintenance materials .....	48,341	59,160	57,337	57,337
- Contract maintenance .....	571,376	501,606	545,733	511,601
- General departmental expenses .....	149,932	166,581	187,997	196,176
	3,439,725	3,482,132	3,525,023	3,596,097

**5** Provision of \$4,795,210,000 under *Subhead 223 Purchase of water* is for the purchase of water from Guangdong.