

Head 194 — WATER SUPPLIES DEPARTMENT

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

Estimate 2019–20 **\$8,674.6m**

Establishment ceiling 2019–20 (notional annual mid-point salary value) representing an estimated 4 538 non-directorate posts as at 31 March 2019 rising by 78 posts to 4 616 posts as at 31 March 2020 **\$1,712.1m**

In addition, there will be an estimated 25 directorate posts as at 31 March 2019 and as at 31 March 2020.

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

	2017–18 (Actual)	2018–19 (Original)	2018–19 (Revised)	2019–20 (Estimate)
Financial provision (\$m)	7,529.3	7,571.7	7,644.0 (+1.0%)	7,816.1 (+2.3%)
				(or +3.2% on 2018–19 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 2018, 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. Furthermore, the Department continued to develop new water resources including seawater desalination and recycled water.

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

Targets

	Target	2017 (Actual)	2018 (Actual)	2019 (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

	2017 (Actual)	2018 (Actual)	2019 (Estimate)
projects under planning	30	29	29
value of projects under planning (\$m)	6,565.0	6,582.8	6,388.0
projects under design	23	26	26
value of projects under design (\$m)	7,352.4	9,293.8	9,316.0
projects under construction	38	38	37
expenditure of works under construction (\$m)	3,115.8	3,146.6	3,286.0
fresh water supplied (m ³)	979 798 000	1 012 587 000	1 000 000 000
salt water supplied (m ³)	277 951 000	279 213 000	285 000 000
days on full supply	365	365	365
total treatment works capacity (m ³ /day)	5 015 600	5 415 600	5 051 600
total pumping plant capacity (megawatts)	357	357	357
leakage rate of water mains (%)	15.2	15.2	15.2
education programmes / promotion campaigns on water conservation	3	4	5
schools joining education programmes on water conservation	240	400	600

Matters Requiring Special Attention in 2019–20

6 During 2019–20, the Department will:

- continue to establish the Water Intelligent Network;
- continue with the implementation of the total water management strategy and complete its review for sustainable use of water resources with focuses on water conservation and water loss management as well as on development of new water resources;
- complete construction of the advance works and commence construction of the main works for in-situ reprovisioning of Sha Tin water treatment works (South Works);
- commence construction of a desalination plant at Tseung Kwan O whilst continuing with the laying of the associated trunk water mains;
- commence the investigation and design for the expansion of Siu Ho Wan water treatment works;
- 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 the preparatory work for legislation for supply of recycled water in Hong Kong;
- continue with the investigation and detailed design for the relocation of Diamond Hill fresh water and salt water service reservoirs to caverns as well as 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 commence the feasibility study for strategic cavern areas in Lam Tei to accommodate nearby existing and proposed service reservoirs; and
- continue with the planning, design and construction of 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

	2017–18 (Actual)	2018–19 (Original)	2018–19 (Revised)	2019–20 (Estimate)
Financial provision (\$m)	270.9	298.2	298.2 (—)	298.5 (+0.1%)
				(or +0.1% on 2018–19 Original)

Aim

7 The aim is to control the quality of water supplied to customers 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 supplied to customers conform to the Hong Kong Drinking Water Standards in all respects and at all times. The Department is also responsible for ensuring that the quality of salt water supplied to customers 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 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 2018, the Department achieved the water quality standards in water treatment and maintained effective measures in monitoring and controlling the quality of water supplied to customers. The Department continued to take forward the Action Plan for Enhancing Drinking Water Safety in Hong Kong. The Department also conducted review of the Waterworks Ordinance (Cap. 102) and Waterworks Regulations (Cap. 102A) for enhancing the regulatory control of plumbing materials and construction of inside services to safeguard the drinking water quality.

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

Targets

	Target	2017 (Actual)	2018 (Actual)	2019 (Plan)
fresh water quality—water supplied to customers complies with the Hong Kong Drinking Water Standards (%) [^]	100	100	100	100
salt water quality—water supplied to customers complies with Water Quality Objectives set by Water Supplies Department (%) [#]	97.0 ^Δ	96.0	99.3	97.0

[^] Revised description of the previous target “fresh water quality—water supplied to customers at the connection points complies with the standards stipulated in the World Health Organization's Guidelines for Drinking-water Quality” 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.

[#] 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.

^Δ The target is revised from 96 per cent to 97 per cent as from 2019.

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Indicators

	2017 (Actual)	2018 (Actual)	2019 (Estimate)
<i>Treated fresh water</i>			
sampling visits at treatment works, service reservoirs, connection points and consumers' taps	26 478	25 904	26 670
chemical quality satisfying standards (%).....	100	100	100
bacteriological quality satisfying standards (%).....	100	100	100

Matters Requiring Special Attention in 2019–20

11 During 2019–20, the Department will carry out the following work to safeguard the drinking water quality:

- continue the implementation of the Enhanced Water Quality Monitoring Programme;
- continue to encourage building owners and property management agents to develop and implement Water Safety Plan 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 and Waterworks Regulations to safeguard the drinking water quality through enhanced regulatory control of plumbing materials and construction of inside services.

Programme (3): Customer Services

	2017–18 (Actual)	2018–19 (Original)	2018–19 (Revised)	2019–20 (Estimate)
Financial provision (\$m)	521.9	534.1	535.0 (+0.2%)	560.0 (+4.7%)
				(or +4.8% on 2018–19 Original)

Aim

12 The aim is 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 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 customer accounts;
- monitoring closely the level of arrears of water charges; and
- coping with the growth in the number of customer accounts.

14 In 2018, the Department continued to improve the efficiency and effectiveness in providing services to customers and enforcing the Waterworks Ordinance and Waterworks Regulations including the control of plumbing materials and commissioning of new plumbing installations. The Department also conducted review of the Waterworks Ordinance and Waterworks Regulations for enhancing control of inside service leakage.

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

Targets

	Target	2017 (Actual)	2018 (Actual)	2019 (Plan)
processing application for taking up of consumership				
by post within seven working days (%)	100	100	100	100
in person at Customer Enquiry Centres (all-purpose counter) within 15 minutes (%).....	100	100	100	100
issue of final bill upon closure of account within three working days (%).....	100	100	100	100

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	Target	2017 (Actual)	2018 (Actual)	2019 (Plan)
refund of water deposit within nine working days (%).....	100	99.9	99.9	99.9
processing application for meter test within eight working days (%).....	100	100	100	100
processing application for autopay service (upon receipt of notification from banks) within three working days (%)	100	100	100	100
accuracy of water meters (inaccuracy not exceeding +/- 3%) (%).....	100	97.5	97.7	97.5
response time for attendance to fault complaints				
within half a day for fresh water supply fault (%).....	100	100	100	100
within 24 hours for others (%).....	100	100	100	100
notice for planned suspension of water supply issued not less than four working days in advance (%)	100	99.9	100	100
conducting publicity campaigns and seminars for promotion of combating unauthorised water consumption δ	70	68	70	70
initiating an investigation after receiving a complaint on suspected unauthorised water consumption within one working day (%) Ω	92	92	92	92

δ The target is revised from 60 campaigns and seminars to 70 campaigns and seminars as from 2019.

Ω The target is revised from 85 per cent to 92 per cent as from 2019.

Indicators

	2017 (Actual)	2018 (Actual)	2019 (Estimate)
no. of customer accounts.....	2 984 000	3 031 000	3 077 000
fees, water charges and deposits demanded (\$m)	2,936.5	2,987.1	3,011.0
arrears of water charges at year end in terms of no. of days of water charges demanded	0.7	0.8	0.7
prosecutions.....	199	223	250
finances imposed (\$).....	532,050	440,700	495,000
house service inspections due to irregular consumption	9 232	9 049	9 100
public enquiries and requests for services.....	1 454 855	1 466 231	1 478 000
disputes and complaints handled.....	14 525	13 810	13 200

Matters Requiring Special Attention in 2019–20

16 During 2019–20, the Department will continue to:

- strengthen regulatory control on inside service leakage to minimise water loss in inside services;
- review the Waterworks Ordinance and Waterworks Regulations for enhancing control of inside service leakage;
- support and maintain the 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	2017-18 (Actual) (\$m)	2018-19 (Original) (\$m)	2018-19 (Revised) (\$m)	2019-20 (Estimate) (\$m)
(1) Water Supply: Planning and Distribution	7,529.3	7,571.7	7,644.0	7,816.1
(2) Water Quality Control.....	270.9	298.2	298.2	298.5
(3) Customer Services.....	521.9	534.1	535.0	560.0
	8,322.1	8,404.0	8,477.2 (+0.9%)	8,674.6 (+2.3%)
				(or +3.2% on 2018-19 Original)

Analysis of Financial and Staffing Provision

Programme (1)

Provision for 2019-20 is \$172.1 million (2.3%) higher than the revised estimate for 2018-19. This is mainly due to the increased provision for purchase of water under the water supply agreement, acquisition and replacement of plant and equipment, electricity expenses, contract maintenance, personal emoluments and other operating expenses. There will be an increase of 71 civil service posts primarily for handling water supply planning and distribution matters.

Programme (2)

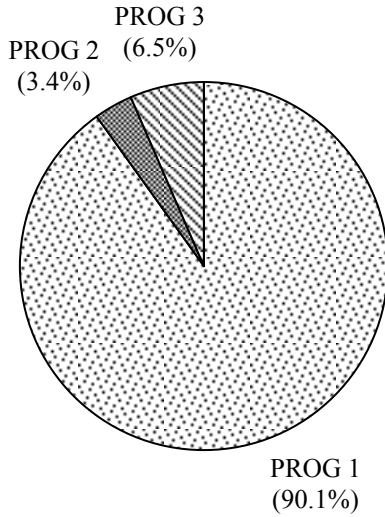
Provision for 2019-20 is \$0.3 million (0.1%) higher than the revised estimate for 2018-19. This is mainly due to the increased provision for personal emoluments and other operating expenses for water quality control matters, partly offset by reduced provision for acquisition and upgrading of laboratory equipment.

Programme (3)

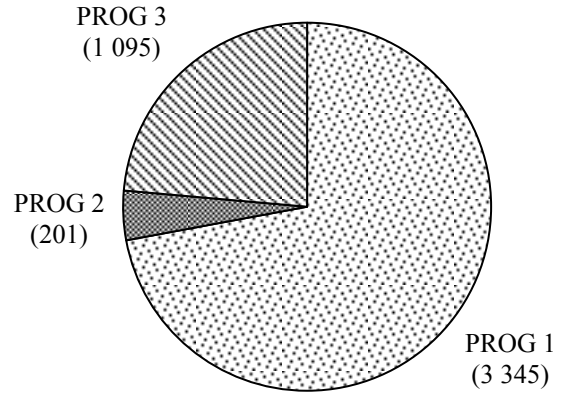
Provision for 2019-20 is \$25.0 million (4.7%) higher than the revised estimate for 2018-19. This is mainly due to the increased provision for personal emoluments and other operating expenses. There will be an increase of seven civil service posts for implementation of automatic meter reading and other customer service related matters.

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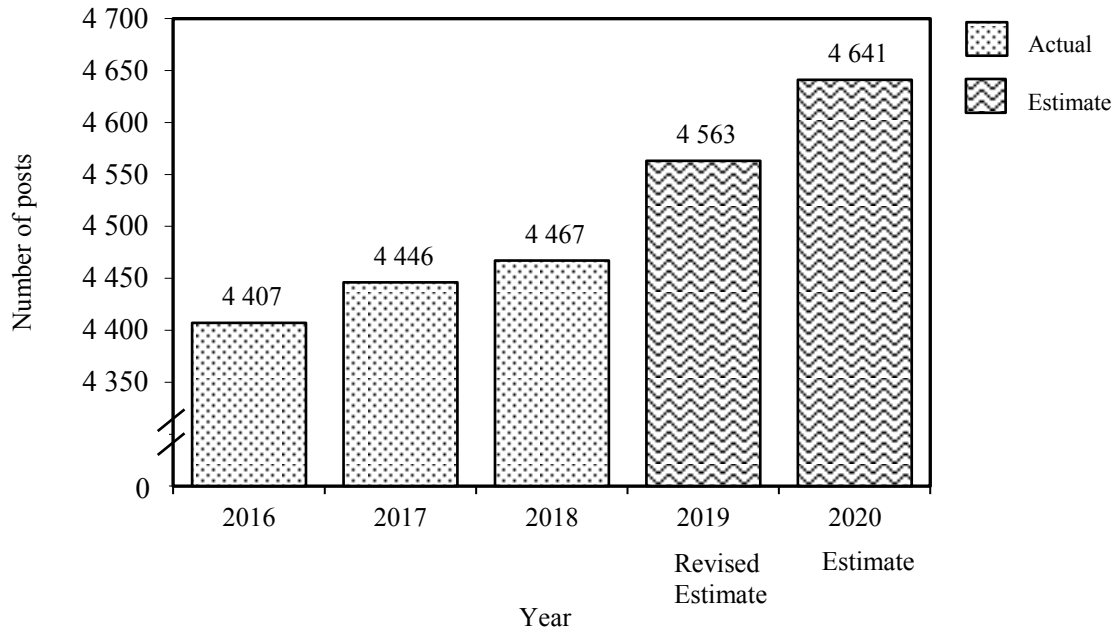
*Allocation of provision
to programmes
(2019-20)*



*Staff by programme
(as at 31 March 2020)*



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



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Sub-head (Code)	Actual expenditure 2017-18	Approved estimate 2018-19	Revised estimate 2018-19	Estimate 2019-20	
	\$'000	\$'000	\$'000	\$'000	
Operating Account					
Recurrent					
000	Operational expenses	3,531,135	3,596,097	3,669,284	3,846,763
223	Purchase of water	4,780,890	4,795,210	4,795,210	4,809,620
	Total, Recurrent.....	8,312,025	8,391,307	8,464,494	8,656,383
	Total, Operating Account	8,312,025	8,391,307	8,464,494	8,656,383
Capital Account					
Plant, Equipment and Works					
661	Minor plant, vehicles and equipment (block vote).....	10,071	12,669	12,669	18,168
	Total, Plant, Equipment and Works.....	10,071	12,669	12,669	18,168
	Total, Capital Account.....	10,071	12,669	12,669	18,168
	Total Expenditure	8,322,096	8,403,976	8,477,163	8,674,551

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Details of Expenditure by Subhead

The estimate of the amount required in 2019–20 for the salaries and expenses of the Water Supplies Department is \$8,674,551,000. This represents an increase of \$197,388,000 over the revised estimate for 2018–19 and \$352,455,000 over the actual expenditure in 2017–18.

Operating Account

Recurrent

2 Provision of \$3,846,763,000 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 2019 will be 4 563 posts including two supernumerary posts. It is expected that there will be an increase of 78 posts in 2019–20. Subject to certain conditions, the controlling officer may under delegated power create or delete non-directorate posts during 2019–20, but the notional annual mid-point salary value of all such posts must not exceed \$1,712,100,000.

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

	2017–18 (Actual) (\$'000)	2018–19 (Original) (\$'000)	2018–19 (Revised) (\$'000)	2019–20 (Estimate) (\$'000)
Personal Emoluments				
- Salaries.....	1,650,026	1,712,487	1,720,031	1,768,935
- Allowances.....	138,117	137,905	131,577	135,336
- Job-related allowances.....	10,812	9,944	10,353	11,032
Personnel Related Expenses				
- Mandatory Provident Fund contribution.....	8,631	11,286	10,663	14,560
- Civil Service Provident Fund contribution.....	50,795	64,789	62,427	79,782
Departmental Expenses				
- Light and power.....	651,946	670,000	722,500	746,700
- Hire of services and professional fees	122,769	114,113	114,113	136,824
- Fuel and lubricating oil	246	170	246	246
- Specialist supplies and equipment	95,152	110,289	110,289	112,495
- Maintenance materials	49,030	57,337	53,531	54,602
- Contract maintenance	575,029	511,601	499,488	539,478
- General departmental expenses	178,582	196,176	234,066	246,773
	3,531,135	3,596,097	3,669,284	3,846,763

5 Provision of \$4,809,620,000 under *Subhead 223 Purchase of water* is for the purchase of water from Guangdong.

Capital Account

Plant, Equipment and Works

6 Provision of \$18,168,000 under *Subhead 661 Minor plant, vehicles and equipment (block vote)* represents an increase of \$5,499,000 (43.4%) over the revised estimate of 2018–19. This is mainly due to the increased requirements for acquisition and replacement of plant and equipment in 2019–20.