

Head 194 — WATER SUPPLIES DEPARTMENT

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

Estimate 2023–24 **\$9,859.2m**

Establishment ceiling 2023–24 (notional annual mid-point salary value) representing an estimated 4 730 non-directorate posts as at 31 March 2023 reducing by 11 posts to 4 719 posts as at 31 March 2024..... **\$1,914.5m**

In addition, there will be an estimated 23 directorate posts as at 31 March 2023 and as at 31 March 2024.

Commitment balance..... **\$427.3m**

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

	2021–22 (Actual)	2022–23 (Original)	2022–23 (Revised)	2023–24 (Estimate)
Financial provision (\$m)	8,163.9	8,288.8	8,339.0 (+0.6%)	8,758.7 (+5.0%)
				(or +5.7% on 2022–23 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 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;
- implementing the Dongjiang water supply agreement;
- 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.

Flushing water

- assessing flushing water (comprising salt water and recycled water) supply requirements;
- developing flushing water resources to cope with such requirements;
- planning, designing and constructing reliable and efficient flushing water supply and distribution systems to meet such requirements in good time; and
- operating and maintaining flushing water supply and distribution systems.

4 In 2022, the Department continued to plan, design and construct new projects for the development of water resources and extension of 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. In particular, the Department commenced the construction works related to the relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to caverns as well as the investigation and design for the supply of reclaimed water for non-potable uses in Tin Shui Wai, Yuen Long Town and Tuen Mun – Yuen Long Corridor areas.

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

Targets

	Target	2021 (Actual)	2022 (Actual)	2023 (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
flushing water supply—maintaining normally a minimum residual head of 15 metres in the distribution systems except at their extremities (%)	100	100	100	100

Indicators

	2021 (Actual)	2022 (Actual)	2023 (Estimate)
projects under planning	31	29	27
value of projects under planning (\$m)	11,582.5	16,528.4	8,501.2
projects under design.....	28	29	32
value of projects under design (\$m).....	22,626.2	34,688.8	59,127.6
projects under construction	38	43	45
expenditure of works under construction (\$m)	4,962.0	6,230.8	5,649.8
fresh water supplied (m ³)	1 055 000 000	1 066 000 000	1 067 800 000
salt water supplied (m ³).....	320 700 000	319 000 000	319 370 000
days on full supply	365	365	365
total treatment works capacity (m ³ /day).....	4 619 600	4 621 100	4 756 100
total pumping plant capacity (megawatts)	348	348	350
leakage rate of water mains (%).....	14.6	14.4	14.2
education programmes / promotion campaigns on water conservation.....	6	7	7
schools joining education programmes on water conservation.....	767	828	850

Matters Requiring Special Attention in 2023–24

6 During 2023–24, the Department will:

- review and 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;
- complete the renewal of the Dongjiang water supply agreement;
- commission the first stage of the desalination plant at Tseung Kwan O;
- continue with the establishment of the Water Intelligent Network;
- continue with the construction of infrastructure in stages for supplying reclaimed water for non-potable uses in the north-eastern part of the New Territories including Sheung Shui and Fanling, and the construction of grey water treatment plant for supplying treated grey water for non-potable uses in the Anderson Road Quarry Development;
- continue with the construction of the main works for in-situ reprovisioning of Sha Tin Water Treatment Works (South Works);
- continue with the construction of the main works for the Siu Ho Wan Water Treatment Works extension;
- continue with the construction works related to the relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to caverns;
- commence the construction of the first package of improvement works of fresh water mains with internal bitumen lining;
- commence construction works related to the improvement of fresh water supply to low-level area in Central;
- continue with the investigation and design for the Ngau Tam Mei Water Treatment Works extension;
- continue with the planning, design and construction of fresh and flushing water supply to meet the demands arising from housing developments;

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- continue with the investigation and design for the relocation of Tsuen Wan No. 2 Fresh Water Service Reservoir, and Yau Tong Group Fresh Water and Salt Water Service Reservoirs to caverns;
- continue with the investigation and design for supplying reclaimed water for non-potable uses in Tin Shui Wai, Yuen Long Town and Tuen Mun – Yuen Long Corridor areas;
- continue with the feasibility study for the relocation of Tuen Mun Water Treatment Works to caverns;
- continue with the feasibility study for the relocation of Tsing Yi East Group Fresh Water and Salt Water Service Reservoirs and Shau Kei Wan Low Level Salt Water Service Reservoir to caverns; and
- commence the investigation and design for the in-situ reprovisioning of Tsuen Wan Water Treatment Works.

Programme (2): Water Quality Control

	2021–22 (Actual)	2022–23 (Original)	2022–23 (Revised)	2023–24 (Estimate)
Financial provision (\$m)	316.7	411.5	359.0 (–12.8%)	435.3 (+21.3%)
				(or +5.8% on 2022–23 Original)

Aim

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

Brief Description

8 The Department is responsible for ensuring the purity, wholesomeness and safety of treated fresh water supplied to customers conforming to the HKDWS in all respects and at all times. The Department is also responsible for ensuring the quality of flushing water supplied to customers conforming to the Department’s standards. This work involves:

Fresh water

- water treatment—ensuring that treated water conforms chemically and bacteriologically to the HKDWS; and
- water quality control—ensuring that the drinking water at treatment works, service reservoirs, water tanks, connection points and consumers’ taps conforms to the HKDWS.

Flushing water

- water treatment—ensuring that the flushing water conforms chemically and bacteriologically to the Department’s standards; and
- water quality control—ensuring that the flushing water at customer ends conforms to the Department’s standards.

9 In 2022, the Department achieved the performance targets for both drinking water and flushing water through effective control of the quality of water supplied to customers. The Department continued to maintain an effective drinking water quality monitoring regime for parameters in the HKDWS, surveillance list, watch list and aesthetic guidelines. The Department also continued to take forward the Action Plan for Enhancing Drinking Water Safety in Hong Kong including:

- the implementation of the Enhanced Water Quality Monitoring Programme covering six metals, residual chlorine and *Escherichia coli*; and
- the promotion of the implementation of Water Safety Plans (WSP) in private buildings and processing of applications under the Water Safety Plan Subsidy Scheme (WSPSS).

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

Targets

	Target	2021 (Actual)	2022 (Actual)	2023 (Plan)
fresh water quality—water supplied to customers complies with the HKDWS(%)	100	100#	100	100
flushing water quality—salt water supplied to customers complies with Water Quality Objectives set by Water Supplies Department (%)	97.0	98.8	98.8	97.0

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Indicators

	2021 (Actual)	2022 (Actual)	2023 (Estimate)
<i>Treated fresh water</i>			
sampling visits at treatment works, service reservoirs, water tanks, connection points and consumers' taps¶	29 017	27 192	28 000
chemical quality satisfying standards (%)	100	100	100
bacteriological quality satisfying standards (%)	100#	100	100

One non-compliant bacteriological test result was found in 2021 and temporary water supply was provided. The compliance rate of fresh water quality was 99.997 per cent rounded to the nearest integer as 100 per cent.

¶ Revised description of the previous indicator "sampling visits at treatment works, service reservoirs, connection points and consumers' taps" as from 2022. The Department has extended the scope of Drinking Water Quality Monitoring Programme to cover the monitoring of water tanks starting from April 2021.

Matters Requiring Special Attention in 2023–24

11 During 2023–24, the Department will carry out the following work to safeguard the drinking water quality:

- continue to encourage private building owners and property management agents to implement WSP in their buildings in order to further safeguard drinking water quality in the community, and process applications under the WSPSS;
- continue to provide necessary assistance to relevant bureaux/departments to implement WSP for their buildings;
- implement baseline radiological monitoring for the Tseung Kwan O Desalination Plant; and
- continue with the publicity and public education on drinking water safety.

Programme (3): Customer Services

	2021–22 (Actual)	2022–23 (Original)	2022–23 (Revised)	2023–24 (Estimate)
Financial provision (\$m)	633.0	615.5	629.6 (+2.3%)	665.2 (+5.7%)
				(or +8.1% on 2022–23 Original)

Aim

12 The aim is to provide customer services and to enforce the Waterworks Ordinance (Cap. 102) and Waterworks Regulations (Cap. 102A).

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:

- ensuring efficiency and effectiveness in dealing with customer enquiries and complaints and in processing applications for water supplies;
- 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 2022, the Department successfully rolled out the upgraded Customer Care and Billing System (CCBS) in June. The Department continued to provide efficient and effective services to customers and enforce the Waterworks Ordinance and Waterworks Regulations including streamlining the procedures for processing applications for water supplies as well as the control of plumbing materials and commissioning of new plumbing installations. The Department continued with the preparation of legislative amendments to the Waterworks Ordinance and Waterworks Regulations relating to the regulation of plumbing works, control of plumbing materials, safeguarding drinking water safety at consumers' taps, mandatory water efficiency labelling scheme and supply of recycled water, as well as the review of other parts of the Waterworks Ordinance and Waterworks Regulations.

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

Targets

	Target	2021 (Actual)	2022 (Actual)	2023 (Plan)
processing application for taking up of consumership				
by post within seven working days (%).....	100	99.9	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	97.7Ψ	100
refund of water deposit within nine working days (%).....	100	99.9	98.5Ψ	100
processing application for meter test within eight working days (%).....	100	99.6	100	100
processing application for autopay service (upon receipt of notification from banks) within three working days (%).....	100	100	99.6Ψ	100
proportion of accurate water meters (inaccuracy not exceeding +/- 3%) (%)§.....	98.0‡	96.8	98.6	98.0
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	100	100	100
conducting publicity campaigns and seminars for promotion of combatting unauthorised water consumption.....	70	72	75	75
initiating an investigation after receiving a complaint on suspected unauthorised water consumption within one working day (%).....	92	93	94	93

Ψ The CCBS was suspended for ten days in 2022 for system upgrade thus affecting the performance achievements in 2022.

§ Revised description of the previous target “accuracy of water meters” as from 2022.

‡ The target was revised from 100 per cent to 98 per cent as from 2022 due to the more economical use of meters for longer period.

Indicators

	2021 (Actual)	2022 (Actual)	2023 (Estimate)
no. of customer accounts.....	3 140 000	3 190 000	3 230 000
fees, water charges and deposits demanded (\$m).....	2,720	2,390	2,650
arrears of water charges at year end in terms of no. of days of water charges demanded.....	1.0	1.3	1.2
prosecutions.....	230	120	230
finest imposed (\$).....	354,595	172,350	350,000
house service inspections due to irregular consumption.....	9 751	6 725	7 580
public enquiries and requests for services.....	1 533 887	1 284 084	1 492 850
disputes and complaints handled.....	20 279	13 689	14 077

Matters Requiring Special Attention in 2023–24

16 During 2023–24, the Department will:

- continue to streamline and enhance the efficiency of the approval process of application of water supplies;
- continue to strengthen regulatory control on inside service leakage to minimise water loss in inside services;
- continue to implement automatic meter reading for suitable new developments;

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- continue with the preparation of legislative amendments to the Waterworks Ordinance and Waterworks Regulations;
- continue to step up prosecution and joint inspections with the Rating and Valuation Department against overcharging for water at sub-divided units;
- continue to provide necessary technical advice and support to building owners and property management agents and render assistance to the market in developing capacity to deal with inside service leakage;
- continue to support and maintain the information technology systems and pursue innovative technologies such as artificial intelligence and smart data analytics to enhance the customer service experience of the public; and
- commence a technical study on CCBS to optimise and refine the system further in the longer term.

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ANALYSIS OF FINANCIAL PROVISION

	2021–22 (Actual) (\$m)	2022–23 (Original) (\$m)	2022–23 (Revised) (\$m)	2023–24 (Estimate) (\$m)
Programme				
(1) Water Supply: Planning and Distribution	8,163.9	8,288.8	8,339.0	8,758.7
(2) Water Quality Control	316.7	411.5	359.0	435.3
(3) Customer Services	633.0	615.5	629.6	665.2
	9,113.6	9,315.8	9,327.6 (+0.1%)	9,859.2 (+5.7%)
				(or +5.8% on 2022–23 Original)

Analysis of Financial and Staffing Provision

Programme (1)

Provision for 2023–24 is \$419.7 million (5.0%) higher than the revised estimate for 2022–23. This is mainly due to the increased provision for light and power, hire of services and professional fees for the operation of the first stage of the Tseung Kwan O Desalination Plant, purchase of water and other operating expenses. There will be a net decrease of six civil service posts primarily for handling water supply planning and distribution matters.

Programme (2)

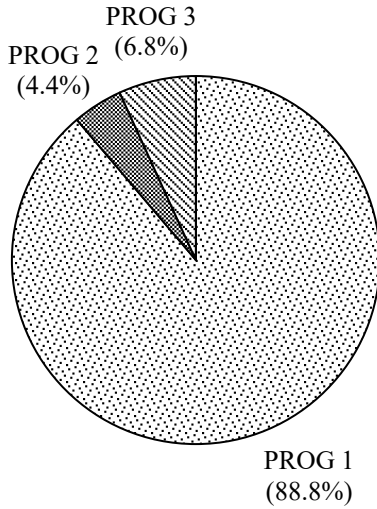
Provision for 2023–24 is \$76.3 million (21.3%) higher than the revised estimate for 2022–23. This is mainly due to the increased provision for specialist supplies and equipment and implementation of the WSPSS. There will be a net increase of one civil service post for enhancing drinking water safety.

Programme (3)

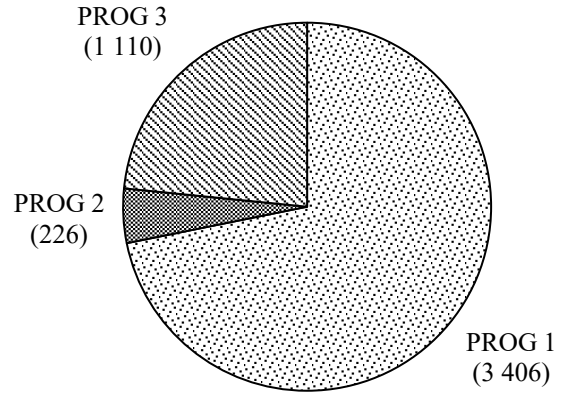
Provision for 2023–24 is \$35.6 million (5.7%) higher than the revised estimate for 2022–23. This is mainly due to the increased provision for hire of services and professional fees and other operating expenses relating to customer services, partly offset by the reduced provision for a net decrease of six civil service posts for handling customer service matters.

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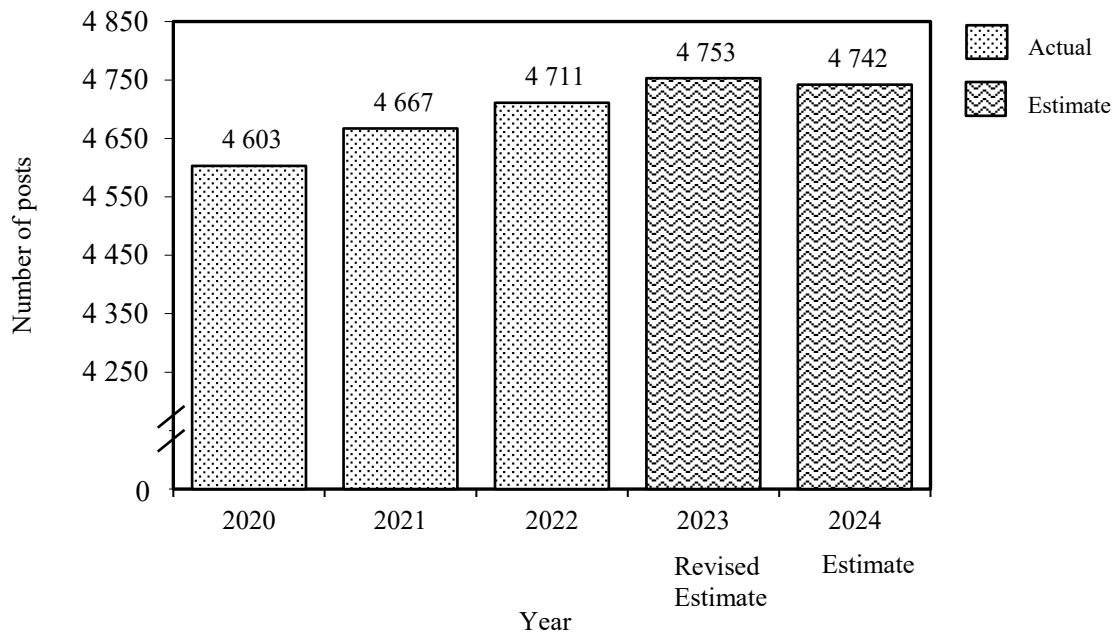
*Allocation of provision
to programmes
(2023-24)*



*Staff by programme
(as at 31 March 2024)*



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



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Sub-head (Code)	Actual expenditure 2021-22	Approved estimate 2022-23	Revised estimate 2022-23	Estimate 2023-24
	\$'000	\$'000	\$'000	\$'000
Operating Account				
Recurrent				
000	Operational expenses	4,268,026	4,291,502	4,343,144
223	Purchase of water	4,833,225	4,962,481	4,962,481
	Total, Recurrent.....	9,101,251	9,253,983	9,305,625
Non-Recurrent				
700	General non-recurrent	963	47,800	8,200
	Total, Non-Recurrent.....	963	47,800	8,200
	Total, Operating Account	9,102,214	9,301,783	9,313,825
Capital Account				
Plant, Equipment and Works				
661	Minor plant, vehicles and equipment (block vote).....	11,389	14,028	13,808
	Total, Plant, Equipment and Works.....	11,389	14,028	13,808
	Total, Capital Account.....	11,389	14,028	13,808
	Total Expenditure	9,113,603	9,315,811	9,327,633
				9,859,155

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Details of Expenditure by Subhead

The estimate of the amount required in 2023–24 for the salaries and expenses of the Water Supplies Department is \$9,859,155,000. This represents an increase of \$531,522,000 over the revised estimate for 2022–23 and \$745,552,000 over the actual expenditure in 2021–22.

Operating Account

Recurrent

2 Provision of \$4,753,143,000 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 2023 will be 4 753 posts. It is expected that there will be a net decrease of 11 posts in 2023–24. Subject to certain conditions, the controlling officer may under delegated power create or delete non-directorate posts during 2023–24, but the notional annual mid-point salary value of all such posts must not exceed \$1,914,463,000.

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

	2021–22 (Actual) (\$'000)	2022–23 (Original) (\$'000)	2022–23 (Revised) (\$'000)	2023–24 (Estimate) (\$'000)
Personal Emoluments				
- Salaries	1,879,796	1,896,741	1,919,674	1,947,684
- Allowances	163,464	155,805	162,958	163,758
- Job-related allowances.....	15,116	13,133	14,779	14,779
Personnel Related Expenses				
- Mandatory Provident Fund contribution	15,525	15,964	15,317	15,203
- Civil Service Provident Fund contribution	109,978	136,658	128,805	160,000
Departmental Expenses				
- Light and power.....	843,638	888,295	965,433	1,159,389
- Hire of services and professional fees	148,890	165,905	156,412	240,783
- Fuel and lubricating oil.....	1,920	390	390	390
- Specialist supplies and equipment.....	142,144	137,653	131,886	179,153
- Maintenance materials.....	46,462	47,780	48,060	50,014
- Contract maintenance	673,555	577,487	565,892	546,161
- General departmental expenses	227,538	255,691	233,538	275,829
	4,268,026	4,291,502	4,343,144	4,753,143

5 Provision of \$5,054,164,000 under *Subhead 223 Purchase of water* is for the purchase of water from Guangdong.

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Commitments

Sub-head (Code)	Item (Code)	Ambit	Approved commitment	Accumulated expenditure to 31.3.2022	Revised estimated expenditure for 2022–23	Balance
			\$'000	\$'000	\$'000	\$'000
<i>Operating Account</i>						
700		<i>General non-recurrent</i>				
	802	Water Safety Plan Subsidy Scheme	440,000	4,493	8,200	427,307
		Total	<u>440,000</u>	<u>4,493</u>	<u>8,200</u>	<u>427,307</u>