Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)099

CONTROLLING OFFICER'S REPLY

(Question Serial No. 0412)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

The Water Supplies Department is developing flushing water resources to cope with the supply requirements. Would the Government inform this Committee of the relevant estimated expenditure and manpower arrangement, as well as the specific measures to be taken, the implementation timetable and the target results?

Asked by: Hon CHEUNG Yu-yan, Tommy (LegCo internal reference no.: 29)

Reply:

Seawater has been used for flushing in Hong Kong since the late 1950s. Up till now, the seawater supply network has been extended to cover about 85% of Hong Kong's population. The Water Supplies Department (WSD) currently supplies a total of about 300 million cubic metres per annum of seawater to customers, conserving an equivalent amount of fresh water which is about 20% of the annual total water consumption in Hong Kong. The WSD is further extending the salt water supply system to Shui Chuen O Estate in Sha Tin, Tung Chung New Town and its extension, and expects to commence the supply progressively from the second half of 2025 onwards.

Apart from seawater, the WSD is also actively taking forward various projects for supplying recycled water (including reclaimed water, treated grey water and harvested rainwater) for flushing and other non-potable uses. The Shek Wu Hui water reclamation plant has started to supply reclaimed water to some areas in Sheung Shui and Fanling in phases since March 2024 to replace the current use of fresh water for flushing, and the supply of reclaimed water will be extended to Kwu Tung North and Fanling North New Development Areas in accordance with their development programmes. The WSD completed the first phase of the grey water treatment plant at Anderson Road at the end of 2024. Treated grey water will be supplied for flushing and other non-potable uses in phases starting from 2025 to tie in with the development progress of the area and its population intake. The Government also plans to take forward the projects for supplying reclaimed water in the Northern Metropolis.

The above projects are expected to increase the coverage of seawater and recycled water supply networks to about 90% of the population by 2030. The estimated expenditure of the WSD on the projects for the development of seawater and recycled water in 2025-26 is about $200 million, involving 10 professional staff and 2 technical staff in overseeing the consultants and contractors in carrying out the projects.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)100

CONTROLLING OFFICER'S REPLY

(Question Serial No. 0413)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (3) Customer Services

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

The Water Supplies Department will continue to implement smart water meters for suitable new developments. Would the Government inform this Committee of:
(1) the WSD's selection criteria for new developments suitable for installing smart water meters and the specific assessment standards;
(2) the application situation of smart water meters in the past 3 years, whether the proportion of accurate water meters has increased, and how will the Government assess the effectiveness of the scheme?

Asked by: Hon CHEUNG Yu-yan, Tommy (LegCo internal reference no.: 30)

Reply:

The Water Supplies Department (WSD) is introducing an advanced metering infrastructure (AMI) system in suitable new developments. AMI system not only improves the accuracy of meter reading, but also provides customers with timely water consumption data and other useful information, thereby enhancing their awareness of water conservation and prevention of water leakage. In the long run, large scale adoption of AMI system can save the manual meter reading work.

(1) Since 2018, the WSD has mandated the installation of AMI system in larger-scale new public and private developments. At present, AMI system consists of wired smart water meters, a data cable system, data concentration units, a backup battery system and a data transmission system. In general, all land grant provisions of new private developments, as well as all new public and government developments, require the adoption of AMI system. The WSD will assess factors such as the technological compatibility and cost-effectiveness of installing smart water meters in different developments before deciding the most suitable AMI system to be used. Meanwhile, the WSD will continue to explore more cost-effective solutions of smart water metering, including exploring the use of wireless smart water meters to enhance the cost-effectiveness of the overall system and expedite the installation of smart water meters in existing buildings.

(2) All smart water meters and conventional mechanical water meters used by the WSD must comply with the department's stringent technical requirements and accuracy tests. Therefore, the proportions of accurate water meters of both types are similar. Compared to manual meter reading, using smart water meters not only enhances the accuracy of meter reading, but also provides other benefits including supporting system analysis, controlling water loss in water supply network and private water pipes, promoting water conservation among consumers and reducing meter reading cost, etc. As at the end of February 2025, the WSD has received a total of about 132 000 smart water meter applications from new developments. These smart water meters will be in use progressively along with the completion of the buildings. About 16 200 smart water meters are currently in operation. With the increase in the number of smart water meters installed, the WSD will conduct a review on the effectiveness of the AMI system in due course.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)098

CONTROLLING OFFICER'S REPLY

(Question Serial No. 0458)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Regarding the investigation and design for the in-situ reprovisioning of Tsuen Wan Water Treatment Works:

1. What is the latest progress of the in-situ reprovisioning of Tsuen Wan Water Treatment Works? What is the current expenditure on the investigation and design of this project? When are the works expected to carry out?

2. Based on current estimation, what is the cost required for the in-situ reprovisioning works?

Asked by: Hon CHAN Han-pan (LegCo internal reference no.: 18)

Reply:

The Tsuen Wan Water Treatment Works (TWWTW) was commissioned in 1957. In view of its ageing facilities, the adoption of simple raw water direct filtration process and its ineffectiveness in handling odour arising from algal growth brought about by climate change (e.g. increase in sunshine duration and carbon dioxide), the Water Supplies Department (WSD) proposed to carry out in-situ reprovisioning works for TWWTW (project) so as to enhance its treatment and filtration capacity.

1&2. WSD awarded a consultancy agreement in June 2023 with a lump sum fee of $48 million to carry out investigation, design and construction of the project. The design work is at its preliminary stage. As of March 2025, the expenditure on the consultancy was about $16 million. WSD will formulate a strategy and timetable for the project taking account of the progress of the consultancy, the priority and overall planning of various public works items of the Government. WSD will prepare a cost estimate for the project upon completion of the detailed design at a later date.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)102

CONTROLLING OFFICER'S REPLY

(Question Serial No. 1437)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (3) Customer Services

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Last year, the Legislative Council passed the Waterworks (Amendment) Ordinance 2024 to strengthen the power of the Water Authority in evidence collection and information disclosure, and to increase the penalty level for water overcharging. Regarding the enforcement work of the Water Supplies Department (WSD) against subdivided units (SDUs), would the Government inform this Committee of:

(1) the number of cases investigated by the WSD in respect of suspected overcharging for water in SDUs in the past 3 years; among them, the number of cases which were prosecuted and successfully convicted; the maximum and minimum fines for the convicted cases;

(2) the number of proactive inspections conducted by the WSD against overcharging for water in SDUs in the past 3 years;

(3) with the upcoming launch of the regulatory regime on Basic Housing Units, whether the WSD has reserved additional resources and manpower to step up enforcement against SDUs?

Asked by: Hon LEUNG Man-kwong (LegCo internal reference no.: 33)

Reply:

The Government will continue its efforts to combat the unscrupulous landlords for overcharging their tenants for water through an inter-departmental and multi-pronged approach, including stepping up inspections, streamlining the application procedures for the installation of separate water meters, and strengthening publicity and education efforts, with a view to enhancing the deterrent effect against overcharging subdivided unit (SDU) tenants for water.

(1) From 2022 to 2024, the Water Supplies Department (WSD) investigated a total of 411 cases on suspected overcharging SDU tenants for water, including 115 cases which are still under investigation. Of the 296 cases for which investigations were completed, 264 cases were not pursuable due to insufficient evidence, 24 cases have been successfully prosecuted and convicted, and 8 cases are pending hearing. The fines for the convicted cases ranged from $1,000 to $22,000.

The enforcement power of the WSD has been strengthened since the Waterworks (Amendment) Ordinance 2024 came into effect on 19 April 2024. From 19 April 2024 to January 2025 (i.e. about over 9 months), a total of 305 cases on suspected overcharging for water were investigated. The WSD has completed the investigation of 228 cases and prosecuted 9 cases. All prosecution cases were successfully convicted by courts and the other 77 cases are still under investigation. The WSD can handle more than 200 cases each year after the legislative amendment, a 4 to 5 times increase compared to around 40 cases per year before the legislative amendment. Therefore, the effectiveness on the investigation work has been enhanced after the legislative amendment.

(2) From 2022 to 2024, the WSD conducted proactive inspections on about 8 000 SDUs, trying to identify suspected cases of overcharging for water for further investigation.

(3) The WSD will deploy existing manpower and resources to inspect SDUs and follow up on the suspected cases of overcharging for water in order to support the regulatory regime on Basic Housing Units.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)109

CONTROLLING OFFICER'S REPLY

(Question Serial No. 1498)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Regarding waterworks facilities such as water treatment works, pumping stations or pump houses, would the Government inform this Committee of:

1. the number and ranks of staff in the Water Supplies Department (WSD) responsible for the work related to water treatment works, fresh water pumping stations or pump houses, seawater pumping stations or pump houses, fresh water and seawater pumping stations or pump houses, fresh water service reservoirs and seawater service reservoirs, their number and ratio of permanent and supernumerary posts, the salary expense by rank and total salary expense;

2. whether the WSD has adopted innovative technology to promote smart water treatment works, pumping stations or pump houses in order to enhance control and enhance water quality; if yes, of the details and expenditure on the relevant technology projects; if no, of the reasons?

Asked by: Hon YUNG Hoi-yan (LegCo internal reference no.: 9)

Reply:

Fresh water supply mainly involves 3 key processes, viz. collection of raw water, water treatment and distribution. Raw water from the impounding reservoirs and Dongjiang (DJ) is delivered by large transfer mains and tunnels to water treatment works for treatment. Treated water is then pumped through large trunk mains or tunnels to service reservoirs and then flows via the distribution network to customers. The flushing water system is completely separated from the potable water supply system. Seawater is directly pumped from the transfer mains of pumping stations to the customers with surplus water delivered to the service reservoirs for storage.

1. As at the end of February 2025, there are 809 permanent and supernumerary posts in the Water Supplies Department (WSD) responsible for the work related to water treatment works, fresh water pumping stations or pump houses, saltwater pumping stations or pump houses, fresh water and saltwater pumping stations or pump houses, fresh water service reservoirs and

saltwater service reservoirs. The posts comprise 25 engineers, 15 senior waterworks inspectors, 84 waterworks inspectors/assistant waterworks inspectors, 327 works supervisors, and 358 senior artisans/artisans and staff of other posts. Since the staff concerned have other duties to handle as well, we have not kept the breakdown of the salary expenses.

2. To ensure drinking water safety, the WSD has adopted various innovative technologies (including Ultraviolet (UV) Disinfection Technology, Integrated Treatment Information and Tele-alert System and Smart Trunk Transfer Support System) to enhance water quality. The details and expenditure on the projects are as follows:

(i) UV Disinfection Technology

The WSD adopted the UV disinfection technology for the first time in Cheung Sha Water Treatment Works of Lantau Island in early 2023. The cost for purchasing, installing, testing and launching the system is about $1.2 million. The WSD also adopted the UV disinfection technology in the in-situ reprovisioned Sha Tin Water Treatment Works (South Works) which is expected to commission in the first quarter of 2027. The WSD will also consider adopting the above disinfection technology in reprovisioning or construction of other water treatment works in future.

(ii) Integrated Treatment Information and Tele-alert System

This smart monitoring and automatic alert system for water treatment process is developed by the WSD and centrally driven by 4 automation features, i.e. automatic sampling and detection, automatic data collection and integration, automatic recording and analysis, and automatic alert. Vast amount of water quality data can be analysed in real time for timely judgement and corresponding actions based on the analysis results. Up till now, the investment by the WSD is about $3 million.

(iii) Smart Trunk Transfer Support System

Developed by the WSD, local universities and Mainland expert team, this new intelligent system utilises artificial intelligence technology to optimise the operation of the pumping stations and reservoirs of the DJ water supply system. Up till now, the investment on the system is about $11 million. The first phase of the system commenced trial operations in November 2024 and is expected to save 3% to 6% of energy used by the DJ water supply system each year.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)110

CONTROLLING OFFICER'S REPLY

(Question Serial No. 1508)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Using water-saving devices is one of the Government's initiatives to promote water conservation. Would the Government inform this Committee of:

1. the number and proportion of government buildings and schools installed with water-saving devices;
2. the installation timetable for government buildings and schools not yet installed with water-saving devices;
3. the number of government buildings and schools recording an increase in water consumption after installing water-saving devices, their proportion and the details of such increase;
4. the number and proportion of free water-saving devices received from the Water Supplies Department by the public for their premises in the past 5 years, with a breakdown by public housing, subsidised housing, private housing or other types of accommodations;
5. referring to the above question, the change in water consumption of the public after receiving water-saving devices.

Asked by: Hon YUNG Hoi-yan (LegCo internal reference no.: 1)

Reply:

To encourage the use of water-saving devices, the Water Supplies Department (WSD) launched the voluntary Water Efficiency Labelling Scheme (WELS) in 2009 covering showers for bathing, water taps, washing machines, urinal equipment, flow controllers and water closets to inform customers of the water efficiency performance of different products for selecting water-saving devices of high efficiency. Since 2014, we have progressively installed flow controllers for domestic households and schools. We have also distributed flow controllers for free to those households who have signed a commitment certificate about water conservation on the WSD's website or who have successfully applied for e-Bill service.

1&2. Starting from February 2018, all new buildings, including government buildings and schools, are required by the WSD to use water-saving devices (showers for bathing, water taps, urinal flushing valves and water closets) registered under WELS with prescribed water

efficiency grading. To further promote the use of water-saving devices, as at the end of 2024, the WSD has retrofitted with the above water-saving devices for about 4 000 (over 95% of total) government buildings and venues and schools built before February 2018. For the remaining (about 5%) government buildings and venues and schools, the relevant authorities either had their own plans for installing water-saving devices or were unable to install the water-saving devices due to actual operational needs. Those venues were therefore not included in the retrofitting programme of the WSD.

3. The WSD has conducted general statistical analysis on a random basis. It was estimated that government buildings and venues and schools could save around 1.3% of water consumption on average within a year after installing water-saving devices. However, we have not collected statistics for individual buildings.

4. To promote water conservation, the WSD has set up mobile registration booths at public rental housing estates since 2014 to recruit interested residents to join the installation of flow controllers for water taps and showers for bathing. Installation works have been completed for about 206 000 households. The scheme has now been extended to private households with installation works completed for about 30 000 private households. Besides, the WSD has distributed a pair of flow controllers for water taps to households who have joined the "Let's Save 10L Water 2.0" Campaign or who have successfully applied for e-Bill service. About 324 000 households have received flow controllers through the above arrangements so far.

5. The WSD has conducted general statistical analysis on a random basis in respect of the change in household water consumption after installing flow controllers. It was estimated that each household could save about 14 litres of water per day on average after installing flow controllers, which is about 3% of daily per capita consumption.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)111

CONTROLLING OFFICER'S REPLY

(Question Serial No. 1510)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Regarding the effectiveness of Water Efficiency Labelling Scheme (WELS) in water conservation, would the Government inform this Committee:

1. please provide in table form the numbers of products in each water efficiency grade for all plumbing fixtures and water-consuming devices under the WELS;
2. the numbers of products registered or having a change of grade for all plumbing fixtures and water-consuming devices under the WELS in each of the past 5 years;
3. the number and ranks of staff in the Water Supplies Department responsible for matters relating to the WELS, their number and ratio of permanent and supernumerary posts and the relevant expenditure.

Asked by: Hon YUNG Hoi-yan (LegCo internal reference no.: 3)

Reply:

To encourage the use of water-saving devices, Water Supplies Department (WSD) launched the voluntary Water Efficiency Labelling Scheme (WELS) in 2009 covering showers for bathing, water taps, washing machines, urinal equipment, flow controllers and water closets to inform customers of the water efficiency performance of different products for selecting water-saving devices of high efficiency. Since 2014, we have progressively installed flow controllers for domestic consumers and schools. We have also distributed flow controllers for free to those consumers who have signed a commitment certificate about water conservation on the WSD's website or who have successfully applied for e-Bill service.

1. As at the end of 2024, the numbers of products of the 6 types of plumbing fixtures and water-consuming devices under the register of WELS and their respective water efficiency grades are tabulated below:

	Water Efficiency Grade (Note)				Total
	Grade 1	Grade 2	Grade 3	Grade 4	
Showers for bathing	896	77	19	4	996
Water taps	2 354	525	70	0	2 949
Washing machines	882	16	0	0	898
Urinal equipment	275	25	5	2	307
Flow controllers	107	41	5	1	154
Water closets	740	328	83	0	1 151

Note: The water efficiencies of the products under WELS are rated to different grades according to their types and water consumptions. Grade 1 is the most water efficient whereas grade 4 is the least water efficient.

2. The numbers of products of the 6 types of plumbing fixtures and water-consuming devices registered under WELS in each of the past 5 years from 2020 to 2024 are tabulated below. None of the products required registration to apply for a change of grade.

Year	2020	2021	2022	2023	2024
Showers for bathing	56	69	87	91	68
Water taps	349	483	375	253	287
Washing machines	66	69	35	40	54
Urinal equipment	15	46	40	27	23
Flow controllers	11	10	3	6	7
Water closets	232	472	160	124	139

3. On manpower, there are 3 permanent posts in the WSD involved in the work of the WELS, including 1 chief engineer, 1 senior engineer and 1 engineer. Since the above staff have other duties to handle as well, no separate breakdown of the salary expenses involved is available. Therefore, we are unable to provide the relevant statistics.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)112

CONTROLLING OFFICER'S REPLY

(Question Serial No. 1511)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Regarding the bursting and leakage of water mains, would the Government inform this Committee of:

1. the numbers of water main bursts and leaks, the amount of water involved, the relevant emergency and non-emergency repair expenditures in the past 5 years, with a breakdown by the 18 districts across the territory;
2. the average and longest time taken to handle each case of water main bursts and leaks;
3. the number and ranks of staff in the Water Supplies Department responsible for emergency repair of water mains, their number and ratio of permanent and supernumerary posts, the salary expense by rank and total salary expense.

Asked by: Hon YUNG Hoi-yan (LegCo internal reference no.: 4)

Reply:

Since 2015, the Water Supplies Department (WSD) has implemented multi-pronged measures to maintain the healthiness of the water supply network and reduce the risk of water main bursts or leaks through the establishment of the Water Intelligent Network (WIN) and the implementation of the Risk-based Improvement of Water Mains based on the "Risk-based Asset Management Programme for Water Mains". By the end of March 2025, the WSD has established the WIN and set up about 2 400 District Metering Areas (DMAs) in the fresh water distribution network over the territory. It helps to strengthen management of leakage in water supply network with the strategy of "divide and conquer" and continuous monitoring, and to implement appropriate measures including active leakage detection, pressure management, speedy repair of water main leaks and replacement or rehabilitation of water mains, etc. Through the above-mentioned multi-pronged measures and with efforts over the years, the number of annual main burst cases has been greatly reduced from around 2 500 in 2000 to around 40 cases in 2023 and to 27 cases in 2024. The leakage rate of fresh water mains has also dropped from over 25% in 2000 to around 13.4% in 2024.

1. The numbers of fresh water main bursts and leaks in the past 5 years by District Council district are set out in Table 1 and 2. In order to resume fresh water supply to minimise the impact on the public, the WSD would complete the repair of fresh water mains bursts or leaks promptly. However, under normal circumstances, there is no flow meter installed near the location of the burst or leak. Therefore, the WSD did not measure the amount of water involved in the relevant cases. The annual expenditure on the repair of fresh water mains is about $66 million.

Table 1: Number of fresh water main burst cases by district in the past 5 years

District	**Burst case**				
	2020	**2021**	**2022**	**2023**	**2024**
Central & Western	1	2	2	2	1
Eastern	2	1	1	1	0
Islands	0	0	2	4	1
Southern	1	0	1	1	2
Wan Chai	3	2	1	0	1
Kowloon City	0	1	0	1	3
Kwun Tong	2	1	0	0	0
Sham Shui Po	0	0	0	1	1
Wong Tai Sin	0	0	0	0	0
Yau Tsim Mong	1	0	2	1	0
North	0	0	0	2	1
Sai Kung	1	1	0	3	1
Sha Tin	3	1	3	0	0
Tai Po	2	0	2	1	0
Kwai Tsing	1	1	1	0	1
Tuen Mun	0	3	1	1	0
Tsuen Wan	1	2	2	2	1
Yuen Long	1	0	0	1	0
Total	**19**	**15**	**18**	**21**	**13**

Table 2: Number of fresh water main leak cases by district in the past 5 years

District	Leakage cases				
	2020	**2021**	**2022**	**2023**	**2024**
Central & Western	311	320	258	216	355
Eastern	179	140	132	149	129
Islands	564	512	526	511	484
Southern	260	276	303	296	287
Wan Chai	181	273	257	196	194
Kowloon City	217	204	174	164	162
Kwun Tong	112	120	139	142	149
Sham Shui Po	117	139	149	115	129
Wong Tai Sin	65	63	56	65	65
Yau Tsim Mong	234	315	299	290	201
North	302	439	505	651	507
Sai Kung	457	559	557	635	570
Sha Tin	362	258	151	203	266
Tai Po	711	441	207	239	300
Kwai Tsing	79	107	75	110	104
Tuen Mun	310	300	353	384	387
Tsuen Wan	139	122	140	191	206
Yuen Long	1 514	1 565	1 456	1 494	1 420
Total	**6 114**	**6 153**	**5 737**	**6 051**	**5 915**

The expenditures on water main improvement works carried out by the WSD (including the expenditure on fresh water and salt water main improvement works) in 2020-21, 2021-22, 2022-23, 2023-24 and 2024-25 (as at 10 March 2025) were about $860 million, $1.15 billion, $880 million, $680 million and $610 million respectively.

2. In the past 5 years, the average time taken to repair fresh water main bursts and leaks was about 5 hours. The longest time taken was about 12 days as the case required the handling of congested underground utilities and the arrangement of diversion of water supply or temporary water supply facilities during the repair of the concerned fresh water mains.

3. There are 632 permanent and supernumerary posts in the WSD responsible for the relevant work, including 29 engineers, 3 chief technical officers, 25 senior waterworks inspectors, 133 waterworks inspectors/assistant waterworks inspectors, 274 works supervisors, and 168 artisans and staff from other posts. Since the above staff have other duties to handle as well, no separate breakdown of the salary expenses involved is available. Therefore, we are unable to provide the relevant statistics.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)113

CONTROLLING OFFICER'S REPLY

(Question Serial No. 1512)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Regarding the unlawful taking of water, would the Government inform this Committee of:
1. the number and ranks of staff in the Water Supplies Department (WSD) responsible for handling the unlawful taking of water, their number and ratio of permanent and supernumerary posts, the salary expense by rank and total salary expense;
2. the number of reports and complaints received by the WSD, the number of convicted cases and the amount of water which was unlawfully taken in the past 5 years;
3. whether the WSD has adopted innovative technology to facilitate the monitoring and identification of unlawful taking of water in the past 5 years; if yes, of the details and expenditure on the relevant technology projects, and the number of cases identified using technology; if no, of the reasons?

Asked by: Hon YUNG Hoi-yan (LegCo internal reference no.: 5)

Reply:

The Water Supplies Department (WSD) has always been deeply concerned about the problem of unlawful taking of water and has strived to curb such behaviour through on-going publicity and education initiatives. The WSD also looks out for signs of unlawful taking of water in its daily operations. Upon discovery of unlawful taking of water and with sufficient evidence in hand, the WSD will initiate prosecution under the law.

1. There are 29 permanent and supernumerary posts in the WSD responsible for handling the unlawful taking of water, including 1 senior engineer, 2 chief waterworks inspectors, 1 senior waterworks inspector, 6 waterworks inspectors, 8 assistant waterworks inspectors and 11 consumer services inspectors. Since the above staff have other duties to handle as well, no separate breakdown of the salary expenses involved is available. Therefore, we are unable to provide the relevant statistics.

2. The information on unlawful taking of water in each of the past 5 years is as follows:

Year	Number of reports and complaints (Note)	Convicted cases	
		Number of cases	Unlawful taking of water (cubic metres)
2020	316	62	334
2021	351	109	9 728
2022	254	54	15 316
2023	234	36	588
2024	250	27	1 479

Note: The reports and complaints of unlawful taking of water received by the WSD has been included in the above table. In addition, since it takes time to conduct investigations and collect evidence, the "convicted cases" of a particular year may not necessarily be the "reports and complaints" received in that year.

3. The WSD is exploring the application of new technology solutions, such as installing smart water meter systems for areas with high risk of unlawful taking of water and individual customers. The system can monitor the water consumption of the area in real time, analyse the water consumption pattern of the customers with a computer system and compare the total water consumption with total water intake of the area. In case abnormal water consumption is identified, the WSD will conduct investigation and collect evidence. New technology applications help to monitor the unlawful taking of water and enhance enforcement effectiveness. As the relevant technology application is still at the research stage, we are unable to provide the expenditure and number of cases involved.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)114

CONTROLLING OFFICER'S REPLY

(Question Serial No. 1513)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Regarding the quantity of overflow from reservoirs, would the Government inform this Committee of the following:

1. please state in table form the number and quantity of overflow from each reservoir across the territory in each of the past 5 years;
2. please state in table form the number of repairs for each reservoir across the territory, the details and relevant expenditure in each of the past 5 years;
3. whether the Water Supplies Department (WSD) has adopted innovative technology to reduce the overflow from reservoirs in the past 5 years; if yes, of the details and expenditure on the relevant technology projects; if no, of the reasons;
4. the number and ranks of staff in the WSD responsible for handling matters relating to the reservoirs, their number and ratio of permanent and supernumerary posts, the salary expense by rank and total salary expense.

Asked by: Hon YUNG Hoi-yan (LegCo internal reference no.: 6)

Reply:

The overflow from impounding reservoirs in Hong Kong occurs in small and medium impounding reservoirs built between the 19th century and the mid-20th century. As these impounding reservoirs were designed to meet the water demand at that time, they have relatively small storage capacities. Overflow occurs in these reservoirs when the rainwater collected exceeds their capacities during heavy rainstorms. Therefore, impounding reservoirs are designed with overflow facilities, and overflow is in fact an operational need.

1. Overflow occurs in small and medium reservoirs due to the rainwater collected in excess of the storage capacities of reservoirs during heavy rainstorms. The occurrences of overflow from relevant reservoirs or reservoir groups in terms of number of days in the year and the respective total quantities in the past 5 years are tabulated below:

Year	Overflow Instance/Overflow Quantities from Reservoirs or Reservoir Groups (days)/(million cubic metres)					
	Tai Tam	Kowloon	Aberdeen	Tai Lam Chung	Shek Pik	Lower Shing Mun
2020	35/6.01	71/3.25	53/3.44	3/0.63	6/0.87	0
2021	57/12.96	18/1.51	41/3.58	0	7/2.67	0
2022	45/4.43	7/0.20	60/2.83	8/1.49	5/2.77	0
2023	67/22.27	64/6.99	72/5.99	15/4.23	16/6.22	1/1.30
2024	61/8.10	0	59/1.94	0	0	0

2. Maintenance of a reservoir mainly includes the upkeep of relevant facilities such as drainage systems, road signs, landscaping and safety facilities. The Water Supplies Department (WSD) carries out a total of about 70 to 100 maintenance works for all reservoirs each year. As improvement works, such as installation of additional piezometers, improvement of existing pipeworks and addition of greening facilities, may also be involved during the maintenance works, we do not maintain the breakdown of the expenditure involved.

3. All reservoirs of the WSD are installed with water level sensors to measure water levels and transmit real-time data to the regional control centres. Duty officers in the control centres can monitor the water levels of the reservoirs instantly and adjust the amount of water delivered to the water treatment works when necessary. We also implement measures to reduce the quantity of overflow from reservoirs. For example, more water will be drawn from the small and medium reservoirs before the rainy season so as to allow more rooms for rainwater collection during the rainy season and low water level is maintained to reduce the possibility of overflow from reservoirs. However, overflow may still occur in small and medium reservoirs when there is heavy rainfall within a short period of time which may lead to a rapid rise in water levels of these reservoirs. We will continue to keep in view the latest technological development in the market to help reduce the quantity of overflow from reservoirs.

4. Currently, the headworks sections of each region of the WSD are responsible for the control, management, maintenance and repair of waterworks (including reservoirs) involving 167 permanent and supernumerary posts which include 15 engineers, 8 senior waterworks inspectors, 31 waterworks inspectors/assistant waterworks inspectors, 2 technical officers, 67 works supervisors, and 44 artisans and staff of other posts. Since the staff concerned also handled other duties, we do not keep separate statistics on the salary expenses involved in handling matters relating to the reservoirs.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)115

CONTROLLING OFFICER'S REPLY

(Question Serial No. 1514)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Regarding the progress of establishing the Water Intelligent Network (WIN), would the Government inform this Committee of:

1. the number and ranks of staff in the Water Supplies Department responsible for the WIN, their number and ratio of permanent and supernumerary posts, the salary expense by rank and total salary expense;
2. the details of updating the WIN in each of the past 5 years, such as the frequency of system upgrade, the new monitoring areas and their locations, the lengths of new water mains and the relevant expenditure;
3. the number of water main leaks detected through the WIN, the number of leakage areas and the quantity of fresh water loss in each of the past 5 years;
4. the average and longest time taken to rehabilitate the water mains after detecting the leakage through the WIN in the past 5 years.

Asked by: Hon YUNG Hoi-yan (LegCo internal reference no.: 7)

Reply:

Since 2015, the Water Supplies Department (WSD) has implemented multi-pronged measures to maintain the healthiness of the water supply network and reduce the risk of water main bursts or leaks through the establishment of the Water Intelligent Network (WIN) and the implementation of the Risk-based Improvement of Water Mains based on the "Risk-based Asset Management Programme for Water Mains". By the end of March 2025, the WSD has established the WIN and set up about 2 400 District Metering Areas (DMAs) in the fresh water distribution network over the territory. It helps to strengthen management of leakage in water supply network with the strategy of "divide and conquer" and continuous monitoring, and to implement appropriate measures including active leakage detection, pressure management, speedy repair of water main leaks and replacement or rehabilitation of water mains, etc. Through the above-mentioned multi-pronged measures and with efforts over the years, the number of annual main burst cases has been greatly reduced from around 2 500 cases in 2000 to around 40 cases in 2023 and to 27 cases in 2024. The leakage rate of fresh water mains has also dropped from over 25% in 2000 to around 13.4% in 2024.

1&2. As at the end of March 2025, the WSD has completed the establishment of about 2 400 DMAs. The numbers of new established DMAs under the WIN across the territory in 2020, 2021, 2022, 2023, 2024 and 2025 (as at the end of March) by District Council district are tabulated as follows:

District	**Number of new established DMAs**					
	2020	**2021**	**2022**	**2023**	**2024**	**2025 (as at the end of March)**
Central & Western	9	0	6	5	11	1
Eastern	1	8	10	6	13	2
Islands	6	13	13	10	30	1
Southern	1	6	10	6	21	0
Wan Chai	0	3	2	2	17	5
Kowloon City	1	2	2	1	42	1
Sham Shui Po	0	26	8	5	6	1
Wong Tai Sin	3	2	5	11	12	0
Kwun Tong	26	4	4	3	28	1
Yau Tsim Mong	1	0	0	2	20	2
North	0	1	17	30	21	7
Sai Kung	1	2	4	5	7	7
Sha Tin	18	28	33	9	43	1
Tai Po	14	0	31	3	13	2
Kwai Tsing	6	4	5	6	8	3
Tsuen Wan	6	5	5	19	10	1
Tuen Mun	4	2	16	6	12	6
Yuen Long	0	0	31	81	83	10
Total	**97**	**106**	**202**	**210**	**397**	**51**

In 2020-21, 2021-22, 2022-23, 2023-24 and 2024-25, the estimated expenditures on new established DMAs of the WIN were about $100 million, $120 million, $180 million, $190 million and $250 million respectively.

In 2024-25, there are 6 permanent and supernumerary posts in the WSD responsible for overseeing the consultants and contractors in establishing the WIN, including 1 assistant director, 1 chief engineer, 1 senior engineer and 3 engineers. Since the staff concerned have other duties to handle as well, the Government does not keep separate statistics on the salary expenses involved in the above work.

3&4. In 2020, 2021, 2022, 2023 and 2024, the numbers of leakage cases of government fresh water mains detected by the WSD through the WIN were 520, 660, 880, 1 037 and 1 221 respectively, while the respective quantities of fresh water loss reduced to about 22 000, 33 000, 63 000, 75 000 and 120 000 cubic metres per day. The time taken from detecting water main leaks to repairing the water mains depends on various factors such as the

implementation of temporary traffic arrangement, congested underground utilities or other obstructions in the leakage area and suspension of water supply, etc. In 2020, 2021, 2022, 2023 and 2024, the average time taken to repair the fresh water mains was about 5 hours. The longest time taken was about 12 days as the case required the handling of congested underground utilities and the arrangement of diversion of water supply or temporary water supply facilities during the repair of the concerned fresh water mains.

- End -

Examination of Estimates of Expenditure 2025-26 | Reply Serial No. DEVB(W)116

CONTROLLING OFFICER'S REPLY

(Question Serial No. 1515)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (3) Customer Services

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Regarding the meter reading work of the Water Supplies Department (WSD), would the Government inform this Committee of:

1. the current number and ranks of meter readers in the WSD, the salary expense by rank and total salary expense;
2. the current number of water meters in each of the 18 districts across the territory;
3. the number of cases of water meter anomalies identified by meter readers of the WSD in each of the past 5 years and the relevant details;
4. the number of injury-on-duty cases of meter readers in the WSD in each of the past 5 years and the relevant medical expenses;
5. whether the WSD has replaced or upgraded the water meters with smart water meters to facilitate recording and checking of water meters; if yes, of the relevant details, timetable and expenditure each year, and the number of manpower released from the adoption of relevant technology; if no, of the reasons?

Asked by: Hon YUNG Hoi-yan (LegCo internal reference no.: 8)

Reply:

Apart from the daily meter reading work, meter readers of the Water Supplies Department (WSD) also conduct general on-site inspections for customers. In case water meter anomalies are found (including meter not registering but water is expected to be consumed, blurred meter cover glass, meter pointers not in the correct position, dirty dial with difficulty in reading the digits, etc.), meter readers will record the cases in the computer system for arrangement of follow up or investigation.

The WSD is introducing an automatic meter reading (AMR) system in suitable new developments. AMR system not only improves the accuracy of meter reading, but also provides customers with timely water consumption data and other useful information, thereby enhancing their awareness of water conservation and prevention of water leakage. In the long run, the comprehensive introduction of AMR system can save the manual meter reading work.

1. There are 147 permanent posts in the WSD responsible for the relevant work, including 5 chief meter readers, 10 senior meter readers and 132 meter readers. The total notional annual salary cost at mid-point of these posts is around $47 million. Since the staff concerned also handle other duties including the investigations on water meter anomalies and recording works mentioned above, no separate breakdown of the salary expenses involved is available.

2. As at 31 December 2024, the numbers of water meters in various districts of Hong Kong are as follows:

District	**Number of water meters ('000)** Note 2
Central and Western, Wan Chai, Southern and Eastern Districts of Hong Kong Island	530
Kwun Tong, Sham Shui Po, Yau Tsim Mong, Wong Tai Sin and Kowloon City Districts of Kowloon	980
North, Tai Po, Sha Tin and Sai Kung Districts of New Territories East	790
Tsuen Wan, Yuen Long, Kwai Tsing and Tuen Mun Districts of New Territories West	900
Islands District	90
Total	**3 290**

Note 2: The numbers of water meters are rounded to the nearest ten thousand.

3. The numbers of relevant cases in the past 5 years are tabulated as follows:

Case type	**2021**	**2022**	**2023**	**2024**	**2025** (As at the end of February 2025)	**Total**
Meter not registering	20 503	15 509	15 876	11 981	1 776	**65 645**
Blurred meter cover glass	457	473	351	384	66	**1 731**
Pointers not in the correct position	1 662	1 438	2 130	999	176	**6 405**
Dirty dial	36	52	53	95	72	**308**
Total	**22 658**	**17 472**	**18 410**	**13 459**	**2 090**	**74 089**

4. Currently, the Government provides medical treatment to government employees suffering from injury-on-duty (IOD) or occupational diseases under the Employees' Compensation Ordinance (Cap. 282) (ECO) through free medical out-patient and

hospitalisation services under the auspices of the Hospital Authority and the Department of Health which are generally available to members of the public. The Government also allows employees on IOD to seek direct treatment from registered private medical practitioners immediately after the injury and be reimbursed for the medical expenses for the treatment so incurred. Also, such government employees may receive Chinese medicine treatment provided by registered Chinese medicine practitioners, the cost of which is reimbursable up to the maximum limits prescribed under the ECO.

The numbers of IOD cases of meter readers in the WSD and the relevant medical expenses reimbursed in the past 5 years are tabulated as follows:

Financial year	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25** (as at the end of February 2025)
Number of IOD cases	3	5	4	13	2
Relevant medical expenses reimbursed	$0	$2,400	$2,940	$2,100	$0

5. Since 2018, the WSD has mandated the installation of smart water meter system in all new public and private developments. About 16 200 smart water meters (including new developments and existing consumers) are currently in operation, accounting for about 0.5% of all water meters across the territory. As at the end of February 2025, the WSD has received a total of about 132 000 smart water meter applications from new developments. These smart water meters will be in use progressively along with the completion of the buildings. For new buildings, the WSD is only responsible for the provision of smart water meters. The relevant expenditures on constructing and installing smart water meters are borne by the developers. The WSD does not have information on the relevant expenditures. The relevant installation cost is similar to that of a conventional mechanical water meter. The WSD is exploring the use of wireless smart water meter technology to enhance the cost-effectiveness of the overall system and expedite the installation of smart water meters in existing buildings. As the study is still in progress, we are unable to provide the exact figures regarding the installation timetable and expenditure at this stage. Given the relatively small number of smart water meters that are currently in operation, we are unable to assess the manpower saved after the adoption of the relevant technology.

- End -

Examination of Estimates of Expenditure 2025-26 | Reply Serial No. DEVB(W)103

CONTROLLING OFFICER'S REPLY

(Question Serial No. 2152)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Fresh water resources in Hong Kong have always been in short supply. During 1963 to 1964, water rationing was imposed with only 4 hours of supply in every 4 days, which seriously affected people's livelihood and economic activity. With the care of the Central Government, the supply of Dongjiang (DJ) water to Hong Kong since 1965 has resolved our problem of water shortage and water rationing, laying a solid foundation for our rapid economic and social development. In commemorating the 60th anniversary of DJ water supply to Hong Kong, would the Government inform this Committee of:

(a) (ii) the events to be organised by the Water Supplies Department (WSD); (ii) their dates, target audiences, estimated attendances and estimated expenditures;

(b) (i) the manpower, (ii) grades, ranks and posts, (iii) expenses on salary, operation and equipment and (iv) consultancy fee (if any) of the WSD in organising the above activities;

(c) the revised estimate for purchase of fresh water by the WSD in 2024-25 is about $5.158 billion and the estimate in 2025-26 is about $5.282 billion; apart from that, whether the Government has provided/will provide financial and technical support to the Mainland local governments to ensure a stable and quality supply of DJ water in the past 5 years and in 2025 as anticipated; if yes, of the details; and

(d) apart from the events to commemorate the 60th anniversary of DJ water supply to Hong Kong, (i) the regular programmes of the WSD on promoting water conservation among the public and their gratitude for the source of benefit; and (ii) the target audiences, expected numbers of participants and expenditures?

Asked by: Hon NG Chau-pei, Stanley (LegCo internal reference no.: 30)

Reply:

Since 1965, our country has been providing reliable and stable supply of Dongjiang (DJ) water for Hong Kong which resolved the long-term water shortage problem in Hong Kong and enabled Hong Kong to develop into an international metropolis. Currently accounting for about 70% to 80% of the fresh water consumption in Hong Kong, DJ water is the cornerstone of Hong Kong's prosperity, stability and long-term development. We are very grateful for our country's long-term support and care for Hong Kong.

(a) 2025 marks the 60th anniversary of DJ water supply to Hong Kong. To commemorate and celebrate this remarkable milestone, the Water Supplies Department (WSD) has launched a series of promotional events under the theme "Dongjiang River – An Inseparable Bond, Our Blessed Origin" in phases since September 2024. Through a wide range of events, we aim to deepen the understanding of people from all walks of life, particularly the youth, on the history and current situation of DJ water supply to Hong Kong, so that they can recognise our country's continuous support to the long-term development of Hong Kong through this large-scale waterworks. The details of the major events organised by the WSD as at March 2025 are tabulated below. The additional expenditure of the WSD involved is about $2.5 million.

	Programme	**Event period**	**Participants**	**Estimated attendance**
1	Roving exhibition	November 2024 to April 2025	Public	60 000
2	Kindergarten and primary school education (including colouring and drawing competitions and thematic talks)	April 2024 to July 2025	Kindergarten and primary students	20 000
3	Mainland study tours for secondary and primary students	September 2024 to December 2025	Secondary and primary students	4 000
4	Local study tours	October 2024 to March 2025	Public	4 000
5	Running competition for the 60th anniversary of DJ water supply to Hong Kong	November 2024	Public	450
6	Waterworks photo-taking challenge	January 2025 to May 2025	Public	4 000

Besides, the WSD has held the Commemoration Ceremony of the 60th Anniversary of DJ Water Supply to Hong Kong on 31 March 2025, and has organised the International Water Pioneers Summit and launched the large-scale art installations exhibition on 1 April 2025. WSD is also preparing to launch a television programme for DJ water and a mainland study tour on national waterworks projects, culture and technology, etc. As the events are co-organised with professional institutions of water engineering, industry associations and other organisations which will fund or sponsor most of the costs involved, we are unable to confirm the total expenditure of the events at this moment.

(b) In March 2024, the WSD set up a dedicated team to organise various commemoration and celebration events for the 60th anniversary of DJ water supply to Hong Kong. The team

comprises about 30 professional staff. Since organisation of the commemoration and celebration events is subsumed into the daily duties of the above staff, it is difficult to provide a breakdown of the salary expenses involved in those events. Besides, the WSD has engaged an event organising consultant to assist in launching the relevant events. The related consultancy fee is about $500 000 which has been included in the total estimated expenditure mentioned above.

(c) Between 2020 and 2025, the Government of the Hong Kong Special Administrative Region (HKSAR) did not provide any financial support for the Mainland Government except paying the water price as required under the current DJ water supply agreement. On the technical front, the HKSAR Government has been maintaining close liaison with the Guangdong Provincial Government to conduct technical exchanges through regular meetings including the Hong Kong/Guangdong Water Supply Business Meeting, the Hong Kong/Guangdong Water Supply Operation and Management Technical Cooperation Sub-Group Meeting, and the Special Panel on the Protection of DJ Water Quality.

(d) The WSD has been committed to promoting the "Cherish Water Campus" Integrated Education Programme in kindergartens and primary schools. Over 460 kindergartens and 450 primary schools have joined the programme so far. The WSD has also launched the Cherish Water Ambassador Scheme for secondary students to deepen their understanding on the importance of cherishing water resources, fulfil and promote the habits of cherishing water through an array of events. In 2023-24, for example, the programme attracted over 350 students from more than 50 secondary schools to join. Moreover, a Water Resources Education Centre named "H2OPE Centre" was set up in Tin Shui Wai to provide more information on water resources and water conservation for the general public so as to facilitate them to foster the habit and culture of water conservation. The H2OPE attracted over 34 000 visitors in 2024, setting a record high.

To reduce domestic water consumption, the WSD has set up mobile registration booths at public rental housing estates since 2014 to recruit interested residents to join the installation of flow controllers for water taps and showers for bathing. Installation works have been completed for about 206 000 households. The scheme has now been extended to private households with installation works completed for about 30 000 private households. Besides, the WSD has distributed a pair of flow controllers for water taps to consumers who have joined the "Let's Save 10L Water 2.0" Campaign or who have successfully applied for e-Bill service. About 324 000 households have received flow controllers through the above arrangements so far.

To promote water conservation culture to commercial and industrial sectors, the WSD has launched the Enterprises Cherish Water Campaign since 2022 to promote water conservation through initiatives including signing of charter, appointment of cherish water managers, recognition programmes, etc. The campaign has received overwhelming response with over 1 000 premises joining this year.

In 2025-26, the estimated expenditure of the WSD regarding the above regular promotional programmes on water conservation is about $10 million.

- End -

Examination of Estimates of Expenditure 2025-26 | Reply Serial No. **DEVB(W)104**

CONTROLLING OFFICER'S REPLY

(Question Serial No. 2153)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

It is mentioned in the Matters Requiring Special Attention in 2025-26 under Programme (1) that the Water Supplies Department (WSD) will continue with the implementation and enhancement of the Water Intelligent Network (WIN). In this connection, would the Government inform this Committee of:

(a) the (i) staffing and (ii) expenses on salary, operation and equipment in establishing the WIN by the WSD in the past 3 years and in 2025-26 as anticipated;

(b) the (i) aggregate numbers and (ii) locations of District Metering Areas (DMAs) and Pressure Management Areas (PMAs) of the WIN which has been/will be established by the WSD in the past 3 years and in 2025-26 as anticipated (broken down by District Council district);

(c) the (i) lengths and (ii) locations of water mains replaced by the WSD in the past 3 years and in 2025-26 as anticipated (broken down by District Council district);

(d) the estimated time of completion for establishing a total of about 2 400 DMAs and PMAs of the WIN by the WSD;

(e) (i) the number of water main burst incidents in each of the past 3 years; (ii) among them, the number of incidents occurred in districts with established WIN; (iii) whether the WSD has analysed the respective numbers of cases in (ii) which (1) the WIN has not detected any sign of water main bursts and (2) the WIN has detected the signs of water main bursts but repair works have yet to conduct (please set out in table form by District Council district)?

Asked by: Hon NG Chau-pei, Stanley (LegCo internal reference no.: 31)

Reply:

Since 2015, the Water Supplies Department (WSD) has implemented multi-pronged measures to maintain the healthiness of the water supply network and reduce the risk of water main bursts or leaks through the establishment of the Water Intelligent Network (WIN) and the implementation of the Risk-based Improvement of Water Mains based on the "Risk-based Asset Management Programme for Water Mains". Through the above-mentioned multi-

pronged measures and with efforts over the years, the number of annual main burst cases has been greatly reduced from around 2 500 cases in 2000 to around 40 cases in 2023 and to 27 cases in 2024. The leakage rate of fresh water mains has also dropped from over 25% in 2000 to around 13.4% in 2024.

(a) There are 6 permanent and supernumerary posts in the WSD responsible for overseeing the consultants and contractors in establishing the WIN, including 1 assistant director, 1 chief engineer, 1 senior engineer and 3 engineers. Since the staff concerned have other duties to handle as well, the Government does not keep separate statistics on the salary expenses involved in the above work.

(b)&(d) Regarding the WIN, by the end of March 2025, we have completed the establishment of about 2 400 District Metering Areas (DMAs) and related Pressure Management Areas in the fresh water distribution networks over the territory, covering approximately over 80% of the fresh water distribution networks. The WIN helps to strengthen management of leakage in water supply network with the strategy of "divide and conquer" and continuous monitoring, and to implement appropriate measures including active leakage detection, pressure management, speedy repair of water main leaks and replacement or rehabilitation of water mains, etc. The WSD has now commenced the enhancement of the WIN, focusing on the following two aspects:

1) The WSD will expand the monitoring area of the WIN to include fresh water trunk mains and the remaining part of the fresh water distribution mains (covering approximately 20% of the fresh water distribution networks) that are currently not covered by the WIN by adding sensors to monitor water flow and pressure at strategic locations to achieve more comprehensive coverage of the fresh water supply network.

2) On the other hand, the WSD has started upgrading the functions of the existing WIN, which includes upgrading the sensors used for monitoring the water flow and pressure in phases to collect real-time data with a view to speeding up detection of any abnormal conditions in the pipe network.

The above expansion and upgrading work are expected to be completed in phases starting from the second quarter of 2025, with the entire project scheduled for completion by 2027.

The numbers of new DMAs established under the WIN across the territory by district in the past 3 years are tabulated as follows:

District	**Number of new established DMAs**			
	2022	**2023**	**2024**	**2025 (projected as at the end of March)**
Central & Western	6	5	11	1
Eastern	10	6	13	2
Islands	13	10	30	1
Southern	10	6	21	0

District	Number of new established DMAs			
	2022	**2023**	**2024**	**2025 (projected as at the end of March)**
Wan Chai	2	2	17	5
Kowloon City	2	1	42	1
Sham Shui Po	8	5	6	1
Wong Tai Sin	5	11	12	0
Kwun Tong	4	3	28	1
Yau Tsim Mong	0	2	20	2
North	17	30	21	7
Sai Kung	4	5	7	7
Sha Tin	33	9	43	1
Tai Po	31	3	13	2
Kwai Tsing	5	6	8	3
Tsuen Wan	5	19	10	1
Tuen Mun	16	6	12	6
Yuen Long	31	81	83	10
Total	**202**	**210**	**397**	**51**

(c) The WSD has implemented the Risk-based Improvement of Water Mains by introducing factors such as age of use, materials, past records of bursts or leaks and surrounding environment, for assessing the risk of water main bursts or leaks so as to replace or rehabilitate specific sections of water mains with higher risk progressively with a view to maintaining the healthiness of the water supply network and reducing the risk of water main bursts or leaks. In 2022, 2023 and 2024, the WSD has replaced or rehabilitated approximately 34, 52 and 50 km of water mains respectively. Starting from 2025, the WSD will progressively carry out the improvement works for a total of 250 km of water mains in various districts across the territory. The lengths of the water mains (by District Council district) are tabulated as follows:

District	Length of water mains planned to start in 2025 or after (km)	Detailed design in progress (km)
Central & Western	13	0.5
Eastern	19	0
Islands	5	2.5
Southern	14	1
Wan Chai	5	4.5
Kowloon City	15	8.5
Kwun Tong	4	1
Sham Shui Po	10	0

Wong Tai Sin	1	0.5
Yau Tsim Mong	16	6
North	14	7.5
Sai Kung	32	0
Sha Tin	17	4.5
Tai Po	9	6
Kwai Tsing	6	1
Tsuen Wan	9	5
Tuen Mun	5	0
Yuen Long	6	1.5
Total	**200**	**50**

(e) The numbers of burst cases of government fresh water mains in 2022, 2023 and 2024 were 18, 21 and 13 respectively.

Among the above fresh water main burst cases, 6 of which occurred in districts with established WIN, including Southern, Islands, Tai Po and Kowloon City districts. Among them, 2 cases were caused by the disturbance of the road excavation works nearby, while the remaining 4 cases involved sudden bursts of aged asbestos cement pipes. The WSD is improving the prioritisation mechanism under the Risk-based Improvement of Water Mains by increasing the weighting assigned to factors including the possibility of leaks or bursts of water mains with aged materials and used for more than 60 years, and the severity of the consequences for incidents occurring in water mains located at major road sections, with a view to re-assessing the risk of all water main bursts or leaks. Other leakage cases of government fresh water mains detected by the WIN during the same period have been analysed through the WIN management computer system using the data collected to continuously monitor the network condition, prioritise the follow-up work and set out the most effective network management measure such as active leakage detection, pressure management, speedy repair of water main leaks and replacement or rehabilitation of water mains. The relevant leakage points have not developed into water main burst incidents. The WSD will continue to implement multi-pronged measures to maintain the healthiness of the water supply network and reduce the risk of water main bursts or leaks by using the Water Intelligent Network (WIN) to monitor leakage in the network and implementing the Risk-based Improvement of Water Mains based on the "Risk-based Asset Management Programme for Water Mains".

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)105

CONTROLLING OFFICER'S REPLY

(Question Serial No. 2156)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

The Water Supplies Department states that its 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". However, it is noted that remote villages within the territory of Hong Kong such as Tung Ping Chau and Po Toi Island have not yet been supplied with treated water. In this connection, would the Government inform this Committee:

(a) Up to now, in the whole territory, what are the number of villages with inhabitants which have not yet been supplied with treated water and the number of population affected (broken down by District Council district)?

(b) Regarding the villages mentioned in (a), what are the measures taken by the Government to ensure the supply of clean drinking water to local villagers? What are (i) the number of times of delivering potable water to the villages, (ii) the manpower involved and (iii) the expenditures on salary, operation and equipment in 2024-25?

(c) What are (i) the numbers of villages newly established with treated water supply network, (ii) the numbers of beneficiaries, and (iii) the project expenditures involved in the past 5 years and in 2025 as anticipated (broken down by District Council district)?

(d) The Government has mentioned in the Northern Metropolis Development Strategy Report released in 2021 that it will study the feasibility of Shenzhen's supplying of water and electricity to Tung Ping Chau, yet it did not give an account of the progress in the Action Agenda for the Northern Metropolis in 2023. Is there any progress on the study? If yes, what are the details and implementation timetable? If no, what are the reasons?

Asked by: Hon NG Chau-pei, Stanley (LegCo internal reference no.: 34)

Reply:

The Water Supplies Department has always been committed to improving the water supply infrastructure in remote rural villages and outlying islands, and will also review and improve various water supply facilities in a timely manner according to the actual conditions of the areas concerned.

(a) According to the latest information, there are 16 villages in Hong Kong which have inhabitants but do not have treated water supply. Their estimated populations are as follows:

Villages without treated water supply and their estimated populations

District Council	Village Name	Estimated Population (Note 1)
Tai Po	Lai Chi Chong	10
	Tung Sam Kei	1
	Sham Chung	10
	Tung Ping Chau	10
Tsuen Wan	Luk Keng (Lantau)	8
	Tai Chuen (Northeast Lantau)	12
	Tso Wan (Northeast Lantau)	30
Islands	Tai Long (South Lantau)	60
	Po Toi Island	10
	Fan Lau (West Lantau)	10
	Nim Shue Wan (Lantau)	200
	Cheung Sha Lan (Lantau)	80
Tuen Mun	Tin Fu Tsai	30
Sai Kung	Tung Lung Chau	22
North	Kap Tong	4
	Mui Tsz Lam	40

Note 1: The information on estimated populations is provided by the Home Affairs Department (HAD).

(b) It is understood that the above villages are equipped with facilities for supplying stream water, well water or for collecting rainwater which have been in use for many years. Most of these facilities are under the maintenance of the HAD and the Food and Environmental Hygiene Department regularly monitors the water quality to ensure the water is suitable for potable consumption after boiling. In the event of depletion or insufficiency of the water sources, the Government will provide timely assistance, including delivering potable water to meet the need of the villagers. When considering whether to supply treated water to these villages, the Water Supplies Department (WSD) will take into account the actual circumstances of the villages and factors such as population, cost effectiveness, technical feasibility and water safety risk associated with the water demand.

In 2024-25, the Government has delivered potable water for 4 times to the villagers of Tin Fu Tsai, one of the aforementioned villages. There was an average of 3 staff involved in each delivery and the total expenditure was about $190 000.

(c) In 2021, the Government completed the laying of water mains supplying treated water for Mui Tsz Lam (Sha Tin District) with a population of about 240. The project expenditure involved was about $27.7 million. In 2022, the Government commenced the laying of water mains supplying treated water for Tai Long (Islands District) with a population of about 60. The project involved an expenditure of about $29.4 million and is expected to complete by 2025. The Government is preparing to conduct a consultancy study on the construction of water supply system in Mui Tsz Lam (North District) which is expected to commence in 2025. The above projects were carried out to tie in with the development of the villages, taking into account whether the water demand is sufficient without causing potential water quality risk.

(d) Regarding the feasibility study of Shenzhen's supplying of water to Tung Ping Chau, if treated water supply system is to be constructed for Tung Ping Chau which has sparse population, irrespective of whether the submarine pipeline is constructed from Shenzhen or Hong Kong to Tung Ping Chau, low water consumption may lead to prolonged stagnant water in water mains and hence resulting in deterioration of water quality. Preliminary study shows that the per capita capital cost for the construction of treated water supply system for Tung Ping Chau is very high. Also, issues such as cross-boundary project and management should be considered for the proposed submarine pipeline. At this stage, Shenzhen and Hong Kong will maintain regular contact and continue to explore feasible options of supplying water to Tung Ping Chau.

Meanwhile, a non-governmental organisation is piloting the use of domestic seawater filter unit to provide an alternative water source for certain villagers of Tung Ping Chau. The organisation will collect and monitor the operational data of the unit for analysis. If the result is favourable, it would consider extending the application of such technology to other villagers.

Regarding the supply of electricity, the Environment and Ecology Bureau indicated that the Government has approved the proposal of CLP Power Hong Kong Limited (CLP) to supply electricity to Tung Ping Chau using solar energy system under its Development Plan for 2018-2023 and requested CLP to maintain close communication with local residents.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)106

CONTROLLING OFFICER'S REPLY

(Question Serial No. 2180)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (3) Customer Services

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

It is mentioned in the Matters Requiring Special Attention in 2025-26 under Programme (3) that the Water Supplies Department (WSD) will "continue to step up prosecution and inspections against overcharging for water in subdivided units (SDUs) with strengthened enforcement power pursuant to the Waterworks (Amendment) Ordinance 2024". On preventing SDU tenants from being overcharged for water, would the Government inform this Committee of:

(a) the numbers of (i) inspections on SDUs conducted/to be conducted by the WSD, and among them, the numbers of inspections jointly operated with (ii) the Rating and Valuation Department or (iii) the Buildings Department in the past 3 years and in 2025 as anticipated;

(b) the numbers of SDUs with separate water meters installed/to be installed by the WSD in the past 3 years and in 2025 as anticipated;

(c) since the launch of service of non-routine water bill in October 2023, (i) the number of bills issued and (ii) the number of SDUs involved;

(d) the number of (i) complaints received, (ii) prosecutions and (iii) court convictions in respect of overcharging for water by SDU owners in the past 3 years;

(e) (i) the staffing, (ii) grades, ranks and posts, and (iii) expenses on salary, operation and equipment involved in the SDU inspections conducted by the WSD in 2024-25 and in 2025-26 as anticipated?

Asked by: Hon TANG Ka-piu (LegCo internal reference no.: 15)

Reply:

The Government will continue its efforts to combat the unscrupulous landlords for overcharging their tenants for water through an inter-departmental and multi-pronged approach, including stepping up inspections, streamlining the application procedures for the installation of separate water meters, and strengthening publicity and education efforts, with a view to enhancing the deterrent effect against overcharging subdivided unit (SDU) tenants for water.

(a) From 2022 to 2024, the Water Supplies Department (WSD) conducted proactive inspections on about 8 000 SDUs, trying to identify suspected cases of overcharging for water

for further investigation. Amongst them, about 7 400 SDUs were jointly inspected with the Rating and Valuation Department.

(b) From 2022 to 2024, the WSD installed separate water meters for over 1 000 SDUs. The WSD will continue with the relevant publicity and promotional activities, which are expected to encourage more SDU owners to install separate water meters in 2025.

(c) As at the end of February 2025, the WSD has issued 4 non-routine water bills involving 3 units.

(d) From 2022 to 2024, the WSD investigated a total of 411 cases on suspected overcharging SDU tenants for water, including 115 cases which are still under investigation. Of the 296 cases for which investigations were completed, 264 cases were not pursuable due to insufficient evidence, 24 cases have been successfully prosecuted and convicted, and 8 cases are pending hearing.

The enforcement power of the WSD has been strengthened since the Waterworks (Amendment) Ordinance 2024 came into effect on 19 April 2024. From 19 April 2024 to January 2025 (i.e. about over 9 months), a total of 305 cases on suspected overcharging for water were investigated. The WSD has completed the investigation of 228 cases and prosecuted 9 cases. All prosecution cases were successfully convicted by courts and the other 77 cases are still under investigation. The WSD can handle more than 200 cases each year after the legislative amendment, a 4 to 5 times increase compared to around 40 cases per year before the legislative amendment. Therefore, the effectiveness on the investigation work has been enhanced after the legislative amendment.

(e) At present, there are 34 staff posts in the WSD responsible for handling SDU inspections and following up on the investigations of suspected overcharging for water, including 2 engineers, and 32 inspectors and works supervisors. Since the above staff have other duties to handle as well, no separate breakdown of the salary expenses involved is available. Therefore, we are unable to provide the relevant statistics.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)107

CONTROLLING OFFICER'S REPLY

(Question Serial No. 2563)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: Not Specified

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

With the scenic environment, reservoirs in Hong Kong are well-positioned for further development into popular spots for leisure activities. Regarding the way to unleash the potential of reservoirs for leisure use while ensuring water quality, would the Government inform this Committee of the following:

1. Please tabulate the numbers of fishing licenses issued by the Water Supplies Department (WSD) in 2022, 2023 and 2024.

2. Please tabulate the numbers of visitors hiring the pleasure boats in Wong Nai Chung Reservoir from 2021 to 2024.

3. The WSD currently manages 9 irrigation reservoirs. Will the Government consider introducing more water-friendly leisure facilities and developing more popular spots for leisure activities in some suitable irrigation reservoirs?

Asked by: Hon YIU Pak-leung (LegCo internal reference no.: 30)

Reply:

There are no natural lakes, large rivers or abundant underground water source in Hong Kong. To meet Hong Kong's fresh water demand, we need sufficient water storage facilities (i.e. impounding reservoirs) to collect and store rainwater, and temporarily store a portion of the water imported from Dongjiang in Guangdong Province. Currently, there are 17 reservoirs of this kind in Hong Kong. With the peaceful and scenic environment, these reservoirs are very popular outing and fishing spots for the public. Therefore, we are pleased to allow the public to fish and engage in outing activities around the reservoirs on the condition that fresh water sources stay free from pollution.

1. The numbers of fishing licenses issued by the Water Supplies Department (WSD) in 2022, 2023 and 2024 are as follows:

2022	2023	2024
8 530	4 531	4 919

2. The Wong Nai Chung Reservoir has not been used as a water storage facility for potable purposes since the 1980s, after its conversion to the existing Wong Nai Chung Reservoir Park by the former Urban Council for opening to the public. The Wong Nai Chung Reservoir Park is currently under the management of the Leisure and Cultural Services Department (LCSD). According to the LCSD, the latest contract for the light refreshment and boat hiring business at Wong Nai Chung Reservoir Park commenced on 1 July 2024, with a contract period up to 30 June 2027. The operator has equipped the park with 2 rowing boats and 15 pedal wheel boats for hire during business hours on Saturdays, Sundays and public holidays. Currently, the daily patronage of Wong Nai Chung Reservoir Park during Sundays or public holidays is about 2 000. The LCSD has also arranged for the renovation of the facilities beautification and landscape improvement to attract more visitors.

3. Irrigation reservoirs are located within the gathering grounds to provide irrigation water to local farmers. Apart from irrigation purpose, most irrigation reservoirs are also used for water collection, transferring harvested rainwater to downstream water treatment works for treatment. Since local yield is still one of Hong Kong's major sources of fresh water, the WSD has to retain the irrigation reservoirs to safeguard the sustainability of water supply. As the irrigation reservoirs fall within the gathering grounds, the WSD is pleased to collaborate with relevant departments to allow the public to engage in leisure activities around the reservoirs on the condition that fresh water sources stay free from pollution.

- End -

Examination of Estimates of Expenditure 2025-26 | Reply Serial No. **DEVB(W)108**

CONTROLLING OFFICER'S REPLY

(Question Serial No. 2582)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: Not Specified

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Regarding the visiting arrangement of the Ex-Sham Shui Po Service Reservoir (Ex-SSPSR), would the Government inform this Committee of the following:

1. Please provide the Government's estimated expenditures on the Ex-SSPSR in 2024-25 and 2025-26, including the expenditures on maintenance, management, organising guided tours and publicity and promotion, etc.
2. Please provide the monthly number of visitors of the Ex-SSPSR from 15 December 2021 to 31 July 2024 and, among them, the number of tourists (non-local residents).
3. Starting from 1 August 2024, no booking is required for the public to visit the Ex-SSPSR. Please provide the monthly number of visitors and, among them, the number of tourists.
4. Please provide the monthly number of guided tour participants, the number of participants under individual/group application and the proportion of tourists from August 2024 to February 2025.
5. What plans and budget does the Government have in 2025-26 to enhance the publicity and promotion of the Ex-SSPSR so as to make the Ex-SSPSR a popular tourist spot?

Asked by: Hon YIU Pak-leung (LegCo internal reference no.: 31)

Reply:

1. In 2024-25, the expenditure on operation and maintenance of the Ex-Sham Shui Po Service Reservoir (Ex-SSPSR) was about $6 million and the expenditure on the provision of guided tour service was about $1.4 million. The estimated expenditure in 2025-26 is similar to that in 2024-25. The Water Supplies Department (WSD) has promoted and publicised the visiting arrangement through various channels such as the departmental website and social media. As the relevant expenditure is part of the WSD's publicity expenditure, no additional expenditure is involved.

2-4. The monthly number of visitors of the Ex-SSPSR from 15 December 2021 to February 2025 are set out in Table 1 to Table 5 respectively. The WSD does not have separate statistics on the number of tourists or non-local residents.

The numbers of guided tour participants under individual or group application from August 2024 to February 2025 are set out in Table 6.

5. Since December 2021, the WSD has allowed restricted opening of this historical building and arranged guided tours for visit by the public so that they can learn about and appreciate its historical background and interior architectural features, with a view to enhancing the awareness of historical waterworks structures and heritage conservation. Such arrangement is well received by tourists and local residents. The WSD will continue to promote and publicise the visiting arrangement through different channels such as the departmental website and social media.

- End -

Annex 1

Table 1: Number of visitors from 15 to 31 December 2021

2021	Number of visitors
December	482

Table 2: Number of visitors in 2022

2022	Number of visitors
January	151
February	0*
March	0*
April	0*
May	1 041
June	1 753
July	1 745
August	1 652
September	2 078
October	2 134
November	4 610
December	5 154
Total number of visitors	20 318

Table 3: Number of visitors in 2023

2023	Number of visitors
January	4 868
February	3 991
March	4 987
April	5 499
May	4 965
June	5 393
July	4 582
August	4 489
September	3 127
October	3 649
November	4 167
December	4 783
Total number of visitors	54 500

* In view of the COVID-19 pandemic, the WSD suspended the guided tours to the Ex-SSPSR from February to April 2022.

Table 4: Number of visitors from January to July 2024

2024	Number of visitors
January	3 126
February	3 840
March	4 195
April	3 416
May	3 684
June	2 602
July	1 085
Total number of visitors	21 948

Table 5: Number of visitors after the implementation of new opening arrangement in August 2024 (included the figures for the same period in Table 6)

Month	Number of visitors
August 2024	11 779
September 2024	8 450
October 2024	14 017
November 2024	12 474
December 2024	16 485
January 2025	10 518
February 2025	11 998

Table 6: Number of guided tour participants (booking required) after the implementation of new opening arrangement in August 2024

Month	Number of visitors	
	Individual application	Group application
August 2024	482	349
September 2024	459	410
October 2024	412	526
November 2024	550	434
December 2024	564	401
January 2025	496	211
February 2025	497	313
Note: The above attendance records are included in the figures for the same period in Table 5.		

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)101

CONTROLLING OFFICER'S REPLY

(Question Serial No. 3012)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

On the Government's plan to promote the use of grey water, would the Government inform this Committee of:
(1) the Government's measures to enhance public awareness and acceptance on the use of grey water;
(2) whether the Government has plans to collaborate with private sector in promoting the use of grey water;
(3) other than the grey water treatment plant at Anderson Road, whether the Government has concrete timeline on the long-term development of infrastructures for supplying grey water?

Asked by: Hon CHU Kwok-keung (LegCo internal reference no.: 37)

Reply:

The Government has been implementing the Total Water Management Strategy to ensure water security and support the sustainable development of Hong Kong. Expansion of the use of recycled water (including reclaimed water, treated grey water and harvested rainwater) for non-potable purposes is one of the key initiatives of the Strategy to contain fresh water demand growth. The Water Supplies Department (WSD) completed the first phase of the grey water treatment plant at Anderson Road at the end of 2024. Treated grey water will be supplied for flushing and other non-potable uses in phases starting from 2025 to tie in with the development progress of the area and its population intake.

(1) A Water Resources Education Centre named "H2OPE Centre" was set up by the WSD in 2019 to provide information on various types of water resources (including recycled water) and water conservation for the general public so as to facilitate them to foster the habit and culture of water conservation. We have also made use of media interviews and social media to disseminate information on the use of recycled water. Apart from that, we plan to distribute leaflets to customers before the commissioning of the grey water treatment plant at Anderson Road, informing them of the arrangement of the supply of recycled water.

(2) In line with the Government's policy on green buildings, works departments have been installing on-site rainwater harvesting or grey water recycling facilities in government buildings of public works projects as far as practicable, which has also set an example for private developments to adopt these water-saving measures. Besides, we have been working with the Hong Kong Green Building Council to promote the re-use of grey water in more private buildings through the Building Environmental Assessment Method (BEAM) Plus certification. Buildings equipped with grey water recycling facilities or rainwater harvesting facilities are eligible for credits under BEAM Plus to encourage private developers to install these facilities in lieu of using fresh water for non-potable uses.

(3) The WSD has dedicated its efforts towards promoting the use of recycled water for flushing and other non-potable uses to further reduce fresh water consumption. Depending on the actual situation of individual areas, we will expand the supply of recycled water to new development areas and those areas still using fresh water for flushing whenever technically feasible and cost-effective. The Government is currently planning to supply recycled water to the Northern Metropolis for flushing and other non-potable uses.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)131

CONTROLLING OFFICER'S REPLY

(Question Serial No. 3394)

Head: (194) Water Supplies Department

Subhead (No. & title): (000) Operational Expenses

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Regarding water consumption in the past 3 years in Hong Kong, would the Government inform this Committee of:

1. the water consumption per year in Hong Kong, the source of drinking water supply and the proportion of drinking water purchased from the Mainland;
2. the number and results of tests on drinking water of residential units each year;
3. the ratio of using fresh water for flushing; whether it will be lowered in the coming 10 years; if yes, of the details;
4. the estimated number of households living in village houses in rural areas that will convert to salt water for flushing in the coming year (broken down by District Council district);
5. with the increasing popularity of smart water closet, the number of illegal installation cases identified by the Department in which no backflow prevention device was installed as required in the past 3 years;
6. the respective number of reports of fresh water main bursts and salt water main bursts in each district each year;
7. the total quantity of drinking water wasted each year; and
8. the progress of the Replacement and Rehabilitation Programme for water mains?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 58)

Reply:

At present, the major sources of fresh water supply in Hong Kong include rainwater collected from local catchments of impounding reservoirs, Dongjiang (DJ) water imported from Guangdong Province and fresh water produced by the first stage of Tseung Kwan O Desalination Plant.

1. The fresh water consumptions (including consumption of fresh water for flushing), the supply quantity and proportion of DJ water in Hong Kong in the past 3 years are tabulated below:

Year	Fresh water consumption (million cubic metres)	DJ water	
		Supply quantity (million cubic metres)	Percentage in fresh water consumption
2022	1 066	810	76%
2023	1 068	820	77%
2024	1 060	818	77%

2. The Water Supplies Department (WSD) implemented the Enhanced Water Quality Monitoring Programme (Enhanced Programme) in December 2017 to monitor the drinking water at consumers' taps in randomly selected premises. The parameters being monitored include 6 metals (viz. antimony, cadmium, chromium, copper, lead and nickel), residual chlorine and Escherichia coli. The numbers of tests on drinking water samples under the Enhanced Programme in the past 3 years are as follows:

	2022 (Note)	2023	2024
Number of randomly selected premises (Number of samples)	460 (1 385)	661 (1 987)	644 (1 933)

Note: In view of the COVID-19 epidemic situation at the time, the WSD suspended collection of drinking water samples under the Enhanced Programme from 13 January to 19 May 2022.

According to the test results of the sampling protocol under the Enhanced Programme in the past 3 years, with the exception of the case of lead exceedance found in the drinking water in 1 non-domestic premises in 2022 due to the cleansing and maintenance problem of the inside services, the drinking water of all premises randomly selected for monitoring complied with the Hong Kong Drinking Water Standards. Follow-up work on the exceedance case was completed in the same year.

3. Seawater for flushing is largely adopted in Hong Kong. The consumption of temporary fresh water for flushing currently accounts for about 15% of the total flushing water consumption. The WSD is proactively expanding the supply of lower grade water (including seawater and recycled water) for flushing to save fresh water resources. The consumption of fresh water for flushing in the future will gradually decrease to an amount accounting for about 12% of the total flushing water consumption by 2030.

To expand the supply of lower grade water, the WSD completed the first phase of grey water recycling system at Anderson Road in end 2024. Treated grey water will be supplied for flushing and other non-potable uses progressively starting from 2025 to tie in with the development progress of the area and its population intake. In addition, the WSD began to supply reclaimed water to Sheung Shui and Fanling in phases from March 2024 to replace the current temporary mains fresh water for flushing. We will also extend the supply of reclaimed water to Kwu Tung North and Fanling North New Development Areas (NDAs) in accordance with their development programmes. Besides, the WSD is now extending the salt water supply system to Shui Chuen O Estate

in Sha Tin, Tung Chung New Town and its extension. It is expected to supply salt water for flushing in the above areas progressively starting from the second half of 2025.

4. Currently, villages in the New Territories still using fresh water for flushing are mainly located in Yuen Long, Northern, Tai Po, Islands, Sai Kung and Tuen Mun districts. Some of these remote villages are generally scattered, with low density and distant from the seafront, etc. To supply salt water for flushing there, it is necessary to construct water mains of long distance and pumping stations, which will not be the most cost-effective and energy-efficient. As mentioned above, the Government is constructing salt water flushing systems for Tung Chung New Town and its extension so that the systems could supply salt water to these areas including the nearby villages for flushing by phases. Moreover, the Government is striving to supply reclaimed water by phases for flushing in NDAs and those areas still using fresh water for flushing. The reclaimed water supply network being proposed or constructed in NDAs such as Kwu Tung North and Fanling North, Yuen Long South, Hung Shui Kiu/Ha Tsuen and the existing towns such as Sheung Shui and Fanling areas will cover the consumers residing in about 40 villages. Upon the completion of development in other NDAs, we anticipated that the reclaimed water supply network would cover more villages located in the NDAs, thereby further reducing the fresh water demand for flushing.

   The Government will continue to review the situation and expand the supply of salt water and recycled water to other NDAs and those areas still using fresh water for flushing whenever technically feasible and cost-effective to further save fresh water resources.

5. In the past 3 years, the WSD did not institute prosecution against the cases of smart water closets without a backflow prevention device installed which contravene the Waterworks Regulations.

6. The numbers of fresh water and salt water main burst cases in the past 3 years by districts of District Council are tabulated below:

District	Burst cases					
	Fresh water main			Salt water main		
	2022	2023	2024	2022	2023	2024
Central & Western	2	2	1	2	1	1
Eastern	1	1	0	0	1	1
Islands	2	4	1	0	0	0
Southern	1	1	2	2	0	2
Wan Chai	1	0	1	1	0	3
Kowloon City	0	1	3	2	0	0
Kwun Tong	0	0	0	0	0	1

Sham Shui Po	0	1	1	1	1	2
Wong Tai Sin	0	0	0	1	4	0
Yau Tsim Mong	2	1	0	0	0	2
North	0	2	1	0	0	0
Sai Kung	0	3	1	0	0	0
Sha Tin	3	0	0	2	1	0
Tai Po	2	1	0	1	1	0
Kwai Tsing	1	0	1	1	1	0
Tuen Mun	1	1	0	3	3	2
Tsuen Wan	2	2	1	2	0	0
Yuen Long	0	1	0	0	0	0
Total	**18**	**21**	**13**	**18**	**13**	**14**

7. In the past 3 years (i.e. 2022, 2023 and 2024), the leakage rates of government fresh water mains were 14.4%, 14% and 13.4% respectively.

8. Since 2015, the WSD has implemented the "risk-based asset management programme for water mains" by introducing factors such as age of use, materials, past records of bursts or leaks, surrounding environment, etc. for assessing the risk of water main bursts or leaks so as to replace or rehabilitate specific sections of water mains with higher risk progressively with a view to maintaining the healthiness of the water supply network and reducing the risk of water main bursts or leaks. As at end 2024, a total of approximately 540 km long water mains has been included in the "risk-based asset management programme for water mains". Amongst them, approximately 235 km long water mains have been replaced or rehabilitated while the improvement works for the rest are underway or will be progressively carried out.

- End -

Examination of Estimates of Expenditure 2025-26 | Reply Serial No. **EEB(E)210**

CONTROLLING OFFICER'S REPLY

(Question Serial No. 3395)

Head: (194) Water Supplies Department

Subhead (No. & title): (000) Operational Expenses

Programme: (-) Not Specified

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

[Note: The question below concerns matters under the policy purview of the Environment and Ecology Bureau (EEB). The reply was prepared by the Water Supplies Department and vetted by the EEB.]

Question:

The Government has been installing floating photovoltaic (PV) systems at reservoirs since 2017. In this connection, would the Government inform this Committee:

1. What are the installation costs of the solar energy generation systems at reservoirs?
2. What were the annual amount of electricity generated by the solar energy generation systems at reservoirs in the past 5 years?
3. Further to the above question, where will the electricity generated by the solar energy generation systems at reservoirs be used respectively?
4. What is the frequency of damage of floating solar panels caused by adverse weather since the installation? What is the repair expenditure involved? What are the measures to enhance the resilience of the solar energy generation systems against super typhoon?
5. As the solar energy generation systems at reservoirs are subject to more environmental factors, what is the repair and maintenance cost of the systems in comparison with other solar energy generation systems?
6. Further to the above question, does the Government have any new plan to install solar panels at reservoirs in future? If yes, what are the details? If no, what are the reasons?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 59)

Reply:

1-3. Since 2017, the Government has implemented the pilot projects of floating solar energy generation system at Shek Pik Reservoir, Plover Cove Reservoir and Tai Lam Chung Reservoir. The installation costs of the floating solar energy generation systems at the reservoirs and the relevant information are tabulated as follows:

Installation locations	Shek Pik Reservoir	Plover Cove Reservoir	Tai Lam Chung Reservoir
Generating capacity	100 kilowatts (kW)	100 kW	100 kW
Completion date	February 2017	October 2017	April 2022
Cost (HK$)	about 3.5 million	about 3.3 million	about 3.1 million
Facilities powered	Shek Pik Raw Water Pumping Station	Plover Cove Reservoir Air Compressor House	Tai Lam Chung Reservoir Air Compressor House

The amount of electricity generated by a solar energy generation system is subject to the weather and insolation duration of individual area at the time. According to the design, each floating solar energy generation system can generate about 120 000 kilowatt-hours (kWh) of electricity annually.

4. During the passage of super typhoon Mangkhut in September 2018, the anchorage system of the floating solar energy generation system at Plover Cove Reservoir was damaged as the wind force had exceeded the requirements of the system design at the time, resulting in damage to some solar panels. On that occasion, the repair expenditure was about $1.2 million. Afterwards, when designing the floating solar energy generation system for Tai Lam Chung Reservoir, the Water Supplies Department (WSD) used an enhanced anchorage system with tensile strength to enhance the system's resilience against typhoon.

5. With the enhancement of the anchorage system, the annual repair and maintenance cost of each floating solar energy generation system at the 3 abovementioned reservoirs is around $50,000, which is similar to that of the solar energy generation systems at other waterworks of the WSD.

6. By drawing reference to the 3 pilot projects of floating solar energy generation systems already completed, the WSD will continue to review the development of large-scale floating solar energy generation systems and explore a more cost-effective way to install solar energy generation systems at waterworks facilities.

- End -

Examination of Estimates of Expenditure 2025-26 Reply Serial No.

DEVB(W)132

CONTROLLING OFFICER'S REPLY

(Question Serial No. 3489)

Head: (194) Water Supplies Department

Subhead (No. & title): Not Specified

Programme: (1) Water Supply: Planning and Distribution

Controlling Officer: Director of Water Supplies (WONG Yan-lok, Roger)

Director of Bureau: Secretary for Development

Question:

Regarding the promotion of public education on the history of Dongjiang (DJ) water supply, would the Government inform this Committee of:

1. the number of education programmes, the types of programmes, the attendance and the expenditure involved in the past 3 years up to the present;
2. in view of the 60th anniversary of DJ water supply to Hong Kong this year, whether the Government has reserved resources for organising celebration events; if yes, of the details; if no, of the reasons.

Asked by: Hon LEUNG Hei, Edward (LegCo internal reference no.: 124)

Reply:

1. Over the years, the Water Supplies Department (WSD) has been implementing various public education programmes relating to water conservation to enhance the public understanding on water resources, including the history and current situation of Dongjiang (DJ) water supply to Hong Kong. A Water Resources Education Centre named "H2OPE Centre" was set up in Tin Shui Wai by the WSD to provide information on water resources and water conservation for the general public. It also includes exhibition about the history and current situation of DJ water supply to Hong Kong that enables the public to understand the importance of DJ water to Hong Kong. The H2OPE Centre has received nearly 100 000 visitors in the past 3 years. Besides, the WSD has been implementing the "Cherish Water Campus" Integrated Education Programme in kindergartens and primary schools to educate students to save water. At present, over 460 kindergartens and 450 primary schools are participating in the programme. In 2024, the WSD revamped the teaching materials of the programme with enriched content covering the DJ water supply to Hong Kong, thereby deepening students' understanding of our country's care and support for Hong Kong. As the above teaching materials and exhibition about DJ water are included in the water conservation promotion work, we do not have a breakdown of the expenditure on the public education programmes relating to DJ water.

2. 2025 marks the 60th anniversary of DJ water supply to Hong Kong. To commemorate and celebrate this remarkable milestone, the WSD has launched a series of promotional events under the theme "Dongjiang River – An Inseparable Bond, Our Blessed Origin" in phases since September 2024. Through a wide range of events, we aim to deepen the understanding of people from all walks of life, particularly the youth, on the history and current situation of DJ water supply to Hong Kong, so that they can recognise our country's continuous support for the long-term development of Hong Kong through this large-scale waterworks. The details of the major events organised by the WSD as at March 2025 are tabulated below. The additional expenditure of the WSD involved is about $2.5 million.

	Programme	**Event period**	**Participants**	**Estimated attendance**
1	Roving exhibition	November 2024 to April 2025	Public	60 000
2	Kindergarten and primary school education (including colouring and drawing competitions and thematic talks)	April 2024 to July 2025	Kindergarten and primary students	20 000
3	Mainland study tours for secondary and primary students	September 2024 to December 2025	Secondary and primary students	4 000
4	Local study tours	October 2024 to March 2025	Public	4 000
5	Running competition for the 60th anniversary of DJ water supply to Hong Kong	November 2024	Public	450
6	Waterworks photo-taking challenge	January 2025 to May 2025	Public	4 000

The WSD has completed a number of large-scale celebration events including the Commemoration Ceremony of the 60th Anniversary of DJ Water Supply to Hong Kong and the International Water Pioneers Summit. We are also hosting a large-scale art installations exhibition and preparing to launch a television programme for DJ water and a mainland study tour on national waterworks projects, culture and technology. As the events are co-organised with professional institutions of water engineering, industry associations and other organisations which will fund or sponsor most of the costs involved, we are unable to provide the total expenditure of the events at this moment.

- End -