

MESSAGE

The provision of an adequate and reliable water supply is the prime objective of the Works Bureau and the Water Supplies Department. We are committed in the coming year to ensuring a high quality of water supply and a high standard of service.

We will continue to maintain close co-operation with the Guangdong Authority for the supply of raw water of good quality; expand our water supply infrastructure to cope with demands arising from new developments; maintain and improve all waterworks infrastructure, plant and equipment; and ensure that the water supplied is clean, safe and conforms to the World Health Organisation standards.

To enhance operational/management efficiency, measures including the wider application of information technology are being implemented.

To meet the rising expectations of the community, actions are in hand to strengthen the departmental services to better satisfy customer needs.

Your comments or suggestions, which will help us attain a higher standard in our services, are most welcome.

A handwritten signature in black ink that reads "Lee Shing-see". The signature is written in a cursive style with a long, vertical flourish extending downwards from the end of the name.

(Lee Shing-see)
Secretary for Works

WATER SUPPLY

Our Policy Objective is to ensure the provision of a reliable, adequate and quality water supply and an efficient water supply service.

Our targets this year in pursuing this Policy Objective are –

- to maintain a 24-hour water supply
- to undertake 95% of the planned maintenance of the water supply infrastructure
- to ensure 100% of samples tested from water supplied to customers at connection points comply with the Guidelines for Drinking Water Quality of the World Health Organization (WHO)
- to attain a level of 90% customer satisfaction on the water supply service

Progress Made

In the past year, we have achieved satisfactory results in all six Key Result Areas.

We had four targets at the Policy Objective level in the past year.

Our first target was to enable a full water supply each day. In the past year, we have maintained full water supply throughout the year. We have also maintained close liaison with the Guangdong Authority to ensure an adequate supply of raw water for the next decade.

Our second target was to maintain and improve the water supply infrastructure. We have carried out regular preventive maintenance on all waterworks installations, plant and equipment. Preparatory works are in hand for the rehabilitation programme for aged watermains, service reservoirs, water treatment works and pumping stations to start in 2000.

Our third target was to ensure full compliance with the Guidelines for Drinking Water Quality of the World Health Organization at connection points. Measures have been taken to enhance the water quality monitoring system to ensure full compliance with the Guidelines.

Our fourth target was to improve customer satisfaction. We have improved our customer service through the introduction of a number of initiatives.

KEY RESULT AREAS (KRAs)

To ensure that this Policy Objective can be achieved, we must deliver results in a number of key areas, that is, we must –

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¹ this is a new KRA introduced this year

1

Identify water supply needs and secure water resources

We aim to plan water resources so as to ensure a continuous, reliable supply of water for Hong Kong. We plan supply requirements on the basis of providing a full 24-hour supply of both potable and flushing water.

As Hong Kong's own water resources are insufficient to meet demand, we have been importing additional water from Guangdong since 1960. In 1989, we entered into a long-term agreement with the Guangdong Authority for the supply of water from Dongjiang up to the year 2000 and beyond. In 1998, both sides reached an agreement to update the 1989 agreement. This update will take us into the next decade with a reliable water supply. We will continue to co-operate closely with the Guangdong Authority to ensure the smooth implementation of the agreements.

Progress Made

In the past year, we aimed at planning water resources to ensure a sufficient supply of water to meet the increase in demand.

Progress towards this target over the past year was satisfactory. We have maintained close liaison with the Guangdong Authority on the design and construction of the closed aqueduct project and protection of the quality of raw water before completion of the project.

To achieve results in this area, the following initiative has been undertaken in the past years –

Initiative *	Target #	Present Position +
To co-operate with the Guangdong Authority to ensure the smooth implementation and updating of the Dongjiang water supply agreement <i>(Works Bureau (WB))</i>	To hold at least one high-level business meeting and two technical sub-group meetings with the Guangdong Authority annually to discuss and resolve problems <i>(1998)</i>	A high-level business meeting and two technical sub-group meetings have been held to discuss and resolve problems. <i>(Action Completed)</i>

* the bracketed information denotes the agency with lead responsibility for the initiative

the bracketed information denotes the year in which the target was set

+ the bracketed information denotes the status of the target

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicator –

Indicator	1999 Target
Percentage of water resources secured to meet the increase in demand	100%

We will undertake the following initiative to deliver results in this area –

Initiative	1999 Target
To co-operate with the Guangdong Authority to ensure the smooth implementation of the Dongjiang water supply agreement (WB)	To hold at least one high-level business meeting and two technical sub-group meetings with the Guangdong Authority annually to discuss and resolve problems

2

Improve the water supply administrative and regulatory framework

Managing the supply of water to all consumers in Hong Kong is a challenging administrative and managerial task. To improve efficiency, we are implementing the measures recommended in a recent management review of the Water Supplies Department (WSD). In order to capitalise on the benefits available from information technology, we have started to implement the measures recommended in the Information Systems Strategy Study. We also keep our systems and procedures under constant review to ensure cost-effectiveness in delivering quality water supply services.

WSD is responsible for the control of waterworks installations in building developments and the licensing of plumbers through the enforcement of the Waterworks Ordinance and Regulations. We review and update the Ordinance and Regulations regularly in order to meet the changing requirements of society.

Progress Made

In the past year, we aimed at timely implementation of the outstanding efficiency initiatives identified in the 1996 management review of WSD.

Progress towards this target over the past year was satisfactory. Information technology has been successfully employed to improve working efficiency, internal communication, and the management and control of materials and job records. The consultancy study on the Information Systems Strategy (ISS) has been completed and preparation for Stage I implementation is underway. A local area network in regional offices has commenced operation.

To achieve results in this area, various initiatives have been undertaken in the past years. Details are set out below –

Initiative	Target	Present Position
To move towards the introduction of a comprehensive information technology system to improve working efficiency <i>(Water Supplies Department (WSD))</i>	<ul style="list-style-type: none"> To complete the consultancy study on the Information Systems Strategy (ISS) by the end of 1998 <i>(1998)</i> To complete a feasibility study for Stage I implementation by the end of 1999 <i>(1998)</i> 	<ul style="list-style-type: none"> The consultancy study on ISS has been completed. <i>(Action Completed)</i> The study is scheduled to be completed by the end of 1999. <i>(Action in Progress: On Schedule)</i>
To set up a local area network (LAN) in regional offices to enhance internal communication <i>(WSD)</i>	To have the network in place by February 1999 <i>(1998)</i>	A LAN in regional offices was installed in February 1999. <i>(Action Completed)</i>
To install a new integrated computer system for more efficient management and control of materials and job records <i>(WSD)</i>	To set up the Materials and Job Records Management System by the end of 1999 <i>(1998)</i>	Phase 1 of the system was implemented in July 1999. The system is scheduled for full implementation by the end of 1999. <i>(Action in Progress: On Schedule)</i>

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicator –

Indicator	1999 Target
Percentage of initiatives completed on time	100%

We will undertake the following initiatives to deliver results in this area –

Initiative	1999 Target
To improve quality assurance in the delivery of waterworks projects in the Public Works Programme <i>(WSD)</i>	To obtain ISO 9000 certification for managing waterworks projects by 2001
To move towards the introduction of a comprehensive information technology system to improve working efficiency <i>(WSD)</i>	To complete a feasibility study for stage II implementation of the Information Systems Strategy by 2001

3

Expand the water supply infrastructure to meet increasing demand

Hong Kong's water supply needs to continue to expand as the population grows and the standard of living rises. The Water Supplies Department (WSD) plans, designs and builds new projects to extend and upgrade the fresh and salt water supply systems to meet demand.

During the 1998-1999 financial year, we spent \$2.9 billion on Public Works Programme projects to improve the water supply infrastructure. These included water treatment works, service reservoirs, watermains and other ancillary structures for extending water supply to new developments. Major works now in hand include the Ngau Tam Mei Treatment Works; the Tai Po Treatment Works; and service reservoirs, pumping stations and mainlaying in Tuen Mun, Yuen Long, Tsing Yi, Tseung Kwan O, Lantau Island, Kowloon East and some other parts of the urban areas.

Progress Made

In the past year, we aimed to complete projects on time and within budget to meet development programmes.

Progress in both time and cost control was satisfactory. All the eight new water supply infrastructure projects scheduled for completion in the 1998-1999 financial year have been completed on time and within budget. The design works for improving the linkages between Tuen Mun and Yuen Long, and between Sham Tseng and Yau Kom Tau are making good progress. The works for the extension of metered water supply to Discovery Bay have also been completed.

To achieve results in this area, various initiatives have been undertaken in the past years. Details are set out below –

Initiative	Target	Present Position
To provide new water supply infrastructure for new developments <i>(Water Supplies Department (WSD))</i>	To complete all new projects on time and within budget <i>(1998)</i>	All the eight new waterworks projects have been completed on time and within budget in the 1998-1999 financial year. <i>(Action Completed)</i>

Initiative	Target	Present Position
To improve the reliability of existing water supply systems by providing new linkages (WSD)	To complete the improvements for Tuen Mun/Yuen Long and Sham Tseng/Yau Kom Tau by 2003 (1998)	Detailed design for the improvements for Tuen Mun/Yuen Long has been completed. Construction works are expected to commence in November 1999 for completion by 2003. The improvement for Sham Tseng/Yau Kom Tau is being designed and construction works are scheduled to commence in early 2000 for completion by 2003. <i>(Action in Progress: On Schedule)</i>
To extend metered water supply to Discovery Bay (WSD)	To complete the works by 1999 (1998)	Works by WSD for extending the metered water supply were completed in June 1999. <i>(Action Completed)</i>

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicators –

Indicator	1999 Target
Number of high priority projects completed in 1999-2000	Nine
Number of high priority projects completed within budget in 1999-2000	Nine

We will undertake the following initiative to deliver results in this area –

Initiative	1999 Target
To expand the water supply infrastructure to meet the requirements of new developments <i>(WSD)</i>	<ul style="list-style-type: none">● To provide water supply for new developments in the Kowloon East area by 2004● To provide water supply for the Tung Chung and Tai Ho Phase 3 development by 2007

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Maintain and improve the condition of the water supply infrastructure

Our extensive water supply network represents both a significant asset and a major operational and maintenance responsibility. Regular preventive maintenance is carried out on all waterworks installations, plant and equipment.

To enhance the reliability of the water supply infrastructure, there is a need to upgrade or replace aged watermains and reservoirs to reduce leakages and bursts, thus minimising inconvenience to the public. Proper maintenance is also particularly important for the reservoir and catchwater systems as well as those pipes and reservoirs that may affect the stability of adjacent slopes.

The Water Supplies Department (WSD) has initiated action to implement the recommendations of the Underground Asset Management Study. We aim to operate and maintain the water supply systems in the most cost-effective manner possible.

Progress Made

In the past year, we aimed to ensure full water supply throughout the year; to shorten the time taken to restore the local system after disruption of water supply; to step up the number of inspections of waterworks installations and maintenance; and to ensure compliance of water supply systems with safety and environmental protection requirements.

Progress towards the above targets over the past year was satisfactory. We have maintained full water supply throughout the year. The water supply interruptions in the local system were restored within a satisfactory timeframe. The frequency of inspection of small service reservoirs is being progressively increased. All three phases to map and assess the condition of WSD's underground assets have also been completed.

To enhance the integrity of the supply system, through rehabilitating aged watermains, service reservoirs, water treatment works and pumping stations, preparatory works are on track for construction to commence in 2000. The waterworks installations have been properly inspected and maintained to ensure compliance with safety and environmental protection requirements.

To achieve results in this area, various initiatives have been undertaken in the past years. Details are set out below –

Initiative	Target	Present Position
<p>To launch a comprehensive and systematic programme to replace and rehabilitate aged watermains, with priority given to the watermains in urban areas and those most susceptible to leakages and bursts</p> <p><i>(Water Supplies Department (WSD))</i></p>	<p>To start in 2000 the first stage of the programme by replacing or rehabilitating 350 km of aged watermains, for completion by 2006</p> <p><i>(1998)</i></p>	<p>Detailed design of the in-house works is being carried out with planned commencement in 2000.</p> <p><i>(Action in Progress: On Schedule)</i></p>
<p>To rehabilitate aged service reservoirs, water treatment works and pumping stations and enhance their facilities and equipment</p> <p><i>(WSD)</i></p>	<p>To start the rehabilitation works of aged service reservoirs, water treatment works and pumping stations in 2000</p> <p><i>(1998)</i></p>	<p>The nature and scope of the rehabilitation works are being finalised for commencement in 2000.</p> <p><i>(Action in Progress: On Schedule)</i></p>
<p>To carry out independent safety inspections on small service reservoirs (i.e., with a capacity not exceeding 25 000 m³)</p> <p><i>(WSD)</i></p>	<p>To double the frequency of inspections of small service reservoirs from 2000 onwards</p> <p><i>(1998)</i></p>	<p>Frequency of inspection of small service reservoirs has been stepped up, and will be doubled from 2000 onwards.</p> <p><i>(Action in Progress: On Schedule)</i></p>
<p>To work on Phase 3 of a three-phase strategy to map digitally all of WSD's underground assets and to assess the overall condition of the network, future capital investment and operating costs</p> <p><i>(WSD)</i></p>	<p>To complete Phase 3 by end-1998</p> <p><i>(1996)</i></p>	<p>Phase 3 of the strategy was completed in December 1998.</p> <p><i>(Action Completed)</i></p>

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicators –

Indicator	1999 Target
Percentage of cases where supply can be resumed within 12 hours after interruption	90%
Number of leakage detection tests	4 500
Number of inspections of impounding and service reservoirs	860
Number of safety inspections	350
Number of inspections of major waterworks installations for compliance with environmental protection requirements	400

We will undertake the following initiative to deliver results in this area –

Initiative	1999 Target
To implement a replacement/rehabilitation programme for aged waterworks installations (WSD)	To complete the replacement/rehabilitation for – <ul style="list-style-type: none">● Kwai Shing Salt Water Pumping Station by 2000● Ha Lo Wai Salt Water Pumping Station by 2001

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Ensure the quality of water supplied to customers

The supply of clean water is essential to the health of the community. The Water Supplies Department (WSD) is responsible for ensuring that the treated water supplied to consumers is pure, safe and wholesome and conforms to the World Health Organization (WHO) standards in all respects and at all times. WSD is also responsible for ensuring that salt water for flushing meets the Department's Water Quality Objectives. Conformity with these standards is assured by regular water quality sampling and testing, and monitoring of the test results throughout the entire supply and distribution system, i.e., at source points, in various treatment stages and at consumers' taps.

Progress Made

In the past year, we aimed to ensure compliance of the quality of both fresh and salt water at connection points with WHO standards and WSD objectives respectively.

Progress in meeting the above target was satisfactory. New instruments have been commissioned and methods validated to enhance the water quality monitoring system. Frequency of patrolling local water gathering grounds and monitoring of water quality in Hong Kong's reservoirs has been stepped up. Procedures are also being formulated to ensure compliance with the quality assurance and laboratory safety requirements in water science laboratories by 2000.

To achieve results in this area, various initiatives have been undertaken in the past years. Details are set out below –

Initiative	Target	Present Position
To enhance control and monitoring of the water gathering grounds and reservoirs <i>(Water Supplies Department (WSD))</i>	To increase by 15% the frequency of patrolling the gathering grounds and monitoring of water quality in reservoirs by 2000 <i>(1998)</i>	Frequency of patrolling and monitoring has been stepped up, and will reach a 15% increase by 2000. <i>(Action in Progress: On Schedule)</i>

Initiative	Target	Present Position
To improve quality assurance and laboratory safety in WSD water science laboratories (WSD)	To achieve compliance with WSD's quality assurance procedures and laboratory safety procedures by 2000 (1998)	At present, internal audit on the accredited tests and their related corrective actions are being carried out. A preliminary study is being conducted with a view to setting up a laboratory safety manual. Compliance with the procedures is expected by 2000. (Action in Progress: On Schedule)
To improve the laboratory facilities in Pak Kong and Au Tau Treatment Works (WSD)	To complete the improvements by 1999 (1998)	Improvement works to Pak Kong and Au Tau Treatment Works Laboratories were completed in February 1999. (Action Completed)
To enhance the water quality monitoring system in 1998 in order to ensure compliance with the latest version of WHO's Guidelines for Drinking Water Quality (WSD)	To enhance the water quality monitoring system by end 1998 (1997)	New instruments have been commissioned and improvement methods have been validated. The monitoring system has been enhanced for compliance with the latest version of WHO's Guidelines for Drinking Water Quality. (Action Completed)

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicators –

Indicator	1999 Target
Percentage of fresh water samples tested in compliance with WHO standards	100%
Percentage of salt water samples tested in compliance with WSD objectives	100%

We will undertake the following initiatives to deliver results in this area –

Initiative	1999 Target
To enhance water quality monitoring (WSD)	To build the Kowloon Laboratory by 2000
To improve the water quality testing laboratory facilities at Sham Tseng and Yau Kom Tau treatment works (WSD)	To complete the improvement by 2001

6

Improve customer services in the provision of water supply

The Water Supplies Department (WSD) is responsible for the provision of efficient and effective services to some 2.2 million registered water consumers. To upgrade our services, we are improving efficiency and effectiveness in dealing with customer enquiries and complaints; publicising the customer services offered and information provided to customers; ensuring timeliness of billing and promptness in updating consumer account records; and promptly processing new consumer account applications. We will implement information technology systems and introduce business process re-engineering to improve the quality of services provided to customers.

Progress Made

In the past year, we aimed at reducing the time taken to process applications for change of account holder; reducing the response time for attendance to fresh water fault complaints; and giving adequate notices to consumers for planned suspension of water supply.

Progress in meeting the above targets over the past year was satisfactory. We have shortened the processing time of most of the applications for change of account holder. An Intelligent Telephone Call Centre has commenced operation. A new meter-reading service has been introduced on closure of account. We have been successful in maintaining a quick response time for attendance to fresh water supply faults. Adequate notices have been given for all the planned suspensions of water supply.

To further improve our customer service, a customer feedback survey was commissioned in June, for completion in December 1999.

To achieve results in this area, various initiatives have been undertaken in the past years. Details are set out below –

Initiative	Target	Present Position
To monitor customer feedback on WSD services <i>(Water Supplies Department (WSD))</i>	To conduct a customer opinion survey in 1999 <i>(1998)</i>	Tender for conducting the survey has been awarded. The survey will be completed in December 1999. <i>(Action in Progress: On Schedule)</i>

Initiative	Target	Present Position
To set up an Intelligent Telephone Call Centre to reduce waiting time for connection by customers (WSD)	To set up the Centre by 1999 (1998)	The Centre was put into operation in August 1999. (Action Completed)
To introduce a new service on closure of accounts by taking final readings instead of making estimates (WSD)	To make the new service available by 1999 (1998)	A new service on closure of accounts by taking final readings instead of making estimates was introduced in March 1999. (Action Completed)

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicators –

Indicator	1999 Target
Percentage of applications for change of account processed within seven working days	99%
Percentage of fresh water fault complaints responded to within half a working day	99%
Percentage of planned suspension undertaken with three days' notice in advance	99%

We will undertake the following initiatives to deliver results in this area –

Initiative	1999 Target
To improve IT systems and implement business process re-engineering for Customer Service Programme (WSD)	Implementation to start by 2000 and complete by 2003

Initiative	1999 Target
To introduce telephone applications for closing consumer accounts and change of mailing address (WSD)	To introduce the telephone application service by 2000

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Improve overall efficiency and reduce cost

In response to the Government's Enhanced Productivity Programme (EPP), efforts will be made to improve the cost effectiveness and efficiency of the Water Supplies Department (WSD). Measures will be introduced to improve the management of energy costs without affecting the level of services. A long term strategy for efficiency improvement of the WSD, including organisational change where appropriate, will be carefully formulated.

Progress Made

It has always been our aim to provide water supply services in an efficient and cost-effective manner. A number of initiatives have been introduced under this new Key Result Area with a view to achieving this target.

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicator –

Indicator	1999 Target
The cost-effectiveness of the provision of the services	To further enhance efficiency and reduce cost

We will undertake the following initiatives to deliver results in this area –

Initiative	1999 Target
To draw up a long-term strategy for efficiency improvement, including organisational change where appropriate <i>(Works Bureau)</i>	To decide on the broad strategy by early 2000

Initiative	1999 Target
<p>To improve the management of energy costs <i>(Water Supplies Department (WSD))</i></p>	<ul style="list-style-type: none"> ● To re-schedule the pumping pattern and make use of the lower electricity tariffs during off-peak periods to reduce costs by end-2000 ● To conduct an energy audit for major waterworks installations by 2002