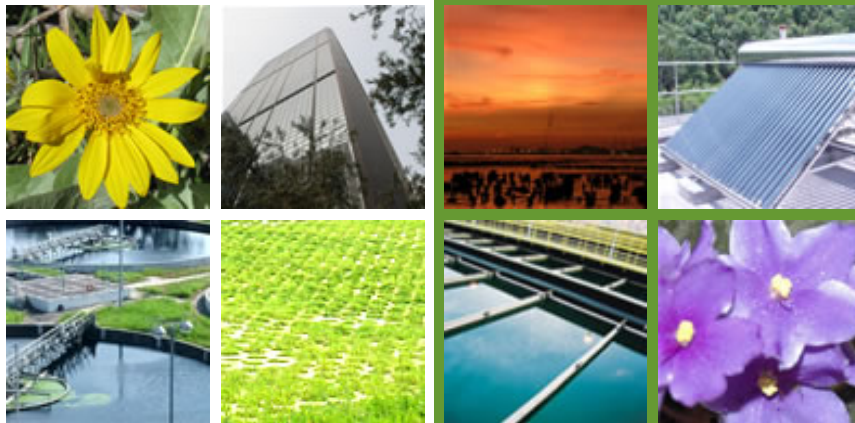


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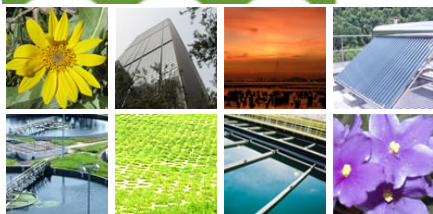
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please use Internet Explorer 6.0 or above at 1024 x  
768 screen resolution.

# 2007 Environmental Report



## Foreword

The Drainage Services Department (DSD) is committed to provide flood protection and sewage collection, treatment and disposal services to enabling sustainable development of Hong Kong.

This report describes a wide spectrum of our environmental performance in 2007, which includes a new section reporting the works under the Clean Air Charter. It also highlights our initiatives in providing sustainable drainage services. On sewage treatment, we have extended our works on effluent reuse and worked with the Environmental Protection Department to deliver the tertiary treated effluent from a pilot plant in the Shek Wu Hui Sewage Treatment Works to the nearby communities for trial use in toilet flushing. On flood protection, apart from improving existing drainage systems not meeting current flood protection standards and reducing the number of flooding black spots, we have been working with the communities concerned to improve the amenity value of nullahs. The nullah in Lung Chu Street, the Kai Tak nullah, and the Yuen Long Town nullah are projects of this type being implemented at various stages in 2007.

We obtained the ISO 14001 certificate in late 2007 to show our continuous commitment to enhance our drainage services in meeting the escalating demand of the society in an environmentally acceptable manner. Your feedback would help us re-examine the environmental issues from different perspective. Therefore, please share your views with us at enquiry @dsd.gov.hk.



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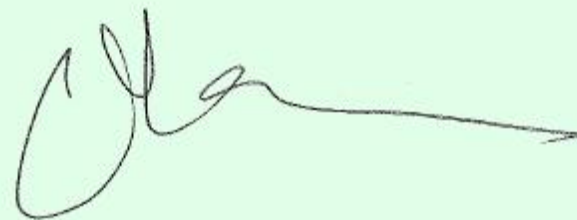
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A handwritten signature in black ink, appearing to read 'K. K. Lau', is positioned in the upper right quadrant of the page. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

K. K. Lau  
Director of Drainage Services

---

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## Vision, Mission & Values

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**我們的抱負、使命和信念**  
**Our Vision, Mission and Values**

**抱負 Vision**  
持此抱負為工作之動力及發展之動力，以促進香港的持續發展。  
To undertake the job with motivation and development objectives, promoting the sustainable development of Hong Kong.

**使命 Mission**  
以專業態度為香港提供中區及西區排水服務，確保員工、市民及環境的安全。  
To provide drainage services to the central and western districts of Hong Kong with a professional attitude, ensuring the safety of employees, citizens and the environment.

**價值 Values**  
誠信、專業、服務、責任、合作、創新、卓越。  
Integrity, Professionalism, Service, Responsibility, Cooperation, Innovation, Excellence.

**承諾 Commitment**  
以專業、誠信、負責、合作、創新、卓越。  
To provide drainage services with a professional attitude, ensuring the safety of employees, citizens and the environment.

**渠務署 服務熱線 2722 2222**  
Drainage Services Department, Customer Care Centre, 2722 2222

**渠署萬眾心連心 治水防洪衛萬民  
除污淨流港生輝 竭誠服務樂社群**

Poster on Vision, Mission and Values

In December 2007, DSD launched the New Vision, Mission, and Values of the department, which was one of the strategic management initiatives to address the escalating demand from the general public on improvement of drainage services and its environmental performance. An important element of the new Vision is to enable the sustainable development of Hong Kong.

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## Environmental Policy

We are committed to being environmentally conscious in all our activities and services and endeavour to serve the Hong Kong community with the best of our expertise in safeguarding human health, protecting and preserving natural ecosystems, thus contributing to the sustainable development of Hong Kong.

We aim to continually improve the quality of our services, and to alleviate as far as practicable the impact that our facilities and sewage and drainage systems impose on the environment of Hong Kong. To meet these objectives, we are committed to:

- Adopting state-of-the-art clean technologies and pollution prevention measures;
- Integrating sustainability considerations into the design, construction and operation of our facilities;
- Minimising and mitigating environmental impacts arising from the construction and operation of our facilities;
- Meeting all statutory and regulatory requirements on environmental performance that are applicable to the activities of the department; and
- Devising and conducting internal operations in an environmentally responsible manner.

We ensure that our Environmental Policy is communicated to all staff, our consultants and contractors, and is open to public scrutiny. Our staff are committed to upholding this departmental policy, obtaining the relevant training and deploying the necessary resources to enable its

implementation.



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## Environmental Policy & Goals

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## Environmental Goals

Our environmental goals are:

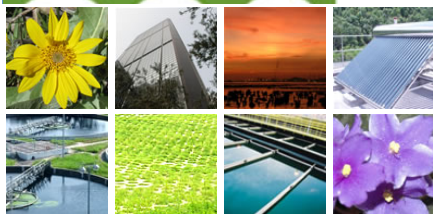
To provide and operate world-class sewerage/drainage systems and sewage treatment/disposal facilities to fulfil the growing needs of the local community and contribute to the sustainable development of Hong Kong.

To implement sewerage and sewage treatment/disposal programmes in a professional manner, in partnership with other Government establishments including the Environmental Protection Department, and to meet the Water Quality Objectives for Hong Kong waters.

To implement drainage and flood protection programmes in a professional manner to minimise flooding and to provide protection to local inhabitants, properties and the environment.

To apply the principles of Reduce, Reuse, Recycle and Recover in the consumption of materials and management of wastes and seek continuous improvement in the efficient use of natural resources and energy in all our operations.

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## Responsibilities

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Rain: Threat of Flooding

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DSD is responsible for flood protection, and collection and treatment of sewage in Hong Kong. On flood protection, the major activities include the planning and implementation of the drainage systems under each Drainage Master Plan, the river channel management in the New Territories, and the operation of flood protection facilities. On sewage collection and treatment, DSD designs, constructs, operates, and maintains sewerage system and sewage treatment plant with respect to the Sewerage Master Plan prepared by the Environmental Protection Department.

### Flood Protection

With an annual average rainfall exceeding 2,200 mm, one of the highest among the cities in the Pacific Rim, flooding is a serious concern in the low-lying areas of the northern New Territories and the old urban areas. DSD is tasked to reduce the risk of flooding and has been implementing a massive flood prevention programme. It includes the development of drainage tunnel, the training of river, the provision of village flood protection scheme, and the undertaking of urban drainage improvement works. To ensure that stormwater finds its way into the sea without causing flooding, DSD carried out maintenance works on 2,502 km of drainage channels and stormwater drains, and 27 village flood protection schemes in 2007. In addition to flood protection, DSD also helps prevent water pollution to the drainage systems and water bodies by providing and maintaining dry weather flow interceptors; and under emergency situation to clean up chemical spills in drainage systems.




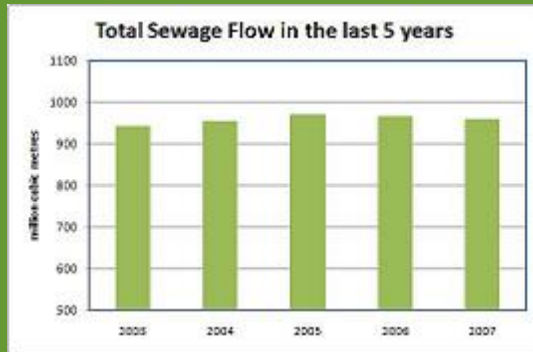
### Flood Monitoring and Reporting Control Room

[Click to enlarge](#) 



Keep Our Water Clean


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Sewage Quantity



Dry weather flow interceptor at Kai Tak nullah for diverting polluted flow to foul sewer.

[Click to enlarge](#) 

[Click to enlarge](#) 



Clean up of traffic accident spills in Ho Chung River

## Sewage Collection and Treatment

DSD collected and treated 960 million cubic metres of sewage in 2007. The facilities for handling the sewage include 69 sewage treatment works (STW), 209 sewage pumping stations, 44 submarine outfalls, 3 effluent disposal tunnels, and 1,546 kilometres of sewers.

Following the successful commissioning of the pilot scale tertiary sewage treatment plant at Ngong Ping in 2006 for effluent reuse, DSD continues her effort in supporting trial work in total water management. In 2007, we worked with the Environmental Protection Department on another pilot scale effluent reuse project in the North District. The tertiarily treated effluent from a pilot plant in the Shek Wu Hui Sewage Treatment Works was supplied to a residential area, one elderly centre, and three schools for toilet flushing purpose.

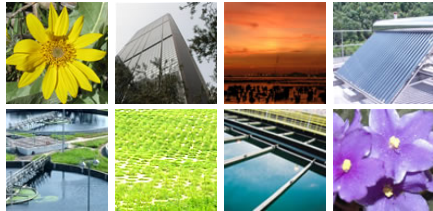


Pilot Plant for Effluent Reuse in Shek Wu Hui



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ISO 14001 Certification

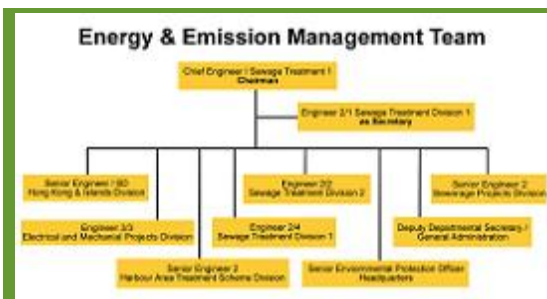
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Green Management Committee

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DSD employs approximately 2,000 staff, consisting 1,840 permanent establishment and 160 contract posts. There are about 300 professional staff, 1,100 technical and general staff, and 600 frontline staff and direct labours. The department is divided into four branches - Projects and Development, Operations and Maintenance, Electrical and Mechanical, and Sewerage Services. Each branch is headed by an Assistant Director. The Deputy Director chairs a Green Management Committee to formulate and review the environmental policies and environmental goals of the department, and it also monitors the performance of environmental targets, and promotes staff awareness and involvement in protecting the environment. The Committee is represented by the Management Representative or Deputy Management Representatives of each Integrated Management System under which the environmental policies are implemented and monitored. A green manager at the Assistant Director level with assistance from a senior professional and the department administration oversees and coordinates the day-to-day green issues.



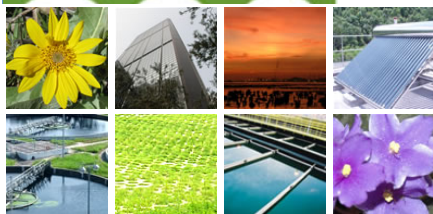
Energy and Emission Management Team

To maintain and enhance the environmental performance of the department, DSD started developing seven environmental management systems (EMS) for all aspects of her operations in 2006. The seven EMS covers headquarters; the operation and maintenance branch; the sewage services branch; the sewerage projects and drainage projects divisions, the consultants management, project management and harbour area treatment scheme divisions; the sewage treatment division 1 and 2; and the electrical and mechanical projects division. With the help of the consultants and the full support of the staff, DSD obtained seven individual certificates and a corporate certificate for the environmental management systems under ISO 14001 in November 2007. The integrated ISO 9001 and ISO 14001 management systems help us deliver quality work in an environmentally responsible manner.

In supporting the Clean Air Charter, a business-led initiative for better air quality in Hong Kong and the Pearl River Delta, DSD formed an Energy and Emission Management Team (EEMT) in early 2007. The team is headed by a Chief Engineer and is represented from each branch at the senior professional level to drive the initiatives on energy saving and emission reduction at all front of our operations.


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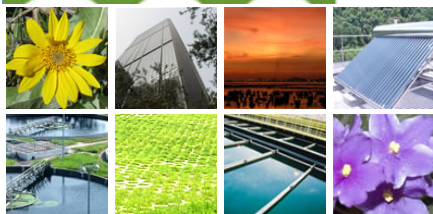


Our vision is to provide world-class wastewater and stormwater drainage services enabling the sustainable development of Hong Kong. We are therefore mindful that our operations would exert pressure on the environment. Odour and energy consumption are two major concerns in 2007.

This chapter presents our performance on improving the water environment, as well as other aspects of environmental quality that may have been impacted by our operations. The major areas of the presentation are:

- Achievements in Sewage Treatment
- Environmental Compliance and Monitoring
- Ecological Enhancement
- Conservation of Resources
- Progress of Clean Air Charter

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### Distribution of Levels of Sewage Treatment 2003-07



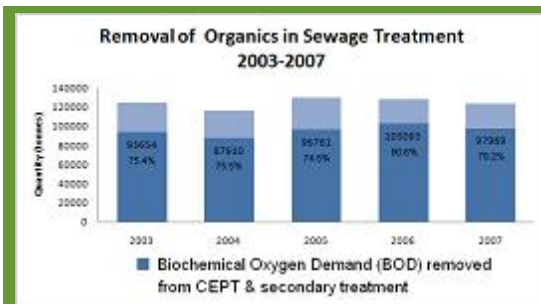
### Distribution of Levels of Sewage Treatment

Click to enlarge 

## Achievement in Sewage Treatment

In 2007, we operated 69 sewage treatment works with different levels of treatment throughout Hong Kong ([details](#) are shown at our website, [www.dsd.gov.hk](http://www.dsd.gov.hk)). The treatment level depends primarily on where the effluent is discharged into, as different water bodies in Hong Kong have different waste assimilation capacities and beneficial uses. The major pollutants removed from the sewage in our sewage treatment works are organic materials, often measured as biochemical oxygen demand (BOD), and suspended solids (SS). In certain areas, nutrients such as nitrogen that promote the growth of aquatic plant are removed to prevent algal bloom. In 2007 we removed about 98,000 tonnes of BOD, 133,000 tonnes of suspended solids, and 4,700 tonnes of nitrogen.

The pollutants removed from sewage produced 814 tonnes of sludge per day, or about 300,000 tonnes for the whole year. The sludge was dewatered to reduce its volume before it was sent to landfills for disposal. This saves landfill space and helps extend the life-span of our landfills. Other than sludge, screenings and grit were also removed from sewage treatment. In 2007 we disposed of about 297,000 tonnes of dewatered sludge, 21,000 cubic meters of screenings, and 6,600 cubic meters of grits.



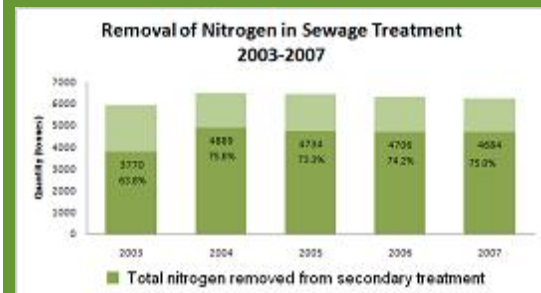
Removal of Biochemical Oxygen Demand

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Removal of Suspended Solids

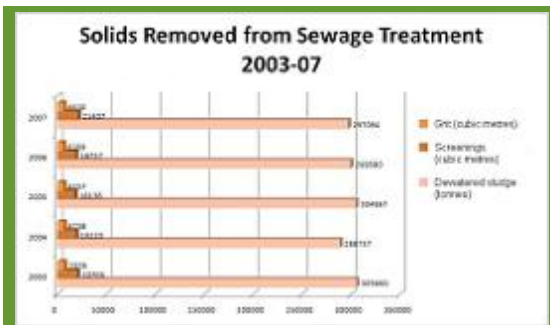
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Removal of Total Nitrogen

[Click to enlarge](#)

To further improve the water quality of the Victoria Harbour, DSD awarded a \$68.3 M consultancy contract in August 2007 to carry out the investigation, design and construction stage services for construction of a 21-kilometer long sewage tunnel systems, upgrading of the Stonecutters Island Sewage Treatment Works (SCISTW) with disinfection facilities and eight preliminary treatment works under the Harbour Area Treatment Scheme (HATS) Stage 2A. It was planned to advance the construction of part of the disinfection facility at SCISTW for completion by the end of 2009 to facilitate the early re-opening of the beaches in the Tsuen Wan area. Currently, there are 35 sewage treatment plants with disinfection facilities treating 126,000 m<sup>3</sup> of sewage per day. We added a large scale UV disinfection facility at Siu Ho Wan Sewage Treatment Works in 2007, and plans are in hand to install two UV systems at Ta Po and Shatin Sewage Treatment Works in the near future.

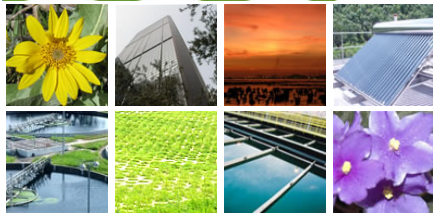


Solids Removed from Sewage Treatment

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Analysis of Wastewater Sample

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## Environmental Compliance and Monitoring

The sewage treatment plants that we operate are all licensed under the Water Pollution Control Ordinance, and some have additional control under the Environmental Impact Assessment Ordinance. Each month, self-monitoring results of the performance of the sewage treatment works are provided to the Environmental Protection Department for compliance check. In 2007 the number of non-compliance case reduced to only one in a small scale outlying sewage treatment plant, and the problem was rectified immediately.

In our construction sites, a contractor was convicted of two environmental offences in 2007. One related to the discharges of muddy water and the other one related to construction dust. In addition, there were six environmental offences spotted in other construction sites. Three of them were related to compliance of requirement of opening a billing account under the Construction Waste Disposal Charging Scheme. We noticed that there was room for improvement in environmental compliance and had initiated preventive and corrective measures under our Environmental Management System.



Tidy Construction Site

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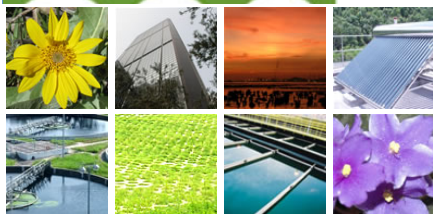


Automatic Wheel Washing

To promote responsible behaviour at our construction sites, DSD continued to operate the "Construction Sites Housekeeping Award Scheme" in 2007. All contracts that had an active construction period of 6 months or more within the assessment period (from January to October, 2007) were included in the Scheme. Each construction site was visited four times by senior professional staff or chief engineer for assessment. The contractors and the consultants/in-house site supervisory staff engaged in the same contract had been working as a team in upholding their effort to keep DSD's sites clean, tidy, hygienic and environmentally friendly.

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Yuen Long Town Nullah

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## Ecological Enhancement


Apart from providing sufficient hydraulic capacity to prevent flooding, drainage channels are now expected to blend in with the environment and help enhance the quality of life of a community. DSD has been taking every opportunity to work with many different communities through various District Councils to introduce ecological features in our drainage channels. From 2004 to 2007, DSD had planted about 40,000 trees and 800,000 shrubs, and had created more than 40 hectares of wetland or fish pond in our projects.

In 2007 DSD commissioned a consultancy study to examine the feasibility of rehabilitation of the Yuen Long Town nullah with a view to identifying areas in which the existing concrete drainage channel can be modified for additional beneficial uses without increasing the risk of flooding.

On another front, some nullahs in the urban area are decked to reduce odour nuisance, and to provide land for other uses. The Lung Chu Street nullah is one of them. A special feature of this project is the preservation of eleven wall trees. To meet such a special requirement, DSD had amended the alignment and shape of the box culvert in decking the nullah, and used small machines for the construction works.




Wall Trees at the Lung Chu Street Nullah

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Retaining of Wall Tree in Nullah Decking

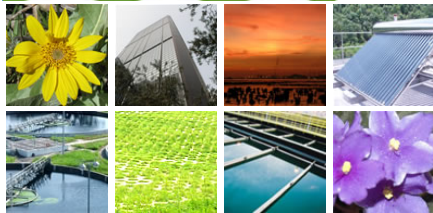
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Green roof of the Wan Chai East Sewage Screening Plant

Green roof and landscape have become standard items that must be considered by DSD staff and our Consultants in all projects. The green roof of the Wan Chai East Sewage Screening Plant was completed in 2007, and there are 56 more green roofs in our facilities under various stages of planning and construction.

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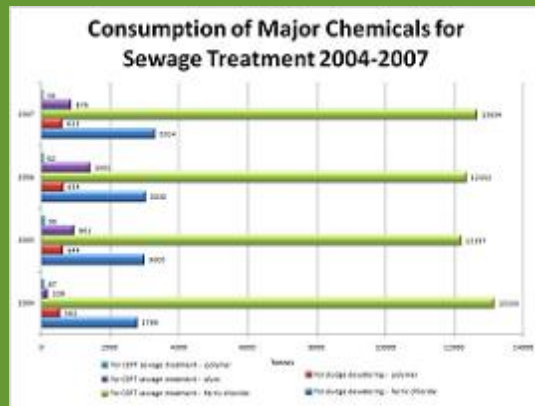


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Consumption of Major Chemicals for Sewage Treatment

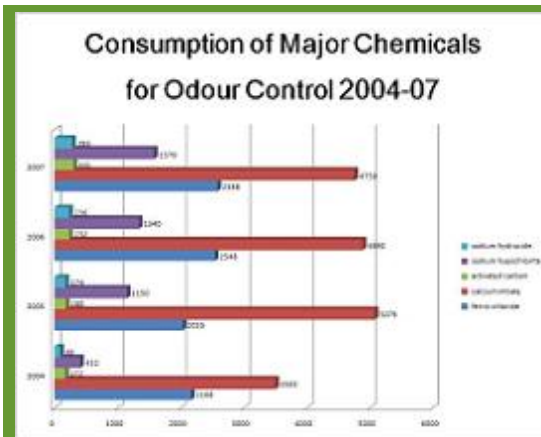
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## Conservation of Resources


### Plant Operation

Energy and chemicals are the two major resources that we consumed in our plants. The conservation of energy will be discussed under the "Progress of Clean Air Charter" in the next section. Chemicals are used in sewage treatment to facilitate the removal of suspended solids and tiny organic particles. The chemical enhanced primary treatment at the Stonecutters Island Sewage Treatment Works is a typical example. Chemicals are also used for odour control and sludge dewatering.

Mindful of the escalating demand for chemicals, DSD continued the chemical audit in 2007. The findings of the audits at the Cyberport STW and Shek Wu Hui STW indicated that alum could be saved by 25% and sodium hydroxide by 30%, respectively. There was an increase in the use of ferric chloride and a decrease in the use of alum in 2007. This was a result of using ferric chloride to replace alum in the Siu Ho Wan STW for odour control.




Consumption of Major Chemicals for Odour Control

Click to enlarge 



Useful Stationery from Unwanted Materials

Click to enlarge 



Reduced Lighting in Office

## Green Office

DSD offices are green. We continue our efforts in conservation of resources in our offices. We set our room temperature at 25.5 C, use recycled paper and recycle printer cartridges and fluorescent lamps. Our environmental inspection teams check and remind staff to turn off the computers and the peripheral devices when they are not in use. The lighting intensity in our offices are reduced to save energy, but adjusted to sufficient level to suit individual requirement. On the use of paper, we further reduced the consumption in 2007 by 9% from 15,437 reams to 14,046 reams, in which 96% was recycled paper. Two campaigns to promote staff awareness on environmental protection were held in 2007, one aimed at green slogan, and the other encouraged creativity in converting unwanted materials for household or office use.

	2003	2004	2005	2006	2007
Paper consumed (reams)	17300	18800	15789	15437	14046
Waste paper collected (kilograms)	9290	10960	23733	23326	15145
Paper consumed per staff (reams)	8.8	9.7	7.7	7.7	7

Paper Consumption and Recycling

蠅•蝮•啤•?•唬?•曝•??•移?•勗?•毆••

Green slogan from staff

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Use of Solar Energy in Sewage Treatment Plant

Click to enlarge 

## Clean Air Charter

Following the signing of the Clean Air Charter by the Chief Executive of Hong Kong SAR Government in November 2006, DSD formed an Energy and Emission Management Team in early 2007 to implement the commitments of the Charter.

### Energy Saving

In 2007 DSD saved an extra 0.91 million kWh of energy in addition to the early saving of 2.5 million kWh in 2006, and 1.76 million kWh in 2005. These savings were achieved by implementing a number of energy saving measures, such as the replacement of "fat tube" fluorescent lamp with T5 lamp, the use of variable speed drive and high efficient motor for pumping of sludge, the adjustment of lighting in plants, and the additional use of solar energy and biogas.


Click [Here](#) for Highlight of 2007 Energy Saving Measures

Furthermore, process modification plays an important role in energy saving. We investigated the operation mode of an inflatable dam in the Yuen Long Bypass Floodway to balance the energy demand for pumping, the level of flood control, pollution prevention, and downstream irrigation requirement. We came up with a "5-day economic" pumping mode of operation by the end of 2007, which would save 120,000 kWh of energy per year.

On gas emission side, we understand biogas generated from the anaerobic digestion of sewage sludge is an alternative source of energy. The utilization of one cubic metre of biogas to generate heat and power, on average, would save 3.3 kWh of energy and that is equivalent to




Inflatable Dam for Pollution Control and Irrigation

Click to enlarge 



Use of Hybrid Vehicle



Click to enlarge 

reduce the emission of 2.3 kg CO<sub>2</sub> from the power utilities. In 2007 we made use of six million cubic metres biogas for heat and power recovery, and this measure alone reduced the emission of 14,000 tonnes of CO<sub>2</sub>. Having the experience on a successful operation of the combined heat and power generator using the local biogas, we would install additional equipment in the next few years to maximize the use of such alternative energy from our sewage treatment works.

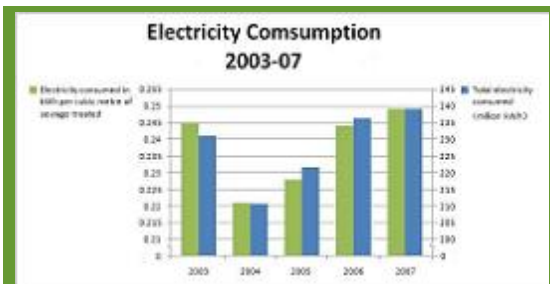
### Odour Reduction

Odour is another emission from sewage collection and treatment that needs to be addressed. Sewage by its nature is offensive. However, there are several factors that amplify this odour problem in Hong Kong. First, new residential area is moving closer and closer to the sewage treatment facilities when the new town is growing in size to accommodate more people. Second, a larger town area means that sewage would stay longer in the collection system before it reaches the sewage treatment plant. The long detention time together with the high temperature in the summer months make it an ideal situation for anaerobic bacteria to grow and produce rotten smell in the sewage collection system and the sewage treatment plant.

DSD tackles the odour problem by adding chemicals in pumping station to prevent the production of hydrogen sulfide by the anaerobic bacteria. In our sewage treatment works, we cover the surface from which odour is generated and purify the air by wet chemical scrubber, activated carbon or bio-trickling filter deodorization system. Unfortunately, these systems are energy demanding. There was about 1% increase in total electricity consumption in 2007, which reflected that additional energy was needed in meeting the escalating demand in drainage services, such as odour control in sewage treatment and pumping in flood control.

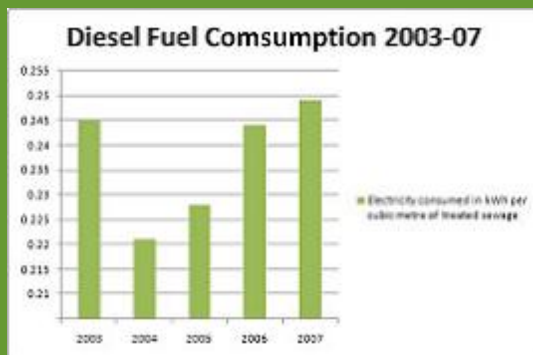
On emission from vehicles, we adopted the use of hybrid vehicles in our works contract and we also required all vehicles to turn off the idle engines in our plants and construction sites.





Electricity Consumed 2003-07

[Click to enlarge](#)



Diesel fuel consumed for driving fuel engines

### Energy Consumption 2003-07

	Total electricity consumed (million kWh)	Electricity consumed in kWh per cubic metre of treated sewage	Diesel fuel consumed for driving dual fuel engines (m3)
2003	231	0.245	2478
2004	210.7	0.221	2559
2005	221.7	0.228	2436
2006	236.2	0.244	2403
2007	239	0.249	2381

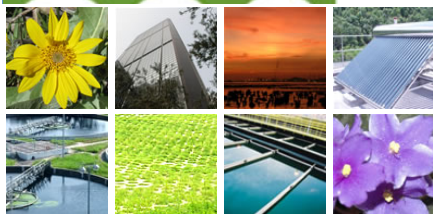
Energy Consumption (Data)

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## Highlight of 2007 Energy Saving Measures

ITEM	SAVING IN 2007
Installation of biogas CHP in Shek Wu Hui STW with saving carried forward to 2007 since its operation in March 06.	346,982 kWh
Adjustment of the drop shaft level of Main Pumping Station of SCISTW	181,250 kWh
Extension of operating hours for Deodorizers on "LOW SPEED" instead of on "HIGH SPEED" at Tsing Yi PTW	82,606 kWh
Implementation of energy saving initiatives recommended in the audit report for effluent pumping station in Sha Tin STW	79,000 kWh
Replacement of high efficiency lighting including T5 lamps at various sewage treatment & flood control locations	48,033 kWh
Lighting improvement at Sedimentation Tank at SCISTW	40,741 kWh
Replacement of existing air blowers with high efficiency ones at Kwai Chung PTW	25,945 kWh
Replacement of two existing sewage pumps with high efficiency pump motor at Tai Po Kau sewage Pumping Station	15,600 kWh
Replacement of more effective and energy saving out-door pole lamp and revise the control circuit in SCISTW.	14,667 kWh
Installation of speed control for pumping systems at various sewage treatment & flood control locations	14,574 kWh
Implementation of 5-day delay pumping energy saving mode for Yuen Long LFPS by utilizing the by-pass channel.	11,000 kWh
Reduction of the operation time of lighting of Cake Silo Zone at SCISTW.	10,500 kWh
Installation of solar water heating system at Shek Wu Hui STW	8,100 kWh

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## Stakeholder Engagement

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Extensive Public Interest in Shatin Sewage Treatment Works

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## Staff Training


DSD continues to provide training to staff to refresh and update their environmental knowledge, and to enhance their environmental awareness and competency. In 2007 we supported 73 staff to attend nine training courses on the topics of air pollution control, waste management, energy conservation, tree preservation, environmental compliance and other special environmental subjects. To cope with the development and implementation of ISO 14001 environmental management systems in DSD, we provided ISO 14001 awareness training courses for all staff in 2007, and provided additional training to 318 staff on internal audit relating to ISO 14001.

## Community Engagement

DSD maintains effective communications with the external stakeholders as they provide useful feedback to us to help minimizing the impact of our operations on the environment. In 2007 we continued to engage the green groups, academia, professional organizations, District Council Members, and LegCo members on our projects. Our director had attended meetings at six District Councils to update members on our works and listen to their concern on drainage services. A meet-the-media function was organized to enhance our communications with the press. Rehabilitation or decking of nullah and odour are two major concerns of our stakeholders in 2007. Their views provide us with insight for planning our works to address their expectations. Additional description on stakeholder engagement activities could be found in our [Annual Report](#).



Open Day Poster

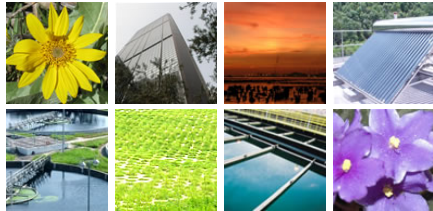
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Meeting with Academia and Green Groups on Nullah Rehabilitation

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## Environmental Targets



Greening of drainage channel

### 2007 Achievement of Environmental Targets

Environmental targets are set each year as a tool to help colleagues to focus on the environmental quality that is of major concern of DSD. They are also important elements in the "Plan-Do-Check-Act" management cycle for continuous improvement.

Click [Here](#) for Achievement of Environmental Targets

Click [Here](#) for Environmental Targets for 2008

## Performance of Environmental Targets in 2007 (Reporting Period: Jan 1 to Dec 31)

Environmental Targets 2007	Performance	Remarks
<b>A. Energy Conservation</b>		
A1. To implement energy saving measures in ST1 & ST2 to achieve further energy saving of 0.9 million kWh	Target met	Actual saving in 2007 was 0.91 million kWh
A2. To conduct an energy audit at offices in Revenue Tower, Kowloon Government Office & Western Magistracy to identify energy saving opportunities	Target met	Energy audits at Revenue Tower, Western Magistracy Building and Kowloon Government Office were completed
<b>B. Chemical Consumption</b>		
B1. To carry out one audit on chemical consumption in each division to identify areas for further saving ST1 - Chemical Audit for Shek Wu Hui STW ST2 - Auditing of alum consumption at Cyber port STW	Target met	Chemical audits for Shek Wu Hui STW and Cyberport STW were completed
<b>C. Paper Conservation</b>		
C1. To reduce annual paper consumption to 16,200 reams, i.e. 98% of 2006 allocation level	Target met	14,046 reams of paper, which was 87% of the annual quota, were consumed
<b>D. Waste Reduction &amp; Recovery</b>		
D1. To recycle 80% of printer cartridges consumed in all offices	Target met	The recycling rate of printer cartridges was 98%
D2. To recycle 70% of rechargeable batteries used in plants	Target met	The recycling rate of rechargeable batteries was 100% in plants
<b>E. Green Procurement</b>		
E1. To use recycled paper up to a level of 80% of DSD's total printing paper consumed	Target met	96% of the total printing paper consumed was recycled paper
<b>F. Environmental Compliance</b>		
F1. To aim at achieving full compliance with legal environmental requirements at our sewage treatment works and sewer and land drainage systems	Target largely met	There was 1 non-compliance at Kam Tin Market SBR plant on 8 Nov 07 with E.coli result exceeded the maximum standard
F2. To closely supervise our construction sites aiming at full compliance with legal requirements	Target partially met	Seven offences spotted; three under Construction Waste Disposal Charging Scheme of WDO, one under NCO, and three under APCO. One conviction under WPCO for an offence spotted in 2006. Another conviction under APCO for an offence spotted in 2007.
<b>G. Ecological Enhancement</b>		
G1. To plant a cumulative total of 39,000 trees and 760,000 shrubs from 2004	Target met	Beginning from 2004, a cumulative total of 39,726 trees and 802,053 shrubs were planted
G2. To create/restore a cumulative total of 40 ha of wetland/fish ponds from 2004	Target met	Beginning from 2004, a cumulative total of 40.4 ha of wetland/fish ponds were created/restored
<b>H. Environmental Management System</b>		
H1. To obtain seven ISO 14001:2004 certificates	Target met	All seven EMS certification audits were satisfactorily completed in August and certifications were subsequently awarded.
<b>I. Environmental Awareness</b>		
I1. To organize two in-house green campaigns to promote staff awareness and active participation in greening activities	Target met	Two green campaigns were successfully organised in January and June 2007

## Environmental Targets 2008

### A. Energy Conservation

A.1 : To reduce energy consumption by 0.5% in 2008, this means an energy saving of 1.1 million kWh.

### B. Chemical Conservation

B.1 : To carry out two chemical audits to identify areas for chemical saving in wastewater treatment.

### C. Paper Conservation

C1 : To reduce annual paper consumption to 16,000 reams.

### D. Waste Recovery

D1 : To recycle 85% of printer cartridges consumed in all offices.

D2 : To recycle 85% of rechargeable batteries used in plants.

### E. Green Procurement

E1 : To use recycled paper up to a level of 85% of DSD's total printing paper consumed.

### F. Environmental Compliance

F1 : To aim at achieving full compliance with legal environmental requirements at our sewage treatment works, and stormwater and sewage collection systems.

F2 : To closely supervise our construction sites aiming at full compliance with legal requirements.

### G. Ecological Enhancement

G1 : To plant a cumulative total of 41,000 trees and 815,000 shrubs from 2004.

### H. Environmental Awareness

H1 : To organize two in-house green campaigns to promote staff awareness and active participation in greening activities.