

**Islands District Council**  
**Paper IDC 101/2008**

**Director of Water Supplies' Visit to Islands District Council  
on 18 August 2008**

**Replacement and Rehabilitation of Water Mains Programme**

**Briefing Notes**

**Background**

Hong Kong's fresh water and salt water supplies are provided through a network of about 7,700 km water mains (6,100 km fresh water mains and 1,600 km salt water mains). A substantial portion of the water mains was laid in more than 30 years ago. Water Supplies Department (WSD) carried out an Underground Asset Management Study in 1997, which recommended the implementation of an Asset Management Plan (AMP). Under the AMP about 3,000 km of aged water mains would be replaced or rehabilitated in 20 years by stages. The Replacement and Rehabilitation of Water Mains Project (the Project) was started in 2000. In order to reduce the inconvenience to the public due to frequent main bursts and leaks, WSD carried out a review in 2005 and recommended to accelerate the Project and shorten the programme from 20 years to 15 years.

**Objectives**

The objective of the Project is to replace or rehabilitate about 3,000 km of aged water mains to be completed in 15 years by 4 stages (from 2000 to 2015). The total project cost is estimated at \$19.2 billion.

**Benefits**

The Project would enhance reliability of supply, reduce main bursts and leaks and hence the loss of precious water.

### **Progress of Works in Islands District (as at 31.7.2008)**

The progress of the replacement and rehabilitation of water mains as at 31.7.2008 are summarised in the table below.

Stage	Contract No.	Length (km)	Commencement Date	Completion Date	Progress
Stage 1 Phase 1	15/WSD/02	7.0	Mid 2003	Mid 2005	100 %
Stage 2	2/WSD/07	16.0	Mid 2007	End 2010	9%
	3/WSD/07	14.0	Mid 2007	Mid 2010	27%
Stage 3	18/WSD/08	18.5	Early 2009	End 2013	Under Design
Stage 4	--	52.1	Early 2011	End 2015	Under Planning
Total	--	107.6	--	--	--

### **Traffic Impact (Mainly applicable to Lantau Island)**

In order to minimize the traffic disturbance during the implementation of the Project we would enhance communication and co-ordination among government departments and utility undertakers. We would also co-ordinate among all stages of works to minimize the number of repeated road openings in the same area. Trenchless technology would be adopted as far as practicable for the works to minimise the number and extent of road openings.

### **Environmental Impact**

We would undertake detailed environmental review and address key environmental concerns including noise and dust prior to the works. We would also strengthen site supervision to ensure compliance of statutory requirements.

## **Communication with the Public**

We would establish 24-hour telephone hotlines to receive complaints and enquiries and would handle them promptly and effectively. We would also establish resident liaison teams to liaise on a daily basis with Islands District Councilors and affected customers, such as business operators and property management offices. The sensitive customers such as schools, hospitals and home for the elderly would be consulted concerning the works schedule and water suspension arrangement. Works commencement notices and water suspension notices would be served timely to minimise inconvenience to the affected community. We would consult District Councillors, attend meetings of District Councils and their working groups and report progress to District Councils regularly. Apart from this we would arrange roving exhibition to promote the Project during which latest technology used for the project would be explained. Pamphlets about the Project would also be prepared and distributed on various occasions. We would also update the information and progress of the project at our web site.

## **Impacts on the Consumers**

Interruption of supply is inevitable when the new or rehabilitated water main is put into service and new connections are made to the consumers. We would nevertheless exert our best to minimise the frequency of supply interruption by good scheduling of works and would strive to keep each suspension of supply within 8 hours with 3-day advance notice provided. Whenever practicable, we would install temporary water mains to maintain supply and avoid interruption of supply to the consumers.

## **Matters of Concern**

The scale, extent and duration of the Project are unprecedented. The fact that many of the water mains are under very narrow village roads with congested underground utilities leads to further challenge. However, we would strive to expedite the progress of works taking into account all constraints and prevailing circumstances.

## **Details on Current Progress**

The Stage 1 works in the Islands District have been satisfactorily completed. The Stage 2 works is being implemented under two works contracts, i.e. Contract No. 2/WSD/07

and 3/WSD/07.

***Contract No. 2/WSD/07***

It was commenced in end September 2007 for completion by end 2010. It includes the replacement and rehabilitation of about 16 km of cross-country water mains with sizes ranging from 250 mm to 450 mm in diameter. The works will be carried out at Chi Ma Wan Road, Shui Tseng Wan, Wang Tong, Shap Long Chung Hau, Cheung Sha Wan and Ha So Pai. Fresh water supply to Cheung Chau Island is provided via these cross-country water mains and a submarine pipeline across the Adamasta Channel. Upon completion of the works, the interruption of supply to the Cheung Chau due to main leaks and bursts at these cross-country water mains will be minimised.

***Contract No. 3/WSD/07***

It was commenced in end August 2007 for completion by mid 2010. It includes the replacement of about 14km of water mains with sizes ranging from 25 mm to 300 mm in diameter. The works at Cheung Chau started at Don Bosco Road. It would be followed by works at San Hing Street, School Road, Tai Tsoi Yuen Road, Tai San Street, Hill Side Road, Cheung Chau Beach Road and Cheung Kwan Road. The works at Sun Ki Street and Kat Hing Back Street near the stilted houses of Tai O commenced in December 2007 and was completed satisfactorily in April 2008. The main laying works are now being carried out at Lung Tin Estate and San Tsuen at Tai O.

**Water Supplies Department**

**August 2008**