

Phocus.sms reducing leakage in Hong Kong

Case Study PSMS/CS/UK/01

Introduction

Since early 2009 *Waterland Technology Development* has been employed by the Water Supplies Department of Hong Kong Special Administrative Region (WSD) to carry out leak detection monitoring work on the water mains located in sensitive areas. The Phocus.sms noise logger, designed and manufactured by Primayer, was chosen as the tool for detecting leakage. WSD has to date purchased over 1000 units of this noise logger and these are installed on Hong Kong Island, Kowloon and New Territories.

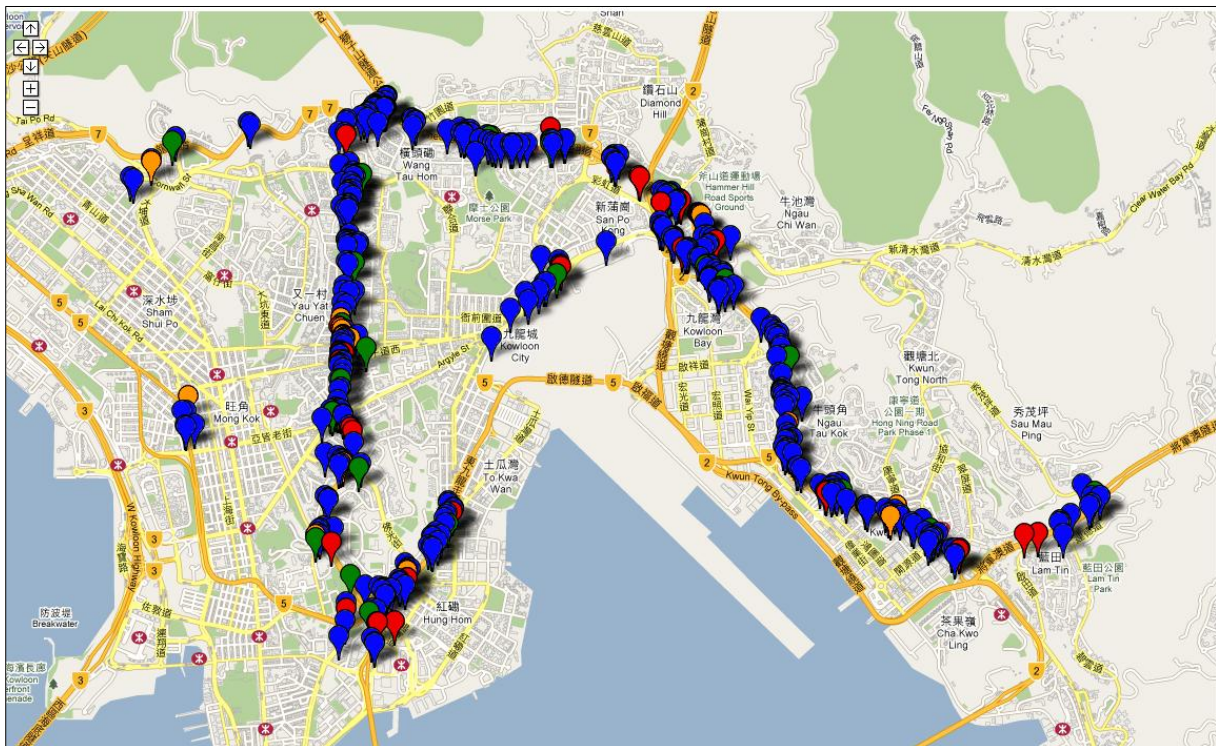


SMS Technology

The loggers are simple to install. When a leak is detected SMS technology is used to send an alarm message. The leak is then localised by comparing the loudness of leak noises detected by the loggers. Phocus.sms provides maximum effectiveness by making three overnight sound samples hence minimising false leak alarms and reducing water loss in a cost effective way. Data can be viewed in report format or on a clear mapping interface using *Google Maps™* on any PC (with standard internet browser). Further notification to engineers is provided by SMS and internet alarms.

Operations

Waterland Technology Development monitors and analyses alarms received from the Phocus.sms noise loggers on a daily basis, alerting the WSD engineers immediately of any suspected leaks. When a noise logger generates an alarm a site inspection is carried out prior to any leakage location work to investigate possible causes of suspected leaks.



Location of Phocus.sms showing leak indication

A review is also carried out of any necessary adjustment on the noise alarm threshold setting of the loggers. This is to evaluate if the setting is found to be too sensitive, to trigger alarms of suspected leaks, based on the results of the leakage detection work and the data received from the SMS noise loggers.



Sample locations and installations for Phocus.sms

Reduced leak 'run-time'

Use of SMS technology is a major step forward in tackling leakage. Phocus.sms provides instant information direct to the user's PC or mobile telephone. Thus less water is wasted and small leaks do not have the opportunity to become more severe fractures of the mains, with the potential for high costs to repair and poor customer service. Alternative systems have relied upon operators regularly driving by the installed loggers to collect data. This means a lot of resource is expended and delays can result in recognising leaks. As the labour and capital expenses are ongoing, the true cost of ownership of such systems is high as compared to Phocus.sms.

Results

In Hong Kong over 70% SMS alarms were a true leak alarms and have been rectified by WSD. Due to this outstanding performance the burst record has decreased and the environmental impact is also decreased. The time taken to detect leaks was very significantly lower than using traditional methods - resulting in much faster intervention times and a large efficiency improvement.

Primayer Limited

Primayer House, Parklands Business Park, Denmead, Hampshire, PO7 6XP, United Kingdom

T +44 (0)23 9225 2228 F +44 (0)23 9225 2235

sales@primayer.co.uk www.primayer.com

Registered in England No. 2959100 at above address

