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## CHANGES ON STRATEGIC PLANNING FOR SLOPE LEAKAGE DETECTION – HONG KONG STUDY

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### Abstract:

Landslip is a major challenge for Hong Kong Government over the years as it always menace with human life and capital loss. With recall to the landslip disaster at Kwun Lung Lau in the western district of Hong Kong on 23<sup>rd</sup> July, 1994, totally a figure of 3 deaths and a significant number of serious injuries were attained. Besides, the retaining wall outside Kwun Lung Lau Estate and the temporary market underneath the retaining wall were severely damaged. An investigation team was immediately established to explore and unveil the causes of such serious but preventable disaster.

The investigation report concluded that the leakage of nearby buried drains was the key factor for the tragedy and advocated that it is essential to develop a program for direct monitoring and maintenance of those buried water-carrying services that might affect the slope stability.

Therefore, a structured guideline called “Code of Practice on Inspection and Maintenance of Water Carrying Services affecting Safety of Slope” was published in 1996 by the Works Branch of Hong Kong Government and signed by Ir H. S. Kwong, the former Secretary for Works (retired in 1999). The code of practice provides a rule-of-thumb for the slope owners to safeguard their properties through regular inspection and testing on those buried water-carrying services that affect the stability of slope.

In fact, leakage detection is not a new concept but with a long history with Water Supplies Department. The key concern in the old days was emphasized on the inspection of city mains for the aims of water saving and coping with limited water supply before an agreement was reached with PRC Government. The Kwun Lung Lau calamity suddenly arose the awareness on the importance of leakage detection under slope. Such transformation facilitates a change of planning in business strategy in many companies so as to fulfill the need of forthcoming business.

However, the increasing demand of leakage detection survey works makes more and more companies entered the market, and hence leads to a diversification of the ‘standard’ of survey. This paper aims at describing how the companies would deal with such situation in terms of safety, quality and quantity aspects. Furthermore, the changes of strategy that the companies planned, adopted and implemented are also illustrated.