

Beach Water Quality Forecast

泳灘水質預報

Swimming in fecal-contaminated water may result in gastrointestinal and skin illnesses. The most commonly used and internationally accepted water quality indicator of fecal pollution is *Escherichia coli* (*E. coli*). Epidemiological studies of swimmers at Hong Kong beaches have demonstrated a strong relationship between the level of *E. coli* and the incidence rate of swimming-associated illnesses. The Environmental Protection Department (EPD) of The Government of the Hong Kong Special Administrative Region has been monitoring the water quality of Hong Kong's bathing beaches since 1986. Beach closures and advisories are issued according to *E. coli* level.

在香港及國際進行的流行病學研究顯示，泳客因游泳而感染腸胃或皮膚疾病的機會，會隨著水中大腸桿菌含量的上升而顯著增加。因此，香港目前使用大腸桿菌含量作為泳灘水質評級的標準。

The WATERMAN system delivers daily beach water quality forecasts for all key Hong Kong beaches based on the most updated hydro-meteorological data, data-driven hydro-informatics tools and deterministic 3D hydrodynamic and water quality modelling. This will substantially enhance Hong Kong's capacity to issue beach advisories based on the best scientific knowledge. Worldwide this will be one of the first prototype systems for marine beaches; this will enhance the protection of public health and the proper use of beach resources, and significantly enhance the international image of Hong Kong.

WATERMAN 系統結合最新的水文氣象數據、水文信息模型和三維水動力及水質模型為香港泳灘提供每天的水質評級。這個先進的海岸泳灘水質預報系統有助保障公眾健康，以及提升香港的國際形象。



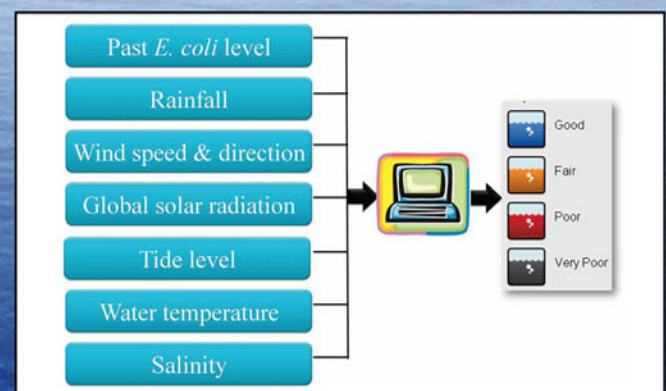
Online beach water quality forecast 網上泳灘水質預報系統

The screenshot shows the website interface for the Big Wave Bay Beach forecast. It includes a navigation menu, a main content area with a beach photo, a forecast for 16 Apr 2009 showing a 'Fair' rating (97% compliance), and a map of Hong Kong with the beach location marked. A sidebar on the right contains 'Quick Links' and 'External Resources'.

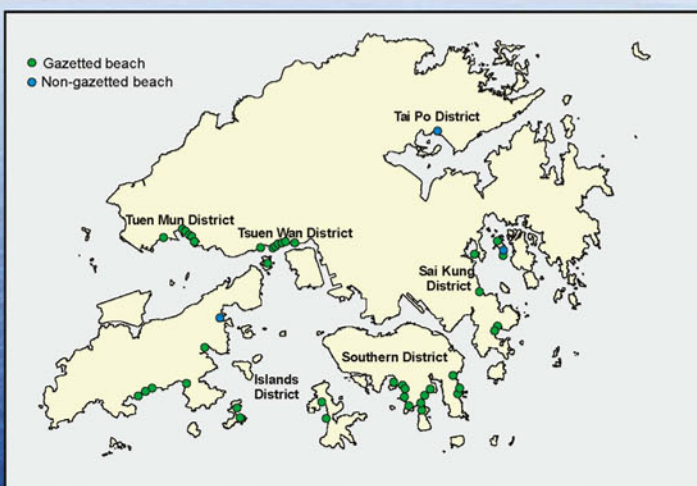
The Waterman system serves as an information center to provide real time beach water quality forecasts and related hydro-meteorological information such as predicted tide level, historical water quality grading, and past trends in rainfall, solar radiation, and water quality.

WATERMAN 系統為公眾實時預報泳灘水質，並提供相關水文氣象資訊，如潮汐預報、過往泳灘水質等級、及雨量、太陽幅射和海水水質的變化。

Beach water quality forecast model 泳灘水質預報模型



Beach water quality	<i>E. coli</i> counts / 100mL	Minor illnesses rate (cases per 1000 swimmers)
Good	≤ 24	Undetectable
Fair	25 - 180	≤ 10
Poor	181 - 610	11 - 15
Very poor	> 610	> 15



44 beaches in Hong Kong
香港的44個公眾泳灘