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Beach Water Quality of Hong Kong in 2018

INTRODUCTION

The purpose of this paper is to brief Members on the water quality of gazetted beaches in Hong Kong in 2018.

BACKGROUND

- 2. The Environmental Protection Department (EPD) implements a monitoring programme to assess the water quality of 41 gazetted beaches in Hong Kong through weekly sampling during the bathing season between March and October.
- 3. Beach water quality is assessed through a ranking system which links the water quality of a beach with swimming-associated health risks, as indicated by the number of *E. coli* bacteria in water. Under this system, beaches are ranked as "Good", "Fair", "Poor" or "Very Poor" in accordance with the respective *E. coli* levels. Beaches with annual geometric mean *E. coli* levels of 24 per 100 mL or below are ranked as "Good", between 25 and 180 per 100 mL as "Fair", between 181 and 610 per 100 mL as "Poor", and those exceeding 610 per 100 mL as "Very Poor". Only those beaches in the ranks of "Good" and "Fair" meet the Water Quality Objective (WQO) for bathing waters. For beaches ranked as "Very Poor", their *E. coli* levels correspond to a swimming-associated illness rate of more than 15 cases per 1,000 swimmers and are generally considered not suitable for swimming.

BEACH WATER QUALITY IN 2018

- 4. In 2018, all 41 gazetted beaches continued to meet the WQO for bathing waters and therefore remained suitable for swimming. Among these beaches, 26 (or 63%) were ranked as "Good" and the remaining 15 (or 37 %) were ranked as "Fair" (see **Figures 1** and **2**). None of them was ranked as "Poor" or "Very Poor".
- 5. Compared to the beach water quality in 2017, the overall beach water quality in 2018 has shown improvement. The number of beaches ranked as "Good" in 2018

was higher than that in the previous year (23 ranked as "Good" in 2017). The improvement was partly related to the relatively dry weather in the year, with the cumulative rainfall being 44% lower than the same period in 2017, and 38% lower than the 1981-2010 climatological normal. The reason that overall drier weather leads to better water quality is because occasionally there would be short durations of water quality deterioration after heavy rain caused by surface water flushing into the beach areas.

6. Even discounting the factor of year-to-year fluctuations in weather conditions, the percentage of gazetted beaches complying with the WQO has increased from 74% in 1986 to 100% in 2010 and the record has been maintained since then (see **Figure 3**). This long-term improvement trend demonstrates the effectiveness of the Government's sustained efforts in extending sewerage systems to the beach hinterlands, implementing the Harbour Area Treatment Scheme (HATS), as well as exercising pollution control and environmental improvement measures through the Water Pollution Control Ordinance and Livestock Waste Control Scheme.

CONCLUSION

7. Through continuous efforts of the Government in extending the sewerage infrastructure and implementing various pollution control and environmental improvement measures, all gazetted beaches in Hong Kong have continued to achieve the required standard for bathing waters for nine consecutive years. We will continue to monitor the beach water quality closely in 2019.

Environmental Protection Department April 2019

Figure 1 Annual ranking of gazetted beaches in 2018

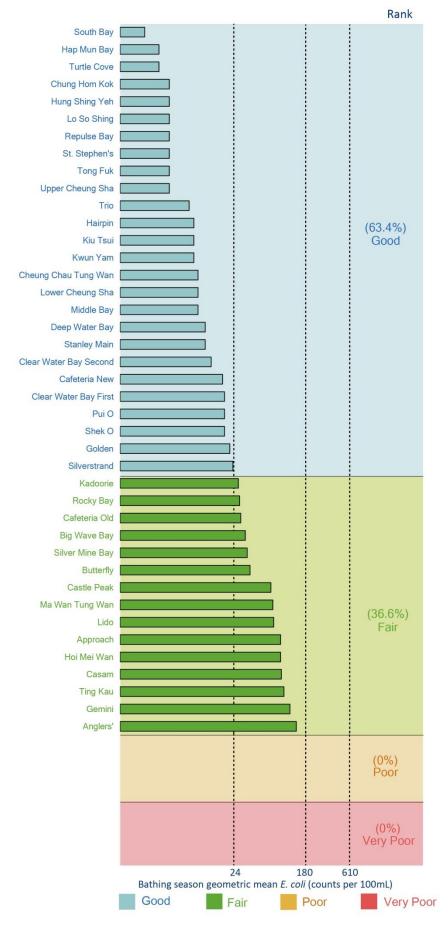
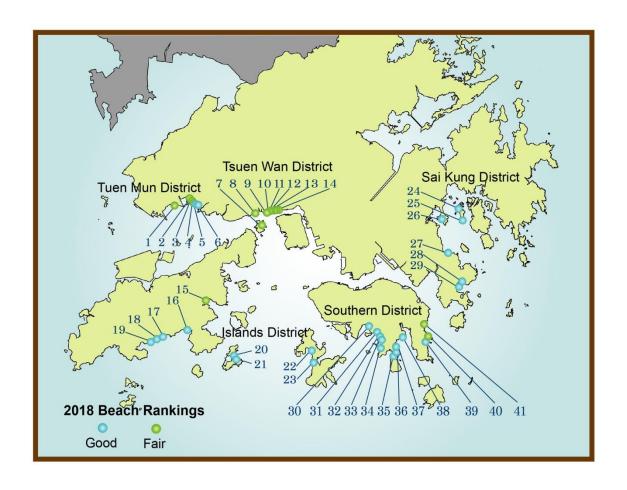


Figure 2 Distribution of gazetted beaches and their annual ranking in 2018



Iu	en	wun	DIS	trict
1.	Вι	itterfly	,	

- 2. Castle Peak
- 3. Kadoorie
- 4. Cafeteria Old
- 5. Cafeteria New
- 6. Golden

Tsuen Wan District

- 7. Ma Wan Tung Wan
- 8. Anglers'
- 9. Gemini *
- 10. Hoi Mei Wan
- 11. Casam
- 12. Lido
- 13. Ting Kau
- 14. Approach

Islands District

- 15. Silver Mine Bay
- 16. Pui O
- 17. Lower Cheung Sha
- 18. Upper Cheung Sha
- 19. Tong Fuk
- 20. Cheung Chau Tung Wan
- 21. Kwun Yam
- 22. Hung Shing Yeh
- 23. Lo So Shing

Sai Kung District

- 24. Kiu Tsui
- 25. Hap Mun Bay
- 26. Trio
- 27. Silverstrand
- 28. Clear Water Bay First
- 29. Clear Water Bay Second

Southern District

- 30. Deep Water Bay
- 31. Repulse Bay
- 32. Middle Bay
- 33. South Bay
- 34. Chung Hom Kok
- 35. St. Stephen's
- 36. Stanley Main
- 37. Hairpin * 38. Turtle Cove
- 39. Shek O
- 40. Rocky Bay *
- 41. Big Wave Bay

^{*} Beaches not open for swimming (no lifeguard service provided by Leisure and Cultural Services Department)

Figure 3 Annual ranking of gazetted beaches from 1986 to 2018

