

Tuen Mun District Council
2016-2017 Environment, Hygiene and District Development Committee

Tuen Mun River and Beach Water Quality Report

Introduction

This paper is to report the water quality of Tuen Mun River (till July 2016) and the weekly beach grading of Tuen Mun gazetted beaches for members' information.

Tuen Mun River Water Quality

2. Apart from the rural areas in the upper reaches of Tuen Mun River, the majority of Tuen Mun has been provided with public sewerage. Sewage is collected and transported to the Pillar Point Sewage Treatment Works for proper treatment and disposal. The rural areas are mainly relying on the septic tanks for sewage treatment. However, due to its high population density, these septic tank systems may not be able to handle the sewage generated, resulting in possible pollution in the upper reaches of Tuen Mun River. In order to avoid the pollutants in the upper reaches to pollute the water quality downstream, the Government has installed a dry weather flow interceptor at West Rail Siu Hong Station (**Figure 1**) to collect the upstream river water to the Pillar Point Sewage Treatment Plant for treatment and disposal.

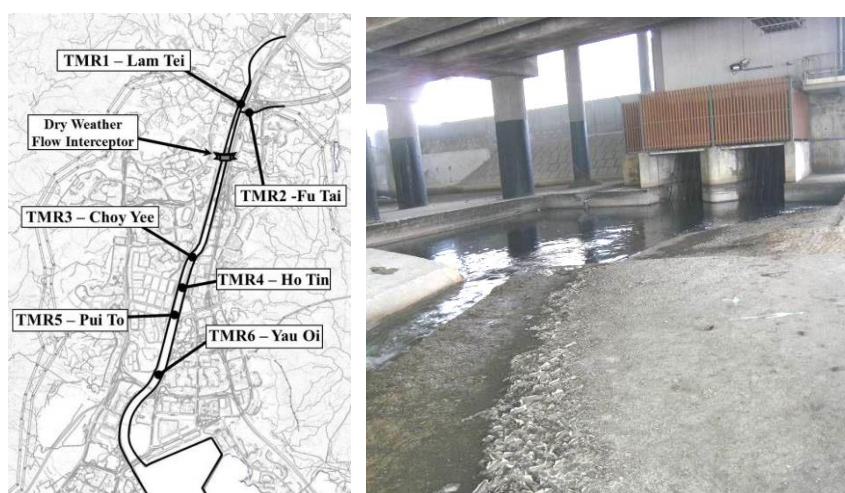


Figure 1 Tuen Mun River Monitoring Stations and the Dry Weather Flow Interceptor at Siu Hong Station

3. As shown in **Figure 2**, although the water quality of the upper reaches of Tuen Mun River has been improved over the past 2 decades, the water quality at Lam Tei Interchange was still not satisfactory and maintained at “Fair” level. Moreover, the water quality at Fu Tai Estate was maintained in rating between “Good” and “Fair”. To further improve the water quality in this region, the Government has initiated the Tuen Mun Sewerage Master Plan to construct public sewerage in Tuen Mun rural areas in phases for village sewerage connection. The construction of the Tuen Mun Western Trunk Sewer is partially completed and the sewerage connection for some villages has commenced recently. It is anticipated that the water quality in this region would be greatly improved when more villages are connected to the public sewerage system.

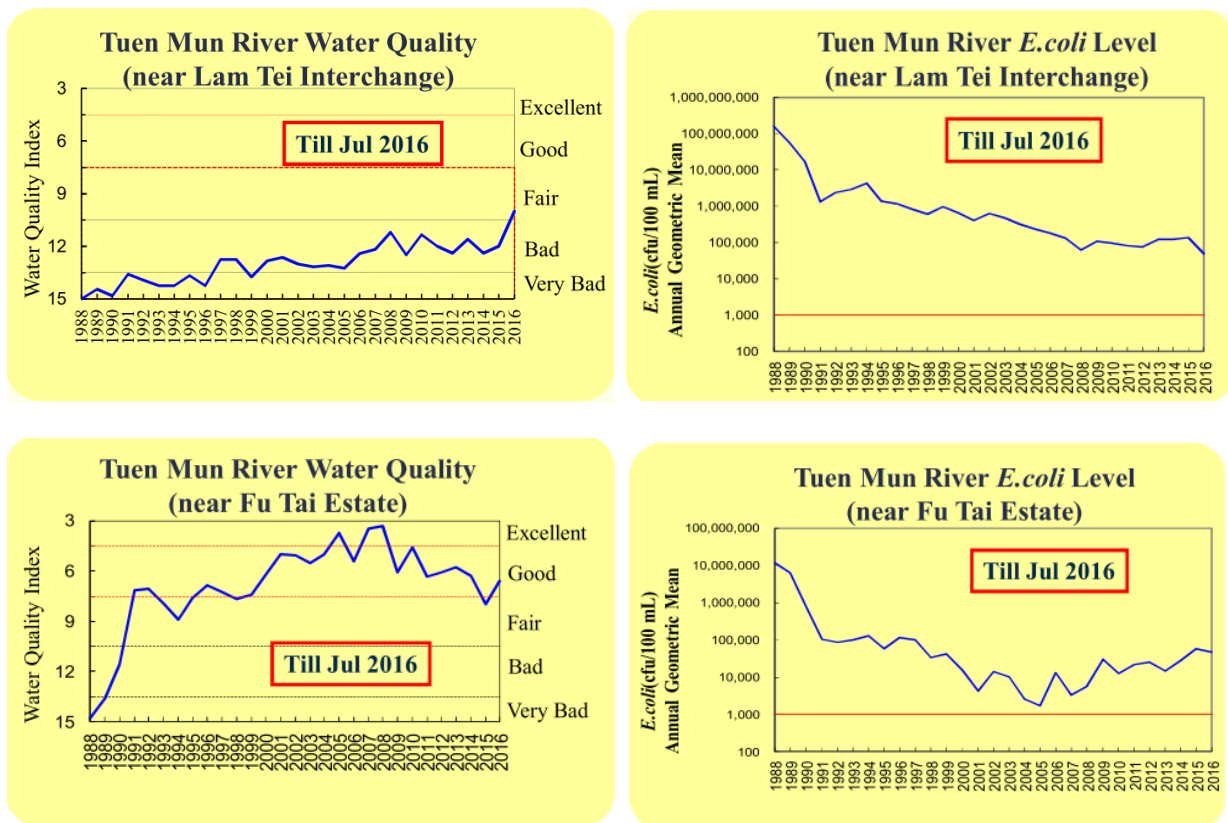


Figure 2 Water Quality Index and E.coli Levels in the Upper Reaches of Tuen Mun River

4. With our continuous proactive effort in identifying and tackling expedient connections in the region, the water quality of middle and lower reaches of Tuen Mun River has been maintained at “Good” level since 1996 (**Figures 3 and 4**).



Figure 3 Water Quality Index and *E. coli* Levels in the Middle Reaches of Tuen Mun River



Figure 4 Water Quality Index and *E. coli* Levels in the Lower Reaches of Tuen Mun River

Conclusion

5. EPD will continue to inspect the drainage and sewerage network in Tuen Mun to identify any pollution sources. In the long term, the Government will continue to provide public sewerage to the rural areas for village sewerage connection, with a view to improving the overall water quality of Tuen Mun River.

Appendix

Weekly Beach Grading of Tuen Mun Gazetted Beaches during June – August 2016

**Environmental Protection Department
September 2016**

**Weekly Beach Grading of Tuen Mun Gazetted Beaches
during June – August 2016**

Date	Weekly Beach Grading					
	Butterfly	New Cafeteria	Old Cafeteria	Castle Peak	Golden	Kadoorie
7 June	2	2*	2*	2	2	2
13 June	2	2	2	2*	2	2*
21 June	2	2*	2	2	2*	2*
29 June	2*	2*	2	2	2*	2*
4 July	3	2*	2*	2	2*	2*
11 July	4	2	2*	2*	2*	2*
12 July	3	---	---	---	---	---
19 July	4	2	2	2	2	2
20 July	4	---	---	---	---	---
21 July	3	---	---	---	---	---
25 July	3	2*	2*	2*	2*	2*
1 August	3	2*	2*	2*	2*	2*
13 August	3	2*	2*	2	2*	2*
24 August	2*	2*	2*	2*	2*	1
29 August	2*	1	2	2	1	1

Notes: * *E. coli* counts on the day fallen between 25 and 100 cfu / 100mL.

Hong Kong's Weekly Beach Grading System :		
Grade	Beach Water Quality	<i>E. coli</i> counts per 100 mL [#]
1	Good	≤ 24
2	Fair	25 - 180
3	Poor	181 - 610
4	Very Poor	> 610 or or last reading > 1600

Unless otherwise indicated, the *E. coli* count represents the geometric mean of the 5 most recent sampling occasions.