

Enclosure | 1

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Replacement Pages of the Environmental Assessment

WSR ID	Description	Type	Distant to Site Boundary (m)
W1	Ng Tung River	Natural river	104.9
W2	Kwan Tei River	Natural river	496.6
W3	Fish Pond in Kwan Tei	Freshwater fish pond	235.2
W4	Watercourse to the northeast of the Site	Nullah	94.9
W5	Watercourse to the southwest of the Site	Nullah	362.6
W6	Another Watercourse to the southwest of the Site	Nullah	415.0

### Construction Phase

- 4.3.3 Muddy runoff from the Site may be generated during the construction phase, especially during the rainy season. If the muddy water is not properly controlled, it would lead to increased amounts of suspended solids in the drainage system.
- 4.3.4 Wash water from vehicles and equipment; silt from any on-site stockpiles of soil, cement and grouting materials; and spillage of fuels, oil and lubricants from construction vehicles and plant may generate water quality impacts. If these pollution sources are not properly controlled, it would lead to increased amounts of suspended solids, grease and oil, pH, Biochemical Oxygen Demand (“BOD”), etc. in the drainage system.
- 4.3.5 There is also the issue of sewage generated by construction workers on-site. The sewage may result in high levels of NH<sub>3</sub>-N, BOD and *E. coli* if it is not disposed of properly before discharging into drainage system.
- 4.3.6 Accidental spillage of chemicals during construction may leak into the nearby watercourses, causing sediment contamination or water quality degradation. The spilled chemical may also flow into the drainage system, blocking or corrupting the drainage pipe.

### Operation Phase

- 4.3.7 Surface runoff is mainly discussed in a separate Drainage Impact Assessment Report (“DIA”) supporting this planning application. It is concerned that the surface runoff from the site may carry the residual fertilisers and pesticides applied to landscape area, introducing toxins, nutrients, and suspended solid to the watercourses.
- 4.3.8 During the operation phase, sewage will be generated from toilets flushing, and grey water. It will contribute to the major sources of wastewater generation arising from the Proposed development. The assessment of sewerage impact from the proposed development is included in a separate Sewerage Impact Assessment (“SIA”) Report supporting this planning application. All the wastewater generated in the proposed development will be treated on site by a proposed tertiary Sewage Treatment Plant before discharging to the stormwater drain in Sha Tau Kok Road, and eventually to Ng Tung River. The average dry weather flow of the proposed development has been calculated to be 3005.4m<sup>3</sup>/day. The design capacity of the proposed STP is set to be 49,30m<sup>3</sup>/day. Combination of membrane bioreactor and ultrafiltration is tentatively adopted as the treatment process design to meet the WPCO private sewerage treatment plant discharge standard as shown in Table 4-3.

Table 4-3: Discharge Standards of the Effluent from Proposed STP

PARAMETER	UNIT	Tertiary Effluent Standards (Upper Limit)
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- 4.4.7 Preventative measures against emergency discharge should be emphasized. The STP should be equipped with sewage reception/storage facilities for the temporary storage of 6-hour average dry weather flow (752m<sup>3</sup>) to provide sufficient response time for the potential equipment failure. The design capacity of the STP is proposed to be 4,930m<sup>3</sup>/day, around 64% over the average dry weather flow of the proposed development, to provide adequate buffer against the capacity loss from potential equipment damages.
- 4.4.8 Since the treated effluent will be discharged through the public drainage channel along Sha Tau Kok Road, an alternative discharge route should be proposed for the emergency discharge to minimize the water quality impact to the surrounding. Even though the available capacity of the sewer system along Sha Tau Kok has been estimated to be insufficient to sustain the peak flow from the proposed development, it can serve as an option as the emergency bypass of the STP. During the emergency discharge, the sewage in the sewage reception/storage tank to be pumped out and discharged to sewer manhole FWD1004186 on Sha Tau Kok Road after agreeing with DSD about the discharge quantity and flow rate. And the remaining portion that could not be covered by the available capacity of public sewer system will be collected by sewage suction truck. The arrangement of effluent discharge and emergency discharge of the proposed STP has been drawn in Figure 4-2.

## 4.5 Conclusion

- 4.5.1 During construction, water quality impacts can be properly controlled with the implementation of good site practice, as stated in **paragraph 4.4.3**. Portable toilets will be provided for constructions workers on-site. Provided these measures are implemented, it is unlikely that any adverse water quality impacts from the Site will be generated during the construction phase.
- 4.5.2 The contractor shall apply for a Discharge Licence from EPD under the WPCO. All site discharges shall be treated in accordance with the terms and conditions of the Discharge Licence.
- 4.5.3 The sewage generated from the Proposed Development will be treated in an on-site sewerage treatment plant before discharging into Ng Tung River. During operation, no adverse water quality impact is anticipated from sewage generated by the proposed development in view of the adoption of tertiary treatment and the appropriate emergency discharge arrangement.
- 4.5.4 Overall, therefore, no adverse water quality impacts to the nearby watercourses are anticipated during the construction or operational phases of the Proposed Development.