Appendix 9

WATER SUPPLY IMPACT ASSESSMENT

AtkinsRéalis

Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap. 131)
Gain Million Development Limited

16 October 2026

Water Supply Impact Assessment (WSIA) Report

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1. Introduction

1.1 Background

1.1.1 This Water Supply Impact Assessment (WSIA) Report is prepared by AtkinsRealis Asia Limited on behalf of the Applicant, Gain Million Development Limited, in support of a Section 12A Planning Application for the Proposed Amendment to the Approved Lam Tei and Yick Yuen Outline Zoning Plan No. S/TM-LTYY/14 from "Comprehensive Development Area", "Green Belt" and "Residential (Group B) 3" Zones to "Residential (Group B) 4" Zone at Lot Nos. 837 RP (Part), 839 S.A RP (Part), 841 (Part), 1035 RP, 1037 RP and 2527 S.F RP (Part) in D.D. 130 and Adjoining Government Land, Lam Tei, Tuen Mun, to facilitate a Proposed Residential Development with supporting commercial uses and social welfare facilities (Proposed Development).

1.2 Purpose of this Report

1.2.1 This WSIA considers the potential impact on the water supply system caused by the Proposed Development. The objective of the WSIA is to identify, assess and mitigate – if required – the potential adverse water supply impacts which may arise from the Proposed Development.

1.3 Abbreviations

1.3.1 The following abbreviations are used in this Report:

DSD	Drainage Services Department
DRA	Drainage Reserve Area
HKPSG	Hong Kong Planning Standards and Guidelines
NBA	Non-Building Area
OZP	Outline Zoning Plan
SIA	Sewerage Impact Assessment
WSD	Water Supplies Department

2. Site Characteristics

2.1 Rezoning Site and Development Sites

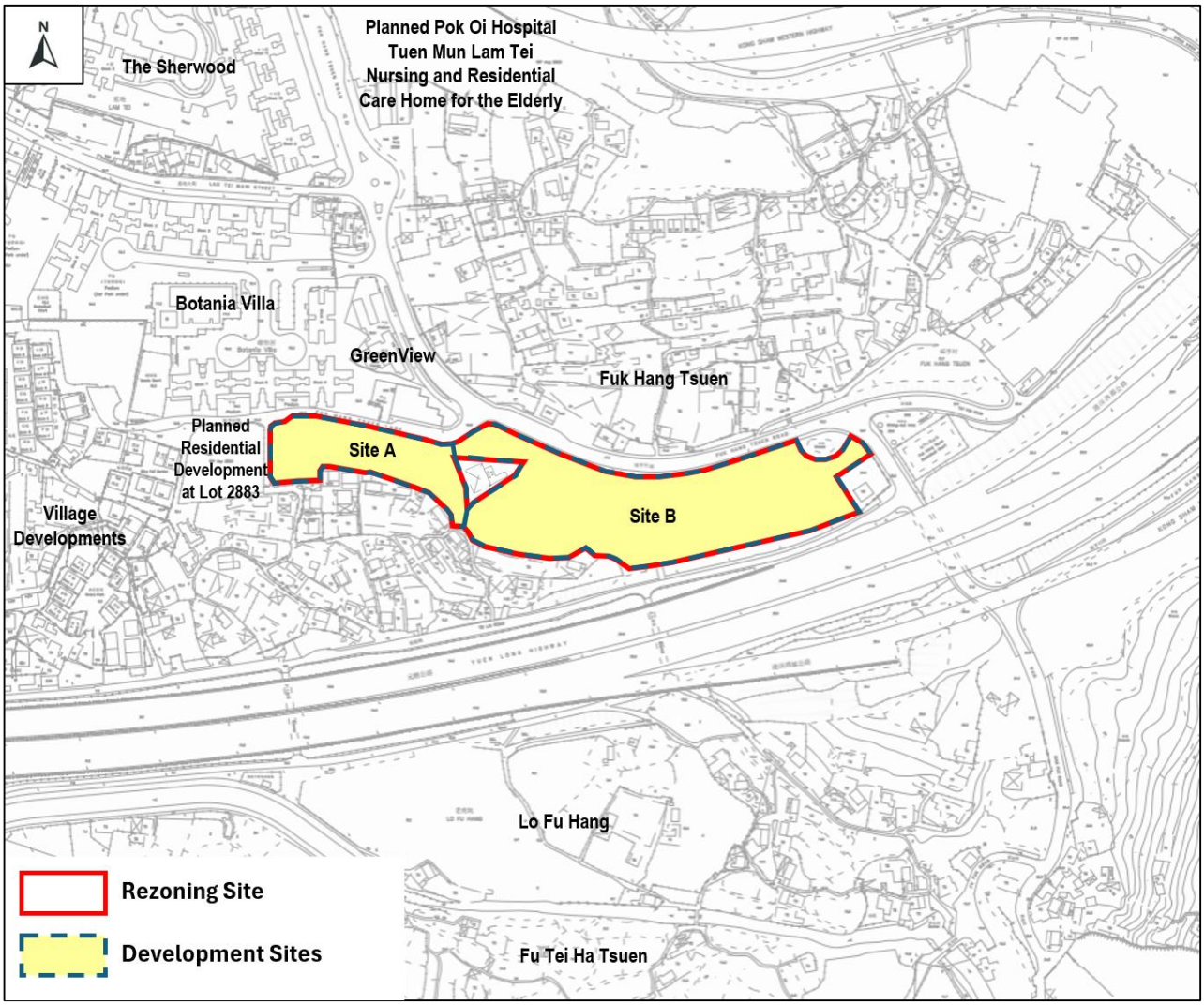
2.1.1 The Rezoning Site is currently zoned “CDA”, with minor portions falling within the “R(B)3” and “GB” zones, under the Approved Lam Tei and Yick Yuen Outline Zoning Plan No. S/TM-LTYY/14 (“Approved OZP”).

2.1.2 The Rezoning Site has a total site area of approximately 14,036m^2 and comprises two Development Sites, namely Site A, located on the western side, with a site area of approximately 3,325m^2 and Site B, located on the eastern side, with a site area of approximately 10,711m^2.

2.1.3 **Figure 2.1** illustrates the location and boundaries of the Rezoning Site and the two Development Sites. The sites are currently consists of open storage and vegetation.

2.1.4 The Proposed Development is expected to be occupied in Year 2032.

Figure 2.1 - Location of the Rezoning Site



3. Water Supply Impact Assessment

3.1 General

3.1.1 According to the advice from the Water Supplies Department (WSD), the Rezoning Site is within the fresh water supply zone of Tan Kwai Tsuen South Fresh Water Service Reservoir and within the flushing water supply zone of Tan Kwai Tsuen Salt Water Service Reservoir and Lok On Pai Salt Water Pumping Station salt water supply system.

3.2 Assumptions

3.2.1 The freshwater demand is calculated based on the relevant design parameters as well as the unit demand assumed in accordance with WSD's Departmental Instruction (DI) 1309. By comparing the water demand to the capacity of fresh water service reservoirs / salt water service reservoirs which supply water to the Rezoning Site, the impact of water supply due to the Proposed Development can be assessed.

3.2.2 The proposed use of the Proposed Development includes private residential, club house, retail, and social welfare facilities. The estimated population for the Proposed Development is approx. 1,483, of which include 1,420 within the residential units and 63 of them from users at the club house, retail and social welfare facilities.

3.2.3 The unit demands are based on the WSD's Departmental Instruction (DI) 1309. The proposed uses of the Proposed Development are mainly residential, and a minor proportion of retail and social welfare facilities uses. The adopted school unit demands of fresh water and salt water for the Proposed Development are extracted and summarized in Table 3.1.

Table 3.1 – Unit Demand Assumption

Proposed Usage	Unit Demand Fresh Water	Unit Demand Salt Water
Residential	340 L/head/day	104 L/head/day
Retail	340 L/head/day	104 L/head/day
Social Welfare Facilities	340 L/head/day	104 L/head/day

3.3 Results and Discussion

3.3.1 The fresh water and salt water of the Rezoning Site is supplied by Tan Kwai Tsuen South Fresh Water Service Reservoir and Tan Kwai Tsuen Salt Water Service Reservoir and Lok On Pai Salt Water Pumping Station respectively. The daily water demands for fresh water and salt water are calculated and summarized in Table 3.2.

Table 3.2 – Calculation of Fresh Water and Salt Water Demand

Parameter	Proposed Development
Estimated Population	1,483
Fresh Water Unit Demand	340 L/head/day
Estimated Fresh Water Demand	1,483 x 340 L = 504,220 L = 504.22 m^3/day
Salt Water Unit Demand	104 litres/head/day
Estimated Salt Water Demand	1,483 x 104 L = 154,232 L = 154.23 m^3/day

3.3.2 As shown in the calculation, the fresh and salt water demand from the Proposed Development are 504.22 m^3/day and 154.23 m^3/day respectively. Given that the water demands will be taking minor portion of the capacities of service reservoirs / pumping station, it is predicted that there will be no adverse impact for the water supply system to accommodate the water consumption from the Proposed Development.

3.4 Conclusion

3.4.1 This Water Supply Impact Assessment (WSIA) Report is prepared to evaluate the potential impact from the Proposed Development on the existing water supply system. Given that the water demands of the Proposed Development will occupy minor portion of the service reservoir / pumping station capacities, no significant adverse impact on the existing water supply system is anticipated due to the Proposed Development.

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