

1.0 INTRODUCTION

1.1 Background

1.1.1 The Tuen Mun Sewerage - Eastern Coastal Sewerage Extension (the Project) is to be implemented under the Tuen Mun Sewerage Stage I Phase IV and Stage II in accordance with the recommendations of the Tuen Mun Sewerage Master Plan (EPD, 1993), (TMSMP). The proposed extension to the Tuen Mun sewerage system includes the connection of the village sewerage in the Tai Lam Chung valley and the properties in the area of So Kwun Wat. The works also involve the construction of six new pumping stations at:

- Tai Lam Correctional Institution;
- Luen On San Tsuen;
- Tai Lam Chung Tsuen;
- Tai Lam Valley;
- So Kwun Wat Tsuen; and
- Castle Peak Villas.

1.1.2 The locations of the proposed pumping stations and the extent of the sewer alignment are presented in Drawings 1.1a, 1.1b and 1.1c and described in more detail in Section 2.0.

1.1.3 The proposed Tai Lam Chung Tsuen, Luen On San Tsuen, Tai Lam Valley and Castle Peak Villas pumping stations are classified as designated projects under Schedule 2, section F.3 (b)(i) of the Environmental Impact Assessment Ordinance. The other elements of the project are not designated. An environmental review of the Project completed by the Director of Environmental Protection concluded that an environmental impact assessment (EIA) Study should be carried out. Mouchel Asia Environmental were commissioned to carry out an EIA under Agreement No. CE 43/98 commencing on 14th October 1998.

1.1.4 This report is the Final EIA Report for the Study as required under Clause 5.2(i) of the Study Brief. Response to comments on the Draft EIA report are included in Appendix J.

1.2 Objectives of the EIA

1.2.1 The EIA will achieve the following objectives:

- C to describe the Project and associated works together with the requirements and environmental benefits for carrying out the Project;
- C to identify and describe the elements of the community and environment likely to be affected by the Project, and/or likely to cause adverse impacts upon the Project, including both the natural and man-made environment and the associated environmental constraints;
- C to identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses;
- C to identify and quantify any potential losses or damage to flora, fauna and natural habitats;

- C to identify any negative impacts on sites of culture heritage and to propose measures to mitigate these impacts;
- C to propose the provision of infrastructure or mitigation measures so as to minimize pollution, environmental disturbance and nuisance during construction and operation of the Project;
- C to identify existing landscape and visual quality in the “study area” for the purpose of evaluation the landscape and visual impact of the proposed project;
- C to investigate the feasibility, effectiveness and implications of the proposed mitigation measures;
- C to identify, predict and evaluate the residual (i.e. after practicable mitigation) environmental impacts and cumulative effects expected to arise during the construction and operation phases of the Project in relation to the sensitive receivers and potential affected uses;
- C to identify, assess and specify methods, measures and standards, to be included in the detailed design, construction and operation of the Project which are necessary to mitigate these residual environmental impacts and cumulative effects and reduce them to acceptable levels;
- C to design and specify the environmental monitoring and audit requirements necessary to ensure the implementation and the effectiveness of the environmental protection and pollution control measures adopted; and
- C to identify any additional studies necessary to implement the mitigation measures or monitoring and proposals recommended in the EIA report.

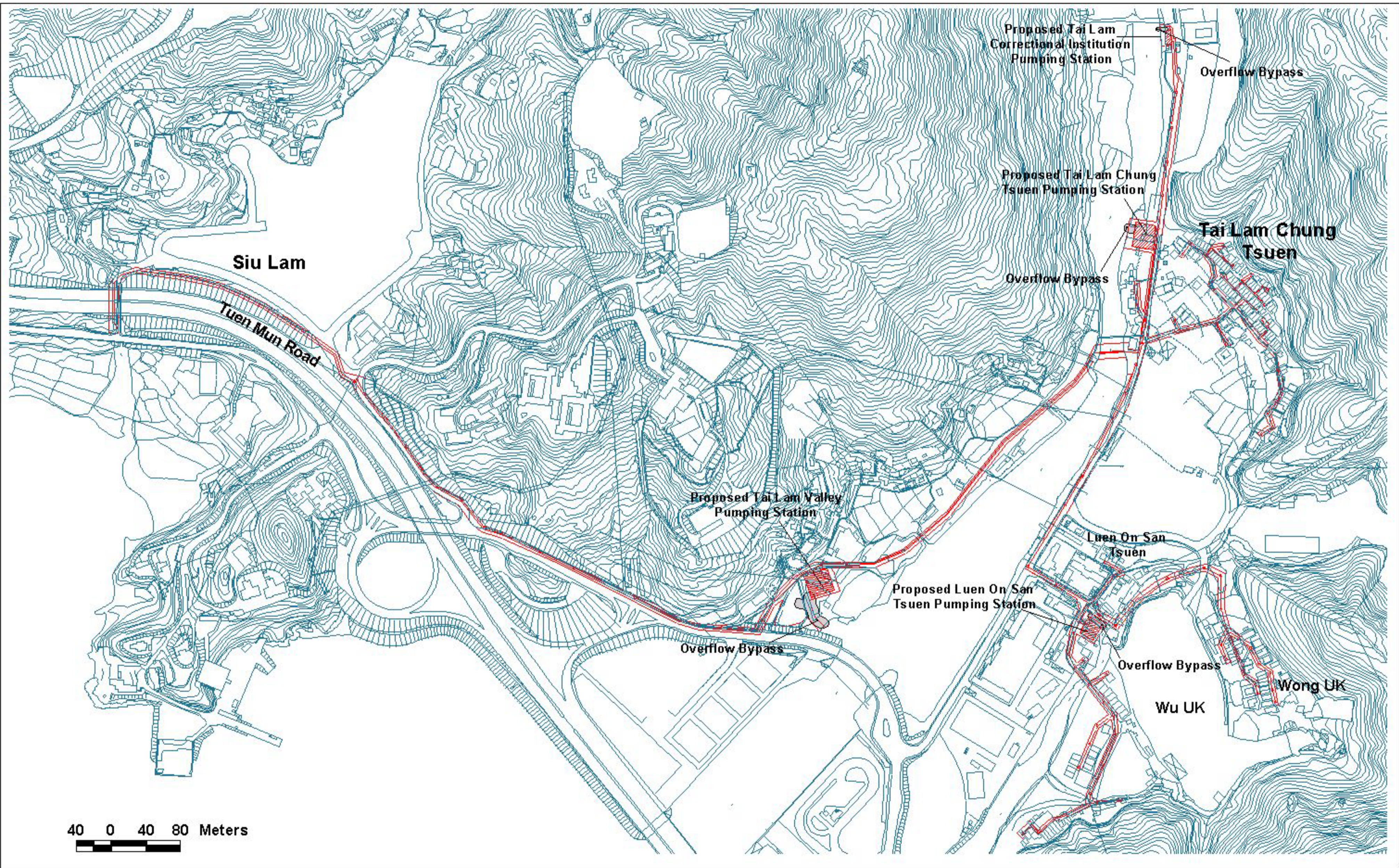
1.2.2 The above objectives have been met by completing the following tasks:

- C compiling existing information and data into a detailed quantitative analysis of the scheme, its associated engineering works as well as other developments which may have a local influence;
- C planning and undertaking additional environmental surveys, site investigations and baseline monitoring works;
- C assessing the net and cumulative impacts on existing and planned sensitive receivers;
- C identifying, evaluating and recommending possible mitigation measures taking into account engineering, planning, environmental, ecological and social implications;
- C identifying and quantifying all residual and secondary environmental impacts which relate to the project; and
- C defining EM&A requirements for the works and assessing the effectiveness of the mitigation measures. The EM&A requirements will include procedures for the handling of complaints,

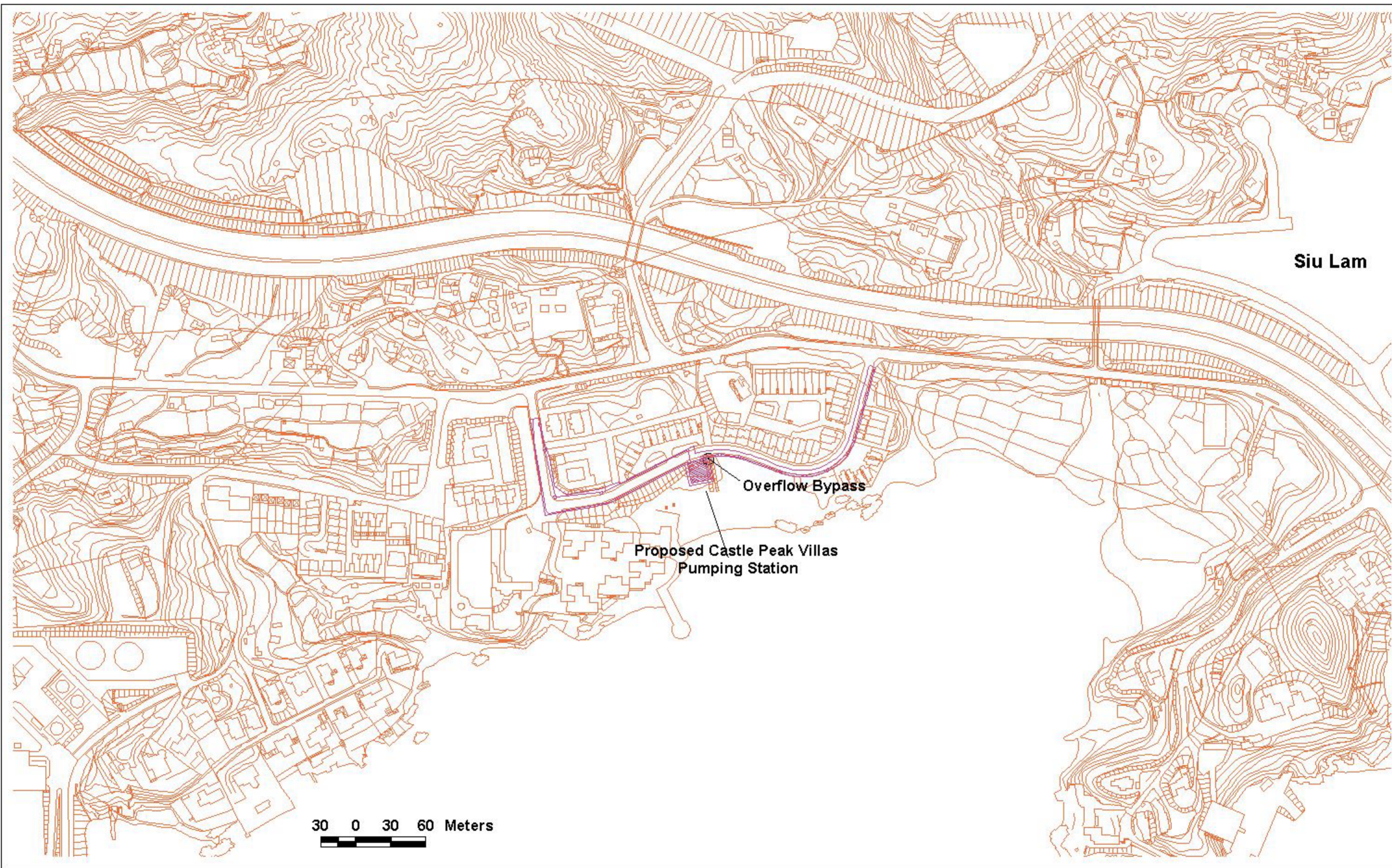
as well as local liaison and consultation.

1.3 Assessment of Alternative Pumping Station Sites

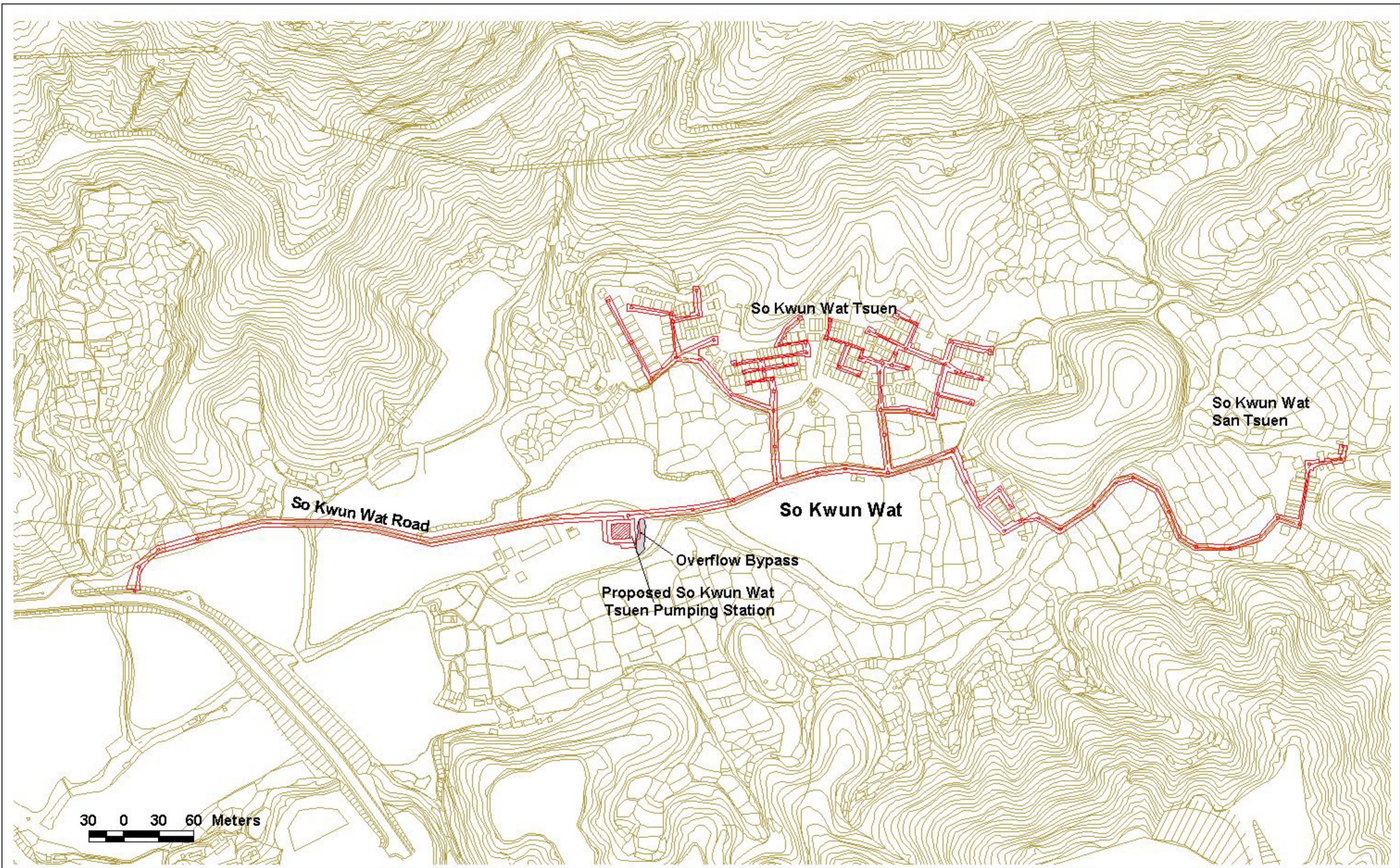
- 1.3.1 Alternative sites for three of the proposed pumping stations in Tai Lam Valley, Tai Lam Chung Tsuen and Luen On San Tsuen were identified at the commencement of the Study as a result of consultation with village representatives. All alternatives were confirmed to be engineeringly feasible and included one option for the Tai Lam Valley pumping station, one site for the Tai Lam Chung Tsuen pumping station and two alternatives for the Luen On San Tsuen pumping station. The locations of both the alternative and selected site locations for these areas are shown in Drawing 1.2.
- 1.3.2 A preliminary environmental assessment of all the sites was undertaken and it was concluded that all the sites would not give rise to any insurmountable environmental impacts and would be environmentally acceptable with mitigation. Thus, the pumping station sites chosen for Tai Lam Valley, Tai Lam Chung Tsuen and Luen On San Tsuen for inclusion in the proposed sewerage scheme, were selected on the basis that they would not give rise to any adverse residual environmental impacts and could meet the requirements of the local villagers.
- 1.3.3 Details of the assessment and comparison of the selected sites and their alternatives are provided in Section 12.0 for reference.



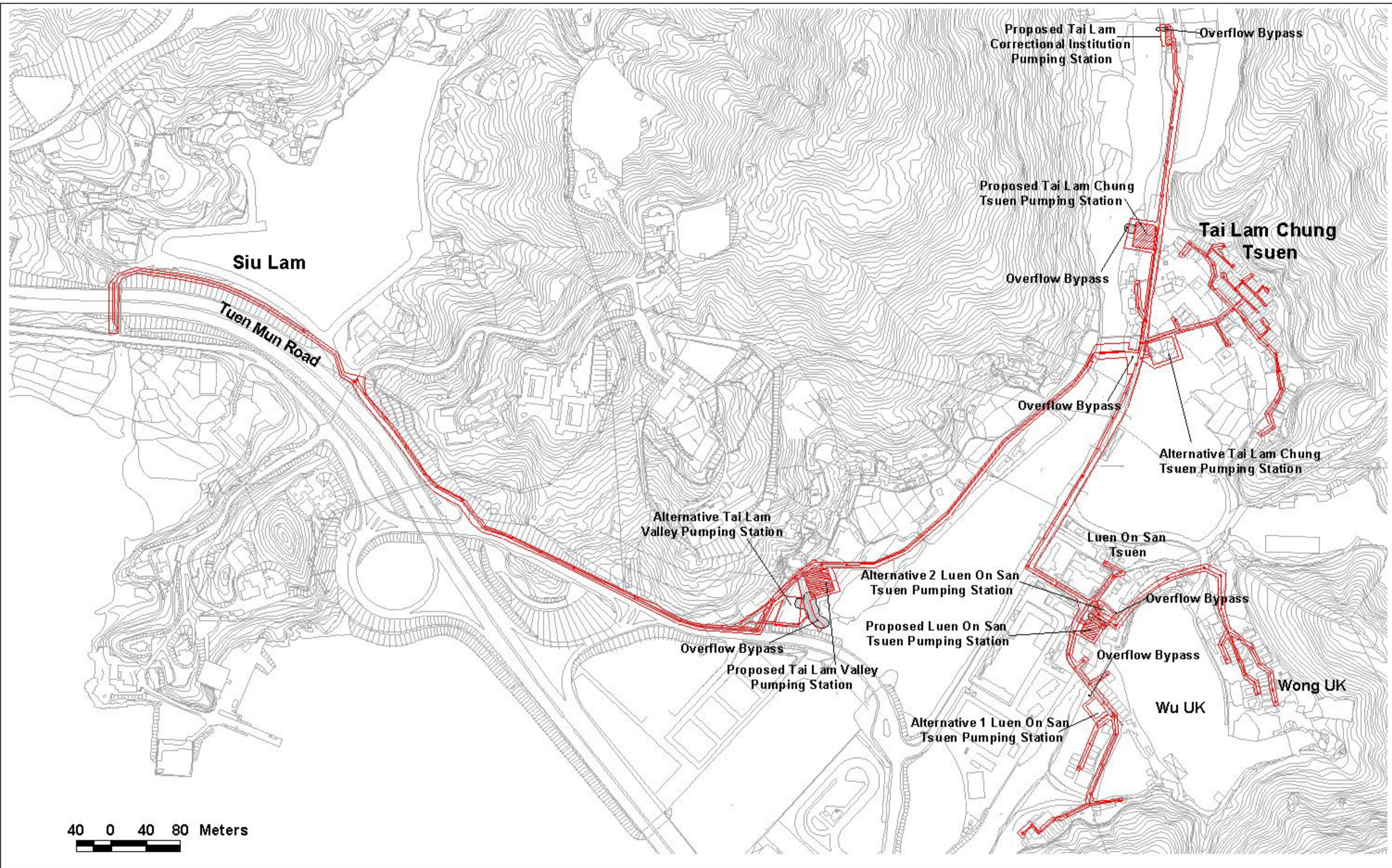
The Study Area and Proposed Sewer Layout



The Study Area and Proposed Sewer Layout



The Study Area and Proposed Sewer Layout



Selected and Alternative Pumping Station Locations

Mouchel

Drawing 1.2