11 ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

11.1 INTRODUCTION

11.1.1 This *Section* summarises the requirements for environmental monitoring and audit (EM&A) during construction and operation phase of the Project and associated works based on the various assessment results presented in this EIA Report. Details of the EM&A requirements are given in a stand-alone EM&A Manual.

11.1.2 To ascertain that the recommendations in the EIA study are followed and that the mitigation measures implemented are effective, it is considered necessary to develop EM&A procedures and mechanisms such that the implementation of the mitigation measures can be tracked and their effectiveness assessed. The following sections outlines the recommended EM&A requirements.

11.2 AIR QUALITY IMPACT

Construction Phase

11.2.1 The EIA study concluded that no adverse fugitive dust impact is anticipated during the construction of the Project with the implementation of dust control measures and good site practices as recommended in **Section 3.9** and regular dust monitoring to ensure the relevant legal requirements and standards are complied with during construction phase of the Project.

11.2.2 It is recommended to conduct regular site inspections, i.e. on weekly basis, throughout the construction phase of the Project so as to confirm proper implementation of the dust control measures and good site practices as recommended in **Section 3.9**. Regular dust monitoring is recommended to be carried out during the construction phase to ensure that no nearby ASRs will be subject to adverse air quality impact. Details of the EM&A programme for air quality during construction phase are provided in a standalone EM&A Manual.

Operation Phase

11.2.3 The EIA study concluded that no adverse air quality impact is anticipated during the operation of the Project. EM&A related to air quality during the operation phase is considered not necessary.

11.3 NOISE IMPACT

Construction Phase

11.3.1 The EIA study concluded that no adverse noise impact is anticipated during the construction of the Project. It is recommended to prepare a construction noise management plan during the design / tendering and implementation stage of the construction works, with an aim to verify the inventory of noise sources, update the construction noise impact assessment if necessary, assess the effectiveness and practicality of all identified measures and update the proposed noise mitigation measures as necessary.

11.3.2 Regular noise monitoring should be carried out so as to ensure that relevant legal requirements and standards are complied with during the construction phase of the Project.

11.3.3 It is recommended to conduct regular site inspections, i.e. on weekly basis, throughout the construction phase of the Project so as to confirm all recommended noise mitigation measures and good site practices as recommended in **Section 4.8** are in place.

Operation Phase

11.3.4 The EIA study concluded that no adverse noise impact is anticipated during the operation of the Project with the implementation of the proposed mitigation measures. To verify the effectiveness of the proposed noise mitigation measures, road traffic noise levels should be monitored at representative NSRs during the first year after completion of road works.

11.4 WATER QUALITY IMPACT

Construction Phase

11.4.1 Adverse water quality impact arising from the construction works of the Project is not anticipated with the recommended mitigation measures in place. Regular site inspections, i.e. on weekly basis, should be conducted during construction phase to ensure the proper implementation of the recommended mitigation measures in **Section 5.7**.

Operation Phase

11.4.2 The EIA study concluded that there would be no adverse water quality impact arising from the operation of the Project. EM&A related to water quality during the operation phase is considered not necessary.

11.5 WASTE MANAGEMENT IMPLICATIONS

Construction Phase

11.5.1 The EIA study concluded that no adverse environmental impacts or other hazards arising from waste management is anticipated during the construction of the Project with the implementation of good site practices. It is recommended that regular site inspections, i.e. on a weekly basis, are conducted during the construction phase to audit the waste management practices and to determine if wastes are being managed in accordance with the recommended good site practices and Waste Management Plan (WMP). The site inspections will investigate all aspects of waste management including waste generation, storage, handling, recycling, transportation and disposal.

Operation Phase

11.5.2 There is no waste management issue as no waste is expected to be generated during the operation phase of the Project. EM&A related to waste management during the operation phase is considered not necessary.

11.6 LAND CONTAMINATION

11.6.1 The EIA concluded that no land contamination impacts are anticipated for the Project. EM&A related to land contamination is considered not necessary during construction and operation phases of the Project.

11.7 ECOLOGICAL IMPACT

Construction Phase

11.7.1 The requirement of EM&A of compensatory tree planting, as a mitigation for the loss of small area of mixed woodland, is discussed in the Landscape and Visual Impact Section.

Operation Phase

11.7.2 The potential bird collision along the re-provided noise barriers would be mitigated by adopting bird friendly design. No EM&A related to ecology is needed.

11.8 LANDSCAPE AND VISUAL IMPACT

Construction Phase

11.8.1 The mitigation measures listed in **Table 9.11** shall be adopted during the construction phase. It is recommended that regular site inspections during the construction phase should be undertaken to inspect the construction activities and works areas in order to ensure the recommended mitigation measures are properly implemented.

Operation Phase

11.8.2 The operation phase mitigation measures listed in **Table 9.12** shall be adopted during the detailed design and be built as part of the construction works at the last stage of the construction period so that they are in place at the date of commissioning of the Project. However, it should be noted that the full effect of the soft landscape mitigation measures would not be appreciated for several years.

11.9 CULTURAL HERITAGE

Construction Phase

Archaeology

11.9.1 As a precautionary measure, the project proponent and his/her contractor are required to inform AMO immediately when any antiquities or supposed antiquities under the Antiquities and Monuments Ordinance (Cap. 53) are discovered during the course of works.

Built Heritage

11.9.2 During pre-construction phase of the Project and implemented by the works contractor, a baseline condition survey and baseline vibration impact assessment should be conducted for Shing Miu (GB-01) and seven other associated building structures including the Castle Peak Sam Shing Hui Village Office, Hau Shi Tong (孝思堂), Tai Sui Din (太歲殿), Office of Shing Miu, Fook Tak Tsz (福德祠), an Earth God Shrine and an Arch by a qualified building surveyor or qualified structural engineer to define the vibration limit and to evaluate the necessary construction monitoring and structural strengthening measures for AMO's consideration.

11.9.3 Works area shall be reviewed and refined to exclude the Arch of the Shing Miu compound to avoid the potential impact. During construction phase of the Project adjacent to the Arch, it shall be physically fenced off from the works area to minimise potential physical disturbance of construction works towards the Arch.

Operation Phase

11.9.4 Adverse archaeological or built heritage impacts are not anticipated during the operation of the Project. EM&A related to cultural heritage during the operation phase is considered not necessary.