

11 ENVIRONMENTAL MONITORING AND AUDIT (EM&A) REQUIREMENTS

11.1 Air Quality Impact Assessment

Full compliance with the air quality criteria will be achieved at all ASRs with the implementation of mitigation measures. Environmental monitoring and audit is recommended to ensure that the air quality levels do not exceed the criteria during the construction phase as discussed in the EM&A Manual.

11.2 Noise Impact Assessment

Full compliance with the noise criteria will be achieved at all NSRs with the implementation of mitigation measures. Environmental monitoring and audit is recommended to ensure that the noise levels do not exceed the criteria during the construction phase as discussed in the EM&A Manual.

11.3 Water Quality Impact Assessment

There is no requirement for a formal monitoring procedure to be established for this Project (especially as there is no dredging or reclamation). However, a program of monitoring is proposed to confirm the mitigation measures are effective during the construction. Auditing post construction confirmatory monitoring is also recommended in the operational phase. In addition, the groundwater levels along the tunnel will be measured throughout the construction and maintenance period to ensure no drawdown effect of the water table.

11.4 Waste Impact Assessment

It is recommended that auditing of each waste stream should be carried out periodically to determine if wastes are being managed in accordance with approved procedures and the site waste management plan. The audits should look at all aspects of waste management including waste generation, storage, recycling, treatment, transport and disposal. An appropriate audit programme would be to undertake a first audit at the commencement of the construction works, and to audit monthly thereafter.

11.5 Ecological Impact Assessment

The implementation of the ecological mitigation measures stated in *Section 7.7* should be checked as part of the environmental monitoring and audit procedures during the construction period as presented in the separate Environmental Monitoring and Audit Manual. No other ecology-specific measures are considered necessary.

11.6 Cultural Heritage Impact Assessment

Baseline and vibration impact monitoring should be undertaken in the proximity of the potentially impacted sites at Lo Wai, Sam Dip Tam and Yau Kom Tau to ensure the performance meets with the vibration criteria to be discussed and agreed with AMO.

11.7 Hazard to Life

Since stringent legal control and monitoring procedures will be enforced (under the Dangerous Goods Ordinance, Chapter 295), for the explosives to be used during construction, the need for environmental monitoring has not been established.

11.8 Fisheries Impact Assessment

The implementation of the water quality mitigation measures stated in the *Section 5* (Water Quality Impact Assessment) should be checked as part of the environmental monitoring and audit procedures during the construction period as presented in the separate Environmental Monitoring and Audit Manual. No other fisheries-specific measures are considered necessary.