

# 11. Environmental Monitoring and Audit

## 11.1 General

To ascertain and verify the assumptions implicit to and accuracy of EIA study predictions, an environmental and audit (EM&A) programme would be required. The following summarizes the recommended EM&A requirements. Details of specific EM&A requirements are presented in the stand-alone EM&A Manual.

## 11.2 Air Quality Impact

### 11.2.1 Construction Phase

Regular dust monitoring is considered necessary during the construction phase of the Project and regular site audits are also required to ensure the dust control measures are properly implemented. Details of the environmental monitoring and audit (EM&A) programme will be presented in the stand-alone EM&A Manual.

### 11.2.2 Operation Phase

Since it has been assessed that all the ASRs would be in compliance with all the relevant AQOs for SO<sub>2</sub>, NO<sub>2</sub> and RSP, no residual air quality impacts due to vehicular or marine traffic emissions are anticipated. Therefore, no monitoring is considered necessary for vehicular or marine traffic emissions.

For the monitoring of odour emission, it is proposed to carry out monthly odour patrol during summer seasons (from July to September) for at least two years. The key purposes of the odour monitoring are to ascertain the effectiveness of the proposed improvement measures for NYMTTS over time, and to monitor any on-going odour impacts at the ASRs within WKCD. If residual odour impact is still found at the end of the odour monitoring programme, further investigation would be carried out to review the odour problem and to identify the parties responsible for further remedial action.

## 11.3 Noise Impact

### 11.3.1 Construction Phase

Residual airborne noise impact is predicted during the construction phase. To ensure that the nearby NSRs will not be subject to unacceptable construction noise impact, an Environmental Monitoring and Audit (EM&A) programme is recommended. Details on the noise monitoring requirements, methodology and action plans would be described in the separated EM&A Manual.

### 11.3.2 Operation Phase

With implementation of the proposed mitigation measures, no adverse road/marine traffic noise impacts are anticipated from the operation of the Project, hence no environmental monitoring and audit is proposed.

Prior to the operation phase of the Project, as part of the design process, commissioning tests should be conducted to ensure the operational noise from the fixed plant within WKCD would comply with the relevant EIAO-TM noise criteria.

## **11.4 Water Quality Impact**

Adverse water quality impact was not predicted during the construction and operation phases of the proposed WKCD development. Nevertheless, appropriate mitigation measures are recommended to minimize potential water quality impacts.

Water quality monitoring is recommended during the course of marine construction works to obtain a robust, defensible database of baseline information of marine water quality before construction, and thereafter, to monitor any variation of water quality from the baseline conditions and exceedances of WQOs at sensitive receivers during construction and to ensure the recommended mitigation measures are properly implemented.

Monitoring for the spent cooling water discharge from DCWS during operation should follow the requirements as specified in the discharge license to be issued under the WPCO

Regular audit of the implementation of the recommended mitigation measures during the construction phase at the work areas should also be undertaken to ensure the recommended mitigation measures are properly implemented.

Details of the water quality monitoring and audit programme and the Event and Action Plan are provided in the stand-alone EM&A Manual.

## **11.5 Sewerage and Sewage Treatment Implications**

With the implementation of the proposed sewerage system according to the specifications stated in **Section 6.7**, no sewerage or sewage treatment implications are anticipated. No specific sewerage monitoring programme is thus required for the WKCD Development.

## **11.6 Waste Management Implications**

It will be the Contractor's responsibilities to ensure that all wastes produced during the construction of the Project are handled, stored and disposed of in accordance with good waste management practices and the relevant regulations and requirements. The recommended mitigation measures shall form the basis of the Waste Management Plan to be developed by the Contractor in the construction phase.

During construction phase, regular site inspection as part of the EM&A procedures should be carried out to determine if various types of waste are being managed in accordance with approved procedures and the Waste Management Plan. It should cover different aspects of waste management including waste generation, storage, recycling, treatment, transport and disposal.

## **11.7 Land Contamination**

As explained in **Section 8.5**, land remediation is not expected at this stage. Therefore, environmental monitoring in relation to land remediation is not required, unless a need for land remediation is identified during the future site investigation for the TST Fire Station area.

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However, during construction phase, environmental monitoring and audit (EM&A) is to be carried out in the form of regular site inspection. All related procedures and facilities for handling or storage of chemicals and chemical wastes will be audited regularly to make sure they are in order and intact and reported in the EM&A reports as such.

### **11.8 Ecological Impact (Terrestrial)**

The implementation of good site practices would avoid and minimize any ecological impacts to an acceptable level. No specific ecological monitoring programme is thus required for the WKCD Development.

### **11.9 Landscape and Visual Impact**

In addition to ensuring the effective implementation of mitigation measures recommended in **Section 10.7** and compliance with relevant environmental standards; systematic procedures for monitoring, auditing and minimizing the environmental impacts associated with construction and operation phase is required.

During the construction and operation phase, monitoring programs are required to ensure that Contractors and Operators properly carry out mitigation measures and evaluate the actual impacts on landscape and visual amenity. This should be undertaken by a qualified Registered Landscape Architect (RLA), or capable person, as landscape auditor. Corrective actions should be undertaken if there are unacceptable adverse impacts.