

# ACE Paper 5/2013 For information on 22 April 2013

# New Railway Projects and Associated Post-EIA Follow-Up Programme

## INTRODUCTION

This paper documents the Environmental Impact Assessment (EIA) follow-up programme on the construction of the following railway projects:

- (1) Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL)
- (2) Shatin to Central Link (SCL)
- (3) West Island Line (WIL)
- (4) South Island Line (East) (SIL(E))
- (5) Kwun Tong Line Extension (KTE)

## **BACKGROUND**

- 2. Environmental Impact Assessment (EIA) plays an integral part in supporting the sustainable planning and design of the railway projects in Hong Kong. Environmental safeguards during the ongoing construction of these projects have become the current challenge, covering a full range of issues such as noise, ecology and cultural heritage.
- 3. This paper presents the comprehensive EIA follow-up programme developed to manage the implementation and environmental performance of the projects. Good practices and methodologies have been deployed, such as noise monitoring, ecological monitoring, archaeological evaluation, and a dedicated project web site established for public engagement with simple access to information, e.g. works progress, environmental monitoring and audit data.

## IMPLEMENTATION PROGRAMME

4. Implementation programme for the five projects is as follows:

	<b>Project Commencement Date</b>	Project Completion Date
WIL	2009	2014
XRL	2010	2015
KTE	2011	2015
SIL(E)	2011	2015
SCL	2012	2018
	(Tai Wai to Hung Hom Section)	(Tai Wai to Hung Hom Section)
	2014	2020
	(Hung Hom to Admiralty Section)	(Hung Hom to Admiralty Section)

## POST-EIA FOLLOW-UP PROGRAMME

- 5. As part of the EIA follow-up programme, environmental monitoring and audit (EM&A), covering full range of environmental issues including noise, air quality, ecology, landscape and visual, cultural heritage, etc., has been developed to check on compliance with the EIA recommendations and their effectiveness, and also to identify any further need for additional mitigation measures or remedial actions. The aim of EM&A is to provide systematic procedures for monitoring, auditing and minimizing environmental impacts associated with the activities of these projects.
- 6. The following sections present the key aspects included in the EIA follow-up programme, involving good practices and state-of-the-art methodologies in managing the implementation and environmental performance of these projects.

# **Construction Noise and Dust Monitoring**

- 7. Construction noise and dust impacts are the major issues and concerns in urban areas. Regular construction noise and dust monitoring at representative sensitive receivers are being conducted to check the compliance of statutory requirements as well as the effectiveness of the mitigation measures, such as good site practice, regular watering, dust collector, acoustic enclosure and noise insulating cover, etc.
- 8. Since the commencement of these projects, monitoring stations have been

set up to monitor the construction noise and dust performance. An Event and Action Plan for noise and dust monitoring has been developed for carrying out necessary actions in the event of exceedances or complaints. An investigation will be conducted to evaluate whether project-related activities have resulted in an exceedance or complaint.

9. The effectiveness of the mitigation measures has been further reviewed and, as necessary, alternative or additional measures implemented as appropriate. The project-related exceedances recorded are mainly related to insufficient measures and poor scheduling of works by contractors, and have been rectified with suitable remedial actions such as installation of sound muffler, rescheduling of works and enhancement of existing measures.

## **Protection of Archaeological Resources**

- 10. Following the archaeological investigations conducted in the course of EIA, archaeological actions have been identified and recommended in an Archaeological Action Plan (AAP) and submitted to the Environmental Protection Department (EPD) as required under the Environmental Permit (EP) for some of these projects. The AAP follows the Antiquities and Monuments Office (AMO)'s Guidelines to further examine and rescue the archaeological deposits within these project areas through a programme of controlled, intrusive fieldwork with relevant research studies which examines, records and interprets archaeological deposits, features and structures as well as retrieves artefacts, ecofacts and other remains, if any.
- 11. Archaeological Watching Brief (AWB) has also been conducted by qualified archaeologists at excavation areas with archaeological potential as per the EIA recommendations. Archaeological remains uncovered have been duly preserved in accordance with the AWB methodology approved by AMO.

## **Ecological Monitoring**

12. With XRL works areas in proximity to Mai Po Inner Deep Bay Ramsar Site, and areas of conservation interest such as country parks, conservation areas, and wetlands, some with significant avifauna presence such as those overwintering bird, and locally rare Greater Painted-snipe, ecological baseline and construction impact monitoring have been conducted at Mai Po, Tai Kong Po, Shek Kong, Pat Heung and Tse Uk Tsuen. Aim of the monitoring is to monitor the effectiveness of proposed mitigation measures and to detect any unpredicted indirect ecological impacts arising

from the construction of the project. The quantitative monitoring results are compared to pre-construction condition to review the effectiveness of the measures and to evaluate the need of additional measures.

13. Since commencement of the XRL project in early 2010, no significant fluctuation in the number of species and abundance of avifauna has been observed and thus no unacceptable indirect impacts arising from the project been identified.

## **Protection of Trees**

14. For protecting the existing trees which are either retained on-site or transplanted to nursery site, a Tree Protection Plan and/or Visual, Landscape, Tree Planting & Tree Protection Plan has been well-developed to specify protective measures, transplanting proposal and compensatory planting proposal. Regular auditing is being conducted by the Certified Arborist to check the trees' conditions, implement tree protective activities and review their effectiveness.

## **Environmental Site Audit and EM&A Reporting System**

- 15. Regular site audit, as an effective tool in enforcing and triggering specified environmental protection and pollution control measures, is being undertaken to ensure appropriate implementation of environmental protection and pollution control mitigation measures throughout the construction period.
- 16. The monitoring results, site audit findings and monthly EM&A Report are made available to the public via a dedicated MTR's internet website, creating an open and transparent channel between the MTR Corporation and the public.

## **Continuous Public Involvement and Engagement**

17. Close communications with respective district councils, local communities and representatives from residential developments, industrial buildings and schools along the alignments of the projects have been maintained through different channels such as meetings and site walks with local stakeholders, exhibitions, project newsletters and community activities. A project hotline has also been set up in order to provide immediate response as well as appropriate course of action in addressing public enquiries and complaints. Investigations are conducted immediately upon receipt of environmental complaints/enquiries to identify any necessary actions to be implemented by the contractors.

- 18. Meanwhile, for facilitating communication, enquiries and complaints handling on all environmental issues, Community Liaison Groups (CLGs) comprising representatives of concerned and affected parties, including local district council members, representatives of residents, schools, local organizations and representatives from government departments etc., were set up before commencement of the construction works. CLG meetings have been held to report the latest works progress/programme, implementation status of environmental measures and monitoring progress/findings. Through the holding of CLG meetings, continuous interactive dialogues between stakeholders can be maintained and effective communication/discussion platforms be formed to resolve the public's concerns/enquiries.
- 19. Since year 2007, Non-Governmental Organizations (NGOs) have been engaged to solicit their views for consideration in the development and evaluation of project design options, ecological surveys and ecological protection design. Continuing this engagement, meeting as well as joint site visit with NGOs are being held regularly for reporting the findings of ecological impact monitoring and progress of works, thus further enhancing the transparency of the projects.

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