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**Environmental Management and
Post-EIA Follow Up Programme of Railway Projects**

This paper encloses an information paper prepared by the MTR Corporation Ltd. (MTRC) to update the Advisory Council on the Environment on the environmental matters of the construction of the following railway projects for 2015 –

- (1) West Island Line
- (2) Hong Kong Section of Guangzhou-Shenzhen-Hong Kong Express Rail Link
- (3) Kwun Tong Line Extension
- (4) South Island Line (East)
- (5) Shatin to Central Link

2. MTRC had briefed the Council on the key environmental updates of the five railway projects in 2013 and 2014. The minutes of the Council meetings held on 22 April 2013 and 13 October 2014 are at **Appendices A and B** respectively for Members' reference. Site visit had been arranged in March 2015 on the conservation measures taken in respect of the tree walls at Forbes Street near Kennedy Town Station as well as the archaeological resource/cultural heritage in the Tokwawan station area of the Shatin to Central Link. Members had also taken note of the report prepared by the Environmental Protection Department issued on 6 October 2015 on the slurry leakage incidents in Mai Po area in connection with the Express Rail Link excavation works.

Information Paper on Environmental Management and Post EIA Follow Up Programme of Railway Projects

8 December 2015

INTRODUCTION

The purpose of this paper is to provide Members an update on environmental matters of the construction of the following railway projects:

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

KEY ENVIRONMENTAL UPDATES

Further to the last briefing to Members, the WIL came into operation in December 2014, extending the Island Line from the former terminus in Sheung Wan to its new terminus in Kennedy Town. Based on the current progress, MTR is pursuing to deliver the remaining projects progressively in 2016 (KTE and SIL(E)), 2018 (XRL), 2019 (Tai Wai to Hung Hom of SCL) and 2021 (Hung Hom to Admiralty of SCL).

During the delivery process of our projects, through design innovations and continual proactive efforts in dealing with various environmental challenges, disturbance to the community as well as the surrounding environment were minimized. Conservation of tree walls at Forbes Street during the preliminary design, EIA and construction stages of WIL is one of the successful examples. Our efforts would not stop here as we take care of various challenges in other projects. Environmental monitoring and audit programme has been effectively implemented to check on the environmental performance of the ongoing projects such that necessary environmental mitigations are in place appropriately and timely.

Environmental Monitoring and Complaints Handling

For the past year, from July 2014 to June 2015, approximately 11,200 nos of noise, dust and water quality monitoring were conducted, and less than 3% were identified as valid exceedences. Follow-up actions were taken in accordance with the procedures in the EM&A manual.

Monthly survey of avifauna in proximity of the conservation interested area along XRL work sites continued last year. No significant project-related fluctuation was observed. The number of species and abundance of avifauna were similar to the findings in the baseline conditions.

From Jul 2014 to Jun 2015, 14 valid complaints (i.e. 15% of total received complaints) were referred by EPD. Overall, on a cumulative basis since the commencement of the project, over half of the complaints received were related to noise (57%), while the rest were related to air pollution (23%), water quality (12%) and others (8%). Investigations were carried out promptly and necessary mitigation measures were provided. Complainants were engaged proactively for closer and direct dialogues and to effectively address their concerns.

Cultural Heritage and Archaeological Resource Management

The key archaeological undertakings in SCL are located in the TKW station area. All field surveys were completed at the end of September 2014. Since then, a team of archaeologists have been conducting post-excavation work that involves detailed analyses of the archaeological findings and preparation of the Final Assessment Report.

Various Sung-Yuan Dynasty features including wells, building remains and stone structures were backfilled to be preserved in-situ for the time being. Some features such as a well and water channel were dissected for archaeological study and temporarily removed off-site for storage while others were either preserved by record or retrieved for conservation treatment in accordance with the requirements of the Antiquities and Monuments Office (AMO).

MTR Corporation has been working closely with major stakeholders during the entire process. The Antiquities Advisory Board (AAB), Legislative Council (LegCo) and Kowloon City District Council (KCDC) have been consulted with regards to the major remnants of unearthed archaeological features as well as conservation proposals. A number of archaeological site visits and briefings have also been provided to these major stakeholders, including briefings in Community Liaison Group (CLG) meetings to enhance transparency. After extensive consultations, the Antiquities Authority have concluded and announced the conservation proposals in December 2014.

The TKW station design is currently being reviewed in order to incorporate the conservation proposals. Consideration was also given to suggestions from

members of the public to display some unearthed artefacts in the TKW station and the details are being incorporated into the design. The Corporation remains committed to balancing the need of heritage preservation and project delivery.

Ecology Management

Fish Ponds in Mai Po Area

In August 2015 during XRL TBM excavation works, leakage of slurry from a plugged borehole between Tam Kon Chau Road and a fishpond in Mai Po area was reported twice. The leakages were related to the subsurface connections to the Tunnel Boring Machine (TBM) pressurized chamber, which was filled with slurry. Remedial actions including cleanup of slurry, which had flowed onto the road surface and nearby low lying area/abandoned fishpond, and reinstatement of pond bund were undertaken promptly.

After the incidents, various measures (e.g. additional concrete capping to the boreholes to minimize potential pathways for slurry leakage, a 24-hour patrol team to check the ground surface) were implemented to prevent the recurrence of similar situation.

Major stakeholders including relevant Authorities, green groups, fishpond cultivators etc. have been engaged throughout the events and they were generally satisfied with the remedial actions and preventive measures.

Mitigation Stream Habitat in Shek Kong

In Shek Kong Stabling Sidings (SSS), the recreation of stream habitat as the habitat compensation scheme commenced in Q3 of 2014. The profiling works for the lower part of the stream has been completed and vegetation planting at this area started in the summer of 2015. The recreation of stream habitat is targeted to complete in Q2 of 2016.

Noise Impact Management

Comprehensive assessment was conducted in the EIA stage to assess the potential noise impact associated with the train operations for SIL(E). Mitigation measures in the form of full noise enclosures and barriers were recommended in the approved EIA report, and it was concluded that noise impacts were not envisaged.

The noise mitigation measures have been installed along the open sections of SIL(E) while a series of train trial runs are in progress to prepare for operation readiness of SIL(E). Noise performance tests for SIL(E) train operations are also being conducted progressively to ensure full compliance with statutory limits.

Innovation for Environmental Management

We maintain our efforts to pursue innovative design for continuous improvement to minimize environmental impacts on neighbouring sensitive receivers. These included effective use of high performance noise enclosures and adoption of quieter powered mechanical equipment along our works areas in densely populated urban areas, such as Homantin, To Kwa Wan and Hung Hom. The demolition of the existing bridges in the Hung Hom area during our SCL tunnel construction was also avoided through design optimization to minimize construction noise, dust, as well as the generation of construction & demolition waste. These innovative design initiatives have gained support from the local stakeholders, and have also been recognized by the industry through various awards, such as Hong Kong Awards for Environmental Excellence.

Additional Initiatives to Supplement the EM&A Programme

MTR Corporation continues to initiate various stakeholder engagement programmes. The contractors are being encouraged to strive for environmental excellence through environmental awards, incentive payment schemes and the Continuous Environmental Improvement Programme (CEIP). The CEIP was first introduced in 2012 to provide training and experience sharing on environmental management in railway development and construction. In the past year, seminars, workshops, site visits and 2 joint forums with EPD on construction noise and air quality were held to exchange environmental knowledge and management strategy with the contractors and construction teams, and to pass on innovations, technology and good practices from one project to the others.

Regular briefing sessions with Non-governmental Organizations (NGOs) are being conducted throughout the year to maintain two-way communication with the interested groups. Apart from presentations and reporting of environmental impact monitoring and progress of works, the NGOs have also been invited to visit the sites of environmental interest. The Corporation has sought for views and is open to any suggestions from the NGOs for consideration in the current and future projects.

CONCLUSION

In addition to the provision of preventive and mitigation measures recommended in the approved EIA reports and implementation of the environmental monitoring and audit programme, the Corporation has made substantial efforts in response to construction challenges so as to minimize the environmental impacts arisen from the development of the railway projects.

The Corporation also recognizes the importance of public involvement in environmental protection, and maintains a proactive role in strengthening the collaboration with internal and external stakeholders through various engagement programmes. It will continue to endeavour to minimise environmental disturbance to our neighbours while delivering the railway projects for the community.

Prepared by MTR Corporation Ltd

8 December 2015