



## CHAPTER 10

### STUDY FINDINGS

#### 10.1 Overview

The assessment for the Proposed Project which involves the landfill rehabilitation and land reclamation works comprising of 36.42 hectares (90 acres) of the existing Jelutong Landfill to be rehabilitated and 28.33 hectares (70 acres) of new land to be reclaimed at Mukim 13, Daerah Timur Laut, Pulau Pinang into a mixed development as proposed in the EIA report may cause potential impacts on the physicochemical, biological and human and social aspects of the surrounding area. **Chapter 1** provides an introduction to the EIA report, **Chapter 2** depicts the endorsed TOR. Whilst **Chapter 3** outlines the statement of needs for the Proposed Project. **Chapter 4** discusses the various project options. **Chapter 5** of this EIA report provides details of the Proposed Project, **Chapter 6** describes the existing environment where the Proposed Project is located and **Chapter 7** provides the impacts of implementing the Proposed Project. **Chapter 8** describes the mitigation measures that has to be in place to reduce the impacts. **Chapter 9** provides the environmental management plan to be implemented to cater for guided self regulation.

#### 10.2 Findings

The EIA study has identified the impacts of the Proposed Project during the rehabilitation and reclamation works and also during construction on the rehabilitated land and reclaimed land.

Also the coastal hydraulic study conducted for the land reclamation activities indicated that the land reclamation activities will not cause any significant impact to the coastal process. Nonetheless monitoring is still required to assess any possible changes to the existing shoreline.

The impacts that may arise from the Proposed Project due to the landfill rehabilitation and land reclamation activities are mainly related to potential changes in the coastal morphology of the area and impacts to water quality due to sediment dispersion.

However, the impacts that may arise from the Proposed Project can be mitigated with proper planning and design considerations which include:-

- Integration of environmental resources planning into the project physical planning whereby the landfill rehabilitation and land reclamation works would be carried out in an integrated manner;



- Provision of the double silt curtains as recommended in **Chapter 8** will minimise impacts of the land reclamation activities;
- Provision of a passive gas collection system and flaring of the gases detected at site;
- Collection of the leachate from the landfill for offsite treatment and disposal;
- Provision of adequate BMP's and control of fugitive emissions from the recycling process;
- Provision of the double silt curtains to ensure the rehabilitation and filling works;
- Provision of sand for the filling works to be obtained from licensed sources;
- Control of sea traffic and the navigation route to be used shall obtain approval from Jabatan Laut; and
- Provision of strict monitoring and control of the construction methods and safety aspects throughout the course of implementing the Proposed Project.

During the occupation of the rehabilitated and reclaimed area, the major project activities that would essentially stem from the occupancy of land use parcels and plots which are related to the following:-

- Impacts on air quality as a result of vehicular emission due to mobile sources will be residual. The vehicular emissions can be reduced by providing adequate landscaping to mitigate out the dust and exhaust emission generated from these vehicles;
- Increase in the trips generated/attracted to and from the Proposed Project will reduce the level of service for the existing roads. To enhance the level of service, engineering measures shall be in place to address traffic entering/exiting the main junction and the internal road system within the Proposed Project site;
- Impact from the discharge of domestic sewage can be minimized through the collection and conveyance of sewage generated from the Proposed Project to the George Town regional sewage treatment plant in Jelutong; and
- Impact due to domestic solid waste, comprising mainly garbage, kitchen refuse, putrescible food waste and other wastes generated from the Proposed Project shall be regularly collected and disposed of by the appointed contractor to the approved dumping site.

The above issues have been highlighted in **Chapter 7** of the report and design solutions have been identified to mitigate these impacts as discussed in **Chapter 8**.



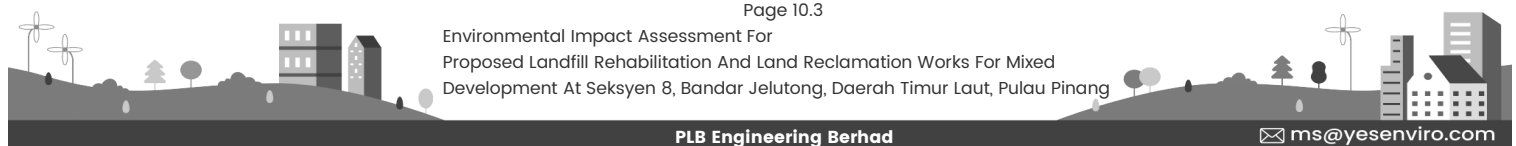


Residual impacts identified in **Chapter 7** are basically due to sewage discharge, increase in traffic plying to and from the area and solid waste management.

Based on all these findings, the study indicated that with the mitigation measures in place impacts to the environment can be minimized to an acceptable level.

Thus it is recommended that the mitigation measures outlined in this EIA report and all recommendations by the geotechnical consultants be integrated in the development of the Proposed Project and where appropriate be made part of the contractual agreement for the contractors appointed for the Proposed Project.

Therefore, as the impacts of developing the Proposed Project can be reduced to an acceptable level at the same time the Proposed Project is compatible with the land use already zoned in the surrounding area, the Proposed Project involving the rehabilitation of Jelutong Landfill and subsequently reclamation of new land mass shall be given due consideration with the recommendations that all mitigation measures outlined in this EIA report including the engineering requirements outlined in the various reports be integrated with the planning and the implementation of the Proposed Project.





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