

including the preferred in-situ treatment approach with minimum or no dredging. With the implementation of contaminated sediment treatment, an estimated 70,000 future SEKD population would be protected from potential biogas risk. Moreover, in order to reduce the volume of up to 2 million cubic metre of sediment for dumping, testing of Deep Cement method or other ground stabilization techniques will be explored as part of the reclamation to minimize dredging normally required for marine works such as seawall construction.

2.1.12 Cultural heritage is another important consideration in designing SEKD. The Sung Wong Toi Inscription Rock was relocated in early days for construction of the airport. A pocket park is planned near the former Far East Flying School to reinstate the Sung Wong Toi in its original location together with a through view to Lei Yue Mun as memorial to the Chinese history. Besides, in order to retain the historical significance of the Fishtail Rock in the existing Hoi Sham Park, a view corridor is incorporated into the current layout plan to provide an unobstructed view from the Fishtail Rock to the Victoria Harbour. Pedestrian linkage between the park and SEKD will also be planned to make this heritage site more effective than it is now.

3. AIR QUALITY

3.1.1 Landuse and transport planning has provided a proactive approach in minimising the likely air quality impacts from road traffic and other sources. The approach included:

- Environmentally friendly public transportation;
- Environmental friendly shuttle service;
- Discouraging through traffic movements;
- Reducing traffic at local levels;
- Reducing demand for through traffic;
- Underground road design; and
- Planning design.

3.1.2 Traffic flow on most of the planned distributor roads being less than 1000 vehicles per hour in one direction. With the introduction of the environmentally friendly shuttle service, it is estimated that the total daily car trips and bus trips to and from SEKD would be reduced by 20,000 veh-km and 22,000 veh-km respectively. This would accordingly reduce the daily nitrogen oxides and RSP emissions from SEKD by about 160 kg and 16 kg respectively based on 2011 vehicle emission factors. However, the SEKD would still be bounded by heavily trafficked existing main roads namely Prince Edward Road East and Kwun Tong Bypass which contribute to the poorer air quality at the periphery of SEKD.

3.1.3 The main impact would be from traffic emissions of open roads and vent shafts of vehicle tunnels. The modelling results showed that the levels of impact within SEKD were generally within the respective Air Quality Objectives (AQOs). However, exceedances were predicted immediately adjacent to tunnel vent shafts. Mitigation measures, in the form of environmental setback and higher vent shaft exhaust height, have been incorporated in the Outline Master Development Plan to avoid adverse air quality impact at nearby sensitive receivers. With the implementation of the recommended mitigation measures, the air quality impact will be acceptable at all sensitive uses.

4. NOISE

4.1.1 Similar to the air quality aspect, the landuse and transport planning has provided a proactive approach in minimising the likely noise impacts from road traffic and other sources. The approach included:

- Environmentally friendly public transportation;

- Environmental friendly shuttle service;
- Discouraging through traffic movements;
- Reducing noise at local levels;
- Reducing demand for through traffic;
- Underground and depressed road design; and
- Planning design.

4.1.2 The amount of vehicular traffic in SEKD has been much reduced with traffic flow on most of the planned distributor roads being less than 1000 vehicles per hour in one direction. However, high traffic volume on existing roads, namely Prince Edward Road East and Kwun Tong Bypass, would still bound SEKD.

4.1.3 The main impact would be from road traffic noise. The levels of impact due to road within SEKD were generally less than 3dB(A) while the levels due to existing roads (Prince Edward Road East and Kwun Tong Bypass) could be as high as 7dB(A). Direct mitigation measures at sources were tested. Together with the incorporation of suggested measures within planned sites, acceptable noise levels could be achieved. With the proposed mitigation measures adopted at fixed noise sources at critical locations, residual impact would not be expected.

5. WATER QUALITY

5.1.1 The reduction in cross-sectional area in the harbour after reclamation would slightly increase the current speeds and reduce the quantity of flow passing through the harbour. Based on the model predictions, the resulting hydrodynamic and water quality would not be adversely affected by the SEKD.

5.1.2 The existing water quality in Victoria Harbour exceeds the Water Quality Objective (WQO) values for some parameters monitored by EPD. The background level of Total Inorganic Nitrogen (TIN) is high. The predicted water quality condition also showed high TIN concentrations in the harbour. It is not likely that the SEKD would increase the exceedances of the WQO for TIN. In fact, the water quality in the harbour would be improved in year 2016 as the pollution flows and loads entering the harbour would be reduced.

5.1.3 Diversion of flow from the Kai Tak Approach Channel (KTAC) to Kowloon Bay would increase the pollution load in the Kowloon Bay area. Redistribution of pollutants from the low flushing capacity area at KTAC to the relatively high flushing capacity area at Kowloon Bay would enhance the dispersion and dilution of pollutants. In the interim stage, the water flow will be diverted from KTN away from TKWTS to further prevent deterioration of water quality in the typhoon shelter.

5.1.4 The discharges from cooling water for air-conditioning would have little impact on the nearby sensitive receivers. The area of influence as a result of the increases in water temperature and anti-fouling chemicals would be in the close proximity of the discharge point.

5.1.5 The modelling results indicated no adverse water quality impacts on the nearby water quality sensitive receivers as a result of storm and emergency overflows from KTPTW and TKWPTW.

5.1.6 Implementation of mitigation measures would minimise the water quality impacts arising from the construction and operational phases of the SEKD. With the inclusion of suitable mitigation measures in the Environmental Monitoring and Audit programme, the potential water quality impacts are expected to be within acceptable levels. There would be no insurmountable water quality impacts to the environment due to the proposed development.