

**Appendix 13.1 Summary of Environmental Impacts**

	<b>Construction Phase</b>	<b>Operational Phase</b>
<b>Air Quality Impact</b>		
Relevant Standards and Criteria	<ul style="list-style-type: none"> <li>• 500m from the boundary of the Project sites</li> <li>• Hong Kong Air Quality Objectives</li> <li>• Air Pollution Control (Construction Dust) Regulation</li> <li>• Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation</li> <li>• Annexes 4 and 12 of the EIAO-TM</li> </ul>	<ul style="list-style-type: none"> <li>• 500m from the boundary of the Project sites</li> <li>• Hong Kong Air Quality Objectives</li> <li>• Annexes 4 and 12 of the EIAO-TM</li> </ul>
Identification of Environmental Impacts	<ul style="list-style-type: none"> <li>• Emissions from construction activities</li> <li>• Industrial Emission</li> <li>• Portal Emission</li> <li>• Vehicular Emission from Open Road</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial Emission</li> <li>• Portal Emission</li> <li>• Vehicular Emission from Open Road</li> </ul>
Representative Sensitive Receivers	<p><u>J/O New Clear Water Bay Road / Shun Lee Tsuen Road RIW and J/O Clear Water Bay Road / On Sau Road RIW Sites:</u></p> <ul style="list-style-type: none"> <li>• Choi Wan (I) &amp; (II) Estates</li> <li>• Fei Ngo Shan Road No.1 &amp; No.6</li> <li>• Flamingo Garden Phase I</li> <li>• Sienna Garden, Helena Heights</li> <li>• Good Hope School, CCC Kei Shun Special School, Kwan Tong Government Secondary School</li> <li>• Leighton Pavilion</li> <li>• Lung Wo Tsuen</li> <li>• Shun Chi Court</li> <li>• St Joseph's Anglo Chinese School</li> <li>• Shun Lee Disciplined Services Quarters (Blocks 3 &amp; 6)</li> </ul>	<p><u>J/O New Clear Water Bay Road / Shun Lee Tsuen Road RIW and J/O Clear Water Bay Road / On Sau Road RIW Sites:</u></p> <ul style="list-style-type: none"> <li>• Same as Construction Phase</li> </ul> <p><u>J/O Sau Mau Ping Road/Lin Tak Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>• Same as Construction Phase; and</li> <li>• Planned private housing developments at ARQ Site (R2-9 / R2-10)</li> </ul>

	<ul style="list-style-type: none"> <li>• Shun Lee Shopping Centre (Phase 1)</li> <li>• Shun Lee Estate Park</li> <li>• Shun Lee Estate, Shun Lee Fire Station, Shun Lee Tsuen Playground</li> <li>• Clear Water Bay Road Sitting Out Area</li> <li>• Sing Yin Secondary School</li> <li>• Shun On Estate, Shun On Kindergarten</li> <li>• Tai Pan Court</li> <li>• Clear Water Bay Village House</li> </ul> <p><u>J/O Sau Mau Ping Road/Lin Tak Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>• Hin Ting Estate, Hong Wah Court, Lam Tin Estate, Po Tat Estate</li> <li>• St Edward's Catholic Primary School, Sau Mau Ping South Estate Playground</li> <li>• Sau Mau Ping (South) Estate Sau Mei House</li> <li>• Hiu Kwong Street Sitting Out Area</li> <li>• Tsui Ping (South) Estate, Tak Tin Estate</li> <li>• Environmental Protection Department's Restored Landfill Site Office</li> <li>• Lam Tin Park</li> <li>• S.K.H. Tak Tin Lee Shiu Keung Primary School</li> <li>• St. Paul's School (Lam Tin)</li> <li>• Planned developments (Site D &amp; E and planned school) at Anderson Road</li> </ul>	
Results of Impact Predictions	<ul style="list-style-type: none"> <li>• With the implementation of recommended dust suppression measures including watering once per hour on active construction works areas and mitigation measures specified in the <i>Air Pollution Control (Construction Dust) Regulation</i>, the predicted dust impact on the air sensitive receivers would comply with the dust criteria as stipulated in EIAO-TM and AQO.</li> </ul>	<ul style="list-style-type: none"> <li>• The assessment results conclude that the predicted cumulative 1-hour average and annual average Nitrogen Dioxide, daily average and annual average Respirable Suspended Particulates / Fine Suspended Particulates concentrations at representative ASR would comply with the AQO.</li> </ul>

Recommended Mitigation Measures	<ul style="list-style-type: none"> <li>Watering frequency is once per hour and the watering application intensity is estimated to be 0.0455 L/m<sup>2</sup> (tentatively) so as to achieve a dust removal efficiency of 87.5%.</li> <li>Dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
Cumulative Impacts	<p><u>J/O New Clear Water Bay Road / Shun Lee Tsuen Road RIW and J/O Clear Water Bay Road / On Sau Road RIW Sites:</u></p> <ul style="list-style-type: none"> <li>No adverse cumulative impacts from construction activities of the Project itself and concurrent projects including ARQ development and Pedestrian Connectivity and ARQ Rock Cavern Development, vehicular emissions from open roads and chimney emissions within the assessment area are anticipated.</li> </ul> <p><u>J/O Sau Mau Ping Road/Lin Tak Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>No adverse cumulative impacts from construction activities of the Project itself and concurrent projects including ARQ development and Pedestrian Connectivity, vehicular emissions from open roads and portal emissions from TKO Tunnel (Kowloon side).</li> </ul>	<ul style="list-style-type: none"> <li>No adverse cumulative impacts from vehicular emissions from open roads, portal emissions from TKO Tunnel (Kowloon side) and chimney emissions within the assessment area are anticipated.</li> </ul>
Residual Impact	<ul style="list-style-type: none"> <li>No residual impact is anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>No residual impact is anticipated.</li> </ul>
<b>Noise Impact</b>		
Relevant Standards and Criteria	<ul style="list-style-type: none"> <li>300m area from the boundary of the Project sites</li> <li>Annex 5 and 13 of EIAO-TM</li> <li>Leq(30min) 75dB(A) at the façade of all domestic premises including temporary housing accommodation, hotels and hostel</li> <li>Leq(30min) 70dB(A) at the façade of educational institutions (65dB(A) during examinations)</li> </ul>	<ul style="list-style-type: none"> <li>300m area from the boundary of the Project sites</li> <li>Annex 5 and 13 of EIAO-TM</li> <li>L<sub>10</sub>(1 hour) 70dB(A) at 1m from the façade of residential dwellings, hotels, offices</li> <li>L<sub>10</sub>(1 hour) 65dB(A) at 1m from the façade of schools</li> <li>L<sub>10</sub>(1 hour) 55dB(A) at 1m from the façade of hospitals or clinics</li> </ul>
Identification of Environmental Impacts	<ul style="list-style-type: none"> <li>Noise arises from construction activities for the 3 RIWs</li> <li>As no construction activities related to the blasting, ground-borne noise impact is not anticipated</li> </ul>	<ul style="list-style-type: none"> <li>Road Traffic Noise from the road network within the Study Area</li> </ul>

Representative Sensitive Receivers	<p><u>J/O Clear Water Bay Road/On Sau Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>• Fei Ngo Shan Road</li> <li>• Sienna Garden</li> <li>• Shun Chi Court</li> <li>• Tai Pan Court</li> <li>• 9-11 Anderson Road</li> <li>• Kwun Tong Government Secondary School</li> <li>• Shun Lee Catholic Secondary School</li> </ul>	<p><u>J/O Clear Water Bay Road/On Sau Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>• Same as Construction Phase</li> </ul>
	<p><u>J/O New Clear Water Bay Road/Shun Lee Tsuen Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>• Planned School at Choi Hing Road</li> <li>• Choi Wan (I) &amp; (II) Estate</li> <li>• Good Hope School</li> <li>• CCC Kei Shun Special School</li> <li>• St Joseph's Anglo-Chinese School</li> <li>• Shun Lee Disciplined Services Quarters</li> <li>• Shun Lee Estate</li> <li>• ECF Saint Too Canaan College</li> <li>• Untied Christian College (Kowloon East)</li> </ul>	<p><u>J/O New Clear Water Bay Road/Shun Lee Tsuen Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>• Same as Construction Phase; and</li> <li>• Society of Boy's Centres Shing Tak Centre School</li> </ul>
	<p><u>J/O Sau Mau Ping Road/Lin Tak Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>• Hing Tin Estate</li> <li>• Hong Wah Court</li> <li>• Lam Tin Estate</li> <li>• Po Tat Estate</li> <li>• St. Edward's Catholic Primary School</li> <li>• Sau Mau Ping (South) Estate</li> <li>• Tak Tin Estate</li> </ul>	<p><u>J/O Sau Mau Ping Road/Lin Tak Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>• Same as Construction Phase</li> </ul>

Results of Impact Predictions	<ul style="list-style-type: none"> <li>With the recommended mitigation measures in place, predicted mitigated noise levels would range from 47 to 79 dB(A) at the representative NSRs. Excessive residual impacts were predicted at some NSRs, which exceed the noise criterion by 1 to 5 dB(A) in several months.</li> </ul>	<ul style="list-style-type: none"> <li>The potential road traffic noise impacts have been assessed based on the worst-case traffic flows in 2030. Without any noise mitigation measures in place, the predicted noise levels at the NSRs would range from 49 to 82 dB(A). Practicable traffic noise mitigation measures were therefore formulated for the NSRs with predicted noise levels exceeding the EIAO-TM traffic noise criteria as a result of contribution from the Project roads.</li> <li>With the implementation of the proposed noise mitigation measures, including noise barriers, semi-enclosures and full-enclosures, the predicted traffic noise levels due to the Project Roads would comply with the relevant noise criteria. Given that the noise environment is dominated by the traffic of the existing roads, exceedance of the relevant noise criteria was still predicted at some NSRs after mitigation. However, the noise contribution from the Project Roads to the overall traffic noise levels would be less than 1.0 dB(A). The residual traffic noise impact of the Project is considered acceptable.</li> </ul>
Recommended Mitigation Measures	<ul style="list-style-type: none"> <li>Adopt quiet power mechanical equipment (PME) and construction noise barriers.</li> </ul>	<ul style="list-style-type: none"> <li>Install noise barrier, including full enclosure, semi-enclosure, cantilever noise barrier and vertical noise barrier, to mitigate the noise level from Project Roads.</li> </ul>
Cumulative Impacts	<p><u>J/O Clear Water Bay Road/On Sau Road Site:</u></p> <ul style="list-style-type: none"> <li>Within the 300m Study area, no cumulative impact from concurrent projects is anticipated.</li> </ul> <p><u>J/O New Clear Water Bay Road/Shun Lee Tsuen Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>Within the 300m Study area, no cumulative impact from concurrent projects is anticipated.</li> </ul> <p><u>J/O Sau Mau Ping Road/Lin Tak Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>Within the 300m Study area, cumulative impacts from infrastructure works of ARQ Site Development and Pedestrian Connectivity are considered.</li> </ul>	<ul style="list-style-type: none"> <li>Road traffic noise arising from existing roads</li> </ul>
Residual Impact	<p>Residual impacts are found at the below Sensitive Receivers:</p> <p><u>J/O Clear Water Bay Road/On Sau Road Site:</u></p>	<ul style="list-style-type: none"> <li>With the implementation of the proposed noise mitigation measures, including noise barriers, semi-enclosures and full-enclosures, the predicted traffic noise levels due to the Project</li> </ul>

	<ul style="list-style-type: none"> <li>• Sienna Garden</li> <li>• Kwun Tong Government Secondary School</li> <li>• Shun Lee Catholic Secondary School</li> </ul> <p><u>J/O New Clear Water Bay Road/Shun Lee Tsuen Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>• Shun Lee Estate</li> <li>• CCC Kei Shun Special School</li> </ul> <p><u>J/O Sau Mau Ping Road/Lin Tak Road RIW Site:</u></p> <ul style="list-style-type: none"> <li>• Hong Wah Court</li> <li>• Hing Tin Estate</li> <li>• St. Edward's Catholic Primary School</li> </ul> <p><i>Mitigation Measures for the Residual Impact</i></p> <ul style="list-style-type: none"> <li>• Good site practices</li> <li>• Noisy construction activities should be scheduled to avoid examination periods of the schools as far as practicable</li> <li>• With the implementation of all the practicable mitigation measures, the residual noise impacts have been minimized. Given the transient nature of the impact, the residual noise impacts are considered acceptable</li> </ul>	<p>Roads would comply with the relevant noise criteria. Given that the noise environment is dominated by the traffic of the existing roads, exceedance of the relevant noise criteria was still predicted at some NSRs after mitigation. However, the noise contribution from the Project Roads to the overall traffic noise levels would be less than 1.0 dB(A). The residual traffic noise impact of the Project is considered acceptable.</p>
<b>Water Quality Impact</b>		
<p>Relevant Standards and Criteria</p>	<ul style="list-style-type: none"> <li>• 500m from the boundary of the Project sites</li> <li>• Annexes 6 and 14 of the EIAO-TM</li> <li>• Water Quality Objectives for the Victoria Harbour Water Control Zone</li> <li>• Technical Memorandum on Effluent Discharge Standard</li> <li>• The Practice Note (PN) for Professional Persons on Construction Site Drainage (ProPECC PN 1/94)</li> </ul>	<ul style="list-style-type: none"> <li>• 500m from the boundary of the Project sites</li> <li>• Annexes 6 and 14 of the EIAO-TM</li> <li>• Water Quality Objectives for the Victoria Harbour Water Control Zone</li> <li>• Technical Memorandum on Effluent Discharge Standard</li> </ul>

<p>Identification of Environmental Impacts</p>	<ul style="list-style-type: none"> <li>• General construction activities</li> <li>• Construction site run-off</li> <li>• Accidental spillage</li> <li>• Sewage effluent from construction workforce</li> <li>• Construction works in close proximity of inland water</li> </ul>	<ul style="list-style-type: none"> <li>• Runoff from the road surfaces</li> </ul>
<p>Representative Sensitive Receivers</p>	<ul style="list-style-type: none"> <li>• Ma Yau Tong Streams</li> <li>• Channelized nullahs near Clear Water Bay Road</li> </ul>	<ul style="list-style-type: none"> <li>• Ma Yau Tong Streams</li> <li>• Channelized nullahs near Clear Water Bay Road</li> </ul>
<p>Results of Impact Predictions</p>	<ul style="list-style-type: none"> <li>• Minimal impacts from wastewater generated and water pollution caused by land-based construction activities.</li> <li>• Unacceptable impacts are not expected from construction site run-off and drainage.</li> <li>• Impacts could be mitigated for accidental spillage of engine oil and lubricants when in use and storage.</li> <li>• Significant impact is not expected for sewage effluent from construction workforce with provision of proper interim sewage treatment facilities, such as chemical toilets.</li> <li>• No adverse impact envisaged for potential contaminated groundwater as no groundwater contamination issue was identified in the land contamination assessment.</li> </ul>	<ul style="list-style-type: none"> <li>• No adverse impact from road run-off is anticipated.</li> </ul>
<p>Recommended Mitigation Measures</p>	<ul style="list-style-type: none"> <li>• Site practices outlined in ProPECC PN 1/94 “Construction Site Drainage” to follow so as to minimise surface run-off and the chance of erosion.</li> <li>• Waste Disposal (Chemical Waste) (General) Regulation to comply with for controlling chemical wastes.</li> <li>• Interim treatment facilities, such as chemical toilets, should be properly maintained to avoid adverse impact upon the nearby water environment.</li> <li>• Practices outlined in ETWB TC (Works) No. 5/2005 “Protection of Natural Streams/Rivers from Adverse Impacts Arising from Construction Works” to adopt.</li> </ul>	<ul style="list-style-type: none"> <li>• Best Management Practices to reduce storm water and non-point source pollution.</li> </ul>

Cumulative Impacts	<ul style="list-style-type: none"> <li>No cumulative impact expected provided that all recommended mitigation measures are implemented properly.</li> </ul>	<ul style="list-style-type: none"> <li>No adverse impact is anticipated.</li> </ul>
Residual Impact	<ul style="list-style-type: none"> <li>No residual impact is anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>No residual impact is anticipated.</li> </ul>
<b>Waste Management Implication</b>		
Relevant Standards and Criteria	<ul style="list-style-type: none"> <li>Areas within the boundary of the Project sites</li> <li>Annexes 7 and 15 of the EIAO-TM</li> <li>Waste Disposal Ordinance (Cap. 354)</li> <li>Waste Disposal Ordinance (Chemical Waste) (General) (Cap.354C)</li> <li>Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap.354N)</li> <li>Land (Miscellaneous Provisions) Ordinance (Cap.28);</li> <li>Public Health and Municipal Services Ordinance (Cap.132BK) – Public Cleansing and Prevention of Nuisances Regulation</li> </ul>	<ul style="list-style-type: none"> <li>Not anticipated.</li> </ul>
Identification of Environmental Impacts	<ul style="list-style-type: none"> <li>Construction and demolition (C&amp;D) materials</li> <li>General refuses</li> <li>Chemical wastes</li> </ul>	
Representative Sensitive Receivers	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>	
Results of Impact Predictions	<ul style="list-style-type: none"> <li>The volume of C&amp;D materials is estimated to be approximately 129,800m<sup>3</sup> of inert materials (i.e. public fill) and approximately 15,300m<sup>3</sup> of non-inert materials (i.e. C&amp;D wastes). There is no sediment present requiring marine disposal.</li> <li>Quantity of chemical wastes would be small and in the order of a few cubic metres over the construction period.</li> <li>About 230 kg per day of general refuse would be generated by the construction workers.</li> </ul>	
Recommended Mitigation Measures	<ul style="list-style-type: none"> <li>C&amp;D materials would be sorted on-site and the inert portion would be stored in different containers, skips or stockpiles to re-</li> </ul>	



	<p>use. Surplus excavated material would therefore be exported off-site.</p> <ul style="list-style-type: none"> <li>Part of the inert C&amp;D materials would be transferred to the site formation and infrastructural works site (SF&amp;I site) of the Development of Anderson Road Quarry Site that requires import fill materials to minimize the net amount of C&amp;D materials generated from this Project.</li> <li>The amount of chemical wastes generated would be quantified in the site waste management plan to be prepared by the Contractor.</li> </ul>	
Cumulative Impacts	<ul style="list-style-type: none"> <li>No adverse impact is anticipated.</li> </ul>	
Residual Impact	<ul style="list-style-type: none"> <li>No residual impact is anticipated.</li> </ul>	
<b>Land Contamination</b>		
Relevant Standards and Criteria	<ul style="list-style-type: none"> <li>Areas within the boundary of the project sites</li> <li>Environmental Impact Assessment Ordinance (EIAO) (Cap. 499), Section 3 of Annex 19 of the EIAO-TM</li> <li>Practice Guide for Investigation and Remediation of Contaminated Land</li> <li>The Guidance Note for Contaminated Land Assessment and Remediation</li> <li>The Guidance Manual for Use of Risk-Based Remediation Goals for Contaminated Land Management</li> </ul>	<ul style="list-style-type: none"> <li>Not anticipated.</li> </ul>
Identification of Environmental Impacts	<ul style="list-style-type: none"> <li>No adverse impact is anticipated.</li> </ul>	
Representative Sensitive Receivers	<ul style="list-style-type: none"> <li>Onsite construction workers</li> </ul>	
Results of Impact Predictions	<ul style="list-style-type: none"> <li>No adverse impact is anticipated.</li> </ul>	
Recommended Mitigation Measures	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>	
Cumulative Impacts	<ul style="list-style-type: none"> <li>No adverse impact is anticipated.</li> </ul>	

Residual Impact	<ul style="list-style-type: none"> <li>No residual impact is anticipated.</li> </ul>	
<b>Ecological Impact (Terrestrial)</b>		
Relevant Standards and Criteria	<ul style="list-style-type: none"> <li>500 m from the boundary of the Project Sites</li> <li>Annex 8 and 16 of the EIAO-TM</li> <li>EIAO Guidance Note No. 3/2010, No. 6/2010, No. 7/2010 and No. 10/2010</li> </ul>	<ul style="list-style-type: none"> <li>No significant adverse impact as the level of disturbance would be comparable to the existing condition.</li> </ul>
Identification of Environmental Impacts	<p>Direct Impacts</p> <ul style="list-style-type: none"> <li>Direct impact on plant species of conservation importance</li> <li>Habitat Loss;</li> <li>Habitat Fragmentation; and</li> <li>Harm / Mortality to Wildlife.</li> </ul> <p>Indirect Impacts</p> <ul style="list-style-type: none"> <li>Impact to Sites of Conservation Importance;</li> <li>Impact to Habitats and Vegetation;</li> <li>Impact to Fauna; and</li> <li>Water Quality Impact.</li> </ul>	
Representative Sensitive Receivers	<ul style="list-style-type: none"> <li>Woodland habitat within the assessment area</li> <li>Plantation habitat within the assessment area</li> <li>Modified Watercourse within the proposed site of RIW at J/O Clear Water Bay Road / On Sau Road</li> <li>Flora species of conservation importance (Incense Tree and Luofushan Joint-fir) within the proposed site of RIW at J/O Clear Water Bay Road / On Sau Road</li> </ul>	
Results of Impact Predictions	<ul style="list-style-type: none"> <li>Approximately 0.34 ha of woodland would be lost permanently. The affected woodland is small in size, highly fragmented and subject to high levels of disturbance. Flora and fauna species recorded in this woodland were common species recorded in low abundance. Thus, the impact of habitat loss is anticipated to be</li> </ul>	

	<p>low.</p> <ul style="list-style-type: none"> <li>• Approximately 1.76 ha of plantation would be lost. Most of the recorded flora and fauna species were very common or common in Hong Kong. No flora and fauna species of conservation importance were recorded. This habitat is subject to frequent human disturbance from roads and residential areas. Thus, the impact of habitat loss is anticipated to be low.</li> <li>• Approximately 0.06 km of modified watercourse would be temporarily lost during the construction phase. As only minor work would be carried out at the western modified watercourse (i.e. construction of cover) and no flora and fauna species were recorded within the affected area during the surveys, the impact of habitat loss is anticipated as negligible.</li> <li>• Two flora species of conservation importance would be directly affected by the works.</li> <li>• Indirect and secondary impacts would comprise human disturbance, construction noise and vibration, construction dust, glare and construction site runoff.</li> <li>• The installation of noise barriers along the roads could result in bird strike / collision of birds with the barriers and may result in bird mortality.</li> </ul>	
<p>Recommended Mitigation Measures</p>	<p><u>Measures to Avoid / Minimize Impacts to Flora Species of Conservation Importance</u></p> <ul style="list-style-type: none"> <li>• Within the works footprint, two flora species of conservation importance (Incense Tree and Luofushan Joint-fir) would be subject to direct impacts. Mitigation measures such as transplantation, post-transplantation monitoring, and implementation of hoarding / fencing should be implemented</li> </ul> <p><u>Measures to Avoid/ Minimize Habitat Loss to Woodland and Plantation</u></p> <ul style="list-style-type: none"> <li>• Retain existing vegetation wherever possible, particularly mature and semi-mature trees present within the works areas. Any trees retained should be adequately protected during construction phase to promote their health and longevity. Areas which would be temporarily affected by construction activities (i.e. slope works) should be reinstated after completing the construction works.</li> <li>• Hoarding or fencing should be erected around the works areas to</li> </ul>	

restrict access to natural habitats adjacent to works areas by site workers.

Measures to Minimize Disturbance Impacts

- Construction dust should be suppressed:
- Regular spraying of haul roads
- Proper storage of construction materials
- Covering trucks or transporting wastes in enclosed containers
- Noise impact should be avoided and minimized:
- Shut down non-using machines
- Orientate machines to direct noise away from the nearby habitats
- Material stockpiles and other structures should be effectively utilized in screening noise from on-site construction activities
- Using Quiet Mechanical Plant
- Machines and plants should be covered by noise enclosure to further reduce noise impact.
- Night-time lighting control to avoid glare disturbance to wildlife.

Measures to Minimize Water Quality Impacts

- General refuse and construction wastes should be collected and disposed of in a timely and appropriate manner.
- Drainage arrangements should include sediment traps to collect and control construction run-off.
- All works and storage area should be restricted to the site boundary.
- Regular check of the construction boundary to avoid unmitigated impacts imposed on nearby watercourse.

Measures to Minimize Impacts from Noise Barriers

- During the operational phase, the road networks and associated noise barriers may result in bird collision and mortality. Mitigation

	measures such as use of tinted materials and superimposing dark patterns or strips on the barrier, as per EPD / Highways Department requirements would be employed to minimise incidents of mortality from collision.		
Cumulative Impacts	<ul style="list-style-type: none"> <li>No cumulative impact was identified.</li> </ul>		
Residual Impact	<ul style="list-style-type: none"> <li>The affected woodland habitat north of Clear Water Bay Road is small in size, isolated, of low floral and faunal diversity and of low ecological value. Two flora species of conservation importance were recorded within the works footprint. With the implementation of mitigation measures (e.g. transplantation) and tree planting as part of the landscaping proposals, the residual impact is considered to be negligible-minor and acceptable.</li> <li>With proper implementation of mitigation measures suggested, potential indirect impact to the wildlife in the nearby habitats (i.e. disturbance impact and water quality impact) would be minimized and the residual indirect impact is considered to be acceptable.</li> </ul>		
Landscape and Visual Impacts			
Relevant Standards and Criteria	<ul style="list-style-type: none"> <li>100m area from the boundary of the Project Sites</li> <li>Visual envelope</li> </ul>		<ul style="list-style-type: none"> <li>Same as Construction Phase</li> </ul>
Identification of Environmental Impacts	<ul style="list-style-type: none"> <li>Loss of greenery, e.g semi-natural hillside woodland</li> <li>Adverse visual impact</li> </ul>		<ul style="list-style-type: none"> <li>Same as Construction Phase</li> </ul>
Representative Sensitive Receivers	<p><i>Landscape Resources</i></p> <ul style="list-style-type: none"> <li>Major Transport Route</li> <li>Hillside Woodland</li> <li>Semi-natural Dense Hillside Vegetation</li> <li>Urban Development Area</li> <li>Shun Lee Tsuen Sports Centre and Park</li> </ul>	<p><i>Visual Sensitive Receivers</i></p> <ul style="list-style-type: none"> <li>VSR from New Clear Water Bay Road</li> <li>VSR from Shun Lee Disciplined Services Quarters</li> <li>VSR from Shun Ching Street</li> <li>VSR from Shun On Estate</li> <li>VSR from Sienna Garden</li> <li>VSR from Lee Cheung House</li> </ul>	<ul style="list-style-type: none"> <li>Same as Construction Phase</li> </ul>

	<ul style="list-style-type: none"> <li>• Quarry</li> <li>• Rural Development Area</li> <li>• Engineered Slope along with Semi-natural Dense Hillside Vegetation</li> <li>• Watercourse</li> </ul> <p><i>Landscape Characters</i></p> <ul style="list-style-type: none"> <li>• Peaks, Uplands and Hillside LCA</li> <li>• Urban LCA</li> <li>• Urban Parks LCA</li> </ul>	<p>Northeastern</p> <ul style="list-style-type: none"> <li>• VSR from On San Road North</li> <li>• VSR from Po Tai Estate South</li> <li>• VSR from Hing Tin Estate</li> <li>• VSR from Lin Tak Road</li> <li>• VSR from Choi Fai Estate</li> </ul>	
<p>Results of Impact Predictions</p>	<ul style="list-style-type: none"> <li>• Approximately 1,485 trees are proposed to be felled and 24 trees are proposed to be transplanted.</li> </ul>	<ul style="list-style-type: none"> <li>• Semi-natural dense hillside woodland would be set back for widening the existing roads</li> <li>• The slope at Lin Tak Road would be set back for the construction of the new flyover and road widening. Vegetable on the slope will be removed.</li> <li>• Residents of lower floors of Hong Wah Court next to the junction of Sau Mau Ping Road / Lin Tak Road will suffer large visual impact.</li> </ul>	
<p>Recommended Mitigation Measures</p>	<ul style="list-style-type: none"> <li>• All existing trees to be retained shall be carefully protected during construction.</li> <li>• Tree Transplantation following the detailed transplanting proposals in accordance with ETWB TCW No. 29/2004 and DEVB TC (W) No.7/2015 and Guidelines on Tree Transplanting”, GLTMS of DEVB</li> <li>• Erection of decorative screen hoarding for reducing visual impacts</li> <li>• Mitigation measure for Flora Species of Conservation Importance</li> </ul>	<ul style="list-style-type: none"> <li>• Compensatory tree planting for loss of existing trees</li> <li>• Compensatory woodland planting</li> <li>• Compensatory shrub mix planting</li> <li>• Hydro-seeding planting with shrub seed mix</li> <li>• Tall buffer advance screen tree / shrub / climber planting</li> <li>• Planting of road verges, central divider and around structures</li> <li>• Reinstate modified watercourse</li> <li>• Provision of visually pleasing aesthetic treatment on noise barriers ( with climbers provided if space available) and enclosures</li> <li>• Hard Landscape Treatment Carriageway, Structures and</li> </ul>	

		<p>Roadside Furniture(for example, pleasing aesthetic finishing of retaining wall)</p> <ul style="list-style-type: none"> <li>• Planting of toe planters for slope enhancement</li> <li>• Planting of berm planters/ planting strips for slope enhancement</li> </ul>
Cumulative Impacts	<ul style="list-style-type: none"> <li>• No adverse impact is anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>• No adverse impact is anticipated.</li> </ul>
Residual Impact	<ul style="list-style-type: none"> <li>• The landscape and visual impacts from the Project area considered generally acceptable with the implementation of appropriate mitigation measures.</li> </ul>	<ul style="list-style-type: none"> <li>• The landscape and visual impacts from the Project area considered generally acceptable with the implementation of appropriate mitigation measures</li> </ul>
<b>Landfill Gas Hazard</b>		
Relevant Standards and Criteria	<ul style="list-style-type: none"> <li>• Areas within the boundary of the Project Sites</li> <li>• Section 1.1(f) in Annex 7 of the EIAO-TM</li> <li>• Section 3.3 in Annex 19 of the EIAO-TM</li> <li>• Landfill Gas Hazard Assessment for Development Adjacent to Landfills (ProPECC PN 3/96) ; and</li> <li>• Landfill Gas Hazard Assessment Guidance Note (1997) (EPD/TR8/97, Guidance Note)</li> </ul>	<ul style="list-style-type: none"> <li>• Same as Construction Phase</li> </ul>
Identification of Environmental Impacts	<ul style="list-style-type: none"> <li>• Landfill gas from Jordan Valley, Ma Yau Tong West and Ma Yau Tong Central Landfills</li> </ul>	<ul style="list-style-type: none"> <li>• Same as Construction Phase</li> </ul>
Representative Sensitive Receivers	<ul style="list-style-type: none"> <li>• Onsite construction workers</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance workers for buried utilities / services</li> </ul>
Results of Impact Predictions	<ul style="list-style-type: none"> <li>• The overall hazard level for the proposed project associated with Jordan Valley, Ma Yau Tong West and Ma Yau Tong Central Landfills is Medium for each of the three areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Same as Construction Phase</li> </ul>

Recommended Mitigation Measures	<ul style="list-style-type: none"> <li>• General precautionary measures in terms of safety procedures and sensible housekeeping practices are recommended to minimize risk during construction stage.</li> <li>• Routine monitoring is recommended as a precautionary measure.</li> </ul>	<ul style="list-style-type: none"> <li>• General precautionary measures in terms of safety procedures and landfill gas monitoring are recommended to minimize risk when undertaking inspection / maintenance of buried utilities / services during operational stage.</li> </ul>
Cumulative Impacts	<ul style="list-style-type: none"> <li>• No adverse impact is anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>• No adverse impact is anticipated.</li> </ul>
Residual Impact	<ul style="list-style-type: none"> <li>• No residual impact is anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>• No residual impact is anticipated.</li> </ul>