

## 8. MANAGEMENT AND MONITORING OF ACTUAL AND POTENTIAL EFFECTS

As summarised in Section 7, WIAL has carefully assessed effects on the environment, and has adopted expert recommendations to avoid, remedy or mitigate adverse effects arising from the Project.

WIAL proposes implementing the effects management measures referenced in the sub-sections below by way of the proposed conditions provided in **Part D** of these application documents. The proposed conditions for the Southern Seawall Renewal have been drafted to address the environmental effects associated with the Project in a robust way. Conditions have been drafted according to best practice principles such that they are enforceable and avoid any subsequent delegation of decision-making functions. Where management plans are relied on to give effect to conditions, the relevant conditions include a clear statement of the objectives that are required to be met by those plans, and if they are required to be certified post issuance of consent, there is clear guidance about the process that must be followed to facilitate the certification process.

In some cases, final versions of management plans have been submitted as part of this application.<sup>108</sup> For these management plans it is intended that the decision-making Panel charged with delivering a decision on this application will have sufficient information to accept those plans and impose conditions that require the Consent Holder to adhere to their requirements without the need for subsequent certification. Those management plans will then 'attach' directly to the relevant authorisations.

WIAL acknowledges that throughout the Panel's consideration of the application and as part of its deliberations there will likely be a need to revisit these conditions to address new matters that arise, or to deal with new perspectives that might be brought to bear on a particular issue. As discussed in Section 6, that process is already well advanced, through the process of WIAL sharing draft conditions for comment / feedback by the administering agencies / key stakeholders.

WIAL is committed to a collaborative process whereby further amendments and refinements can be made to the conditions if and when the need arises at the Panel's behest.

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<sup>108</sup> Including the Contaminated Land Management Plan, the AMP, the LMP, the KPMP and the Archaeological Site Management Plan.



The proposed conditions of consent have been drafted to:

- > Ensure they are robust and fit for purpose based on the nature and extent of the environmental effects that will result from the Project;
- > Ensure the performance standards set out in the proposed conditions are clear;
- > Ensure that they are enforceable and readily able to be administered by the consent authorities;
- > Ensure that monitoring and review obligations imposed by the proposed conditions are comprehensive and effective.

Table 8.1 below provides a summary of the suite of effects management measures proposed by WIAL as part of this application for the Project. The proposed measures will ensure that any adverse effects associated with the proposed works will be appropriately managed.

Table 8.1: Summary of the Proposed Effects Management Measures for the Southern Seawall

Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
<b>Effects on Mana Whenua</b>		
<i>Note that the broader effects management measures, particularly in respect of ecology values, are also directly relevant in terms of cultural values.</i>		
Effects on kōiwi tangata and taonga tūturu	The on-call protocol outlined in the AMSP at <b>Part G</b> will be followed if archaeological material is discovered during works.	None as this is managed under the Archaeological Authority being sought as part of this application.
Mana whenua partnership and participation.	Establishment of a mana whenua advisory group prior to the commencement of construction. The purpose of the advisory group includes to facilitate ongoing engagement with Taranaki Whānui and Ngāti Toa during the implementation of the Project (refer Section 4 of this application).	On-going engagement with Taranaki Whānui and Ngāti Toa under the mana whenua advisory group.
<b>Geotechnical Matters</b>		
MGC Yard slope instability.	Constructing the proposed rock cut in accordance with the recommendations in Beca (2025a).  Undertaking of excavations with an Engineering Geologist or Geotechnical Engineer present.	Hydroseeding of the slopes following completion of the works.  Slope inspection following significant rainfall or seismic events (at least quarterly).

Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
<b>Erosion and Sediment Control</b>		
<p>Erosion and sediment discharges, including changes in water quality associated with sediment and other contaminants in stormwater.</p>	<p>The implementation of erosion and sediment control measures in accordance with the ESCMP, Chemical Treatment Management Plan and SSESCP.</p> <p>Erosion and sediment control measures are to be constructed and maintained to operate and perform in accordance with <i>Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Wellington Region (2021)</i> or the <i>NZTA Erosion and sediment control guidelines for state highway infrastructure, (2014)</i>.</p> <p>Undertaking of works in a staged and sequenced manner to minimise open areas and provide for progressive stabilisation.</p> <p>Progressive and rapid stabilisation (both temporary and permanent) of disturbed areas.</p> <p>Visual inspections of construction water management devices to ensure they are clean before they are placed in the coastal marine area.</p> <p>Implementation of sediment and erosion controls, including clean water diversion ponds, sediment retention ponds, decanting earth bunds and silt fencing.</p>	<p>To be undertaken in accordance with the ESCMP and SSESCP.</p> <p>Auditing (at least weekly and following all rainfall events greater than 7mm/hr or 20mm over 24 hours) of the ESC measures by a SQEP.</p> <p>Sampling of pH and clarity in receiving waterbodies, following all rainfall events greater than 7mm/hr or 20mm over 24 hours and after the commencement of any discharges from any sediment retention pond.</p> <p>Monitoring and maintenance of the George Bolt Yard and temporary stormwater measures at the MGC Yard in accordance with the site-wide WIAL Stormwater Management Plan (which will be updated to reflect stormwater management arrangements for the MGC Yard).</p>



Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
	<p>Retention and repurposing of sediment and erosion controls at the MGC Yard once stabilised to manage stormwater run-off during operation of the yard.</p> <p>Update of the site-wide WIAL Stormwater Management Plan to account for temporary stormwater measures at the MGC Yard.</p>	

**Dust Management**

<p>Dust discharge impacting the amenity of surrounding the surrounding area and on aviation safety.</p>	<p>The implementation of erosion and sediment control measures in accordance with the ESCAR and SSESOPs.</p> <p>The management of dust in general accordance with the Ministry for the Environment’s “Good Practice Guide for Assessing and Managing Dust” November 2016. Including:</p> <ul style="list-style-type: none"> <li>&gt; Staging of earthworks activities as much as possible and progressive stabilisation of completed surfaces to ensure that exposed areas at any one time are minimised;</li> <li>&gt; Managing the route and speed of vehicles traversing the site taking into account potential dust mobilisation and effects;</li> <li>&gt; Monitoring and maintenance of potential nuisance dust effects; and</li> <li>&gt; Implementation of appropriate control measures to suppress dust generation effects, such as water carts.</li> </ul>	<p>Monitoring is to be undertaken in accordance with the Ministry for the Environment’s “Good Practice Guide for Assessing and Managing Dust” November 2016, where relevant.</p>
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Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
<b>Contaminated Soils Management</b>		
Exposure to contaminated soils.	Undertaking of works in accordance with the CLMP and ESCP.  Use of PPE.	If required, outsourced material that is not virgin natural material to be used to backfill excavations should be tested at the source at a level of 1 sample per 500 m <sup>3</sup> .
Mobilisation of contaminants	Undertaking of works in accordance with the relevant CLMP.  Development and implementation of an ESCP.  Dust suppression measures (minimising stockpiles sizes, dampening disturbed area, minimise drop distances from excavators and covering stockpiles in high wind).  Back fill disturbed material where possible.	None.
Contamination of other sites	Undertaking of works in accordance with the CLMP.  Dust suppression measures (minimising stockpiles sizes, dampening disturbed area, minimise drop distances from excavators and covering stockpiles in high wind). Disposal of material to a suitably licensed contaminated landfill facility or otherwise appropriately authorised location.	None.



Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
<b>Terrestrial Ecology Effects</b>		
Potential effects on the natural inland wetland adjacent to the MGC Yard.	N/A – the wetland will be avoided by the works as there is no hydrological connection between the MGC Yard as the natural inland wetland.	None.
The temporary removal of low value coastal vegetation across Moa Point Yard.	Remediation following the completion of the works in accordance with the Moa Point Landscape Concept Plan.	Maintenance of planting at Moa Point Yard for 5-years following initial planting.
Temporary loss of roosting, foraging and breeding habitat for banded dotterel (up to three pairs) is expected as a result of the Moa Point Yard construction and operation.	<p>Implementation of an AMP or the duration of the works (which will include detail regarding the key measures below).</p> <p>Early establishment of the works area in Moa Point Yard to deter breeding.</p> <p>Pre-construction nest surveys 24 hours prior to construction undertaken by an experienced ecologist or ornithologist during nesting season, with additional surveys after three days of no work.</p> <p>No works within 50 m of the nests if eggs are found to be present and notification to the Project Ornithologist for further action.</p> <p>The construction of nest cages in other suitable areas for banded dotterels to breed with the grassland area of the Airport.</p>	<p>In accordance with the AMP.</p> <p>Weekly monitoring of the Moa Point Yard during breeding season.</p> <p>Inspections following three days of inactivity at Moa Point Yard.</p>



Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
<p>Temporary loss of herpetofauna habitat and the risk of mortality and injury during vegetation clearance activities.</p>	<p>Implementation of an LMP (which will include details re the measures below).</p> <p>Herpetofauna searches three days prior to earthworks and vegetation clearance.</p> <p>Lizard trapping for a five day period prior to any vegetation removal.</p> <p>Release of captured lizards to designated release area(s), and habitat enhancement and pest control at the release area(s).</p> <p>Restoration planting following completion of the Project.</p>	<p>A native lizard survey must be undertaken by a SQEP prior to works on the Stage 1 Kororā Colony.</p> <p>The SQEP will monitor all vegetation clearance at the Moa Point Yard, Stage 1 Kororā Colony and MGC Yard.</p> <p>Notification to DoC of any lizard species not identified in the LMP being found.</p> <p>Pest control will be undertaken once 20 or more lizards have been released into a relocation area.</p> <p>A monitoring survey will be undertaken following the release of 20 or more lizards in the relocation area annually and for a period of 5 years after. A report describing the results of the monitoring survey is to be provided to the Manager at WCC.</p>
<p>The impact of the Project on intermittent avifauna foraging and roosting areas.</p>	<p>Implementation of an AMP for the duration of the works (which will include details re the measures below).</p> <p>Pre-work surveys, nest checks and the provision for buffer zones if nests are found.</p> <p>Replanting of native trees and shrubs at the Tukanāe Reserve (adjacent to the MGC Yard) will provide additional habitat and foraging areas.</p>	<p>In accordance with the AMP.</p> <p>Weekly monitoring of the Moa Point Yard during breeding season.</p> <p>Inspections following three days of inactivity at Moa Point Yard.</p>

Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
<p>The impact of noise on the behaviour of terrestrial ecology including: impeding communication, decreasing reproductive success, changing foraging behaviours, decreasing the ability to detect predators, initiating flushing responses and increasing avoidance behaviours in fauna.</p>	<p>Deterrence of birds prior to nesting within project areas; apply exclusion zones if nests are identified.</p> <p>Installing noise redactors and low impact beepers on on-site plant.</p> <p>Using equipment (for example, sand mats) to reduce the noise of rock being unloaded to ground.</p> <p>Switching engines off for extended periods.</p> <p>No sudden acceleration or braking.</p>	<p>None.</p>
<p>The effect of lighting on migratory seabirds.</p>	<p>The use of white LED bulbs with a colour temperature of 3000k for lighting used on mounted buildings columns and luminaries.</p> <p>The intensity of each luminaire being the practical minimum required to ensure safe conditions.</p> <p>Adaptive controls on lighting, including motion sensor controls and timing controls.</p> <p>Mobile plant and vehicle lights being tilted up to no greater than 45 degrees if up to 3m above ground or 30 degrees if higher.</p> <p>The use of headlight sweep.</p>	<p>In accordance with the AMP.</p> <p>Hourly night patrols in January to February, frequency of patrols and period to extend to mid-March if required.</p> <p>Monthly lighting audits.</p> <p>Reporting of any incidents of grounded seabirds, summarised weekly.</p>
<p>The effect of dust on terrestrial ecology.</p>	<p>The management of dust in general accordance with the Ministry for the Environments “Good Practice Guide for Assessing and Managing Dust” November 2016. Including:</p>	<p>None.</p>



Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
	<ul style="list-style-type: none"> <li>&gt; Staging of earthworks activities as much as possible and progressive stabilisation of completed surfaces to ensure that exposed areas at any one time are minimised;</li> <li>&gt; Managing the route and speed of vehicles traversing the site taking into account potential dust mobilisation and effects;</li> <li>&gt; Monitoring and maintenance of potential nuisance dust effects; and</li> <li>&gt; Implementation of appropriate control measures to suppress dust generation effects, such as water carts.</li> </ul>	
<b>Marine Ecology Effects</b>		
Temporary and permanent habitat loss and physical disturbance during construction.	No specific action required; the new seawall will recolonise naturally to address this effect.	2-year post construction, the undertaking of a monitoring survey to assess the rate of recolonisation of the Southern Seawall.
Temporary water quality changes due to the suspension of contaminants.	<p>The implementation of erosion and sediment control measures in accordance with the ESCMP and SSES CPs.</p> <p>Erosion and sediment control measures are to be constructed and maintained to operate and perform in accordance with <i>Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Wellington Region (2021)</i> and any amendments to these guidelines.</p>	Monitoring of the ESCP measures implemented at the site to ensure they are in working order as set out in the ESCP and SSES CPs.

Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
	<p>Progressive and rapid stabilisation (both temporary and permanent) of disturbed areas.</p> <p>Visual inspections of construction water management devices to ensure they are clean before they are placed in the coastal marine area.</p> <p>Undertaking of works in a staged and sequenced manner to minimise open areas and provide for progressive stabilisation.</p> <p>Route and speed restrictions of vehicles within the site to mitigate dust mobilisation.</p>	
<p>Temporary increases in suspended sediments and turbidity during construction.</p>	<p>Minimisation of dust within the Project area. Including measures such as:</p> <ul style="list-style-type: none"> <li>&gt; Progressive and rapid stabilisation (both temporary and permanent) of disturbed areas.</li> <li>&gt; Visual inspections of construction water management devices to ensure they are clean before they are placed in the coastal marine area.</li> <li>&gt; Undertaking of works in a staged and sequenced manner to minimise open areas and provide for progressive stabilisation.</li> <li>&gt; Route and speed restrictions of vehicles within the site to mitigate dust mobilisation.</li> </ul>	<p>Monitoring of the ESCP measures implemented at the site to ensure they are in working order as set out in the ESCP and SSESs.</p>

Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
<p>Temporary noise from drilling and blasting activities during construction.</p>	<p>Applying the Marine Mammal Management Plan, which includes details in terms of the methodology for otherwise managing noise effects on marine mammals. Including:</p> <ul style="list-style-type: none"> <li>&gt; The monitoring of underwater noise during the initial rock and milling works; and</li> <li>&gt; The implementation of standard operating procedures during rock-milling works.</li> </ul>	<p>The submission of an annual summary report (to GWRC and DOC) of marine mammal sightings and any mitigation measures implemented.</p>
<p><b>Kororā / Little Blue Penguin Effects</b></p>		
<p>Loss of habitat through the disturbance of land and associated potential effects of construction activities.</p>	<p>The establishment of a new revetment rock wall to provide a new habitat for kororā, providing 610 m<sup>2</sup> of kororā habitat.</p> <p>The establishment of two new kororā colonies in accordance with the KPMP and at the direction of the Project Penguin Biologist.</p> <ul style="list-style-type: none"> <li>&gt; Stage 1: The Stage 1 Kororā Colony will be established on land owned by WIAL at Moa Point, totalling 2,060 m<sup>2</sup>. The Stage 1 Kororā Colony will be established prior to any works occurring within Moa Point Yard or the Southern Seawall; and</li> <li>&gt; Stage 2: The Stage 2 Kororā Colony will be established after the completion of the construction of the renewed</li> </ul>	<p>Monitoring and reporting of the Stage 1 and Stage 2 Kororā Colonies in accordance with KPMP for 20 years.</p> <p>Monitoring of tunnel use and lighting effects for ten years, with changes to lighting to be implemented as needed to ensure kororā utilise the tunnel.</p>

Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
	<p>Southern Seawall, which will provide 860 m<sup>2</sup> of new kororā habitat.</p> <ul style="list-style-type: none"> <li>&gt; A significant number of nest boxes (270 in total over time) will be provided at the two colonies, along with various habitat enhancement / protection measures (details as set out in the KPMP).</li> </ul>	
<p>The potential for injury or mortality during construction works.</p>	<p>The undertaking of construction activities in accordance with the KPMP. Including:</p> <ul style="list-style-type: none"> <li>&gt; Assumption that penguins are present;</li> <li>&gt; Timing works to avoid breeding season and, where practicable moulting season;</li> <li>&gt; Having an authorised kororā handler observing and advising works;</li> <li>&gt; Carefully inspecting potential kororā habitat and relocating kororā to the Stage 1 Kororā Colony, which must be established prior to works commencing;</li> <li>&gt; Establishing kororā exclusion measures;</li> <li>&gt; Pre-work inspections;</li> <li>&gt; Pre- and post-work shift inspections;</li> <li>&gt; 10 m buffer around kororā sites (if discovered) from August to December;</li> </ul>	<p>Undertaking of one penguin dog survey between 1 August – 28 February each year until a SQEP confirms kororā habitat is no longer present in the Project area.</p> <p>Undertaking of two kororā surveys within 6 months of vegetation removal and rock removal.</p> <p>Noise monitoring of construction activities will be undertaken within 20 m of kororā or a kororā nest.</p>



Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
	<ul style="list-style-type: none"> <li>&gt; Relocating kororā to the Stage 1 Kororā Colony;</li> <li>&gt; Adoption of micro piling, noise testing and implementation of noise barriers if needed.</li> </ul>	
<p>The effects of on-going maintenance of the Seawall.</p>	<p>Undertaking of works in accordance with the KPMP, including:</p> <ul style="list-style-type: none"> <li>&gt; Assumption that penguins are present;</li> <li>&gt; Timing works to avoid breeding season and, where practicable moulting season;</li> <li>&gt; Having an authorised kororā handler observing and advising works;</li> <li>&gt; Carefully inspecting potential kororā habitat and relocating kororā to the Stage 1 Kororā Colony, which must be established prior to works commencing;</li> <li>&gt; Establishing kororā exclusion measures;</li> <li>&gt; Pre-work inspections;</li> <li>&gt; Pre- and post-work shift inspections;</li> <li>&gt; 10 m buffer around kororā sites (if discovered) from August to December;</li> <li>&gt; Relocating kororā to the Stage 1 Kororā Colony;</li> </ul> <p>Adoption of micro piling, noise testing and implementation of noise barriers if needed.</p>	<p>Undertaking of two kororā surveys within 6 months of vegetation removal and rock removal.</p> <p>Noise monitoring of construction activities will be undertaken within 20 m of kororā or a kororā nest.</p>



Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
<b>Coastal Process Effects</b>		
Release of fine material associated with placement of rock and concrete armour units.	Standard requirements for clean rock and armour units, controlled placement on site using appropriate plant, and site handling and storage practices as set out in the ESCP.  The construction of the seawall in accordance with the design plans.	None.
Release of sediment during seawall toe excavation.	None.	Monitoring to verify the plume is localised and of short duration.
<b>Surf Break Effects</b>		
The Project's impact on wave climate, recreational user safety and surfing amenity.	None – potential adverse effects considered carefully and avoided through design.	None.
<b>Landscape and Natural Character Effects</b>		
Construction activities at the Southern Seawall and Moa Point Yard.	WIAL to offer blackout blinds to neighbouring properties to minimise light spill during night works.  Preparation and implementation of a Moa Point Landscape Concept Plan.	Maintenance and monitoring of planting for 10 years following the initial planting at the Moa Point Yard and 20 years following the initial planting at the Stage 2 Kororā.



Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
Establishment and use of the George Bolt Yard.	Site reinstatement consistent with the adjoining commercial or airport activities.	None.
Establishment and use of the MGC Yard.	Preparation and implementation of an MGC Yard Landscape Concept Plan.  Exterior buildings using recessive colours of greys, browns and greens, with RV value no higher than 20%.  Following completion of the works, the site will be left in a clean and tidy state for rehabilitation.	Maintenance and monitoring of planting for the duration of works.
<b>Transportation Effects</b>		
Impacts on transport network due to material delivery and stockpiling.	Heavy vehicles to use prescribed heavy vehicle routes.  Over dimension vehicles to use prescribed over dimension vehicle routes.  Reduction of peak daily truck movements achieved by WIAL committing to using a smaller 1,100T barge to transport rock if obtained from South Island sources.	None.
Impacts on Stewart Duff Drive, Moa Point Road or George Bolt Street due to the operation of the MGC, Moa Point or George Bolt Yards.	Implementation of CTMP and SSTMPs which describe how different activities will be managed in accordance with the New Zealand Guide to Temporary Traffic Management.	Regular monitoring to identify and manage adverse effects.



Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
	<p>Implementation of clear signage, access controls, and forward-only truck manoeuvres to prevent queuing and maintain safe, efficient site access.</p> <p>Reverse movements will be managed with appropriate traffic control.</p> <p>Implementation of measures such as wheel washing, load covering, and debris removal to protect the road network and environment.</p> <p>Ensuring reliable communication between sites and trucks will be maintained to manage movements and avoid congestion.</p>	<p>Review of CTMP within 6 months of commencement of works and once per year thereafter.</p>
<p>Deterioration of the existing road surface on inbound and outbound heavy vehicle transport routes.</p>	<p>Contribute fair and reasonable costs for road maintenance associated with the Project during construction period.</p> <p>Monitoring of roads through pre-construction surveys and regular roading inspections.</p>	<p>Road condition survey of inbound and outbound heavy vehicle transport routes prior to the start of works, regularly during construction, and after construction has been completed, so that any deterioration in road conditions can be identified.</p>
<b>Noise</b>		
<p>Excessive noise creating nuisance impacts on sensitive receivers and the local community.</p>	<p>The implementation of a Construction Noise and Vibration Management Plan, including a commitment to restricted hours at Moa Point Yard and Stockpile 4 at the MGC Yard (Weekdays 6.30 am – 8.00 pm and 7.30 am – 6.00 pm on weekends and public holidays) and micro piling to minimise noise</p>	<p>Notification of owners and occupiers at 33 to 49 Moa Point Road prior to piling being undertaken for the Southern Seawall.</p> <p>Establishment of construction liaison group.</p>



Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
	<p>Staggering of vehicle movements.</p> <p>Temporary noise barriers (where required).</p> <p>The inclusion of a ventilation package in the WIAL Quieter Homes scheme.</p>	<p>Implementation of the Southern Seawall Mitigation Programme three months prior to the commencement of physical works on the Southern Seawall.</p> <p>Offer of purchase for five NSR on Moa Point Road.</p>
Excessive noise on kororā fauna.	<p>Undertaking of works in accordance with the KPMP.</p> <p>Avoidance of works at sunrise and sunset hours when kororā swim to and from their nests.</p> <p>Implementation of setback distances, screening and / or other mitigation measures around kororā habitats.</p>	Noise monitoring at the nest site when construction activities occur within 20m of a kororā site.
<b>Lighting Effects</b>		
Glare and light spill effects on nearby residences and motorists	<p>Fixed area lighting and mobile lighting towers shall be aimed away from any public road or residence located within 500 m.</p> <p>The total height of fixed area lighting or mobile lighting towers shall not exceed 10 m, and the upward tilt of the floodlight shall not exceed 0 degrees.</p> <p>Any work lights attached to vehicles or mobile plant shall be tilted up to no greater than 45 degrees if up to 3 m above ground, or 30 degrees if higher.</p>	None.



Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
	Luminaires used for all fixed area lighting (mounted on buildings and columns) and luminaires used for mobile lighting towers, shall be white LED with a colour temperature of 3000K.	
Sleep disturbance to nearby residents	<p>Fixed area lighting and mobile lighting towers shall be aimed away from any residence located within 500 m.</p> <p>Luminaires used for all fixed area lighting (mounted on buildings and columns) and luminaires used for mobile lighting towers, shall be white LED with a colour temperature of 3000K.</p> <p>WIAL to offer blackout blinds to neighbouring properties to minimise light spill during night works.</p>	None.
<b>Archaeological Effects</b>		
Accidental discovery of historical and archaeological items.	<p>An Archaeological Authority under the HNZPTA is being obtained for any earthwork activities associated with developing the MGC Yard, George Bolt Street Yard, Stage 1 Kororā Colony and Southern Seawall (including the Eastern Bank Remediation), Moa Point Yard (including the Stage 2 Kororā Colony).</p> <p>Groundworks which have the potential to affect archaeological features to be monitored by an archaeologist in accordance with the ASMP.</p>	Monitoring will be undertaken as required by the Archaeological Authority.



Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
	<p>Groundworks with no potential to affect archaeological sites to follow an On-Call Protocol in accordance with the ASMP.</p> <p>Any archaeological sites found during the earthworks to be investigated and recorded in accordance with current archaeological practice.</p>	
<p>Accidental discovery of koiwi tangata (human remains).</p>	<p>In the event of koiwi tangata (human remains) being uncovered, work should cease immediately in the vicinity of the remains and tangata whenua, HNZPT, the NZ Police and WCC should be contacted so that appropriate arrangements can be made.</p>	<p>None.</p>
<p><b>Recreation and Access Effects</b></p>		
<p>The ability for recreational users to access the area during construction due to traffic.</p>	<p>Implementation of the CTMP to ensure pedestrians and cyclists can access the area during the periods of increased traffic movements.</p>	<p>None.</p>
<p>The impact of noise on the recreational and transient (i.e., walking, running or cycling past) users.</p>	<p>None.</p>	<p>None.</p>
<p>The impact on fishing, diving or kai moana gathering associated with</p>	<p>None.</p>	<p>None.</p>

Actual or Potential Effect	Proposed Mitigation / Management	Proposed Monitoring / Future Action
fish fleeing the area due to noise and vibrations.		
The access restrictions to the area due to the fencing of the Stage 1 and Stage 2 Kororā Colonies.	<p>Amenity planting and native vegetation re-establishment along the coastline increasing habitat and positive effects for recreational users.</p> <p>During the operational phase improved amenity and naturalness (due to the construction) at the Seawall, Eastern Remediation area and Moa Point Yard.</p>	<p>Maintenance of planting at Moa Point Yard for 5-years following initial planting.</p> <p>Maintenance of planting areas at the Stage 1 and 2 Kororā Colonies for 20 years following the initial planting.</p>