BlueGreen

Interislander Cook Strait Ferry Project - Wellington

Kororā Management Plan

Prepared for CentrePort Ltd
25 March 2026

Document Quality Assurance

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Cover photograph: Adult kororā in burrow

Contents

Glossary of terms

The following terms are used in this document and are defined as follows:

TERM	DEFINITION
Active burrow	Burrow containing or suspected to contain loafing bird(s), nesting bird(s), viable nest contents (egg(s) an/or chick (s)), moulting bird(s), or as otherwise determined by the SQE
Artificial nest structure	Artificial wooden boxes or concrete culverts for kororā to roost/nest
Burrow	Any natural crevice, gap or void where kororā are found (i.e. rock revetment, under house, earth burrow, under vegetation etc), in which birds may nest, moult or roost.
Construction work footprint	Areas defined whereby enabling and construction work activities will take place, this includes the demolition of existing structures and construction of temporary staging wharf.
Construction works	Includes all construction-related activities, including piling and demolition.
Daily kororā checks	Daily inspection of all potential kororā habitat within the construction footprint that will be directly impacted by works on the same day of works (i.e. daily sweeps by trained construction workers or SQE to look for gaps, voids, or kororā signs)
Direct effect	An outcome resulting in changes to an ecological feature that is directly attributable to a defined action.
DOC-permitted handler	A person listed on the Wildlife Act Authorisation for the project and has the authorisation to capture, handle and relocate non-nesting and non-moulting kororā to encountered within construction areas to the approved release site.
Effects zone	The zone around an active kororā burrow (defined above) in which effects need to be managed when undertaking Project works. For rock movement this zone is 10 m, for all other construction activities this zone is where 75 dB $L_{Aeq(15\ min)}$ is achieved at the entrance to an active burrow.
Exclusion zone	An area where construction work is not permitted within (i.e. machinery, plant, vehicles, tools) and only the SQE can access.
Indirect effect	In this context – an outcome resulting in changes to an ecological feature that is at some distance from the source.
Mana Whenua representative	A representative from Taranaki Whānui ki Te Upoko o Te Ika (Taranaki Whānui) that can lead cultural perspectives for this document and kororā management
Mean High Water Springs (MHWS)	The average of each pair of successive high waters, during that period of about 24 hours in each semi-lunation (approximately every 14 days), when the range of the tide is the greatest (spring range)
Pre-works survey	Identify any locations of signs of kororā throughout the construction footprint (i.e. using protected species dog or suitably qualified ecologist)
Project site	Includes the Wellington ferry terminal site (Figure 2 on page 3) and South Road site (Figure 4 on page 4).
Rock / debris / structure movement	For the purpose of this project, 'rocks' also include other debris or structures under which kororā may inhabit (e.g. concrete slabs etc)
Suitable kororā habitat	Areas where kororā can inhabit and nest, such as crevices in the loose rip-rap, concrete blocks, under vegetation such as pohutukawa tree roots and harakeke / flax, under building and wharf structures as well as dug-soil burrows etc, as identified by the SQE (refer to Figure 2, Figure 4, Map 1A and 1B)
Suitably qualified ecologist (SQE)	Someone with a postgraduate qualification in ecology (or similar) or five years' experience working with kororā on construction sites, including successfully extracting birds during rock movement operations.
The Project	Works associated with the demolition and upgrade of the Interislander Cook Strait Wellington ferry terminal and associated infrastructure as described in Sections 1.0 and 2.0
Wildlife Act Authority (WAA)	Authorisation obtained from DOC under the Wildlife Act (1953) to undertake specific tasks associated with specific wildlife, by named persons at specific sites.

1.0 Introduction

CentrePort Ltd are undertaking the Interislander Cook Strait Wellington Ferry Terminal project, located between Aotea Quay and the Kaiwharawhara Stream mouth, Te Whanganui-a-Tara. The locations and extent of works associated with the Project are shown in Figure 1 below.

CentrePort Ltd acknowledges and upholds its relationship with mana whenua and the ahikaaroa of Taranaki Whānui ki Te Upoko o Te Ika (Taranaki Whānui). The cultural significance of Te Whanganui a Tara, the Kaiwharawhara awa, and the kāinga that holds histories, identities and stories of Ngāti Tama and Ngāti Mutunga are recognised and respected. The partnership developed over many years and strengthened through the first iteration of this project, remains fundamental. CentrePort Ltd is committed to upholding and continuing to strengthen the relationship with Taranaki Whānui, and kororā management is part of that commitment.

CentrePort also acknowledges Ngati Toa Rangatira as mana whenua within Te Whanganui a Tara and the value placed on Kororā as a taonga species within their rohe. Ngati Toa Rangatira are committed to supporting positive outcomes for the taiao and the protection of taonga species. With respect to the ferry replacement project, the role and responsibilities of Ngati Toa Rangatira as kaitiaki relate to monitoring and supporting the protection of Kororā through partnership and collaboration. CentrePort (as Project Owner) is committed to engaging with Ngati Toa Rangatira throughout the project to enable them to fulfil their responsibilities as kaitiaki.

Kororā / little penguin (*Eudyptula minor*) have been confirmed within and adjacent to the Project site (Boffa Miskell Ltd, 2022), are classified as nationally At Risk – Declining (Robertson et al., 2021) and are protected under the Wildlife Act (1953). As such, this Kororā Management Plan (KMP) outlines the measures that will be required to manage kororā during the enabling works and construction activities for the Interislander Ferry Terminal project.

Figure 1: Site context for the Interislander terminal and staging sites

2.0 Indicative Construction Methodology

2.1 Interislander terminal work site

The boundary of the terminal work site is shown in Figure 2 below. The terminal site will be the main work area from early 2026 to 2030. Brian Perry plan on having two jack-up barges along with a temporary staging platform in this area to facilitate the work. Construction activities include:

- Demolition of concrete and steel structures as shown in Figure 3 (including pile extraction using a vibro hammer).
- Pile driving, currently around 60 piles to depths of 40m (vibro and impact hammers).
- Pile drilling from jack up barge and temp structures.
- Installation of reinforced concrete structures (crane operations).
- Installation of new steel structures (crane operations and welding).
- Scour protection, landing rock bags onto the seabed (crane operations and diving works).

Bubble curtains will be used during all piling activities with effectiveness proven from Marshall Day Reports from Seaview Wharf works.

The ship in the RFT3 berth will remain operational during the construction works.

Figure 2: Extent of Interislander terminal physical works

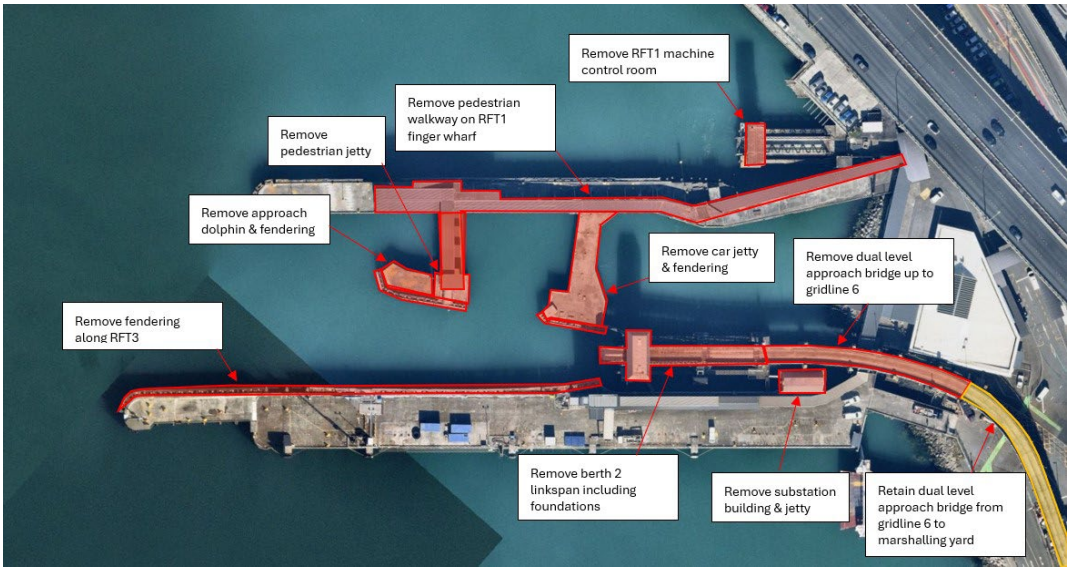

Figure 3: Scope of demolition works

2.2 South Road site

South Road will be the location of both a site compound and staging platform (refer to Figure 4 below). This location is where all construction materials will enter and be transported to the work site by barge. In this location, Brian Perry Civil will install a temporary staging structure to facilitate loading and unloading of barges. The construction activities involved will include driving piles and landing steel beams and precast concrete panels for the deck. Pile driving will be done with a vibro hammer and hydraulic impact hammer to achieve the required depth, bubble curtains will be installed around the construction zone to protect marine mammals within the area.

After the construction of the staging structure, the activities in the compound area will include delivery of material from haulage trucks, crane lifts, welding activities and barge activities.

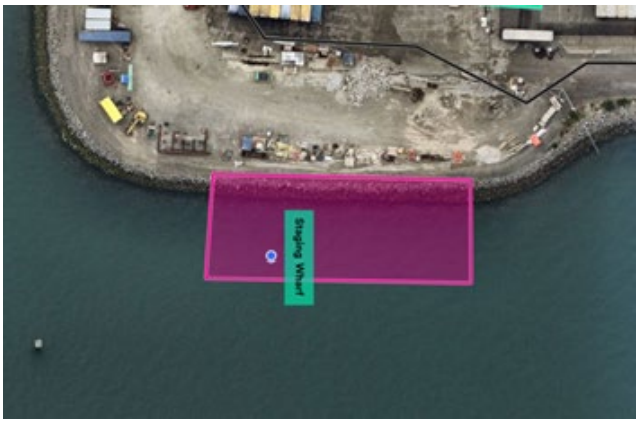

Figure 4: Extent of staging wharf physical works

3.0 Kororā / Little Blue Penguin

Kororā are native to New Zealand and Australia and are the smallest of all the 17 penguin species. In New Zealand, the national population estimated to be c. 50,000-100,000. In Wellington they breed around much of the Wellington Harbour coastline, the largest colony being on Matiu / Somes Island, which has an estimated c. 300 pairs / 700+ adults.

3.1 Biology

Kororā are nocturnal, typically coming ashore after dusk and leaving before dawn. **Adults are present at colonies throughout the year including during the day** (Figure 5), though numbers are lowest between completion of moult and start of breeding (Marchant et al., 1990). Though variable, for most colonies in New Zealand the breeding season begins around August and continues until January when chicks fledge. Kororā are asynchronous breeders, meaning that individual pairs lay at variable times throughout the season – not all birds will commence breeding (or moulting) at the same time. The kororā breeding cycle is the shortest (17.25 weeks) of all penguins comprising a 4 week pre-egg stage, then 5.5 weeks of incubation and a 7.75 week chick period (Richdale, 1957). During the incubation and chick period (approximately 3.5 months), birds (either adults or chicks) will be present in the burrow throughout that time, both day and night.

At the end of the breeding season, every kororā (except those that have fledged that season) must undergo an annual moult, during all feathers are replaced simultaneously over the period of 2-3 weeks (Gales et al., 1988; Kinsky, 1960; Reilly & Cullen, 1983). Moulting birds are confined to land and fast for the entire moult period as they are unable to swim without getting water-logged (Heather & Robertson, 2015).

Figure 5: Indicative[1] breeding cycle in Wellington Harbour.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Burrow occupation	■	■	■	■	■	■	■	■	■	■	■	■
Pair bond / nest building						■	■	■	■	■	■	■
Egg laying							■	■	■	■	■	
Chick rearing / fledging	■	■							■	■	■	■
Moulting	■	■	■									

3.2 Kororā Habitat

Kororā form loose colonies, with burrows located several metres apart (Braidwood, 2009; Bull, 2000a; Bullen, 1997; Marker, 2016). Burrows are generally situated close to the sea in burrows excavated by the birds or other species, or in caves, rock crevices (including rip-rap revetments), under logs or in or under a variety of man-made structures including nest boxes, pipes, stacks of wood or timber, and buildings. Along the coast, kororā burrows are located above mean high water spring (MHWS) to ensure that waves do not inundate the burrow and its contents. Several studies have shown the ability for kororā to adapt their nesting behaviour to urban

[1] Based on information in the following sources: Bullen (1997), Kinsky (1959, 1960)

environments; in response to the lack of “natural” habitats, birds successfully nest in rock crevices and human-made structures, such as breakwaters, that offer protection from the weather, tidal action, predators and human disturbance (Bourne & Klomp, 2003; Giling et al., 2008).

Kororā exhibit high levels of site fidelity, generally returning to the same landing site and nest each breeding season (Bull, 2000b; Pledger & Bullen, 1998). Birds often use the same burrow to breed and moult. However, since non-breeding birds also moult, often moulting birds are found in burrows that weren’t occupied during the breeding season.

Surveys using a certified penguin detector dog have been undertaken along the coastal margin from the existing Ferry Terminal building to the area north of Kaiwharawhara Point (refer to Map 1A). Over that time kororā have been recorded utilising the following features above MHWS as nesting and moulting habitat: crevices in the loose rip-rap, concrete blocks, under vegetation such as pohutukawa tree roots and harakeke / flax, under building and wharf structures as well as dug-soil burrows. Kororā terrestrial habitat within and adjacent to the ferry terminal project site is shown in Figure 6, with burrow locations identified on Map 2.

Kororā surveys using a certified penguin detector dog have also been undertaken along South Road (refer to Map 1B). While potential habitat, in the form of rock rip-rap, is present along the length of South Road, kororā have only been confirmed at three locations (northern end of South Road, shown on Map 1B). The rip-rap along much of this coastal edge is generally shallow and with limited space above MHWS, which makes it less hospitable for kororā. Nevertheless, potential kororā terrestrial habitat within and adjacent to the project site is shown in Figure 7 below.

Figure 6: Kororā terrestrial habitat (yellow polygon) within and adjacent to the ferry terminal site (red polygon)

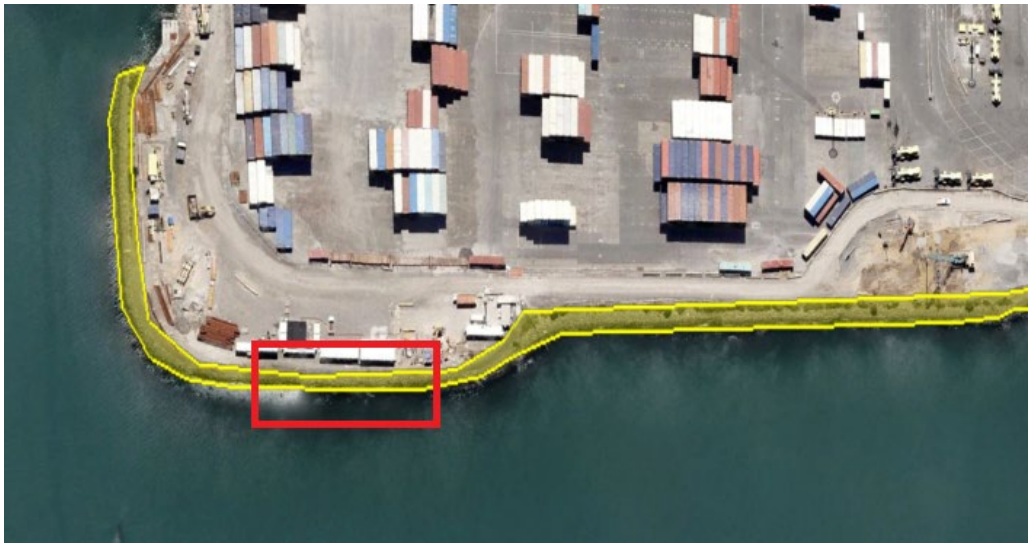

Figure 7: Kororā terrestrial habitat (yellow polygon) within and adjacent to the South Road site (red polygon)

4.0 Kororā Management

The SQE will work collaboratively with Taranaki Whānui with regards to all aspects of kororā management for the Project.

Both enabling works and construction activities for the Project may have an adverse effect on kororā due to the loss of habitat, injuries or mortalities of kororā, disturbance to nesting or moulting kororā (noting that construction is proposed to be undertaken outside the breeding and moulting season). This section of the document outlines methods to avoid and / or manage potential effects on kororā while undertaking the construction activities for the Project.

Training will be provided to onsite contractors to identify signs of penguin habitation (e.g. moulted feathers and guano (penguin poo)) and to discuss actions required to secure work sites, construction materials and equipment to prevent kororā access. This training will be run by a SQE[2].

Under no circumstances will breeding[3] or moulting birds be handled or relocated for the purpose of enabling construction.

4.1 Pre-work survey

Pre-work kororā surveys will be conducted by a DOC-certified conservation dog and handler in conjunction with a SQE on the morning of any day when rock / debris / structure removal or placement occurs anywhere within the area of kororā habitat that is identified in Figure 6 or Figure 7. In addition, such pre-construction surveys will also be undertaken on the morning when the following works commence or in adjacent to those areas of habitat: onshore piling

[2] As defined in the glossary table

[3] Includes nesting adults and nest contents (i.e. eggs and / or chicks).

works, nearshore piling works (within 50 m of the shoreline)[4] or the removal of wharf structures within 20 m of land.

If a detection is made, a burrowscope or camera will be used to assist with identifying the burrow contents. If a detection is made, the following information will be recorded:

- Date and time of detection;
- Location of dog detection/s;
- Whether the detection/s were made by a dog or person;
- Presence of any sign such as guano (Photo 1, Photo 2) or feathers (Photo 6);
- Presence and number of any birds moulting (Photo 5) or non-moulting (Photo 3);
- Presence and number of any eggs and / or chicks (Photo 4).

The location of each detection will be assigned a number which will serve as an individual identifier to enable burrows to be monitored over time. The rock at the entrance to each burrow will be marked with dazzle paint (or an effective alternative). The location/s will also be recorded with a GPS (and added to a habitat map), a photograph will be taken, and a description of the location/s will be noted.

If active[5] burrows are identified through the pre-work surveys in locations where works are proposed, subsequent management actions will be implemented as outlined in Sections 4.2-4.4 below.

No works will occur within established exclusions zones (Section 4.2) until it has been determined by the SQE that the burrow is no longer active; this will be done through surveys by a SQE using the methodology outlined above.

Photo 1: White kororā guano on rocks outside burrow

Photo 2: Green kororā guano

Photo 3: Adult kororā in burrow

Photo 4: Young kororā chick and egg

[4] These are specific construction works that may have the biggest potential impact on active burrows.

[5] As defined in the glossary table

Photo 5: Moulting kororā

Photo 6: Moult feathers in burrow

4.2 Exclusion zones around active burrows

An exclusion zone will be established / demarcated around any active burrow that is detected. The exclusion zone distance around the active burrow will be 10 m from rock / debris removal or placement or ground disturbance. In all cases, at no time will the exclusion zone and its demarcation impede access for kororā between the active burrow and the ocean. The following will also not occur within the exclusion zone:

- Construction work activities;
- Storage or laydown of material or plant;
- Access to people, other than the SQE.

No works will occur within established exclusions zones until it has been determined by the SQE that the burrow is no longer active; this will be done through surveys by a SQE using the methodology outlined in Section 4.1 above.

The exclusion zone demarcation will be removed once it has been determined by the SQE that the burrow is no longer active.

4.3 Rock / debris / structure movement

The process for managing kororā to enable the movement (removal or placement) of rocks / debris / structures (as defined in the Glossary table) is outlined in Figure 8 (page 11) and requires the following:

- Where rocks / debris / structures along the Project site are to be moved using machinery, the area of rock debris / structures to be disturbed, plus 10 m either of that area (i.e. the effects zone) will be surveyed (as outlined in Section 4.1, page 7) on the morning of the works, prior to those works commencing. However, given kororā come on to land during the night, the process of surveying for the presence of kororā during the rock / debris / structure removal works will occur each day the works occur.
- During each survey, if no kororā are detected in the surveyed area, rock movement can occur immediately under the guidance of a SQE.

- If non-nesting and/or non-moulting kororā are detected, rock / debris / structures movement will not occur until the kororā have been captured[6] and relocated to the release site approved by a Wildlife Act Authorisation obtained for the Project.
- Records will be kept of all relocated kororā (refer to Section 4.6 below).
- If nesting or moulting activity is detected, an exclusion zone will be established around the active burrow (as per Section 4.2 above) and the rock / debris / structure movement works will not occur within 10 m of the active burrow until nesting or moulting activities are completed (as determined by the SQE through subsequent surveys as per Section 4.1 above). Rock / debris / structures removal works greater than 10 m away from the active burrow can occur under the supervision of the SQE.

In all instances, the SQE will make the final call in regard to when areas are clear of kororā or active burrows, and therefore when the works can commence.

Under no circumstances will breeding[3] or moulting birds be handled or relocated for the purpose of enabling construction.

When machinery is used to move rocks / debris / structures, this will be done so that that rock / pieces can be lifted one at a time so that any incidental burrows discovered (i.e. burrows not detected during the pre-work survey) are uncovered progressively and slowly. All rock / debris / structures moving work will be undertaken by an experienced digger driver under the supervision of the SQE.

For rock / debris / structures moving above mean high water springs (MHWS), once each rock / debris / structure is moved, and assuming it is safe to do so, the area will be inspected by a SQE to ensure no kororā are hidden within crevices. The rocks / debris / structures will then be placed in a suitable location that does not create a workplace hazard. Temporary fencing will be erected around the rock / debris / structure storage area (refer to Section 4.9 for fencing specifications) to ensure that kororā do not inhabit the stored material.

At all locations where kororā are removed, or if movement of rocks / debris / structures extends over multiple (more than one) days, efforts will be made to discourage birds from being able to access the site overnight (i.e. placement of bidum cloth or temporary fencing). An additional effort may include moving as much rock / debris / structure as possible so that a bare ground surface is exposed thereby leaving no crevices for kororā to occupy.

Where the area of rock / debris / structures removal and storage is covered or fenced, it is imperative that the material or fencing is securely fastened to minimise the chances of kororā entering the area through a gap. Just prior to the movement of stored rocks / debris / structures, the stockpile will be inspected by a penguin detector dog for the presence of kororā.

[6] Only by those persons listed on a Wildlife Act Authorisation for the Project

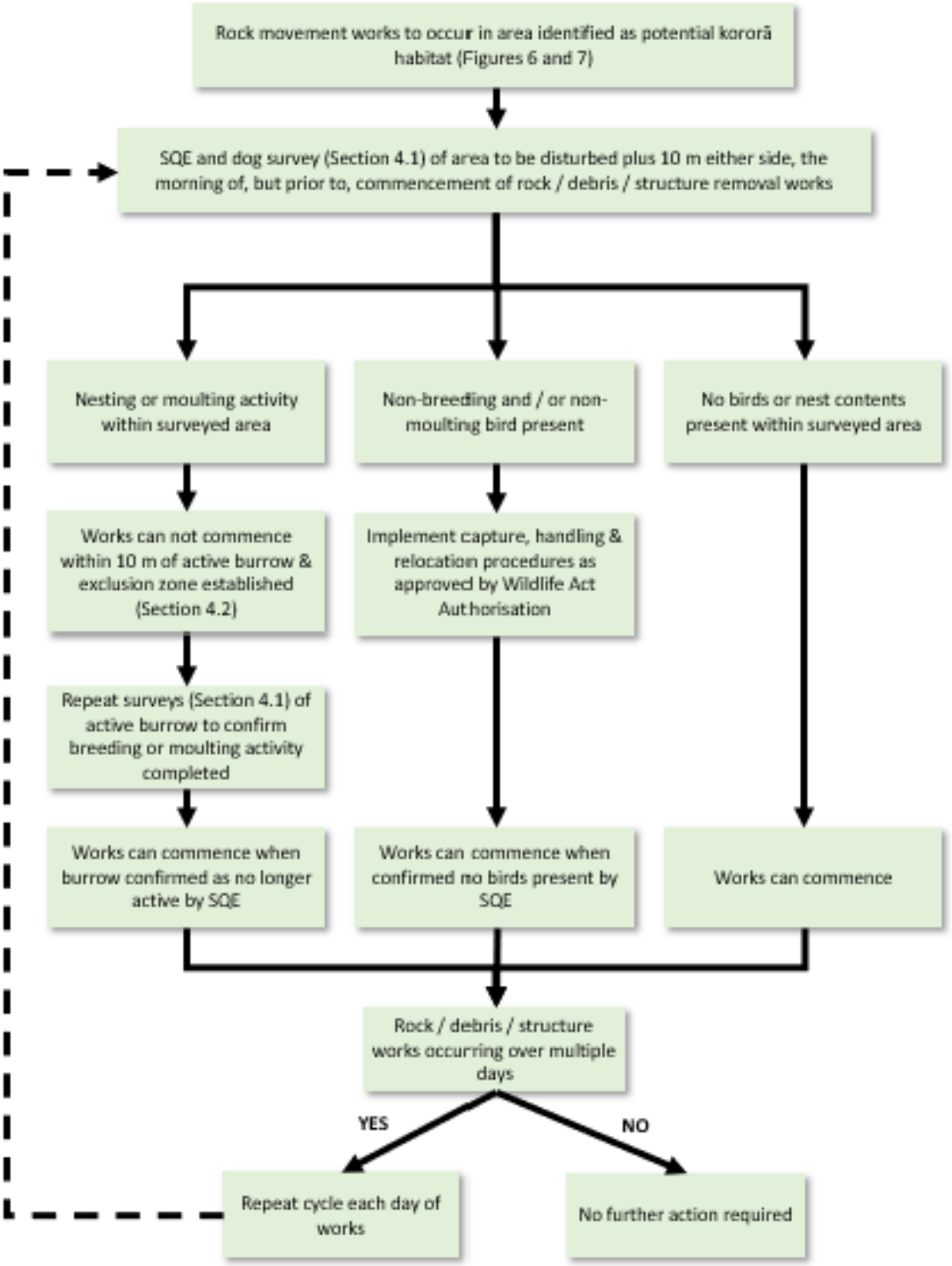

Figure 8: Process for managing kororā associated with rock movement works

4.4 All other construction works

The process for managing kororā for all enabling and construction works (excluding rock / debris / structure movement), is outlined in Figure 9 (page 13):

- If no kororā detections are made during the pre-work survey (Section 4.1, page 7), works will commence under the guidance of a SQE.
- If non-breeding and / or non-moulting kororā are detected during the pre-work survey (Section 4.1, page 7) in habitat that will be directly impacted by works, works will not occur until the kororā have been captured[6] and relocated to the release site approved in a Wildlife Act Authorisation obtained for the Project.
- Records will be kept of all relocated kororā (refer to Section 4.6 below).
- If nesting or moulting activity is detected during the pre-work survey, an exclusion zone will be established around the active burrow (as per Section 4.2 above). All works except rock / debris / structure removal may only occur if these activities achieve a maximum sound level of 75 dB $L_{Aeq(15min)}$ as measured at the entrance to an active burrow. This airborne noise management approach is outlined in Section 4.4.1 below. Enabling or construction works can only occur within the effects zone once nesting or moulting activities are completed (as determined by the SQE through subsequent surveys as per Section 4.1 above).

In all instances, the SQE will make the final call in regard to when areas are clear of kororā or active burrows, and therefore when the works can commence.

Under no circumstances will breeding3 or moulting birds be handled or relocated for the purpose of enabling construction.

4.4.1 Airborne Noise Management Procedure

Sustained noise levels[7] above approximately 80 $L_{Aeq(1\ sec)}$ have the potential to illicit a behavioural response in penguins, particularly if birds are nesting or moulting (Lawrence et al., 2023). This is because these are stressful periods of the penguin life cycle, in which birds are land-based (i.e. moulting birds, eggs and chicks) or frequently ashore (i.e. adult kororā incubating eggs, brooding and / or feeding chicks).

To manage potential effects on nesting or moulting kororā detected during pre-work surveys (see Section 4.1), an airborne noise management approach will be used. This approach will only allow construction / piling activities to occur at locations where sustained airborne noise levels generated from construction are **below 75 dB $L_{Aeq(15\ min)}$ at active burrows** (i.e. burrows occupied for breeding or moulting). One-off or infrequent noise levels generated above 75 dBA at active burrows are not of concern. Of concern are sustained noise levels, i.e. noise levels at active burrows that average 75 dB $L_{Aeq(15\ min)}$ (or above) over a 15-minute period or longer; such noise levels will be managed and are addressed in this management plan.

[7] Defined as occurring for 15 minutes or longer.

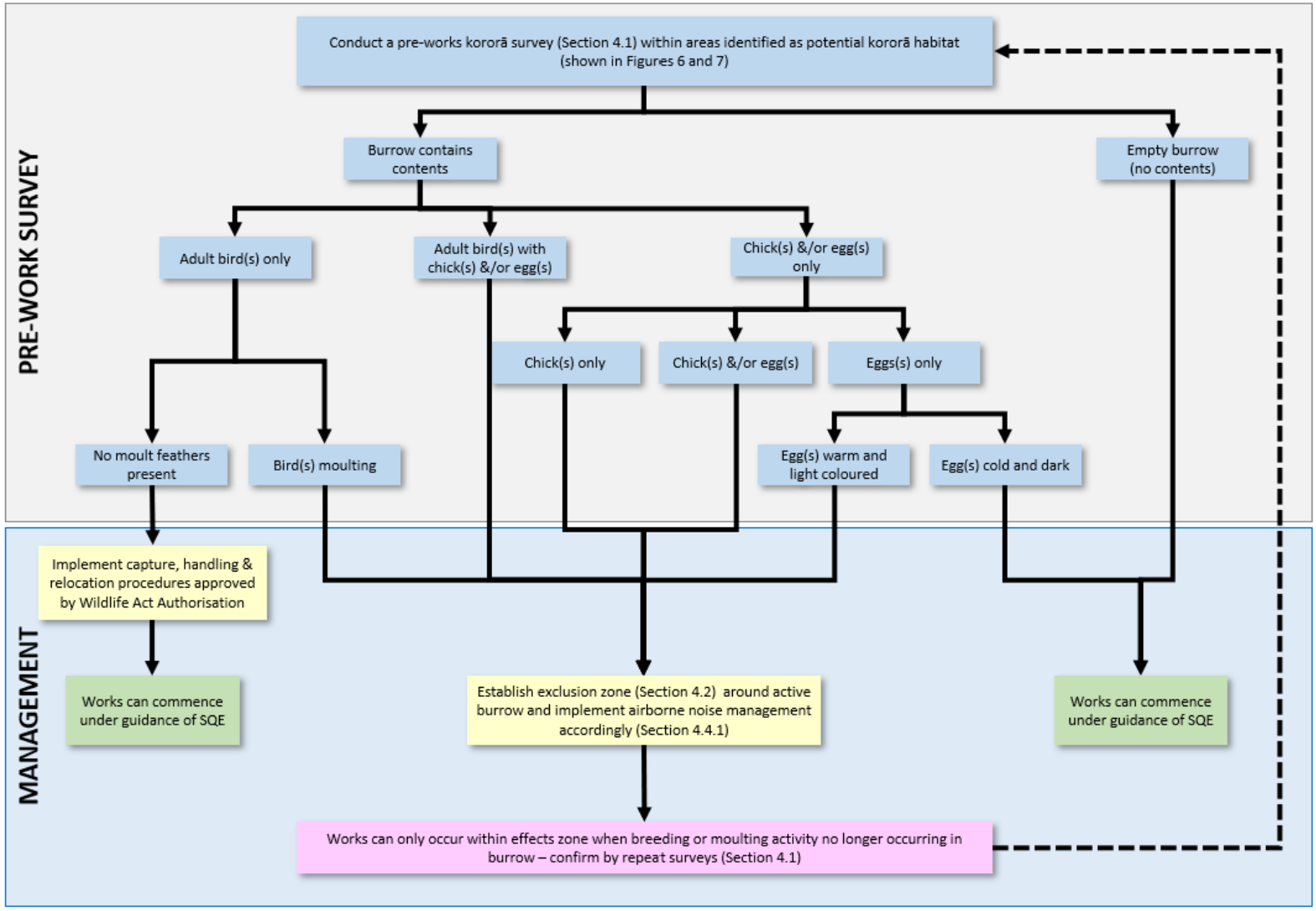

Figure 9: Process for monitoring and managing kororā for construction and piling works (excluding rock / debris / structure movement)

Determining the setback distance for noise management relies on on-site measurements to ascertain construction/piling-related noise levels at active burrows (i.e. setback distances will be commensurate with the noise level received at active burrows). Appropriate noise mitigation will be implemented as required. As described in Section 7.0 (page 21), it will be the Contractors responsibility to provide evidence (i.e. records / proof) that sustained airborne noise levels generated from construction activities have been kept below 75 dB $L_{Aeq(15\ min)}$ at active burrows.

To reduce noise levels at active burrows, sound mitigation techniques may be employed in consultation with the SQE. An adaptive management approach will be implemented to manage noise levels (i.e. other sound mitigation techniques will / may utilised) and will be developed in consultation with a SQE and acoustics specialist.

4.4.2 Underwater Noise Management

For nesting penguins, underwater noise is considered less of a problem than airborne noise. This is because penguins generally come to and from their burrows at night when piling works (which creates underwater noise) are not conducted, therefore they are less likely to be disturbed by piling works. For foraging birds, if disturbed from the works area, they have ample alternative habitat in wider Wellington Harbour that they can utilise.

Nonetheless, underwater noise generated from piling works will be managed through use of a bubble curtain, as well as a combination of vibro and impact hammers (refer to Section 2.0 above). Other measures such as the use of a non-metallic 'dolly' or 'cushion cap' that will be placed between the impact piling hammer and the driving helmet (e.g. plastic or plywood) may also be investigated.

4.5 Capture, handling and relocation

Capture, handling and / or relocation procedures will only occur once a DOC Wildlife Act Authority (WAA) has been obtained for this Project. If obtained, only those personnel listed in the WAA will be authorised to manage (capture, handle and relocate) kororā[8]; anyone not listed in the permit Schedule will not be permitted to capture or handle kororā.

Breeding[3] or moulting birds will not be handled or relocated for the purpose of facilitating works.

Before a kororā is caught, the DOC-permitted person will put on a pair of gloves[9] and get a ventilated and sturdy pet carrier box[10] that is lined with a towel in preparation for transporting the penguin. One kororā will be box. However, if two birds are found in a burrow together they will be transported in the same box and released into the same nest box.

To minimise stress to the penguin, the maximum amount of time a penguin will be kept in a carrier box is two hours (immediate relocation and release will be prioritised) and the box will be kept in the shade. The carrier box will be securely closed, and the box will be handled carefully, ensuring that it remains upright at all times, especially if the penguin is transported by vehicle to the release site; if so the carrier box will be propped up so that it cannot topple.

[8] Those listed will include people who fulfil the definition of a SQE.

[9] Gloves must be worn as the oil on a person's hands can interfere with the waterproofing of penguin feathers).

[10] Approximate dimensions: 40 cm length, 30 cm width, 35 cm height.

Kororā will be translocated to a release site that is approved as part of the DOC Wildlife Act Authorisation process.

4.5.1 Proposed release sites

Up to seven burrows (24, 22, 30, 29, 59, 11, 76; refer to Map 2) may be lost under the ferry terminal project footprint. As such, based on a replacement ratio of 1:5 (lost : created), habitat will be created that incorporates 35 nesting structures, and will be used as the kororā release sites for this Project.

The proposed kororā release sites are adjacent to the Kaiwharawhara Stream mouth (Figure 10 and Figure 11, and on the southeast-facing coastal edge of the Kaiwharawhara reclamation (Figure 12) (refer to Map 3). These sites are deemed suitable for the following reasons:

- Located outside of the Project footprint and above MHWS;
- Provide easy access for birds to the ocean;
- Nest boxes can be placed under existing vegetation to provide shade; and
- Are situated behind fences that the public cannot access.

A total of 35 nest boxes will be installed at these sites (refer to Figure 13) as follows:

- The kororā wooden nest boxes will be constructed and installed in accordance with DOC's 'Instructions for Building a Blue Penguin Nest Box'; these instructions are provided in Appendix 1.
- The boxes will be constructed using H4 treated timber and after construction, they will be left exposed to the elements for a minimum period of three months with the lids off on a diagonal to allow rain to flow over them.
- The boxes will be installed no closer than 2 m to each other, or existing / natural kororā burrows;
- The boxes will be installed on soil (not concrete) to enable the birds to scrape and make their nest on this substrate.
- It is important that water does not pool in the nest box chamber. As such, ensure that the entrance is not sloping upwards, and pile earth up around the sides of the box.
- The boxes will be staked to ensure the boxes cannot be easily moved or overturned, and the lids will be screwed down to prevent disturbance of birds in the boxes.

Based on the lengths of the approximate back boundaries of the release sites as shown in Figure 13 below, there will be sufficient space within these sites to accommodate 35 nest boxes. The exact locations, spacings, timing of installation, and the installation itself will be advised / supervised by the SQE so as to ensure they meet the behavioural needs of kororā and increase the likelihood of successful uptake. Additional measures undertaken at the release site will include weed control (e.g. gorse), native planting (within the translocation area identified in Map 3 and Figure 13) and predator control to protect kororā.

Figure 10: View looking across the stream mouth at the southern proposed release site

Figure 11: View looking up into the proposed release site on the northern side of the Kaiwharawhara Stream mouth

Figure 12: View looking down onto the proposed release site on the southeastern coastal edge of Kaiwharawhara reclamation

Figure 13: Proposed release sites at Kaiwharawhara Stream mouth (top) and reclamation (bottom) and approximate boundary measurement. Existing burrows are numbered.

4.6 Kororā relocation records

The following information will be recorded for every kororā that is relocated as a result of the Project works:

- Date and time penguin found;
- GPS location;
- If the bird is banded (if so, the band number will be recorded);
- Name of the kororā handler;
- Relocation site the penguin is released into; and
- The time of release.

This information will be entered into an Excel spreadsheet, the results of which will be reported to DOC in accordance with any WAA conditions.

4.7 Protocols if kororā are incidentally discovered

Despite the implementation of pre-work kororā surveys, it is possible that kororā may be incidentally discovered during enabling and construction works. In all such cases, a SQE will be contacted immediately. While waiting for the arrival of the SQE, the kororā will not be handled or disturbed further, and all efforts will be made to ensure an unobstructed path is available for the bird to the ocean. At all times a distance of 5 m should be maintained from any bird. Kororā can only be handled those persons named on a DOC Wildlife Act Authority (WAA) for the Project.

Once on site, the SQE will decide on the best approach to manage the situation accordingly:

- If non-breeding or non-moulting kororā are incidentally discovered during enabling or construction works in habitat that will be directly impacted by works, then the capture, handling and relocation procedures in accordance with those approved by the Wildlife Act Authorisation will be implemented.
- If non-breeding and / or non-moulting kororā are incidentally discovered during enabling or construction works in habitat that will only be indirectly impacted by works, then capture, handling and relocation will not occur; this is because non-breeding and non-moulting kororā are not confined to land and will be able to move of their own accord if indirectly impacted by works (providing an unobstructed path to the ocean is available to them). If such a path does not exist, then the capture, handling and relocation procedures in accordance with those approved by the Wildlife Act Authorisation obtained for the Project will be implemented.
- If breeding or moulting kororā (active burrow/s) are incidentally discovered during enabling or construction works, an exclusion zone will be established (outlined in Section 4.2, page 9) and adaptive management will be implemented to minimise effects on the kororā and to finish up the works within the effects zone (make it safe, close the site and remove construction equipment). Adaptive management appropriate to the situation will be developed and implemented immediately (or as soon as possible but within 24 hours) by a suitably qualified and experienced person and the construction team to minimise immediate risk to the kororā.
- If an injured or dead penguin is incidentally discovered during enabling or construction works, the SQE will follow the requirements as outlined in Section 4.8 below.

4.8 Injury and / or death of kororā

In the case of an injury or death of a kororā associated with the Project works, the SQE and Taranaki Whānui representative must be contacted immediately to provide the necessary guidance.

In the case of an injured bird, the SQE or other appointed person will immediately transport the bird to a wildlife vet for treatment.

If a dead kororā is found within the project footprint, the bird will be photographed and notes taken on the date found, location found and any observations of note (e.g. chick / adult, blood on feathers, missing part of flipper, etc). The local DOC area office will be contacted to establish whether they wish for a necropsy to be performed to establish the cause of death. If so, the

carcass will be sent to Massey University's Wildlife Postmortem Service[11]. The cost of transporting the bird and the necropsy will be covered by the CentrePort Ltd.

Note that dead kororā should be wrapped in tinfoil (dull side towards animal) and kept in the fridge. Ideally, they should not be frozen as this damages the tissues that may need to be investigated for the cause of death (if requested by DOC).

4.9 Site fencing

While it will not be possible to exclude kororā from the construction work-front, fencing will be installed around site compounds and stock-pile areas (refer to Figure 14 for examples). To ensure its effectiveness for such purposes, there will need to be some form of barrier that goes all the way to the ground, leaving no gaps through which kororā could access. The fence will need to be made of a penguin-proof material, securely fastened down and of a sufficient height (at least 50cm) to ensure penguins cannot jump over the fence or crawl under it.

Input and guidance from an SQE will be important to ensure the effectiveness of the barrier. Furthermore, once established, it is critical that the integrity of the fencing as a barrier (all the way to the ground) be regularly checked and maintained by the Contractor.

Figure 14: Examples of fencing to exclude kororā from work areas

4.10 Site protocols & daily inspections

Kororā come onto land overnight and seek shelter, usually within their burrows. As such, in addition to the establishment and maintenance of site fencing (Section 4.9 above) it is important to keep the site tidy and minimise the opportunities for birds to shelter on the works site. This

[11] https://www.massey.ac.nz/about/clinics-and-services-for-the-public/wildbase/wildbase-pathology/how-to-submit-a-specimen-to-wildbase-pathology/#Wheretosendspecimens

will include under any material that may leave a void for kororā to access, or within pipes and hoses.

Furthermore, at the commencement of each workday the following inspections will be undertaken

- **Fencing:** Checking that there no breaches in penguin fencing (as outlined in Section 4.9 above). Any breaches that are found must be fixed immediately to ensure kororā do not access the site.
- **Construction work site**: Scan the site to check for the presence of any kororā, or sign that birds have been there (e.g. guano).
- **Site compounds:** Scan the compounds to check for the presence of any kororā.
- **Plant / machinery:** Prior to starting machinery for the first time each day, check for the presence of kororā under the tyres or attachments that may have been resting on the ground overnight.
- **Construction materials, pump hoses and pipes:** Check that kororā are not roosting within or under any of these.

In the event of a kororā (or sign) is discovered during any of the above inspections, the SQE will be contacted immediately to provide further instructions (refer to Section 4.7 above). At all times a distance of 5 m should be maintained from any bird. Kororā can only be handled those persons named on a DOC Wildlife Act Authority (WAA) for the Project.

In addition to the above, any exclusion zones established for the purpose of protecting nesting or moulting birds should be checked daily to ensure they are still in place. Exclusion zone demarcation can only be removed once it has been determined by the SQE that the burrow is empty, and it is safe for works to proceed.

5.0 HPAI / Bird Flu

Avian influenza is a contagious viral disease that affect both domestic and wild birds and is caused by avian influenza (AI) viruses. In 2020, a new H5N1 strain of the HPAI virus emerged in both domesticated and wild birds across the northern hemisphere. This H5N1 strain differs significantly from other HPAI strains because it spreads more easily between wild birds. Currently New Zealand, Australia and the Pacific are free of the H5N1 strain of HPAI. The most obvious sign of HPAI is sudden death in several wild birds. Other signs can include weakness, tremors, paralysis, difficulty breathing, lack of co-ordination, blindness, trembling, and diarrhoea.

The Ministry for Primary Industry (MPI) and DOC have issued the following guidance that will be applied to the current project:

- If three or more sick or dead wild birds are observed in a group, report it immediately to the exotic pest and disease hotline on 0800 80 99 66 so this can be investigated.
- Provide as much detail as possible, including:
  - a GPS reading or other precise location information
  - photographs and videos of sick and dead birds
  - species name and estimate of the numbers affected

  - how many are sick or freshly dead, and the total number of birds present.
- Do not handle or move the birds unless instructed by MPI or DOC.

6.0 Reporting

Records will be kept of the following, and will be provided to DOC as requested or required by the conditions of the Project WAA (should it be obtained):

- All kororā detected during pre-work surveys (as described in Section 4.1 above).
- Any kororā injuries or deaths that occur as a result of the project will be reported to DOC within 24 hours.
- A summary of all kororā relocations as a result of the Project (refer to Sections 4.5 and 4.6).
- The results of any necropsy requested by DOC (refer to Section 4.8) will be provided within 24 hours of receiving them.

6.1 Incident monitoring and reporting during works

Incident notification to DOC a will be as soon as practicable following an unforeseen event. However, incident-based reporting will be provided to DOC within 10 working days of the event (e.g. notable compliance failure that results in adverse ecological effects), and will include the following information:

- The causes of the incident.
- The emergency response measures (if applicable).
- The response proposed to avoid a recurrence of the issue.

7.0 Roles and Responsibilities

The roles and responsibilities for the delivery of, and compliance with the KMP are outlined in Table 1.

Table 1: Identified project roles and responsibilities for KMP implementation

TITLE	RESPONSIBILITY
Project Owner (CentrePort Ltd)	• Delivery of the Project, including overall compliance with resource consents, KMP, and subsequent WAA conditions to be issued for the project. • Reading and understanding the KMP so that the protocols are adhered to correctly during works. • Engaging with Mana Whenua
Contractor / Work Site Manager (Brian Perry Civil)	• Reading and understanding the KMP so that the protocols are adhered to correctly during works.

TITLE	RESPONSIBILITY
	• Briefing personnel that are involved in on-site activities about the responsibilities under this KMP, including works team, project engineers and contractors, prior to the start of works. • Toolbox talks to inform all the contractors on-site to avoid the location of the kororā habitat and to ensure that they know and understand the requirements of the KMP. • Liaising with the SQE on the timing of enabling and renewal works and when kororā surveys are required. • Undertake the necessary inspections of exclusion zones, fences and blockages to ensure they are functioning as intended and to liaise with the SQE and reinstate as needed. • Contacting an SQE upon incidental discovery of potential kororā voids, kororā sign and any injured or dead birds. • Implementing airborne noise management measures to ensure compliance with the threshold (below 75 dB $L_{Aeq(15\ min)}$) at active burrows. • Keeping records / proof that sustained airborne noise levels generated from construction activities are kept below 75 dB $L_{Aeq(15\ min)}$ at active burrows
SQE (Dr Leigh Bull)	• The *SQE* will be engaged by *the Project Owner* to provide technical advice to the *Works Site Manager*. • Training the onsite contractors to identify voids or gaps that kororā could utilise and any associated signs (i.e. guano, feathers), secure work sites and what to do if a kororā is incidentally discovered during works. • Conducting pre-work surveys with the *Protected Species Dog and Handler* and determining if kororā burrows within the project area identified during pre-work surveys are active. • Advise on penguin fencing requirements. • Advise on appropriateness of various noise mitigation measures as required. • Advising on the establishment and removal of exclusion zones around active kororā burrows. • Making the final call regarding when areas are clear of kororā and enabling or construction works, including rock movement, can commence. • Providing technical kororā advice during enabling and construction works. • To assess the suitability of kororā relocation sites, advising on specific locations for nest box placement and providing input to rock reinstatement and kororā habitat within the revetment. • Collection of kororā data pertaining to pre-work surveys, monitoring and relocation of birds. • Reporting to DOC throughout the duration of works, including if any dead or injured kororā are incidentally discovered during works. • Taking any injured or dead kororā to an approved wildlife vet for necropsy or rehabilitation.

TITLE	RESPONSIBILITY
Mana whenua representative – Taranaki Whānui	• Providing input to the KMP to ensure mātauranga and tīkanga are incorporated throughout the works. • Briefing personnel that are involved in on-site activities about the responsibilities under this KMP, including works team, project engineers and contractors, prior to the start of works. • Responsible for a cultural induction provided to contractors before physical works begin on-site • Respond to kororā mate (death), if ever found within the work site. • Shall be informed and given the opportunity to be trained on site with the SQE. • Is the first point of contact for Taranaki Whānui; name and contact details to be listed on any Kororā site notice

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Appendix 1: DOC kororā nest box design

Instructions for Building
Blue Penguin Nest Box
Based on Plan Prepared by Vince Waanders
Modified by Mike Rumble, March 2015

BEFORE YOU START!!!

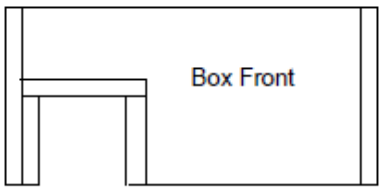
- READ these instructions CAREFULLY before you put EACH box together, and re-read them BEFORE you move to the next Step.
- Do NOT move to the next step until you have checked the one you have just completed to make sure it is correctly finished.
- Check you have these materials:
  - Box pieces (9): 1 Tunnel Side, 1 Tunnel Roof, 1 Box Roof, 1 Uncut Box Side, 1 Cut Box Side, 1 Box Front, 1 Box Back, 1 Box Lid, and 1 Lid Stopper
  - Nails: 8 short nails, and 23 long nails
  - Glue: Construction glue (cartridge) – should be with the supervisor
- WARNING: Make sure you use the correct size of nails in the right areas. We don't want penguins to get hurt from nails sticking out!!!

Get your box checked as soon as you finish building it
then give your box a NAME and add a SHORT story or a picture

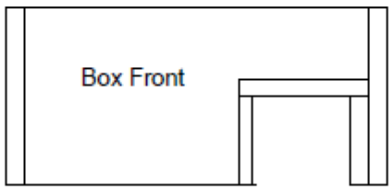
TWO Very Important Messages!!!

Left and Right Tunnels
We need nest boxes with the entrance tunnel on the LEFT and the RIGHT sides. All you have to do is make sure the side of the side of the Box Front with "Inside" written on it in IS placed INSIDE the box. The box packs also have been set up to help achieve that requirement.

Gluing and Nailing
The Tunnel Sides and Tunnel Roof are the only parts where GLUING and NAILING is required



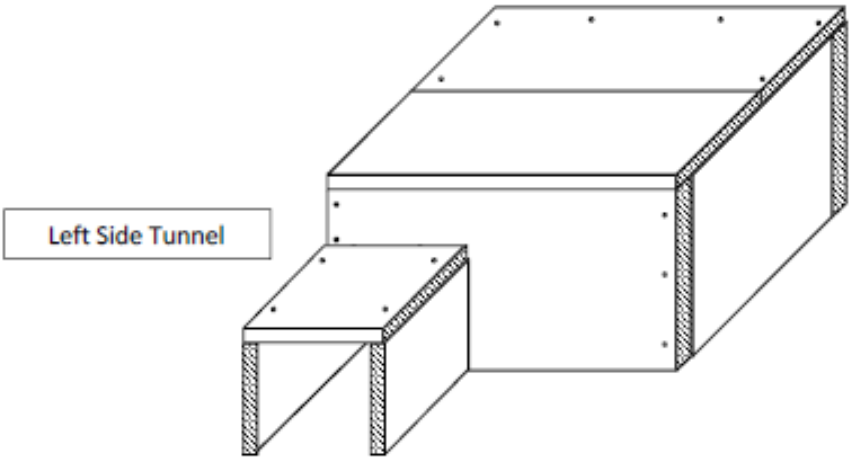
Tunnel on LEFT Side

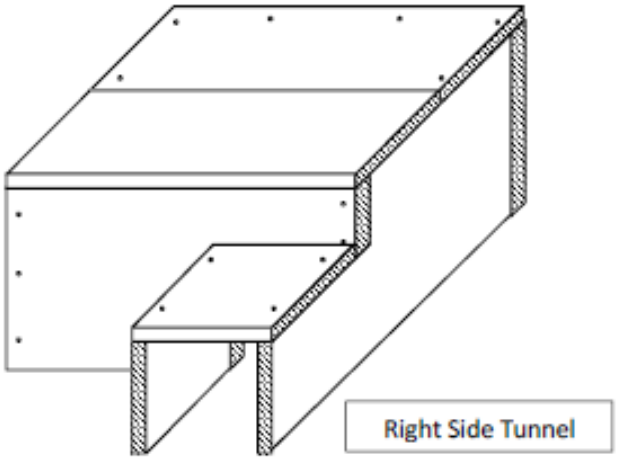


Tunnel on RIGHT Side

Little Penguin Nest Box

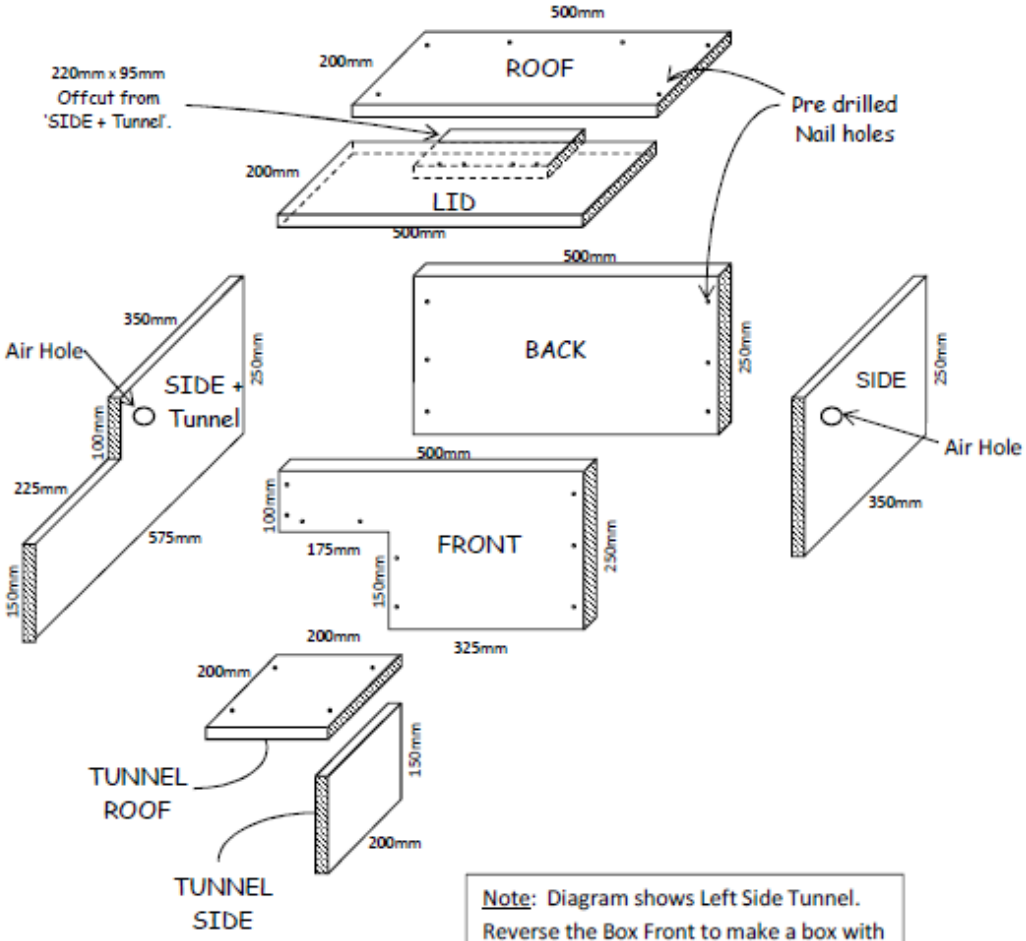
Modified design as used on Matiu/Somes Island
Modifications developed by Vince Waanders March 2011





Little Penguin Nest Box

Modified by Vince Waanders March 2011



ALL TIMBER: **25mm thickness**. H3 Treated. Rough sawn. Pinus Radiata.	
ROOF	500mm x 200mm
LID	500mm x 200mm
FRONT	500mm x 250mm
BACK	500mm x 250mm
SIDE	350mm x 250mm
SIDE - Tunnel	575mm x 250mm
TUNNEL ROOF	200mm x 200mm
TUNNEL SIDE	200mm x 150mm

LBP Boxes: Trimming

Box Back: 6 evenly spaced nail holes (see box plan)

Box Roof: 8 evenly spaced nail holes – 4 where it joins the box back and 2 for each box side

Short Box Side (no tunnel): 1x25mm air hole, no nail holes

Long Box Side (with tunnel): Cut out 225x100 section, 1x25mm air hole, no nail holes
Note: 1. The off-cut from the box side becomes the Lid Latch

Box Lid: No nails

Box Front: Cut out 175x150 section and 9 nail holes (see box plan)
Note: 1. Half the box fronts to be LEFT-side Tunnel; half to be RIGHT-side.
2. Adding the word "Inside" on the inside of each box front will help the box builders.

Tunnel Side: No nails

Tunnel Roof: 4 nail holes (two on each side)

Lid Latch: 4 nail holes off-set in pairs (latch made out of off-cut from box side)

BlueGreen

About BlueGreen

Over the last 20 years we have gathered a high level of knowledge and expertise working on a number of large scale projects of national significance, right from pre-consenting investigations through to Environment Court and Board of Inquiry Hearings. As such we are able to offer our clients proven expertise to assist with a range of ecological challenges, both simple and complex, across various ecosystems.

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BlueGreen Ecology Ltd

Kororā habitat, Kaiwharawhara

INTERISLANDER FERRY TERMINAL PROJECT

Plan prepared for BlueGreen Ecology | 10 December 2025

BlueGreen MapHouse

LEGEND

- Penguin burrow

0 50 m

1:2,500 @ A3

Map 1A

Data Sources: BlueGreen Ecology, Eagle Technology, LINZ

Projection: WGS 1984 Web Mercator Auxiliary Sphere

Port-1

Port-3

Port-2

Kororā habitat, South Road

INTERISLANDER FERRY TERMINAL PROJECT

Plan prepared for BlueGreen Ecology | 10 December 2025

BlueGreen MapHouse

LEGEND

- Penguin burrow

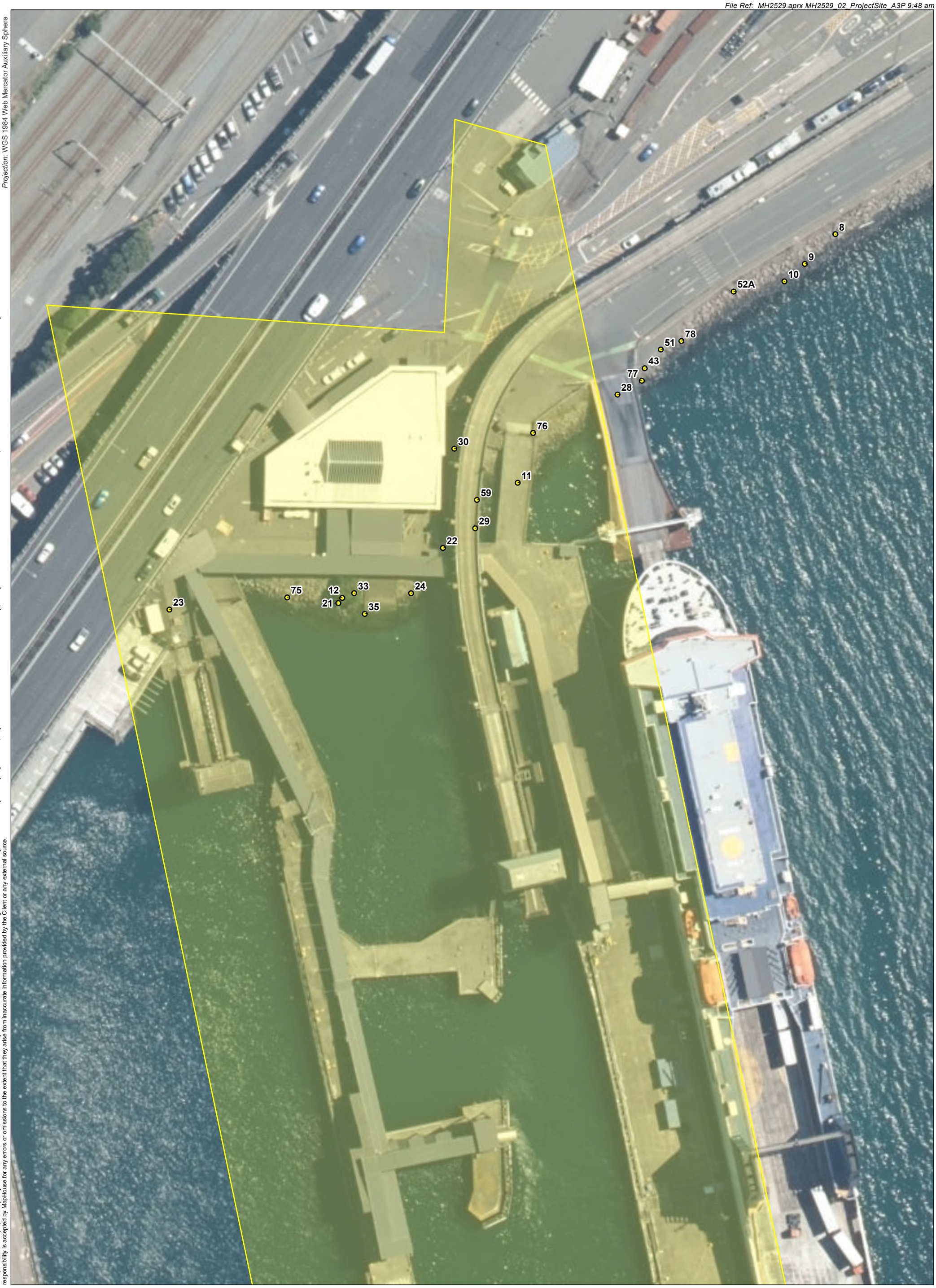
0 20 m

1:2,000 @ A3

Data Sources: BlueGreen Ecology, Eagle Technology, LINZ

Map 1B

Projection: WGS 1984 Web Mercator Auxiliary Sphere



Project site

INTERISLANDER FERRY TERMINAL PROJECT

Plan prepared for BlueGreen Ecology | 09 December 2025

BlueGreen MapHouse

LEGEND

- Approximate project footprint
- Penguin burrow

0 20 m

1:1,000 @ A3

Map 2

Data Sources: BlueGreen Ecology, Eagle Technology, LINZ

60

52 53 79 80

18

26

17

Proposed kororā translocation sites

INTERISLANDER FERRY TERMINAL PROJECT

Plan prepared for BlueGreen Ecology | 20 March 2026

BlueGreen MapHouse

LEGEND

- Penguin burrow
- Translocation site

0 20 m

1:1,000 @ A3

Map 3

Data Sources: BlueGreen Ecology, Eagle Technology, LINZ