

APPENDIX 9D

DRAFT KORORĀ/LITTLE BLUE PENGUIN MANAGEMENT PLAN (KMP)



BlueGreen



Northland Shipyard & Drydock Project

FINAL DRAFT Kororā Management Plan

Prepared for Ministry of Business, Innovation and Employment
12 June 2026

Document Quality Assurance

Bibliographic reference for citation: BlueGreen Ecology (2026). <i>Northland Shipyard & Drydock Project: FINAL DRAFT Kororā Management Plan</i> . Report prepared for Ministry of Business, Innovation and Employment.		
Prepared by:	Dr Leigh Bull Senior Ecologist / Director BlueGreen Ecology Ltd	
Status: FINAL DRAFT	Revision / version: B	Issue date: 12 June 2026
Use and Reliance This report has been prepared by BlueGreen Ecology Limited on the specific instructions of our Client. It is solely for our Client's use for the purpose for which it is intended in accordance with the agreed scope of work. BlueGreen Ecology Limited does not accept any liability or responsibility in relation to the use of this report contrary to the above, or to any person other than the Client. Any use or reliance by a third party is at that party's own risk. Where information has been supplied by the Client or obtained from other external sources, it has been assumed that it is accurate, without independent verification, unless otherwise indicated. No liability or responsibility is accepted by BlueGreen Ecology Limited for any errors or omissions to the extent that they arise from inaccurate information provided by the Client or any external source.		

FINAL DRAFT_Shipyard_Korora_Management_Plan_RevB_20260612

Cover photograph: Kororā in a burrow

Contents

Glossary of terms	1
1.0 Introduction	2
2.0 Kororā / Little Blue Penguin	3
2.1 Biology	3
2.2 Kororā Habitat	3
3.0 Kororā Management	5
3.1 Rock movement	5
3.2 Kororā monitoring	7
3.2.1 Pre-work survey	7
3.2.2 Active burrows	8
3.3 Exclusion zones around active burrows	9
3.4 Capture, handling and relocation	9
3.5 Kororā relocation records	10
3.6 Protocols if kororā are incidentally discovered	10
3.7 Injury and / or death of kororā	11
3.8 Site fencing	11
3.9 Site protocols & daily inspections	12
3.10 Underwater noise management	12
4.0 HPAI / Bird Flu	13
5.0 Reporting	13
5.1 Incident monitoring and reporting during works	13
6.0 References	14

Glossary of terms

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

TERM	DEFINITION
Active kororā 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
Construction work footprint	Areas defined whereby enabling and construction work activities will take place.
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 revetment works. For rock movement this zone is 10 m.
Exclusion zone	An area within which construction work is not permitted (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.
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	Using a protected species dog or suitably qualified ecologist to identify any locations of signs of kororā throughout the construction footprint
Suitable kororā habitat	Areas where kororā can inhabit and nest (refer to Photo 1 on page 2 and Figure 2 on page 4)
Suitably qualified ecologist (SQE)	Someone with a postgraduate qualification in ecology (or similar) or five years' experience working with kororā on construction sites.
The Project	The construction (and associated activities) of the Shipyard project on the western side of Northport.
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

The Ministry of Business, Innovation and Employment (MBIE) is seeking approvals to construct and operate the proposed shipyard and dry dock facility ("Project") abutting the western side of the existing Northport port facility at Marsden Point, Whangārei Harbour. The Project, listed in Schedule 2 of the Fast-track Approvals Act 2024 (FTAA), includes a reclamation, vessel haul-out system, and associated wharf structures, dredging, and supporting infrastructure. The location of the facility has been carefully selected for functional and operational requirements, including the need for deep water access, sheltered harbour conditions, proximity to existing port services, sea and land transport links, and integration with established and proposed marine and land based industrial infrastructure.

As outlined in the Coastal Avifauna Assessment of Effects for the Project (BlueGreen Ecology, 2026), the mobile nature of most avifauna species means that the potential for injuries and/or mortalities associated with construction activities are likely to be confined to birds that may be nesting or with young chicks, or in the case of kororā/little penguin (*Eudyptula minor*), birds that are also moulting (during which time they are confined to their burrow).

Kororā have been recorded breeding on several islands located within close proximity to Northport, including High and Calliope Islands (BlueGreen Ecology, 2026). The rock revetment on the western side of Northport is the only potential kororā habitat within the Project footprint (refer to Photo 1). To date three surveys conducted along this revetment have not recorded kororā present, or any signs of use. Nevertheless, the potential exists for birds to use this area in future. As such, a conservative approach has been taken whereby this Kororā Management Plan (KMP) has been prepared to ensure that should birds be found during the construction phase, the necessary measures are taken to avoid potential injuries or mortalities.



Photo 1: Riprap revetment along Northport western boundary

2.0 Kororā / Little Blue Penguin

2.1 Biology

Kororā are classified as nationally At Risk – Declining (Robertson et al., 2021) and are protected under the Wildlife Act 1953. They breed in loose colonies around much of New Zealand's coastline.

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 1), 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.

Figure 1: Indicative breeding cycle of kororā.

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

At the end of the breeding season, every kororā (except those that have fledged that season) must undergo an annual moult, during which all feathers are replaced simultaneously over a 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).

2.2 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 springs (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 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; Gilling 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.

Figure 2 below presents the potential kororā habitat identified within the proposed shipyard and drydock facility project site along the western edge of the existing Northport facility.

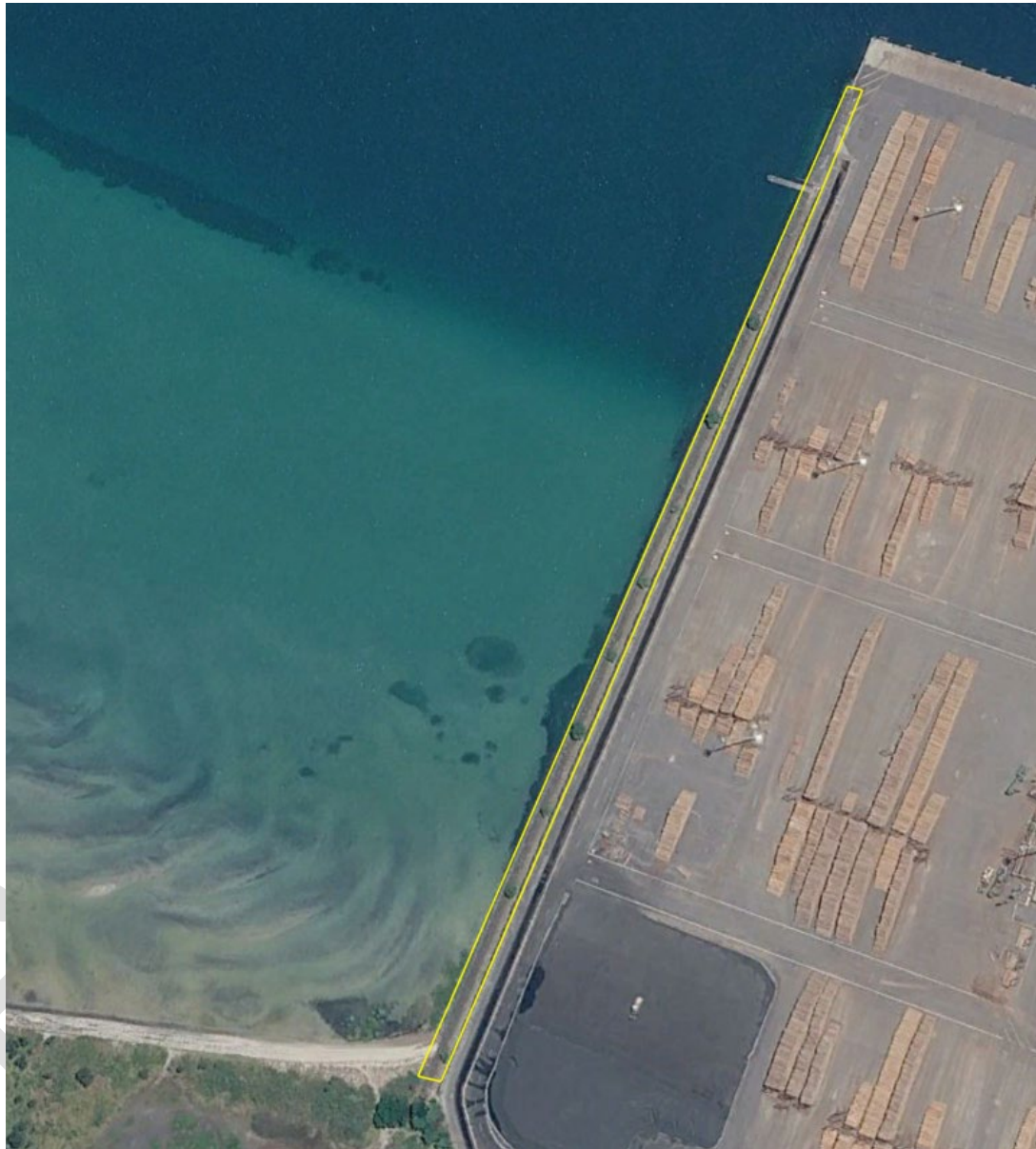


Figure 2: Potential Kororā habitat (yellow polygon) within the Project site

3.0 Kororā Management

This section of the document outlines methods to avoid and / or manage potential effects on kororā while undertaking the construction activities for the Project.

Under no circumstances will breeding¹ or moulting birds be handled or relocated for the purpose of enabling construction works.

3.1 Rock movement

The process for managing kororā to enable the movement (removal or placement) of rocks is outlined in Figure 3 (page 6).

On the first morning of rock movement within the area identified in Figure 2 (page 4) as potential kororā habitat, prior to any works occurring, a pre-work survey (as outlined in Section 3.2.1 below) using a DOC-certified conservation dog will be undertaken along the entire area of potential habitat.

If during the first pre-work survey there are no positive detections by the DOC-certified conservation dog, and the SQE confirms there are no signs of kororā having inhabited the revetement, rock removal can occur and no further pre-work surveys are required. Furthermore, the SQE will not be required to oversee the rock movement works, nor will site fencing (Section 3.8) or daily inspections (Section 3.9) be required.

However, if during the first pre-work survey a positive dog detection is made, or the SQE confirms signs that kororā have inhabited the revetement, then the works must progress according to the sequence of events outlined in Figure 3 (page 6). In all cases, additional pre-work surveys will be required. In general:

- If non-nesting and/or non-moulting kororā are detected outside the proposed area of rock removal or the adjacent 10 m, then rock removal can occur under the guidance of the SQE.
- If non-nesting and/or non-moulting kororā are detected within the proposed area of rock removal or the adjacent 10 m, rock movement will not occur until the kororā have been captured² 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 3.5 below).
- If nesting or moulting activity is detected, an exclusion zone will be established around the active burrow (as per Section 3.3 below) and the rock 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 3.2.1 below). Rock 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 decide when areas are clear of kororā or active burrows, and therefore when the works can commence.

¹ Includes nesting adults and nest contents (i.e. eggs and / or chicks).

² Only by those persons listed on a Wildlife Act Authorisation for the Project

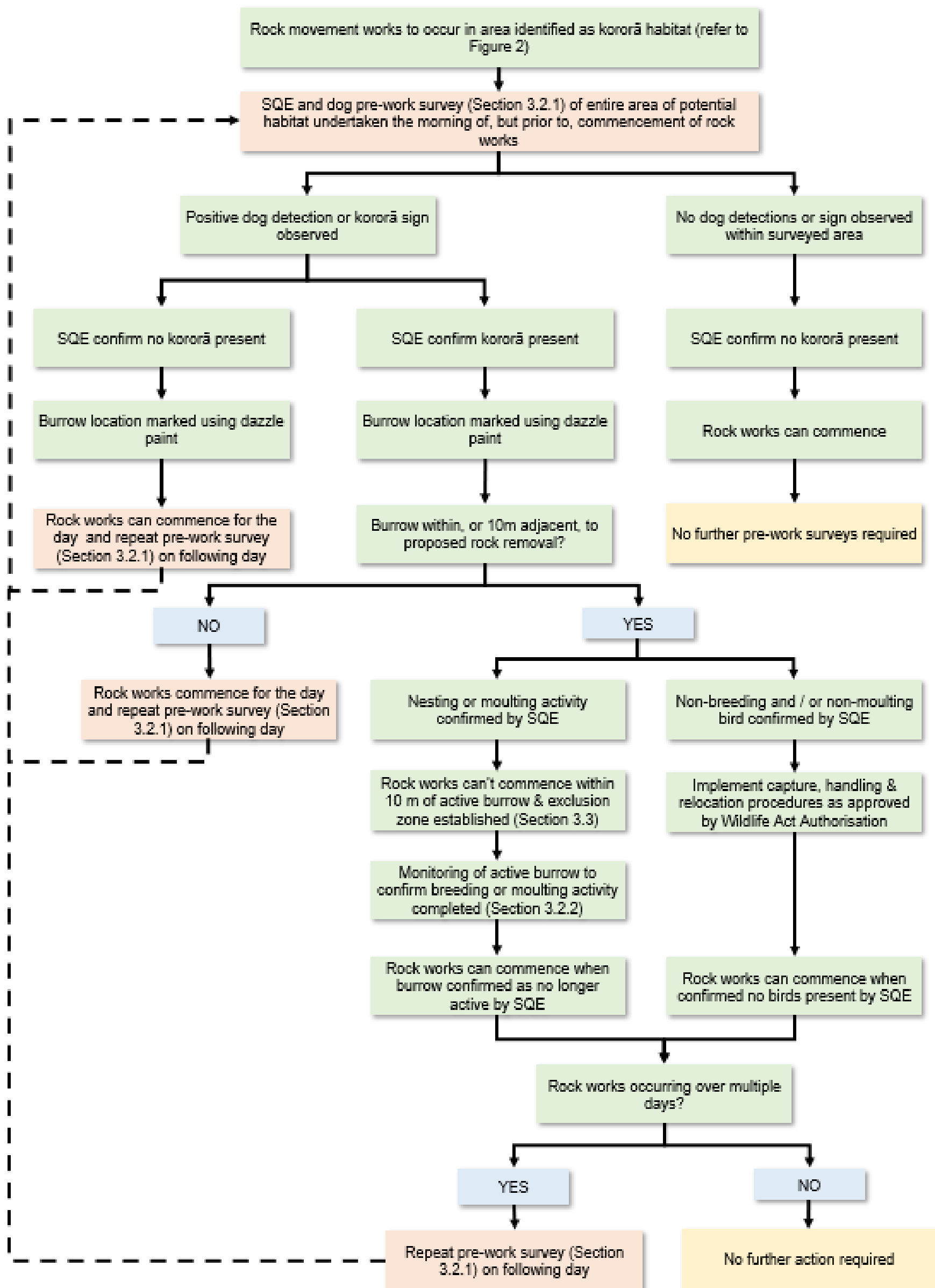


Figure 3: Process for managing kororā associated with rock movement works

Under no circumstances will breeding¹ or moulting birds be handled or relocated for the purpose of enabling construction works.

All revetment rock that is moved will be placed in a location that does not create a workplace hazard. Temporary fencing will be erected around the rock storage area (refer to Section 3.8 below for fencing specifications) to ensure that kororā do not inhabit the stored rocks.

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

Where the area of rock removal and/or rock 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, the stored rock pile will be inspected by a DOC-certified penguin detector dog for the presence of kororā.

3.2 Kororā monitoring

3.2.1 Pre-work survey

A pre-work kororā survey will be conducted by a DOC-certified conservation dog and handler in conjunction with a SQE on the first morning of rock removal anywhere within the area of kororā habitat that is identified in Figure 2. The need for additional pre-work surveys will be dependent on the results of this first survey, as outlined in Figure 3 above.

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 2, Photo 3) or feathers (Photo 7);
- Presence and number of any birds moulting (Photo 6) or non-moulting (Photo 4);
- Presence and number of any eggs and/or chicks (Photo 5).

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 active³ burrows are identified through the pre-work survey in locations where works are proposed, subsequent management actions will be implemented as outlined in Figure 3 and Sections 3.3.

³ As defined in the glossary table

No works will occur within established exclusions zones (Section 3.3) until it has been determined by the SQE that the burrow is no longer active, as determined by a SQE using the methodology outlined in Section 3.2.2 below.



Photo 2: White kororā guano on rocks outside burrow



Photo 3: Green kororā guano



Photo 4: Adult kororā in burrow



Photo 5: Young kororā chick and egg



Photo 6: Moulting kororā



Photo 7: Moulting feathers in burrow

3.2.2 Active burrows

If an active burrow is detected, fortnightly visual monitoring (using a burrowscope or phone camera) will be undertaken by the SQE and the following will be recorded:

- Presence of any sign such as guano or feathers;
- Presence and number of any breeding or moulting birds moulting;
- Presence and number of any eggs and/or chicks.

The SQE will use this monitoring data to determine when a burrow is no longer active. In all instances when a burrow cannot be visually monitored, a survey using a DOC-certified conservation dog will be undertaken to assist the SQE to determine if a burrow is no longer active.

3.3 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, as determined by a SQE using the methodology outlined in Section 3.2.2 above.

The exclusion zone demarcation will be removed once it has been determined by the SQE that the burrow is no longer active (as outlined in Section 3.2.2 above).

3.4 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) kororā⁴; anyone not listed in the permit Schedule will not be permitted to capture or handle kororā.

Breeding¹ or moulting birds will not be handled or relocated for the purpose of enabling construction works.

Before a kororā is caught, the DOC-permitted person will put on a pair of gloves⁵ and get a ventilated and sturdy pet carrier box⁶ that is lined with a towel in preparation for transporting the penguin. Generally, one kororā per 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.

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

⁴ Those listed will include people who fulfil the definition of a SQE.

⁵ Gloves must be worn as the oil on a person's hands can interfere with the waterproofing of penguin feathers).

⁶ Approximate dimensions: 40 cm length, 30 cm width, 35 cm height.

3.5 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 of release site;
- 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.

3.6 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 10 m should be maintained from any bird. Kororā can only be handled by persons named on a DOC Wildlife Act Authority (WAA) for the Project. Once on site, the SQE will decide which of the following approaches is/are most appropriate to manage the situation:

- 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 3.3, 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 3.7 below.

3.7 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 Mana Whenua 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 Service⁷. The cost of transporting the bird and the necropsy will be covered by the WAA Holder.

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).

3.8 Site fencing

If a positive dog detection is made, or the SQE confirms signs that kororā have inhabited the revetement during the first pre-work survey, fencing will be installed around site compounds and stock-pile areas to exclude kororā from these areas (refer to Figure 4 for examples). To ensure its effectiveness for such purposes, an effective barrier must be installed that goes all the way to the ground, leaving no gaps through which kororā could access. The fence must be made of a penguin-proof material, securely fastened down and of a sufficient height (at least 50 cm) to ensure penguins cannot jump over the fence or crawl under it.



Figure 4: Examples of fencing to exclude kororā from work areas

⁷ <https://www.massey.ac.nz/about/clinics-and-services-for-the-public/wildbase/wildbase-pathology/how-to-submit-a-specimen-to-wildbase-pathology/#Wheretosendspecimens>

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.

3.9 Site protocols & daily inspections

Kororā come onto land overnight and seek shelter, usually within their burrows. Therefore, if a positive dog detection is made, or the SQE confirms signs that kororā have inhabited the revetement during the first pre-work survey, in addition to the establishment and maintenance of site fencing (Section 3.8 above) it will be important to keep the site tidy and minimise the opportunities for birds to shelter on the works site. Shelter under any material that may leave a void for kororā to access, or within pipes and hoses, is to be prevented.

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 3.8 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 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 3.6 above). At all times a distance of 10 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.

3.10 Underwater noise management

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. 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.

4.0 HPAI / Bird Flu

Avian influenza is a contagious viral disease that affects 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 you see three or more sick or dead wild birds in a group, report it immediately to the exotic pest and disease hotline on 0800 80 99 66 so 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.

5.0 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), as well as to the Manager, Environmental Regulation as requested or required by consent conditions:

- All kororā detected during pre-work surveys (as described in Section 3.2.1).
- Active burrow monitoring results (refer to Section 3.2.2).
- Any kororā injuries or deaths that occur as a result of the project will be reported within 24 hours.
- A summary of all kororā relocations as a result of the Project (refer to Sections 3.4 and 3.5).
- The results of any necropsy requested by DOC (refer to Section 3.7) will be provided within 24 hours of receiving them.

5.1 Incident monitoring and reporting during works

Incident notification to DOC will be as soon as practicable following an unforeseen event. However, incident-based reporting will be provided to DOC and the Manager (Environmental Regulation) 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.

6.0 References

- BlueGreen Ecology. (2026). *Northland shipyard project: Coastal avifauna assessment*.
- Bourne, J., & Klomp, N. I. (2003). Ecology and management of the Little Penguin *Eudyptula minor* in Sydney Harbour. In *Urban Wildlife: More Than Meets the Eye* (pp. 131–137). Royal Zoological Society of New South Wales.
- Braidwood, J. (2009). *Breeding biology and threats to the blue penguin (Eudyptula minor) in South Westland, New Zealand* [Unpublished Master of International Nature Conservation thesis]. Lincoln University.
- Bull, L. S. (2000a). Factors influencing little penguin *Eudyptula minor* egg success on Matiu-Somes Island, New Zealand. *Emu*, 100(3), 199–204.
- Bull, L. S. (2000b). Fidelity and breeding success of the blue penguin *Eudyptula minor* on Matiu-Somes Island, Wellington, New Zealand. *New Zealand Journal of Zoology*, 27(4), 291–298.
- Bullen, L. S. (1997). *The breeding biology of the little blue penguin Eudyptula minor on Somes/Matiu Island* [Unpublished Master of Science thesis]. Victoria University of Wellington.
- Gales, R., Green, B., & Stahel, C. (1988). The energetics of free-living little penguins *Eudyptula minor* (Spheniscidae), during molt. *Australian Journal of Zoology*, 36(2), 159–167.
- Gilling, D., Reina, R. D., & Hogg, Z. (2008). Anthropogenic influence on an urban colony of the little penguin *Eudyptula minor*. *Marine and Freshwater Research*, 59(7), 647–651.
- Heather, B. D., & Robertson, H. A. (2015). *The field guide to the birds of New Zealand*. Penguin Books.
- Kinsky, F. C. (1960). The yearly cycle of the northern blue penguin (*Eudyptula minor novaehollandiae*) in the Wellington Harbour area. *Records of the Dominion Museum*, 3(3), 145–218.
- Marchant, S., Ambrose, S. J., Higgins, P. J., Davies, J. N., & Sharp, M. (1990). *Handbook of Australian, New Zealand and Antarctic birds: Volume 1, Ratites to ducks*. Oxford University Press.
- Marker, P. F. (2016). *Spatial scale and nest distribution of little penguins (Eudyptula minor)* [Unpublished Doctor of Philosophy thesis]. University of Tasmania.
- Pledger, S., & Bullen, L. S. (1998). Tests for mate and nest fidelity in birds with application to little blue penguins (*Eudyptula minor*). *Biometrics*, 54, 61–68.
- Reilly, P. N., & Cullen, J. M. (1983). The little penguin *Eudyptula minor* in Victoria, IV: Molt. *Emu*, 83(2), 94–98.
- Richdale, L. E. (1957). *A population study of penguins*. Clarendon Press.
- Robertson, H. A., Baird, K. A., Elliott, G., Hitchmough, R., McArthur, N., Makan, T., Miskelly, C., O'Donnell, C. F., Sagar, P. M., & Scofield, R. P. (2021). *Conservation status of birds in Aotearoa New Zealand, 2021*. Department of Conservation, Te Papa Atawhai.

