

## **Attachment 3**

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Clean version of final Little Penguin  
Management Plan

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KENNEDY ENVIRONMENTAL LIMITED

# LITTLE PENGUIN MANAGEMENT PLAN FOR BN AND FN WHARF PROJECT



Prepared for Port of Auckland Limited

August 2025

## 1 Limitations

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## 2 Document Revision History

| Revision | Author    | Version                               | Date of release  |
|----------|-----------|---------------------------------------|------------------|
| 1        | P Kennedy | Issue to POAL for review.             | 20 December 2024 |
| 2        | P Kennedy | Final draft issue to POAL             | 4 February 2025  |
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| 3        | P Kennedy | Updated final draft issue to POAL     | 13 May 2025      |
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## 3 Bibliographic Reference

This report should be referenced as:

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## 1 INTRODUCTION

The Port of Auckland Limited (POAL) operates the Port of Auckland (the Port). POAL is intending to progress construction of two new wharf structures at the Port in accordance with consents obtained under the Fast-track Approvals Act 2024 (the Project). The Project involves:

- The construction of an additional wharf/berth at the seaward side of the existing Bledisloe Terminal. This is referred to as the Bledisloe North (BN) wharf. The new wharf provides for large cruise ships (>300 m in length) and existing roll on roll off (RoRo) needs.
- The construction of an extension to the existing Fergusson North (FN) berth at the Fergusson container terminal which improves vessel container management at the berth (i.e., loading / unloading time).

Under the conditions of consent issued by the Expert Panel (FTAA-2503-1028), POAL is required to prepare a Little Penguin Management Plan (LPMP). This document is a pre-decision version of the LPMP required under those consent conditions and is an appendix to the Wildlife Act Approval (WAA) (Department of Conservation (DOC)) issued by the Expert Panel. The LPMP provides the framework for undertaking pre-construction and construction surveys, responding to little penguin (kororā, *Eudyptula minor iredale*) finds in pre-construction surveys, construction surveys or an unexpected find of kororā during construction works.

For context, the assessment of potential ecological effects prepared in support of POAL's application for resource consent (KEL 2024) concluded that although kororā had not been located within the rock revetments within the Project area, there was a possibility that kororā may be present. As a contingency it was identified that should kororā be discovered during works that a WAA under the Wildlife Act should be in place to allow the capture, handling and relocation of kororā if required.

## 2 This Plan

This LPMP has been prepared in accordance with the proposed conditions set out in the WAA. This LPMP is based on the recommended conditions set out in the draft decision issued by the Expert Panel. The final WAA will be included in Appendix A. The key elements of this plan include:

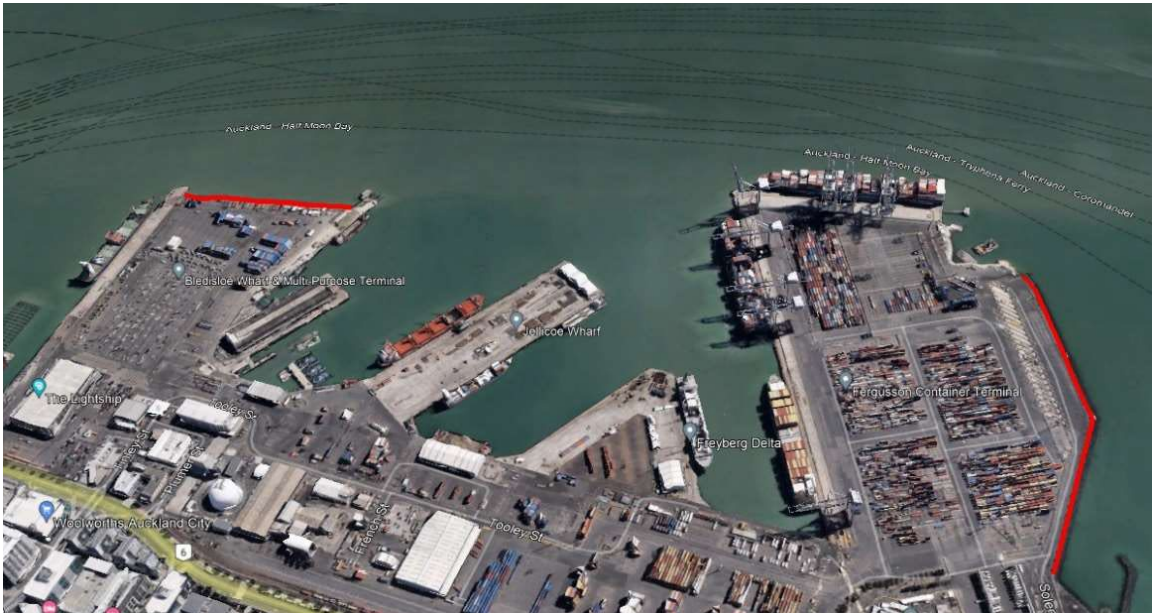
- Section 3 which sets out key definitions.
- Section 4 which provides a summary of kororā breeding and ecology.
- Section 5 identifies the points where the plan intersects with the Construction Management Plan (CMP).
- Section 6 sets out management processes where a WAA has been granted.
- Section 7 sets out some recommended draft conditions.
- Section 8 provides information about communications relating to LPMP.



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Revisions to this Plan will be made where required when the certified version of the CMP becomes available.

Figure 1 shows the location of the existing revetments at Bledisloe terminal and Fergusson Container terminal.



*Figure 1: Location of revetment at Bledisloe Terminal (left) and Fergusson Container Terminal, (right) at Port of Auckland (from KEL 2024). Existing FN wharf is the wharf with container ship berthed at north of container terminal.*

This LPMP does not include matters such as predator control as the Port is a biosecurity-controlled area and POAL has an extensive pest control program in relation to terrestrial pests such as mice and rats.

## 3 Definitions

This LPMP makes reference to a number of matters that require definition. These are set out below.

### **Suitably Qualified Coastal Ecologist**

A person who with a tertiary ecology qualification and experience working with coastal birds. They will be responsible for supervising and advising on the overall kororā management actions for the Project as required.

### **Suitably Qualified Kororā Specialist**

A person who with a tertiary ecology qualification and experience working with kororā (or if a tertiary qualification is lacking, a person with kororā experience that is approved by DOC). They

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will be responsible for supervising and advising on kororā management actions for the Project as required. A specialist may also be a DOC-banding office certified penguin handler.

### DoC-Permitted penguin handler

A person who is identified as part of the Project to capture, handle and relocate kororā. An approved handler should have a level 2 (competent) or L3 (expert) certification. That is, has sufficient experience to handle kororā on their own.

### Active burrow

A burrow containing, or suspected to contain, a nesting bird, viable nest contents (egg(s) and / or chicks (s)), or moulting bird based on the identification of penguin sign by a suitably qualified and experienced coastal ecologist.

### Penguin sign

The sighting of guano, feathers, odour or penguin sounds at a suspected burrow.

As set out in this LPMP, due to the length of the Project construction period, at least two penguin handlers will be identified.

## 3.1 Wildlife Act Authorisation Conditions

Table 1 sets out the requirements of the WAA (Appendix A) in relation to the contents of the LPMP and where in this plan the specific matters can be located.

Table 1. WAA Requirements.

| Condition | Requirement                                                                                                                                                                                                                                                                             | LPMP Section |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 1.5(a)    | Penguin surveys - pre-construction and during construction.                                                                                                                                                                                                                             | 5.5, 5.7     |
| 1.5(b)    | Training construction staff to be able to spot little penguins                                                                                                                                                                                                                          | 5.3          |
| 1.5(c)    | Training construction staff for what to do in the event a little penguin is found during construction.                                                                                                                                                                                  | 5.3          |
| 1.5(d)    | Reporting and communicating to relevant persons the presence of little penguin within the Project area.                                                                                                                                                                                 | 5.8          |
| 1.5(e)    | Responding to a little penguin sighting within or near to the Project area.                                                                                                                                                                                                             | 5.8.2        |
| 1.5(f)    | The safe management and, if appropriate, relocation of little penguin if found within or near to the Project area, including to relocation site and mitigation for impacts like habitat loss.                                                                                           | 5.9, 5.10    |
| 1.5(g)    | Procedures to ensure penguins are only relocated if they are neither moulting nor nesting penguins, including establishment of cordons around any penguins located that are moulting or nesting, and signage preventing disturbance of nesting and moulting penguins once cordoned off. | 5.8.2        |

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|        |                                                                                                                                                                                                                                     |      |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1.5(h) | Feedback mechanisms for any adaptive management, including circumstances in which a material change to the management plan would be required and how that change would be certified following the same process as in this condition | 5.11 |
| 1.5(i) | Reporting procedures and format for providing the results of any monitoring or surveying required by the LPMP                                                                                                                       | 5.6  |

## 4 Kororā

### 4.1 Introduction

There is little published information available about the numbers of kororā that are present and nest within the lower Waitematā Harbour. Kororā have a national conservation status of At-Risk – Declining (Robertson et al. 2021)) and a regional status of Threatened Regionally Vulnerable (Wooley et al. 2024). There are few records of little penguins within Waitematā Harbour in sources such as iNaturalist or e-bird. There are occasional observations of kororā swimming within harbour waters with observations typically peaking in September through November. Kororā have been found during other construction works within the harbour. The most recent being in 2023 on the Westhaven Marina breakwater during rock replacement.

### 4.2 Breeding

Kororā are nocturnal, typically coming ashore after dusk and leaving before dawn. Adults are present at colonies throughout the year. For most colonies in New Zealand the breeding season begins around July and continues until February when chicks fledge. The yearly cycle involves occupation of burrows and pair formation; breeding with egg laying/incubation/hatching/chick rearing/moulting. There is fluidity in timing of breeding activity around New Zealand so it is generally assumed that penguin can be present for most of the year with a short period around May and June when they will be at sea for a few weeks feeding preparing for the breeding season (refer Fleming 2013).

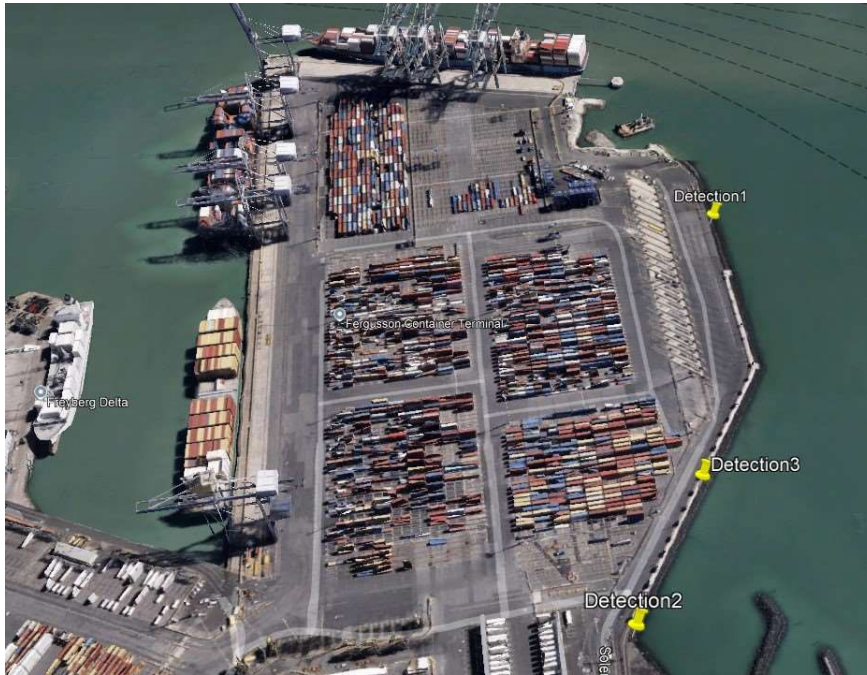
### 4.3 Burrow Habitat

Kororā utilise a diverse range of habitat for nesting. Burrows are dug where ground is suitable or where natural or artificial features provide a dark space where they can nest. In urban areas on the coast kororā have often bred under houses. As much of the lower Waitematā Harbour shoreline is man-made, kororā have found suitable nesting locations in revetments and under buildings that are up against the shore (e.g., the marine Rescue Centre on Tamaki Drive by the Port).

The two surveys (using a kororā detector dog) carried out in August and November 2024 (KEL 2024) on the BN revetment did not detect kororā sign. Examination of the revetment from the northern end of the Fergusson Container Terminal west to Tamaki Drive, found positive dog



detects and several burrow with audible and or visual evidence of kororā presence (Figure 2). Kororā are not present at the location of the FN works as the rock revetment is yet to be constructed adjacent to this location.



*Figure 2: Fergusson Container Terminal, locations where kororā burrow were detected (from KEL 2024).*

The ability to detect kororā in their burrow using burrow scopes is very dependent upon how deep the burrow is within rocky areas such as revetments. Although kororā nest above the high tide mark, some burrows can be several metres or more within the revetment.

### 4.4 Site Fidelity

Kororā in general return to the colony they fledged from. An overview of fidelity in kororā colonies is provided by Wilson & Mattern (2024).

## 5 MANAGEMENT

### 5.1 Introduction

Rock revetment works will only occur at BN as a component of the overall construction program. There will be initial works on the revetment in the lead up to wharf construction. Work will then occur for multiple short periods though the entire BN works period. The physical works during wharf construction will involve:

- The removal of rock to allow steel pile tubes to be installed.

- Removal of smaller rock from sections of the revetment to ensure the rock in the revetment is of suitable size. Replacement with rock of defined size.

### 5.2 Health & Safety

Prior to any surveys being conducted to establish presence of kororā, a Health and Safety assessment will be carried out and a Job Safety Analysis (JSA) prepared for this element of work. The JSA which will be prepared prior to the first pre-construction survey will focus on field work on the revetment and penguin handling. The draft JSA (Appendix B of this Plan), includes relevant matters included in NZPI (2024):

- Reference to kororā handling protocols (e.g., as a standard operating procedure (SOP) as they apply to who is permitted to handle under the Wildlife Act 1953 (WA).
- Information about hygiene practices and biosecurity during all site work.
- Safety procedures to be followed while working around the water's edge within the Port/on the revetments.

### 5.3 Preconstruction/Construction Penguin Communications

Prior to any construction starting information will be communicated to all worksite staff involved in works on the revetment (crane drivers, piling equipment) about kororā. The information will be sufficient to ensure that site workers will be able to spot kororā within their work areas and respond accordingly. The key information that will be communicated will include:

- Why there is a need to watch out for kororā.
- Where they could be found.
- What they look like.
- What to do if you see one within a work zone.
- Who to advise if you see a kororā.

Training will be provided to onsite contractors to identify signs of kororā habitation (e.g., moulted feathers and guano (penguin poo)) should it be present and to discuss actions required to secure work sites, construction materials and equipment to prevent kororā access. This training will be run by a suitably qualified and experienced ecologist.

During construction and at toolbox meetings:

- What to do if you see one within a work zone and what to do if a kororā is injured.
- Who to advise if you see a kororā.

Information will be re-communicated should there be changes in personnel on site.

## 5.4 Approved Kororā Handlers

Prior to the commencement of work on the project work site, at least two DOC approved kororā handlers should be identified and available to assist if required. Two handlers are required due to the duration of the project and to ensure one handler is available at any time.

Should changes to the designated kororā handlers be required, the alternate handlers will be identified to DOC to confirm that they are suitable for the required role.

The work commencement timetable should be communicated to DoC approved kororā handlers.

## 5.5 Preconstruction Surveys

Prior to any construction starting at BN, pre-construction surveys will be carried to identify any sign of penguin burrow activity within the BN revetment area. The dates for undertaking the survey or surveys are dependent on the commencement date for first site work. At least two surveys would be undertaken in the three months prior to commencement of work. As set out in Section 3 of this LPMP, detection is defined as:

- A positive detect by an approved detector dog but no kororā sign or
- The identification of penguin sign (refer definitions and Section 5.6) at a locality identified by a dog.

If a detection is made, a burrow-scope or other suitable tool camera will be used to assist with identifying the burrow contents.

## 5.6 Information Recorded in Surveys

If a detection is made of any kind, the following information will be recorded (as applicable):

- The location of dog detection(s) or by detection by specialist/handlers.
- The GPS location of the nest (GPS or phone GPS).
- The identification of any kororā sign including guano, feathers, odour, penguin sounds.
- The identification of any kororā within the burrow (e.g., using a burrow-scope) and whether they are moulting).
- The number of eggs or chicks if seen in the burrow.
- Photographs to confirm location.

Information collected in the field will be recorded on the field record form provided in Appendix C.

The results of each survey will be communicated by email to DOC within 10 days of the completion of any survey.

## 5.7 Construction Surveys

Following commencement of construction works at BN and FN, kororā surveys will be conducted no less than every three months on the BN revetment and on the Fergusson Container terminal eastern revetment down to the start of the red fence (identified by Detection 2 in Figure 1). Surveys will cease when piling work is completed. The surveys will record the information set out in Section 5.6.

## 5.8 Finding Kororā at BN

### 5.8.1 During penguin pre-construction surveys

If kororā are found during a pre-construction survey, the location(s) will be identified and location communicated to the project manager.

A temporary exclusion zone of 10 m will be put in place around the location until a review of penguin management options within this area is carried out.

Upon discovery of the kororā, the site construction manager (or nominated alternative) and Port of Auckland will be informed, and the process outlined in Appendix D will be implemented immediately to arrange the capture, handling and relocation of the kororā. Refer Section 7.1 for key contact information.

While waiting for the arrival of an authorised person, the kororā will not be handled or disturbed further. If the kororā is injured or ill, DOC will be immediately contacted to receive advice on what actions to undertake (also refer Section 6).

### 5.8.2 During construction

On the basis that no kororā burrows have been identified within the BN revetment, it is not intended that a specialist be on site during all rock removal. However:

- Excavator operators will receive training to ensure they know how to identify kororā.
- A stop work process will be in place in the event of a penguin sighting. If a kororā is sighted, the location(s) will be identified and location communicated to project manager and ecology specialists. An exclusion zone of 10 m around the location will then be implemented (refer Appendix D).
- Breeding or moulting kororā will not be disturbed and site work within the exclusion zone will resume when the kororā have left the area.
- If it is identified that the kororā is a single bird, is thought to be ill or injured, it will be captured by an approved handler. If the kororā is well, it will be relocated. as set out in Section 5.9. If the kororā is considered to be ill or injured, it will be managed as set out in Section 6.

## 5.9 Capture, Handling, Relocation

### 5.9.1 Kororā handling

All kororā capture and handling will be carried out by an approved handler and will be carried out in accordance with a SOP (which will be included in Appendix E of the final draft of the Plan).

Records will be kept to trace all movements of handled/captured penguin.

Should any kororā have a band then the band details should be recorded.

Relocation will be to the sole site identified in Section 5.9.2.

### 5.9.2 Relocation site

Any kororā captured within the BN construction site off the revetment and able to be relocated immediately will be taken to the relocation site located on the existing eastern container terminal revetment in Judges Bay. This site will be used during the duration of the BN revetment works. The current nature of the site is shown in Figure 3. This location is immediately north of the public walkway outside the red-fence and south of the location marked detection 1 on Figure 1. The upper surface of the revetment site will be infilled to form a flat surface some 2 m wide and 10 m in length. Three wooden penguin boxes will be located within the area. The boxes will be separated from the adjacent roadway by a temporary fence.



*Figure 3: Fergusson Container Terminal revetment, location of proposed relocation area.*

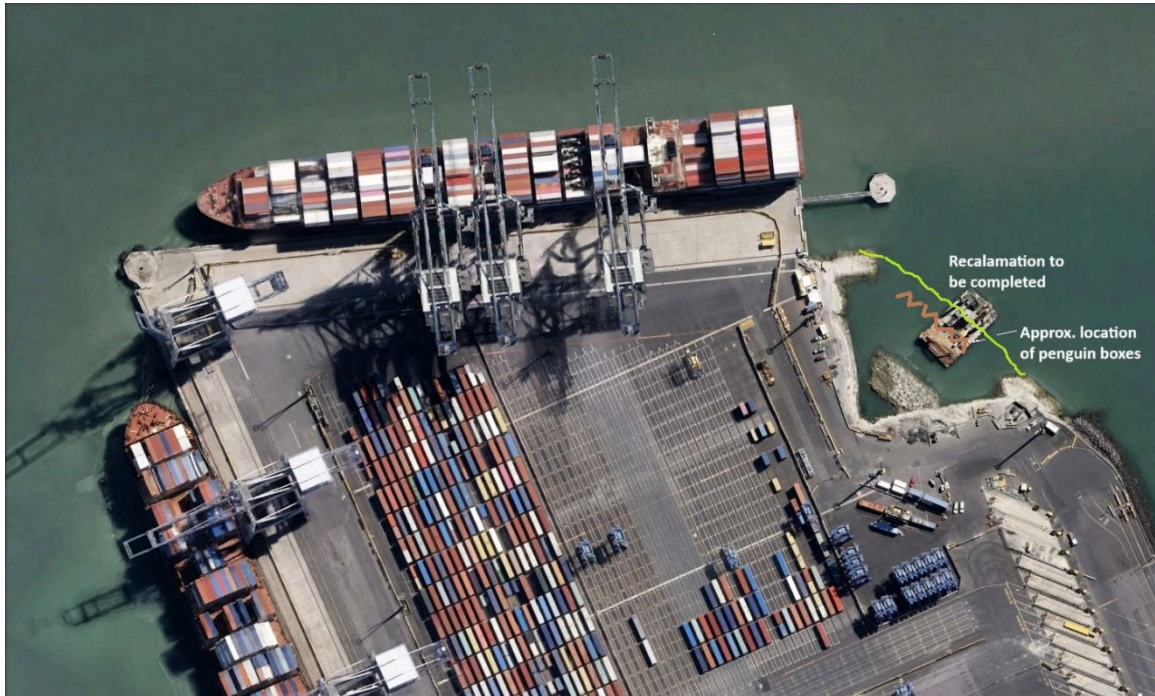
It is recommended that any kororā relocated from the work site should be temporarily marked (using twink on the back of the head) to allow easy identification should it return to the work site.

Suitable transportation cages will be made available for transport of kororā.



## 5.10 Longer Term Kororā Mitigation

With the completion of the remaining Fergusson Container Terminal reclamation, it is proposed that part of the reclamation surface adjacent to the revetment will be utilised to house kororā boxes. This area will not be available until the rock revetment is constructed following the completion of all piling for the FN berth extension. Figure 4 illustrates the proposed location.



*Figure 4: Location of longer-term penguin boxes on yet to be completed Fergusson Container Terminal reclamation.*

The boxes will be located within a strip along the top of the yet to be constructed rock revetment. The key elements of the proposed location will comprise:

- A strip 5-7.5 wide which can accommodate at least 10 kororā boxes.
- Boxes would be staggered and separated by at least 5 m to minimise territorial interaction.
- Boxes would be constructed to a standardised design (Department of Conservation or West Coast Penguin Trust design).
- Area would be separated from adjacent port activity by a suitable fence, with a gate to access kororā box area.
- Area would have limited planting to ensure access around kororā boxes.
- The adjacent revetment would have no specific access for kororā. To aid kororā access, some supplementary infill with smaller revetment rock may be able to be carried out in one area of revetment.



### 5.11 Changes to Management Plan

Following issue of the WAA, no material changes will be made to the LPMP without the approval of DOC in accordance with the conditions of WAA. In relation to the review of Plan contents:

- The Plan (or specific sections) will be reviewed should site construction activities change in any way that affects management actions within the Plan.
- The overall Plan should be reviewed 30 days prior to the end of each year (December).
- Changes to the Plan should be communicated to DOC by end of January each year.
- As required by Condition 1.2 of the WAA (Appendix B), all changes to the LPMP must be submitted to DOC for certification. The changes cannot be implemented until certification is received from DOC.

## 6 FINDING INJURED OR DECEASED KORORĀ

### 6.1 Injured Kororā

Should an injured or sick kororā be identified on site:

Contact the approved handler.

If the handler recommends use the appropriate PPE and place the injured kororā into a suitable transportation carrier as set out in the SOP.

For injured or sick penguins contact the nominated wildlife rehabilitation centre. In this case it is:

BirdCare Aotearoa

74 Avonleigh Road  
Green Bay, Waitakere, Auckland  
Phone: (09) 816 9219

Website: [www.birdcareaotearoa.org.nz](http://www.birdcareaotearoa.org.nz)

If the centre is unavailable contact DoC through the [DOC emergency hotline](#) **0800 DOC HOT (0800 362 468)**.

### 6.2 Deceased Kororā

Under the Wildlife Act, kororā is a protected species. In the event that a dead kororā is located within the project area:

- The finding will be reported to DOC (Auckland Office) with 24 hours. Refer contact details in Section 8.

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- A photograph should be taken of the bird as found. The photograph should include any information (e.g., on the ground) that might relate to cause of death. The photograph(s) should be included in the findings email to DOC.
- The dead bird should be collected with all handling carried out with disposable gloves and placed into a ziplock plastic bag. The bag should then be stored in a fridge if the carcass is to be transported within 24 hours.
- The project 'ecologist' or 'penguin specialist' should determine (in conjunction with DOC) if an autopsy is required. If an autopsy is to be performed, then the carcass should be placed into a suitable container and sent by courier to the vet lab or Massey University [contact details to be included in final plan) or alternative veterinary facility (e.g., Pet Doctors St Lukes & Exotics Centre).

## 7 COMMUNICATIONS

### 7.1 Key Contacts

The key contacts for matters set out in this LPMP are set out in Table 2.

Table 2 Key contacts.

| Party                        | Person | Phone | Email |
|------------------------------|--------|-------|-------|
| POAL Project manager         |        |       |       |
| Project ecologist            |        |       |       |
| DOC approved penguin handler |        |       |       |
| DOC approved penguin handler |        |       |       |
| Department of Conservation   |        |       |       |
| Auckland Council             |        |       |       |

### 7.2 Summary of Reporting to Department of Conservation

The WAA conditions and this plan provide for information to be provided to DOC. This includes:

1. The results of Pre-construction surveys (by email within 10 days of completion of survey).
2. The results of kororā surveys carried out three monthly during the construction period (by email within 10 days of completion of survey). Note construction period is deemed to be completion of piling.
3. The finding of kororā within the construction site.
4. The relocation of kororā to the "relocation site".

Updates to the LPMP on an annual basis (by end of January) and whenever changes are required as a result of any other activities that have a bearing on the LPMP.

### 8 REFERENCES

NZPI 2024. Penguin monitoring: Health and safety awareness. New Zealand Penguin Initiative. Version 1, August 2024. Available at <https://www.nzpi.nz/korora/littlepenguin-resources>.

Robertson HA, Baird K, Elliot GP, Dowding JE, Elliott JP, Hitchmough RA, McArthur N, Miskelly CM, O'Donnell CFJ, Sagar PM, Scofield RP, Taylor GA, Mochel P 2021. Conservation status of birds in Aotearoa Zealand, 2021. New Zealand Threat Classification Series 19. Department of Conservation.

Wilson K-J, Mattern T 2024. Little (Blue) penguin/kororā. Available at <https://sop.penguinarchive.org/little-penguin>. Accessed 17 December 2024.

Woolly J, Lovegrove T, Robertson H, Dell'Araccia G, Melzer S 2024. Conservation status of birds in Tāmaki Makaurau / Auckland. Auckland Council technical report, TR2024/5

### **Appendix A: Wildlife Act Authorisation.**

To be appended when granted

### **Appendix B: Job Safety Analysis.**

This Appendix contains a draft version of the JSA. This will be reviewed and updated by the Ecologist, Penguin specialist, d POA and contractor prior to inclusion in the LPMP for certification.



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### Appendix C: Field Record Forms.

Field record form for kororā burrow discovery during Pre-construction and other surveys. **V1 2 March 2025 Pre-review draft.**

|                                 |                       |  |
|---------------------------------|-----------------------|--|
| Location                        |                       |  |
| Date of survey                  |                       |  |
| Time of LP burrow detection     |                       |  |
| Unique burrow ID                | i.e., CT-1, BN-1 etc. |  |
| GPS (if available)              |                       |  |
| Method of detection             | Person                |  |
|                                 | Detector dog          |  |
| Penguin sign                    | Guano                 |  |
|                                 | Odour                 |  |
|                                 | Tracks                |  |
|                                 | Feathers              |  |
|                                 | Heard                 |  |
|                                 | Seen visual           |  |
|                                 | Seen burrow-scope     |  |
| Site location photographs taken | Yes/No                |  |
|                                 | Time                  |  |
| Other notes                     |                       |  |
|                                 |                       |  |
|                                 |                       |  |
|                                 |                       |  |

### **Appendix D: Notification Process (penguin on site).**

Note: This appendix provides a summary of all activities that require notification within project and to various organisations on the occasion that kororā are discovered. Actions will be modified based on requirements of WAA. This Appendix may be integrated into the main body of the LPMP.

# LITTLE PENGUIN MANAGEMENT PLAN

## 1 Discover of injured kororā

### 1a Injured natural causes

| Action                                  | Party                             | Contact details                  |
|-----------------------------------------|-----------------------------------|----------------------------------|
| Collect and transport to vet specialist | Birdcare Aotearoa Vets, St Lukes. | Phone, address<br>Phone, address |
| Communicate by email to DOC Auckland.   | Department of Conservation        | Email.                           |

### 1b Injured during handling

| Action                                                 | Party                             | Contact details                  |
|--------------------------------------------------------|-----------------------------------|----------------------------------|
| Collect and transport to vet specialist                | Birdcare Aotearoa Vets, St Lukes. | Phone, address<br>Phone, address |
| Communicate <b>by phone</b> and email to DOC Auckland. | Department of Conservation        | Phone<br>Email.                  |

## 2 Discover of deceased kororā (unknown causes)

### 2a Known cause

| Action                                                 | Party                      | Contact details |
|--------------------------------------------------------|----------------------------|-----------------|
| Communicate <b>by phone</b> and email to DOC Auckland. | Department of Conservation | Phone<br>Email  |
|                                                        |                            |                 |

### 2b Unknown cause

| Action                                                 | Party                          | Contact details |
|--------------------------------------------------------|--------------------------------|-----------------|
| Communicate <b>by phone</b> and email to DOC Auckland. | Department of Conservation     | Phone<br>Email  |
| Communicate <b>by phone</b> and email to MPI.          | Ministry of Primary Industries | Phone<br>Email. |

## 3 Relocation of kororā

Following completion of a relocation, relocation information will be emailed to DoC.

| Action                             | Party                      | Contact details |
|------------------------------------|----------------------------|-----------------|
| Communicate email to DOC Auckland. | Department of Conservation | Email           |

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### 4 Discovery of kororā during construction

Should a kororā be discovered on site or during construction.

| Situation/Action                                                                                                                                                             | Communication to                                                                                                                           | Contact details |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>If sighted off revetment but within or adjacent to BN or FN work location</b>                                                                                             |                                                                                                                                            |                 |
| 1. Notify site manager and kororā team.                                                                                                                                      | Site manager<br>Team ecologist                                                                                                             | Phone<br>Phone  |
| 2. Kororā handler to capture bird.                                                                                                                                           | Kororā team to capture and relocate kororā and:<br>Relocate to relocation area if well.<br>Transport to Birdcare or vet if unwell/injured. |                 |
|                                                                                                                                                                              |                                                                                                                                            |                 |
| <b>If sighted on revetment at BN Not within burrow/single injured or ill</b>                                                                                                 |                                                                                                                                            |                 |
| 1. Operator/person making observation to notify site manager and kororā team.                                                                                                | Site manager<br>Team ecologist                                                                                                             | Phone<br>Phone  |
| 2. Establish 10 m buffer zone around sighting.                                                                                                                               |                                                                                                                                            |                 |
| 3. Remove kororā from site for relocation or transport to Birdcare/vet as above. Remove need for buffer zone                                                                 |                                                                                                                                            |                 |
| 4. Communicate outcome to DOC                                                                                                                                                | Department of Conservation                                                                                                                 | Email           |
| <b>If sighted in revetment at BN during revetment work</b>                                                                                                                   |                                                                                                                                            |                 |
| 1. Operator/person who identify kororā cease work, notify site manager.                                                                                                      | Site manager<br>Team ecologist                                                                                                             | Phone<br>Phone  |
| 2. Establish 10 m buffer zone around sighting. Undertake toolbox assessment to determine replacement of rock at burrow location, isolation period and ongoing burrow checks. |                                                                                                                                            |                 |
| 3. Communicate outcome to DOC.                                                                                                                                               | Department of Conservation                                                                                                                 | Email           |

### **Appendix E: Penguin Handling SOP.**

#### **Little Penguin Handling Standard Operating Procedure.**

Note: This document is draftSOP prepared to set out the key aspects/requirements should kororā handling/management be required as part of the Project. It is intended that this document will be:

Reviewed and updated where required by the project penguin specialist.

Provided to DOC as part of the LPMP certification.

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## 1 Introduction

This SOP sets out specific information relating to:

- Appropriate training for kororā handlers.
- Health & safety related to handling.
- The handling of kororā following discovery during project works.
- The management of kororā following capture.
- Relocation of kororā.
- The management of injured kororā.
- The management of deceased kororā.

The latter two items are included for completeness although they are included in the LPMP.

Permissions are required from Department of Conservation (DOC) to interact with kororā, capture kororā for obtaining data, checking bands/tags and or relocating kororā if required during construction works. These permissions are obtained through a Wildlife Authorisation granted under the Wildlife Act 1953 (<https://www.doc.govt.nz/get-involved/apply-for-permits/>).

## 2 Appropriate Training

The kororā specialist/handlers must have appropriate experience:

- Handling of kororā and must have handled kororā previously.
- Have DoC banding office certification level 2 or Level 3 certification.

It is expected that the Project will have at least two handlers available.

## 3 Health & Safety

### 3.1 JSA

All kororā management team members must have read the LPMP JSA prior to commencing work and understand the risks associated with working on the project and working with kororā. The key aspects of the JSA include:

- Being aware of the work environment especially while on the Port revetments.
- Being aware of risks while handling or assisting with handling of kororā.

### 3.2 Working on revetment

No field team members will undertake field work alone/out of site when near water or on any section of port revetment. Life jacket to be worn.

When working on the revetments, all field staff must be fully aware of footing when moving over the revetment. Ensure you are comfortable at all times in locations you are working. Take

extra care if windy or during rain. If any concerns are raised, take 5 and discuss state of work conditions. No work is planned during times of darkness.

### 3.2 Well-being of LP

There are a number of areas where well-being of LP should be considered. NZ Penguin Initiative (2024) has been referred to as the document is one of the few Health & Safety evaluations of working with Kororā.

The penguin specialist (and any person who may assist) should wear gloves to avoid direct contact with penguin to reduce transfer of oil to feathers.

Kororā are susceptible to stress and injury during handling. Handlers should be familiar in recognising stress during handling.

### 3.2 Diseases

As discussed by NZPI (2024) kororā are susceptible to a range of diseases.

Most penguin have not been in direct contact with humans. As such they are susceptible to a variety of pathogens that can be communicated by humans. With current concerns about bird flu, the potential for communication to LP must also be considered.

No field team members should have been in contact with poultry. If there has been contact, the clothes being worn should have been laundry washed.

Refer section 8 on handling injured, ill or Section 9 on handling deceased kororā.

## 4 Kororā handling

Penguin specialist, approved handlers may educate on site persons who are assisting with appropriate techniques handling of kororā prior to construction commencing.

Gloves will be worn while handling kororā.

Hands are to be washed before touching face or eating.

It is assumed at this stage that kororā may need to be captured if:

- A burrow is identified at BN during pre-construction survey (and kororā are not moulting or nesting).
- Single kororā are discovered within any land-based part of the construction area
- Kororā are identified during works (and kororā are not moulting or nesting).

If a kororā is seen within an area that requires it to be relocated, the handler will approach the kororā from behind. The kororā is grabbed gently with both hands with flippers held against its sides. The penguin is held away from the handlers body to reduce potential for pecking. The carrier box (lined with a towel) will be brought to the handler and the kororā placed into the cage. The cage will then be taken to a level location close to the revetment for



checks/measurements (refer below) then transported to overnight care or vets or to relocation site.

The pet cage should be placed in shade and should not be left in a stationary vehicle unattended especially in summer.

Time in pet-cage should be as short as possible. The kororā should be transported to the relocation site within two hours.

If the relocation cannot happen same day, the penguin should be transported asap to the agreed holding facility (e.g., BirdCare Aotearoa) who will have been notified in advance. The penguin will then be collected the following day and released at the relocation site.

### 5 Checking for identification

Any LP caught will be checked for identification which could be either:

- Previously applied twink (on back of head).
- A flipper tag. Tag details will be recorded.
- A pit tag. A Pit tag would require the handler to have access to a handheld electronic reader (NZ made options include Gallagher HR4 but there are a range of simple reader options available). Checks will be made should a reader become available.

### 6 Banding/tagging

Kororā relocated from the site will not be banded. Birds will be marked with temporary twink marker on the back of the head.

### 7 Injured Kororā

There are two situations where injured kororā may need to be managed.

During the project If at any time a kororā is injured as part of the translocation process, DOC will be immediately contacted to receive advice on what actions to undertake.

If a kororā has been injured while at sea by a predator or boat. Protocol will be to take bird to either of the identified veterinary facilities.

Handling of injured kororā should be carried out as noted in the following section.

### 8 Collection and handling of dead Kororā

Should a dead kororā be found during pre-construction surveys or during construction, the following will be carried out/information collected. Although unlikely, if multiple deceased kororā are identified, leave birds in place and advise DOC and MPI as required. This is

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precautionary due to the potential for avian flu to be the cause (refer discussion on avia influenza on DOoC website and by NZPI 2024).

A photograph will be taken in situ.

Several close-up photos of the kororā should be taken.

Field notes should be taken of any observation of surroundings and of state of kororā to assist in interpreting photographs or specimens.

When handling dead kororā, gloves must be worn. NZPI (2024) recommends that a mask is also worn and that post handling if any skin scratches etc. are identified by handlers, wounds should be treated with disinfectant.

At this stage it is assumed that a check for cause of death will be carried out by a veterinarian specialist. The extent of autopsy will be confirmed prior. The specimen should be placed into a large paper bag and placed into a sturdy plastic container and if the specimen cannot be taken to the vet same day, stored in a refrigerator at 4°C. The specimen should be delivered to one of the two identified veterinarians in the LPMP within 48 hours. DoC should be notified of the death and delivery to vet. Final autopsy information should be forwarded to DoC.

### 9 References

DoC undated. Use of transponders to monitor yellow-eyed penguins: Updating best practice.

NZPI 2024. Kororā monitoring protocols. New Zealand Penguin Initiative. Version 5 April 2024. Website: [www.nzpi.nz](http://www.nzpi.nz).

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Wasiak P 2020. Fieldwork procedures for working with little penguins. Phillip Island Nature Parks, Conservation Department. Issue 1, June 2020.