

Memo.

Kororā ongoing breakwater monitoring during construction – July 2023 results	To: Kitt Littlejohn Kennedy Point BoatHarbour Ltd
	From: Dr Leigh Bull
Date: 24 July 2023	Project: BG2302 Kennedy Pt

Introduction

Section 6.2.3 of the certified Kennedy Point Marina kororā construction and monitoring plan¹ requires monthly Ongoing Breakwater Monitoring (OBM) for the duration of the construction works.

The area of interest for the burrow inspections is the marina side of the breakwater and an area of the foreshore up to the first Pohutukawa tree (refer to Map 1). This area is referred to as the “Penguin construction monitoring area” (PCMA).

The purpose of the monitoring is to confirm the ongoing habitation of the breakwater by kororā during the construction phase of the marina. Should birds cease to inhabit the breakwater, particularly during the breeding season, these changes can then be investigated relative to construction activity to determine, as far as is reasonably possible, whether marina construction activities may be the cause.

Outlined in this memo are the results of the OBM session conducted on 19 July 2023.

Construction Activities

Construction works that have been undertaken at the Kennedy Point marina site since the previous OBM session on 9 June 2023 included the following:

- Final concrete pours on wharf; and
- The continued installation of E pier.

Methods

Data capture

Prior to going on site, locations of all previously recorded kororā detections on the Kennedy Point breakwater were uploaded into ArcGIS Fieldmaps. While on site for the monitoring, a device was used to view these points in ArcGIS Fieldmaps, record all observations and capture any new locations not previously detected.

¹ Boffa Miskell Limited 2021. *Kennedy Point Marina: Kororā Construction Monitoring & Management Plan*. Report prepared by Boffa Miskell Limited for Kennedy Point Boatharbour Ltd (Revision J, dated 1 March 2022)

Onsite monitoring

On 19 July 2023, monitoring was conducted within the PCMA (refer to Map 1) by Dr Leigh Bull (BlueGreen Ecology, penguin expert) and Daniel Ahern (4Sight Consulting, Ecologist), accompanied by Dave Houston (Department of Conservation). The weather conditions were mild (14°C) with a light westerly. High tide (2.8 m) was at 8.20am.

The monitoring commenced at approximately 9:30am. Over the ensuing approximately 2.5 hour period the entire PCMA was monitored. All locations of previous kororā detections were inspected first by way of a visual check for the presence of any penguins or their sign (e.g., feathers or guano (excrement)), and then using a burrowscope and/or video camera on a mobile device if possible. Any new burrows that were detected were also inspected in the same manner.

Results & Discussion

A total of 63 locations (refer to Map 2 and Map 3) were monitored during the July 2023 monitoring session. The observations recorded at each individual monitoring site are provided in Appendix 1. The following notable observations were made:

- One new location (64) was detected (refer to Map 2 and Appendix 1).
- Kororā sign (guano or birds) was recorded at 36 monitored locations (refer to Map 2, Map 3 and Appendix 1).
- Three burrows (60, 26 and 59) were confirmed to contain birds.
- One burrow (26) contained two birds and possibly an egg²; as such there is the potential that this is an active burrow.
- Observed kororā activity was concentrated in the mid and outer sections of the breakwater (refer to Map 3).



Photo 1: Kororā recorded present in burrow 60

The numbers of kororā sign at the monitoring locations and active burrows recorded over the course of the OBM sessions to date³ are provided below in Figure 1 and Figure 2 respectively. More sign was

² While the egg was not sighted, Leigh Bull and Dave Houston agreed that the behaviour of one of the birds in the burrow, which remained lying down at all times, could suggest the presence of an egg.

³ NOTE: OBM sessions began in July 2021; no Aug 2021 OBM due to covid 19 restrictions; Oct 2021 OBM session incomplete due to public harassment.

recorded in July 2023 (n=36) compared to the two previous Julys (2021 n=21 and 2022 n=12). The identification of a potential active burrow in July 2023 is consistent with observations in July 2021.

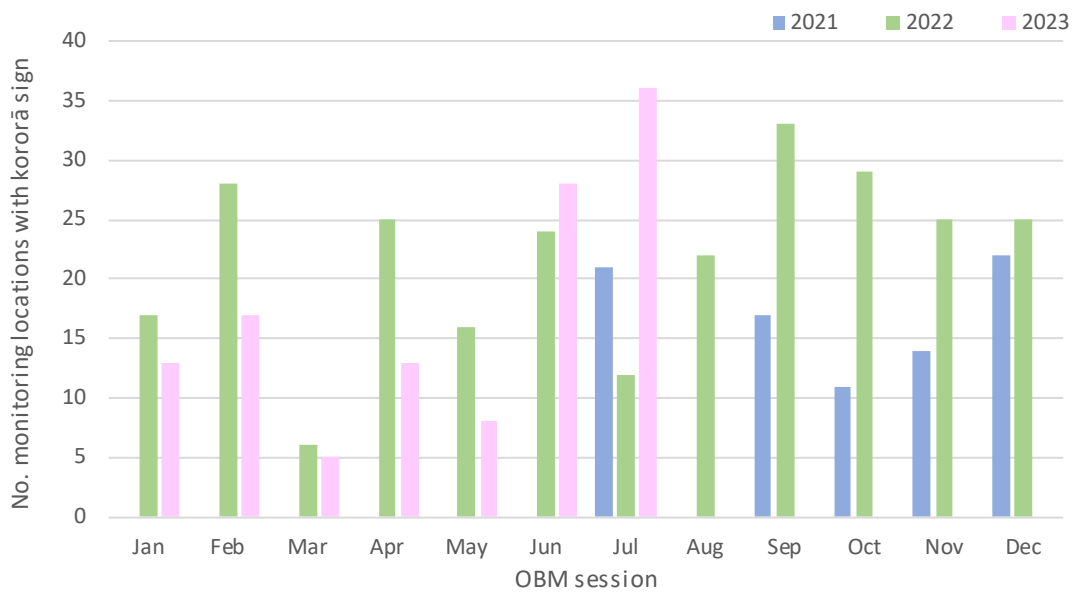


Figure 1: Number of monitoring locations at which kororā sign was observed during each³ OBM session

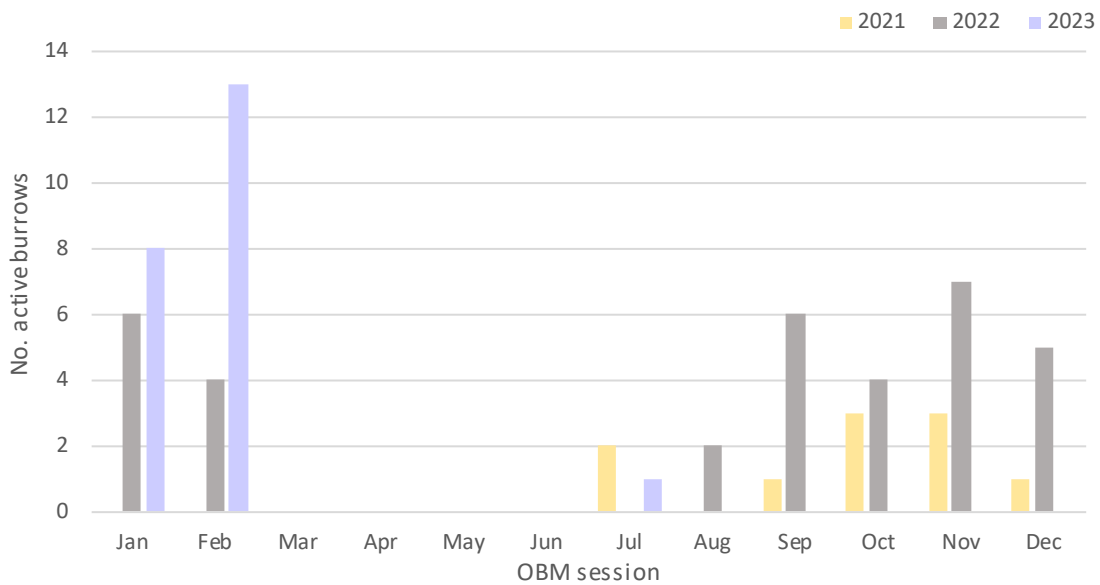


Figure 2: Number of active burrows recorded during each³ OBM session

Conclusions

- The purpose of the monitoring is to confirm the ongoing habitation of the breakwater by kororā during the construction phase of the marina. The July 2023 monitoring confirmed that this is the case, with signs of kororā recorded at 36 locations (refer to Appendix 1, Map 2 and Map 3).
- One burrow (26) was considered to be potentially active during the July 2023 OBM session.
- More kororā sign was recorded in the July 2023 OBM compared to July 2021 and July 2022 (refer to Figure 1 above).

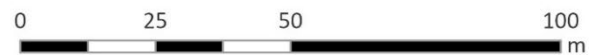
Map 1: Penguin Construction Monitoring Area (PCMA)



Legend

 Monitoring Area

Map 1: Penguin Construction Monitoring Area (PCMA) for purposes of Resource Consent condition 24A.

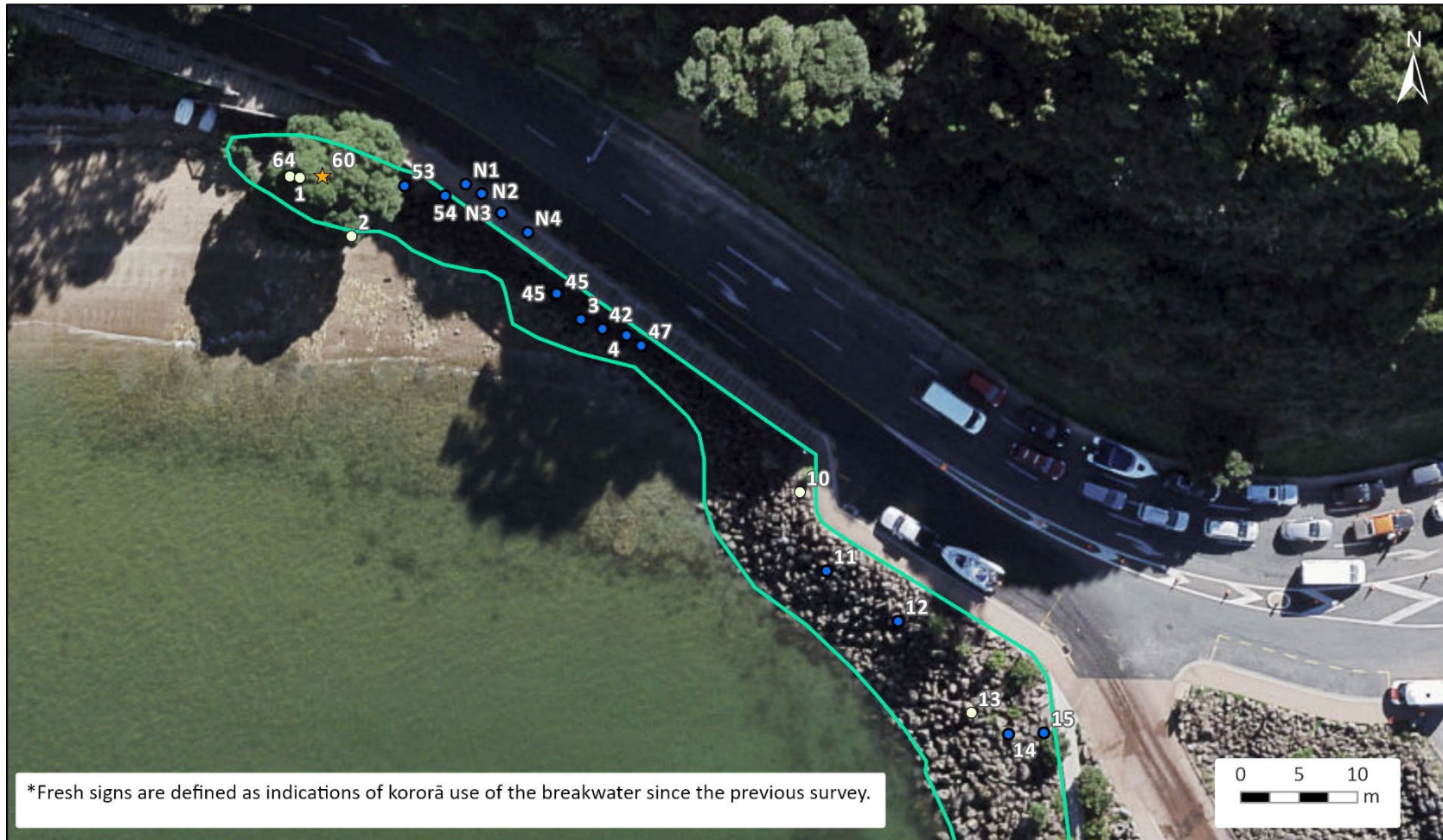


Client: Kennedy Point Boatharbour Limited
Project Code: AA1921
Date: 26/07/2021
Version: 1.0
Author: CD
Approved: PW

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Map 2: July 2023 OBM results – Part 1



Map Description: Monthly Kororā Ongoing Breakwater Monitoring Results (19 July 2023)

Legend

- Monitoring Area
- ★ Korora
- Guano (Fresh signs*)
- Monitoring Location (No fresh signs*)

Client: Kennedy Point Boatharbour Limited
 Project Code: AA1921
 Date: 21/07/2023
 Version: 1.1
 Author: PW



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Map 3: July 2023 OBM results – Part 2



Map Description: Monthly Kororā Ongoing Breakwater Monitoring Results (19 July 2023)

Legend

- Monitoring Area
- Guano (Fresh signs*)
- ★ Korora
- Monitoring Location (No fresh signs*)

Client: Kennedy Point Boatharbour Limited
 Project Code: AA1921
 Date: 21/07/2023
 Version: 1.1
 Author: PW



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APPENDIX 1: Summary of the July 2023 OBM results

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
1	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • Dog indication location in April 2021 • No sign in July 2021 OBM • Guano (white) present in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • Moulting sign in Jan 2022 OBM • Two birds with moult feathers present in Feb 2022 OBM • No sign in March 2022 OBM • No new sign (old feathers in chamber) during April 2022 OBM • Two birds present in May 2022 OBM. • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (green guano) in Sept 2022 OBM • Sign (green guano) in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (green and white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
2	Yes	No	Sign (white guano)	<ul style="list-style-type: none"> • Guano present in July 2021 • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • Guano (white) present in Nov 2021 OBM • Guano (white) present in Dec 2021 OBM • No sign (cobwebs) in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • Guano (white) present in April 2022 OBM • Guano (white) present in May 2022 OBM • Guano (white) present in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • Guano (white) present in Oct 2022 OBM • Guano (white) present in Nov 2022 OBM • Guano (white) present in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • Guano (white) present in May 2023 • No sign in June 2023 OBM
3	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location in April 2021

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Dog indication location in June 2021 • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign (cobwebs) in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • Sign (green guano and strong bird smell) and presumed bird present in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
4	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location June 2021 • Guano present in July 2021 OBM • Guano (white) present in Sept 2021 OBM • No sign in Oct 2021 OBM • Sign (guano) in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • No sign (cobwebs) in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
5	No longer monitored as rock movement in the area has resulted in the chamber of the burrow no longer being able to be viewed.			
6	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
7	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
8	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
9	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
10	No	Yes	Sign (fresh green guano)	<ul style="list-style-type: none"> • Dog indication location in April 2021 • Dog indication location in June 2021 and two birds confirmed present with no eggs. • Bird on egg in July 2021 OBM • Bird with young chick (egg tooth) in Sept 2021 OBM • 1x chick alone in Oct 2021 OBM • Adult with large chick in Nov 2021 OBM • Green guano and down feathers in Dec 2021 OBM • Moulting sign (bird) in Jan 2022 OBM • Feb 2022 OBM - Lots of adult feathers at entrance and inside burrow. Empty but dried green guano inside burrow and white guano at entrance. • Adult bird in burrow during April 2022 OBM • No sign in May 2022 OBM • Two birds present in June 2022 OBM • Sign (green guano) inside burrow in July 2022 OBM • Sign (green guano and nest material) inside burrow in Aug 2022 OBM • Adult present and assumed incubating egg in Sept 2022 OBM • Two chicks present in Oct 2022 OBM • Two chicks present in Nov 2022 OBM • Green guano and down feathers inside burrow in Dec 2022 OBM. Two chicks likely fledged. • Moulting sign (bird) in Jan 2023 OBM • Sign (green guano and old moult feathers) in Feb 2023 OBM • No sign in March 2023 OBM • Sign (green guano) in April 2023 OBM • Sign (green guano) in May 2023 OBM • No sign in June 2023 OBM
11	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021. • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign (cobwebs) in Oct 2021 OBM • No sign Nov 2021 OBM • No sign in Dec 2021 OBM • No sign (cobwebs) in Jan 2022 OBM • Single feather in cobwebs in Feb 2022 OBM • No sign during March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Oct 2022 OBM Guano (white) present in Nov 2022 OBM Guano (white) present in Dec 2022 OBM No sign in Jan 2023 OBM Sign (moult feathers) in Feb OBM No sign in March 2023 OBM No sign in April 2023 OBM Sign (white guano) in May 2023 OBM No sign in June 2023 OBM
12	No	Yes	No sign	<ul style="list-style-type: none"> Potential location in February 2021 survey (guano) Weak dog indication location June 2021 No sign in July 2021 OBM No sign in Sept 2021 OBM No sign (cobwebs) in Oct 2021 OBM No in sign Nov 2021 OBM No sign in Dec 2021 OBM No sign (cobwebs) in Jan 2022 OBM No sign in Feb 2022 OBM No sign during March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM Sign (white guano) in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM
13	No	Yes	Sign (white guano) and strong smell of bird	<ul style="list-style-type: none"> Bird on egg in July 2021 OBM Sept 2021 OBM found lots of fresh green guano pooled in sections. Burrow very shallow and able to see chamber, but no bird or egg sighted. Possible that bird has moved back further into breakwater since July 2021 survey. Adult with egg in Oct 2021 OBM Mesoptile down feathers observed at burrow entrance but unable to site any birds In Nov 2021 OBM. Old green guano and no fresh signs. Guano (white and green) in Dec 2021 OBM Moulting sign (bird) in Jan 2022 OBM Feb 2022 – Lots of sign, but likely from moulting bird in previous month Fresh guano with old moult feathers identified in March OBM session for location 14, but should have been assigned to location 13. Adult bird in burrow during April 2022 OBM Sign (fresh green guano) during May 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Bird present in June 2022 OBM • Sign (fresh green guano) inside burrow in July 2022 OBM • Adult with egg in Aug 2022 OBM • Adult present and assumed incubating egg in Sept 2022 OBM • One chick present in Oct 2022 OBM • Lots of guano but no bird present during Nov 2022 OBM. Chick possibly fledged. • Sign (green guano) in Dec 2022 OBM • Moulting sign (bird) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • Two birds in burrow in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM
14	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location June 2021 but can't see chamber as deep under footpath • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • Guano (white) in Feb 2022 OBM • Fresh guano with old moult feathers identified in March OBM session for location 14, but should have been assigned to location 13. Thus March 2022 results for this location should have been identified as no sign. • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
15	No	Yes	No sign	<ul style="list-style-type: none"> • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • Single feather in cobwebs in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • No sign in May 2022 OBM • No sign in June 2022 OBM • Sign (white guano) in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
16	No	Yes	No sign	<ul style="list-style-type: none"> • No sign in July 2021 OBM • No sign in Sept 2021 OBM • Sign (guano) in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • Scattered feathers d dried green guano in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
17	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • Dog indication location April 2021, but no obvious chamber • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • Sign (white guano) in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • No sign in March 2022 OBM • Sign (white guano) in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Aug 2022 OBM No sign in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No (fresh) sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM Sign (moult feathers) in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM
18	No	Yes	Sign (white guano inside and outside of burrow)	<ul style="list-style-type: none"> Dog indication location in April 2021 Dog indication location in June 2021 Guano present in July 2021 OBM Sign (white guano some slight green tinge) in Sept 2021 OBM Sign (white guano) in Oct 2021 OBM Sign (old green guano) in Nov 2021 OBM Guano (white and green) & down feathers in Dec 2021 OBM Guano (white and green) in Jan 2022 OBM Feb 2022 OBM - Large amounts of white guano and some green guano. Strong smell. Likely moulting bird in burrow. March 2022 OBM – old moult feathers and old white guano Sign (old white guano & moult feathers) in April 2022 OBM session Sign (fresh green guano) in May 2022 OBM Sign (white guano) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (green guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Nov 2022 OBM - Lots of white and green guano inside and out of burrow. Very strong smell. Burrow considered to be active. Lots of white guano around rocks in Dec 2022 OBM. Chicks likely fledged due to lack of smell and no green guano Sign (green guano) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM Sign (white guano) in May 2023 OBM Sign (white guano) in June 2023 OBM
19	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location June 2021, but no obvious chamber (likely deep passage away under boardwalk) No sign in July 2021 OBM No sign Sept 2021 OBM No sign in Oct 2021 OBM Sign (white guano) in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM No sign in Jan 2022 OBM Sign (white guano) in Feb 2022 OBM No sign in March 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Old moult feathers in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
20	No	Yes	No sign	<ul style="list-style-type: none"> • Green guano present in July 2021 OBM. Deep passageway all the way underneath boardwalk. • No sign in Sept 2021 OBM • Sign (white guano) in Oct 2021 OBM • Sign (white guano) in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Sign (white guano) in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • No sign in March 2022 OBM • Single feather and old white guano in April 2022 OBM • Sign (dried green and white guano) in May 2022 OBM • Sign (fresh green guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Nov 2022 OBM - Lots of white and green guano inside and out of burrow. Very strong smell. Burrow considered to be active. • Sign (intense smell, flies and fresh white guano) in Dec 2022 OBM. Burrow considered to be active. • Sign (white guano) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
21	Yes	Yes	Sign (white guano)	<ul style="list-style-type: none"> • Dog indication location April 2021. Deep tunnel all the way back to boardwalk • Guano present in July 2021 OBM • No sign Sept 2021 OBM • Sign (white guano) in Oct 2021 OBM • Sign (white guano) in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Sign (white guano) in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • No sign in March 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign during April 2022 OBM No sign (faint bird smell) during May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Nov 2022 OBM - Lots of white guano and strong bird smell. Burrow considered to be active. Sign (intense smell, flies and fresh white guano) in Dec 2022 OBM. Burrow considered to be active. Sign (white guano) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM
22	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> Dog indication location April 2021. Deep tunnel all the way back to boardwalk No sign in July 2021 OBM No sign in Sept 2021 OBM No sign in Oct 2021 OBM Sign (white guano) in Nov 2021 OBM Sign (green guano) in Dec 2021 OBM Sign (white guano and some feathers) in Jan 2022 OBM Sign (white guano and single feather) in Feb 2022 OBM Sign (old moult feathers and old white guano) in March 2022 OBM Sign (white guano on nearby rocks) in April 2022 OBM Sign (white guano) in May 2022 OBM No sign in June 2022 OBM Sign (white guano) in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Nov 2022 OBM - Lots of white guano and strong bird smell. Burrow considered to be active. Sign (white guano) in Dec 2022 OBM, but not considered active. No sign in Jan 2023 OBM No sign in Feb 2023 OBM Sign (moult feathers) in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM
23	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> Guano (not fresh) present in July 2021 OBM Guano (white) and cobwebs in Sept 2021 OBM Guano (white and some green) in Oct 2021 OBM Sign (white guano) in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Moulting sign (feathers & green guano) in Jan 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Feb 2022 OBM - Lots of feathers and strong smell. White guano. Likely a moulting bird. • No sign in March 2022 OBM • Signs (old feathers, dried green guano and strong smell) indicate the presence of a bird in April 2022 OBM but unable to sight. • Sign (fresh green guano) in May 2022 OBM • Bird present in June 2022 OBM • Sign (green and white guano) in July 2022 OBM • Bird in burrow in Aug 2022 OBM. Assumed incubating egg based on its position. • Adult present and assumed incubating egg in Sept 2022 OBM • No birds sighted, but based on the amount of guano present it is assumed that the burrow is still active, likely with chick(s) in Oct 2022 OBM. • Nov 2022 OBM - Lots of fresh green and white guano and strong bird smell. Burrow considered to be active. • Sign (fresh green guano and some down chick feathers) in Dec 2022 OBM. Assumed burrow still active. • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • Sign (green and white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM
24	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021. Potential passageway under boardwalk • Guano present in July 2021 OBM • Guano (green) present in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • Guano (white & green) and down feathers in Dec 2021 OBM • Sign (white guano) in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • Sign (fresh white guano) in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • Fresh seagrass inside burrow in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • Sign (white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
25	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • Dog indication location April 2021 • Old feathers and guano found in July 2021 OBM • No sign in Sept 2021 OBM • No OBM in Oct 2021 due to public interference • No sign in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Sign (white guano and chick feather) in Feb 2022 OBM • No sign in March 2022 • Sign (white guano) in April 2022 OBM • No sign in May 2022 OBM • Sign (white guano and faint bird smell) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (adult moult feathers) in Dec 2022 OBM. Consider this an active burrow. • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM
26	Yes	No	Two birds present, possibly on an egg. Based on behaviour of birds, this burrow is considered to be potentially active	<ul style="list-style-type: none"> • Dog indication location April 2021, possible deep chamber. • Guano present in July 2021 OBM • No sign in Sept 2021 OBM • Sign (guano) Oct 2021 OBM • No sign (cobwebs) in Nov 2021 OBM • Sign (green guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Feb 2022 OBM - Lots of adult moult feathers. Appears to go further back under footpath. Very smelly • March 2022 – old moult feathers and old white guano • Sign (lots of feather and strong smell) indicate presence of a bird in April 2022 OBM but unable to sight. • No sign in May 2022 OBM • Sign (white guano & faint bird smell) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Adult present and assumed incubating egg in Sept 2022 OBM • No birds sighted but adult bird heard vocalising. Based on the amount of guano present it is assumed that the burrow is still active, likely with chick(s) in Oct 2022 OBM. • Nov 2022 OBM - Lots of guano, strong bird smell and down feathers observed. Burrow considered to be active. • Sign (adult moult feathers) in Dec 2022 OBM. Consider this an active burrow. • Sign (white guano) in Jan 2023 OBM • No sign in Feb 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • No sign in March 2023 OBM • Sign (white guano) in April 2023 OBM • Sign (white guano) in May 2023 OBM • Sign (white guano and strong smell of bird) in June 2023 OBM
27	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • No sign in July 2021 OBM • Guano (white) in Sept 2021 OBM • Sign (guano) Oct 2021 OBM • No sign in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Sign (old white guano) in Jan 2022 OBM • Feb 2022 OBM - Smelly up by footpath. Small amount of old white guano. • No sign in March 2022 OBM • Sign (old white guano) in April 2022 OBM • Sign (dried green guano) in May 2022 OBM • No sign in June 2022 OBM • Small sign (white guano) in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (green & white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • Sign (white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM
28	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • Guano present in July 2021 OBM, likely deep chamber under boardwalk • Guano (white) in Sept 2021 OBM • No OBM in Oct 2021 due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • Sign (old white guano) in Jan 2022 OBM • Sign (old white guano) in Feb 2022 OBM • No sign in March 2022 OBM • Sign (white guano) during April 2022 OBM • No sign in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM
29	No	Yes	Sign (white and green guano)	<ul style="list-style-type: none"> Dog indication location April 2021 Guano present in July 2021 OBM No sign (cobwebs) in Sept 2021 OBM No Oct 2021 OBM due to public interference Sign (guano) Nov 2021 OBM Sign (white guano) in Dec 2021 OBM No sign in Jan 2022 OBM Feb 2022 OBM - Several adult feathers stuck in cobwebs No sign in March 2022 OBM Sign (feathers in burrow) in April 2022 OBM Sign (dried green guano) in May 2022 OBM Sign (white guano) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM Sign (fresh moult feathers) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM
30	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> Dog indication location April 2021, no obvious chamber No sign in July 2021 OBM Guano (white) in Sept 2021 OBM No Oct 2021 OBM due to public interference Sign (guano) Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (old white guano) in Jan 2022 OBM Old feather stuck in cobweb in Feb 2022 OBM No sign in March 2022 OBM Sign (white guano & single feather) in April 2022 OBM Sign (fresh white guano) in May 2022 OBM Sign (white guano) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM Sign (white guano) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. Sign (white guano) in March 2023 OBM Sign (white guano) in April 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (white guano) in May 2023 OBM • Sign (white guano) in June 2023 OBM
31	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • Dog indication location April 2021 • Guano present in July 2021 OBM • Guano (white) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign (cobwebs) in Nov 2021 OBM • White guano & down feathers at entrance in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • Sign (white guano) in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • No sign in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • No sign in Dec 2022 OBM • Sign (moulting bird) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
32	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • Guano present in July 2021 OBM, very deep and likely under boardwalk • Old feathers in Sept 2021 OBM • No Oct 2021 OBM due to public interference • Sign (guano) Nov 2021 OBM • Sign (guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Two chick down feathers in Feb 2022 OBM • No sign in March 2022 OBM • Sign (single feather stuck & old white guano) in April 2022 OBM • No sign in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • No sign in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
33	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021, deep passageway and no observable chamber • Guano present in July 2021 OBM • Guano (white) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • Sign (two feathers very old up the top near the footpath) in April 2022 OBM • No sign in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • No (fresh) sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • Sign (small number of feathers) in March 2023 OBM • Sign (white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM
34	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021, deep passageway under boardwalk • No sign in July 2021 OBM • No Sign in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign (cobwebs) in Feb 2022 OBM • No sign in March 2022 OBM • Sign (very strong smell) in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • Sign (moult feathers) in Jan 2023 OBM • No sign (apart from single moult feather) in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • No sign in June 2023 OBM
35	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021, deep passage with no observable chamber • No sign in July 2021 OBM • No Sign in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • Sign (white guano) in May 2022 OBM • No sign in June 2022 OBM • Sign (fresh green guano) in July 2022 OBM • No sign in Aug 2022 OBM • Sign (green guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No (fresh) sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
36	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • Dog indication location April 2021, deep passage with no observable chamber • No sign in July 2021 OBM • No Sign in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • Sign (white guano and feathers) in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • No sign in April 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in May 2023 OBM Sign (white and green guano) in June 2023 OBM
37	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> No sign in July 2021 OBM, deep passage with no observable chamber No Sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (white guano) in Jan 2022 OBM Sign (white guano and feathers) in Feb 2022 OBM No sign in March 2022 OBM Sign (white guano, feathers, strong smell & bird vocalised) in April 2022 OBM Sign (fresh white guano and faint bird smell) in May 2022 OBM Sign (white guano) and two birds vocalising in June 2022 OBM Sign (white guano) in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No sign in Nov 2022 OBM Sign (old green guano) in Dec 2022 OBM Sign (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. Sign (white guano and a few moult feathers) in March 2023 OBM Sign (white guano) in April 2023 OBM Sign (white guano) in May 2023 OBM Sign (white guano) in June 2023 OBM
38	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> Guano present in July 2021 OBM, deep passage near boardwalk with no observable chamber Guano (white) in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (white guano) in Jan 2022 OBM Sign (white guano and feathers) in Feb 2022 OBM No sign in March 2022 OBM Single feather on rocks leading up to footpath to the right 5m away, but no signs in burrow in April 2022 OBM Sign (fresh white guano) in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM Sign (white guano) in Feb 2023 OBM No sign in March 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM
39	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> Guano present in July 2021 OBM No sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM No sign in Jan 2022 OBM Sign (white guano) in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM
40	No	Yes	No sign	<ul style="list-style-type: none"> No sign in July 2021 OBM No Sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM No sign in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
41	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • New location found in March 2022 OBM. Lots of moult feathers at entrance to burrow that goes deep under footpath. • Sign (white guano, old moult feathers & fresh down feathers) in April 2022 OBM • No sign in May 2022 OBM • Sign (green guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • Sign (moult feathers) in Jan 2023 OBM • No fresh sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
42	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location during SAM⁴ session on 2 April 2022⁵ • Dried green guano on rocks above high tide mark, 2 m below entrance in April 2022 OBM • No sign in May 2022 OBM • Sign (green guano) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
43	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected during April 2022 OBM session; sign included white guano, down feathers & strong smell • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM

⁴ Site Area Monitoring (SAM), as outlined in Section 6.2.2 of the certified Kennedy Point Marina kororā construction and monitoring plan **Error! Bookmark not defined.**

⁵ As outlined in the Boffa Miskell memorandum titled 'Kororā site area monitoring (SAM) results – 2 April 2022', dated 5 April 2022.

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM Sign (white guano) in May 2023 OBM No sign in June 2023 OBM
44	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> New burrow detected during April 2022 OBM session; sign included white guano, down feathers & strong smell Sign (white guano) during May 2022 OBM Sign (white guano) during June 2022 OBM Sign (white guano) during July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (green guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM Sign (white guano) in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM
45	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected during SAM session on 26 April 2022; green guano observed on rock. No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM Sign (guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM
46	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (dried green & white guano) in May 2022 OBM Sign (green and white guano) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM Sign (moult feathers & guano) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM Sign (white guano) in April 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (white guano) in May 2023 OBM • Sign (white guano) in June 2023 OBM
47	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected (white guano & bird vocalising) during SAM session on 11 May 2022. • Sign (green guano) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
48	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in June 2022 OBM. • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No (fresh) sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM
49	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in July 2022 OBM. • Sign (white guano) in Aug 2022 OBM • Sign (green and white guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • Sign (white guano) in April 2023 • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM
50	No longer monitored as rock movement in the area has resulted in the chamber of the burrow no longer being able to be viewed.			
51	No longer monitored as rock movement in the area has resulted in the chamber of the burrow no longer being able to be viewed.			
52	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • New burrow detected (adult bird) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • No sign in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM
53	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected (two adult birds) in Sept 2022 OBM • Two adults in burrow assumed incubating nest contents in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
54	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected (green guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
55	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM
56	Yes	No	Sign (white guano)	<ul style="list-style-type: none"> • New burrow detected (moult feathers) in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM
57	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • New burrow detected (moult feathers) in Jan 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM
58	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected (moult feathers) in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
59	No	Yes	One bird heard vocalising	<ul style="list-style-type: none"> • New burrow detected (moult feathers) in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • Sign (white guano) in April 2023 OBM • Sign (white guano) in May 2023 OBM • Sign (white guano) in June 2023 OBM
60	Yes	Yes	One bird seen in burrow	<ul style="list-style-type: none"> • New burrow detected (white guano) in June 2023 OBM
61	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in June 2023 OBM
62	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected (white guano) in June 2023 OBM
63	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in June 2023 OBM
64	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in July 2023 OBM
N1	No	Yes	No sign	<ul style="list-style-type: none"> • Nest box installed in May 2022 • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign (cobwebs) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
N2	No	Yes	No sign	<ul style="list-style-type: none"> • Nest box installed in May 2022 • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	July 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • No sign (cobwebs) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
N3	No	Yes	No sign	<ul style="list-style-type: none"> • Nest box installed in May 2022 • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign (cobwebs) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM
N4	No	Yes	No sign	<ul style="list-style-type: none"> • Nest box installed in May 2022 • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (white guano) down from entrance of box in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign (cobwebs) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM

Memo.

Kororā ongoing breakwater monitoring during construction – August 2023 results

To: Kitt Littlejohn
Kennedy Point BoatHarbour Ltd

From: Dr Leigh Bull

Date: 26 August 2023

Project: BG2302 Kennedy Pt

Introduction

Section 6.2.3 of the certified Kennedy Point Marina kororā construction and monitoring plan¹ requires monthly Ongoing Breakwater Monitoring (OBM) for the duration of the construction works.

The area of interest for the burrow inspections is the marina side of the breakwater and an area of the foreshore up to the first Pohutukawa tree (refer to Map 1). This area is referred to as the “Penguin construction monitoring area” (PCMA).

The purpose of the monitoring is to confirm the ongoing habitation of the breakwater by kororā during the construction phase of the marina. Should birds cease to inhabit the breakwater, particularly during the breeding season, these changes can then be investigated relative to construction activity to determine, as far as is reasonably possible, whether marina construction activities may be the cause.

Outlined in this memo are the results of the OBM session conducted on 16 August 2023.

Construction Activities

Construction works that have been undertaken at the Kennedy Point marina site since the previous OBM session on 19 July 2023 included installation of the last of E pier and both gangways.

Methods

Data capture

Prior to going on site, locations of all previously recorded kororā detections on the Kennedy Point breakwater were uploaded into ArcGIS Fieldmaps. While on site for the monitoring, a device was used to view these points in ArcGIS Fieldmaps, record all observations and capture any new locations not previously detected.

Onsite monitoring

On 16 August 2023, monitoring was conducted within the PCMA (refer to Map 1) by Dr Leigh Bull (BlueGreen Ecology, penguin expert) and Daniel Ahern (4Sight Consulting, Ecologist), accompanied by

¹ Boffa Miskell Limited 2021. *Kennedy Point Marina: Kororā Construction Monitoring & Management Plan*. Report prepared by Boffa Miskell Limited for Kennedy Point Boatharbour Ltd (Revision J, dated 1 March 2022)

Dave Houston (Department of Conservation). The weather conditions were mild (13°C) with a light westerly. High tide (2.6 m) was at 6.18am.

The monitoring commenced at approximately 9:00am. Over the ensuing approximately 2.5 hour period the entire PCMA was monitored. All locations of previous kororā detections were inspected first by way of a visual check for the presence of any penguins or their sign (e.g., feathers or guano (excrement)), and then using a burrowscope and/or video camera on a mobile device if possible. Any new burrows that were detected were also inspected in the same manner.

OBM Results

A total of 64 locations (refer to Map 2 and Map 3) were monitored during the August 2023 monitoring session. The observations recorded at each individual monitoring site are provided in Appendix 1. The following notable observations were made:

- Kororā sign (guano or birds) was recorded at 34 monitored locations (refer to Map 2, Map 3 and Appendix 1).
- Three burrows (10,13 and 26) were confirmed to contain birds which were incubating eggs.
- The presence of a bird incubating two eggs in burrow 10 (Photo 1), the burrow situated the closest to the construction works, confirms that these birds were not significantly impacted by the construction works. This is the third consecutive year that breeding activity has been recorded in this burrow.
- Guano was recorded at multiple locations under the wharf structure; this is the first time that sign has been recorded here, however no birds were present.



Photo 1: Kororā incubating two eggs in burrow 10 (Image source: Dave Houston, DOC)

The number of kororā sign at the monitoring locations and active burrows recorded over the course of the OBM sessions to date² are provided below in Figure 1 and Figure 2 respectively. More sign was recorded in August 2023 (n=34) compared to August 2022 (n=22). Furthermore, three active burrows

² NOTE: OBM sessions began in July 2021; no Aug 2021 OBM due to covid 19 restrictions; Oct 2021 OBM session incomplete due to public harassment.

were recorded in August 2023, compared to two in August 2022. Thus both the level of activity and the number of active burrows recorded during the August 2023 OBM were higher than in 2022.

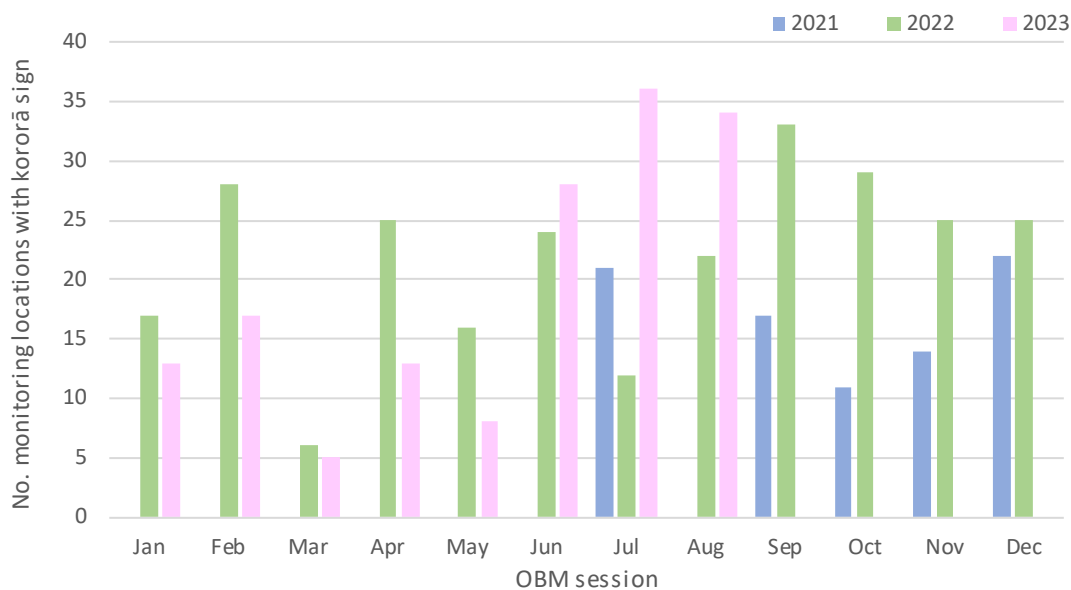


Figure 1: Number of monitoring locations at which kororā sign was observed during each² OBM session

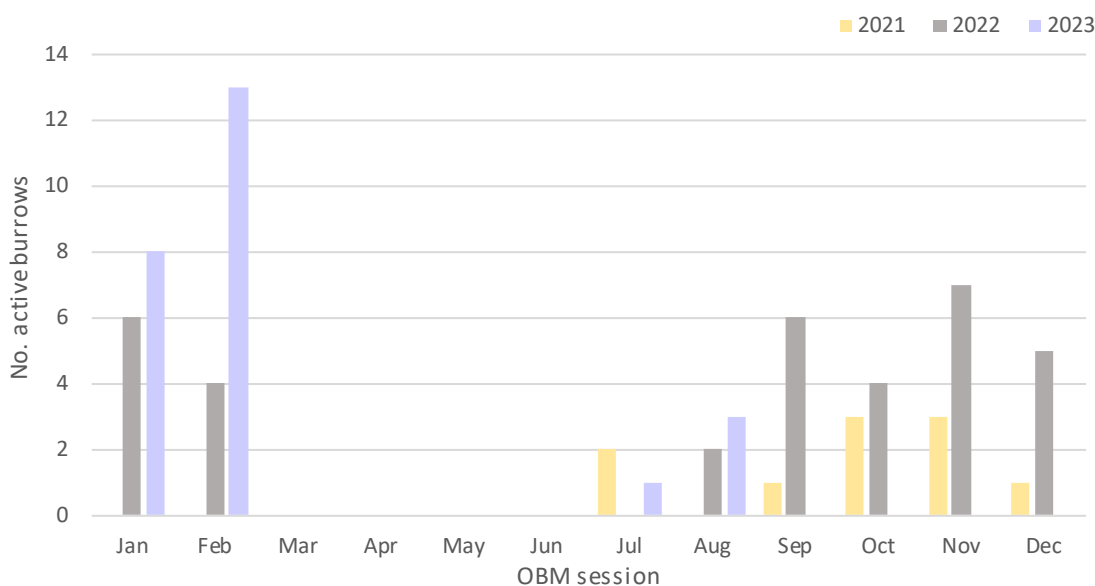


Figure 2: Number of active burrows recorded during each² OBM session

Rock Placement

Following the completion of the August 2023 OBM, on the same day, rocks were to be placed on the seawall near the road and concrete pier, clear of any active burrows, as part of remedial works. As such, the results of the OBM were communicated to KPBL representatives on-site following the completion of the monitoring, including the presence of a bird incubating eggs in burrow 10.

Following concerns raised by members of the public and Protect Putiki that birds were trapped under the newly placed rocks, Dave Houston (DOC) returned to the site on 17 August 2023 and confirmed that this wasn't the case, and that a bird was still incubating eggs in burrow 10.

Conclusions

- The purpose of the monitoring is to confirm the ongoing habitation of the breakwater by kororā during the construction phase of the marina. The August 2023 monitoring confirmed that this is the case, with signs of kororā recorded at 36 locations (refer to Appendix 1, Map 2 and Map 3).
- Three burrows (10, 13 and 26) were confirmed active during the August 2023 OBM session.
- The first sign of kororā exploring the revetment area under the wharf was recorded.
- More kororā sign and active burrows were recorded in the August 2023 OBM compared to August 2022 session (refer to Figure 1 and Figure 2).
- Kororā were not trapped under the rocks that were placed as part of the remedial works.

Map 1: Penguin Construction Monitoring Area (PCMA)



Legend

 Monitoring Area

Map 1: Penguin Construction Monitoring Area (PCMA) for purposes of Resource Consent condition 24A.



Client: Kennedy Point Boatharbour Limited
Project Code: AA1921
Date: 26/07/2021
Version: 1.0
Author: CD
Approved: PW

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Map 2: August 2023 OBM results – Part 1



*Fresh signs are defined as indications of kororā use of the breakwater since the previous survey.

Map Description: Monthly Kororā Ongoing Breakwater Monitoring Results (16 August 2023)

Legend

- Monitoring Area
- Monitoring Location (No fresh signs*)
- ★ Active Burrow
- Guano (Fresh signs*)

Client: Kennedy Point Boatharbour Ltd
 Project Code: AA1921
 Date: 24/08/2023
 Version: 1.0
 Author: PW



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Map 3: August 2023 OBM results – Part 2



Map Description: Monthly Kororā Ongoing Breakwater Monitoring Results (16 August 2023)

Client: Kennedy Point Boatharbour Ltd
 Project Code: AA1921
 Date: 24/08/2023
 Version: 1.0
 Author: PW



Legend

- Monitoring Area
- Guano (Fresh signs*)
- ★ Active Burrow
- Monitoring Location (No fresh signs*)

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APPENDIX 1: Summary of the August 2023 OBM results

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
1	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location in April 2021 • No sign in July 2021 OBM • Guano (white) present in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • Moulting sign in Jan 2022 OBM • Two birds with moult feathers present in Feb 2022 OBM • No sign in March 2022 OBM • No new sign (old feathers in chamber) during April 2022 OBM • Two birds present in May 2022 OBM. • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (green guano) in Sept 2022 OBM • Sign (green guano) in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (green and white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM
2	Yes	No	Sign (white guano) on opposite side of entrance to where activity has previously been recorded.	<ul style="list-style-type: none"> • Guano present in July 2021 • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • Guano (white) present in Nov 2021 OBM • Guano (white) present in Dec 2021 OBM • No sign (cobwebs) in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • Guano (white) present in April 2022 OBM • Guano (white) present in May 2022 OBM • Guano (white) present in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • Guano (white) present in Oct 2022 OBM • Guano (white) present in Nov 2022 OBM • Guano (white) present in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • Guano (white) present in May 2023

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in June 2023 OBM Sign (white guano) in July 2023 OBM
3	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location in April 2021 Dog indication location in June 2021 No sign in July 2021 OBM No sign in Sept 2021 OBM No sign in Oct 2021 OBM No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign (cobwebs) in Jan 2022 OBM No sign in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM Sign (green guano and strong bird smell) and presumed bird present in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
4	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location June 2021 Guano present in July 2021 OBM Guano (white) present in Sept 2021 OBM No sign in Oct 2021 OBM Sign (guano) in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM No sign (cobwebs) in Jan 2022 OBM No sign in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM Sign (white guano) in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
5	No longer monitored as rock movement in the area has resulted in the chamber of the burrow no longer being able to be viewed.			
5a	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> New location detected during August 2023 OBM
6	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
7	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
8	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
9	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
10	Yes	Yes	Adult incubating two eggs	<ul style="list-style-type: none"> Dog indication location in April 2021 Dog indication location in June 2021 and two birds confirmed present with no eggs. Bird on egg in July 2021 OBM Bird with young chick (egg tooth) in Sept 2021 OBM 1x chick alone in Oct 2021 OBM Adult with large chick in Nov 2021 OBM Green guano and down feathers in Dec 2021 OBM Moulting sign (bird) in Jan 2022 OBM Feb 2022 OBM - Lots of adult feathers at entrance and inside burrow. Empty but dried green guano inside burrow and white guano at entrance. Adult bird in burrow during April 2022 OBM No sign in May 2022 OBM Two birds present in June 2022 OBM Sign (green guano) inside burrow in July 2022 OBM Sign (green guano and nest material) inside burrow in Aug 2022 OBM Adult present and assumed incubating egg in Sept 2022 OBM Two chicks present in Oct 2022 OBM Two chicks present in Nov 2022 OBM Green guano and down feathers inside burrow in Dec 2022 OBM. Two chicks likely fledged. Moulting sign (bird) in Jan 2023 OBM Sign (green guano and old moult feathers) in Feb 2023 OBM No sign in March 2023 OBM Sign (green guano) in April 2023 OBM Sign (green guano) in May 2023 OBM No sign in June 2023 OBM Sign (green guano) in July 2023 OBM
11	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location April 2021. No sign in July 2021 OBM No sign in Sept 2021 OBM No sign (cobwebs) in Oct 2021 OBM No sign Nov 2021 OBM No sign in Dec 2021 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign (cobwebs) in Jan 2022 OBM Single feather in cobwebs in Feb 2022 OBM No sign during March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM Guano (white) present in Nov 2022 OBM Guano (white) present in Dec 2022 OBM No sign in Jan 2023 OBM Sign (moult feathers) in Feb OBM No sign in March 2023 OBM No sign in April 2023 OBM Sign (white guano) in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
12	No	Yes	No sign	<ul style="list-style-type: none"> Potential location in February 2021 survey (guano) Weak dog indication location June 2021 No sign in July 2021 OBM No sign in Sept 2021 OBM No sign (cobwebs) in Oct 2021 OBM No in sign Nov 2021 OBM No sign in Dec 2021 OBM No sign (cobwebs) in Jan 2022 OBM No sign in Feb 2022 OBM No sign during March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM Sign (white guano) in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
13	Yes	Yes	Adult incubating at least one egg	<ul style="list-style-type: none"> Bird on egg in July 2021 OBM Sept 2021 OBM found lots of fresh green guano pooled in sections. Burrow very shallow and able to see chamber, but no bird or egg sighted. Possible that bird has moved back further into breakwater since July 2021 survey.

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Adult with egg in Oct 2021 OBM • Mesoptile down feathers observed at burrow entrance but unable to site any birds In Nov 2021 OBM. Old green guano and no fresh signs. • Guano (white and green) in Dec 2021 OBM • Moulting sign (bird) in Jan 2022 OBM Feb 2022 – Lots of sign, but likely from moulting bird in previous month • Fresh guano with old moult feathers identified in March OBM session for location 14, but should have been assigned to location 13. • Adult bird in burrow during April 2022 OBM • Sign (fresh green guano) during May 2022 OBM • Bird present in June 2022 OBM • Sign (fresh green guano) inside burrow in July 2022 OBM • Adult with egg in Aug 2022 OBM • Adult present and assumed incubating egg in Sept 2022 OBM • One chick present in Oct 2022 OBM • Lots of guano but no bird present during Nov 2022 OBM. Chick possibly fledged. • Sign (green guano) in Dec 2022 OBM • Moulting sign (bird) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • Two birds in burrow in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) and strong smell of bird in July 2023 OBM
14	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location June 2021 but can't see chamber as deep under footpath • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • Guano (white) in Feb 2022 OBM • Fresh guano with old moult feathers identified in March OBM session for location 14, but should have been assigned to location 13. Thus March 2022 results for this location should have been identified as no sign. • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
15	No	Yes	No sign	<ul style="list-style-type: none"> No sign in July 2021 OBM No sign in Sept 2021 OBM No sign in Oct 2021 OBM No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM Single feather in cobwebs in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM Sign (white guano) in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
16	No	Yes	No sign	<ul style="list-style-type: none"> No sign in July 2021 OBM No sign in Sept 2021 OBM Sign (guano) in Oct 2021 OBM No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM Scattered feathers d dried green guano in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
17	No	Yes	Sign (white guano)	<ul style="list-style-type: none"> Dog indication location April 2021, but no obvious chamber No sign in July 2021 OBM No sign in Sept 2021 OBM No sign in Oct 2021 OBM No sign in Nov 2021 OBM No sign in Dec 2021 OBM Sign (white guano) in Jan 2022 OBM Sign (white guano) in Feb 2022 OBM No sign in March 2022 OBM Sign (white guano) in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No (fresh) sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM Sign (moult feathers) in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM Sign (white guano) in July 2023 OBM
18	Yes	Yes	Sign – fresh green guano inside burrow	<ul style="list-style-type: none"> Dog indication location in April 2021 Dog indication location in June 2021 Guano present in July 2021 OBM Sign (white guano some slight green tinge) in Sept 2021 OBM Sign (white guano) in Oct 2021 OBM Sign (old green guano) in Nov 2021 OBM Guano (white and green) & down feathers in Dec 2021 OBM Guano (white and green) in Jan 2022 OBM Feb 2022 OBM - Large amounts of white guano and some green guano. Strong smell. Likely moulting bird in burrow. March 2022 OBM – old moult feathers and old white guano Sign (old white guano & moult feathers) in April 2022 OBM session Sign (fresh green guano) in May 2022 OBM Sign (white guano) in June 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (green guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Nov 2022 OBM - Lots of white and green guano inside and out of burrow. Very strong smell. Burrow considered to be active. Lots of white guano around rocks in Dec 2022 OBM. Chicks likely fledged due to lack of smell and no green guano Sign (green guano) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM Sign (white guano) in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM
19	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location June 2021, but no obvious chamber (likely deep passage away under boardwalk) No sign in July 2021 OBM No sign Sept 2021 OBM No sign in Oct 2021 OBM Sign (white guano) in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM No sign in Jan 2022 OBM Sign (white guano) in Feb 2022 OBM No sign in March 2022 OBM Old moult feathers in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
20	No	Yes	Sign (green guano)	<ul style="list-style-type: none"> Green guano present in July 2021 OBM. Deep passageway all the way underneath boardwalk. No sign in Sept 2021 OBM Sign (white guano) in Oct 2021 OBM Sign (white guano) in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (white guano) in Jan 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (white guano) in Feb 2022 OBM • No sign in March 2022 OBM • Single feather and old white guano in April 2022 OBM • Sign (dried green and white guano) in May 2022 OBM • Sign (fresh green guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Nov 2022 OBM - Lots of white and green guano inside and out of burrow. Very strong smell. Burrow considered to be active. • Sign (intense smell, flies and fresh white guano) in Dec 2022 OBM. Burrow considered to be active. • Sign (white guano) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM
21	Yes	Yes	Sign (guano)	<ul style="list-style-type: none"> • Dog indication location April 2021. Deep tunnel all the way back to boardwalk • Guano present in July 2021 OBM • No sign Sept 2021 OBM • Sign (white guano) in Oct 2021 OBM • Sign (white guano) in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Sign (white guano) in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • No sign in March 2022 OBM • No sign during April 2022 OBM • No sign (faint bird smell) during May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Nov 2022 OBM - Lots of white guano and strong bird smell. Burrow considered to be active. • Sign (intense smell, flies and fresh white guano) in Dec 2022 OBM. Burrow considered to be active. • Sign (white guano) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM
22	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Dog indication location April 2021. Deep tunnel all the way back to boardwalk

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • Sign (white guano) in Nov 2021 OBM • Sign (green guano) in Dec 2021 OBM • Sign (white guano and some feathers) in Jan 2022 OBM • Sign (white guano and single feather) in Feb 2022 OBM • Sign (old moult feathers and old white guano) in March 2022 OBM • Sign (white guano on nearby rocks) in April 2022 OBM • Sign (white guano) in May 2022 OBM • No sign in June 2022 OBM • Sign (white guano) in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Nov 2022 OBM - Lots of white guano and strong bird smell. Burrow considered to be active. • Sign (white guano) in Dec 2022 OBM, but not considered active. • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • Sign (moult feathers) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM
23	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Guano (not fresh) present in July 2021 OBM • Guano (white) and cobwebs in Sept 2021 OBM • Guano (white and some green) in Oct 2021 OBM • Sign (white guano) in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Moulting sign (feathers & green guano) in Jan 2022 OBM • Feb 2022 OBM - Lots of feathers and strong smell. White guano. Likely a moulting bird. • No sign in March 2022 OBM • Signs (old feathers, dried green guano and strong smell) indicate the presence of a bird in April 2022 OBM but unable to sight. • Sign (fresh green guano) in May 2022 OBM • Bird present in June 2022 OBM • Sign (green and white guano) in July 2022 OBM • Bird in burrow in Aug 2022 OBM. Assumed incubating egg based on its position. • Adult present and assumed incubating egg in Sept 2022 OBM • No birds sighted, but based on the amount of guano present it is assumed that the burrow is still active, likely with chick(s) in Oct 2022 OBM. • Nov 2022 OBM - Lots of fresh green and white guano and strong bird smell. Burrow considered to be active.

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (fresh green guano and some down chick feathers) in Dec 2022 OBM. Assumed burrow still active. • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • Sign (green and white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM
24	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021. Potential passageway under boardwalk • Guano present in July 2021 OBM • Guano (green) present in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • Guano (white & green) and down feathers in Dec 2021 OBM • Sign (white guano) in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • Sign (fresh white guano) in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • Fresh seagrass inside burrow in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • Sign (white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • No sign in July 2023 OBM
25	Yes	Yes	Sign (guano)	<ul style="list-style-type: none"> • Dog indication location April 2021 • Old feathers and guano found in July 2021 OBM • No sign in Sept 2021 OBM • No OBM in Oct 2021 due to public interference • No sign in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Sign (white guano and chick feather) in Feb 2022 OBM • No sign in March 2022 • Sign (white guano) in April 2022 OBM • No sign in May 2022 OBM • Sign (white guano and faint bird smell) in June 2022 OBM • No sign in July 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No sign in Nov 2022 OBM Sign (adult moult feathers) in Dec 2022 OBM. Consider this an active burrow. No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM
26	Yes	No	Adult present and appeared to incubating egg so consider this to be an active burrow	<ul style="list-style-type: none"> Dog indication location April 2021, possible deep chamber. Guano present in July 2021 OBM No sign in Sept 2021 OBM Sign (guano) Oct 2021 OBM No sign (cobwebs) in Nov 2021 OBM Sign (green guano) in Dec 2021 OBM No sign in Jan 2022 OBM Feb 2022 OBM - Lots of adult moult feathers. Appears to go further back under footpath. Very smelly March 2022 – old moult feathers and old white guano Sign (lots of feather and strong smell) indicate presence of a bird in April 2022 OBM but unable to sight. No sign in May 2022 OBM Sign (white guano & faint bird smell) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Adult present and assumed incubating egg in Sept 2022 OBM No birds sighted but adult bird heard vocalising. Based on the amount of guano present it is assumed that the burrow is still active, likely with chick(s) in Oct 2022 OBM. Nov 2022 OBM - Lots of guano, strong bird smell and down feathers observed. Burrow considered to be active. Sign (adult moult feathers) in Dec 2022 OBM. Consider this an active burrow. Sign (white guano) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM Sign (white guano) in April 2023 OBM Sign (white guano) in May 2023 OBM Sign (white guano and strong smell of bird) in June 2023 OBM Two birds present, possibly on an egg. Based on behaviour of birds, this burrow is considered to be potentially active in July 2023 OBM
27	No	Yes	Sign (guano)	<ul style="list-style-type: none"> No sign in July 2021 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Guano (white) in Sept 2021 OBM • Sign (guano) Oct 2021 OBM • No sign in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Sign (old white guano) in Jan 2022 OBM • Feb 2022 OBM - Smelly up by footpath. Small amount of old white guano. • No sign in March 2022 OBM • Sign (old white guano) in April 2022 OBM • Sign (dried green guano) in May 2022 OBM • No sign in June 2022 OBM • Small sign (white guano) in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (green & white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • Sign (white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM
28	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Guano present in July 2021 OBM, likely deep chamber under boardwalk • Guano (white) in Sept 2021 OBM • No OBM in Oct 2021 due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • Sign (old white guano) in Jan 2022 OBM • Sign (old white guano) in Feb 2022 OBM • No sign in March 2022 OBM • Sign (white guano) during April 2022 OBM • No sign in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
29	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021 • Guano present in July 2021 OBM • No sign (cobwebs) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • Sign (guano) Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Feb 2022 OBM - Several adult feathers stuck in cobwebs • No sign in March 2022 OBM • Sign (feathers in burrow) in April 2022 OBM • Sign (dried green guano) in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • Sign (fresh moult feathers) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM
30	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Dog indication location April 2021, no obvious chamber • No sign in July 2021 OBM • Guano (white) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • Sign (guano) Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Sign (old white guano) in Jan 2022 OBM • Old feather stuck in cobweb in Feb 2022 OBM • No sign in March 2022 OBM • Sign (white guano & single feather) in April 2022 OBM • Sign (fresh white guano) in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • Sign (white guano) in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • Sign (white guano) in March 2023 OBM • Sign (white guano) in April 2023 OBM • Sign (white guano) in May 2023 OBM • Sign (white guano) in June 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
31	No	Yes	No sign	<ul style="list-style-type: none"> • Sign (white guano) in July 2023 OBM • Dog indication location April 2021 • Guano present in July 2021 OBM • Guano (white) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign (cobwebs) in Nov 2021 OBM • White guano & down feathers at entrance in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • Sign (white guano) in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • No sign in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • No sign in Dec 2022 OBM • Sign (moulting bird) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM
32	No	Yes	No sign	<ul style="list-style-type: none"> • Guano present in July 2021 OBM, very deep and likely under boardwalk • Old feathers in Sept 2021 OBM • No Oct 2021 OBM due to public interference • Sign (guano) Nov 2021 OBM • Sign (guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Two chick down feathers in Feb 2022 OBM • No sign in March 2022 OBM • Sign (single feather stuck & old white guano) in April 2022 OBM • No sign in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • No sign in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in May 2023 OBM No sign in June 2023 OBM Sign (white guano) in July 2023 OBM
33	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location April 2021, deep passageway and no observable chamber Guano present in July 2021 OBM Guano (white) in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM No sign in Feb 2022 OBM No sign in March 2022 OBM Sign (two feathers very old up the top near the footpath) in April 2022 OBM No sign in May 2022 OBM Sign (white guano) in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No (fresh) sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM Sign (small number of feathers) in March 2023 OBM Sign (white guano) in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM No sign in July 2023 OBM
34	No	Yes	Sign (guano)	<ul style="list-style-type: none"> Dog indication location April 2021, deep passageway under boardwalk No sign in July 2021 OBM No Sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM No sign (cobwebs) in Feb 2022 OBM No sign in March 2022 OBM Sign (very strong smell) in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM Sign (moult feathers) in Jan 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign (apart from single moult feather) in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
35	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location April 2021, deep passage with no observable chamber No sign in July 2021 OBM No Sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM No sign in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM Sign (white guano) in May 2022 OBM No sign in June 2022 OBM Sign (fresh green guano) in July 2022 OBM No sign in Aug 2022 OBM Sign (green guano) in Sept 2022 OBM No sign in Oct 2022 OBM No (fresh) sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
36	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location April 2021, deep passage with no observable chamber No sign in July 2021 OBM No Sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM Sign (white guano and feathers) in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white and green guano) in June 2023 OBM Sign (white guano) in July 2023 OBM
37	No	Yes	Sign (guano)	<ul style="list-style-type: none"> No sign in July 2021 OBM, deep passage with no observable chamber No Sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (white guano) in Jan 2022 OBM Sign (white guano and feathers) in Feb 2022 OBM No sign in March 2022 OBM Sign (white guano, feathers, strong smell & bird vocalised) in April 2022 OBM Sign (fresh white guano and faint bird smell) in May 2022 OBM Sign (white guano) and two birds vocalising in June 2022 OBM Sign (white guano) in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No sign in Nov 2022 OBM Sign (old green guano) in Dec 2022 OBM Sign (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. Sign (white guano and a few moult feathers) in March 2023 OBM Sign (white guano) in April 2023 OBM Sign (white guano) in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM
38	No	Yes	Sign (guano)	<ul style="list-style-type: none"> Guano present in July 2021 OBM, deep passage near boardwalk with no observable chamber Guano (white) in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (white guano) in Jan 2022 OBM Sign (white guano and feathers) in Feb 2022 OBM No sign in March 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Single feather on rocks leading up to footpath to the right 5m away, but no signs in burrow in April 2022 OBM • Sign (fresh white guano) in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (white guano) in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM
39	Yes	Yes	Sign (green and white guano)	<ul style="list-style-type: none"> • Guano present in July 2021 OBM • No sign in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM
40	No	Yes	No sign	<ul style="list-style-type: none"> • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
41	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New location found in March 2022 OBM. Lots of moult feathers at entrance to burrow that goes deep under footpath. Sign (white guano, old moult feathers & fresh down feathers) in April 2022 OBM No sign in May 2022 OBM Sign (green guano) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM Sign (moult feathers) in Jan 2023 OBM No fresh sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM Sign (white guano) in July 2023 OBM
42	No	Yes	Sign (guano)	<ul style="list-style-type: none"> Dog indication location during SAM³ session on 2 April 2022⁴ Dried green guano on rocks above high tide mark, 2 m below entrance in April 2022 OBM No sign in May 2022 OBM Sign (green guano) in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM

³ Site Area Monitoring (SAM), as outlined in Section 6.2.2 of the certified Kennedy Point Marina kororā construction and monitoring plan **Error! Bookmark not defined.**

⁴ As outlined in the Boffa Miskell memorandum titled 'Kororā site area monitoring (SAM) results – 2 April 2022', dated 5 April 2022.

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
43	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected during April 2022 OBM session; sign included white guano, down feathers & strong smell No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM Sign (white guano) in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
44	No	Yes	Sign (green and white guano)	<ul style="list-style-type: none"> New burrow detected during April 2022 OBM session; sign included white guano, down feathers & strong smell Sign (white guano) during May 2022 OBM Sign (white guano) during June 2022 OBM Sign (white guano) during July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (green guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM Sign (white guano) in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM Sign (white guano) in July 2023 OBM
45	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected during SAM session on 26 April 2022; green guano observed on rock. No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Sept 2022 OBM Sign (guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
46	No	Yes	Sign (green and white guano)	<ul style="list-style-type: none"> New burrow detected (dried green & white guano) in May 2022 OBM Sign (green and white guano) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM Sign (moult feathers & guano) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM Sign (white guano) in April 2023 OBM Sign (white guano) in May 2023 OBM Sign (white guano) in June 2023 OBM No sign in July 2023 OBM
47	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected (white guano & bird vocalising) during SAM session on 11 May 2022. Sign (green guano) in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
48	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (white guano) in June 2022 OBM. No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM No sign in Oct 2022 OBM No (fresh) sign in Nov 2022 OBM No sign in Dec 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM
49	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected (white guano) in July 2022 OBM. Sign (white guano) in Aug 2022 OBM Sign (green and white guano) in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM Sign (white guano) in April 2023 No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM
50	No longer monitored as rock movement in the area has resulted in the chamber of the burrow no longer being able to be viewed.			
50a	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected (white guano) in August 2023 OBM
51	No longer monitored as rock movement in the area has resulted in the chamber of the burrow no longer being able to be viewed.			
52	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (adult bird) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM No sign in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM
53	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (two adult birds) in Sept 2022 OBM Two adults in burrow assumed incubating nest contents in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
54	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (green guano) in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
55	No	Yes	Small amount of white guano outside burrow	<ul style="list-style-type: none"> New burrow detected (white guano) in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM
56	Yes	No	No sign	<ul style="list-style-type: none"> New burrow detected (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM
57	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM
58	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM
59	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (moult feathers) in Jan 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • Sign (white guano) in April 2023 OBM • Sign (white guano) in May 2023 OBM • Sign (white guano) in June 2023 OBM • One bird present in July 2023 OBM
60	Yes	Yes	Sign (guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in June 2023 OBM • One bird present in July 2023 OBM
61	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM
62	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in June 2023 OBM • No sign in July 2023 OBM
63	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM
64	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected (white guano) in July 2023 OBM
65	No	Yes	Sign (guano) and smell of bird	<ul style="list-style-type: none"> • New burrow detected (white guano and smell of bird) in August 2023 OBM
N1	No	Yes	No sign	<ul style="list-style-type: none"> • Nest box installed in May 2022 • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign (cobwebs) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM
N2	No	Yes	No sign	<ul style="list-style-type: none"> • Nest box installed in May 2022 • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign (cobwebs) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM
N3	No	Yes	No sign	<ul style="list-style-type: none"> • Nest box installed in May 2022

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	August 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign (cobwebs) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM
N4	No	Yes	No sign	<ul style="list-style-type: none"> • Nest box installed in May 2022 • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (white guano) down from entrance of box in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign (cobwebs) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM

Memo.

Kororā ongoing breakwater monitoring during construction – September 2023 results

To: Kitt Littlejohn
Kennedy Point BoatHarbour Ltd

From: Dr Leigh Bull

Date: 22 September 2023

Project: BG2302 Kennedy Pt

Introduction

Section 6.2.3 of the certified Kennedy Point Marina kororā construction and monitoring plan¹ requires monthly Ongoing Breakwater Monitoring (OBM) for the duration of the construction works.

The area of interest for the burrow inspections is the marina side of the breakwater and an area of the foreshore up to the first Pohutukawa tree (refer to Map 1). This area is referred to as the “Penguin construction monitoring area” (PCMA).

The purpose of the monitoring is to confirm the ongoing habitation of the breakwater by kororā during the construction phase of the marina. Should birds cease to inhabit the breakwater, particularly during the breeding season, these changes can then be investigated relative to construction activity to determine, as far as is reasonably possible, whether marina construction activities may be the cause.

Outlined in this memo are the results of the OBM session conducted on 19 September 2023.

Methods

Data capture

Prior to going on site, locations of all previously recorded kororā detections on the Kennedy Point breakwater were uploaded into ArcGIS Fieldmaps. While on site for the monitoring, a device was used to view these points in ArcGIS Fieldmaps, record all observations and capture any new locations not previously detected.

Onsite monitoring

On 19 September 2023, monitoring was conducted within the PCMA (refer to Map 1) by Dr Leigh Bull (BlueGreen Ecology, penguin expert) and Daniel Ahern (4Sight Consulting, Ecologist), accompanied by Dave Houston and David Wilson (both from the Department of Conservation). The weather conditions were warm (19°C) with a light westerly. High tide (2.8 m) was at 9.24am.

¹ Boffa Miskell Limited 2021. *Kennedy Point Marina: Kororā Construction Monitoring & Management Plan*. Report prepared by Boffa Miskell Limited for Kennedy Point Boatharbour Ltd (Revision J, dated 1 March 2022)

The monitoring commenced at approximately 9:00am. Over the ensuing approximately 2.5 hour period the entire PCMA was monitored. All locations of previous kororā detections were inspected first by way of a visual check for the presence of any penguins or their sign (e.g., feathers or guano (excrement)), and then using a burrowscope and/or video camera on a mobile device if possible. Any new burrows that were detected were also inspected in the same manner.

OBM Results

A total of 67 locations (refer to Map 2 and Map 3) were monitored during the September 2023 monitoring session. The observations recorded at each individual monitoring site are provided in Appendix 1. The following notable observations were made:

- Kororā sign (guano or birds) was recorded at 31 monitored locations (refer to Map 2, Map 3 and Appendix 1).
- Four burrows (5.1, 10, 13 and 26) were confirmed to be active, with the first chick for the season confirmed in burrow 13 (refer to Photo 1).
- Two new monitoring locations (66 and 67) were detected.



Photo 1: Kororā chick in burrow 10)

The number of kororā sign at the monitoring locations and active burrows recorded over the course of the OBM sessions to date² are provided below in Figure 1 and Figure 2 respectively. Slightly fewer signs and active burrows were recorded in September 2023 compared to September 2022; however 2023 numbers were still much higher than September 2021.

² NOTE: OBM sessions began in July 2021; no August 2021 OBM due to covid 19 restrictions; Oct 2021 OBM session incomplete due to public harassment.

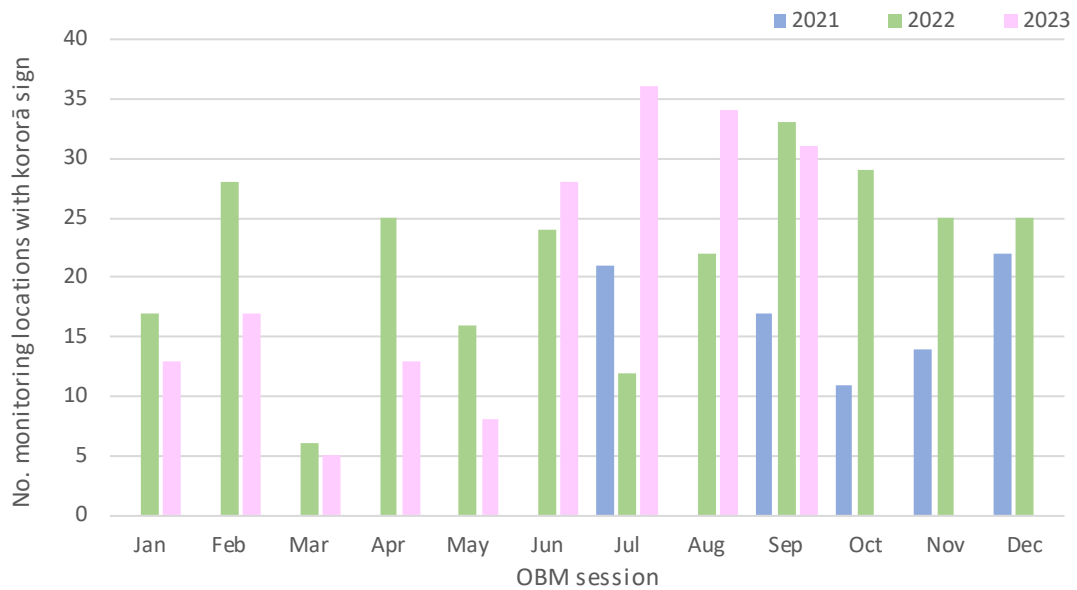


Figure 1: Number of monitoring locations at which kororā sign was observed during each² OBM session

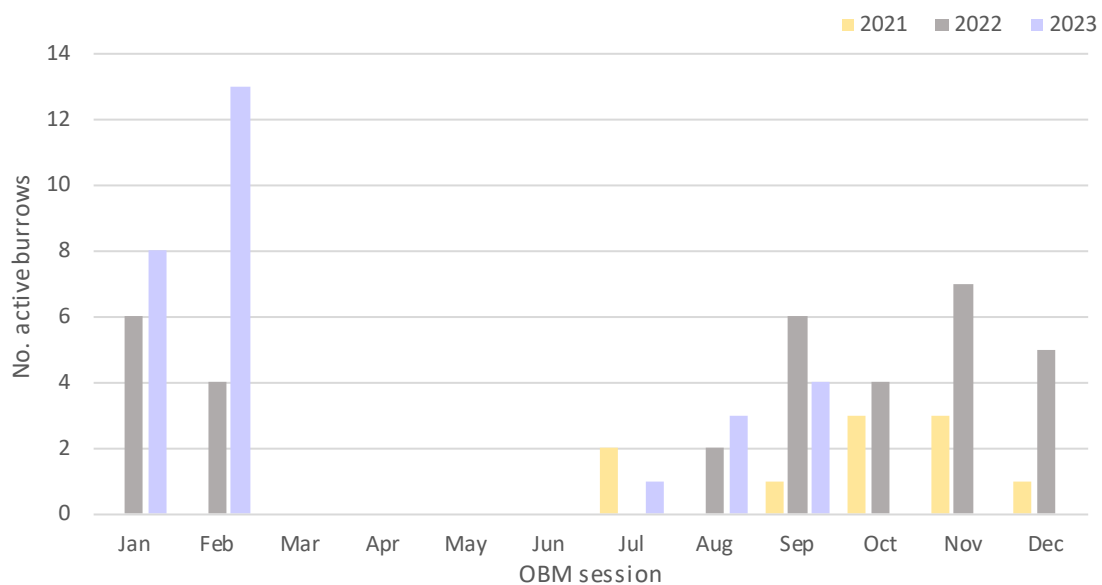


Figure 2: Number of active burrows recorded during each² OBM session

Rock Placement

Following the completion of the August 2023 OBM, on the same day, rocks were to be placed on the seawall near the road and concrete pier as part of remedial works. Concerns were raised by members of the public that birds were trapped under the newly placed rocks, but it was confirmed by DOC that this wasn't the case, and that a bird was still incubating eggs in burrow 10.

The results of the September OBM further confirm that the rock placement works did not harm kororā, with breeding birds recorded in burrows 5.1 and 10 which were immediately adjacent to these areas.

Conclusions

- The purpose of the monitoring is to confirm the ongoing habitation of the breakwater by kororā during the construction phase of the marina. The September 2023 monitoring confirmed that this is the case, with signs of kororā recorded at 36 locations (refer to Appendix 1, Map 2 and Map 3).
- Four burrows (5.1, 10, 13 and 26) were recorded active during the September 2023 OBM session, with the first chick of the season recorded in burrow 13.
- The observation of breeding birds in burrows 5.1 and 10 further confirms that the rock placement works undertaken following the August OBM session did not impact those birds or burrows.
- Slightly less kororā sign and active burrows were recorded in the September 2023 OBM compared to September 2022 session, however the numbers recorded this session were still higher than September 2021 (refer to Figure 1 and Figure 2).

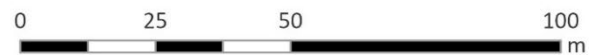
Map 1: Penguin Construction Monitoring Area (PCMA)



Legend

Monitoring Area

Map 1: Penguin Construction Monitoring Area (PCMA) for purposes of Resource Consent condition 24A.



Client: Kennedy Point Boatharbour Limited
Project Code: AA1921
Date: 26/07/2021
Version: 1.0
Author: CD
Approved: PW



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Map Description: Monthly Kororā Ongoing Breakwater Monitoring Results (19 September 2023)

Legend

- Monitoring Area
- ★ Active Burrow
- Monitoring Location (No fresh signs*)
- Guano (Fresh signs*)

Client: Kennedy Point Boatharbour Ltd
 Project Code: AA1921
 Date: 21/09/2023
 Version: 1.1
 Author: PW



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Map 3: September 2023 OBM results – Part 2



Map Description: Monthly Kororā Ongoing Breakwater Monitoring Results (19 September 2023)

Legend

- Monitoring Area
- ★ Active Burrow
- Guano (Fresh signs*)
- Monitoring Location (No fresh signs*)

Client: Kennedy Point Boatharbour Ltd
 Project Code: AA1921
 Date: 21/09/2023
 Version: 1.1
 Author: PW



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APPENDIX 1: Summary of the September 2023 OBM results

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
1	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location in April 2021 • No sign in July 2021 OBM • Guano (white) present in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • Moulting sign in Jan 2022 OBM • Two birds with moult feathers present in Feb 2022 OBM • No sign in March 2022 OBM • No new sign (old feathers in chamber) during April 2022 OBM • Two birds present in May 2022 OBM. • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (green guano) in Sept 2022 OBM • Sign (green guano) in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (green and white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM • No sign in Aug 2023 OBM
2	Yes	No	No sign	<ul style="list-style-type: none"> • Guano present in July 2021 • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • Guano (white) present in Nov 2021 OBM • Guano (white) present in Dec 2021 OBM • No sign (cobwebs) in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • Guano (white) present in April 2022 OBM • Guano (white) present in May 2022 OBM • Guano (white) present in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • Guano (white) present in Oct 2022 OBM • Guano (white) present in Nov 2022 OBM • Guano (white) present in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Guano (white) present in May 2023 • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (white guano) in Aug 2023 OBM but on opposite side of entrance to where activity has previously been recorded.
3	Yes	Yes	Sign (white guano)	<ul style="list-style-type: none"> • Dog indication location in April 2021 • Dog indication location in June 2021 • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign (cobwebs) in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • Sign (green guano and strong bird smell) and presumed bird present in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM
4	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location June 2021 • Guano present in July 2021 OBM • Guano (white) present in Sept 2021 OBM • No sign in Oct 2021 OBM • Sign (guano) in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • No sign (cobwebs) in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM
5	No longer monitored as rock movement in the area has resulted in the chamber of the burrow no longer being able to be viewed.			
5.1	Yes	No	Adult incubating egg	<ul style="list-style-type: none"> New location detected (white guano) during Aug 2023 OBM
6	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
7	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
8	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
9	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
10	Yes	Yes	Adult incubating egg	<ul style="list-style-type: none"> Dog indication location in April 2021 Dog indication location in June 2021 and two birds confirmed present with no eggs. Bird on egg in July 2021 OBM Bird with young chick (egg tooth) in Sept 2021 OBM 1x chick alone in Oct 2021 OBM Adult with large chick in Nov 2021 OBM Green guano and down feathers in Dec 2021 OBM Moulting sign (bird) in Jan 2022 OBM Feb 2022 OBM - Lots of adult feathers at entrance and inside burrow. Empty but dried green guano inside burrow and white guano at entrance. Adult bird in burrow during April 2022 OBM No sign in May 2022 OBM Two birds present in June 2022 OBM Sign (green guano) inside burrow in July 2022 OBM Sign (green guano and nest material) inside burrow in Aug 2022 OBM Adult present and assumed incubating egg in Sept 2022 OBM Two chicks present in Oct 2022 OBM Two chicks present in Nov 2022 OBM Green guano and down feathers inside burrow in Dec 2022 OBM. Two chicks likely fledged. Moulting sign (bird) in Jan 2023 OBM Sign (green guano and old moult feathers) in Feb 2023 OBM No sign in March 2023 OBM Sign (green guano) in April 2023 OBM Sign (green guano) in May 2023 OBM No sign in June 2023 OBM Sign (green guano) in July 2023 OBM Adult incubating two eggs in Aug 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
11	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Dog indication location April 2021. • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign (cobwebs) in Oct 2021 OBM • No sign Nov 2021 OBM • No sign in Dec 2021 OBM • No sign (cobwebs) in Jan 2022 OBM • Single feather in cobwebs in Feb 2022 OBM • No sign during March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • Guano (white) present in Nov 2022 OBM • Guano (white) present in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (moult feathers) in Feb OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • Sign (white guano) in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM
12	No	Yes	No sign	<ul style="list-style-type: none"> • Potential location in February 2021 survey (guano) • Weak dog indication location June 2021 • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign (cobwebs) in Oct 2021 OBM • No in sign Nov 2021 OBM • No sign in Dec 2021 OBM • No sign (cobwebs) in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign during March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • Sign (white guano) in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM
13	Yes	Yes	One chick in burrow	<ul style="list-style-type: none"> Bird on egg in July 2021 OBM Sept 2021 OBM found lots of fresh green guano pooled in sections. Burrow very shallow and able to see chamber, but no bird or egg sighted. Possible that bird has moved back further into breakwater since July 2021 survey. Adult with egg in Oct 2021 OBM Mesoptile down feathers observed at burrow entrance but unable to site any birds In Nov 2021 OBM. Old green guano and no fresh signs. Guano (white and green) in Dec 2021 OBM Moulting sign (bird) in Jan 2022 OBM Feb 2022 – Lots of sign, but likely from moulting bird in previous month Fresh guano with old moult feathers identified in March OBM session for location 14, but should have been assigned to location 13. Adult bird in burrow during April 2022 OBM Sign (fresh green guano) during May 2022 OBM Bird present in June 2022 OBM Sign (fresh green guano) inside burrow in July 2022 OBM Adult with egg in Aug 2022 OBM Adult present and assumed incubating egg in Sept 2022 OBM One chick present in Oct 2022 OBM Lots of guano but no bird present during Nov 2022 OBM. Chick possibly fledged. Sign (green guano) in Dec 2022 OBM Moulting sign (bird) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM Two birds in burrow in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) and strong smell of bird in July 2023 OBM Adult incubating at least one egg in Aug 2023 OBM
14	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location June 2021 but can't see chamber as deep under footpath No sign in July 2021 OBM No sign in Sept 2021 OBM No sign in Oct 2021 OBM No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM Guano (white) in Feb 2022 OBM Fresh guano with old moult feathers identified in March OBM session for location 14, but should have been assigned to location 13. Thus March 2022 results for this location should have been identified as no sign. No sign in April 2022 OBM No sign in May 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM
15	No	Yes	No sign	<ul style="list-style-type: none"> No sign in July 2021 OBM No sign in Sept 2021 OBM No sign in Oct 2021 OBM No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM Single feather in cobwebs in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM Sign (white guano) in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM
16	No		No sign	<ul style="list-style-type: none"> No sign in July 2021 OBM No sign in Sept 2021 OBM Sign (guano) in Oct 2021 OBM No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM Scattered feathers d dried green guano in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM
17	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location April 2021, but no obvious chamber No sign in July 2021 OBM No sign in Sept 2021 OBM No sign in Oct 2021 OBM No sign in Nov 2021 OBM No sign in Dec 2021 OBM Sign (white guano) in Jan 2022 OBM Sign (white guano) in Feb 2022 OBM No sign in March 2022 OBM Sign (white guano) in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No (fresh) sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM Sign (moult feathers) in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (white guano) in Aug 2023 OBM
18	Yes	Yes	Sign (guano)	<ul style="list-style-type: none"> Dog indication location in April 2021 Dog indication location in June 2021 Guano present in July 2021 OBM Sign (white guano some slight green tinge) in Sept 2021 OBM Sign (white guano) in Oct 2021 OBM Sign (old green guano) in Nov 2021 OBM Guano (white and green) & down feathers in Dec 2021 OBM Guano (white and green) in Jan 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Feb 2022 OBM - Large amounts of white guano and some green guano. Strong smell. Likely moulting bird in burrow. • March 2022 OBM – old moult feathers and old white guano • Sign (old white guano & moult feathers) in April 2022 OBM session • Sign (fresh green guano) in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (green guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Nov 2022 OBM - Lots of white and green guano inside and out of burrow. Very strong smell. Burrow considered to be active. • Lots of white guano around rocks in Dec 2022 OBM. Chicks likely fledged due to lack of smell and no green guano • Sign (green guano) in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • No sign in April 2023 OBM • Sign (white guano) in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (green guano) in Aug 2023 OBM
19	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Dog indication location June 2021, but no obvious chamber (likely deep passage away under boardwalk) • No sign in July 2021 OBM • No sign Sept 2021 OBM • No sign in Oct 2021 OBM • Sign (white guano) in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • No sign in March 2022 OBM • Old moult feathers in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Aug 2023 OBM
20	No	Yes	No sign	<ul style="list-style-type: none"> Green guano present in July 2021 OBM. Deep passageway all the way underneath boardwalk. No sign in Sept 2021 OBM Sign (white guano) in Oct 2021 OBM Sign (white guano) in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (white guano) in Jan 2022 OBM Sign (white guano) in Feb 2022 OBM No sign in March 2022 OBM Single feather and old white guano in April 2022 OBM Sign (dried green and white guano) in May 2022 OBM Sign (fresh green guano) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Nov 2022 OBM - Lots of white and green guano inside and out of burrow. Very strong smell. Burrow considered to be active. Sign (intense smell, flies and fresh white guano) in Dec 2022 OBM. Burrow considered to be active. Sign (white guano) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM Sign (green guano) in Aug 2023 OBM
21	Yes	Yes	Sign (guano)	<ul style="list-style-type: none"> Dog indication location April 2021. Deep tunnel all the way back to boardwalk Guano present in July 2021 OBM No sign Sept 2021 OBM Sign (white guano) in Oct 2021 OBM Sign (white guano) in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (white guano) in Jan 2022 OBM Sign (white guano) in Feb 2022 OBM No sign in March 2022 OBM No sign during April 2022 OBM No sign (faint bird smell) during May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Nov 2022 OBM - Lots of white guano and strong bird smell. Burrow considered to be active. Sign (intense smell, flies and fresh white guano) in Dec 2022 OBM. Burrow considered to be active.

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (white guano) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (white guano) in Aug 2023 OBM
22	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021. Deep tunnel all the way back to boardwalk • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • Sign (white guano) in Nov 2021 OBM • Sign (green guano) in Dec 2021 OBM • Sign (white guano and some feathers) in Jan 2022 OBM • Sign (white guano and single feather) in Feb 2022 OBM • Sign (old moult feathers and old white guano) in March 2022 OBM • Sign (white guano on nearby rocks) in April 2022 OBM • Sign (white guano) in May 2022 OBM • No sign in June 2022 OBM • Sign (white guano) in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Nov 2022 OBM - Lots of white guano and strong bird smell. Burrow considered to be active. • Sign (white guano) in Dec 2022 OBM, but not considered active. • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • Sign (moult feathers) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM
23	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Guano (not fresh) present in July 2021 OBM • Guano (white) and cobwebs in Sept 2021 OBM • Guano (white and some green) in Oct 2021 OBM • Sign (white guano) in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Moulting sign (feathers & green guano) in Jan 2022 OBM • Feb 2022 OBM - Lots of feathers and strong smell. White guano. Likely a moulting bird. • No sign in March 2022 OBM • Signs (old feathers, dried green guano and strong smell) indicate the presence of a bird in April 2022 OBM but unable to sight. • Sign (fresh green guano) in May 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Bird present in June 2022 OBM • Sign (green and white guano) in July 2022 OBM • Bird in burrow in Aug 2022 OBM. Assumed incubating egg based on its position. • Adult present and assumed incubating egg in Sept 2022 OBM • No birds sighted, but based on the amount of guano present it is assumed that the burrow is still active, likely with chick(s) in Oct 2022 OBM. • Nov 2022 OBM - Lots of fresh green and white guano and strong bird smell. Burrow considered to be active. • Sign (fresh green guano and some down chick feathers) in Dec 2022 OBM. Assumed burrow still active. • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • Sign (green and white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM
24	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021. Potential passageway under boardwalk • Guano present in July 2021 OBM • Guano (green) present in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • Guano (white & green) and down feathers in Dec 2021 OBM • Sign (white guano) in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • Sign (fresh white guano) in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • Fresh seagrass inside burrow in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • Sign (white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM
25	Yes	Yes	Sign (guano)	<ul style="list-style-type: none"> • Dog indication location April 2021 • Old feathers and guano found in July 2021 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • No sign in Sept 2021 OBM • No OBM in Oct 2021 due to public interference • No sign in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Sign (white guano and chick feather) in Feb 2022 OBM • No sign in March 2022 • Sign (white guano) in April 2022 OBM • No sign in May 2022 OBM • Sign (white guano and faint bird smell) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (adult moult feathers) in Dec 2022 OBM. Consider this an active burrow. • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM
26	Yes	No	Bird (possibly chick) in burrow – assumed active	<ul style="list-style-type: none"> • Dog indication location April 2021, possible deep chamber. • Guano present in July 2021 OBM • No sign in Sept 2021 OBM • Sign (guano) Oct 2021 OBM • No sign (cobwebs) in Nov 2021 OBM • Sign (green guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Feb 2022 OBM - Lots of adult moult feathers. Appears to go further back under footpath. Very smelly • March 2022 – old moult feathers and old white guano • Sign (lots of feather and strong smell) indicate presence of a bird in April 2022 OBM but unable to sight. • No sign in May 2022 OBM • Sign (white guano & faint bird smell) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Adult present and assumed incubating egg in Sept 2022 OBM • No birds sighted but adult bird heard vocalising. Based on the amount of guano present it is assumed that the burrow is still active, likely with chick(s) in Oct 2022 OBM. • Nov 2022 OBM - Lots of guano, strong bird smell and down feathers observed. Burrow considered to be active. • Sign (adult moult feathers) in Dec 2022 OBM. Consider this an active burrow. • Sign (white guano) in Jan 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Feb 2023 OBM No sign in March 2023 OBM Sign (white guano) in April 2023 OBM Sign (white guano) in May 2023 OBM Sign (white guano and strong smell of bird) in June 2023 OBM Two birds present, possibly on an egg. Based on behaviour of birds, this burrow is considered to be potentially active in July 2023 OBM Adult present and appeared to incubating egg so consider this to be an active burrow in Aug 2023 OBM
27	No	Yes	Sign (guano)	<ul style="list-style-type: none"> No sign in July 2021 OBM Guano (white) in Sept 2021 OBM Sign (guano) Oct 2021 OBM No sign in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (old white guano) in Jan 2022 OBM Feb 2022 OBM - Smelly up by footpath. Small amount of old white guano. No sign in March 2022 OBM Sign (old white guano) in April 2022 OBM Sign (dried green guano) in May 2022 OBM No sign in June 2022 OBM Small sign (white guano) in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (green & white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM Sign (white guano) in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM
28	No	Yes	Sign (guano)	<ul style="list-style-type: none"> Guano present in July 2021 OBM, likely deep chamber under boardwalk Guano (white) in Sept 2021 OBM No OBM in Oct 2021 due to public interference No sign in Nov 2021 OBM No sign in Dec 2021 OBM Sign (old white guano) in Jan 2022 OBM Sign (old white guano) in Feb 2022 OBM No sign in March 2022 OBM Sign (white guano) during April 2022 OBM No sign in May 2022 OBM Sign (white guano) in June 2022 OBM No sign in July 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM
29	No	Yes	Sign (guano)	<ul style="list-style-type: none"> Dog indication location April 2021 Guano present in July 2021 OBM No sign (cobwebs) in Sept 2021 OBM No Oct 2021 OBM due to public interference Sign (guano) Nov 2021 OBM Sign (white guano) in Dec 2021 OBM No sign in Jan 2022 OBM Feb 2022 OBM - Several adult feathers stuck in cobwebs No sign in March 2022 OBM Sign (feathers in burrow) in April 2022 OBM Sign (dried green guano) in May 2022 OBM Sign (white guano) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM Sign (fresh moult feathers) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM No sign in Aug 2023 OBM
30	No	Yes	Sign (guano)	<ul style="list-style-type: none"> Dog indication location April 2021, no obvious chamber No sign in July 2021 OBM Guano (white) in Sept 2021 OBM No Oct 2021 OBM due to public interference Sign (guano) Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (old white guano) in Jan 2022 OBM Old feather stuck in cobweb in Feb 2022 OBM No sign in March 2022 OBM Sign (white guano & single feather) in April 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (fresh white guano) in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • Sign (white guano) in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • Sign (white guano) in March 2023 OBM • Sign (white guano) in April 2023 OBM • Sign (white guano) in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM
31	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Dog indication location April 2021 • Guano present in July 2021 OBM • Guano (white) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign (cobwebs) in Nov 2021 OBM • White guano & down feathers at entrance in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • Sign (white guano) in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • No sign in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • No sign in Dec 2022 OBM • Sign (moulting bird) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM • No sign in Aug 2023 OBM
32	No	Yes	No sign	<ul style="list-style-type: none"> • Guano present in July 2021 OBM, very deep and likely under boardwalk • Old feathers in Sept 2021 OBM • No Oct 2021 OBM due to public interference • Sign (guano) Nov 2021 OBM • Sign (guano) in Dec 2021 OBM • No sign in Jan 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Two chick down feathers in Feb 2022 OBM • No sign in March 2022 OBM • Sign (single feather stuck & old white guano) in April 2022 OBM • No sign in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • No sign in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM • No sign in Aug 2023 OBM
33	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021, deep passageway and no observable chamber • Guano present in July 2021 OBM • Guano (white) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • Sign (two feathers very old up the top near the footpath) in April 2022 OBM • No sign in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • No (fresh) sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • Sign (small number of feathers) in March 2023 OBM • Sign (white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM
34	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021, deep passageway under boardwalk • No sign in July 2021 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • No Sign in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign (cobwebs) in Feb 2022 OBM • No sign in March 2022 OBM • Sign (very strong smell) in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • Sign (moult feathers) in Jan 2023 OBM • No sign (apart from single moult feather) in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • Sign (guano) in Aug 2023 OBM
35	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021, deep passage with no observable chamber • No sign in July 2021 OBM • No Sign in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • Sign (white guano) in May 2022 OBM • No sign in June 2022 OBM • Sign (fresh green guano) in July 2022 OBM • No sign in Aug 2022 OBM • Sign (green guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No (fresh) sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Aug 2023 OBM
36	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location April 2021, deep passage with no observable chamber No sign in July 2021 OBM No Sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM Sign (white guano and feathers) in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No sign in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white and green guano) in June 2023 OBM Sign (white guano) in July 2023 OBM No sign in Aug 2023 OBM
37	No	Yes	No sign	<ul style="list-style-type: none"> No sign in July 2021 OBM, deep passage with no observable chamber No Sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (white guano) in Jan 2022 OBM Sign (white guano and feathers) in Feb 2022 OBM No sign in March 2022 OBM Sign (white guano, feathers, strong smell & bird vocalised) in April 2022 OBM Sign (fresh white guano and faint bird smell) in May 2022 OBM Sign (white guano) and two birds vocalising in June 2022 OBM Sign (white guano) in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No sign in Nov 2022 OBM Sign (old green guano) in Dec 2022 OBM Sign (moult feathers) in Jan 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • Sign (white guano and a few moult feathers) in March 2023 OBM • Sign (white guano) in April 2023 OBM • Sign (white guano) in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM
38	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Guano present in July 2021 OBM, deep passage near boardwalk with no observable chamber • Guano (white) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Sign (white guano) in Jan 2022 OBM • Sign (white guano and feathers) in Feb 2022 OBM • No sign in March 2022 OBM • Single feather on rocks leading up to footpath to the right 5m away, but no signs in burrow in April 2022 OBM • Sign (fresh white guano) in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (white guano) in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM
39	Yes	Yes	Sign (guano)	<ul style="list-style-type: none"> • Guano present in July 2021 OBM • No sign in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (white guano) in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM
40	No	Yes	No sign	<ul style="list-style-type: none"> • No sign in July 2021 OBM • No Sign in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM
41	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • New location found in March 2022 OBM. Lots of moult feathers at entrance to burrow that goes deep under footpath. • Sign (white guano, old moult feathers & fresh down feathers) in April 2022 OBM • No sign in May 2022 OBM • Sign (green guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • Sign (moult feathers) in Jan 2023 OBM • No fresh sign in Feb 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM
42	No	Yes	Sign (guano)	<ul style="list-style-type: none"> Dog indication location during SAM³ session on 2 April 2022⁴ Dried green guano on rocks above high tide mark, 2 m below entrance in April 2022 OBM No sign in May 2022 OBM Sign (green guano) in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM Sign (guano) in Aug 2023 OBM
43	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected during April 2022 OBM session; sign included white guano, down feathers & strong smell No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM Sign (white guano) in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM
44	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected during April 2022 OBM session; sign included white guano, down feathers & strong smell Sign (white guano) during May 2022 OBM

³ Site Area Monitoring (SAM), as outlined in Section 6.2.2 of the certified Kennedy Point Marina kororā construction and monitoring plan **Error! Bookmark not defined.**

⁴ As outlined in the Boffa Miskell memorandum titled 'Kororā site area monitoring (SAM) results – 2 April 2022', dated 5 April 2022.

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (white guano) during June 2022 OBM • Sign (white guano) during July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (green guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • Sign (white guano) in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM
45	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected during SAM session on 26 April 2022; green guano observed on rock. • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • Sign (guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM
46	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • New burrow detected (dried green & white guano) in May 2022 OBM • Sign (green and white guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • Sign (moult feathers & guano) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • Sign (white guano) in April 2023 OBM • Sign (white guano) in May 2023 OBM • Sign (white guano) in June 2023 OBM • No sign in July 2023 OBM • Sign (guano) in Aug 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
47	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • New burrow detected (white guano & bird vocalising) during SAM session on 11 May 2022. • Sign (green guano) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • Sign (guano) in Aug 2023 OBM
48	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected (white guano) in June 2022 OBM. • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No (fresh) sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • No sign in Aug 2023 OBM
49	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in July 2022 OBM. • Sign (white guano) in Aug 2022 OBM • Sign (green and white guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • Sign (white guano) in April 2023 • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM
50	No longer monitored as rock movement in the area has resulted in the chamber of the burrow no longer being able to be viewed.			

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
50a	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (white guano) in Aug 2023 OBM
51	No longer monitored as rock movement in the area has resulted in the chamber of the burrow no longer being able to be viewed.			
52	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (adult bird) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM No sign in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM No sign in Aug 2023 OBM
53	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (two adult birds) in Sept 2022 OBM Two adults in burrow assumed incubating nest contents in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM
54	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (green guano) in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM
55	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (white guano) in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM
56	Yes	No	No sign	<ul style="list-style-type: none"> New burrow detected (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM No sign in Aug 2023 OBM
57	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM
58	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM Sign (guano) in Aug 2023 OBM
59	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM Sign (white guano) in April 2023 OBM Sign (white guano) in May 2023 OBM Sign (white guano) in June 2023 OBM One bird present in July 2023 OBM No sign in Aug 2023 OBM
60	Yes	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (white guano) in June 2023 OBM One bird present in July 2023 OBM Sign (guano) in Aug 2023 OBM
61	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM
62	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected (white guano) in June 2023 OBM No sign in July 2023 OBM Sign (guano) in Aug 2023 OBM
63	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected (white guano) in June 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM
64	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected (white guano) in July 2023 OBM • No sign in Aug 2023 OBM
65	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • New burrow detected (white guano and smell of bird) in Aug 2023 OBM
66	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in Sept 2023 OBM
67	Yes	No	Sign (guano)	<ul style="list-style-type: none"> • New burrow detected (white guano) in Sept 2023 OBM
N1	No	Yes	No sign	<ul style="list-style-type: none"> • Nest box installed in May 2022 • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign (cobwebs) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM
N2	No	Yes	No sign	<ul style="list-style-type: none"> • Nest box installed in May 2022 • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign (cobwebs) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM
N3	No	Yes	No sign	<ul style="list-style-type: none"> • Nest box installed in May 2022 • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	September 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • No sign in Feb 2023 OBM • No sign (cobwebs) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM
N4	No	Yes	No sign	<ul style="list-style-type: none"> • Nest box installed in May 2022 • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (white guano) down from entrance of box in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign (cobwebs) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM

Memo.

Kororā ongoing breakwater monitoring during construction – October 2023 results	To: Kitt Littlejohn Kennedy Point BoatHarbour Ltd
	From: Dr Leigh Bull
Date: 11 October 2023	Project: BG2302 Kennedy Pt

Introduction

Section 6.2.3 of the certified Kennedy Point Marina kororā construction and monitoring plan¹ requires monthly Ongoing Breakwater Monitoring (OBM) for the duration of the construction works.

The area of interest for the burrow inspections is the marina side of the breakwater and an area of the foreshore up to the first Pohutukawa tree (refer to Map 1). This area is referred to as the “Penguin construction monitoring area” (PCMA).

The purpose of the monitoring is to confirm the ongoing habitation of the breakwater by kororā during the construction phase of the marina. Should birds cease to inhabit the breakwater, particularly during the breeding season, these changes can then be investigated relative to construction activity to determine, as far as is reasonably possible, whether marina construction activities may be the cause.

Outlined in this memo are the results of the OBM session conducted on 9 October 2023.

Methods

Data capture

Prior to going on site, locations of all previously recorded kororā detections on the Kennedy Point breakwater were uploaded into ArcGIS Fieldmaps. While on site for the monitoring, a device was used to view these points in ArcGIS Fieldmaps, record all observations and capture any new locations not previously detected.

Onsite monitoring

On 9 October 2023, monitoring was conducted within the PCMA (refer to Map 1) by Dr Leigh Bull (BlueGreen Ecology, penguin expert) and Daniel Ahern (4Sight Consulting, Ecologist), accompanied by David Wilson (Department of Conservation). Yashika Josi and Kala Sivaguru (both from Auckland Council) were also present for approximately the first hour of monitoring. The weather conditions were mild (13°C) with a westerly breeze. Low tide (1.0 m) was at 9.36 am.

¹ Boffa Miskell Limited 2021. *Kennedy Point Marina: Kororā Construction Monitoring & Management Plan*. Report prepared by Boffa Miskell Limited for Kennedy Point Boatharbour Ltd (Revision J, dated 1 March 2022)

The monitoring commenced at approximately 9:00am. Over the ensuing approximately 2 hour period the entire PCMA was monitored. All locations of previous kororā detections were inspected first by way of a visual check for the presence of any penguins or their sign (e.g., feathers or guano (excrement)), and then using a burrowscope and/or video camera on a mobile device if possible. Any new burrows that were detected were also inspected in the same manner.

OBM Results

A total of 67 locations (refer to Map 2 and Map 3) were monitored during the October 2023 monitoring session. The observations recorded at each individual monitoring site are provided in Appendix 1. The following notable observations were made:

- Kororā sign (guano or birds) was recorded at 21 monitored locations (refer to Map 2, Map 3 and Appendix 1).
- Four burrows (5.1, 10, 13 and 26) were confirmed to be active; two chicks were confirmed present in burrow 10 and one in burrow 13.



Photo 1: Adult incubating egg in burrow 5.1



Photo 2: Two chicks present in burrow 10

The number of kororā sign at the monitoring locations and active burrows recorded over the course of the OBM sessions to date² are provided below in Figure 1 and Figure 2 respectively. Slightly fewer signs were recorded in October 2023 compared to October 2022; however 2023 numbers were still much higher than October 2021 (Figure 1). In terms of active burrows, the same number (4) were recorded in both October 2023 and October 2022; this is compared to three active burrows that were recorded in October 2021 (Figure 2).

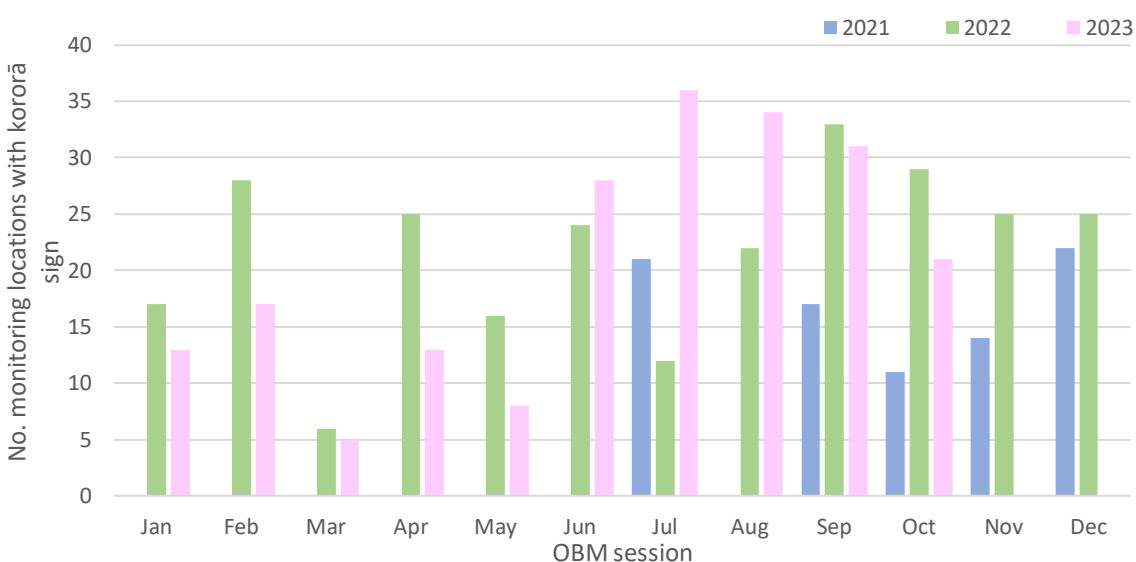


Figure 1: Number of monitoring locations at which kororā sign was observed during each² OBM session

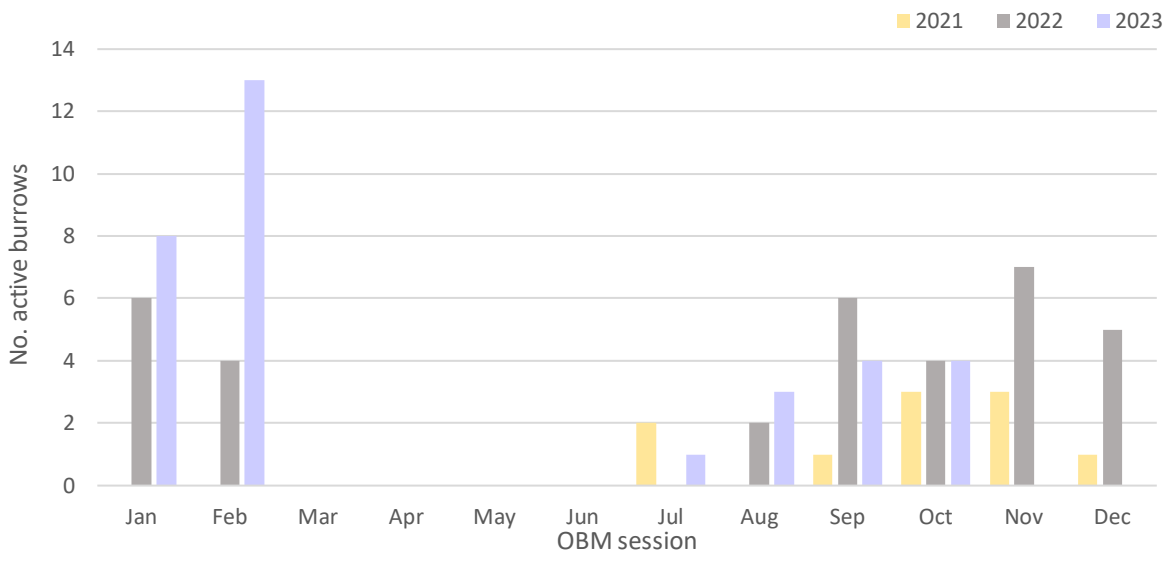


Figure 2: Number of active burrows recorded during each² OBM session

² NOTE: OBM sessions began in July 2021; no August 2021 OBM due to covid 19 restrictions; Oct 2021 OBM session incomplete due to public harassment.

Conclusions

- The purpose of the monitoring is to confirm the ongoing habitation of the breakwater by kororā during the construction phase of the marina. The October 2023 monitoring confirmed that this is the case, with signs of kororā recorded at 21 locations (refer to Appendix 1, Map 2 and Map 3).
- Four burrows (5.1, 10, 13 and 26) were recorded active during the October 2023 OBM.
- Slightly less kororā sign was recorded in the October 2023 OBM compared to October 2022 session, however the numbers recorded during this current session were still higher than October 2021 (refer to Figure 1).
- The same number of active burrows were recorded in October 2023 and 2022, and this was higher than recorded in October 2021 (refer to Figure 2).

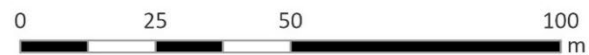
Map 1: Penguin Construction Monitoring Area (PCMA)



Legend

 Monitoring Area

Map 1: Penguin Construction Monitoring Area (PCMA) for purposes of Resource Consent condition 24A.



Client: Kennedy Point Boatharbour Limited
Project Code: AA1921
Date: 26/07/2021
Version: 1.0
Author: CD
Approved: PW

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Map 2: October 2023 OBM results – Part 1



Map Description: Monthly Kororā Ongoing Breakwater Monitoring Results
(9 October 2023)

Legend

- Monitoring Area
- ★ Active Burrow
- Guano (Fresh signs*)
- Monitoring Location (No fresh signs*)

Client: Kennedy Point Boatharbour Ltd
 Project Code: AA1921
 Date: 10/10/2023
 Version: 1.1
 Author: PW



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Map 3: October 2023 OBM results – Part 2



Map Description: Monthly Kororā Ongoing Breakwater Monitoring Results (9 October 2023)

Client: Kennedy Point Boatharbour Ltd
 Project Code: AA1921
 Date: 10/10/2023
 Version: 1.1
 Author: PW



Legend

- Monitoring Area
- Monitoring Location (No fresh signs*)
- Guano (Fresh signs*)
- ★ Active Burrow

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APPENDIX 1: Summary of the October 2023 OBM results

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
1	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location in April 2021 • No sign in July 2021 OBM • Guano (white) present in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • Moulting sign in Jan 2022 OBM • Two birds with moult feathers present in Feb 2022 OBM • No sign in March 2022 OBM • No new sign (old feathers in chamber) during April 2022 OBM • Two birds present in May 2022 OBM. • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (green guano) in Sept 2022 OBM • Sign (green guano) in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (green and white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM • No sign in Aug 2023 OBM • No sign in Sept 2023 OBM
2	Yes	No	No sign	<ul style="list-style-type: none"> • Guano present in July 2021 • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • Guano (white) present in Nov 2021 OBM • Guano (white) present in Dec 2021 OBM • No sign (cobwebs) in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • Guano (white) present in April 2022 OBM • Guano (white) present in May 2022 OBM • Guano (white) present in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • Guano (white) present in Oct 2022 OBM • Guano (white) present in Nov 2022 OBM • Guano (white) present in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in April 2023 OBM Guano (white) present in May 2023 No sign in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (white guano) in Aug 2023 OBM but on opposite side of entrance to where activity has previously been recorded. No sign in Sept 2023 OBM
3	Yes	Yes	Sign (guano)	<ul style="list-style-type: none"> Dog indication location in April 2021 Dog indication location in June 2021 No sign in July 2021 OBM No sign in Sept 2021 OBM No sign in Oct 2021 OBM No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign (cobwebs) in Jan 2022 OBM No sign in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM Sign (green guano and strong bird smell) and presumed bird present in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM Sign (white guano) in Sept 2023 OBM
4	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location June 2021 Guano present in July 2021 OBM Guano (white) present in Sept 2021 OBM No sign in Oct 2021 OBM Sign (guano) in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM No sign (cobwebs) in Jan 2022 OBM No sign in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM Sign (white guano) in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
5	No longer monitored as rock movement in the area has resulted in the chamber of the burrow no longer being able to be viewed.			
5.1	Yes	No	Adult incubating egg	<ul style="list-style-type: none"> New location detected (white guano) during Aug 2023 OBM Adult incubating egg in Sept 2023 OBM.
6	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
7	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
8	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
9	No longer monitored as removed during rock removal for piles 1-4 in April 2022			
10	Yes	Yes	Two chicks present	<ul style="list-style-type: none"> Dog indication location in April 2021 Dog indication location in June 2021 and two birds confirmed present with no eggs. Bird on egg in July 2021 OBM Bird with young chick (egg tooth) in Sept 2021 OBM 1x chick alone in Oct 2021 OBM Adult with large chick in Nov 2021 OBM Green guano and down feathers in Dec 2021 OBM Moulting sign (bird) in Jan 2022 OBM Feb 2022 OBM - Lots of adult feathers at entrance and inside burrow. Empty but dried green guano inside burrow and white guano at entrance. Adult bird in burrow during April 2022 OBM No sign in May 2022 OBM Two birds present in June 2022 OBM Sign (green guano) inside burrow in July 2022 OBM Sign (green guano and nest material) inside burrow in Aug 2022 OBM Adult present and assumed incubating egg in Sept 2022 OBM Two chicks present in Oct 2022 OBM Two chicks present in Nov 2022 OBM Green guano and down feathers inside burrow in Dec 2022 OBM. Two chicks likely fledged. Moulting sign (bird) in Jan 2023 OBM Sign (green guano and old moult feathers) in Feb 2023 OBM No sign in March 2023 OBM Sign (green guano) in April 2023 OBM Sign (green guano) in May 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in June 2023 OBM Sign (green guano) in July 2023 OBM Adult incubating two eggs in Aug 2023 OBM Adult incubating egg in Sept 2023 OBM
11	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location April 2021. No sign in July 2021 OBM No sign in Sept 2021 OBM No sign (cobwebs) in Oct 2021 OBM No sign Nov 2021 OBM No sign in Dec 2021 OBM No sign (cobwebs) in Jan 2022 OBM Single feather in cobwebs in Feb 2022 OBM No sign during March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM Guano (white) present in Nov 2022 OBM Guano (white) present in Dec 2022 OBM No sign in Jan 2023 OBM Sign (moult feathers) in Feb OBM No sign in March 2023 OBM No sign in April 2023 OBM Sign (white guano) in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
12	No	Yes	No sign	<ul style="list-style-type: none"> Potential location in February 2021 survey (guano) Weak dog indication location June 2021 No sign in July 2021 OBM No sign in Sept 2021 OBM No sign (cobwebs) in Oct 2021 OBM No in sign Nov 2021 OBM No sign in Dec 2021 OBM No sign (cobwebs) in Jan 2022 OBM No sign in Feb 2022 OBM No sign during March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM Sign (white guano) in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
13	Yes	Yes	One chick in burrow	<ul style="list-style-type: none"> Bird on egg in July 2021 OBM Sept 2021 OBM found lots of fresh green guano pooled in sections. Burrow very shallow and able to see chamber, but no bird or egg sighted. Possible that bird has moved back further into breakwater since July 2021 survey. Adult with egg in Oct 2021 OBM Mesoptile down feathers observed at burrow entrance but unable to site any birds In Nov 2021 OBM. Old green guano and no fresh signs. Guano (white and green) in Dec 2021 OBM Moulting sign (bird) in Jan 2022 OBM Feb 2022 – Lots of sign, but likely from moulting bird in previous month Fresh guano with old moult feathers identified in March OBM session for location 14, but should have been assigned to location 13. Adult bird in burrow during April 2022 OBM Sign (fresh green guano) during May 2022 OBM Bird present in June 2022 OBM Sign (fresh green guano) inside burrow in July 2022 OBM Adult with egg in Aug 2022 OBM Adult present and assumed incubating egg in Sept 2022 OBM One chick present in Oct 2022 OBM Lots of guano but no bird present during Nov 2022 OBM. Chick possibly fledged. Sign (green guano) in Dec 2022 OBM Moulting sign (bird) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM Two birds in burrow in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) and strong smell of bird in July 2023 OBM Adult incubating at least one egg in Aug 2023 OBM One chick in burrow in Sept 2023 OBM
14	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location June 2021 but can't see chamber as deep under footpath No sign in July 2021 OBM No sign in Sept 2021 OBM No sign in Oct 2021 OBM No sign in Nov 2021 OBM No sign in Dec 2021 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • No sign in Jan 2022 OBM • Guano (white) in Feb 2022 OBM • Fresh guano with old moult feathers identified in March OBM session for location 14, but should have been assigned to location 13. Thus March 2022 results for this location should have been identified as no sign. • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM • No sign in Sept 2023 OBM
15	No	Yes	No sign	<ul style="list-style-type: none"> • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • Single feather in cobwebs in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • Sign (white guano) in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM • No sign in Sept 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
16	No	Yes	No sign	<ul style="list-style-type: none"> • No sign in July 2021 OBM • No sign in Sept 2021 OBM • Sign (guano) in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • Scattered feathers & dried green guano in Feb 2022 OBM • No sign in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM • No sign in Sept 2023 OBM
17	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021, but no obvious chamber • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • Sign (white guano) in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • No sign in March 2022 OBM • Sign (white guano) in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • No (fresh) sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • Sign (moult feathers) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (white guano) in July 2023 OBM • Sign (white guano) in Aug 2023 OBM • No sign in Sept 2023 OBM
18	Yes	Yes	Sign (guano)	<ul style="list-style-type: none"> • Dog indication location in April 2021 • Dog indication location in June 2021 • Guano present in July 2021 OBM • Sign (white guano some slight green tinge) in Sept 2021 OBM • Sign (white guano) in Oct 2021 OBM • Sign (old green guano) in Nov 2021 OBM • Guano (white and green) & down feathers in Dec 2021 OBM • Guano (white and green) in Jan 2022 OBM • Feb 2022 OBM - Large amounts of white guano and some green guano. Strong smell. Likely moulting bird in burrow. • March 2022 OBM – old moult feathers and old white guano • Sign (old white guano & moult feathers) in April 2022 OBM session • Sign (fresh green guano) in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (green guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Nov 2022 OBM - Lots of white and green guano inside and out of burrow. Very strong smell. Burrow considered to be active. • Lots of white guano around rocks in Dec 2022 OBM. Chicks likely fledged due to lack of smell and no green guano • Sign (green guano) in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • No sign in April 2023 OBM • Sign (white guano) in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (green guano) in Aug 2023 OBM • Sign (guano) in Sept 2023 OBM
19	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Dog indication location June 2021, but no obvious chamber (likely deep passage away under boardwalk) • No sign in July 2021 OBM • No sign Sept 2021 OBM • No sign in Oct 2021 OBM • Sign (white guano) in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • No sign in March 2022 OBM • Old moult feathers in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
20	No	Yes	Sign (guano)	<ul style="list-style-type: none"> Green guano present in July 2021 OBM. Deep passageway all the way underneath boardwalk. No sign in Sept 2021 OBM Sign (white guano) in Oct 2021 OBM Sign (white guano) in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (white guano) in Jan 2022 OBM Sign (white guano) in Feb 2022 OBM No sign in March 2022 OBM Single feather and old white guano in April 2022 OBM Sign (dried green and white guano) in May 2022 OBM Sign (fresh green guano) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Nov 2022 OBM - Lots of white and green guano inside and out of burrow. Very strong smell. Burrow considered to be active. Sign (intense smell, flies and fresh white guano) in Dec 2022 OBM. Burrow considered to be active. Sign (white guano) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM Sign (green guano) in Aug 2023 OBM No sign in Sept 2023 OBM
21	Yes	Yes	Sign (guano)	<ul style="list-style-type: none"> Dog indication location April 2021. Deep tunnel all the way back to boardwalk Guano present in July 2021 OBM No sign Sept 2021 OBM Sign (white guano) in Oct 2021 OBM Sign (white guano) in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (white guano) in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • No sign in March 2022 OBM • No sign during April 2022 OBM • No sign (faint bird smell) during May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Nov 2022 OBM - Lots of white guano and strong bird smell. Burrow considered to be active. • Sign (intense smell, flies and fresh white guano) in Dec 2022 OBM. Burrow considered to be active. • Sign (white guano) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (white guano) in Aug 2023 OBM • Sign (guano) in Sept 2023 OBM
22	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Dog indication location April 2021. Deep tunnel all the way back to boardwalk • No sign in July 2021 OBM • No sign in Sept 2021 OBM • No sign in Oct 2021 OBM • Sign (white guano) in Nov 2021 OBM • Sign (green guano) in Dec 2021 OBM • Sign (white guano and some feathers) in Jan 2022 OBM • Sign (white guano and single feather) in Feb 2022 OBM • Sign (old moult feathers and old white guano) in March 2022 OBM • Sign (white guano on nearby rocks) in April 2022 OBM • Sign (white guano) in May 2022 OBM • No sign in June 2022 OBM • Sign (white guano) in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Nov 2022 OBM - Lots of white guano and strong bird smell. Burrow considered to be active. • Sign (white guano) in Dec 2022 OBM, but not considered active. • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • Sign (moult feathers) in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM • No sign in Sept 2023 OBM
23	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Guano (not fresh) present in July 2021 OBM • Guano (white) and cobwebs in Sept 2021 OBM • Guano (white and some green) in Oct 2021 OBM • Sign (white guano) in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Moulting sign (feathers & green guano) in Jan 2022 OBM • Feb 2022 OBM - Lots of feathers and strong smell. White guano. Likely a moulting bird. • No sign in March 2022 OBM • Signs (old feathers, dried green guano and strong smell) indicate the presence of a bird in April 2022 OBM but unable to sight. • Sign (fresh green guano) in May 2022 OBM • Bird present in June 2022 OBM • Sign (green and white guano) in July 2022 OBM • Bird in burrow in Aug 2022 OBM. Assumed incubating egg based on its position. • Adult present and assumed incubating egg in Sept 2022 OBM • No birds sighted, but based on the amount of guano present it is assumed that the burrow is still active, likely with chick(s) in Oct 2022 OBM. • Nov 2022 OBM - Lots of fresh green and white guano and strong bird smell. Burrow considered to be active. • Sign (fresh green guano and some down chick feathers) in Dec 2022 OBM. Assumed burrow still active. • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • Sign (green and white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM • Sign (guano) in Sept 2023 OBM
24	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021. Potential passageway under boardwalk • Guano present in July 2021 OBM • Guano (green) present in Sept 2021 OBM • No sign in Oct 2021 OBM • No sign in Nov 2021 OBM • Guano (white & green) and down feathers in Dec 2021 OBM • Sign (white guano) in Jan 2022 OBM • Sign (white guano) in Feb 2022 OBM • Sign (fresh white guano) in March 2022 OBM • No sign in April 2022 OBM • No sign in May 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in June 2022 OBM Fresh seagrass inside burrow in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM Sign (white guano) in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
25	Yes	Yes	Sign (guano)	<ul style="list-style-type: none"> Dog indication location April 2021 Old feathers and guano found in July 2021 OBM No sign in Sept 2021 OBM No OBM in Oct 2021 due to public interference No sign in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM No sign in Jan 2022 OBM Sign (white guano and chick feather) in Feb 2022 OBM No sign in March 2022 Sign (white guano) in April 2022 OBM No sign in May 2022 OBM Sign (white guano and faint bird smell) in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No sign in Nov 2022 OBM Sign (adult moult feathers) in Dec 2022 OBM. Consider this an active burrow. No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
26	Yes	No	Bird in burrow – assumed active	<ul style="list-style-type: none"> Dog indication location April 2021, possible deep chamber. Guano present in July 2021 OBM No sign in Sept 2021 OBM Sign (guano) Oct 2021 OBM No sign (cobwebs) in Nov 2021 OBM Sign (green guano) in Dec 2021 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Jan 2022 OBM Feb 2022 OBM - Lots of adult moult feathers. Appears to go further back under footpath. Very smelly March 2022 – old moult feathers and old white guano Sign (lots of feather and strong smell) indicate presence of a bird in April 2022 OBM but unable to sight. No sign in May 2022 OBM Sign (white guano & faint bird smell) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Adult present and assumed incubating egg in Sept 2022 OBM No birds sighted but adult bird heard vocalising. Based on the amount of guano present it is assumed that the burrow is still active, likely with chick(s) in Oct 2022 OBM. Nov 2022 OBM - Lots of guano, strong bird smell and down feathers observed. Burrow considered to be active. Sign (adult moult feathers) in Dec 2022 OBM. Consider this an active burrow. Sign (white guano) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM Sign (white guano) in April 2023 OBM Sign (white guano) in May 2023 OBM Sign (white guano and strong smell of bird) in June 2023 OBM Two birds present, possibly on an egg. Based on behaviour of birds, this burrow is considered to be potentially active in July 2023 OBM Adult present and appeared to incubating egg so consider this to be an active burrow in Aug 2023 OBM Bird (possibly chick) in Sept 2023 OBM; asumed burrow active
27	No	Yes	Sign (guano)	<ul style="list-style-type: none"> No sign in July 2021 OBM Guano (white) in Sept 2021 OBM Sign (guano) Oct 2021 OBM No sign in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM Sign (old white guano) in Jan 2022 OBM Feb 2022 OBM - Smelly up by footpath. Small amount of old white guano. No sign in March 2022 OBM Sign (old white guano) in April 2022 OBM Sign (dried green guano) in May 2022 OBM No sign in June 2022 OBM Small sign (white guano) in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (green & white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • Sign (white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM • Sign (guano) in Sept 2023 OBM
28	No	Yes	No sign	<ul style="list-style-type: none"> • Guano present in July 2021 OBM, likely deep chamber under boardwalk • Guano (white) in Sept 2021 OBM • No OBM in Oct 2021 due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • Sign (old white guano) in Jan 2022 OBM • Sign (old white guano) in Feb 2022 OBM • No sign in March 2022 OBM • Sign (white guano) during April 2022 OBM • No sign in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM • Sign (guano) in Sept 2023 OBM
29	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021 • Guano present in July 2021 OBM • No sign (cobwebs) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • Sign (guano) Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • No sign in Jan 2022 OBM • Feb 2022 OBM - Several adult feathers stuck in cobwebs • No sign in March 2022 OBM • Sign (feathers in burrow) in April 2022 OBM • Sign (dried green guano) in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • Sign (fresh moult feathers) in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • No sign in Aug 2023 OBM • Sign (guano) in Sept 2023 OBM
30	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • Dog indication location April 2021, no obvious chamber • No sign in July 2021 OBM • Guano (white) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • Sign (guano) Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Sign (old white guano) in Jan 2022 OBM • Old feather stuck in cobweb in Feb 2022 OBM • No sign in March 2022 OBM • Sign (white guano & single feather) in April 2022 OBM • Sign (fresh white guano) in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • Sign (white guano) in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • Sign (white guano) in March 2023 OBM • Sign (white guano) in April 2023 OBM • Sign (white guano) in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM • Sign (guano) in Sept 2023 OBM
31	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021 • Guano present in July 2021 OBM • Guano (white) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign (cobwebs) in Nov 2021 OBM • White guano & down feathers at entrance in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign in Feb 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM Sign (white guano) in July 2022 OBM Sign (white guano) in Aug 2022 OBM No sign in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM No sign in Dec 2022 OBM Sign (moulting bird) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM Sign (white guano) in July 2023 OBM No sign in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
32	No	Yes	No sign	<ul style="list-style-type: none"> Guano present in July 2021 OBM, very deep and likely under boardwalk Old feathers in Sept 2021 OBM No Oct 2021 OBM due to public interference Sign (guano) Nov 2021 OBM Sign (guano) in Dec 2021 OBM No sign in Jan 2022 OBM Two chick down feathers in Feb 2022 OBM No sign in March 2022 OBM Sign (single feather stuck & old white guano) in April 2022 OBM No sign in May 2022 OBM Sign (white guano) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM No sign in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM Sign (white guano) in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
33	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location April 2021, deep passageway and no observable chamber Guano present in July 2021 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Guano (white) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign in Feb 2022 OBM • No sign in March 2022 OBM • Sign (two feathers very old up the top near the footpath) in April 2022 OBM • No sign in May 2022 OBM • Sign (white guano) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • No (fresh) sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • Sign (small number of feathers) in March 2023 OBM • Sign (white guano) in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM • No sign in Sept 2023 OBM
34	No	Yes	No sign	<ul style="list-style-type: none"> • Dog indication location April 2021, deep passageway under boardwalk • No sign in July 2021 OBM • No Sign in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • No sign in Dec 2021 OBM • No sign in Jan 2022 OBM • No sign (cobwebs) in Feb 2022 OBM • No sign in March 2022 OBM • Sign (very strong smell) in April 2022 OBM • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • Sign (moult feathers) in Jan 2023 OBM • No sign (apart from single moult feather) in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in June 2023 OBM No sign in July 2023 OBM Sign (guano) in Aug 2023 OBM No sign in Sept 2023 OBM
35	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location April 2021, deep passage with no observable chamber No sign in July 2021 OBM No Sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM No sign in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM Sign (white guano) in May 2022 OBM No sign in June 2022 OBM Sign (fresh green guano) in July 2022 OBM No sign in Aug 2022 OBM Sign (green guano) in Sept 2022 OBM No sign in Oct 2022 OBM No (fresh) sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
36	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location April 2021, deep passage with no observable chamber No sign in July 2021 OBM No Sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM No sign in Dec 2021 OBM No sign in Jan 2022 OBM Sign (white guano and feathers) in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM No sign in Nov 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white and green guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • No sign in Aug 2023 OBM • No sign in Sept 2023 OBM
37	No	Yes	Sign (guano)	<ul style="list-style-type: none"> • No sign in July 2021 OBM, deep passage with no observable chamber • No Sign in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Sign (white guano) in Jan 2022 OBM • Sign (white guano and feathers) in Feb 2022 OBM • No sign in March 2022 OBM • Sign (white guano, feathers, strong smell & bird vocalised) in April 2022 OBM • Sign (fresh white guano and faint bird smell) in May 2022 OBM • Sign (white guano) and two birds vocalising in June 2022 OBM • Sign (white guano) in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (old green guano) in Dec 2022 OBM • Sign (moult feathers) in Jan 2023 OBM • Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. • Sign (white guano and a few moult feathers) in March 2023 OBM • Sign (white guano) in April 2023 OBM • Sign (white guano) in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • Sign (guano) in Aug 2023 OBM • No sign in Sept 2023 OBM
38	No	Yes	No sign	<ul style="list-style-type: none"> • Guano present in July 2021 OBM, deep passage near boardwalk with no observable chamber • Guano (white) in Sept 2021 OBM • No Oct 2021 OBM due to public interference • No sign in Nov 2021 OBM • Sign (white guano) in Dec 2021 OBM • Sign (white guano) in Jan 2022 OBM • Sign (white guano and feathers) in Feb 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in March 2022 OBM Single feather on rocks leading up to footpath to the right 5m away, but no signs in burrow in April 2022 OBM Sign (fresh white guano) in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM Sign (white guano) in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
39	Yes	Yes	No sign	<ul style="list-style-type: none"> Guano present in July 2021 OBM No sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM Sign (white guano) in Dec 2021 OBM No sign in Jan 2022 OBM Sign (white guano) in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
40	No	Yes	No sign	<ul style="list-style-type: none"> No sign in July 2021 OBM No Sign in Sept 2021 OBM No Oct 2021 OBM due to public interference No sign in Nov 2021 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Dec 2021 OBM No sign in Jan 2022 OBM No sign in Feb 2022 OBM No sign in March 2022 OBM No sign in April 2022 OBM No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
41	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New location found in March 2022 OBM. Lots of moult feathers at entrance to burrow that goes deep under footpath. Sign (white guano, old moult feathers & fresh down feathers) in April 2022 OBM No sign in May 2022 OBM Sign (green guano) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM Sign (moult feathers) in Jan 2023 OBM No fresh sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
42	No	Yes	No sign	<ul style="list-style-type: none"> Dog indication location during SAM³ session on 2 April 2022⁴

³ Site Area Monitoring (SAM), as outlined in Section 6.2.2 of the certified Kennedy Point Marina kororā construction and monitoring plan **Error! Bookmark not defined.**

⁴ As outlined in the Boffa Miskell memorandum titled 'Kororā site area monitoring (SAM) results – 2 April 2022', dated 5 April 2022.

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> • Dried green guano on rocks above high tide mark, 2 m below entrance in April 2022 OBM • No sign in May 2022 OBM • Sign (green guano) in June 2022 OBM • No sign in July 2022 OBM • No sign in Aug 2022 OBM • No sign in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • Sign (guano) in Aug 2023 OBM • Sign (guano) in Sept 2023 OBM
43	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected during April 2022 OBM session; sign included white guano, down feathers & strong smell • No sign in May 2022 OBM • No sign in June 2022 OBM • No sign in July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • Sign (white guano) in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM • No sign in Sept 2023
44	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected during April 2022 OBM session; sign included white guano, down feathers & strong smell • Sign (white guano) during May 2022 OBM • Sign (white guano) during June 2022 OBM • Sign (white guano) during July 2022 OBM • Sign (white guano) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • Sign (green guano) in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in March 2023 OBM Sign (white guano) in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
45	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected during SAM session on 26 April 2022; green guano observed on rock. No sign in May 2022 OBM No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM Sign (guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
46	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (dried green & white guano) in May 2022 OBM Sign (green and white guano) in June 2022 OBM No sign in July 2022 OBM Sign (white guano) in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM Sign (white guano) in Oct 2022 OBM Sign (white guano) in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM Sign (moult feathers & guano) in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM Sign (white guano) in April 2023 OBM Sign (white guano) in May 2023 OBM Sign (white guano) in June 2023 OBM No sign in July 2023 OBM Sign (guano) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
47	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected (white guano & bird vocalising) during SAM session on 11 May 2022. Sign (green guano) in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM Sign (guano) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
48	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (white guano) in June 2022 OBM. No sign in July 2022 OBM No sign in Aug 2022 OBM Sign (white guano) in Sept 2022 OBM No sign in Oct 2022 OBM No (fresh) sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
49	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected (white guano) in July 2022 OBM. Sign (white guano) in Aug 2022 OBM Sign (green and white guano) in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM Sign (white guano) in Dec 2022 OBM No sign in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM Sign (white guano) in April 2023 No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
50	No longer monitored as rock movement in the area has resulted in the chamber of the burrow no longer being able to be viewed.			
50.1	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (white guano) in Aug 2023 OBM No sign in Sept 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
51	No longer monitored as rock movement in the area has resulted in the chamber of the burrow no longer being able to be viewed.			
52	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected (adult bird) in Aug 2022 OBM • Sign (white guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • Sign (white guano) in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • Sign (white guano) in June 2023 OBM • Sign (white guano) in July 2023 OBM • No sign in Aug 2023 OBM • No sign in Sept 2023 OBM
53	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected (two adult birds) in Sept 2022 OBM • Two adults in burrow assumed incubating nest contents in Sept 2022 OBM • Sign (white guano) in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM • No sign in Sept 2023 OBM
54	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected (green guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • Sign (white guano) in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM • No sign in March 2023 OBM • No sign in April 2023 OBM • No sign in May 2023 OBM • No sign in June 2023 OBM • No sign in July 2023 OBM • No sign in Aug 2023 OBM • No sign in Sept 2023 OBM
55	No	Yes	No sign	<ul style="list-style-type: none"> • New burrow detected (white guano) in Sept 2022 OBM • No sign in Oct 2022 OBM • No sign in Nov 2022 OBM • No sign in Dec 2022 OBM • No sign in Jan 2023 OBM • No sign in Feb 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM No sign in Sept 2023 OBM
56	Yes	No	No sign	<ul style="list-style-type: none"> New burrow detected (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
57	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM Sign (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
58	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM Sign (guano) in Aug 2023 OBM No sign in Sept 2023 OBM
59	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (moult feathers) in Jan 2023 OBM Sign (fresh moult feathers) in Feb 2023 OBM; burrow considered to be active. No sign in March 2023 OBM Sign (white guano) in April 2023 OBM Sign (white guano) in May 2023 OBM Sign (white guano) in June 2023 OBM One bird present in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
60	Yes	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (white guano) in June 2023 OBM One bird present in July 2023 OBM Sign (guano) in Aug 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in Sept 2023 OBM
61	No	Yes	Guano (sign)	<ul style="list-style-type: none"> New burrow detected (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
62	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (white guano) in June 2023 OBM No sign in July 2023 OBM Sign (guano) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
63	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (white guano) in June 2023 OBM Sign (white guano) in July 2023 OBM Sign (guano) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
64	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (white guano) in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
65	No	Yes	Sign (guano)	<ul style="list-style-type: none"> New burrow detected (white guano and smell of bird) in Aug 2023 OBM Sign (guano) in Sept 2023 OBM
66	No	Yes	No sign	<ul style="list-style-type: none"> New burrow detected (white guano) in Sept 2023 OBM
67	Yes	No	Sign (guano and blowfly)	<ul style="list-style-type: none"> New burrow detected (white guano) in Sept 2023 OBM
N1	No	Yes	No sign	<ul style="list-style-type: none"> Nest box installed in May 2022 No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign (cobwebs) in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
N2	No	Yes	No sign	<ul style="list-style-type: none"> Nest box installed in May 2022 No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign (cobwebs) in March 2023 OBM

Monitoring Site #	Burrowscope (Yes/No)	Phone / Video (Yes/No)	October 2023 OBM Observations	Previous Notes
				<ul style="list-style-type: none"> No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
N3	No	Yes	No sign	<ul style="list-style-type: none"> Nest box installed in May 2022 No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM No sign in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign (cobwebs) in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM
N4	No	Yes	No sign	<ul style="list-style-type: none"> Nest box installed in May 2022 No sign in June 2022 OBM No sign in July 2022 OBM No sign in Aug 2022 OBM No sign in Sept 2022 OBM No sign in Oct 2022 OBM No sign in Nov 2022 OBM Sign (white guano) down from entrance of box in Dec 2022 OBM No sign in Jan 2023 OBM No sign in Feb 2023 OBM No sign (cobwebs) in March 2023 OBM No sign in April 2023 OBM No sign in May 2023 OBM No sign in June 2023 OBM No sign in July 2023 OBM No sign in Aug 2023 OBM No sign in Sept 2023 OBM