Agenda

Lord Howe Island Board

Meeting	Board Meeting September 2023
Location	Lord Howe Island Community Hall
Date/Time	Tuesday 12th September 2.30pm – Closed Session, followed by dinner at Driftwood Wednesday 13th September 9:00am to 10:30am – Closed Session Wednesday 13th September 10:30am to 11:00am – Morning Tea with Community Wednesday 13th September 11:00am to 1:00pm - Open Session
Chairperson	**Atticus Fleming AM**, A/Coordinator General, DPE
Board Members	**Bruce Baird AM**, Appointed Member (Tourism) **Chris Bath**, Appointed Member (Conservation) **Gary Crombie**, Elected Member **James Lonergan**, Elected Member **Matthew Retmock**, Elected Member **Therese Turner**, Elected Member (Deputy Chair)
Attendees	**Suzie Christensen**, Chief Executive Officer **Paula Pollock**, Senior Manager, Environment and Community Services **Michael Chalmers**, Senior Manager, Business and Corporate Services **Bradley Josephs**, Acting Senior Manager, Infrastructure and Engineering Services
Invitees	**Kiersten Fishburn,** Secretary, NSW Department of Planning and Environment
Minutes	**Chelsea Holden**, Executive Assistant

Tuesday 12th September	Agenda Items – Closed Session		
2:30pm	**In-Camera Session**		Board members only
3:30pm	**1. CONFLICT OF INTEREST DECLARATIONS**		Presenter: A Fleming
	2. WH&S AND RISK MANAGEMENT **2.1.** WH&S and Risk Management Update **Attachment A:** CAMMS Incident Summary Report – 26/04/2023 to 15 August 2023	Note	Preparer: J Spivey Presenter: S Christensen
	3. OPERATIONS AND SERVICES **3.1.** Marine Freight and Waste Management Facility (Verbal) **3.2.** Airline Services **Attachment A:** Report - Presentation - threeconsulting - Lord Howe Island Air Service Route Licensing Process **Attachment B:** Report - LHIB 2017-25 - AECOM - Runway Feasibility Study - Summary Report **Attachment C:** Report - Three Consulting - Lord Howe Island Air Services - Strategic Review and Options - Confidential	Note Decide	Presenter: A Fleming Preparer: D Matassoni Presenter: S Christensen

Meeting	Board Meeting September 2023		
	Attachment D: Report - Three Consulting - Lord Howe Island Passenger Air Service Advice and Advocacy Report **Attachment E:** ATR Presentation - Alternate Aircraft for Lord Howe Island - Hugo Lenclen - Jan 2023		
	3.3. IT Discovery and Transition Report **Attachment A:** Audit Office NSW - Final Management Letter - FY 2022 **Attachment B:** Executive Summary - IT Discovery and Transition Assessment	Note	Preparer: S Christensen Presenter: S Christensen
	3.4. MOU with Environment and Heritage Group **Attachment A:** Memorandum of Understanding Environment and Heritage Group	Decide	Preparer: S Christensen Presenter: S Christensen
	4. LEASING AND LAND ADMINISTRATION		
	4.1. Application to suspend condition of residence - Stokes Kerry and Simpson Christine over part PL1954.12 **Attachment A:** Form 1 – Application to suspend condition of residency and support documents – PL1954.12 – Stokes Kerry and Simpson Christine **Attachment B:** Additional Support Document **Attachment C:** Policy – Suspension of Condition of Residency on Perpetual Leases	Decide	Preparer: P Pollock Presenter: P Pollock
	4.2. Creation of a Special Lease - Cat B Restitution – Portion 55 – Thompsons **Attachment A:** Special Lease Conditions – Thompson Brothers	Decide	Preparer: L Shick Presenter: P Pollock
	4.3. Amendment of a Special Lease - Cat B Restitution – SL2021.01 – Turner / Payten	Decide	Preparer: P Pollock Presenter: P Pollock
	4.4. Amendment to creation of Special Lease - Fitzgerald Mavis	Decide	Preparer: P Pollock Presenter: P Pollock
6:30pm	**Dinner**		

Agenda

Lord Howe Island Board

Meeting	Board Meeting September 2023

Wednesday 13th September Agenda Items – Closed Session

9:00am	**5. FINANCE AND BUSINESS MANAGEMENT**		
	5.1. Budget FY2024 Including: • Revised Budget MOU (EER) • Revised Budget NPP **Attachment A** - Attachment A - Revised FY23 Budget MOU (EER) and NPP - September 2023	Decide	Preparer: M Chalmers Presenter: M Chalmers & S Christensen
	5.2. Draft End of Financial Year summary Attachment A: High Level Financial Statements	Note	Preparer: M Chalmers Presenter: M Chalmers
	5.3. Update to Financial Delegations **Attachment A** - Draft Lord Howe Island Board Instrument of Delegation (Lord Howe Island Account) 2023 **Attachment B** - Approval of the Minister for the draft Lord Howe Island Board Instrument of Delegation (Lord Howe Island Account) 2023	Decide	Preparer: J Spivey Presenter: M Chalmers
10:30am	**MORNING TEA**		

Agenda

Lord Howe Island Board

Meeting	Board Meeting September 2023		
	Wednesday 13th September Agenda Items – Open Session		
11:00am	**6. MINUTES OF PREVIOUS MEETING – NOTICE OF ADOPTION** **Attachment A:** Board Meeting Minutes May 2023 – CLOSED	Decide	Preparer: C Holden Presenter: S Christensen
	7. OUT OF SESSION MATTERS STATUS REPORT **Attachment A:** Out of Session Result Summary Sheet – Open **Attachment B:** Out of Session Result Summary Sheet - **CLOSED**	Note	Preparer: C Holden Presenter: S Christensen
	8. ACTIONS FROM PREVIOUS MEETING STATUS REPORT **Attachment A:** Action Sheet from Previous Board Meetings - **CLOSED**	Note	Preparer: C Holden Presenter: S Christensen
	9. CHIEF EXECUTIVE OFFICER'S REPORT **Attachment A:** Infrastructure & Engineering Services **Attachment B:** Environment & Community Services **Attachment C:** Biosecurity Compliance **Attachment D:** Projects **Attachment E:** Currawong Hallux Entrapment Update	Note	Preparer: S Christensen Presenter: S Christensen
	10. FINANCE AND BUSINESS MANAGEMENT **10.1.** Financial Status Update – Verbal	Note	Presenter: M Chalmers
	11. POLICY AND STRATEGY **11.1.** Dwelling Allocation Process	Note	Preparer: P Pollock Presenter: P Pollock
	11.2. Checkpoint 2023 **Attachment A** - Report - Rodent Eradication Checkpoint 2023 - Harper Grant **Attachment B** - Report - Bode 2023 - Surveillance Network (V2) - 27 June 2023	Note	Preparer: P Pollock Presenter: P Pollock
	11.3. Changes to Biosecurity Surveillance and Monitoring Schedule **Attachment A** - Report - Bode 2023 - Surveillance Network (V2) - 27 June 2023	Decide	Preparer: P Pollock Presenter: P Pollock
	11.4. Engagement Strategy **Attachment A** - Strategy - Stakeholder Engagement - Lord Howe Island Board - DRAFT	Decide	Preparer: D Matassoni Presenter: S Christensen

Meeting	Board Meeting September 2023		
	11.5. Communications Network – Options paper consultation	Decide	Preparer: L. Phillips-Page Presenter: D. Matassoni
	11.6. Motor Vehicle Importation or Transfer - Status Report	Note	Preparer: L Shick Presenter: S Christensen
	11.7. Application to import dog – Christensen Suzie – Dog Daisy	Decide	Preparer: M Chalmers Presenter: M Chalmers
	12. DEVELOPMENT APPLICATIONS		
	12.1. Owner Consent Approved Under Delegated Authority Status Report	Note	Preparer: L Shick Presenter: P Pollock
	12.2. Development Applications Approved Under Delegated Authority Status Report	Note	Preparer: L Shick Presenter: P Pollock
	13. LEASING AND LAND ADMINISTRATION		
	13.1. Status of Public Accommodation Licence Transfer Applications **Attachment A:** Report – Quarterly Status of Public Accommodation License Transfer Applications – **CLOSED**	Note	Preparer: L Shick Presenter: P Pollock
	13.2. PL2000.04 - Early termination of Sub-lease - Skeggs Adrian	Decide	Preparer: L Shick Presenter: P Pollock
	13.3. Proposed extension of the term of Special Leases **Attachment A:** Information Sheet - Special Leases on Lord Howe Island	Decide	Preparer: P Pollock Presenter: P Pollock
	14. BUSINESS ARISING FROM PREVIOUS MEETING		
	15. GENERAL BUSINESS AND QUESTIONS ON NOTICE		
	15.1 Proposed quarterly board meeting dates	Decide	Preparer: C Holden Presenter: S Christensen
1:00pm	**CLOSE**		
	NEXT MEETING 10 October 2023 – Audit Report via Teams 5 and 6 December 2023		

LORD HOWE ISLAND BOARD

Declaration of Pecuniary and/or Other Conflicts of Interest

In accordance with the Lord Howe Island Act 1953, Schedule 1A, Part 2 – Members, 8 (1) (a) (b), Board Members are required to disclose, as soon as possible after the relevant facts have come to the Member's knowledge, any pecuniary and/or other conflicts of interest.

This form constitutes disclosure in accordance with Schedule 1A, Part 2 – Members, 8 (1) (a) (b), of the Act. Members should peruse the accompanying meeting papers and, where required, notify the Board by way of this form of any pecuniary and/or other conflicts of interest in relation to an agenda item or items. This form should be returned to the Board a minimum of two (2) working days prior to the date of the relevant Board meeting. Information received on notification forms will be collated into a Schedule of Pecuniary and/or other conflicts of interest, which will be provided to the Board Chairperson prior to the commencement of the meeting. Schedules will be compiled into a Register of Interests, in accordance with the Act.

Board Meeting Date: .....

Board Member Name: .....

Agenda Item in which Member has an Interest

Item No: .....

Item Description:

.....

.....

Description of Interest:

.....

.....

.....

In providing the above information, I am making disclosure to the Board of a pecuniary and/or other conflicts of interest in accordance with the requirements of the **Lord Howe Island Act 1953**, and undertake to provide any further information the Board may require to consider this disclosure. I further understand that, in accordance with the Act, as a result of making this disclosure, I will not, unless otherwise determined by the Minister or the Board: be able to be present during any deliberation of the Board with respect to the matter in which I have disclosed interest; take part in any decision of the Board with respect to the matter.

Board Member Name: .....

Signature: ..... Date: .....

Board Meeting: September 2023	**Agenda Number:** 06.00	**Record Number:** ED23/2998

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Adoption of minutes of previous meeting.

Recommendations

1. **Endorse** the May 2023 Board meeting minutes.

Current position

Process for Distribution of Board Meeting Minutes

The Board updated the adopted process for distributing Board minutes at the March 2022 Board meeting as follows:

- Draft minutes will be produced within five working days of a Board meeting and distributed to Board members on the sixth working day, unless delayed for a valid reason agreed to between the Chief Executive Officer and the Chairperson.
- Board members are to return their endorsement, or otherwise, of minutes in writing no later than 10 working days after date of posting distribution.
- 10 working days after date of posting distribution, the Board will deem the minutes of the meeting to be endorsed, subject to any amendments which were received prior to that date and agreed for inclusion by the Chairperson.

Endorsement of Board Meeting Minutes

Minutes of the May 2023 meeting were distributed to each Board member and were endorsed as per the above process.

A copy of the amended draft minutes is attached.

Attachments

Attachment	Title
A	Board Meeting Minutes – May 2023 – CLOSED

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Chelsea Holden	Executive Assistant

Board Meeting: September 2023	**Agenda Number:** 07.00	**Record Number:** ED23/2996

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Out of Session matters status report.

Recommendations

1. **Note** the information provided in this report.

Current position

Since the last Board Meeting in May 2023, 14 matters were considered out of session.

Attachments

Attachment	Title
A	Out of Session Result Summary – Open Session
B	Out of Session Result Summary – Closed Session

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Chelsea Holden	Executive Assistant

Board Meeting: September 2023 **Agenda Number:** 07.00 **Rec No:** ED23/5955.01 OPEN Attachment: A

OUT OF SESSION RESULT SUMMARY SHEET

OPEN SESSION				
No.	**Date**	**Application**	**Vote**	**Comment**
May 2023				
1	11/05/2023	Commercial Use Vehicle under Exceptional Circumstances for Noah Busteed	Supported option 1 • Gary Crombie • Therese Turner • James Lonergan • Chris Bath	Approved
June 2023				
1	09/06/2023	Approve the amendment to eligibility criteria for dwelling allocations condition d) and i)	Supported • Atticus Fleming • Gary Crombie • Bruce Baird • James Lonergan • Chris Bath • Matthew Retmock	Approved
July 2023				
1	18/07/2023	Application to transfer a private use boat trailer from Brad Palmer to Suzie Christensen	Supported • Therese Turner • Chris Bath • Matthew Retmock • Bruce Baird • James Lonergan	Approved
2	25/07/2023	Approve the amendment to eligibility criteria for dwelling allocations condition e) and h)	Supported • Bruce Baird • Chris Bath • Gary Crombie • Therese Turner • James Lonergan	Approved
August 2023				
1	15/08/2023	Assessment Report OC2023.1.1 DA2023.1.1 Owens Diane	Supported • Therese Turner • Chris Bath • Matthew Retmock • Bruce Baird • James Lonergan	Approved
2	20/08/2023	Motor Vehicle Application - Owens Josh - Exceptional Circumstance	Supported • Atticus Fleming • Therese Turner • Chris Bath • Gary Crombie	Approved

			• Matthew Retmock • Bruce Baird • James Lonergan	
3	20/08/2023	Motor Vehicle Application - Judy Riddle – 1.1 Leanda Lei – Exceptional Circumstance	Supported • Atticus Fleming • Therese Turner • Chris Bath • Gary Crombie • Matthew Retmock • Bruce Baird • James Lonergan •	Approved
4	20/08/2023	Motor Vehicle Application - Giles Karen - Neds Beach Hire – Exceptional Circumstance	Supported • Atticus Fleming • Therese Turner • Chris Bath • Gary Crombie • Matthew Retmock • Bruce Baird • James Lonergan •	Approved
5	20/08/2023	Motor Vehicle Transfer - Boat Trailer - Shick Malcom to Powell Sophie - Exceptional Circumstance	Supported • Atticus Fleming • Therese Turner • Chris Bath • Gary Crombie • Matthew Retmock • Bruce Baird • James Lonergan •	Approved
6	20/08/2023	Assessment Report - Final - OC2023.1.1 and DA2023.1.1 - Owens Diane - 19 July 2023	Withdrawn by Applicant	Withdrawn by Applicant
7	20/08/2023	Application to transfer Special Lease 2011.11 Estate of Shick Raymond to Shick Jack	Supported • Atticus Fleming • Therese Turner • Chris Bath • Gary Crombie • Matthew Retmock • Bruce Baird • James Lonergan	Approved
8	20/08/2023	Application to transfer a one third share of Special Lease SL2011.13 by way of will from the Estate of Barry Malcolm Thompson to Marie Thompson.	Supported • Atticus Fleming • Therese Turner • Chris Bath • Gary Crombie • Matthew Retmock • Bruce Baird	Approved

			• James Lonergan	
9	23/08/2023	Application for consent to transfer part of PL1992.01 by way of sale ~ Open	Supported • Atticus Fleming • Therese Turner • Chris Bath • Gary Crombie • Matthew Retmock • Bruce Baird • James Lonergan	Approved

Board Meeting: September 2023	**Agenda Number:** 08.00	**Record Number:** ED23/5956

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Actions from previous meeting – status report

Recommendations

1. **Note** the information provided in this report.

Current position

As a matter of process and procedure, a list of actions is prepared after each Board meeting to ensure that the Board's resolutions are systematically carried out by staff. Those actions reported as complete are deleted from the Action List at the subsequent Board meeting.

A list of actions from decisions of the May 2023 Board meeting, and previous meetings, is attached for the Board's information.

Attachments

Attachment	Title
A	Action sheet from previous Board meetings – CLOSED

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Chelsea Holden	Executive Assistant

Board Meeting: September 2023	**Agenda Number:** 09.00	**Record Number:** ED23/5957

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Chief Executive Officer's report 01/05/2023 – 30/08/2023

Recommendations

1. **Note** the Chief Executive Officer's report including attachments

Current position

The following briefing provides an overview of highlights, risks and opportunities during the reporting period. It is reported under the six themes of the Board's Strategic Plan and supported by detailed reports from the three business-unit Senior Managers, and the Senior Project Officer.

Effective Leadership and Governance

Steady progress is being made on the Efficiency and Effectiveness review implementation plan as per below:

- *Workforce Planning* - has progressed well due to the support of DPE's People Partner team. The draft plan is nearing completion, with costings underway. Some critical and mandatory training has occurred or is planned, and the workforce plan will assist development of an annual training plan. A People and Change Lead has been appointed to support implementation of the workforce plan and other change initiatives of the EER implementation plan.
- *IT and Systems* - Unfortunately, approval for cyber security project funding was withdrawn from the Digital Restart fund. Subsequently, the Environment and Heritage group has made an additional contribution to the grant for EER implementation to ensure this project commences, and the risks associated with cyber security are mitigated. A meeting with the DIO, PaTH and MoG teams was held to discuss next steps. PaTH project teams have advised that LHIB is including in plans for transition in April or July 2024. Some uncertainty exists in light of announced MoG changes. An interim solution will involve measures to address cyber security and this matter is discussed in detail in closed agenda item 03.03 IT Discovery and Transition Assessment.
- *MOU with EHG* - An MOU has been drafted, formalising in kind support being provided to LHIB. It is presented within the papers for endorsement, see item 03.04 Memorandum of Understanding Environment and Heritage Group

- *Engagement strategy* - A draft is complete based on the IAP2 framework and will be presented to the Board, to be followed by formal consultation. It includes an action plan outlining stakeholder consultation to develop the Community Strategic Plan, environment plans and draft service delivery commitments.
- *Communication plan* - A communication plan has been drafted by the Communications Officer and broader team, and community consultation will occur with the broader Engagement Strategy.
- *Community Strategic Plan (CSP)* – in kind support has been negotiated with the Port McQuarie Council to support the community engagement and drafting for the CSP. This represents a significant cost saving to the Board, along with delivering the overarching framework for operational planning and the LEP.

The Senior Leadership Team is currently operating at full capacity, for the first time in many months. On-going recruitment for temporary positions and the Biosecurity Team Leader continues.

A Request for Tender has been issued to secure an external procurement and project management service. This will establish a project management system consistent with government policies and procedures, improve compliance and consistency, and ensure contractual delivery on approximately $60 million of projects over the next 5 years.

The preparation on the Annual Report including Annual Financial Report is on track to meet required timeframes.

Sound Infrastructure and Services

The contract extension with Birdon has been executed, securing a marine freight service until March 2025, with an option for a further year. Business cases to support new policy proposals for critical infrastructure (long term marine freight service and waste management facility upgrade) have been developed.

Discussions have been held with Transport NSW regarding the Sydney to LHI Regular Public Transport (RPT) route contract beyond 2025 and is presented in detail in closed session agenda item 03.02. The current fiscal environment and resource constraints have been highlighted challenges to running a procurement of future contract

The first stage of the major road upgrade has been completed by a local contractor, and compliance with quality standards confirmed. The remaining roads have been prioritised for completion with the balance of funding available. Project management and procurement by direct tender with the local contractor and materials suppliers will be undertaken by the Department of Public Works. An application for additional funding to complete the full upgrade will be submitted in the next advertised round.

Long overdue maintenance and upgrade works across buildings and other infrastructure assets are being coordinated by a contractor, following a risk-based prioritisation. Works on the jetty will commence in the next period.

Valuations were undertaken for all commercial and residential properties and leases recently, to inform the annual financial report along with lease agreements and renewals.

Outstanding Environment

An intensive check point program was completed in July, with the goal of determining the absence of rodents post the 2019 eradication program and subsequent rodent response in 2021. This follows two years of no live rodents detected on-island and is a significant milestone for the Rodent Eradication Program.

Along with the ecological benefits being observed and recorded, the checkpoint report will trigger review of the ongoing surveillance program, and the Islands' key threatening processes in relation to threatened species listing.

Responsible Land Management

Consistent with recommendations of the Handley Review and the EER, the Board has determined to release 6 dwelling entitlements to eligible islands by way of a ballot. The process and documentation have been reviewed by OCM, probity advisors. The application period opened on the 1st August for a month, and is now closed. OCM are undertaking eligibility assessments and will provide a report in due course. An update will be provided at the meeting.

Lease transfers, development application assessments and compliance with residency-on-lease and other conditions continue.

Support a Strong and Engaged Community

A project to provide improved access to beach activities for people with a disability or mobility issues is complete, with a new beach wheelchair and roller available for use by the community and visitors.

Planning is underway to upgrade the facilities and technology in the Community Hall and/or other public facilities. Improved video conferencing, internet access, audio and lighting will allow for education, training and events. Funding is also available to explore provision of a library servictraining,other community benefit projects have been delayed, and the risk of non-delivery on contracts is being managed though procurement of an external project management service as described above.

Attachments

Attachment	Title
A	IES report
B	ECS report
C	Biosecurity Compliance
D	Projects

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Suzie Christensen	Chief Executive Officer

Board Meeting: September 2023 **Agenda Number**: 09.00 **Rec No:** ED23/5957.01 OPEN Attachment: A

CEO BOARD REPORT

INFRASTRUCTURE AND ENGINEERING SERVICES

OPEN SESSION

Item

Core Service Streams

1. Aerodrome Operations
2. WMF Operations
3. Electricity Generation and Distribution Operations
4. IES public operations and assets

Major Projects, Major Maintenance Items and Procurements

5. Jetty Maintenance
6. Roads Project
7. Seabee Wall

Summary of Activities and Issues

1. Aerodrome Operations

Maintenance and operations of assets has continued over the period with no major interruptions encountered due to proactive maintenance at the site. Commercial operators have continued to utilise the airstrip without experiencing interruptions from airstrip availability.

The Aerodrome has continued to support a number RAAF training exercise over the reporting period. RAAF have improved communications with the Lord Howe Island Board and now inform ETA times to schedule biosecurity checks. The RNZAF will also be conducting technical operations during August.

The Annual Technical Inspection (ATI) was completed an identified several compliance issues to be rectified this year. The majority of these are small maintenance requests and management of documents with one exception. The ATI identified several points of Blinky's Dune that require lowering. A new Development Application (DA) will be prepared and submitted. Works will be permissible with consent in the environmental protection zone as either erosion control works or public utility works.

2. WMF Operations

Prior logistical problems have now been rectified with Port Macquarie Council, Birdon and JR Richards. All parties are currently developing a joint Standard Operating Procedure (SOP) that has been requested by the EPA. This has not only ensured that all waste is able to leave the island but has significantly reduced the time that waste is stored at Birdon docks to reduce biosecurity risks to LHI.

The SOP also has included the transport of problematic waste such as chemicals, batteries, and glass. Theses items are known to cause problems on the mainland due to EPA/tracking requirements.

EPA has also requested that the LHIB develop a SOP for the transportation of of waste/fuel and other high-risk items around the island. This is currently in development and is due to be completed by end of August.

3. Electricity Generation and Distribution Operations

The total energy demand for this reporting period was 671100kWH with diesel generation totalling 197700kWH and solar generation totalling 456100kWH (approx. 70% solar). Fuel consumption for the reporting period was 68700 litres which is a difference of 22050 litres for the same reporting period last year. Fuel energy efficiency for the reporting period was 9.76 kWh/L.

Unfortunately, savings cannot yet be passed on to customers due to the ongoing minimum fuel freight costs contractually enforced by Birdon.

There are currently 297 customers connected to the electrical supply system.

There were 4 unplanned customer supply interruptions to the distribution system during the period. 3 were due to localised customer overloading and 1 was due to a localised customer fault.

Generating Unit No.3 suffered an alternator failure during the reporting period. The Alternator has been removed and sent to the mainland for repair. Subsequently the Power Station is running at a reduced capacity until the Alternator has been repaired and returned to the Island.

Powerhouse staff are pleased to report that up to the current reporting period there has been no Island wide loss of supply due to generation plant failure on either the hybrid solar system or diesel generator system for a total of 28 months.\

4. IES operations

IES field officers have been maintaining the island's public facilities and addressing issues such as pothole formations. Furthermore, an active approach to public safety has continued and annual safety inspections of these facilities is currently under way. These inspections aim to identify and address potential hazards promptly, with corrective measures scheduled to take place.

Unused LHIB equipment and assets have been identified and will soon be subject to expressions of interest from the community. The goal is to determine if these assets can be repurposed within the community before any decisions are made regarding their removal off the island.

A substantial effort is also in progress to enhance the quality of board-owned properties, encompassing both commercial and residential assets. This initiative seeks to improve the overall value and functionality of these properties, benefiting both the community and the board.

Additionally, a renewal register has been established to systematically track the condition of the board's fleet and plant assets, enabling timely replacements before they reach the end of their useful life. This proactive strategy underscores the commitment to maintaining a high standard of infrastructure and services.

5. Jetty Maintenance

Public Works has been engaged to assist with the tendering process for a contractor to conduct maintenance on the jetty, and the project is in the final stages of procurement. Scope of works for jetty maintenance includes the replacement of fenders, rubbing strips, shear chains, replacement kerbs, rewrapping of piles and other associated items.

Precise start date of works is still unknown (due to long lead time in acquiring fenders, revision of scope and finalisation of procurement timeframe) however total works should take around 6 weeks.

6. Roads Project

The next stage of roadworks started Wednesday 9th Augus. on Skyline Drive and Muttonbird Drive. The works involved installation of a permathene barrier on the edges of the road to deter Mutton birds burrowing under sections of the road as burrows in the past have collapsed the road.

Over the next 12 months road works are planned for following roads:

- Anderson Road (Middle Beach – Powerhouse) – The powerhouse is a critical piece of infrastructure and the road leading to it will be reconstructed to ensure that emergency services can reach the facility in a timely manner.

- Anderson Road (Middle Beach to Mutton Bird) – There are several sections to be reconstructed along Anderson Road, areas have developed heavy potholing and patch-works are no longer efficient in dealing with these areas and full construction will occur.
- Skyline Drive / Mutton Bird Drive - These two roads have been identified as a potential public safety risk due to several road collapses that have happened over the years. The underlying strength and structural integrity of these roads are unknown and full reconstruction will be completed.

Public works are also assisting procurement of this project. The project scope will include the removal of large items and waste that are currently stored on island.

In the upcoming months, engage residents and businesses directly impacted by the works will be engaged, with a view to minimising disturbance to operations and movements.

7. Seabee Wall

Royal Haskoning and North Coast Surveys completed a survey on the Seabee wall in early May. The main purpose of this baseline monitoring was to implement an instrument survey to enable any movements in the wall to be captured during future monitoring. It also permitted a round of detailed engineer inspections to review and pick up defects, and in determine if there had been any material changes since the last condition assessment in late 2019.

No significant differences were found, although two zones in the wall that have been assessed to be most degraded, at the far northern end and about 90m back along the wall. Both locations were rated as 5 according to Ports Australia's Wharf Structure Condition Assessment Manual (WSCAM) meaning it is appropriate to "plan for significant repairs". A WSCAM 5 rating cross-references to an expected remaining life for the categorised part of the structure equal to 15-24% of the original design life, or 7.5-12 years. Discussions are currently underway regarding rectification work that could be planned for these areas.

Based on the recent engineer and survey investigations for ongoing monitoring of the seawall, the 2-year minimum monitoring interval recommended can be increased to 3 years.

Attachments

Attachment	Title
Nil	

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Brad Josephs	A/ Manager Infrastructure and Engineering Services

Board Meeting: September 2023 **Agenda Number:** 09.00 **Rec No:** ED23/5957.02 OPEN Attachment: B

CEO BOARD REPORT
ENVIRONMENT AND COMMUNITY SERVICES

OPEN SESSION

Item

This report is a brief summary of ECS activities and issues covering the period May 2023 to August 2023.

Core Service Streams

1. Biodiversity Management
2. Biosecurity
3. Weed Management
4. Threatened Plants
5. Visitor Infrastructure
6. Marine Management / Moorings
7. Environmental Assessment
8. Environmental Health Assessment
9. Land Administration
10. Development Assessment and Land Use Planning
11. Spatial and data

Summary of Activities and Issues

Summary of Activities and Issues

1. Biodiversity Management

Operations

After Action Review - Myrtle rust response

The Fire and Incident Operations Branch of NPWS is leading an After-Action Review (AAR) of behalf of the Lord Howe Island Baord (LHIB) focused on the response to the myrtle rust incursion in February 2023. As the first step in the AAR, a survey was distributed to collect observational data from all partners, participants and the Lord Howe Island community. De-identified observations will be analysed for insights to inform a series of on-line workshops. The results of the AAR will be summarised and provided to the Board in the coming months.

The next steps to close out the response will be:

a) Review of the Response Strategy and Reopening Plan, including the risks and the strategies applied to manage these
b) Evaluate the response; including lessons learned
c) Prepare a final document to be referenced by staff in the event of any future myrtle rust occurrence on the Island

Phytophthora

Phytophthora (Phytophthora cinnamomi) is a root rot fungus that causes dieback in trees and shrubs. It was first discovered on the island in 2003 and has only been known to exist at a single site on a private lease. Regular testing for Phytophthora has been occurring since its discovery, with sampling completed every 1-4 years since 2003. The last round of sampling was completed in 2021. On 1 June 2023, scientists from the Royal Botanic Gardens (RBG) were engaged to complete additional sampling for Phytophthora to determine whether the pathogen had spread beyond the known infection points.

A sampling strategy prioritised sampling around previously known sites of Phytophthora on the island, areas of poor drainage and/or open textured soil, trees or shrubs with dieback symptoms, areas with or adjacent to human disturbance, and any additional areas of concern identified by LHIB staff. A total of 150 samples were taken from across the Island over 5 days, the most extensive sampling completed on island to date.

Results show that Phytophthora has spread outside the existing quarantine zone and is approaching the Golf Course. It was also detected at three additional sites (another private leaseholders' property, around the start of the Little Island Track, and in one sample from the LHIB nursery) in areas that have never been tested before.

RBG is currently preparing a report that will include management recommendations. Additional hygiene protocols have been implemented by Board staff to minimise the risk of spread through routine operations.

Balls Pyramid

LHIB staff accessed Ball's Pyramid on Tuesday 1st August to undertake weed control work. This is critical habitat restoration work for the Lord Howe Island Phasmid (*Dryococelus australis)* as their main source of food, *Melaleuca howeana*, is being smothered by invasive Coastal Morning Glory. Follow up treatments will be required.

The team also surveyed the area around the original Melaleuca bush for the presence of Phasmids on the Pyramid. Two Phasmid exoskeletons were discovered, confirming their continued presence. In addition, frass was identified and collected, which will be sent to the University of Melbourne to test for the presence of Serratia bacteria in the wild Phasmid population.

EcoPass renewal

EcoPass permits are coming up for their 5-year renewal, and this has triggered a review of their conditions and requirements. Consultation with current EcoPass holders has occurred, which resulted in a detailed risk assessment of the walking track network on LHI. This risk assessment will inform amendments to the current conditions in the EcoPass permit to ensure:

- Consistent rules apply to all tour operators operating in the PPP
- Adequate safety measures for all guides and visitors
- Adequate environmental protection for the PPP
- Conditions align with Australian standards and best practices.

EcoPass permits will be recognised in the PPP Plan of Management and be required for all business entities undertaking tours or activities in the PPP (including tour operators based on and off the island).

The risk assessment and proposed EcoPass permit conditions will be presented to the Board at the December meeting for consideration.

Biodiversity Benefits Monitoring Project

Most of the Biodiversity Benefits Monitoring Projects have now commenced, including invertebrates, vegetation, little shearwater, and food web analysis, and Placostylus surveys. LHIB has partnered with scientists in the Department of Planning and Environment to complete the work so that we can understand how the environment is responding to the absence of rodents. Initial observational results from the invertebrate monitoring have shown a large increase in the number of invertebrates in the samples being collected and an increased prevalence of geckos in the study sites.

Planning and Strategic

Risk assessment

A risk assessment of the different graded walks in the PPP has been completed with the input of the EcoPass guides on the island. The risk assessment will inform risk mitigation measures for the LHIB to implement in order to provide a safe experience whilst walking on tracks in the PPP. It will also help to inform specific conditions in the EcoPass permit, which will be required under the PPP Plan of Management for any commercial operator who offers experiences in the PPP, to ensure the safety of all visitors to the Island.

Training

Priority training includes ChemCert for the safe storage and application of pesticides, Authorised Officer training, and chainsaw certification, to safely complete work for the LHIB and the community.

Infrastructure

Priority track and asset maintenance is being completed ahead of the peak tourist season. This includes maintenance of the stairs on the Smoking Tree Ridge track, Transit Hill bridges, Max Nicholls track, and new signage.

Refurbishment of the facilities at North Bay are scheduled to be completed by September. This includes a new interpretive sign that is being collaboratively designed with Marine Parks to provide important information to visitors about the North Bay area.

Annual audits of the rope and track networks are due to be completed before the end of September to ensure continued safe experiences in the PPP. An additional comprehensive examination of the rope and anchor points in the southern mountains is to be conducted by Safety Access and Rescue's Bill Proctor.

Installation of anchor points on Balls Pyramid to provide safe access for weeding and phasmid monitoring was unable to occur in July as planned due to large swell. This work has been postponed pending a suitable weather window and team availability.

A geotechnician and a structural engineer have assessed the integrity and location of the stairs at both ends of Middle Beach. Materials needed to upgrade the beach access will require delivery via Helicopter. The project is funded through Federal government grant and must be completed outside of shearwater breeding season in 2024/25.

Resourcing and recruitment

- Cristina Venables has been recruited in an ongoing capacity to the role of Team Leader World Heritage
- A recruitment process to fill the role of Ranger is in train.

2. Biosecurity

Operations

REP Checkpoint

The Checkpoint program was successfully completed in July. The campaign was a significant undertaking and an important milestone in the LHI Rodent Eradication Project. Refer to Business Paper 11.02 for outcomes.

Proposed changes to surveillance regime

Considering the Checkpoint program outcomes, adjustment to the ongoing surveillance regime is proposed. Refer to Business Paper 11.3 for a description of changes.

Qantas audit

A biosecurity audit of the Qantas freight facility and operational processes at Sydney Airport has been completed. The visit to the Qantas facility assisted greatly in building an understanding of the biosecurity risk profile of transport operations to the Island and built on the working relationship with Qantas as the main carrier to the Island.

Bait stations inside the Qantas facility seemed well located, are being maintained and appear to be working effectively. The standard of housekeeping is high. Additional information in reports to better understand the significance and risk of pest activity, the location and type of interaction with bait stations and response will be requested. If pest activity is significant, additional freight inspection measures could be activated, and direct advice to the LHI Board Biosecurity Officer provided so that additional inspection measures at the LHI end can also be activated.

Birdon Biosecurity Management Plan

The Birdon Biosecurity Management Plan has been adopted and is being proactively implemented. The plan includes a commitment to continuous improvement including process review, review of biosecurity matters presenting, audits, risk assessment, communication and annual training for Birdon staff.

Community engagement around the Biosecurity Management Plan will a priority for the incoming Biosecurity Team Leader.

Presentation to K'gari World Heritage Advisory Committee

A request was received from the Chair of the K'gari (Fraser Island) World Heritage Advisory Committee to present on the Lord Howe Island Biosecurity journey. A delivery was provided to the committee on 21 August.

Resourcing and recruitment

Team Leader Biosecurity is currently being recruited. This pivotal role will coordinate and anchor biosecurity operations through to June 2026.

3. Weed Management

Operations

Weed control

Bush regeneration and weed eradication staff have returned to normal duties this quarter, after weed management and grid search efforts were interrupted by the Myrtle Rust Response. Efforts have been focused across various landscape units including Lidgbird South, Mt Gower, Lidgbird North and Malabar. Work is currently focused in the northern hills to complete searches in Sooty Tern (*Onychoprion fuscata*) habitat before the birds return for breeding later this month.

Weed control efforts in the settlement have been focused on treating infestations of vine weeds. Teams have been working to control two infestations of Siratro (*Macroptilium*

atropurpureum) near the Airport & Golf Course, with these being the only two known locations of this species. Settlement work has also seen increased effort in removing Madeira Vine (*Anredera cordifolia*) from Steven's Reserve and multiple private leases.

Volunteer Program

- The Weed Eradication Program (WEP) has continued its Volunteer Program throughout the winter months with two further intakes across May/June and June/July.
- Seven skilled volunteers were engaged in this period, contributing to almost 1000 hours of on ground effort.
- Engaging volunteers has been an integral resourcing strategy since the program's inception in 2004. The program is mutually beneficial, allowing for skill-sharing between the local island workforce and mainland bush regenerators with extensive industry experience.
- Additional interest has been received from locals that are currently residing on the island and wish to volunteer with the program.

Helicopter Operations

Helicopter winch operations scheduled for February 2023 were postponed due to the rediscovery of myrtle rust on the island and closure of the Permanent Park Preserve. A winch operation has not been completed since November 2020 and the program is behind schedule for remote work in the southern mountains.

Back-to-back helicopter winch operations are planned this financial year to make up for the delays. Two winch operations are scheduled for summer, with the first in November/December and a second in February to ensure they fall outside of the Providence Petrel breeding season. This will allow for considerable search and control efforts in the remote southern mountains. The helicopter will also be utilised to remove remaining gear from the Goat House track build and deliver building material to remote or hard to reach areas for priority projects.

Resourcing and recruitment

- Recruitment processes are commencing for additional Bush Regenerators to fill vacant roles.

4. Threatened plants

Operations

Threatened plant recovery actions continue to be implemented according to the LHI Saving Our Species (SOS) program; now running a five-year contract period, with funding availability subject to yearly reporting.

Lord Howe Island Broom (Carmichaelia exsul)

LHI Broom (*Carmichaelia exsul)* is a threatened species on Lord Howe Island. On 4th August 2023 the NSW Threatened Species Scientific Committee made a Final Determination to increase the status of this species from Endangered to Critically Endangered. The determination was a result of the limited geographic range of the species, extremely low population estimates, and habitat degradation by landslides and weed invasion.

Notification of Pesticide Use

A Notification of Pesticide Use has been prepared in accordance with the Lord Howe Island Pesticide Use Notification Plan 2023 (PUNP), which is required under the Pesticides Regulation 2017.

The PUNP sets out how the LHIB will notify members of the community of pesticide applications it makes or allows to be made to public places that it owns or controls. This includes two householders per year to notify the public which pesticides the LHIB may use.

The aim of this notification is to meet the community's general right to know about pesticide applications made to outdoor public places that are owned or controlled by public authorities. This allows members of the community to act to avoid contact with pesticides if they wish. The LHIB ensures that pesticides are applied to public places in a safe, responsible manner, minimising harm to the community and the environment.

The majority of pesticide use by the LHIB consists of applying herbicides for weed control, insecticides for insect control, placing rodenticides in locked bait stations for a rodent incursion and applying fungicides to treat Phytophthora and Myrtle Rust.

LHIB pest and weed management programs aim to use best practice techniques; that is, methods that are target-specific, humane, and cost-effective. This often requires an integration of a range of control methods.

5. Environmental Assessment

Operations

Property Inspections

The environment team continues to provide assessment services to the community on an as needs basis, generally for development and tree removal applications. This service is not currently charged.

Tree risk assessment

A review of the Boards tree risk assessment procedures is required, including provision of basic training for all staff involved in this activity. National Parks and Wildlife Service will be approached to provide an in-house online session on Tree Risk Management Procedures and dynamic tree risk assessment. Further to this, investigations on availability and suitability of formal training (industry recognised certification) are underway, with the aim of ensuring that the Board has access to suitably qualified tree management expertise for higher-risk management responses.

Resourcing and recruitment

- The Team Leader World Heritage continues to provide basic environmental assessment service for low impact development proposals.

6. Land Administration

Operations

See business papers 4.1, 4.2,4.3, 4.4.

Bushfire Risk Management Planning

Under the *Rural Fires Act 1997* a Bushfire Risk Management Committee (BFRMC) must be convened to prepare a Bushfire Risk Management Plan (BFRMP) for each area in NSW which is subject to the risk of bushfires.

There is a statutory obligation to ensure that Lord Howe Island has a current:

- BFRMP and that this plan is reviewed every 5 years
- Fire Access and Fire Trail Plan (FAFT Plan)
- a s52 Operations Coordination Plan, requiring review every 2 years

The LHI Bushfire Risk Management Committee met on 10 August 2023, the first meeting since 2018. The Committee will meet twice per annum ongoing, and Paula Pollock was elected to Chair the Committee. At this meeting the Fire Access and Fire Trail (FAFT) was adopted and recommended to the State Bushfire Coordinating Committee.

Work will now commence on finalising the LHI Operations Coordination Plan which is due for lodgement by 30 September 2023. The next priority will be a review of the expiring BFRMP. NSW NPWS Bushfire Risk and Evaluation Unit has offered support to the Committee in developing bush fire risk models to inform the development of this BFRMP.

Food Safety Inspections

In accordance with Section 113(1) of the *Food Act 2003*, enforcement agencies are required to report on their food surveillance activity annually. Food safety assessments for registered food businesses on the Island have now been entered in the NSW Food Authority (NFA) Reporting portal.

7. Development Assessment and Land Use planning

Operations
See business papers 12.1, 12.2

Local Environmental Plan (LEP) review

The Lord Howe Island Local Environment Plan 2010 (LEP) forms the blueprint for land use, development and conservation for Lord Howe Island. The LEP is a statutory planning document made under the *Environmental Planning and Assessment Act 1979*. Among other things it allocates all land on the island into one of nine different zones, with each zone having specific permissible land uses. The LEP also dictates the minimum lot sizes and the maximum number of dwellings that can be built.

The LHI LEP was made in 2010 and was largely a remake of a Regional Environmental Plan that was made in 2005. At the September 2015 Board meeting the Board adopted a two stage LEP review process. Stage one was an administrative review that addressed relatively simple minor amendments to the LEP whilst the Stage two planning process is a comprehensive review addressing more complex issues.

The Stage one LEP review process was completed, and planning for Stage two must now be undertaken.

The LEP review process must follow a statutory gateway process prescribed by the Department of Planning, Industry and Environment (DPIE). The five key steps of the Gateway process can be summarised as:

1. The Planning Proposal – the planning proposal authority prepares the planning proposal – in this case the LHIB.
2. Gateway – the Minister (or delegate) decides whether the planning proposal has sufficient merit to proceed and applies any conditions which must be met. These might include further studies, community consultation, public hearings, agency consultation and time frames. A planning proposal usually does not proceed without conditions of this nature.
3. Community Consultation – the proposal is publicly exhibited as required by the Minister. A person making a submission may also request a public hearing be held.
4. Assessment – the planning proposal authority reviews public submissions. Parliamentary Counsel then prepares a draft local environmental plan.

5. The Making of the LEP – with the Minister's (or delegate's) approval the local environmental plan is published on the NSW legislation website and becomes law

A substantial body of work must be undertaken to inform a comprehensive LEP review, and matters of significant interest to the community will need to be addressed. These include; dwelling cap; staff accommodation; exempt development; land zonings, and minimum lot sizes. Macroplanning of the nursery and southern waste facility precincts will need to be considered. These matters have long term social and economic implications for the future of the island.

A comprehensive review of the LEP and subsequent submission of a Planning Proposal will help ensure the long term economic, social and environmental prosperity of the island. The LEP review should be informed by comprehensive social, economic and environmental studies undertaken by external consultants to ensure that a level of objectivity and neutrality is maintained. A broad delivery frame is 18 months from commencement:

Date	Activity	Indicative budget
2023	Engage consultant planner to scope the project and coordinate the process	
2023 - 2024	Review of reports held and additional studies undertaken (environmental, social, agriculture, tourism, housing, transport and infrastructure requirements). Foci will be: • housing and accommodation • review of environmental carrying capacity of the island including waste water and drinking water supply • review of the dwelling cap and long term residential housing demand for the island • review of staff accommodation and long term demand for staff accommodation • review of bed licence limit and impact on long term economic viability of the island. • Community engagement	$310,000
2024-2025	Draft the new LEP and DCP and submit to the planning proposal process	

Resourcing and recruitment

- Nil

8. Spatial and data management

Operations

Imagery capture

The NSW Department of Primary Industries (NSW DPI) and LHIB have partnering to capture new high-resolution aerial imagery and terrain mapping for LHI. The aerial imaging will replace the 2011 imagery currently referenced by the LHIB's Environment and Infrastructure divisions and the Marine Parks team.

The aerial capture was completed successfully between 16 - 18 June and is being currently

being processed. Spatial Services will undertake QAQC before the imagery is accepted. Both the imagery and LiDAR (terrain mapping) is due to be delivered in August.

Resourcing and recruitment
Procurement of a drone and high accuracy locational technology is being investigated.

Approval and contact

Approver	**Position**
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Paula Pollock	Senior Manager Environment and Community Services

Board Meeting: September 2023 **Agenda Number:** 09.00 **Rec No:** ED23/5957.03 OPEN Attachment: C

LORD HOWE ISLAND BIOSECURITY UPDATE
AUGUST 2023 BOARD MEETING

Lord Howe Island Biosecurity Update 29 April 2023 to 10 August 2023.

Background

Routine plane and vessel checks at Port Macquarie (PMQ) and Lord Howe Island (LHI), rodent monitoring, and six weekly checks remain critical tasks for the Biosecurity Team. Other key priorities progressed in this period have included improving biosecurity facilities and procedures at Port Macquarie points of departure, staff establishment and training and working closely with Birdon Shipping on refining biosecurity planning and procedures.

Biosecurity Inspection and Reporting Details

1. Rodent Report

Most recent confirmed rodent sign 12 August 2021.

Rat on a Rodent (ROAR) Notifications

Months	Reports	Evidence Collection	Investigations	Outcome
29 Apr 23 – 10 Aug 23	4	4	0	Evidence collections conducted at all reports; no evidence of rodents found, therefore no escalation to full investigation.

All reports are investigated intensively over a 7-day period.

Aircraft (other than the Island Trader) and Vessels Report

All vessels and aircraft arriving at Lord Howe Island were inspected.

	Aircraft			Vessels	
Period	Qantas	Private	Eastern	Private	Commercial
29 Apr 23 – 10 Aug 23	129	13	135	8	
% Met	100%	100%	100%	100%	

Island Trader Report

Seven voyages occurred during this period. All voyages at both PMQ and LHI were thoroughly checked by the biosecurity team during loading and unloading activities.

Period	PMQ Inspections	LHI Inspections
29 Apr 23 – 10 Aug 23	7	7
% Met	100%	100%

Inspections at the PMQ Birdon site include inside and outside cargo storage areas and surrounds. The Island Trader is inspected both inside and outside the hold. A range of biosecurity risk materials continue to be identified and treated at PMQ. The ongoing identification of biosecurity risk material at this site demonstrates a high risk and

substantiates the efforts working with Birdon to attempt to reduce the risk of pest incursion on LHI.

Inspections on arrival at LHI are conducted on the jetty and surrounding cargo storage areas. Due to the high standard of inspections at PMQ by Tate Animals, limited biosecurity risk materials were detected on arrival.

2. Biosecurity monitoring

Table 1. below provides a status update of the rodent biosecurity monitoring effort undertaken to date against the monitoring frequency set out in the Surveillance Plan used by Bode and Brown in their efficacy modelling of the surveillance network.

The camera array and static monitoring components have been fully active over the reporting period. The static monitoring network consists of two distinct networks of passive monitoring devices. The first network located around the Jetty and Airport is monitored on a weekly basis, whilst a second more geographically spread monitoring network is checked monthly. Dog searches have been occurring though not completely within a 6-weekly cycle. Best practice indicates a 6-10 weekly search is adequate, and contract dog teams continue to be used aimed at meeting the six-weekly goal.

Device	Number of devices	Check frequency target	Status	Comments – Including Actual checks completed or status
Camera array	162	Monthly	Met	Images analysed by eVorta AI software (and human) • May: 30750 • June: 56,257 • July: 32,490 • July: Checkpoint 18,159 • August: TBA No rodents seen.
Static monitoring devices (kill traps, wax tags, bait stations, chew cards, tracking tunnels)	263	Monthly	Met	Completed.
Airport and Jetty static monitoring devices (kill traps, wax tags, bait stations, chew cards, tracking tunnels)	83	Weekly	Partially Met	Every 7 - 10 days. Jetty rounds complete on average every 7 days, Airport complete on average every 9 days.
Dog searches	Full sweep of the settlement	Six-weekly	Met. 312 Settlement Blocks Checked. 637 Property Searches	Search Rounds completed as follows: • 22 May – 18 June • 4 July to 28 July

Table 1: Rodent biosecurity monitoring effort: April 2023 – August 2023

Board Meeting: September 2023 **Agenda Number:** 09.00 **Rec No:** ED23/5957.04 OPEN Attachment: D

CEO BOARD REPORT
PROJECT REPORT

OPEN SESSION

Item

This report is a brief update of progress on current projects. The budget reflects the full spend of the project to date across the project's lifetime. Current year budget and expenditure is presented in the financial update (3.01).

IES

- SCCF – CBD Amenities
- SCCF – Skatepark
- Emergency Operations Centre
- ARENA – Solar Project
- TfNSW Roads Projects
- SCCF - Communications Solution and Community Hall Activation
- Jetty Maintenance Project
- Commercial Property Maintenance (Historical)

CEO

- Efficiency and Effectiveness Review

ECS

- Biosecurity NPP Project
  - Improved Biosecurity Measures (Training)
  - Lagunaria Swamp Project
  - Threatened Plant Monitoring & Survey
  - Conservation of LHI Stick Insect
  - Biodiversity Benefits Monitoring
  - Middle Beach Stairs
  - Restoring Blackburn Island
  - Reveg - Pinetrees Paddock

Summary of Activities and Issues

R Red Project is likely to deliver late/over budget/has insufficient resourcing
A Amber Project has missed some targets but overall end date/budget is not at risk
G Green Project on track

	Project Title	Schedule	Budget	Resources	Overall RAG
IES	SCCF – CBD Amenities	R	G	A	R
	SCCF – Skatepark	R	G	A	R
	Emergency Operations Centre	R	G	A	R
	ARENA - Solar Project	R	G	A	R
	TfNSW - Roads Projects	R	G	A	R
	SCCF - Communications Solution and Community Facilities Activation	G	G	G	G
	Jetty Maintenance Project	R	G	G	R

	Commercial Property Maintenance (Historical)	G	G	G	G
CEO	Efficiency and Effectiveness Review Project	R	G	A	A
ECS	Biosecurity NPP Project	R	G	A	R
	Improved Biosecurity Measures (Training)	R	G	G	G
	Lagunaria Swamp Forest	G	G	G	G
	Threatened Plant Monitoring & Survey	R	G	A	A
	Conservation of LHI Stick Insect	G	G	G	G
	Biodiversity Benefits Monitoring	G	G	G	G
	Middle Beach Stairs	R	A	A	R
	Restoring Blackburn Island	R	R	G	R
	Reveg Pinetrees Paddock	R	R	G	R

IES Reports

SCCF – CBD Amenities
Site plans for the CBD Amenities block are expected in the first week of September. An information session for stakeholders will be held on 18th September, initial stakeholder discussions have begun. A contractor has been engaged to coordinate the DA process and we have reached out to Forestry, NPWS and private providers regarding the best possible option for amenity given the limitations of this site.

SCCF – Skatepark
The Skate Park Committee has agreed to a redesign with the same company that did the original design, Convic. Convic suggested that considering the updated budget and the advancements in skate park design since the original creation, it would be advantageous to explore a new design that aligns with the specific requirements of the island.

Currently, the company is undergoing the process of being contracted for this new design. Should the proposed design receive approval, it will lead to the submission of a new DA. After securing the required approval, the subsequent planning for the construction phase will commence.

Emergency Operations Centre
Due to a backlog in larger loads on the Island Trader, the mobile emergency generator will be arriving on island 14/10/23.

Kerara Communications visited the island in late July to undertake the 2nd phase of the radio upgrade. On the visit the following upgrades were completed:

- Telephone Interconnect:
    - The purpose of telephone interconnect is for a radio user the ability to make and receive landline telephone calls whilst away from an accessible landline telephone handset.

    - Health and Police radios now have the capability to be able to make and receive telephone calls which allows both agencies to utilise the radios like a phone when on call and not at work/home.

- Emergency Sirens & PA
    - The emergency sirens have been upgraded to allow a handheld radio to activate one or all emergency sirens. A PA system that can be localised has also been installed at siren locations. These can be utilised in a wider range or emergency scenarios. All emergency agencies and LEMC members will have this functionality, as well as the base radios located at the Board.

Other emergency agencies will also be receiving radios to allow interagency communications once testing on radio profiles has been completed.

The current system is being upgraded and developed in real time to suit the island's needs. Delays on delivery of items from Kerara Communications have delayed progress of full functionality of the system. Complications arising from multiple agency requirements have also made the set-up of the system more complex than first anticipated.

Next Steps:

- A portable repeater is currently being built and should be arriving on the island in the next two months. The portable repeater can be carried in a purpose-built backpack to extend radio coverage in remote areas of the island. The repeater weighs approximately 9kgs and can be transported quickly in an emergency response scenario.
- Finalising the radio profiles for all agency requirements.
- Creating SOP's
- MOU's for interagency communications
- Emergency Communications Plan

Emergency Communications Plan
The LHIB have engaged the Telco Authority (TA) to help prepare an emergency communications plan. We have provided the TA with all Emergency Management Plan and emergency related information and they have come back with comments and suggestions. Information is currently being collected with regards to the current communications landscape to be able to begin formally preparing the plan.

SCCF - Beach Access (Final update – now closed)
The All-Terrain Walker and All-Terrain Wheelchair have been available for use since June. Understandably, being winter there has not had much uptake but looking forward to seeing the equipment in more demand for the warmer months.

The final purchase included considerations for a rubber mat for beach access or for potentially acquiring an additional walker or wheelchair, aiming to optimise their utilisation beyond just beach access purposes as they are for all terrain.

Considering valuable input from community members and other mainland councils, it was decided to acquire the beach access mat. This mat will complement the other equipment and should be available from mid-October.

ARENA - Solar Project
The LHIB are working with Jacobs to finalise the Knowledge Sharing Program stipulated under the ARENA funding. This involves installing an informative sign at the Powerhouse site, providing real-time data at the Museum, and creating a dedicated webpage on the LHIB website. These initiatives collectively aim to expand the knowledge sharing of the solar project to a wider audience.

TfNSW Roads Project
See IES Report - Attachment A of CEO's Report for full update.

SCCF - Communications Solution and Community Hall Activation:
The LHIB engaged Respiro to deliver a high-level options paper with regards to the future communications landscape of Lord Howe Island.
Information with regards to mobile coverage on the island (range, capacity, how many cells would be required for full coverage etc) has been difficult to acquire from the Telco/Telstra creating a risk of not having the most accurate information with regards to the mobile option as all information is coming from outside the telcos.
Next step is to provide the options paper at the board meeting (Sept 23) for comment.

Community Facilities upgrade:
An expression of interest has been sent out to form a working group for the community spaces upgrade. This closed on the 11/08/23. A working group meeting will take place in early September to better understand the needs of the community with regards to public spaces. As we are still in the early stages of this project. This project is on track with no impending risks to the budget and timeframe.

Jetty Maintenance Project
The Jetty maintenance project has been out to tender and a contractor has been selected. Current risk lies in not delivering project on time due to materials including fenders needing to be sourced from overseas. The turnaround time is approx. 10-12 weeks. To account for this maintenance will start at a later stage (likely early in the new year) to incorporate the delayed material timeframe.

Due to rising costs of materials worldwide (particularly of timber), all quotes came back at a higher cost than anticipated, necessitating a narrowed the scope of works to essential items (immediate and 1 year in Advisian report) to meet budgetary requirements. This will only involve removing or replacement of 25% of decking and replacing only essential kerbs.

Commercial Property Maintenance (Historical)
Following the recent asset review done by Matt Greski in preparing the Asset Management Plan for the LHIB, a list of required historical maintenance and essential infrastructure upgrades was developed. Josh Owens has been contracted to coordinate this work over an 18-month period, beginning in April 2023.
Josh is working with local trades and specialised contractors as needed to attend to this list. 30% of actions have been completed since April 2023 with a further 24% scheduled or being worked on currently.
Access to available trades is a risk that is being closely monitored to ensure appropriate timeframes are met.

CEO Projects

See Chief Executive Officers Report for full update.

ECS Projects

See ECS Report - Attachment B of CEO's Report for full update.

Completed projects

1. Playground
2. Shipping Market Analysis
3. Waste Management Strategy
4. Restoring Blackburn Island (Phasmid translocation preparation) – to be aquitted
5. Little Mountain Palm Project

Projects yet to commence/ being reviewed

1. Biosecurity NPP (CAPEX) – To be reprofiled.
2. Middle Beach Stairs – Grant review post Geotech report
3. Southern Precinct Masterplan

Approval and contact

Approver	**Position**
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Darcelle Matassoni	Senior Project Officer

Board Meeting: September 2023 **Agenda Number:** 09.00 **Rec No:** ED23/5957.05 OPEN Attachment: E

CEO BOARD REPORT

CURRAWONG HALLUX ENTRAPMENT

OPEN SESSION

Item

Currawong Hallux Entrapment

Recommendations

1. **Note**: that the issue has been identified and actions implemented to manage the welfare of the LHI Currawong population.

Current position

Background

Lord Howe Island Currawong monitoring was conducted by Department of Planning and Environment (DPE) between 2005 and 2019, including banding of 125 birds taken into captive management during the 2019 Rodent Eradication Program (REP). During this time birds were banded with one size 9 Australian Bird and Bat Banding Scheme (ABBBS) band and two size 9 coloured plastic bands to help identify individuals from a distance.

Following completion of the REP in 2019, the DPE Currawong banding project was signed over by ABBBS in 2020 to researchers at Charles Sturt University (CSU). In February 2022, DPE scientists completed their ethics licencing of the project as no further banding or monitoring activities under the REP had occurred since September 2019.

In September 2021, CSU researchers banded 20 additional birds with two ABBS approved size 10 coloured metal bands for a project led by the university. Unfortunately, since 2019, there have been approximately 30 sightings of Currawong hallux entrapment in birds that were banded with double identification bands, predominantly with the size 10 bands that were used by CSU in 2021.

Actions taken to date

Regular communication between the LHIB, CSU, the ABBBS, and a local leaseholder has been occurring since the issue came to light in November 2022, to coordinate response actions. Actions to date have included:

- Size 10 bands have been removed from the ABBBS list of band sizes approved for Currawongs.
- A-class licenced bander Mark Holdsworth has assisted with de-banding Currawongs with problematic bands.
- Two size 9 double plastic bands and 13 size 10 double metal bands have been removed from Currawongs.
- Over 1000 hours have been spent monitoring for banded birds, including effort by a local leaseholder.

- CSU contacted NSW Department of Primary Industries Animal Ethics Committee about the issue. An investigation was undertaken and, the Committee are satisfied with the efforts to date to remove the problematic bands.

Next steps

- Size 9 coloured plastic double bands and size 10 coloured metal double bands will continue to be opportunistically removed and no additional Currawong banding is planned.
- The CSU researcher who applied the previously approved size 10 coloured metal double bands to the Currawongs will return to the island for six weeks from September to contribute to the removal effort.
- CSU will supply banding pliers to the LHIB and sultanas to an LHIB leaseholder to assist with monitoring for and removing problematic bands as they present.

Currawongs fitted with the problematic size 10 bands have not been seen now for nearly two months. Juvenile LHI Currawongs generally experience high mortality rates (pers comm Nicholas Carlisle), and the likelihood of the remaining banded birds persisting is unknown.

While there is no certainty that the remaining seven individuals are alive or will be found and trapped, permitting the removal of the size 10 bands, every effort will be made to do so between November 2022 and mid-October 2023.

Attachments

Attachment	Title

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Cristina Venables	Team Leader World Heritage

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Board Meeting: September 2023	**Agenda Number:** 11.01	**Record Number:** ED23/5959

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Update - Dwelling Allocation Ballot Process 2023.

Recommendations

1. **Note** the update on the implementation of the dwelling allocation process.

Current position

The Lord Howe Island Local Environmental Plan 2010 prevents the consent authority, the Lord Howe Island Board, from consenting to the development of more than 25 new dwellings over a 20-year period from 2005 to 2025. Only nine allocations have been made in that time.

At the December 2022 Board meeting, the Lord Howe Island Board (LHIB) approved the release of 6 dwelling allocations. The process to deliver these has been developed and reported to February 2023 and May 2023 Board meetings.

This release will be conducted using a ballot method and will be sourced from the multiple occupancy or sub-division of existing Perpetual Leases.

Ballot process

The dwelling allocation process has been progressed as follows:

- Eligibility criteria finalised and confirmed
- Information on the ballot process disseminated through 3 Householders
- One on one meetings offered to the community since 13 June; taken up by 13 interested parties
- OCM (O'Connor Marsden) appointed as probity advisor and independent scrutineer to ensure the best possible transparency of process
- Senior Constable Joel Merchant of NSW Police assigned to draw the ballot
- Guideline and form developed and published to the LHIB website
- Applications were open for a period of 28 days, and closed at 5pm 27 August 2023

At the close of the application period, three applications have been received by OCM. A ballot process is therefore not required, and the delivery timeline previously reported to the Board has been adjusted accordingly.

Next steps

The following timeline steps out the planned process to deliver the dwelling allocations:

- **31 July -** Applications for dwelling allocations opened for 28 days.
- **27 August -** Applications closed; late applications were not accepted.
- **August -** OCM have commenced review of the applications, with LHIB support.
- **September –** OCM to provide an interim eligibility assessment report to the LHIB.
- **September** - Feedback on applications to be provided to applicants by OCM.
- **October –** The CEO will provide an update to LHIB Directors.
- **October -** Eligible applicants will receive a formal letter confirming eligibility/ineligibility.
- **October –** Eligible applicants will be offered a dwelling allocation by the LHIB, and be provided with guidance on next steps.
- **November -** Successful applicants to make payment of a non-refundable $1200 fee within 30 days of the ballot being determined and enter an enforceable Deed.
- **2024/2025:** The release of another tranche of dwelling allocations will be reviewed pending completion of strategic planning work.

Approval and contact

Approver	**Position**
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Paula Pollock	Manager Environment and Community Services

Board Meeting: September 2023	**Agenda Number:** 11.02	**Record Number:** ED23/5960

LORD HOWE ISLAND BOARD

OPEN SESSION

Item

To provide an update on the Rodent Eradication Project (REP) Checkpoint program 2023.

Recommendations

1. **Note**: the update on the Checkpoint Program and the outcome of comprehensive island-wide rodent detection efforts

2. **Note:** the Checkpoint Report prepared by Grant Harper of Biodiversity Restoration Specialists

3. **Note:** the analysis undertaken by Michael Bode of the Queensland University of Technology (QUT)

Summary

An intensive Checkpoint program commenced 10 July, with the goal of determining the absence of rodents on Lord Howe Island (LHI) post the 2019 REP and subsequent rodent response (RR) in 2021.

Two possible outcomes of the Checkpoint investigation were:
1. detection of live rodent presence, or
2. absence of live rodent detection.

Following a coordinated and comprehensive campaign, no live rodent presence has been detected on the Island.

Background

Following the finalisation of the REP in December 2019, rats were again detected on LHI triggering a biosecurity response in April 2021 (RR). Genetic analyses have confirmed that these rodents were residual, presenting a high level of relatedness between each other, and with rodents present on LHI immediately preceding the REP. The last known rat was collected in August 2021.

Subsequent to this event, an enhanced island-wide monitoring network of 509 devices was installed around the settlement and Permanent Park Preserve (PPP). The monitoring array consists of tracking tunnels, wax tags, chew cards, 162 motion detection cameras and extensive rodent detection dog searches including of the entire settlement on a six-weekly cycle (Dec 2021 – Current). This surveillance network post RR has an improved ability to detect invasive pests at low densities, and a 99 percent probability of detecting a rodent in the settlement area within 12 weeks (QUT, 2022).

Cargo and luggage on arriving flights and the MV Island Trader is checked by detection dogs, and any other vessels arriving to the island is risk assessed by the biosecurity team.

The surveillance regime built around this network has been consistently implemented over the past 2 years and has returned a nil live rodent presence in the settlement. Any reports or canine indications over this time have been thoroughly investigated and all dismissed based on evidence collected.

In temperate or sub-tropical areas, it is generally accepted practise to commence targeted detection efforts two years following eradication programs to confirm operational success. This gives any surviving rodents enough time to breed up to a population density that is readily detectable. Based on evidence sources, rodent population dynamics, and LHI data, it is expected that by winter of 2023, rodent abundance would have reached a similar level to that present in May 2019 at the start of the REP (Attachment A, QUT, 2023).

Current position

Checkpoint implementation

An intensive and spatially comprehensive rodent detection check was executed across the Island between 8-26 July 2023 with the aim of detecting any rodent population that may have survived the REP or RR.

The Program implementation was led by Grant Harper of Biodiversity Restoration Specialists. Members of the LHIB's Biosecurity, Environment, and Weed teams with assistance from two local contractors conducted searches in the settlement and the Permanent Park Preserve (PPP).

Search teams deployed a comprehensive array of detection devices, sampling over 10% of the 1400-hectare island, including the rugged southern mountains, refer Figure 1. Six dog teams were deployed and interchanged across the campaign.

A report has been prepared that describes survey effort invested, and assesses the outcome of the REP, RR and Checkpoint (Attachment A). Long-term data from the existing intensive biosecurity network, and the comprehensive data yield from the Checkpoint has been compiled and analysed to produce a high confidence result (refer summary Table 2). Statistical modelling of rodent population growth from small founder numbers (QUT 2023) and evidence from previous rat invasions on other islands has been referenced, all of which point to an absence of rats on LHI.

Checkpoint	Quantum
Person hours	748 hours, 772km travelled
Dog team hours (PPP)*	105 hours committed, 220km assessed • All of settlement • Formal and informal tracks in the PPP • Big and little slope, Mt Gower
Device deployment (PPP)*	327 devices established, 2191 days active
Tracking Tunnels lines PPP*	14 (10 device per line) in the PPP
Grids (cameras x1, chew cards x4, wax tags x4) PPP*	36 in the PPP
Devices checked in July	954
Settlement checks	296 Settlement blocks checked, 107 hours

Table 2: Checkpoint effort

*Additional to detection array around the settlement

Although numerous native species or their sign was recorded on the detection grids, tracking tunnels, or field cameras, no rodent sign was detected, either in the Settlement or the PPP over the duration of the Checkpoint.

The spectacular recovery of populations of many different endemic and native animal and plant species, and the lack of observations of fresh rodent predation on fruit, molluscs, seabird eggs and chicks, and reptiles over the past two years also strongly suggest that rodent impacts on the Islands biodiversity and environment have been controlled.

Globally, this is a significant conservation result and particularly for a World Heritage listed site.

Community impact

The removal of rodents has benefited the LHI community and visitors, who no longer experience rodents impacting homes, gardens and farms. It is recognised that these benefits have come at a cost and have been achieved through a high level of community cooperation and support over many years.

Eradication is a continuous journey and community vigilance is essential to safeguard the island into the future.

Rigor

The science applied to the Checkpoint demonstrates internationally recognised best practice for an eradication process.

Independent analysis and modelling by QUT on population trajectories and detection probability specific to the sampling methods applied throughout the Checkpoint have been undertaken.

Based on the Checkpoint network:

- the probability of detection of a reasonably-sized rat population on the island (between 114 and 338 individuals) is greater than 97%
- the probability of detection of a remnant rat population that grew at rates observed in the literature, (faster than observed post REP, ~2,800 individuals), detection is a confident certainty
- the probability of detection of a small residual rat population (approximately 5 individuals) is likely to return a false negative result, with a probability of the network detecting the population at about 25%

The Checkpoint Report (Attachment A) posits that under different population growth rate scenarios, and assuming that a single pregnant female survived the REP; a remnant rodent population in the PPP should have expanded over the four years since baiting occurred, and likely redistributed itself across the island, entering the settlement and the biosecurity detection network, making detection a near certainty (Bode, QUT).

The Checkpoint program results have been evaluated by leading global experts in rodent eradication, The Island Eradication Advisory Group of the New Zealand Department of Conservation (IEAG). A response from the IEAG is at Attachment C. The group concur with the report's conclusion that rodents have been successfully eradicated from LHI.

However, experience through the original REP, and the small probability that population growth on Lord Howe Island did not mirror that of the modelled predictions indicates that surveillance and response preparedness remain critical for the foreseeable future.

Consultation

Michael Bode of the QUT school of mathematical sciences has provided various analyses to the LHI Board, examining the efficacy of the surveillance network operating on LHI. This advice has informed biosecurity investment and shaped the current surveillance regime.

QUT analytical review was extended to the probability of rodent detection through the Checkpoint program.

Next steps

Following Board approval, the Checkpoint report will be finalised and publicly released.

A full report on the REP is in preparation and is expected to be released in early 2024. An event to commemorate the 5-year anniversary of the operational commencement of the LHI REP is being considered for April 2024.

Keeping LHI free from rodents requires ongoing monitoring and a community commitment to protect the Island's unique values and environments. Planned improvement of biosecurity controls and infrastructure at points of departure to prevent future incursions will enhance the rigour of the biosecurity regime required to protect past investment. These upgrades will be a key driver in procurement of a new marine freight service. Ongoing review of the Biosecurity Management Plan will enable improvements to be reflected in the regime as they are implemented.

A community conversation around the continued investment in world-leading biosecurity and enduring measures to be applied on and off-island will be initiated in the coming months.

Attachments

Attachment	Title
A	Checkpoint report
B	Report – QUT, Bode 2023 - Surveillance Network - 27 June 2023

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Paula Pollock	Manager Environment and Community Services

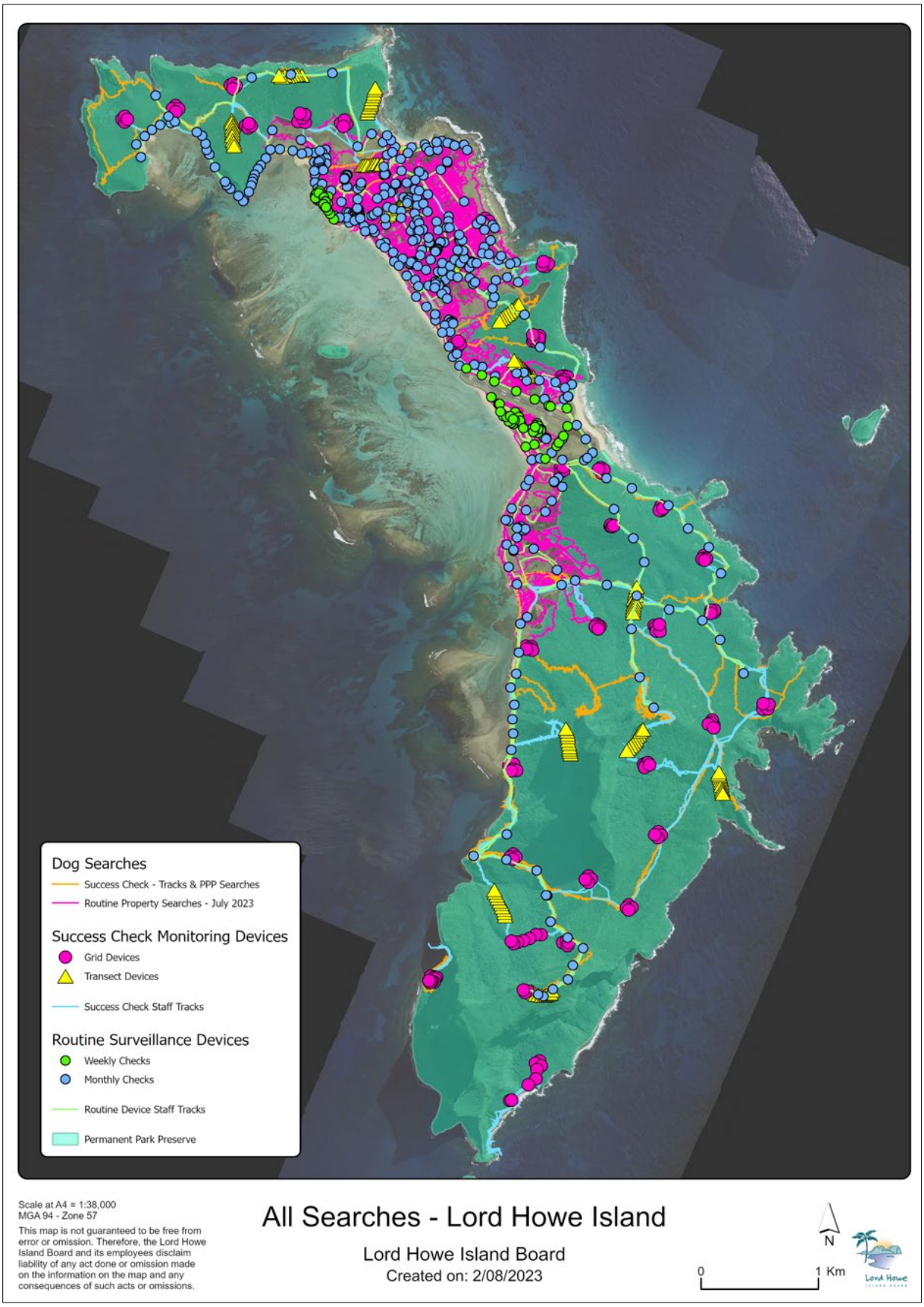

Figure 1: Sampling effort across LHI applied through the Checkpoint program.

Rodent Eradication Checkpoint

G.A. Harper

August 2023

The Lord Howe Island Rodent Eradication Project

Rodent Eradication Checkpoint 2023

Lord Howe Island Board

Lord Howe Island, Australia

Citation: Harper GA (2023). The Lord Howe Island Rodent Eradication Project: Rodent Eradication Checkpoint 2023. Lord Howe Island Board, Lord Howe Island, Australia. Unpublished report. 19 pp.

Summary

This report outlines the planning and actions undertaken to assess the outcome of the Lord Howe Island Rodent Eradication Project undertaken in 2019, and a subsequent 2021 Rodent Response Project (RRP). A two-pronged approach using long-term data from the existing biosecurity program, and a short, but comprehensive check for rodents across the island was used to check for rodent presence. The results of these field checks for rodents, bolstered by statistical modelling, and evidence from previous rat invasions on islands elsewhere, leads to the verdict that mice and ship rats are no longer present on Lord Howe Island. Globally, this is a significant conservation result and particularly for a World Heritage listed site. There now remains a critical need for further improvements to the biosecurity programme in order to retain its newly acquired mammalian pest-free status in perpetuity.

Acknowledgements

The Rodent Eradication Project was jointly funded by the Lord Howe Island Board (LHIB), the Australian and New South Wales Governments.

We thank the LHI community for their understanding and support during the 2019 Rodent Eradication Project and 2021 Rodent Response Project. To the staff of the REP, the RRP and current Biosecurity staff, who gave their all during the eradication and continue to protect the island, the ecological response on LHI following these operations is your legacy.

Contents

Background

Lord Howe Island is a 1455ha World Heritage listed island in the north Tasman Sea, some 600km from the eastern Australian coast. It is notable for its large proportion of endemic plant and animal species, which were threatened by invasive mice and ship rats. In order to remove this threat, the Lord Howe Island Rodent Eradication Project (REP) was undertaken in 2019. It was the second, and largest, attempted on a permanently inhabited island and was the most complex mouse (*Mus domesticus*) and rat (*Rattus rattus*) eradication project ever attempted globally (Harper et al. 2020).

The eradication operation distributed bait (2mm pellets; active ingredient brodifacoum - 0.02g/kg) aerially across about 1100ha of the forested and mountainous areas of the island, and in bait stations or by hand-broadcast across the remaining 355ha in inhabited and pastoral sites. The baiting operation began in late May and the last rat was found on 8 October 2019. No live mice have been recorded since early July 2019, over four years ago, and biosecurity surveillance has not detected any further survivors.

An incipient black rat population was detected in the north Settlement in mid-April 2021, and a Rodent Response Project (RRP) to remove them, and subsequently confirm their complete removal, took most of the rest of the year. Over 96 rats were detected and removed, with the last rat collected on 2nd August 2021.

Generally, in temperate or sub-tropical areas, after a rodent eradication is undertaken there is a two-year hiatus before undertaking detection efforts to confirm operational success.

In order to confirm a successful outcome of the REP in 2019 and subsequent RRP in 2021, an intensive effort was made in mid-winter 2023 to detect any rodents that may have survived the REP or RRP. Despite relatively intensive biosecurity surveillance in the Settlement on Lord Howe Island over the past two years, relatively little rodent detection effort had been undertaken in the Permanent Park Preserve (PPP), and more particularly in the rugged southern end of the island. Evidence from previous rodent incursions or failed rodent eradications on islands elsewhere was supplemented by statistical modelling of rodent population growth from small founder numbers (Bode 2023). Both evidence sources showed that by winter of 2023 any possible surviving rodents from both the REP and RRP would almost certainly have attained a population density that would be readily detectable.

Methods

The aim of the Checkpoint was to survey the island for any live rodents or recent sign of rodents. It comprised both a long-term temporal dataset gleaned from the ongoing biosecurity program, coupled with a short but spatially comprehensive survey over the entire island in July 2023, some two years since the last rat was recovered during the RRP. In order to provide a degree of rigour to the design of both the biosecurity program and the

Rodent Detection Check, statistical modelling of the likelihood of rodent detection using the type, number and spread of detection devices deployed was conducted in early 2023 (Bode 2023).

Biosecurity monitoring

The biosecurity surveillance infrastructure and procedures were significantly improved in late 2021 after the RRP highlighted significant qualitative deficiencies. The upgraded surveillance network focusses principally on the Settlement, including the airport and jetty, but there was also a sparse detection network across the forested parts of the island on walking tracks in the Permanent Park Preserve (PPP).

The Biosecurity surveillance infrastructure comprises 509 tracking tunnels, wax tags, chew cards, rodent traps, bait stations and 162 field cameras (Figure 1). The detection devices around the airport and jetty are checked weekly as they are regarded as high risk sites, with the remainder checked monthly for any rodent sign, and also other possible invasive vertebrates, such as amphibians, reptiles, and marsupials. In addition to these devices, rodent detection-dog teams have undertaken intensive sweeps of the Settlement and main walking tracks 8-9 times per year since mid-2021. The usual coverage of the six-weekly detection-dog sweeps, over the first six months of 2022, is shown in Figure 2.

In concert with the surveillance checks, all goods and luggage on aircraft flights arriving at the airport are checked by the local biosecurity dog teams. Similarly, the supply ship the MV *Island Trader* and all goods arriving fortnightly from Port Macquarie, and any other vessels arriving on the island, are scrutinised by the biosecurity dog teams. Supporting this effort, biosecurity at the departure points for goods and travellers to the island are constantly being improved to reduce the likelihood of invasive species arriving on Lord Howe Island.

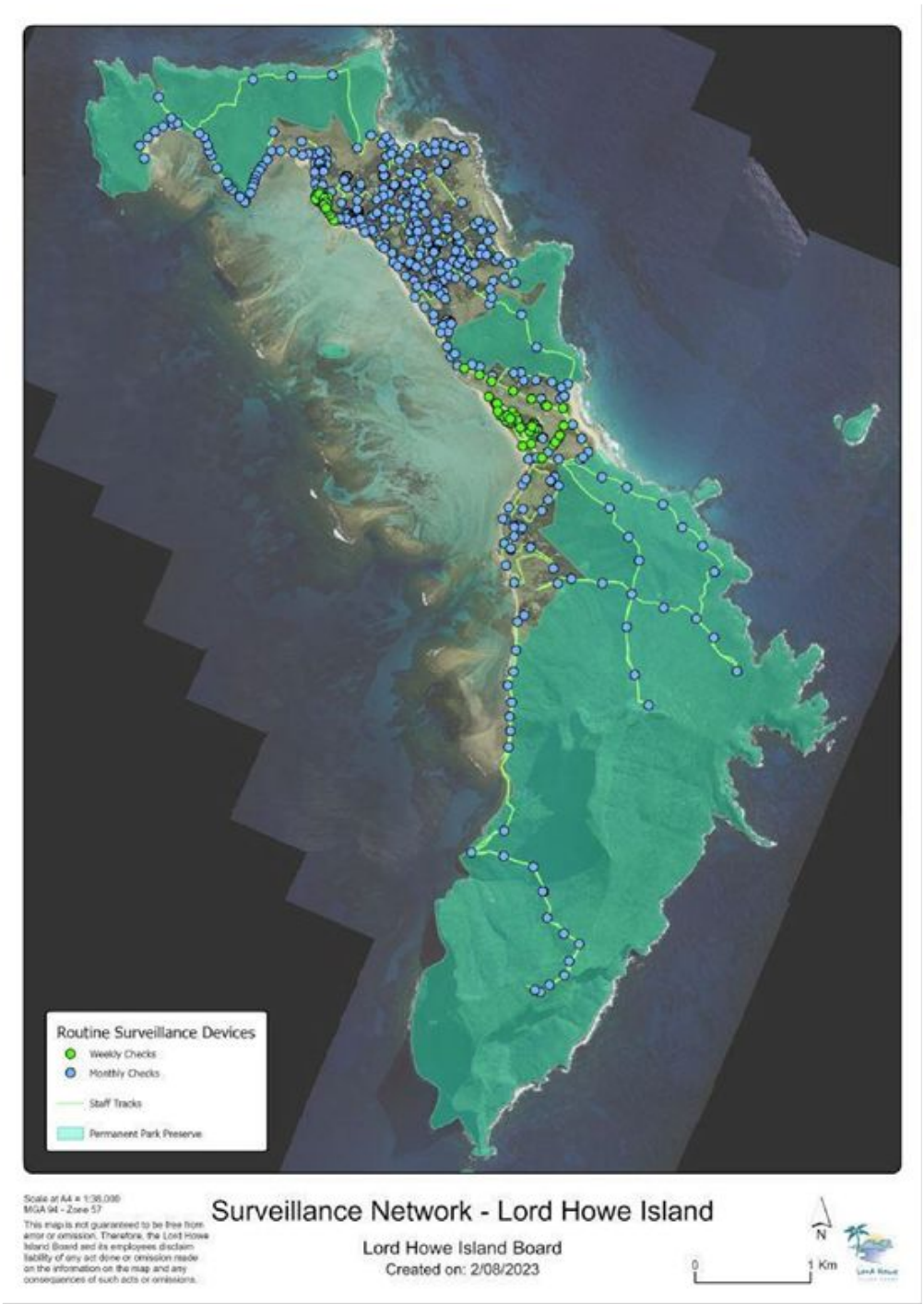

Figure 1. Biosecurity Surveillance Network.

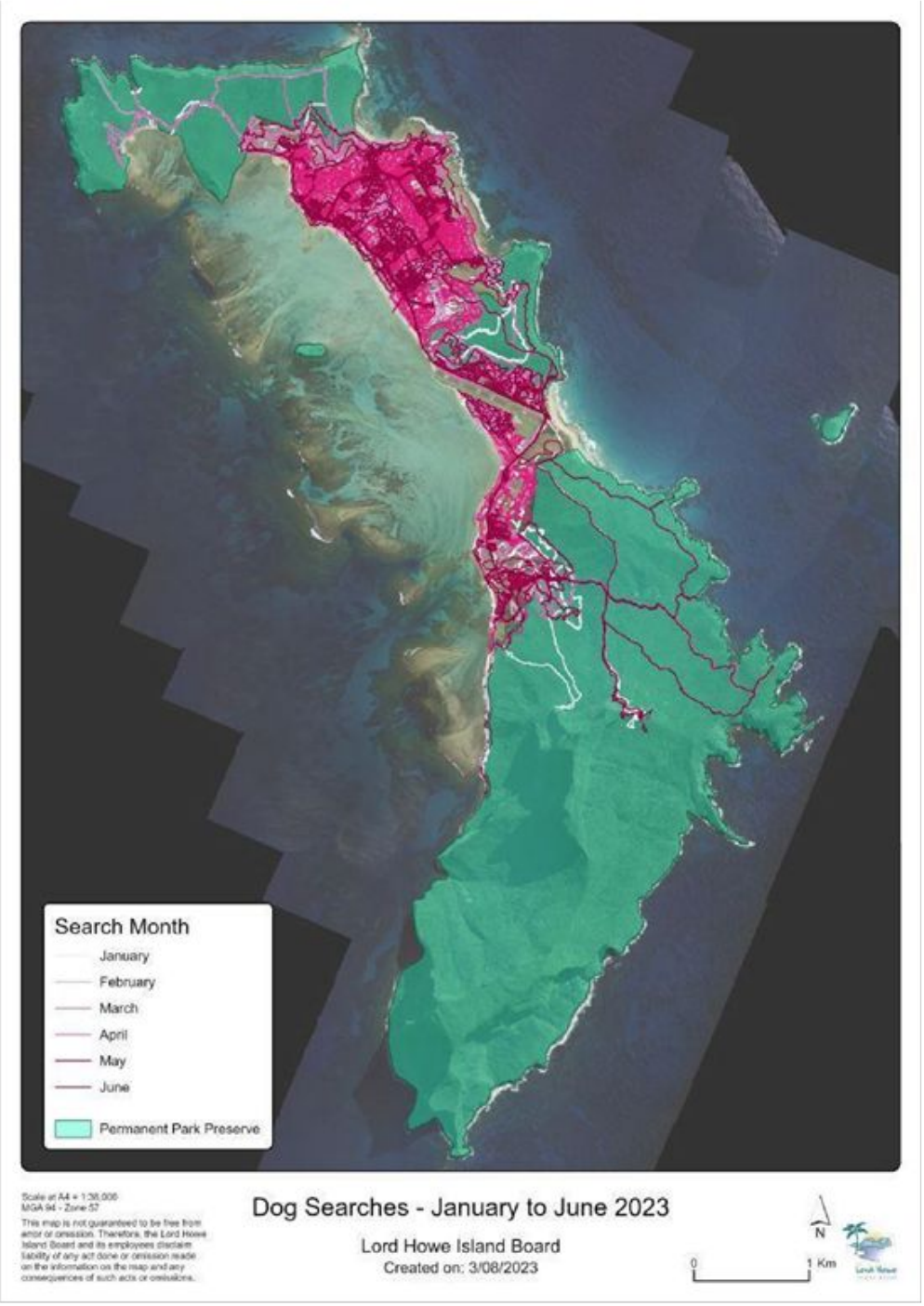

Figure 2. Biosecurity detection dog searches – first six months of 2023.

Rodent Detection Check

The spatially comprehensive rodent detection check was carried out over three weeks in mid-July 2023. This began with the establishment of 14 tracking tunnel transects of 10 tracking tunnels each across the island in May 2023 to ensure rats were accustomed to them prior to activation. Thirty-two detection grids were established and activated, and tracking tunnels loaded with tracking cards and lures. As biosecurity infrastructure was already present, largely within the Settlement, the focus for the Detection Check was in the PPP. The detection grids incorporated a central point with a lured trail camera. The cameras were set to operate from 1700-0700hrs (sunset-sunrise) with any camera activations recorded with a 5-photo burst. Four additional detection devices (2 x wax tags & 2 x chew cards) were placed 25m from this central point with one device each of the four cardinal points. All of the five detection device locations were recorded on GPS to ensure precision and a Fulcrum™ App was developed in-house to record field notes. Detection-dog searches of the PPP, along the existing walking track network and field routes used by LHIB weed team staff, was undertaken at the same time the detection grids and tracking tunnels were in place. Two detection grids, additional cameras and a detection-dog team were placed on the southern end of the island by boat as access by land was either difficult or impossible. The tracking tunnels, tracking tunnel cards and detection grid devices were retrieved after at least seven nights in the field. At retrieval, all the detection devices from each grid and tracking tunnel transect were placed in separate zip-lock bags with their site name clearly written on the bag.

The detection devices and tracking tunnel cards were scrutinised by the contracted Checkpoint Operations Manager/rodent ecologist for any sign on a detection device that could be attributed to rodents. All camera images were initially manually scrutinised by a LHIB Biosecurity Officer and the Checkpoint Operations Manager before being sent to Evorta™ for additional AI analysis.

The rodent detection effort was recorded including the date, time, location, detection device/dog, amount of time spent in detection (e.g.; how long since device last checked or distance spend walking dog). The results (e.g.; no rodent sign detected/other species detected) and notes (comments on state of any detection device - chews etc.) were tabulated on a spreadsheet for the grids and tracking tunnels.

Results

Biosecurity Surveillance

There were a total of 954 checks of the combined biosecurity surveillance detection devices in July 2023. The detection dogs searched 296 properties within the Settlement over 107 hours. No live rodent was detected by the island surveillance devices or by rodent detection

dogs during 6-weekly checks over the 24 months since the last rat was recovered in early August 2021.

Rodent Detection Check

The Rodent Detection Check was undertaken from 7 July when the first detection grid was activated and additional cameras were placed on 'Big Slope' (#Grid 29) on the southern tip of the island, with most detection grids and tracking tunnel cards retrieved from 17-19 July. The weather during the survey was generally dry for the duration of most of the check from 7-19 July with only 7.4mm recorded over 3 nights. The last detection grid (#22) was removed from 'Little Slope' on 31 July during a period of calm weather.

Thirty-six detection grids and 14 tracking tunnel lines were established (Figures 3 & 4). Detection dog tracks during the Success Check are shown in Figures 5 & 6.

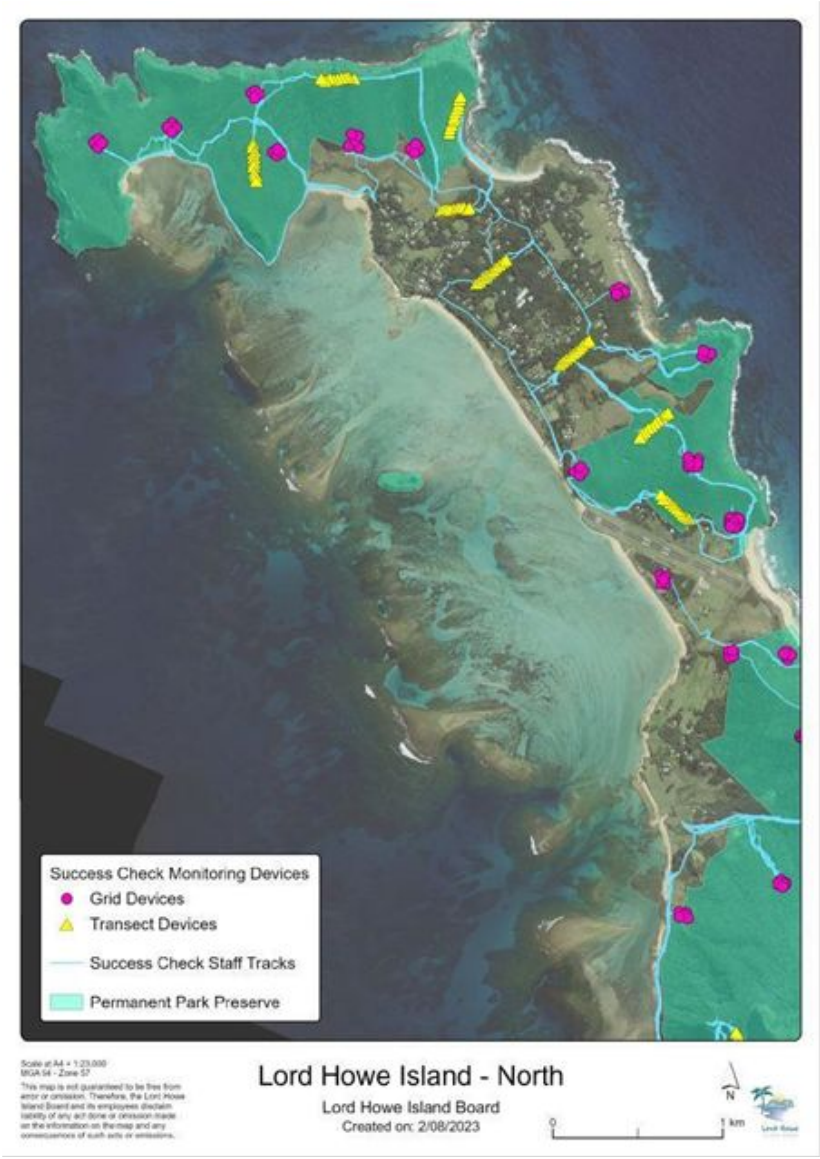

Figure 3. Detection grids & tracking tunnels deployed in northern Lord Howe Island, July 2023

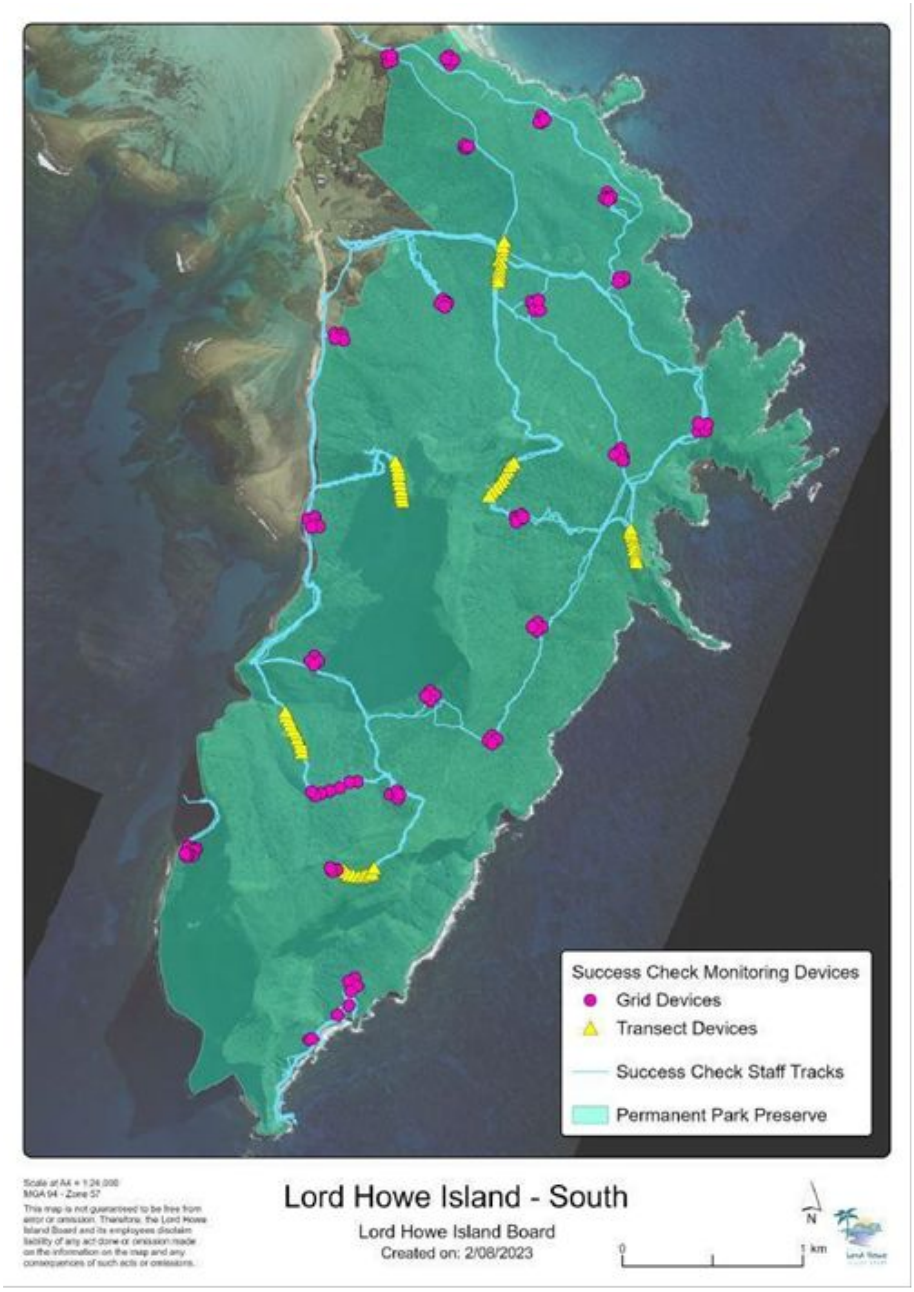

Figure 4. Detection grids & tracking tunnels deployed in southern Lord Howe Island, July 2023

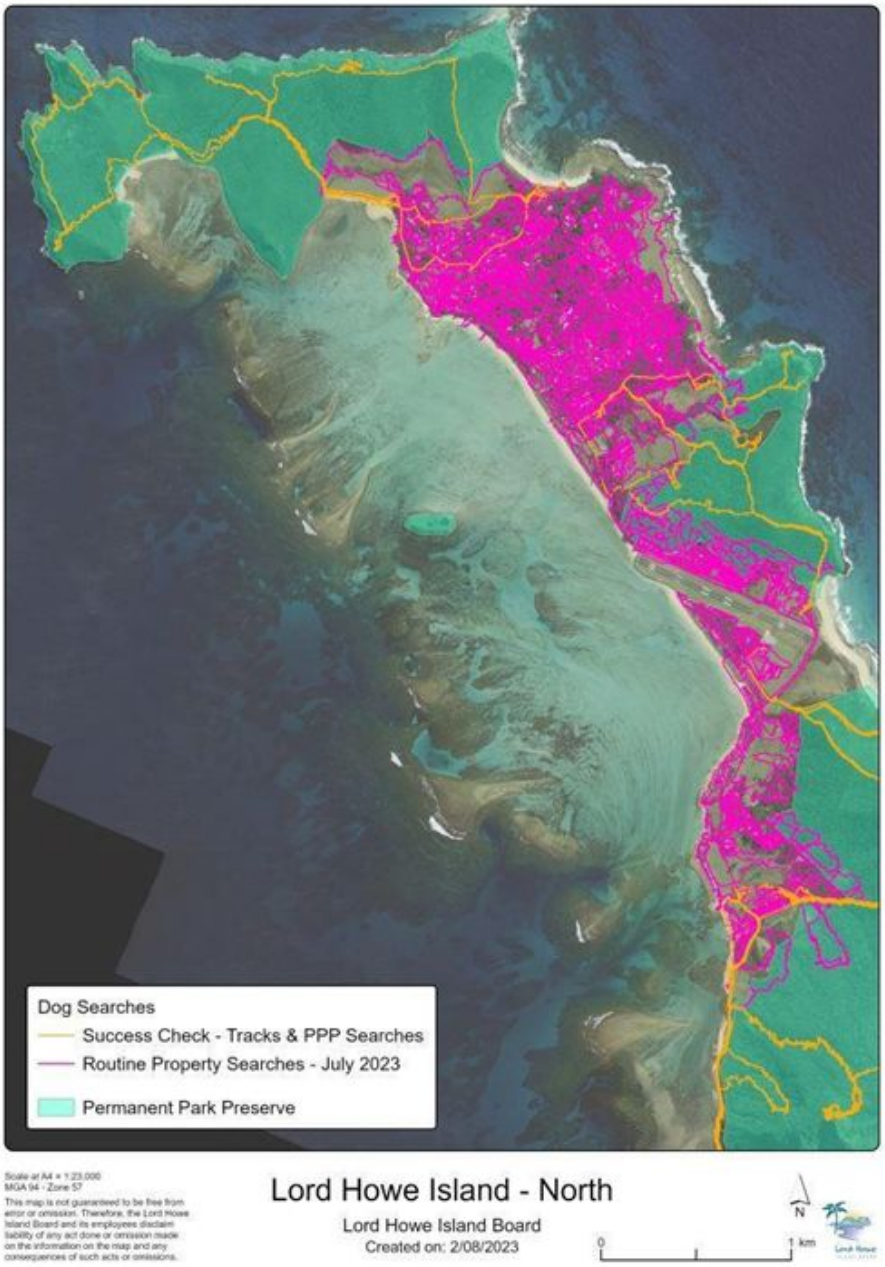

Figure 5. Detection dog tracks in northern Lord Howe Island in July 2023.

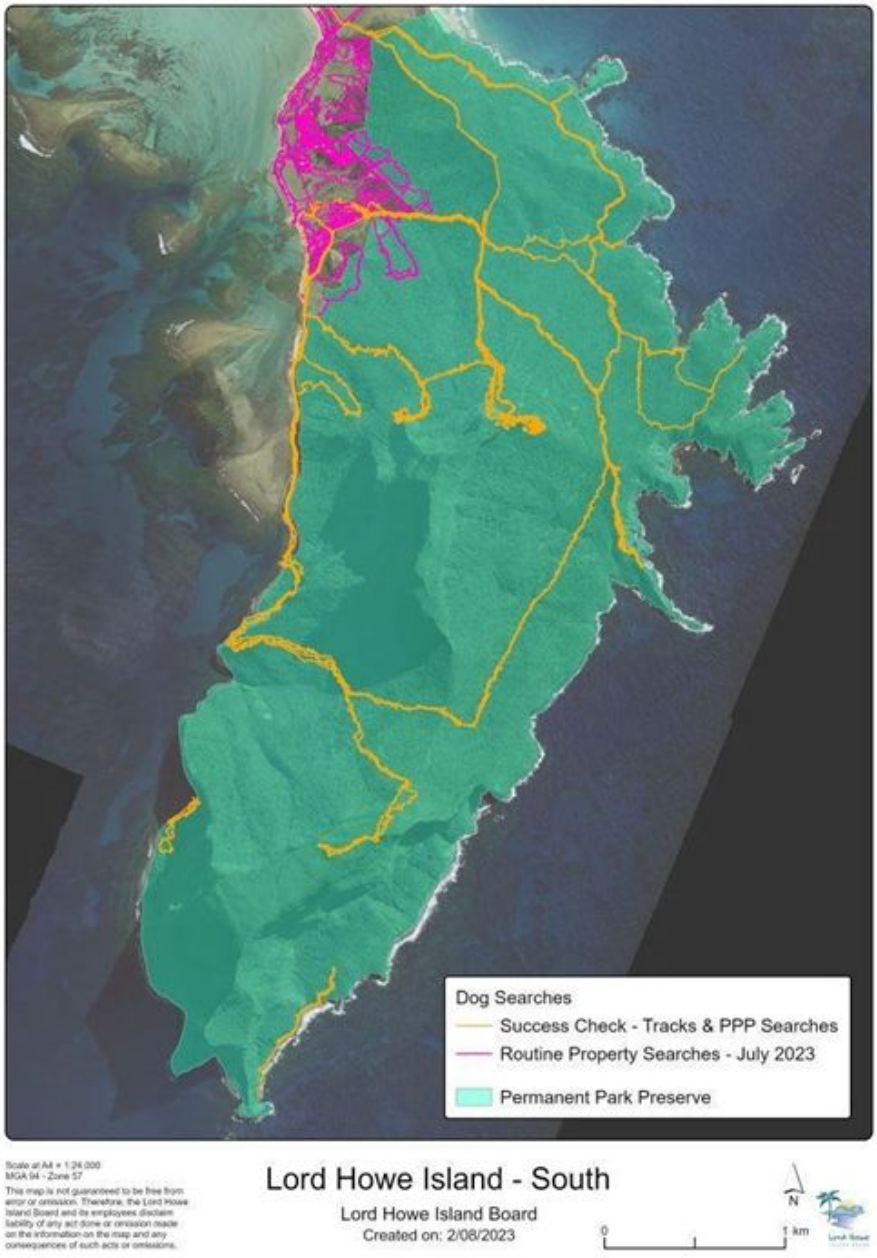

Figure 6. Detection dog tracks in southern Lord Howe Island in July 2023.

There were 327 Rodent Detection Check devices deployed, over a combined total of 2191 nights. Detection dogs travelled over 220km of tracks across the PPP over a total of 105 hours.

Although numerous native species or their sign was recorded on the detection grids, tracking tunnels, or field cameras, no rodent sign was detected, either in the Settlement or

the PPP, throughout the duration of the check (Appendix 1 & 2). The endangered endemic Lord Howe Island woodhen (*Gallirallus sylvestris*) and providence petrels (*Pterodroma solandri*) were the most common species recorded by the field cameras. Similarly, no recent rat sign was detected by the detection dog teams in the PPP or the Settlement. However, several desiccated rat corpses and some old nesting materials were found adjacent to buildings in the Settlement that had been renovated or had their roofs replaced shortly before the operation, where they had been found and thrown away during this activity.

Discussion

The lack of rodent sign recorded by both the biosecurity program over the past two years and over the recently completed Rodent Detection Check almost certainly shows that no rodents are extant on Lord Howe Island. This conclusion is supported by the modelling of detection probability of a likely population density of ship rats that would be present after the end of the REP in the PPP, and after the end of the RRP (Bode 2023 – Appendix 3).

Moreover, the models reflected real-world examples of rat population growth during rat incursions or after eradication failures on islands worldwide. For example, after an attempted Pacific rat (*R. exulans*) eradication on 4308ha Henderson Island in 2011, a small population was detected in May 2012 (pers. obs.), but had reached abundances observed prior to the operation by winter 2013 some two years later (Hall et al. 2013). On 210ha Frégate Island, Seychelles, Norway rats (*R. norvegicus*) invaded in July 1995, and despite a concerted effort to halt the incursion, were recorded across the island in substantial numbers within two years (Thorsen et al. 2000). Similarly, on 1040ha Taukihepa/Big South Cape Island, southwest of Rakuiura/Stewart Island, New Zealand, an invasion of ship rats in late 1962 or early 1963 resulted in rats becoming extremely abundant by February 1964, such that they resorted to eating wallpaper to get at the wallpaper paste (Bell et al. 2016). The invasion resulted in the extinction of one bird species and one bat species, and local extinctions of three other bird species (Bell 1978). The same story played out on Lord Howe Island after the arrival of ship rats during the grounding of the S.S. *Makambo* on Neds Beach in June 1918. Rats were recorded in plague numbers by 1921, such that the absence of the previously diverse native bird chorus was noted. Owls were introduced from 1922 in an effort to control the rats (Hindwood 1940). Again, small native bird species rapidly became extinct, with at least five species becoming extinct within about a decade of the rats arriving (Hindwood 1940). These records reveal that a small incipient rat population on an island expands at such a rate that they are commonly found across an island within about two years and can reach plague numbers relatively quickly (e.g. ≥20-30 rats/ha; Harper & Rutherford 2016).

Of the three models in the 2023 Bode report (Appendix 3) that are similar to recorded events summarised above, *Scenario two* (Figure 2; rat population density of 2 rats/ha within

two years of the end of the RRP) and *Scenario five* – rat population density in the PPP post-aerial bait application in 2019 of 4.3 rats/ha (Figure 5), come closest to the likely outcome of an eradication failure on Lord Howe. When compared with the real-world examples above, the Bode modelling appears somewhat conservative, as a population density of 2-4.3 rats/ha is relatively low (Harper & Bunbury 2015), and less than the likely population density on Lord Howe Island prior to the eradication, of at least 10 rats/ha estimated by rodent ecologists based on experience on similar islands elsewhere (A. Samaniego, pers. comm., pers. obs.).
Similarly, the often-spectacular recovery of populations of many different endemic and native animal and plant species, and the lack of observations of fresh rodent predation on fruit, molluscs, seabird eggs and chicks, and reptiles over the past two years also strongly supports the conclusion that no rodents remain.

The REP and RRP now completes a long-term effort to remove the suite of invasive pest mammals once present, and that are known to reduce or extirpate native animal or plant species on islands worldwide, namely goats (*Capra hircus*), pigs (*Sus scrofa*), cats (*Felis catus*), and now rats and mice. This is an outstanding outcome and testament to the hard work over the past 40+ years by committed island residents, with support from federal and state government and other funders, with the foresight and drive to see their island's endemic and native species on a road to recovery. The result is of significant importance for the island's World Heritage status, for island conservation globally, and provides an example for inhabited islands in particular.

Biosecurity

Now that the island is rodent-free there is a critical need for effective biosecurity to retain this status in perpetuity. There has been significant progress in improving the biosecurity surveillance and incursion response capabilities on Lord Howe, and it is on the road to being world class.

Following the 2019 Rodent Eradication Project, a surveillance network was created focussed on incursion detection, and a biosecurity focussed departure and arrivals process implemented for aircraft and vessels.

Thanks to $32M in biosecurity funding committed by the NSW government in 2022, critical capital upgrades are being delivered over four years to improve the prevention and quarantine on mainland Australia for sea freight and air travel to the island.

Operational funding is also secure, allowing for ongoing prevention, detection, and surveillance activities through a well-resourced and highly trained team. Data gathering and management has been improved, driving continuous improvement of surveillance, detection, and response planning.

Quarantine is the first and most important step in the biosecurity chain, and although there have been significant improvements, with further remedial work is in train, there still exists the need to be cognisant of the high risk that invasive species could still arrive on the island (Pahor 2020).

Conclusion

The results of the biosecurity surveillance over the past two years, and the Rodent Eradication Checkpoint conducted in July 2023, detected no sign of live rodents. This and other supporting evidence reinforces the verdict that both mice and ship rats have been successfully removed from Lord Howe Island. Enhanced biosecurity should now be the critical focus to secure this outcome.

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Appendix 1.

Species recorded on Tracking Tunnel cards, Lord Howe Island, July 2023

LHI Rodent Eradication Checkpoint					July 7-21	2023
Site	Nil	LHI Woodhen	Gecko	Insects	Slug damage	Notes
T1	9	0	0	0	0	1 TT missing
T2	10	0	0	0	0	
T3	6	4	0	0	3	
T4	10	0	0	0	0	
T5	9	0	1	0	5	
T6	10	0	0	0	3	
T7	10	0	0	0	1	
T8	7	3	0	0	6	
T9	10	0	0	0	0	
T10	9	0	0	1	5	
T11	10	0	0	0	5	
T12	10	0	0	0	0	T12: 8 cards
T13	8	0	0	2	2	pulled out
T14	10	0	0	0	8	by woodhens
Total	128	7	1	3	38	

Appendix 2.

Species recorded on Rodent Detection Grids, Lord Howe Island, July 2023

Checkpoint Results					July 7-31 2023
Site	Wax tag 1	Wax tag 2	Chew card 1	Chew card 2	Camera ID & species recorded
1	slug	nil	insect	insect	I011 - woodhen / blackbird male
2	bird	nil	nil	nil	I012 - woodhen pair
3	nil	nil	nil	nil	I010 - nil recorded
4	nil	nil	nil	nil	I008 - blackbird female
5	nil	nil	nil	nil	- banded rail / silvereye
6	nil	nil	nil	nil	I027 - nil recorded
7	nil	nil	nil	nil	I025 - silvereye
8	insect	insect	insect	nil	I009 - woodhen pair / golden whistler female
9	nil	nil	nil	nil	I026 - blackbird male / dove
10	nil	nil	nil	nil	I024 - woodhen / dove
11	nil	nil	nil	nil	I019 - Woodhen pair
12	bird	nil	nil	nil	I006 - woodhen
13	bird	nil	nil	nil	I004 - nil recorded
14	insect	nil	nil	nil	I002 - dove
15	bird	nil	nil	nil	I013 - woodhen pair
16	bird	bird	nil	nil	I018 - Woodhen pair / currawong
17	slug	slug	insect	nil	I007 - providence petrel
18	slug	nil	nil	nil	I030 - woodhen pair
19	nil	nil	nil	nil	I004 - nil recorded
20	slug	nil	nil	nil	I028 - Currawong / dove
21	bird	wax missing	insect	nil	nil recorded
22	nil	nil	nil	nil	nil recorded
23	nil	nil	nil	nil	I014 - Woodhen / Currawong / Providence petrels
24	slug	slug	nil	nil	I029 - woodhen pair / blackbird male
25	slug	nil	insect	insect	I017 - woodhen / blackbird male
26	bird	wax missing	nil	nil	I020 - providence petrel
27	slug	slug	nil	nil	I021 - Providence petrel
28	slug	nil	nil	nil	I015 - Providence petrel / currawong

29a	slug	slug	Insect	Insect	LHI006 - woodhen / silvereye / providence petrel / skink
29b	slug	slug	insect	insect	I023 - woodhen pair / providence petrel
29c	slug	slug	insect	insect	LHI016 - Woodhen / providence petrel
29d	slug	slug	nil	nil	P189 - Providence petrel
30a	nil	nil	nil	nil	P123 - Woodhen / providence petrel / Insect
30b	slug	nil	insect	nil	I003 - Providence petrel
31	nil	nil	nil	nil	P179 - Dove / Blackbird male & female
32	bird	bird	nil	nil	P180 - Woodhen pair / ants / beetle
Totals	36	36	36	36	
Bird	5	2	0	0	
Insect	2	1	9	5	
Slug	13	7	0	0	
Missing	0	2	0	0	

Woodhen	8
Woodhen pair	9
Silvereye	3
Blackbird	7
Emerald dove	4
Banded rail	1
Golden whistler	1
Providence petrel	11
Currawong	3
Insects	3
Skink	1

Appendix 3. Bode 2023

Analysis of proposed Lord Howe Island surveillance network

Michael Bode
School of Mathematical Sciences
Queensland University of Technology

Submitted 6 June 2023

Report 4 (Version 2: 06 June 2023)

Analysis of proposed Lord Howe Island surveillance network

Author: Michael Bode

INTRODUCTION

Lord Howe Island is a unique island ecosystem, a World Heritage property. It stands apart from many other regions in Australia and similar islands worldwide, due to its distinctive ecological composition. Unlike its counterparts, Lord Howe Island lacks significant populations of large reptiles, snakes, eutherian mammals, or marsupials. This unique ecological characteristic underscores the need for stringent biosecurity. Consequently, the implementation of effective surveillance measures becomes crucial to protect Lord Howe Island (LHI) from potential pest incursions.

Surveillance is the island's second line of defence, complementing the primary quarantine efforts that attempt to stop incursions from occurring at all. However, despite attempts to implement rigorous quarantine practices, Lord Howe Island remains vulnerable to the introduction of unwanted pests and pathogens, and recent events underline the importance of a coupled quarantine-surveillance-control system (Moore *et al*. 2010). Surveillance therefore plays a critical role in the biosecurity system, functioning as an early warning system for the detection of invasive species. Rapid identification of invaders provides the best opportunity to eliminate them before they establish self-sustaining populations, mitigating the potential ecological and economic harm they may cause.

An effective surveillance system is based on strategically positioned and regularly maintained devices. The surveillance plan outlined in this document has been designed to meet the needs and environmental conditions of LHI. By adhering to the plan's measures and procedures, pest organisms which circumvent quarantine procedures can be promptly detected and rapidly removed through a well-coordinated incursion response program.

The goal of this report is to analyse a proposed surveillance network for LHI, based on the performance of each device observed during the RRP. Specifically, we will estimate how long it would take for an incursion to be detected.

BACKGROUND

Invasive rodents (black rats *Rattus rattus* and house mice *Mus musculus*), pose a significant conservation challenge to LHI's unique ecosystems. The introduction of these species to the island, likely through shipwrecks or human activities, led to their establishment on the island, with considerable negative ecological impacts, including the extinction of five native bird species, 13 endemic invertebrate species, and the widespread degradation of native vegetation. Recognizing the ecological threats posed by these invasive species, efforts were undertaken to control rodents from LHI, culminating in a full-scale eradication projects in 2019, and subsequent response programs. These initiatives aimed to restore the island's biodiversity and protect its fragile ecosystem from the detrimental effects of invasive rodents.

A 2019 eradication project attempted to eliminate black rats and house mice, and faced challenges from the island's large size, inhabited areas, complex topography, and risk of reinvasion from the mainland. The eradication effort involved multiple methods, including aerial baiting, installation of detection devices, bait stations, and systematic searches with detection dogs. The last confirmed rodents were found in October 2019.

Post-eradication surveillance commenced in 2019, to confirm eradication and avoid re-incursion. A network of monitoring devices were installed across the island, although concerns were raised about the density and distribution of the surveillance network, and its ability to detect rodents effectively. The program faced funding limitations and challenges in personnel resources, resulting in a reliance on passive monitoring without regular detection dog sweeps.

In April 2021, rats were reported and confirmed in the Northern Settlement area, triggering the Rodent Response Program (RRP). The RRP employed localized monitoring and control actions, primarily focused on settlement areas, in contrast to the earlier island-wide techniques used in the eradication project. It involved the expansion of monitoring grids and the implementation of targeted measures to prevent dispersal and breeding. By July 2021, the last live rat was detected, confined to the Northern Settlement area. As of May 2023, no further rats have been found.

PERFORMANCE OF SURVEILLANCE DEVICES DURING THE RRP

Given the data estimated during the RRP, I estimated the per-device probability that each type of device would detect a rodent, if present on the island. Figure 1 shows the results for each type of device. These results are given numerically in Table 1, along with the make-up of the proposed surveillance network. Distributions are needed rather than point estimates, since device performance varies location, rodent behaviour, etc., and is also subject to stochasticity.

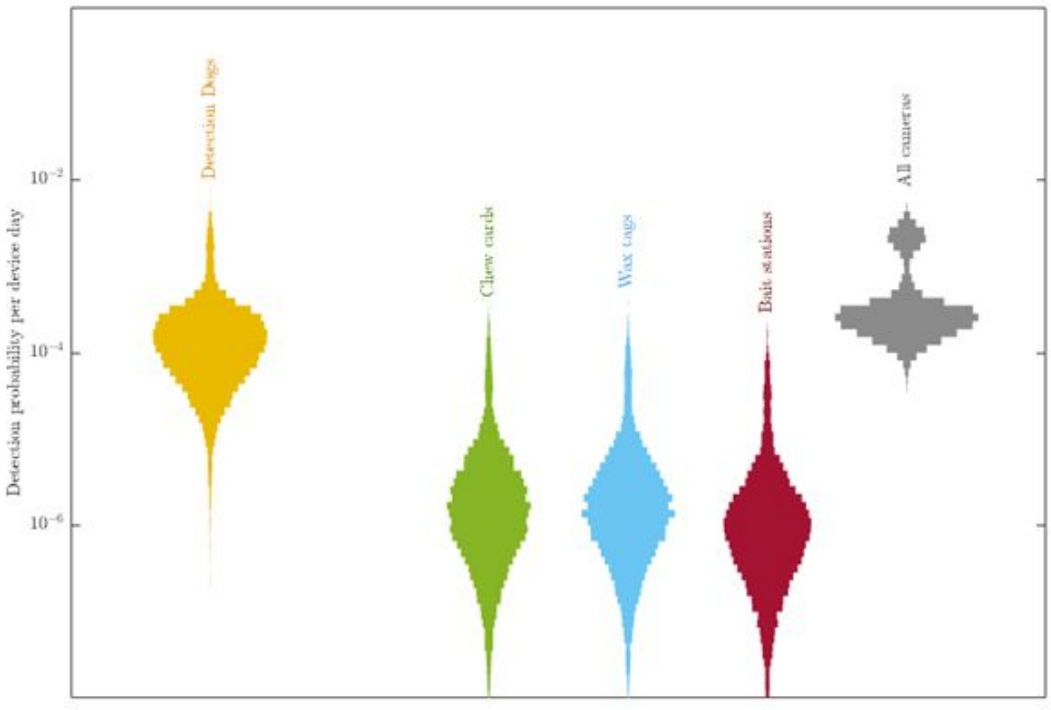

***Figure 1**: Probability that a single device of each type – located randomly within the LHI search zone, will detect a rodent in a single day, if present on the island. Note the logarithmic scale of the y-axis. 10^{-4} indicates a 1-in-10,000 probability of detection. For dogs, the y-axis shows per-kilometre surveyed, rather than per-device.*

***Table 1**: Proposed surveillance network for Lord Howe Island post-RRP, with the estimated probability of detection for each device given. Note, simulations of detection are based on the full distributions, not just the mean probabilities of detection.*

Surveillance device network	**Number of devices in proposed surveillance network**	**Mean probability of detection (device^{-1} day^{-1})**
Bait station & Kill traps	231	3.4×10^{6}
Camera traps (all)	169	5.7×10^{4}
Chew cards	69	2.2×10^{6}
Tracking tunnels	28	0
Wax tags	40	2.3×10^{6}
Dog teams	220 km sweep every 12 weeks	2.2×10^{4} km^{-1}

POST-RRP SURVEILLANCE NETWORK

Following the RRP, a surveillance network has been implemented to detect either new rodent incursions or a failed eradication. Using an analysis of the RRP network's performance, I previously estimated two important factors: (1) the probability of the network detecting a new incursion, and (2) the estimated delay before the detection of a new incursion becomes highly certain.

I estimated these answers under both an optimistic scenario (using the upper bound of estimated detection probabilities for each device) and a pessimistic scenario (using the lower bounds). Under the optimistic scenario, I estimated that an incursion would be detected within 2 weeks with 50% probability, and within 8 weeks with 99% probability. Under the pessimistic scenario, I estimated that an incursion would be detected within 3 weeks with 50% probability, and within 12 weeks with a 99% probability.

FORECAST PERFORMANCE OF THE NEW PROPOSED SURVEILLANCE NETWORK

A new surveillance network has been proposed for Lord Howe Island, summarised in Table 2. We use the estimates of detection probability calculated above (Figure 1) to estimate how long it would take this network to detect a new rodent incursion.

***Table 2**: New proposed surveillance network for Lord Howe Island, with the estimated probability of detection for each device given. Changes are to the dog sweeps, which are now*

Surveillance device network	**Number of devices in surveillance network**	**Mean probability of detection (device^{-1} day^{-1})**
Bait station & Kill traps	231	3.4×10^{-6}
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Dog teams	Full settlement sweep every 12 weeks (220 km) Crown land sweep every other 12 weeks (40% of settlement)	2.2×10^{-4} km^{-1}

Note that detection dogs are among the best performing devices. However, unlike the other devices, the dog teams are deployed in pulses, every 12 weeks. Our forecast models assume that the two types of dog search – one of the entire settlement, one of just the crown land – occur on separate 12 week cycles, 6 weeks apart, with a random initiation time.

To calculate the overall probability of detection, we assume that each device operates independently of the others. For a rodent incursion to escape detection, it must thus avoid all devices simultaneously. If the daily probability that a single device of type d detects a rodent, present somewhere on the island is p_d, and if there are N_d devices of type d on the island, then the probability that a rodent will remain detected after t days by a network of D devices is:

$$P \quad 1 \quad \left[\prod_{d=1}^{D}(1 \quad p_d)^{N_d}\right]^t.$$

Equation 1

Because the estimates of p_d shown in Figure 1 are uncertain, we calculate P by repeatedly selecting a random value from each distribution at each timestep, over a period of 3 months (extending the simulations beyond this point was not necessary, since the probability of detection was virtually 100% after this time). We repeat this process 10^4 times, each of which results in a slightly different trajectory of discovery (as we would expect from a probabilistic process). We report the result of the mean of these simulations.

RESULTS

Figure 2 shows the resulting cumulative probability of detection, for the year following a rat incursion on Lord Howe Island, for the new proposed surveillance network.

The results accord with analyses of the previous surveillance network. They suggest that the surveillance network would be likely to detect an incursion (i.e., with probability > 50%) within two weeks of the incursion, on average. The network is almost certain to detect an incursion (with probability > 99%) within 10 weeks of the rodent arriving. Given that rat gestation takes approximately 3-4 weeks, and that reproductive cycles are approximately 3 months apart, we could expect detection to occur when a new rat population is still very small.

We must note that these results are dependent on the devices performing as effectively in surveillance as they did during the RRP process. Our findings presented in other sections of the report highlight that between the end of the REP and the commencement of the RRP, the surveillance network that was in place did not perform to this standard. Moreover, the ecological response that resulted from the removal of rats and mice from the island – both in the diversity and structure of the vegetation and the increased availability of natural food for rodents – are likely to have continued since both the end of the two eradication programs. The validity of the estimates is therefore uncertain.

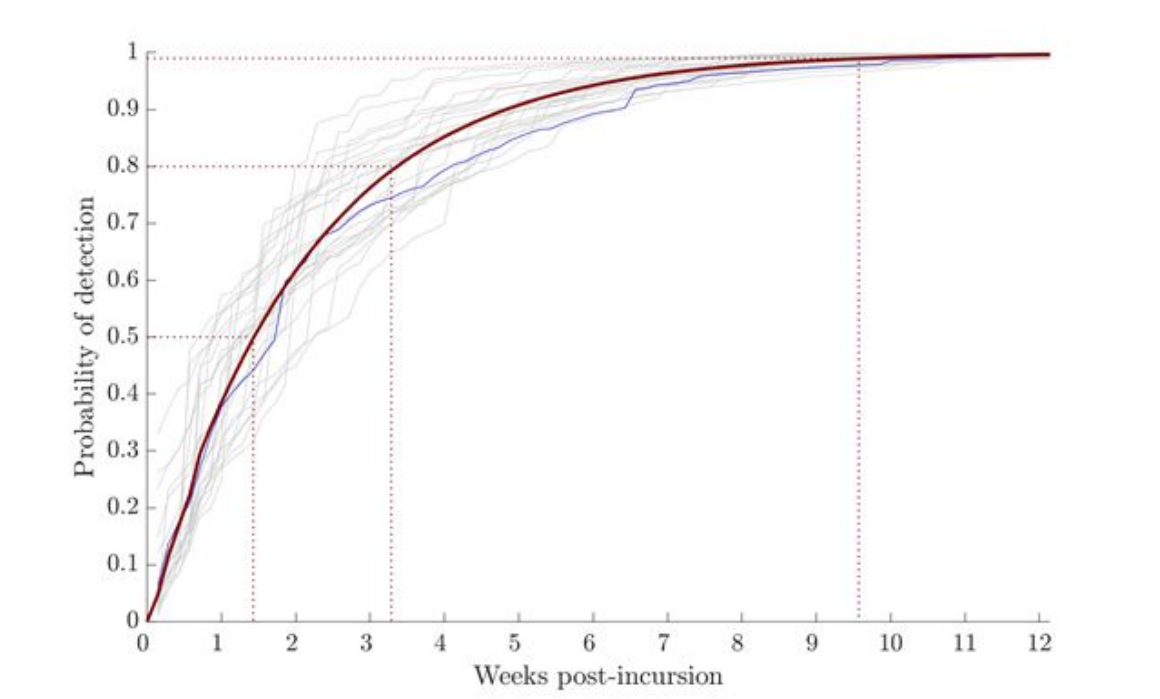

***Figure 2**: Probability that an incursion by a single rat would be detected by the proposed surveillance network, as a function of time since incursion. Within 3.5 weeks, the probability of detection exceeds 80%. Within 10 weeks, it exceeds 99%. The spread among the grey lines indicate the variation in the modelled probabilities of detection, resulting from the uncertain detectability estimates in Figure 1; the blue line highlights a single possible trajectory. The red line shows the average probability of the surveillance network detecting an incursion.*

References cited

Moore, J. L., Rout, T. M., Hauser, C. E., Moro, D., Jones, M., Wilcox, C., & Possingham, H. P. (2010). Protecting islands from pest invasion: optimal allocation of biosecurity resources between quarantine and surveillance. *Biological Conservation*, *143*(5), 1068-1078.

Board Meeting: September 2023	**Agenda Number:** 11.03	**Record Number:** ED23/5960

LORD HOWE ISLAND BOARD

OPEN SESSION

Item

Change to the frequency of Lord Howe Island (LHI) Board detection dog settlement searches.

Recommendations

1. **Approve**: an amendment to the ongoing biosecurity surveillance and monitoring program on LHI, commencing immediately, that will adjust settlement dog searches from 6 weekly to 12 weekly for residential leases and otherwise maintain 6 weekly dog searches for all unoccupied crown blocks within the settlement.

2. **Note:** the analysis of the modified dog search frequency undertaken by Michael Bode of the Queensland University of Technology (QUT)

Summary

An intensive Checkpoint program commenced 10 July, with the goal of determining the absence of rodents on Lord Howe Island post the 2019 Rodent Eradication Program (REP) and subsequent rodent response (RR) in 2021.

Two possible outcomes of the Checkpoint investigation were:
1. detection of live rodent presence, or
2. absence of live rodent detection.

As no live rodent presence has been detected, (refer to Board report 13.05), an internal review of the long-term rodent surveillance program has been undertaken. To inform this review, an analysis of the present surveillance and monitoring regime has been completed by Michael Bode of the Queensland University of Technology (QUT), specifically exploring the impact of a proposed shift in the frequency of canine detection searches around the settlement.

Background

Following the finalisation of the REP in December 2019, an island-wide monitoring network of 371 devices was installed in January 2020, with a further 110 devices added in the Permanent Park Preserve (PPP) in October 2020.

Following rodent detections in the settlement triggering the 2021 Rodent Response (RR), the monitoring network was enhanced and now includes; tracking tunnels, wax tags, chew cards, 162 motion detection cameras and extensive rodent detection dog searches including of the entire settlement on a six-weekly cycle (Dec 2021 – Current).

This surveillance network post RR has an improved ability to detect invasive pests at low densities, and a 99 percent probability of detecting a rodent in the settlement area within 12 weeks (QUT, 2022).

The surveillance regime built around this network has been consistently implemented over the past 2 years and has returned a nil live rodent presence in the settlement. Any reports or canine indications over this time have been thoroughly investigated and all dismissed based on evidence collected.

In May 2023, a follow up analysis of the surveillance network was undertaken by QUT, specifically exploring resultant performance impacts of a proposed shift from a 6-week full sweep of the settlement with dog teams to:

- A full settlement sweep every 12 weeks (220 km), and
- A non-residential Crown land sweep every other 12 weeks (40% of the settlement)

The analysis found that the proposed change delivers an equivalent probability (> 99%) of detection of an incursion within 10 weeks of a rodent arriving*.

Current position

Surveillance is essential

LHI is vulnerable to the introduction of unwanted pests and pathogens. Surveillance is LHIs essential second line of defence, complementing primary quarantine efforts at points of departure and entry, that aim to prevent incursions.

Rapid identification of rodents provides the best opportunity to eliminate them before they establish self-sustaining populations, mitigating the potential ecological and economic harm they may cause.

LHI's surveillance system is based on strategically positioned and regularly maintained devices and deployment of canines and has been designed to meet the needs and environmental conditions of LHI.

Community impact

Detection dogs are among the best performing surveillance devices available to the Board. However, unlike other devices, the dog teams are deployed in pulses, and are introduced to individual lease holdings rather than being part of a static array.

The frequency of dog searches on individual lease holdings has been an issue of contention for some of the LHI community. Twenty-four hours notification is provided to residents before a search is commenced, and direct contact is made every 6 weeks to seek permission to enter 190 lease holdings. This process is resource hungry but, considered a cost of maintaining an effective surveillance program on the Island.

While the community is generally understanding and accommodating of the regular search, there is growing fatigue for the regularity and perceived intrusive nature of these searches. It should be recognised that beyond dog searches, lease holders are also requested to permit lease entry for a range of other biosecurity and Board related matters in any year.

Searching at a reduced frequency is expected to be a welcome change generally, and a relief well-earned following years of effort and cooperation.

Cost

Resourcing the extensive rodent detection dog searches on a six-weekly cycle is costly. The Board is reliant on contracted dog teams to boost capacity at these times, particularly to enable the maintenance of core biosecurity surveillance at the airport and jetty. The base costs incurred by the Board in terms of core staff time invested in planning and implementing each

search is also significant. A reduction in the number of lease-holding searches per annum will deliver a saving for the Board over time.

Rigor

An independent analysis (Tab 1) demonstrates that a move to two types of dog search – one of the entire settlement, and one of unoccupied crown land parcels – occurring on separate 12 week cycles, 6 weeks apart, delivers an equivalent probability of detection to the current regime. The network, (inclusive of the proposed change to dog search frequency) is almost certain to detect an incursion (with probability > 99%) within 10 weeks of a rodent arriving*.

**These results are dependent on the devices performing as effectively in surveillance as they did during the RR process. The validity of estimates is not certain due to the ecological response following removal of rats and mice from the island.*

Expert analysis

Michael Bode of the QUT school of mathematical sciences has provided various analyses to the LHI Board, examining the efficacy of the surveillance network operating on LHI. This advice has informed biosecurity investment and shaped the current surveillance regime.

Most recently, QUT analytical review has been extended to the probability of rodent detection for the Lord Howe Island Checkpoint program.

Next steps

A modification to the detection dog deployment strategy is proposed to achieve greater resource efficiency; manage staff, dog and lease holder fatigue; and reduce impacts on the LHI community. Independent analysis suggests that these benefits can be realised via a strategic realignment of canine inspection cycles while maintaining a high level of rigor.

Attachments

Attachment	Title
A	Report - Bode 2023 - Surveillance Network (V2) - 27 June 2023

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Paula Pollock	Manager Environment and Community Services

Analysis of proposed Lord Howe Island surveillance network

Michael Bode
School of Mathematical Sciences
Queensland University of Technology

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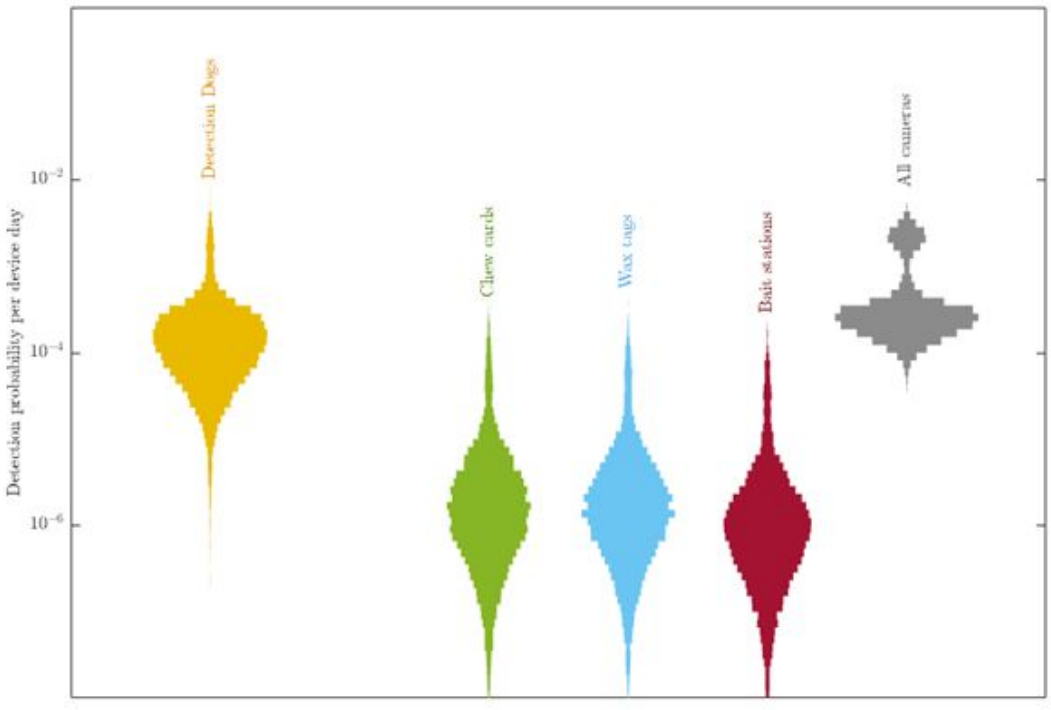

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FORECAST PERFORMANCE OF THE NEW PROPOSED SURVEILLANCE NETWORK

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To calculate the overall probability of detection, we assume that each device operates independently of the others. For a rodent incursion to escape detection, it must thus avoid all devices simultaneously. If the daily probability that a single device of type d detects a rodent, present somewhere on the island is p_d, and if there are N_d devices of type d on the island, then the probability that a rodent will remain detected after t days by a network of D devices is:

$$P \quad 1 \quad \left[\prod_{d=1}^{D}(1 \quad p_d)^{N_d}\right]^t.$$

Equation 1

Because the estimates of p_d shown in Figure 1 are uncertain, we calculate P by repeatedly selecting a random value from each distribution at each timestep, over a period of 3 months (extending the simulations beyond this point was not necessary, since the probability of detection was virtually 100% after this time). We repeat this process 10^4 times, each of which results in a slightly different trajectory of discovery (as we would expect from a probabilistic process). We report the result of the mean of these simulations.

RESULTS

Figure 2 shows the resulting cumulative probability of detection, for the year following a rat incursion on Lord Howe Island, for the new proposed surveillance network.

The results accord with analyses of the previous surveillance network. They suggest that the surveillance network would be likely to detect an incursion (i.e., with probability > 50%) within two weeks of the incursion, on average. The network is almost certain to detect an incursion (with probability > 99%) within 10 weeks of the rodent arriving. Given that rat gestation takes approximately 3-4 weeks, and that reproductive cycles are approximately 3 months apart, we could expect detection to occur when a new rat population is still very small.

We must note that these results are dependent on the devices performing as effectively in surveillance as they did during the RRP process. Our findings presented in other sections of the report highlight that between the end of the REP and the commencement of the RRP, the surveillance network that was in place did not perform to this standard. Moreover, the ecological response that resulted from the removal of rats and mice from the island – both in the diversity and structure of the vegetation and the increased availability of natural food for rodents – are likely to have continued since both the end of the two eradication programs. The validity of the estimates is therefore uncertain.

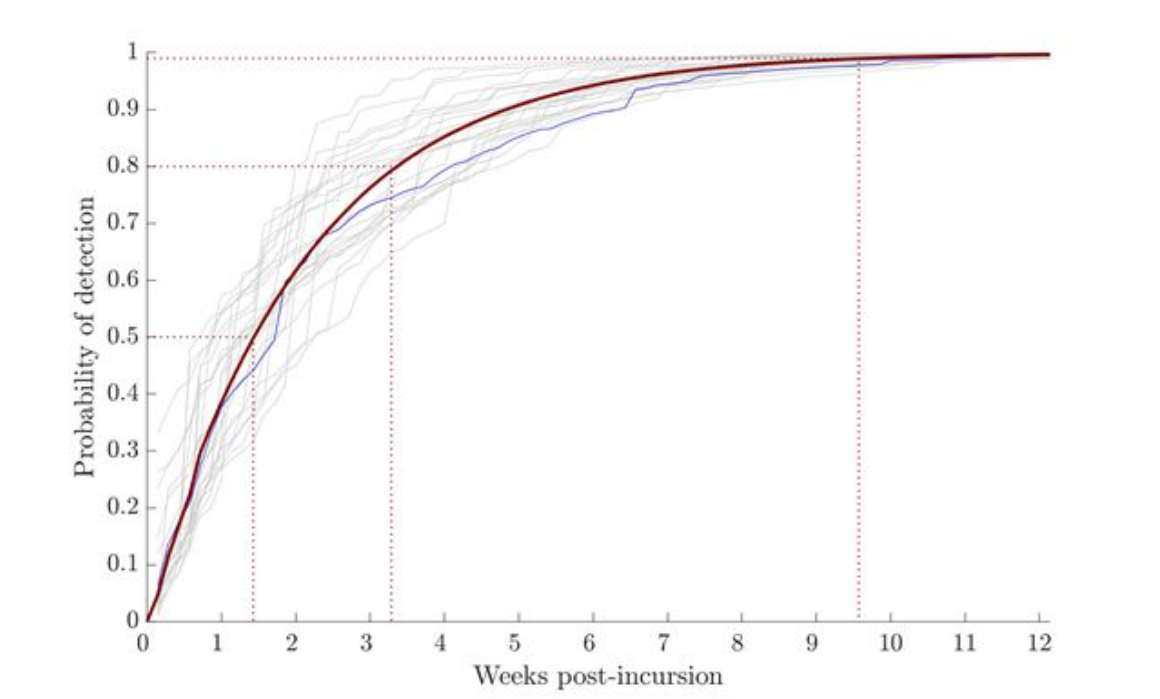

***Figure 2**: Probability that an incursion by a single rat would be detected by the proposed surveillance network, as a function of time since incursion. Within 3.5 weeks, the probability of detection exceeds 80%. Within 10 weeks, it exceeds 99%. The spread among the grey lines indicate the variation in the modelled probabilities of detection, resulting from the uncertain detectability estimates in Figure 1; the blue line highlights a single possible trajectory. The red line shows the average probability of the surveillance network detecting an incursion.*

References cited

Moore, J. L., Rout, T. M., Hauser, C. E., Moro, D., Jones, M., Wilcox, C., & Possingham, H. P. (2010). Protecting islands from pest invasion: optimal allocation of biosecurity resources between quarantine and surveillance. *Biological Conservation*, *143*(5), 1068-1078.

Board Meeting: September 2023	**Agenda Number:** 11.04	**Record Number:** ED23/5961

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Lord Howe Island Board (LHIB) Stakeholder Engagement Strategy

Recommendations

1. **Approve -** That the Draft LHIB Stakeholder Engagement Strategy go on public exhibition from the 20th September – 18th October 2023.

Current Position

A Stakeholder Engagement Strategy fosters transparent and effective community communication. A foundational pillar of the LHIB charter (5.1,l), community communication and engagement is a topic raised in the Efficiency and Effectiveness Review, noting that 63% of participants rated LHIB communication and engagement with the community as Poor (31%) or Very Poor (32%) an increase of 34% compared to the 2016 Communication and Community Engagement Survey.

To respond to this feedback and improve to clarity and transparency with regard to LHIB communication, planning and decision making, a Draft LHIB Stakeholder Engagement Strategy has been prepared.

At its core, this strategy adheres to the principles of the International Association for Public Participation (IAP2), which emphasize involving the public in decisions that affect them. By embracing the IAP2 framework, the strategy ensures community inclusivity, trust-building, and collaboration.

This strategy is designed to:

- Guide engagement with the stakeholders of the Lord Howe Island Board (LHIB);
- Identify key implementation activities; and
- Outline a monitoring and evaluation plan to ensure continual improvement as implementation progresses.

Objectives:

The LHIB's mission is to provide leadership, services and support which contribute to the wellbeing and sustainability of the Lord Howe Island community and its environment pursuant to the charter in the *Lord Howe Island Act 1953*. The objectives of this strategy are:

- To undertake our activities in a way that identifies, acknowledges, and considers stakeholder interests.
- To achieve well-planned, consistent, and effective stakeholder engagement to advance our strategic goals and priorities, as outlined in the Corporate Plan.
- To improve customer and partner satisfaction with our services and approach.
- To create an environment where employees are partners.

The focus in the first 12 months is to:

- Define and articulate the future approach to stakeholder engagement.
- Develop and start implementing an integrated communications plan.
- Improve existing practices to ensure consistency and effectiveness and improve stakeholder satisfaction.
- Introduce systems and processes to support staff to work more effectively, to plan and track engagement activity and monitor success.
- Develop and implement targeted engagements to review a range of strategic plans and policies.

The activities that will underpin the defined goals for the next 12 months are:

1. Finalisation of the Stakeholder Engagement Strategy
2. Community group session to finalise consultation conducted (Attachment B) and service delivery commitments (SDC's)
3. Working group to review forward planning considerations based on group session
4. Consolidate information and write a draft 10-year Community Strategic Plan (CSP) and Local Strategic Planning Statement (LSPS)
5. Finalise CSP and SDC's, draft delivery plan and operations plan in line with budget for June 2024 board decision.

Budget

Key resources assigned to implementation of the engagement strategy and the communication plan are the People and Change Lead and Communications Officer, funded through projects.

The LHIB is currently in negotiations with Port Macquarie – Hastings Council to leverage their expertise in community engagement and facilitation through an existing Memorandum of Understanding. This support will enable the Board to progress critical work on the community strategic plan within the allocated funding.

Attachments

Attachment	Title
A	LHIB Stakeholder Engagement Strategy
B	LHIB Community Engagement Review 2003-2023

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Darcelle Matassoni	Senior Project Officer

Lord Howe
ISLAND BOARD

Stakeholder Engagement Strategy

July 2023

Document version:	*001*
Title:	Lord Howe Island Board Stakeholder Engagement Strategy
Scope:	
Author:	
Approved by:	CEO
Reviewed:	XXXXX

NSW GOVERNMENT

Table of Contents

1. Context

This strategy:

- Guides engagement with the stakeholders of the Lord Howe Island Board;
- Identifies key implementation activities; and
- Outlines a monitoring and evaluation plan to ensure continual improvement as implementation progresses.

1.1 Objectives

The Lord Howe Island Board's mission is to provide leadership, services and support which contribute to the wellbeing and sustainability of the Lord Howe Island community and its environment pursuant to the charter in the Lord Howe Island Act. The objectives of this strategy are:

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The focus in the first 12 months is to:

- Define and articulate the future approach to stakeholder engagement.
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- Introduce systems and processes to support staff to work more effectively, to plan and track engagement activity and monitor success.
- Develop and implement targeted engagements to review a range of strategic plans and policies.

1.2 Principles

We will ensure engagement is:

Purposeful - Ensuring a clear understanding of goals and objectives of each engagement.

Respectful - Aware of our stakeholders' objectives, background, priorities, and resources, we will tailor timeframes and approaches to accommodate their needs and respond in a timely manner to their requests.

Transparent - We will be honest and upfront with our stakeholders, clear about our process and timeframes, and the stakeholders' level of involvement and overall input (see Section 3 Our Approach).

Inclusive - Of stakeholders with whom it may be more difficult to engage with for a variety of reasons, including those with culturally or linguistically diverse backgrounds, people with mobility, or socio-economic issues and from differing abilities and age groups.

Consistent - In our messaging, both internally and externally, to build trust and maintain credibility.

Authentic – Taking on feedback, acknowledging contributions, informing stakeholders of outcomes, and creating shared ownership.

Measurable - We will track our engagement process and stakeholder satisfaction to inform continual improvement.

2. Our stakeholders

Our stakeholders are *organisations, groups, or individuals who have an interest in influencing or benefitting from, or are affected by,* the Lord Howe Island Board's activities.

Broad stakeholder groups that must be engaged in a meaningful way for the achievement of the Lord Howe Island Board's objectives are proposed below.

It should be noted that individuals may belong to more than one stakeholder group.

2.1 Stakeholder groups:

NSW Minister for the Environment – responsible for the *Lord Howe Island Act 1953.*

Board Members – Elected and appointed individuals who have a **legislative** mandate via the *Lord Howe Island Act 1953.* The **Board** reports to the Minister and has delegated authourity for a range of decisions.

Residents – Including generational and long-term residents, leaseholders, shorter term residents and itinerant workers.

Business Operators – Supply of important goods, services, and experiences across the Island, supporting the local economy. A number of these businesses, operated on and off the Island, relate to tourism like booking agents, lodges, hospitality, and airline providers.

Visitors – The Island's 16,000 visitors per year are vital to the Island's economy, and promotion of its values.

Government – At a state and federal level, there are multiple elected representatives, Members of Parliament, Ministers, Departments, and policy makers who are considered key stakeholders.

Science Networks (Research, science, education, and knowledge experts and institutions) – The science network are important stakeholders in the management of the environmental, social, and economic values of the Island, and threats to those values.

Community groups - Advancement of altruistic objectives at local, regional, state, and national levels. Relevant for collaboration on shared goals, advocacy, and philanthropy.

Suppliers – Includes **suppliers, consultants, and contractors** – Providers of services, including financial, audit, advisory, technical, and operational requirements, and consumables.

Media – Local, state, and national media provide the Lord Howe Island Board with a means of communicating to stakeholders proactively and responsively. This includes legacy media (print, radio, and television) as well as digital media and social media platforms.

Internal Staff – Existing staff, contractors, and volunteers. This makes up the Lord Howe Island Board's human resource base and are responsible for most engagement. These stakeholders are the advocates, brand ambassadors and champions for the organisation when positively engaged.

Skilled workers – The Island relies on skills from mainland Australia and other countries to drive its programs and businesses. Attracting the attention of new, external talent takes place seasonally for different opportunities.

3. Prioritisation

Not all stakeholders can or will be engaged at the same level.

Stakeholder prioritisation informs the level of attention and resources dedicated to each group of stakeholders, and which approaches are likely to be most appropriate. A simple matrix of Influence and Interest is used to prioritise how resources are used.

Figure 1. The Lord Howe Island Board stakeholder groupings and engagement priority

4. Stakeholder Engagement Approach

The International Association of Public Participation's *Public Participation Spectrum* (International Association of Public Participation, 2021) approach and definitions will be used by The Lord Howe Island Board. Further guidance that should be considered when applying the engagement mechanism selected is available via the IAP2 website.

These elements of engagement occur along a spectrum and involve an increasing level of individual and community participation from information through to empowerment. Most importantly, the spectrum sets out the **promise** being made to participants at each level.

Differing levels of participation are legitimate depending on the goals, timeframes, resources, and levels of concern in the decision to be made. No part of the spectrum is harder or more preferable than another, rather the most appropriate form of engagement will be selected to ensure effectiveness. Table 3. Below provides examples of types of mechanisms used at The Lord Howe Island Board for each of the engagement levels.

4.1 Levels of engagement

INFORM

Information is generally a one or two-way exchange describing the communication of information and is the foundation of all engagement processes.

"***…know who you are trying to reach and how they are most likely to access and understand the information…"***

CONSULT

Consultation describes the process of eliciting feedback on information provided.

"…ensure the purpose of the consultation is clear, including what is being consulted on and what is non-negotiable…"

INVOLVE

Involvement is about shared decision-making, giving stakeholders and communities some influence.

"…work with the community to ensure their concerns are directly reflected in alternatives and solutions…"

COLLABORATE

Collaboration is when stakeholders work together with the organisation and other stakeholders to develop solutions and initiatives. Decisions are made within specified guidelines, with a high level of involvement and influence.

"…there must be clarity about the extent of decision-making power that is delegated and, in particular, what is not included…"

EMPOWER

Empowerment occurs when participants, stakeholders and communities have control and make decisions within specified guidelines and the decisions are implemented.

"…being empowered means sharing responsibility for making decisions and accountability for the outcomes of those decisions…"

4.2 Engagement tools and techniques

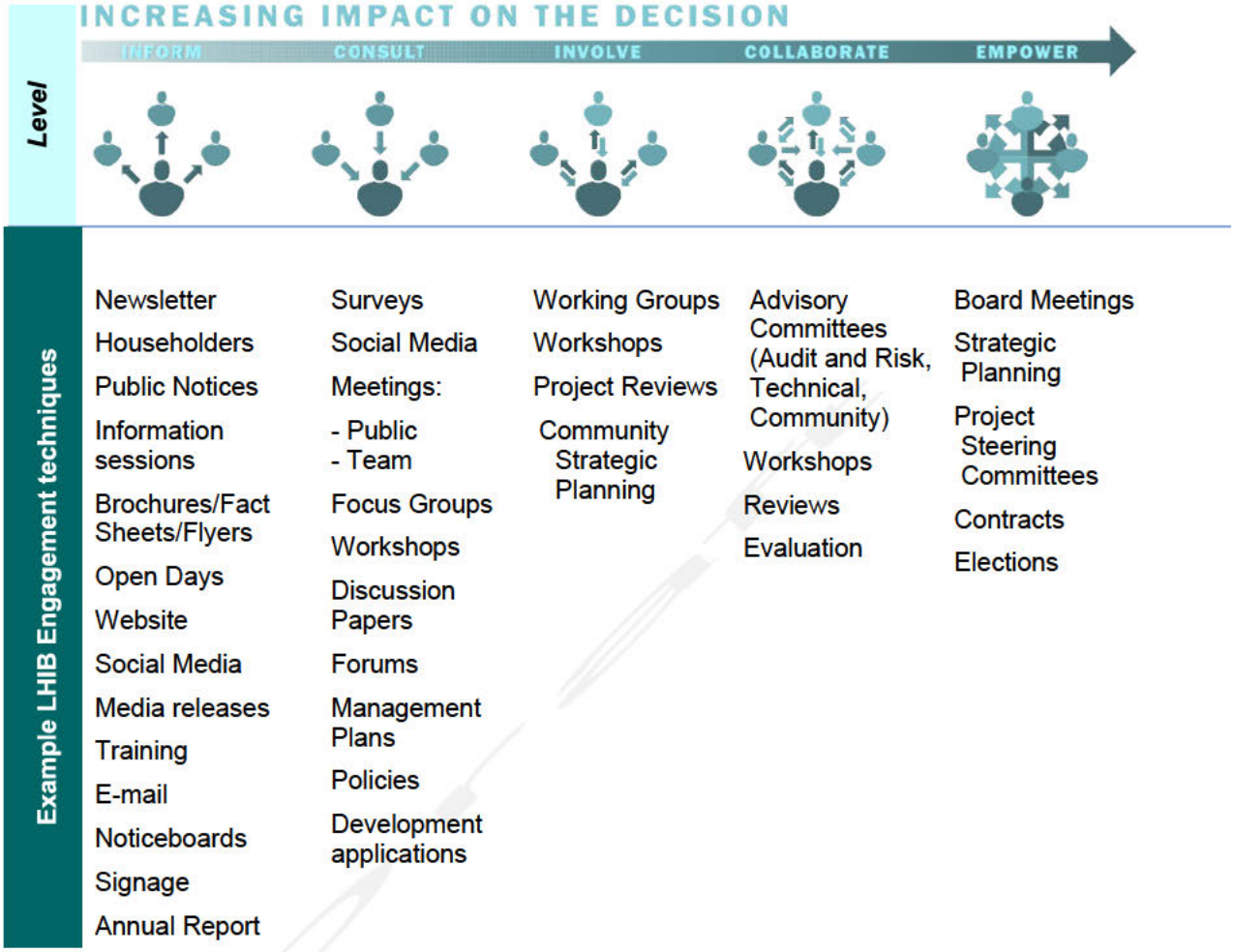

Table 1. Examples of Engagement Tools and Techniques used at The Lord Howe Island Board and their level of engagement

5. Engagement approach for prioritised stakeholder groups

Table 2. below describes general approaches to engaging Lord Howe Island Board's stakeholder groupings, based on the IAPP model.

The model is dynamic, and priorities and approaches dependent upon the purpose of each engagement.

Stakeholder	Influence	Interest	Approach	Strategy
Minister	H	M	Inform Empower	Direct engagement at highest level.
Board Members	H	H	Inform, Empower	Ultimate decision-making body. Keep well informed, alerted to risk, and provide performance reporting.
Government	M	M	Inform, Collaborate	Advocate to, and influence when required. Offer positive experiences, follow up, deliver and report on contracts. Maintain positive profile, open communication channels.
Residents	M	H	Inform, Consult, Collaborate	Consult to ascertain priorities and local knowledge, involve to facilitate ownership. Maintain positive profile, open communication channels. Provide timely customer service. Respond to enquiries, feedback and complaints swiftly. Provide information on services and policies.
Business Operators	M	H	Inform, Consult, Involve	Maintain positive profile, open communication channels. Provide timely customer service re: operating environment e.g. licenses, applications, and consider needs in the development of policies and procedures.
Media and social media	M	M	Inform	Send positive stories, respond to enquiries, build relationships. Minimise responses if negative.
Community Groups	L	H	Inform, Consult, Involve	Maintain positive profile, open communication channels. Consult re: priorities. Selective engagement for purpose to convert to project partners. Engage formally through LHITA, Friends of LHI. Collaborate with regional, state and national to increase influence and impact.
Science and knowledge	M	M	Inform, Involve & Collaborate	Engage formally through working and advisory groups, and directly to seek advice. Involve in project development and implementation. Use as champions.
Visitors	L	M	Inform	Build and maintain positive profile. Provide information to educate and build awareness and support.
Staff, contractors, volunteers	M	H	Inform, Consult Involve	Keep informed, involve in decisions relevant to workforce. Provide reward, recognition, training, and career development to secure retention. Use as champions.
Suppliers	L	M	Inform	Maintain constructive open communication channels.
Skilled Workers	L	M	Inform	Maintain constructive open communication channels.

Table 2. Engagement approaches for Lord Howe Island Board Stakeholders

5.1 Responsibility for engagement

Community engagement is a key feature of the work the Lord Howe Island Board does, at multiple levels.

More than one level of participation may be considered for a stakeholder grouping, **tailored to the purpose** of the engagement. This may also include varying levels of engagement of individuals *within* a stakeholder group depending on the role they have.

Accordingly, our Board, Managers and staff may work with the same stakeholder organisation or individual at multiple levels. As a general guide, the Lord Howe Island Board Administration team will work at the same level as their position and advise up internally if engagement is required with stakeholder organisations at a higher level (see Table 3. below).

Level	Stakeholder role	LHIB Responsibility
Political	Ministers, Local members	Chair, Board members
Governance	Board members, ARC, other agency Executives	CEO, Managers
Program *Policies* *Plans*	Senior Officer Business Owners	Managers, Team Leaders
Project *Operations*	Individual officers, residents	All
Media	All	Minister, Chair, through Public Affairs

Table 3. LHIB Responsibility for engagement

6. Implementation Plan – putting the strategy into action

Area	Activity	Action	Who	Technique	By When	Lead
Governance	Engagement Strategy	Agree on framework and methodology of stakeholder engagement	Board Residents Business Operators Staff	Consult	September 23	SPO
	Training	Awareness and training	Staff	Inform	October 23	P&C
Communication	Strategy and Plans	Publish Draft, incorporate feedback and finalise	All, including the Board Residents Staff Government	Inform and Consult	October 23	Consultant P&C Lead, CO
		Refresh brand guidelines, templates and communication protocols			October 23	CO
		Internal and external communications support via relevant channels			Ongoing per Comms Plans	CO
Work Force	Workforce plan	Business paper re: draft Workshops, information pack	Board Staff (including Union)	Consult	March 24	People Partner
Finance	Revenue review	*Develop Options paper, consult.* *Amend fees and charges as required, request increased base funding if warranted*	Board Residents Business operators Government	Empower Consult	December 23	Consultant
Planning	Major Projects	Information packs, surveys, workshops, one on one	Board Residents Business Operators	Consult	As required	SPO
	Environmental planning	Biodiversity Management Plan (BMP), Permanent Park Preserve Plan of Management (PPP PoM)	Board Residents Business Operators Science Network	Empower Consult Involve	October 23	Consultant & TLWH

Strategic Planning	Community Strategic Plan Local Strategic Planning Statement Service Delivery Commitments	Collate past consultation feedback, information pack	Residents	Inform	Oct-23	
		Community group session to finalise consultation conducted and service delivery commitments (SDC's)	Residents	Collaborate	Oct-23	
		Working group to review forward planning considerations based on group session	Residents	Collaborate	Oct-23	
		Draft 10-year Community Strategic Plan (CSP) and Local Strategic Planning Statement (LSPS)	Residents	Inform	Mar-24	
		Business Paper - Draft 10-year Community Strategic Plan (CSP) and Local Strategic Planning Statement (LSPS) prepared and exhibited.	Board	Empower	Mar-24	
		Finalise CSP and SDC's, draft delivery plan and operations plan in line with budget for June 2024 board decision.	Board	Empower	Jun-24	
		CSP and SDC's publicly available	Residents	Inform	Jul-24	
Business as usual	Governance	Board, ARC, EBM,	Board	Empower	As per governance calendar	CEO, EA
	Governance	SMT, Team and staff meetings	Staff	Inform Consult Collaborate	As per calendars	SMT, EA
	Minister	Ministerial and Chair briefings	Minister Government	Inform	As required	CEO, SMT
	Stakeholders	Monthly newsletter/s, Householders, social media posts, website project collateral	Residents Tourists Skilled workers	Inform	As per comms plan	CO
	Programs	Project working groups	Residents	Consult	As per contracts	Project leads

Table 4. Engagement Action Pla

7. Monitoring and evaluation

Asking questions and genuinely listening to stakeholders is vital at every stage, and especially when evaluating the effectiveness of engagement activities. The Lord Howe Island Board will use a suite of simple evaluation tools to make sure that all activities are evaluated by both stakeholders and the individuals coordinating the activity.

These activities may include participant surveys, annual stakeholder satisfaction survey, Board and committee meeting evaluations, team debriefs. and structured formal independent evaluation approaches.

Ongoing monitoring, reflection, and measurement of success of activities will allow the team to build learnings into future activities. It has the added benefit of avoiding past mistakes and improving individual capability and efficiency.

The Lord Howe Island Board

Community Engagement Review

Compiled by Sally Montgomery

Introduction

This report is a summary and review of available documents relating to community engagement conducted by The Lord Howe Island Board between 2003 to 2023. Available community engagement documents were reviewed, and key themes were identified. Community sentiments and suggestions regarding each theme that were evident in the documents have been summarised in this report also. Where possible, the community engagement document from which the data comes has been cited in-text to allow for future reference. The themes evident in community engagement documents are indicative of past suggestions, opinions, and comments and their relevance as well as currency should be reassessed through community consultation. The documents provided insufficient data about the amount of support for the suggestions made. The themes identified in this report therefore can be viewed as possible areas for further exploration and engagement to clarify current sentiments.

As well as identifying key themes that have emerged in past community engagement, this report also includes suggestions for other areas that may require community consultation – these suggestions emerge from research conducted by Sally Montgomery, PhD candidate in Social Anthropology, University of Cambridge, who conducted ethnographic fieldwork, extensive community interviews, and archival research on Lord Howe Island for 14 months between 2022-2023.

The report is organised according to key areas that have emerged and been identified in previous community engagement. These areas include;

- Community Building
- Infrastructure and Transport
- Housing
- Tourism Development
- Business Development
- Child Services / Youth Development
- Positive Ageing
- Healthy Living
- Education and Lifelong Learning
- Environment
- Heritage and Cultural Development
- Recreation and Sport

Summary of Documents Reviewed

Community Engagement – LHIB – Business Development
Computer Skills Article for LHIB Community Bulletin 2016
LHI Passion and Skills Survey June 2011

Community Engagement – LHIB – Community Building

Collaborated Responses – Darcelle N, from 2018 Community Engagement
Condensed – Lord Howe Island – Community Strategic Plan consultation workshop December 2018
Community Strategic Plan Interim Findings Planning Process & Budget 2021 (ED20 2219.01 (i) – Community Strategic Plan Update – Attachment A – April 2020 – Open)
Draft Communication & Community Engagement Strategy 180416

Community Engagement – LHIB – Community Strategy
Community Engagement Learnings

Community Engagement – LHIB – Community Strategy – Findings
ED19 2124 Business Paper – 09 (i) Community Strategic Plan Update – March 2019 – Open
ED19 4332 Business Paper – 09 (i) Community Strategic Plan Update – May 2019 – Open
ED20 2219 Business Paper – 09 (i) Community Strategic Plan Update – April 2020 – Open
ED20 2219.01 Business Paper – 09 (i) Community Strategic Plan Update – Attachment A – April 2020 – Open
Jan 17 - Feasibility Study – Conference Market LHI (Feasibility Study – Small Event & Conference – Lord Howe Island Industry Analysis)

Community Engagement – LHIB – Community Strategy – Findings – Workshop 1 (121218)
CSP – Info Pack – Health Education and Youth – Healthy Lifestyle, Children and Youth and Positive Aging
CSP Workshop Feedback – Workshop 1
CSP Workshop Feedback
Lord Howe Island – Community Strategic Plan Consultation Workshop December 2018

Community Engagement – LHIB – Community Strategy – Findings – Workshop 2 (260219)
2016 Housing Availability and Affordability
CSP – Housing, Developments, Infrastructure and Transport Summary
CSP – Questions
Housing and Development
Housing Workshop
Workshop 1 – Housing, Developments, Infrastructure and Transport 260219
Workshop 2
Housing 1
Housing 2
Housing 3
Housing 4
Infrastructure 1

Infrastructure 2
Infrastructure 3
Response Set 1 - Darcelle N
Response Set 2 - Darcelle N
Response Set 3 - Darcelle N
Response Set 4 - Darcelle N
Transport 1
Transport 2

Community Engagement – LHIB – Community Strategy – LHI Drafts
Communications Strategy
Community Strategic Plan 2019
CS Review 2018
CSP Structure
Draft CSP Text
LHI Draft Community Strategic Plan 2019-2029
LHIB Community Engagement Plan – Sept 18
Lord Howe Island Community Strategic Plan 2019-2029
CES
CES Doc
CES

Community Engagement – LHIB – Community Strategy – LHI Reference Docs
Agenda – Final Community Strategy Doc Public Hall
Community Strategy Focus Groups List of Names
LHI Annual Plan 1819 1
LHI Community Strategy FINAL DRAFT with CRT comments 300710
LHI Rodent Eradication Communication & Community Engagement
Sponsor Proposal CVLHI
Stakeholders

Community Engagement – LHIB – Community Strategy – LHICV Survey Data 2019 & 2019

Conservation Volunteers
Ecotourism – Facts
ED18 10896 LHI Conservation Volunteers 2019 Sponsorship Pack
ED19 4052 Report – LHI Conservation Volunteers 2019 – March 2019 (2)
LHI Winter Arrival Numbers 2017-2019 Comparison

Community Engagement – LHIB – Community Strategy – Survey
Communication & Community Engagement Strategy 180416
Survey
Survey Results

Community Engagement – LHIB – Community Strategy
Community Engagement Learnings

Community Engagement – LHIB – Environment – REP
Summary of resident concerns 2009 survey

Community Engagement – LHIB – Environment
BMP Review – OutlineDB
ED19 7913 Operators meeting highlights (2)
EOI Biodiversity Management Plan Implementation Group 08
EOI Cherry Guava Community Garden
Invitation to LHI wshop
Notes from trip 2003
Workshop minutes May 04 for distrib
Workshop notes_April

Community Engagement – LHIB – Heritage and Cultural Development
120411 Small Islands Forum_ Draft comments 120412

Community Engagement – LHIB – Infrastructure and Transport
Business Paper – 14.1 – Attachment A – Mobile Phones – Consultation Summary – December 2022
Letter – Lord Howe Island Playgroup Upgrade – Response to Moran, Rebecca – 12 June 2020
Letter – Lord Howe Island Playgroup Upgrade – Response to Wilson, Chelsea – 10 June 2020
Questionnaire – Lagoon Foreshore Fitness Trail – Teague John – 27 11 2018
Questions to Telstra 22_11_22
Wastewater Management Committee 080820

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Community Building

Community Communications

The local radio station and local newspaper The Signal were identified in previous community engagement as important communication services on the Island that could be supported and better utilised.

Board/Community Communication

Community engagement insights: from the *Draft Communications Survey 2016*.

A large number of respondents wanted to be more involved in planning and decision-making to help improve the Island or wanted to be consulted in advance about decisions that might affect them.

A majority of respondents had attended meetings or information sessions held by the Board.

The predominant reasons for respondents not being satisfied with the communication are due to information not being disseminated with enough time for public response (23) and there is a general lack of communication between the LHIB and the community (21).

Seasonal staff communications
It was highlighted that there are communication gaps/barriers between the seasonal staff population and the Board – staff may not be aware of, or have access to Board news, updates, and householders.

Elders' Council
There were suggestions in community engagement documents (and research conversations) that an Elders' Council of Representatives be formed to advise on and share cultural and historical knowledge that is relevant to management decisions.

It was suggested that there could be a more streamlined process for community members to report maintenance needs.

It was suggested that there should be more community/Board collaboration on policy and project development.

There is a large contingent of former residents and off-Island Islanders who are still interested in and connected to the Island and who like to remain informed and engaged.

Research Insight
There is low attendance at Board meetings currently and there has been ongoing discussion (evident in Board minutes) over Board meeting accessibility due to the timing of meetings and suggestions that they could be rescheduled and/or be recorded and made available in audio/video format to make the meetings more open and available.

Community Engagement Learnings

- Engage community engagement specialists to design and deliver community engagement programs
- Ask the community how they would like to be involved, and actively seek to understand community concerns and issues, before writing the Community Engagement Plan
- Rely on industry best-practice such as the International Association of Public Participation (IAP2) to design an appropriate and tailored engagement approach
- Have the courage to try new engagement tools or employ innovative engagement techniques to get deeper or more meaningful community feedback and avoid consultation fatigue by bringing fresh and new ways of engaging
- Engage early and regularly, to bring the community along on the journey as a project develops
- Open and transparent key messages are always the best approach. Honesty is appreciated even when the news being shared isn't good
- Prepare detailed but clear written materials to enable the community to digest complex technical concepts and provide informed feedback
- Be clear about how much influence the community has in the decision-making process
- Explain how community feedback is considered in the decision-making process. Report back to the community about how their feedback was considered during the decision-making process.

Infrastructure and Transport

Public transport

Community engagement insights from: *Collaborated Responses document* from 2018 consultation.

The summarized sentiment from previous community engagement on the topic of whether the Island should have public transport suggests that there it was felt at the time that there was not a requirement or need for public transport on the Island.

Indications in community engagement suggest that current taxi services are rarely used (the regular availability and awareness of these services for tourists is something to consider in thinking about this) and that a previous attempt at a bus service failed. Opinions that the fuel and labor cost of providing public transport is not sustainable as a business and as such, would have to be subsidized – increasing availability of electric vehicles might assist with the former.

Community engagement documents demonstrate there was an awareness of the benefits of a public transport service, especially for older residents. The community engagement documents are not clear as to whether the care for and service to elderly residents would be best promoted by a public service or whether this should be locally managed and rely on community spirit.

Background:
The provision of public transport has been an ongoing question for many decades as indicated in ongoing discussions about the introduction of public bus or taxi services on the Island in the Board minutes. The Board minutes and historic Signals hold relevant details about the evolution of discussions around public transport on the Island.

Research Insight:
Currently, accommodation and restaurant providers generally provide transport services to and from the airport and dining locations for tourists, however, there are gaps in these services. The provision of transport, and the interactions between tourism providers and tourists that airport picks up and 'drive outs' (to restaurants) afford are part of the tourist experience and allow for rapport to be built as well as the exchange of knowledge and information and service.

Private vehicles

Previous community engagement documents available do not address community sentiments about private vehicles, current Motor Vehicle importation requirements and regulations, or visions for the future about how many vehicles should be allowed on the Island. An awareness that this is an issue and a point of concern among the community is evident in research conversations and is a long-running theme in Board minutes and historic Signals – suggesting it should be something to address in community engagement.

General Transport Insights

Research Insight:

Sentiment about the number of vehicles on the Island should be considered as these views are pronounced and an awareness of the increasing number of vehicles has been an ongoing theme and anxiety (Signal articles and Board minutes demonstrate this to be a long-running question). Some tourists who hold high expectations of environmental tourism on Lord Howe Island voice frustration and surprise at the number of vehicles and the lack of 'carpooling' to the airport. Long-term returning tourists also describe their awareness and disappointment at the increasing amount of traffic on the Island. The touristic visions of the Island transport must be balanced with the realities and requirements of the resident population.

Insights from previous community engagement suggest that most respondents:
- Agree that you can easily get where you want or need to be
- Agree that the island's air services are meeting people's needs
- Agree LHI is safe for pedestrians/cyclists

(LHIB Discussion Paper – Community Strategic Plan Interim Findings Planning Process and Budget 20/21).

Other Infrastructure

An awareness that more development requires more infrastructure and previous community engagement suggests that this is not desired.

Community engagement identified that more development would result in impacts on infrastructure requirements in the following areas: power, roads, waste (water and garbage), fuel, shopping, transport, shipping, and plane availability.

Previous community engagement evidenced the following suggestions/sentiments about specific Island infrastructure projects:

Mobile Phones

Community Engagement Insights:

A recent proposal by Telstra to install a mobile microcell tower reignited conversation and consultation surrounding whether the community desires mobile phone connection on the Island.

The LHIB's community consultation surrounding mobile phones received 39 individual submissions; 41% of respondents were in favour of the proposed mobile service, 59% of respondents were against. 46 people signed a separate, community organised, petition against the mobile phone service, stating:

> 'I am opposed to the introduction of Telstra's mobile phone service because it will disturb the peace and tranquillity of the Island which is valued so much by residents and visitors.' At least 8 of those against are also in the group of 46 who signed the petition have also responded to the survey.

Concerns over the mobile phone network included:

- Limited range of service on the Island, resulting in a less than adequate provision
- The location of the microcell tower on the Island
- The suitability of the technology and the possibility and the possibility for alternate options
- Effects of service to the current copper line service upon which the Island currently relies
- Cultural concerns relating to changes in the way of life that mobile phone service may create, ie. not being 'off-line', people using their phones in public, disruption to tourists' valued experience of being disconnected

Those in favour of improved connectivity support that for business, safety, and reliability reasons. Those people could be satisfied with improved wi-fi connectivity, which would be supported by the majority of respondents not in favour of the mobile phone microcell and tower as proposed.

Data gathered through the community consultation process, suggests that before approving Owners Consent the Lord Howe Island Board should:

- Investigate the potential for improved and networked wi-fi solutions, and explore a business model that could provide that
- Require Downer, on behalf of Telstra, to demonstrate compliance with CASA, Air Services Australia, and World Heritage requirements.

Renewable Energy

Community engagement prior to the input of the solar farm indicated that solar was largely supported, in comparison to wind energy (a proposal for which was ultimately rejected). Engagement suggested that as much energy as possible should be sourced from renewables and that residents should be encouraged and allowed to have private solar on their properties.

Research Insights

As seen in research conversations there is also an opinion among some that the move to renewable energy sources has negatively impacted the shipping service and increased costs as prior to solar the provision of and backloading of fuel was a key part of the shipping service.

There are several electric vehicles as well as bicycles on the Island currently.

Roads

Community engagement suggests that roads should not be widened but should be resealed.

Air service

Ensuring reliable air travel to and from LHI was the top ranked infrastructure priority *(LHIB Discussion Paper – Community Strategic Plan Interim Findings Planning Process and Budget 20/21).*

A desire to achieve long-term certainty over the air service was evident in community consultation. Community engagement suggests the retention of the QANTAS service is desired.

Previous community engagement suggests that there is a desire to maintain the current airstrip infrastructure and not extend the airstrip.

Shipping and Freight

Freight to and from LHI was the third-ranked infrastructure priority *(LHIB Discussion Paper – Community Strategic Plan Interim Findings Planning Process and Budget 20/21).* The affordability, reliability, and long-term future of the shipping service are key needs for the community.

Wastewater

In 2008 the Board decided septic tank effluent posed a threat to public health and the environment and established a Wastewater Management Committee. More community consultation about the future of wastewater may be required.

Emergency Services

Community consultation documentation reviewed did not include any evidence of discussions about the operations and delivery of emergency services – this may be an area of further inquiry.

Assets

Prior community engagement included suggestions that current assets, machinery, and infrastructure need to be better looked after. There was a general desire to not get more assets but look after what is already there.

There were suggestions that private solar should be allowed and encouraged.

It was suggested that the use of natural attractions and entertainment should be encouraged over the development of new infrastructure.

Miscellaneous Infrastructure suggestions

Miscellaneous infrastructure suggestions from past community consultation to consider include:

- A public toilet at the southern end of the Island ie. Blinkies
- Boats to be kept on private leases
- Maintain the jetty
- Upgrade the foreshore walking track for the elderly and pram mobility
- Playground identified in community engagement as an important infrastructure as the only public playground offering enjoyment for residents and tourists alike. Infrastructures for such recreation are limited on the Island.
- Walking trail accessibility, availability; whether new trails should be opened and or restrictions remain

Housing

Housing and Environment

Previous community engagement suggests that people feel as though current environmental restrictions on development adequately protect the environment. There was an awareness of the potential need to adjust restrictions to suit increased development with concurrent infrastructure requirements such as roads, waste, vegetation, water storage, and energy being impacted. Vision statements emerging from community consultation about these suggested restrictions do need to remain strong to protect the environment and that restrictions and new requirements might be applied to new buildings and then gradually introduced to all.

Community engagement suggests that current building codes which dictate aesthetics and structures (eg. colour, screening, and height restrictions) are good.

Board staff housing

Questions about whether current dwellings could be utilised more appropriately raised concerns about Board housing being occupied by single tenants. It was suggested that more shared housing on the Island would alleviate some housing issues. It was suggested that there be a purpose-built Board accommodation unit to free existing Board houses. There is a sentiment that Board staff, who reside in ‘subsidized’ accommodation should not be allowed

to acquire ten-year Islander status. There were suggestions that Board staff should share houses and that Board-owned dwellings should be freed up.

Residency Requirements

It was seen as good that, for the most part, leaseholders live in their homes, and these residency requirements are seen as important and something to enforce according to the LHI Act. Past community engagement suggests current conditions of exemption surrounding occupancy (for example schooling) seem to be accepted. Leases and accommodation that are left unoccupied or not used to the full extent are a major concern for the community.

Dual Occupancies / Granny Flats

When asked whether dual occupancy and granny flats might be viable options to alleviate housing shortages there were diverse opinions evident in community engagement. Accommodation of this style was seen as suitable for Islanders but not for staff or LHIB employers. There was concern over the increase of cars that dual occupancies might precipitate. There was an awareness of granny flats being used for purposes other than their original intent (ie. unit for carers). It was suggested that the 15% land coverage regulation might need to change. Questions were raised about whether dual occupancies or granny flats might have full provisions or bathrooms and kitchens. There were suggestions that granny flats would ease intergenerational families living together while providing options for downsizing, and request that LHIB restrictions on granny flats be reviewed.

Affordability

Community consultation about the affordability of housing suggested that people feel housing is unaffordable for young Islanders and low-income Islanders. It was suggested that rental prices were also expensive for the average LHI family. It was suggested that houses should never be sold ‘off Island’ (meaning to someone who is not an Islander under the Act) and that houses should not be bought as investments. There was a suggestion that housing valuations should be provided by multiple agencies and not based on standards elsewhere (ie. Sydney).

Section 23(1) of the Lord Howe Island Act, 1953 outlines the process for the transfer of leases at fair market price as determined by the Valuer-General. The sale price of a lease must not exceed its fair market value, as determined by the NSW Valuer-General.
In determining fair market values, the Valuer-General’s methodology takes into account the unique Lord Howe Island market, trends in market appreciation in comparable areas and the value of the home or business on the lease. (Community engagement document: *Housing Availability, Affordability, and associated development pressures on Lord Howe Island*)

Availability

The housing shortage on the Island is a key problem and sentiment over who rents and lives in available accommodation is a source of tension.

The turnover of properties on the island is extremely limited and it is very difficult for Islanders to acquire property or construct new property.

There are a limited number of transfers by way of sale, with many properties being transferred by way of gift and pursuant to a Will. This combined with the moratorium on dwelling allocations since 2010 has affected the availability of housing on the Island *(*Community engagement document: *Housing Availability, Affordability, and associated development pressures on Lord Howe Island).*

Feedback collated during the Handley Review into Land Allocation (2014) indicated the majority of people rejected the option of increasing the dwelling quota. Many said that the Island had already reached its capacity and that, given its size and unique quality, demand for housing would always exceed the supply. *(Housing Availability, Affordability, and associated development pressures on Lord Howe Island).*

The sentiment that Islander status and eligibility for housing should be protected was expressed in community engagement.

Number of Dwellings

When asked about the number of dwellings and whether this is sufficient for the future of Lord Howe there was a general sentiment that the answer was no, but that current housing could be utilised more effectively ie. by enforcing residency requirements and LHIAct compliance, analyzing what housing is available and its distribution. There was an awareness that Lord Howe is finite, and that development cannot continue. There were suggestions that future population increases could be modeled and reviewed to plan for the future (including infrastructure). There was a suggestion that minimum block size might need to be reduced but a hope that houses would still have a minimal environmental impact.

Housing Standards

A suggestion was that standard, affordable housing was desired while retaining and requiring environmental building standards. There was an awareness that houses are often retained for life, and thereby need to be suitable for this.

Staff Accommodation

Prior community consultation about staff accommodation suggests various aspects to the question of visions of future staff accommodation.

There was an awareness and question around the increasing number of staff on the Island, considering the fixed number of tourist beds. Increasing tourist prices and subsequent expectations and services may be necessitating more staff. Further, the increasing trend of the separation of bed licenses into smaller tourism holdings (as opposed to larger lodges) necessitates more staff, and thus accommodation for the same number of tourist beds. Thought needs to be given to the vision for the future of tourism and the direction that this is heading and the subsequent effects on staffing arrangements.

There was a suggestion that hospitality workers' presence on the Island should be controlled or monitored and that after three years they might acquire more flexibility in housing ie. live off-site of employers' provided accommodation.

There was a suggestion that a staff accommodation audit might be conducted to better understand the current status.

Thought should be given to the status and living conditions of staff whose accommodation is provided through their employer as opposed to free rentals and the security and flexibility that different accommodations options allow. Specific consultation with staff populations could be considered as these groups have likely not been captured in previous community consultation.

There were suggestions that businesses should have adequate staff accommodation on their lease property; current staff accommodation building requirements and regulations impact this possibility. Some employers struggle to find and retain suitable staff due to limited staff accommodation.

Tourism Development

Insights from: Community Engagement 2018

Key values of tourists were identified in community engagement as being; the limited number of tourists, the unchanging nature of the Island; the absence of mobile phones - though improved internet for tourists was supported.

Community engagement documents suggested an awareness of a shift in tourist population demographics to include more active and fit tourists.

There was a suggestion that tourism staff should be accommodated in housing owned by the business operator and that there needs to be regulation around staff and staff accommodation.

Tourist Cap

Insights from*: Community Engagement 2018* document

There was a desire expressed to keep the 400-bed license and that any changes would stress the environment and ruin the unique nature of the island.
There was an awareness of the need to assess infrastructure, capacities, and changes that would be elicited by increasing the tourist bed license cap of 400. Suggestions that detailed and comprehensive studies of all impacts would need to be completed.
There was a suggestion that the reasoning behind the 400-bed license need to be identified and communicated.
There was the suggestion that any bed licenses not being used should go back to the LHIB for re-distribution so that they can be used.
It was expressed that tourism services like AirBnB should not be allowed.

Winter Tourism

The question of winter tourism offerings and provisions was identified in community engagement as something to address and explore. Research conversations suggest a spectrum of opinions that range between ideas that the Island should be shut to tourists entirely during winter; that there needs to be greater transparency and communication over the available

tourist activities/services during this period or more services need to be ensured during this period for tourists.

Conservation tourism during winter months was identified as a potential market and 2018 saw a Conservation Volunteers program run.

Small Event / Conference Market

A market for hosting small events and offerings to conferences during winter months was identified in past community engagement as an option to explore and the LHITA conducted a feasibility study.

Staffing Issues

Previous community engagement identified staffing as an issue for the tourism industry including the availability, quality, service ethic, and accommodation for staff.

Business Development

Business Licenses

There was a suggestion that there needs to be regulation over the duplication of tourist business offerings and a potential study on the benefit of capping replica tourist businesses ie. glass-bottom boats.

It was suggested that there be a review of business licenses.

Special Leases

Insights from (*Community Engagement 2018):*

Community engagement suggested a high priority was that special leases be used for the designated purpose and if not revoked and used for other needs.

There was a suggestion that Special Leases should be better encouraged and supported to meet on-Island agricultural opportunities/needs more effectively. Simultaneously, there were evident opinions that on-Island agriculture may not be feasible, is not a Board related matter, and that food requirements are well provisioned by mainland services.

There was a suggestion that all Special Leases be revoked and reallocated either for staff accommodation or other special lease uses.

Palm Industry

Now privately held.

Social Impact

Suggestion that the Board incorporate a social impact assessment in business licensing to assess how businesses will impact the community. *(Community Engagement 2018).*

The *Draft Community Strategy* demonstrated the desired visions for a business environment that encourages collaboration and innovation.

Past community engagement indicated there was a desire to create business, professional, and trade development opportunities that would include more trainee and apprenticeship opportunities for all age groups.

Primary Producers

It was suggested that there be more support and availability of locally produced food and goods would benefit the community, limit online shopping, and provide more affordable access to healthy food.

Computer Skills Training

The LHIB offered a computer skills training course to the community in 2011-2013, and again offered in 2016 with the aim to increase user confidence in programs such as Excel, Outlook, internet services, and email applications. The desire for ongoing programs such as this could be identified in community engagement.

Community Passion and Skills Survey

A community passion and skills survey was conducted by the LHIB to identify community skills, interests, and work experience of residents with the intention to utilize these skills in the community.

Positive Aging

Lord Howe Island, like the rest of Australia, has an aging population, with a higher proportion of people over 65 than the mainland. There are very limited aged care services on the island. The resourcing of additional aged care services on the island is very challenging as it is very expensive and is traditionally a State/federal government responsibility. This is compounded by the lack of staff on the island to provide aged care services. Positive Aging was the third-ranked community priority (*LHIB Discussion Paper – Community Strategic Plan Interim Findings Planning Process and Budget 20/21*).

Senior Citizens Group

The Senior Citizens group is a key value identified in community engagement documents to date. Issues of loneliness and identified as an issue and strategies such as community assisted/provided transport and mobility are suggested.

Health Care

For senior Island citizens health care and required visits off Island to seek medical assistance are a big part of life. It was suggested that more specialist visits to the Island might assist in this.

Remaining on Island

Community engagement suggested that there is a strong desire to support senior citizens to remain on the Island, rather than move off to mainland aged care. There was the desire to ensure appropriate housing for elderly residents and a suggestion that better support and assistance with dual housing would be beneficial to allow for successful intergenerational living. Assistance with in-home care and nursing, as well as house maintenance, was identified as a need. There was the suggestion that 24/hour on-call service be available. Suggestions have been made in the past about the possibility of an aged care residence facility.

Child / Youth Development

Extensive community engagement on the topic of child and youth development on the Island has not been conducted. Youth are considered young people between the ages of 13 – 25 ABS stats show that there is a proportionately lower number of people in this age group in our community relative to other parts of Australia, partly because many of them are on the mainland studying.

Insights from general community engagement in the past identified the following sentiments and ideas:

Recreation / Socialisation

Nippers, surfing, tennis camps, and junior golfing were identified as positive healthy lifestyle opportunities for children and youth. More opportunities for arts and drama were desired.

Previous community engagement suggested a BMX track or skate park be built.

It was suggested that a toy library be established.

Incidental events like the LHI Festival, previously Rockfest, provide recreation and entertainment for older youth. ‘The Shack’ provides the most regular and high-profile social gatherings as well as gatherings at other hospitality places on the island.

Scholarships

Community engagement demonstrated the desire to continue/restart the LHIB-supported scholarship opportunities for Island youth. It was suggested that scholarships could be linked to future Island labour market opportunities and needs.

Work Experience / Career Options

It was suggested that there be more opportunities for recreational and work experience opportunities for high school-aged children available during the school holidays.

It was desired that there be more career pathways established for young people on the Island to encourage them to stay; it was suggested that apprenticeships and traineeships would be beneficial.

The desire to increase the number, quality, and variety of employment and training opportunities for Island youth was expressed in past community engagement.

The *Draft Community Strategy* suggested that a 'Career Pathways Task Team' be established to help identify and implement possibilities to improve opportunities for training and education.

Voice / Engagement

It was suggested that young people should be engaged more in idea generation and development to better support and empower local young people to be involved in shaping the future of the Island.

The *Draft Community Strategy* stated: 'there is a genuine desire to find creative and appropriate ways to hear the voice and encourage the active participation of our young men and women. In addition, there is a strong desire to strengthen the communication lines to those Islander young people and young adults who are studying or working off the Island.'

The *Draft Community Strategy* suggested that an 'LHI Board Youth Advisory Panel' be created that could provide youth perspectives to Board members on youth-related issues.

An engagement workshop run in December 2018 at the LHI Central School suggested that 50% of children talked to wanted to live on Lord Howe when they grew up and that they believed keeping the Island clean was key for the future of the Island.

Healthy Living

Health was the top-ranked community priority (*LHIB Discussion Paper – Community Strategic Plan Interim Findings Planning Process and Budget 20/21*).

The following insights are from the *Community Strategic Plan consultation workshop,* in December 2018*:*

Dental Services

Lack of dental services visiting the Island was identified as a key issue. It was acknowledged that there likely isn't the demand for a full-time dentist, but a visiting dentist would be beneficial, especially considering dental is not available for IPTAAS coverage and therefore is expensive with added travel costs.

Mental Health

The lack of available mental health services on the Island has been identified in community engagement as a key issue. Social problems including drug and alcohol abuse as well as

domestic and sexual abuse are associated with this. Though remotely available (ie. internet/phone) services exist, there is the desire for regular in-person service.

Alcohol

The *Draft Community Strategy* suggested that there needs to be the implementation and enforcement of responsible service of alcohol and a more positive drinking culture which would include training and support to bar staff and the enforcement of action on drink driving. It was suggested that a task team be established to examine and implement options regarding alcohol-free events and spaces.

Medical Service

The current medical service was identified as being an asset to the Island and there was the desire for it to be maintained. There were suggestions about the possible improvement of key medical technologies and services on the Island that might provide for preventative, early screening of health issues. There was a suggestion that the hospital or doctor might be open 7 days a week. There was a desire for more specialist visits, especially those associated with children's needs – ie. speech pathology.

There was the suggestion that there needs to be improved communication of specialist and screening services on the Island to reach people.

Community Recreation

Community Garden

The establishment of a community garden was suggested as a way to provide healthy recreation as well as access to healthy and affordable fresh food.

Gym / Multipurpose Recreation

Previous community engagement suggested that an indoor multipurpose recreation space/gym would be of benefit to the community.

Gender Services

Research conversations suggest that gendered experiences on the Island require more attention and resources to ensure the Island is a safe and healthy place for all. The provision of a community 'safe house' has been suggested, as have enhanced sexual/domestic assault services, awareness, and support.

Education and Lifelong Learning

Education was the second top-ranked community priority (*LHIB Discussion Paper – Community Strategic Plan Interim Findings Planning Process and Budget 20/21*).

Preschool

There is a desire and identified need in community engagement for a reliable preschool service.

Primary School

Existing community engagement documents did not include any information about attitudes toward primary school education on the Island.

High School

Community engagement suggests that the current high school education options of either completing distance education or students leaving for Boarding school or education off Island are viewed positively. There is an attitude that the time spent off Island by high school-age children is beneficial for socialisation, life experience, education, sporting and creative opportunities, and worldly awareness.

Research conversations do indicate that decisions around high school education and sending children away or moving off-Island for this period is a key difficulty of living on the Island and these high school years are a particularly hard time for Island families.

Further Education

Community engagement suggests there is a desire to continue (or restart as it hasn't occurred in several years) a LHIB-assisted scholarship program for Island community members to encourage and enable further education at either University or TAFE.

It was suggested that a book exchange space or public library be established.

Recreational Education

Outside formal education, there was a desire to utilize skills that are present in the Island community to encourage learning among each other – for example, cooking, dancing, yoga, art, sport, etc. Spaces for such shared learning might be provided at the community hall for example.

It was suggested that there be more opportunities for after-school sports, and or sporting lessons ie. surfing lessons.

Cultural Education

It was suggested that a comprehensive LHI Heritage Studies Curriculum for all school students be established, and that island heritage sharing be encouraged.

Research conversations suggest that there is a desire for cultural, historic and heritage education, and sharing for all age groups.

Environment

Previous community engagement suggests that the environment is a key cultural value as well as economic value. It was recognised that the environment is a key tourism asset and that the World Heritage values should be maintained.

The *Community Strategy Draft* identified that there is a challenge and responsibility to manage the unique environment for the benefit of current and future generations. It also suggested that there was a desire to grow more local produce, establish a community garden and become more self-sufficient in food production – food vulnerability and dependence on food importation was identified as an issue.

Waste Management

The lack of a garbage pickup service was identified and associated with a large number of vehicles transporting waste to the WMF. Community engagement about waste management services and systems should be considered.

Biosecurity

Research conversations indicate that community engagement about the future of biosecurity on the Island is required as sentiment about current biosecurity protocols, as well as perceived understandings of the future of biosecurity are a key concern and impact on community life. This includes community engagement about protocols and plans regarding incursions of pathogens, invasive species, etc.

Reintroductions

Research conversations indicate that community engagement about the possibility of species introductions is required. Current hypothetical and speculative conversations about the reintroduction of phasmids, and bird species such as the Green Parrot and seabird populations suggest diverse opinions on whether such reintroductions would be environmentally appropriate or supported by the community.

Communication

Research conversations indicate that more communication about environmental programs, decisions, and plans is desired. Previous community engagement documents suggest that the community should be supported to be more involved and empowered to harness a sense of environmental stewardship.

Environmental Tourism

Environmental tourism is already a large market of the tourism industry on Lord Howe Island and more community engagement about what the future of the environmental tourism industry should look like is required. Research insights suggest that community engagement about the requirements for environmental tourism businesses is required.

Traditional Practices

Previous community engagement was conducted on issues such as the management of cherry guava trees (which were a key cultural food of the past) – a controlled community garden was proposed at one stage but never established. Research insights suggest that there could be community engagement about other cultural practices such as sooty-tern egg collection and whether these traditions could be managed alongside environmental concerns and needs. Other traditional practices of palm seed collection, as well as pandanus collection, may require community consultation.

Scientific Research

Research insights indicate that community engagement about scientific research on the island is required, including conversations about how people would like to engage with and be informed of research being conducted on the Island.

Use of Chemicals

Research insights indicate that community engagement about the use of chemicals in environmental management is required as concerns about this are present.

Heritage and Cultural Development

Culture and Heritage was the fifth-ranked community priority (*LHIB Discussion Paper – Community Strategic Plan Interim Findings Planning Process and Budget 20/21*).

Management

Previous community engagement suggested that a LHIB role be created that works on community services and seeks funding for social aspects of the Island.

It was suggested that regulation and management have contributed to the decline of community heritage industries. Examples given included dairy and the palm industry.

It was suggested that there be increased communication between Board and Island elders to understand their knowledge, opinions, and stories about Lord Howe and how these should be considered in management decisions. The creation of an Elders Council of Representatives was suggested.

Discovery Day

Discovery Day is a key day of celebration of Island heritage.

Community engagement suggested that there is a desire for daytime activities also and that the day be made a local public holiday (this has previously been proposed several times and not been approved).

Sentiment that Discovery Day could be improved with the however it was suggested there is the need for support to do so. It was suggested that no planes arrive on Discovery Day to enable people involved in tourism to join in.

Interpretation

Community engagement identified that there is very limited interpretative information regarding Island heritage available to tourists and residents on the Island to communicate cultural heritage. It was suggested that Heritage Listed Buildings / infrastructures have plaques and that there be a map of these for tourists available.

It has been suggested that there should be interactive programs/applications that provide information about places, people, flora and fauna, and historical stories.

Graveyards

The maintenance of graveyards was suggested as being of importance. Research conversations also demonstrate that the loss of information about graveyards ie. graveyard maps, and the wearing-away of tombstone inscriptions is a source of cultural and historical value loss. The graveyards are inscribed as National Trust assets.

Research suggests that Island funerals are a unique and important part of the Island culture.

Arts, Music, and Dance

Identified as cultural/social elements that should be encouraged and promoted.

It was suggested that there be more places for the display of public art.

It was suggested that there be a community choir. There is currently an active local band.

A community concert held in 2022 was a well-attended and celebrated cultural event.

Communication

Past community engagement suggested that a community radio station informing residents and tourists of Island news and important information would be beneficial.

Research conversations suggest the impacts of changes in communication platforms ie. the changing social dynamics that the move to the community Facebook page created compared to previous forms of communication. The accessibility of these now-online platforms of community communication and information is significant (ie. some (particularly older) residents are not on Facebook).

Environment

Community engagement identified the environment as a key cultural value and highlighted opinions about how the community should be included and encouraged to participate in Island conservation more (ie. Island clean ups, weeding programs); that the pristine natural

environment is key to tourism and the World Heritage Values be maintained but there is also a need to balance tourist desires with the needs of the resident population.

Research insights demonstrate that many cultural activities and traditions involve environmental uses and activities. The cultural and traditional practices and places that people value and would like to preserve or reengage with should be identified through community consultation. Initial examples gathered through research that such cultural values include fishing practices, collection practices, access to significant PPP areas that were historically important, and camping.

Cultural Heritage

Community engagement suggested that there needs to be more access to and understanding of the unique cultural heritage of the Island. Identified in this was the need and desire to encourage the sharing of Island stories, history, and cultural traditions.

Community engagement demonstrated the belief that Island ancestry should be respected and that there be more focus on the passing down of stories, history, songs, and knowledge of Island elders.

It was expressed that the cultural heritage forms a unique and important part of the Island, as well as the environmental aspects, and should be preserved also and amplified as a tourist asset.

The cultural heritage of the Island was defined in LHI Community Strategy Draft as a key guiding value that encourages pride and times of celebration relating to the Island's heritage, uniqueness, culture, and achievements.

Previous community engagement suggested that the stories and histories of life and times of Lord Howe be collected and shared.

Cultural Buildings and Places/Times of Gathering

The Museum was identified as the most important cultural building on the Island however there was also noted the need for more places for community gathering, likely multipurpose ie. a library and a community art space.

Suggestions that other key historic buildings should be heritage listed so that their cultural value might be recognised and retained (examples given include the Old Post Office Building and the Dignam boatshed).

A suggestion that 'Island Welcomes' be brought back/encouraged – research conversations suggest that this refers to the practice of gathering for a picnic/BBQ to welcome new people, particularly LHIB staff so that there is greater awareness of who is who and what work is being done. There have been suggestions that this could extend to a start of season welcome for new hospitality staff also.

Community engagement in the past has suggested that there is a desire for more special events or that there need be a calendar of special events, and that Island movie nights be

reintroduced. Community engagement suggested the desire for more community picnics at North Bay.

It was suggested that the community hall be used more for community gatherings and informal gatherings/exhibitions of community art.

Education

Previous community engagement has suggested that there is a desire for more cultural education about the Island, for example in the delivery of an Island Heritage curriculum at LHISC as well as further opportunities for adult cultural learning and exchange.

Recreation and Sport

Extensive community engagement on the topic of Recreation and Sport on the Island has not been conducted. Insights gathered from previous community engagement that have included some comments on recreation and sport suggests and highlights the following:

- It was suggested that there is a desire for more intergenerational sporting opportunities
- Informal, unorganised recreation in nature ie. hiking, snorkelling, and swimming are a key form of recreation and exercise for residents
- Informal community touch football games are held regularly on the LHICS oval
- The regular Bowls competition is a popular sporting and social gathering
- Existing community groups in the sport and recreation category include: the P&C Association, the Game Fishing Club, an informal LHI Freedive Club, and a Playgroup – a comprehensive list of recreational and sporting groups should be identified in community consultation
- Previous community engagement demonstrated the desire to re-establish a surfing competition which used to be a popular event held in the past. In 2013 the event was successfully run with 24 competitors and approximately 60 spectators. Documents suggest that there was a desire to re-establish the LHI Board riders club to create future events.
- There used to be an active Swimming Club run out of the Aquatic Club; current sailing programs are being run by members of the Aquatic Club
- Other groups providing recreation include the SDA church, particularly the LHI Pathfinder Club which provides a fortnightly after-school and school holiday program for youth aged 4-15 years. This program is designed to provide action, adventure, challenge, and group activities while providing opportunities for the development of new attitudes and skills.

Board Meeting: September 2023	**Agenda Number:** 11.05	**Record Number:** ED23/5962

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Communications Network Options

Recommendations

1. **Approve –** Community engagement on the telecommunications options paper, with a focus on short-term options.
2. **Approve** that the paper and recommendation go on public exhibition for comment 19th Sept – 17th Oct 2023.
3. **Approve –** That the feasibility and timeframe of long-term solutions including 5G Advance/6G be investigated further.
4. **Note –** Telco's have not been forthcoming with accurate information with regards to mobile range and capacity. Mobile options presented in paper are from available information. Range and capacity of microcells is best guess.

Background

In the December 2022 Board meeting the Board requested "*Management prepare a brief and provide advice on the options for effective coverage on the island (whether that is extended Wi-Fi or mobile coverage)*". As a result of this Respiro was contracted to develop a high-level communications options paper (Attachment A).

The purpose of the paper is to provide potential options for addressing current and future communication needs of the island. It is being presented to provide the Board, stakeholders, and relevant parties with a clear and informed overview of the communications networks available for Lord Howe Island.

This options paper has also been developed to assist with a decision whether to grant Telstra Owners Consent (OC) to install a mobile phone microcell on Lord Howe Island under the Blackspot program.

Key Issues

The discussion around whether to grant OC and accept the microcell offered through the Australian Government Blackspot program has led to an extensive investigation of options. Information has been sought from subject matter experts in government and private enterprise including: NPWS, NSW Telco Authority, Karera Communications; and industry experts in telecommunication and 5G Advanced: Respiro, Downer and Telstra.

Based on the information collected, the technology being offered (one microcell) appears to be insufficient for our needs based on the following key issues:

1. One microcell would be a sub-par solution to a complex issue
2. Range and capacity of a microcell is uncertain. Even best case would not be a satisfactory solution (see Attachment C for Telstra's response to microcell range request)
3. There is concern whether Telstra will be obliged to continue maintenance of the copper network if a microcell is installed on the island.
4. Lifespan of microcells does not support a long-term solution for the island (<10 Years)
5. Future technology that is due to come to market in the near future could become a much better long-term solution to the Island's communications network shortcomings

Options Review:

To supplement the above recommendation, the options outlined in the options paper give a current state view of the options currently available to the LHIB in improving the communications network on Lord Howe Island. See Below Table for a summary of the options outline in depth in the options paper (Attachment A).

The summary position of the options paper has led us to the following options to improve the communications network and can be split into short-term and long-term. The options paper also noted incidences where BlackSpot funding had been applied to other communications solutions.

Short-term (1-2 years):

Multiple Microcells (Option 1)
For the purpose of the Blackspot program only one microcell is being pursued by Telstra. They have provided information on what a second microcell would cost but this would be at a cost to the LHIB (though eligible expenditure under the Regional NSW grant). Telstra have not been able to provide accurate data with regards to capacity and range of these microcells. It has become clear that to achieve full coverage of the island multiple microcells (up to 10 if conservative coverage estimates were applicable) would need to be installed around the island to achieve effective coverage with this solution.

Macrocell (Option 2)
Installing a macrocell would give the island full coverage but would require significant infrastructure and investment.

Improved Wi-Fi network (Options 3, 4 & 5)
Individual Starlink connections at strategic points across the Island (12 sites chosen for the purpose of this paper to cover key areas in the settlement). This requires infrastructure at each site and has associated ongoing costs. (Options for straight Wi-Fi, Wi-Fi fiber and Wi-Fi bridge variations)

Long-term (2-5 years):

Installing a fiber backbone (Option 6)

This would require digging trenches and laying fiber along 10.8 km of road. However, having the fiber network gives residents and businesses the chance of installing fiber broadband as well as allowing easy installation of small 5G cellular transmitters.

Waiting for 5G Advanced/6G (Option 7)
Emerging technology points to telcos leveraging off low earth orbiting satellite companies and provide full coverage to blackspot areas with no additional infrastructure required to be in place (iPhone14 already using this technology for their emergency messaging function). Optus have partnered with Starlink to begin introducing this (Optus Signs Coverage Deal With Elon Musk's Starlink | Canstar Blue). This technology is advertised as being available Australia wide by mid-late 2025.

Next Steps

The Options Paper is put out for public exhibition in conjunction with a community survey focusing on short term communications options.

Short-Term Options (can be planned and installed within 12-24 months):

- Installing 3 Microcells at strategic locations around the island
- Installing 2 Microcells and strategically placed public Wi-Fi
- Installing strategically placed public Wi-Fi only (up to 4 locations)
- Installing strategically placed public Wi-Fi only (up to 12 locations)
- Do nothing and investigate developing technologies (5G Advanced/ 6G)

*Note that the ongoing maintenance and operating costs will need to be considered, and interest from commercial providers vs LHIB bearing these costs and providing free wi-fi. This will be the subject of a future business paper, after the community consultation has occurred.

Long term options need further investigation and have an implementation timeframe of 18 months to 3 years.

Below table: **Communications Network Options Summary Table – Sep 23**

Option Number	Option	Cost	Operating expenditure	Range	Capacity	Lifespan	Pros	Cons	Comment
1	**Microcell**	$0 - $254,000	1st one maintained by Telstra	200m-2000m (closer to conservative estimate)	100-2000 Users (Unable to get an accurate figure from Telstra)	10-20 years or more	Can be initiated under Government Black Spot Program	Better coverage requires an investment upwards of $250k (dependant on number of microcells). This does not guarantee adequate island coverage.	1 Microcell under blackspot program. Further microcells (likely up to 10 for full settlement coverage if conservative coverage estimates are realised) would be at a cost of roughly $254,000 per microcell
2	**Macrocell**	Anywhere up to $2,500,000 + additional contingency for LHI installation	Unknown	5-32km	Several hundred to Hundreds of thousands of users	20-30 years or more	Full coverage	Higher cost, larger tower, obtrusive.	No commitment from Telstra that they would install this.
3	**Wifi: Starlink (12 sites)**	Upwards of $750,000	Upwards of $9000 P/M	20-60m	128 Devices, 30 simultaneous connections per Starlink	5-7 Years	Simple to connect to for visitors and residents	Small coverage area, large operating and maintenance costs	12 individual Starlink setups
4	**Wifi: Wireless Bridge to Starlink (12 Sites)**	Upwards of $465,000	Upwards of $1400 P/M	20-60m	128 Devices, 30 simultaneous connections per Starlink	5-7 Years	Simple to connect to for visitors and residents.	Small coverage area, large operating and maintenance costs. Requires line of site between sites	1 Starlink setup. Wireless bridge in between 12 sites
5	**Wifi: Fiber to centralised point for uplink**	Upwards of $1,000,000	Unknown	Unknown	Unknown	Unknown	Fast internet, future proofing	Extremely expensive and time consuming. Full cost not known	No accurate estimates of Fiber costs
6	**5G: Fiber**	TBC	TBC	TBC	TBC	TBC	Mobile connectivity to settlement	High cost for fiber, unknown cost for 5G cellular transmitters. Many transmitters required to give desired coverage.	Would need to engage specialist company to get estimates
7	**5G Advanced/6G**	$0 cost to LHIB	$0	Complete coverage	Unknown	Unknown	Would leave no footprint on island. Complete coverage of island. No cost to LHIB.	Technology still in early stages of development. Still a few years out from public adoption.	Optus have partnered with Starlink to provide complete overage to 100% of Australia. Predicted 2025 release. Compatible Phone/Sim required.

Attachments

Attachment	Title
A	High-Level Communications Options-Paper for Lord Howe Island – Respiro – Sep 23
B	Telstra microcell range response

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Luke Phillips-Page	Project Officer

Lord Howe ISLAND BOARD

NSW GOVERNMENT

Connectivity – Lord Howe Island

Aug 23 2023

1 About Respiro

Respiro is a specialist cybersecurity & network consultancy. Based in Sydney, we have been operating since 2004. Our principal consultants individually have over 25 years' experience in network and cybersecurity.

We offer the full suite of network and cybersecurity services; strategy & architecture, workplace technology consulting, and security services with our select partners.

2 Purpose of Engagement

The Lord Howe Island Board are exploring their options for introducing public connectivity on the Island through cellular, Wi-Fi, and low power IoT (Internet of Things) networks. A current state assessment of the island's communications network will be conducted. High level options for enhancing the network will be researched and evaluated, considering feasibility, suitability, emerging technologies, and industry trends.

3 Current State Assessment

Lord Howe Island currently has no cellular connectivity. There is only a very limited pre-paid public Wi-Fi service available in the CBD and Tourism centre. Businesses and residents only connectivity option was the NBN (high latency, limited data) satellite service until recently when Starlink (low latency, unlimited data) became available to which many residents and businesses have installed and subscribed to this service for their personal use. The NBN service has responded to Starlink entering the market by offering an unlimited data option although speeds remain the same as before.

Lord Howe Island has a copper network and landline telephony that is currently serviced by Telstra. Heavy rain can disrupt this service (island wide) as it is reliant on a centralised point of uplink via satellite. Currently the landline system forms an important part of the islands ability to communicate. There is general concern from the Lord Howe Island residents that Telstra will cease to maintain the copper network on the island (especially if they are successful in installing a microcell tower under the blackspot program). The rest of Australia is trending away from landline systems so this is a legitimate issue to raise.

The island has an existing VHF network that is used for emergency (Police, Marine Rescue, SES, RFS, Hospital) and support services from the LHIB. Restricted to radios programmed for this frequency, this is a critical service and the primary method for safety communications on the island. The use of this network for other communications would need careful consideration to ensure the primary safety role is not compromised.

4 Public Connectivity

Lord Howe Island is a unique case, there is currently no cellular or free public Wi-Fi service. Deploying some cellular coverage is possible through the Mobile Blackspot program but residents' views are divided on whether this should be done due to the impact on the Island lifestyle vs support for improved business ease and safety. Providing Internet connectivity through Wi-Fi for visitors to a site or location is not new, it has been commonplace in public locations like shopping centres, airport lounges etc for over a decade. Use of this service has become less significant in recent years as the cost of available cellular data has dropped and the available bandwidth over these networks has increased.

4.1 Benefits

Deploying a network for the public on the Island has broader goals than just public Internet access; network connectivity can improve the services to visitors:

4.1.1 Enhanced Experience

Some visitors to the Island may appreciate the lack of network connectivity and others will not, that is beyond the scope of this report to analyse. With public network connectivity, especially Wi-Fi there is the ability to steer visitors to enhanced experiences such as:

- Local nature and historical information
- Wireless audio guided tours
- School and youth targeted activities delivered online
- Links to related sites for further involvement (local historical sites and detail, flora and fauna groups)

4.1.2 Safety

Improving visitor, resident and workers safety is likely to be a key concern. Connectivity can deliver:

- Improved awareness of the number of visitors to sites; – weather alerting
- Visitor ability to call for help
- Location awareness of staff and contractors when working in remote sites

4.1.3 Visitor Data

Technology to collect and report footfall traffic (number of users visiting, accessing location and sites etc) are readily available, improving in accuracy and becoming more affordable. There is a trend towards IoT style devices that, due to local processing of data within the device, can gather and report enriched data in just a small data packet, thus only requiring a low bandwidth network to transmit successfully.

Accurate and consistently applied visitor data provides opportunities for LHIB to better understand:

- Number of visitors, when, where visited, time spent, activities undertaken; - what locations, events and activities are attracting visitors
- Gauging sufficiency of facilities and services; - are facilities sufficient for visitor numbers
- Budget and project planning; - targeting of resources to locations most used, expand successful (commercial and community) activities

4.1.4 Scientific and Heritage Monitoring

Managing the upkeep of facility blocks, trail repair, managing camp sites, pest and weed management, native fauna and environment monitoring, are all time consuming and costly exercises. Sensors and control technology is increasingly used to undertake monitoring, improve the data collected, and automate access and facility usage. Without any network connectivity there is no monitoring of the status or operation of these sensors, and data retrieval requires a manual visit which is a time consuming and expensive activity. Network connectivity for these sensors has obvious economic benefit. A network for high visitor traffic areas with advanced services needs higher bandwidth but only required in a small area, while a network for sensors requires low bandwidth but across a much greater area.

5 Network Options

Cellular and Wi-Fi networks are the connectivity options that most people are familiar with. High data rates are necessary for interaction with people where an enhanced visitor experience is expected or desired.

- **Cellular**: A cellular network or mobile network transmits 4G and 5G from cells providing radio coverage over a wide geographic area. High data rates are possible, especially with 5G, but 5G with its higher frequency and shorter wavelength, does not transmit as far as 4G. Cells transmit the signal, and come in macro (the typical tower that everyone is familiar with) and small cells. Small cells use less power, have smaller antennas, can be inside buildings and give coverage ranging from 50m to 2km depending on the topology of the space.

  The Mobile Black Spot Program (the MBSP) is a government initiative that invests in telecommunications infrastructure to improve mobile coverage and competition across Australia. Telstra applied under the program and was successful in being funded. They have proposed a small cell for the island. The LHIB has been requested to grant owners consent to Telstra to install the small cell.

  https://www.infrastructure.gov.au/media-communications-arts/phone/mobile-services-and-coverage/mobile-black-spot-program

- **Wi-Fi:** These are the most widely used computer networks in the world. They are used globally in home and small office networks to link devices together and to a wireless router to connect them to the Internet and in wireless access points in public places like coffee shops, hotels, libraries, and airports to provide visitors with Internet connectivity for their mobile devices. Wi-Fi can connect clients up to 30m to 50m or more with a directional antenna. Topology and obstructions will reduce the range significantly.

Low Power, low bandwidth IOT networks (Low Power WANs) are typically sufficient for machine to machine (M2M) traffic. These interactions involve small data packets and one-way traffic (e.g. a water sensor transmitting level data). IOT devices continue to develop and local processing at the device enables more intelligent devices to operate on a low bandwidth WAN e.g. a footfall sensor that captures an image of an object triggering the passing of a sensor, interprets whether the object is human or animal then transmits the processed data back to base.

- **Cellular LTE:** A cellular low-power wide-area network (LPWAN) is a data network that utilizes a specific class of wireless technologies. It allows for long-range communications at low bit rates for devices connected to the cellular network via low-power standards. Commercially viable network access can be delivered by a Private APN, essentially a unique frequency is deployed by the telco provider and custom SIM cards are

programmed to this frequency only. The cost of deploying this custom Private APN commercially viable if a customer is connecting over 5000 devices across the country.

LoRa: LoRa (from "long range") is a radio communication technique. **LoRaWAN** (Wide Area Network) defines the communication protocol and system architecture. Together, LoRa and LoRaWAN define a Low Power, Wide Area (LPWA) networking protocol designed to wirelessly connect battery operated devices to the Internet in regional, national, or global networks, and targets key Internet of Things (IoT) requirements such as bi-directional communication, end-to-end security, mobility and localization services. The low power, low bit rate, and IoT use distinguish this type of network from a wireless WAN that is designed to connect users or businesses, and carry more data, using more power. The LoRaWAN data rate ranges from 0.3 kbit/s to 50 kbit/s per channel. LoRaWAN networks are delivered by a LoRaWAN gateway which transmits the signal and connects back to the Internet or private network.

- **Sigfox:** Sigfox 0G technology is a Low-Power Wide-Area (LPWA) networking protocol owned by UnaBiz. It is designed to connect sensors and devices securely at low-cost in the most energy efficient way to enable Massive IoT.

VHF Radio: VHF radio networks operate in licensed frequencies unlike Wi-Fi networks that operate in the unlicensed frequency space (hence why they are cheaper and easy to deploy by anyone). Radio networks needs a device programmed to the specific network frequency so access to the network is not easy.

4G/5G cells, Wi-Fi access points and LoRaWAN gateways all need a similar physical model of deployment:

- A cell, access-point, or gateway that advertises the signal to the clients
- An elevated location to place this signal advertising device (a pole, a tower, or a building)
- Connectivity back to a network to access the Internet or a private network

Fib is the primary method to deliver this and the NBN is the default Australian backbone fibre network. Telcos have their backbone fibre that competes with the NBN and private fibre runs exists where organisations have a need that the NBN or commercial providers cannot see a commercial return.

Microwave wireless backhaul is commonly used where line of sight connectivity is available and fibre installation is expensive. Microwave backhaul is considered safe and is affordable for smaller deployments. Technology developments have introduced the use of Near Line of Sight capable antennas, but the service speed will be degraded.

Wireless backhaul using the same protocols as client Wi-Fi has progressed in recent years and can support moving objects in a way that microwave wireless cannot. For point-to-point links for backhaul, the use of directional antenna makes this viable and the cost of hardware will be much less. The challenge with using the same 802.11 Wi-Fi as clients is the potential for competing signals in the same unlicensed frequency as the 802.11 signals. Where existing structures and buildings exist and line of sight is available it may be worth trialling the use of 802.11 wireless backhaul to a location to extend citizen Wi-Fi, the potential for service disruption may be acceptable.

Satellite Backhaul is a solution for use in fringe areas (e.g. remote rural areas) and sometimes as an emergency/temporary measure (e.g. a disaster area or in place of a microwave link whilst waiting for licence approval). The technology can deliver 150Mbps/10Mbps (downlink/uplink). However, latency is a challenge as there is a round trip delay of circa 500-600ms for a geostationary satellite. Satellite backhaul is the proposed solution from Telstra for Lord Howe Island.

Low-Earth orbit (LEO) satellites are satellites that orbit the Earth at a height of 180–2,000km. This is significantly lower than geostationary orbit (GEO) satellites, which orbit at around 36,000 kilometres from Earth. Because of the lower altitude of LEO satellites, it takes less time for a signal to travel from a device (such as a computer) to the satellite and back (known as latency), allowing for faster transmission of data. SpaceX Starlink is currently the only commercially operating LEO satellite service available in Australia. The number of providers is expected to grow in the coming 1-3 years. Other LEO satellite service providers that are expected to service Australia, include OneWeb, Amazon, Iridium, Telesat and LeoSat. Connectivity to an LEO service requires clear sky access to maintain a consistent connection.

Backhaul connectivity requires analysis of each specific location; no single method will provide for all sites.

5.1 Network Security

Any deployment of an expanded or network needs to ensure it is secure i.e. it must consider the following:

- Confidentiality - User and machine data transmitted across the network remains within the confines of the client and the target host. Personal data is not shared or lost.
- Integrity - The network users or machines connect to is the one they are expecting, rogue networks are not masquerading as valid public networks.
- Availability - Network access is not disrupted.

Cellular networks (both 4G/5G and LPWAN) are considered secure, there is a direct 1:1 connection between the device and the cellular provider. Identity is authenticated via the device's SIM chip, and the connection between the

mobile device and the provider is encrypted by default. It is highly unlikely that someone would simulate a 4G/5G signal to intercept a connection due to the infrastructure cost required and most risks are with the client device.

Public Wi-Fi networks carry a reputation for being insecure after numerous breaches and the ready availability of tools to simulate networks and harvest user data and passwords. Wi-Fi security protocols are secure if applied correctly ensuring the client's data is confidential, but the challenge with public Wi-Fi networks is that the average user or client has no way of knowing whether sufficient controls are in place to protect them. It is prudent for users to only use Wi-Fi networks with caution and for mundane activities not requiring usernames and passwords. Deploying a visitor portal to enrich the visit experience needs to consider whether requiring users to create accounts and login for further and deeper visitor data capture is worth the risk to the visitor and the reputation risk of this personal data being lost to bad actors.

LoRaWAN networks support mutual authentication, integrity protection and confidentiality. Mutual authentication is established between a LoRaWAN end-device and the LoRaWAN network as part of the network join procedure. This ensures that only genuine and authorized devices will be joined to genuine and authentic networks. LoRaWAN MAC and application messaging are origin authenticated, integrity protected, replay protected, and encrypted. This protection, combined with mutual authentication, ensures that network traffic has not been altered, is coming from a legitimate device, is not comprehensible to eavesdroppers and has not been captured and replayed by rogue actors.

5.2 User and Data Processing

Alongside the initial network access there is a need to control and manage where the client, whether a person or an IoT machine, can connect to once on the network. This is for security (both for the client and data confidentiality) and to ensure the use of the network provides the full benefit to LHIB i.e. LHIB want to inform the visitor about available services and experiences at the site, and gather data about the visitor for site visit analysis, not just grant access to the Internet for their convenience.

For visitors connecting to a Wi-Fi network this is achieved through all users connecting to the network being directed to a landing page on initial access. The landing page, commonly seen in airport lounges and other public Wi-Fi networks, can enable the user to login with a personal email account or mobile number, create a local account, accept the terms of use, be directed to local attractions and other local experiences on offer, allow the user to pay for additional bandwidth if required or beyond a time limit if one is set. Many captive portal solutions exist and they are relatively inexpensive given the competition, the cost is usually based on the number of Wireless Access Points deployed. A single provider should be selected and used across all deployment of public / citizen Wi-Fi, this enables a consistent user experience, control, and data collection.

IoT machines deployment will proliferate. Failure to plan and manage their connection to the network will result in cybersecurity breaches, data silos, and inefficient and costly engagements with multiple providers.

The Microsoft security architecture for IoT provides a good logical reference model: *Please see* **Appendix 1**

https://learn.microsoft.com/en-au/azure/iot/iot-security-architecture?context=%2Fazure%2Fiot-hub%2Frc%2Frc

6 Connectivity Modelling

6.1 Cellular

A cellular network is a radio network distributed over land through cells where each cell includes a fixed location transceiver known as base station. These cells together provide radio coverage over larger geographical areas. User equipment (UE), such as mobile phones, is therefore able to communicate even if the equipment is moving through cells during transmission.

Cellular networks are classified by the signal transmitted 3G, 4G, and 5G.

3G refers to third-generation cellular technology which was first introduced at the turn of the decade in in 2001. 3G was capable of data speeds of up to 7 Mbps. 3G networks brought improved voice call quality, reduced background noise, and enhanced call reliability. 3G networks also introduced basic data services such as mobile internet browsing, emails, and multimedia messaging (MMS). Telstra's 3G network is scheduled to be closed down in mid-2024,

4G was introduced in 2009, 4G typical download speeds range from 5 up to 100 Mbps, depending on various factors such as location, network congestion and device capabilities. 4G enabled users to create mobile hotspots, sharing their high-speed internet connections with other devices, such as laptops or tablets.

The latest technology on the market in Australia – **5G** offers ultra-high-speed data transfer (up to 10Gbps) and significantly improved performance, especially in crowed areas where there are large numbers of connected users. 5G can support streaming 8K video and downloading entire episodes in seconds. 5G uses a much higher frequency and smaller wavelength than 4G, the distance the signal can travel is much smaller and 50-200m connectivity from the antenna should be expected as the limit.

5G is still evolving as a standard. **5G Advanced** is an enhancement of the 5G standard promising (and delivering in tests) wider coverage, higher speed, and better cell management for the telco. The 5G Advanced improvements will eventually be rolled into 6G, along with further enhancements. There is a significant difference in technology capabilities and what technology is supported by the telecommunications provider. Telcos are huge businesses and change is not quick, any introduction of new technology requires mammoth effort in the back end to change build, support and roll-out processes. Asking a telco to introduce non-standard technology to a location may be successful with political or economic support but it is not going to be an easy process and is more likely to fail.

Base-stations consist of:

(i) The antennas – to send and receive radio signals within the cell.

(ii) The tower or supporting structure – where the antennas are mounted, this could be a building, mast or tower.

(iii) Hardware – supports the operations of the base station often called the BTS (Base Transceiver Station) and is stored in a cabinet or shelter.

(iv) A link back to the digital exchange which can either be a cable or wireless connection.

The antenna type is used as classification for cell sites, cell technology is continually progressing. As a guide only, as provider cell type selection will change over time:

Base Station Type	Typical Coverage Radius (assume 4G)	Typical Use
Femtocell	10m	home or office use
Picocell	200m	high rise building, hotel or car park use
Microcell	1-2km	shopping centres, transport hubs, mine sites, city block, temporary events or natural disasters.
Macrocell	5-32km	suburban, city and rural use
Macrocell – Extended Reach	50-150km using extender cell technology	suburban and rural use

Table 1 Cell Types

Femtocell, Picocell and Microcell are grouped under the term 'small cell'. The variance in range within these small cell types makes accurate estimates of coverage difficult. ACMA's guide to small cells is for coverage of 50-200m but it does not clarify if this is 4G or 5G:

https://www.acma.gov.au/sites/default/files/2019-11/Small%20cells_fact%20sheet.pdf

6.1.1 Blackspot Proposal

LHIB have a proposal from Telstra/Downer (Downer acting as the construction entity for Telstra) for the deployment of one 4G small cell proposed to be deployed at the northern end of the island with an adjacent satellite dish for network backhaul. The cell is being offered under the Federal Government Mobile Blackspot Program. Through early evaluation of the limited coverage of the proposal, LHIB requested a quote from Telstra for an additional cell and were advised they have a budget cost of approximately $254,000.

With just the single cell, overlaying small cell ranges, even at very approximate scale for both worst case (200m) and best case (2000m) shows the inadequacy of this proposal to provide cellular coverage for the island:

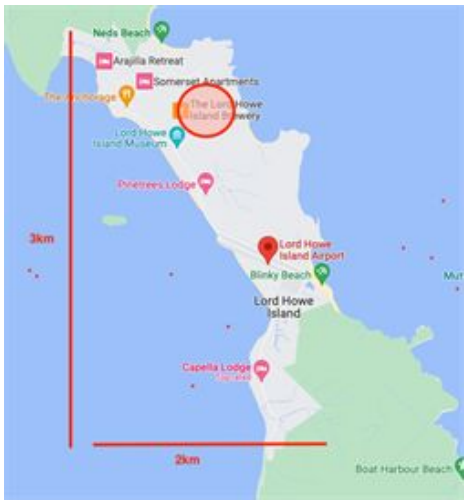


Figure 1 Single cell coverage estimate 200m range

Figure 1 Single cell coverage estimate 2000m range

If the two cells are deployed the expected coverage depends on the type of cell deployed by Telstra. The 2000m range is not guaranteed.

Figure 2 Two cell coverage estimate 200m range

Figure 3 Two cell coverage estimate 2000m range

6.1.2 Options

The estimated coverage are only estimates as there is no detail from Telstra on the model of cell proposed. LHIB have requested further detail from Telstra regarding estimated coverage to be expected, however this has not be forthcoming. A range of 5km would comfortably cover the island from the proposed single location, through this is not expected from a microcell.

If the coverage is less than 5km and partial coverage of the habited part of the island is not deemed sufficient then options exist:

1. **Request Telstra investigate upgrading the proposal to a macrocell**. A macrocell would deliver the required coverage. There is precedent for macro cells to be deployed under the Mobile Blackspot Program: https://www.infrastructure.gov.au/sites/default/files/documents/round2-regional-connectivity-program-funded-projects-september2022_0.pdf

   Examples:

Applicant	Location	Description	Grant amount
Telstra	Kununurra	The project will deploy one new Telstra macro base station at Kununurra and one Telstra small cell base station at the Frank Wise Institute of Tropical Agriculture, providing new coverage to the area.	$657,650
Telstra	Christmas Island	The project will upgrade four Telstra 2G macro cell base stations to 4GX macro cell base stations at Christmas Island and deploy one new Telstra 4GX macro cell base stations at Christmas Island's airport.	$4,682,625
Telstra	Doomadgee	The project will deploy a new Telstra macro cell base station to provide new coverage to the Aboriginal township of Doomadgee.	$957,200
Telstra	Acacia Hills	The project will deploy one new Telstra macro cell mobile base station to service the rural locality of Acacia Hills.	$902,925

Table 2 Example blackspot grants Jan 2023

2. **Request Telstra to investigate the deployment of additional small cells** to provide adequate coverage for the habited part of the island. The Telstra small cell proposal states the site requirements as:
   - Power be extended to the Small Cell location via a 2 core cable with 1m of free cable out of the ground.
   - Access to the customer supplied mains power switchboard and local supply point.
   - Ground leveling of the proposed site to the required dimensions (5m x 5m) and ensure the site:
     - Is level and accessible by suitable vehicles
     - The topsoil and any organic materials have been removed to a minimum of depth of 100mm below ground level.
     - Backfill compound area with compacted road base to achieve a minimum of 95% dry compaction or 100kpa safe bearing.
   - Ensure compound surface is level for water to drain away and not to pool in the compound area.

Candidate sites have been suggested for consideration, further analysis of these should be taken re the available cell's range, the number of cells and most suitable locations can then be selected.

3. **Engage a 3rd party to undertake analysis to obtain an independent proposal** for coverage of the complete habited part of the island. Present this to the Telco Authority for consideration under the Mobile Blackspot Program e.g. commscope, oratel . This analysis could research the cost and viability of deploying a fiber backbone across the habited area of the island and along all roads. The analysis could ascertain the deployment requirements for this fiber backbone to be used by Telstra or other telcos for a 4G/5G mesh of small cells around the island, back to a single backhaul satellite. This fiber backbone could also provide broadband connectivity for residents.

6.2 Wi-Fi

Respiro have conducted a predictive site survey for sites on Lord Howe Island to gauge current infrastructure and the changes required to support a wireless network. Please see appendix 2.1 for observations.

1) Old settlement
2) Neds Beach
3) The Jetty
4) Under the Pines / CBD
5) The Playground
6) The Hospital
7) Middle Beach
8) The Airport
9) Cobbies Corner
10) Little Island Start
11) North Bay
12) Intermediate Hill

Figure 4 - Map showing Wi-Fi locations for sites 1-7

Figure 5 - Map showing Wi-Fi locations for sites 8-10 & 12

Figure 6 - Map showing Wi-Fi location for site 11

6.2.1 Wi-Fi Infrastructure

The foundations of a successful wireless network are as follows:

- Ensure the WAP is mounted in an area where it is able to maximise its coverage area i.e., the WAP needs to be in a position where its signal can reach as far as possible while being unobstructed by other objects/devices that will block, disrupt, or cause interference with its radio signals.
- A switch or WLC (Wireless LAN Controller) must be connected to the WAP to ensure that packets can be routed.
- Sufficient power is needed in order to run the devices.

Please see **appendix 2.2** for network equipment required to establish wireless networks at the 12 sites spanning across Lord Howe Island.

6.2.2 Backhaul

There are three different backhaul solutions that can be applied to each site. These options are as follows:

1. Starlink set up for each site.
    - Along with switches and WAPs, this option will require all the hardware associated with star link. This includes the satellite dish and router.
2. Utilise wireless bridges between sites to act as a point-to-point link to a centralised uplink, the uplink would most likely be a Starlink set up or some other infrastructure already present on the island.
    - Wireless bridges will require line of site, in between sites.
    - A wireless bridge works in pairs, with one device at each site point at each other.
3. Running fiber between sites and to a centralised point for uplink.

Please see **appendix 2.3** for the backhaul modelling that includes the required number of switches and WAPs for each backhaul option mentioned above, along with the supporting infrastructure present on site

6.2.3 Cost Estimates

Estimate on the order of magnitude cost to deliver a connectivity network across 12 locations consisting of:

1. Dedicated Wi-Fi infrastructure
    a. Wireless Access Points (WAPs)
    b. Poles of WAPs (if needed)
2. Dedicated backhaul to the internet.

6.2.4 Dedicated Wi-Fi Infrastructure

Each sample site was surveyed, the following outlines an initial estimate for each site, these estimates will change when technology selection, site selection etc are changed. These estimates are provided to give a guide on the order of magnitude costs for the Lorde Howe Island sites.

Item	Description	QTY	Unit Cost	Total cost ex Gst
Old Settlement				$31,627
WAPs	MR76, Meraki Outdoor Wireless Access Point	1	$5559	$5559
Antenna for WAP	MA-ANT-20. Additional antenna for the Meraki AP.	1	$550	$550
Meraki MR76 Licence	Gain access to centrally managed cloud solution for Meraki WAPs	1 (1 year licence, can be upgraded to 3 or 5 years at additional cost)	$400	$400
Outdoor Cabinet	An outdoor cabinet required for the network equipment that will be installed on site.	1	$900	$900
Installation	2 technicians will be required to be onsite to install and configure the wireless networking equipment	2	$2000	$4000
Switch	Meraki MX95 switch	1	8058	8058
Mounting Pole	Used to mount the WAPs	1	1000	1000
Mx95 Switch License	Advanced Security License and support	1	11000	11000
Pole Mount	Mount used for WAP attached to pole	1	160	160
Neds Beach				$30,467
WAPs	MR76, Meraki Outdoor Wireless Access Point	1	$5559	$5559
Antenna for WAP	MA-ANT-20. Additional antenna for the Meraki AP.	1	$550	$550
Meraki MR Licence	Gain access to centrally managed cloud solution for Meraki WAPs	1 (1 year licence, can be upgraded to 3 or 5 years at additional cost)	$400	$400

Outdoor Cabinet	An outdoor cabinet required for the network equipment that will be installed on site.	1	$900	$900
Installation	2 technicians will be required to be onsite to install and configure the wireless networking equipment	2	$2000	$4000
Switch	Meraki MX95 switch	1	8058	8058
Mx95 Switch License	Advanced Security License and support	1	11000	11000
The Jetty				$30,467
WAPs	MR76, Meraki Outdoor Wireless Access Point	1	$5559	$5559
Antenna for WAP	MA-ANT-20. Additional antenna for the Meraki AP.	1	$550	$550
Meraki MR Licence	Gain access to centrally managed cloud solution for Meraki WAPs	1 (1 year licence, can be upgraded to 3 or 5 years at additional cost)	$400	$400
Outdoor Cabinet	An outdoor cabinet required for the network equipment that will be installed on site.	1	$900	$900
Installation	2 technicians will be required to be onsite to install and configure the wireless networking equipment	2	$2000	$4000
Switch	Meraki MX95 switch	1	8058	8058
Mx95 Switch License	Advanced Security License and support	1	11000	11000
Under the Pines				$30,467
WAPs	MR76, Meraki Outdoor Wireless Access Point	1	$5559	$5559
Antenna for WAP	MA-ANT-20. Additional antenna for the Meraki AP.	1	$550	$550
Meraki MR Licence	Gain access to centrally managed cloud solution for Meraki WAPs	1 (1 year licence, can be upgraded to 3 or 5 years at additional cost)	$400	$400
Outdoor Cabinet	An outdoor cabinet required for the network equipment that will be installed on site.	1	$900	$900
Installation	2 technicians will be required to be onsite to install and configure the wireless networking equipment	2	$2000	$4000
Switch	Meraki MX95 switch	1	8058	8058

Mx95 Switch License	Advanced Security License and support	1	11000	11000
The Playground				$30,467
WAPs	MR76, Meraki Outdoor Wireless Access Point	1	$5559	$5559
Antenna for WAP	MA-ANT-20. Additional antenna for the Meraki AP.	1	$550	$550
Meraki MR Licence	Gain access to centrally managed cloud solution for Meraki WAPs	1 (1 year licence, can be upgraded to 3 or 5 years at additional cost)	$400	$400
Outdoor Cabinet	An outdoor cabinet required for the network equipment that will be installed on site.	1	$900	$900
Installation	2 technicians will be required to be onsite to install and configure the wireless networking equipment	2	$2000	$4000
Switch	Meraki MX95 switch	1	8058	8058
Mx95 Switch License	Advanced Security License and support	1	11000	11000
Middle Beach				$31,627
WAPs	MR76, Meraki Outdoor Wireless Access Point	1	$5559	$5559
Antenna for WAP	MA-ANT-20. Additional antenna for the Meraki AP.	1	$550	$550
Meraki MR Licence	Gain access to centrally managed cloud solution for Meraki WAPs	1 (1 year licence, can be upgraded to 3 or 5 years at additional cost)	$400	$400
Outdoor Cabinet	An outdoor cabinet required for the network equipment that will be installed on site.	1	$900	$900
Installation	2 technicians will be required to be onsite to install and configure the wireless networking equipment	2	$2000	$4000
Switch	Meraki MX95 switch	1	8058	8058
Mounting Pole	Used to mount the WAPs	1	1000	1000
Mx95 Switch License	Advanced Security License and support	1	11000	11000
Pole Mount	Mount used for WAP attached to pole	1	160	160
The Hospital				$36,426
WAPs	MR76, Meraki Outdoor Wireless Access Point	2	$5559	$11118

Antenna for WAP	MA-ANT-20. Additional antenna for the Meraki AP.	1	$550	$550
Meraki MR Licence	Gain access to centrally managed cloud solution for Meraki WAPs	1 (1 year licence, can be upgraded to 3 or 5 years at additional cost)	$400	$400
Outdoor Cabinet	An outdoor cabinet required for the network equipment that will be installed on site.	1	$900	$900
Installation	2 technicians will be required to be onsite to install and configure the wireless networking equipment	2	$2000	$4000
Switch	Meraki MX95 switch	1	8058	8058
Mx95 Switch License	Advanced Security License and support	1	11000	11000
The Airport				$26,426
WAPs	MR76, Meraki Outdoor Wireless Access Point	2	$5559	$11118
Antenna for WAP	MA-ANT-20. Additional antenna for the Meraki AP.	1	$550	$550
Meraki MR Licence	Gain access to centrally managed cloud solution for Meraki WAPs	1 (1 year licence, can be upgraded to 3 or 5 years at additional cost)	$400	$400
Outdoor Cabinet	An outdoor cabinet required for the network equipment that will be installed on site.	1	$900	$900
Installation	2 technicians will be required to be onsite to install and configure the wireless networking equipment	2	$2000	$4000
Switch	Meraki MX95 switch	1	8058	8058
Mx95 Switch License	Advanced Security License and support	1	11000	11000
Cobbies Corner				$31,627
WAPs	MR76, Meraki Outdoor Wireless Access Point	1	$5559	$5559
Antenna for WAP	MA-ANT-20. Additional antenna for the Meraki AP.	1	$550	$550
Meraki MR Licence	Gain access to centrally managed cloud solution for Meraki WAPs	1 (1 year licence, can be upgraded to 3 or 5 years at additional cost)	$400	$400

Outdoor Cabinet	An outdoor cabinet required for the network equipment that will be installed on site.	1	$900	$900
Installation	2 technicians will be required to be onsite to install and configure the wireless networking equipment	2	$2000	$4000
Switch	Meraki MX95 switch	1	8058	8058
Mounting Pole	Used to mount the WAPs	1	1000	1000
Mx95 Switch License	Advanced Security License and support	1	11000	11000
Pole Mount	Mount used for WAP attached to pole	1	160	160
Little Island Start				$31,627
WAPs	MR76, Meraki Outdoor Wireless Access Point	1	$5559	$5559
Antenna for WAP	MA-ANT-20. Additional antenna for the Meraki AP.	1	$550	$550
Meraki MR Licence	Gain access to centrally managed cloud solution for Meraki WAPs	1 (1 year licence, can be upgraded to 3 or 5 years at additional cost)	$400	$400
Outdoor Cabinet	An outdoor cabinet required for the network equipment that will be installed on site.	1	$900	$900
Installation	2 technicians will be required to be onsite to install and configure the wireless networking equipment	2	$2000	$4000
Switch	Meraki MX95 switch	1	8058	8058
Mounting Pole	Used to mount the WAPs	1	1000	1000
Mx95 Switch License	Advanced Security License and support	1	11000	11000
Pole Mount	Mount used for WAP attached to pole	1	160	160
North Bay				$31,627
WAPs	MR76, Meraki Outdoor Wireless Access Point	1	$5559	$5559
Antenna for WAP	MA-ANT-20. Additional antenna for the Meraki AP.	1	$550	$550
Meraki MR Licence	Gain access to centrally managed cloud solution for Meraki WAPs	1 (1 year licence, can be upgraded to 3 or 5 years at additional cost)	$400	$400
Outdoor Cabinet	An outdoor cabinet required for the network equipment that will be installed on site.	1	$900	$900

Installation	2 technicians will be required to be onsite to install and configure the wireless networking equipment	2	$2000	$4000
Switch	Meraki MX95 switch	1	8058	8058
Mounting Pole	Used to mount the WAPs	1	1000	1000
Mx95 Switch License	Advanced Security License and support	1	11000	11000
Pole Mount	Mount used for WAP attached to pole	1	160	160
Intermediate Hill				$31,627
WAPs	MR76, Meraki Outdoor Wireless Access Point	1	$5559	$5559
Antenna for WAP	MA-ANT-20. Additional antenna for the Meraki AP.	1	$550	$550
Meraki MR Licence	Gain access to centrally managed cloud solution for Meraki WAPs	1 (1 year licence, can be upgraded to 3 or 5 years at additional cost)	$400	$400
Outdoor Cabinet	An outdoor cabinet required for the network equipment that will be installed on site.	1	$900	$900
Installation	2 technicians will be required to be onsite to install and configure the wireless networking equipment	2	$2000	$4000
Switch	Meraki MX95 switch	1	8058	8058
Mounting Pole	Used to mount the WAPs	1	1000	1000
Mx95 Switch License	Advanced Security License and support	1	11000	11000
Pole Mount	Mount used for WAP attached to pole	1	160	160
Total for All Sites				$414,482

6.2.5 Dedicated Backhaul to Internet

The current mode of connectivity considered is through utilising Starlink low orbit satellites. Pricing for the 12 sites:

Lord Howe Island	
Option 1: Starlink 2TB	
Hardware	$2,999
Starlink Monthly fee	$748
3-year ownership per site	$29,927
3-year ownership for 12 sites	$359,124
Option 2: Starlink + wireless bridge	
Hardware	$2,999
Starlink monthly fee	$748
Wireless bridges (ubiquity AF-24)	$1,650 a pair, $21,450 for 13 pairs
3-year ownership for 12 sites	$51,377
Option 3: Trench and Run Fiber (9KM distance between sites)	
Trenching	$30 per metre, $540,000 for 9KM
Conduit	$25 per metre, $450,000 per metre
Cabling	$15,000
Total	$1,005,000

6.3 Network - Radio

The island has an existing VHF network that is used for emergency (Police, Marine Rescue, SES, RFS, Hospital) and support services from the LHIB. Restricted to radios programmed for this frequency, this is a critical service and the primary method for safety communications on the island. The use of this network for other communications would need careful consideration to ensure the primary safety role is not compromised.

Additional channels advertised from the radio network are possible, and having a set of handheld radio devices that can be loaned out to visitors for safety reasons could be an option but this capability could also be achieved by a set of Personal Locator Beacons (PLBs) that can be loaned. These operate in the Marine Rescue frequency and would require no change to the island VHF radio network.

Deploying fixed sets in weatherproof storage (with solar power to provide ongoing charging) at remote locations could be an considered for emergency communications for visitors, the sets would require regular visits to confirm they are working correctly.

Figure 7 – Current VHF radio coverage (estimated)

6.4 Island Cabling Infrastructure and Landline

The Island has a copper network and landline telephony. There is no NBN fiber on the island. Installing a fiber backbone along the existing pit and trench runs should be investigated. Substituting the island's copper network that currently sustains landline connections is a viable option. Nonetheless, implementing this change involves taking into account the necessity of upgrading landline handsets. The current phones are incompatible, as they presently draw power through the copper lines, a functionality that can't be replicated over fiber optics. Adapting the phone service to Voice over Internet Protocol (VoIP) is imperative, wherein each inhabitant would need a compatible modem and handset. While this transition might pose challenges, it's noteworthy that landline usage in Australia is progressively waning; numerous households have already forgone landlines for years.

In order for VoIP landline services to operate optimally and reach their maximum potential, a strong and stable internet connection is essential. Broadband internet through fiber connections are highly suitable for this purpose. However, a comprehensive evaluation is required to determine whether the current NBN or Starlink connections would provide sufficient performance to transition to VoIP systems in the immediate future. This approach could serve as a strategic solution to address the potential challenge of Telstra discontinuing maintenance of the copper network. By adopting this strategy, both residents and businesses would be able to retain their landline functionality without relying on the traditional copper network.

Figure 8 – Telecom cables and pits

7 Summary

The benefits of building a connectivity network are clear, it provides a foundation for improved resident digital connectivity, digital connectivity for visitors, expanded monitoring, and additional safety connectivity. The question of which network should be deployed is complex:

Cellular connectivity is being offered by Telstra and the Black Spot Program. Complete details on the coverage have been provided but they come with many caveats. There is a risk that the proposed deployment is disappointing for a large proportion of the island residents.

It is not commercially viable to deploy a Wi-Fi network across the whole Island, the number of access points, interconnecting infrastructure and local backhaul solutions, all add up to a lot of hardware that needs deployment and maintenance.

The radio network should be reserved for emergency and safety operations, its deployment should be invested in to ensure it can deliver to its purpose.

Strategically, if digital communications are desired then the island should investigate the deployment of a fiber backbone across the habited part of the island. This is what the NBN has done for most habitations on the Australian mainland. There is a reason that fiber is deployed, it offers much faster communications and it has a lifespan of several decades. A fiber backbone that can be used by both residents, telcos and 3rd party commercial entities could support a 4G/5G mesh across the island and fiber broadband to residents. No large towers would be required, smaller cellular transmitters can be deployed by mounting on buildings etc, this is how the 5G network is being rolled out in cities.

Advances in the 5G network, 5G Advanced and the next generation 6G may render the fiber backbone unnecessary and this is a gamble for the LHIB, but the same question has been asked by governments across the world and fiber continues to be rolled out. As a replacement for the island's copper network that supports the landlines, this is possible, however, it requires consideration to replace the landline handset. Existing phones will not work, they currently get their power across the copper, and this is not going to happen over fiber. The phone service would need to move to VoIP (Voice over Internet Protocol) with each resident requiring a modem and handset that can support this. This could be a challenge, however, the trend of landline usage across Australia is decreasing significantly, many households have not had a landline for many years.

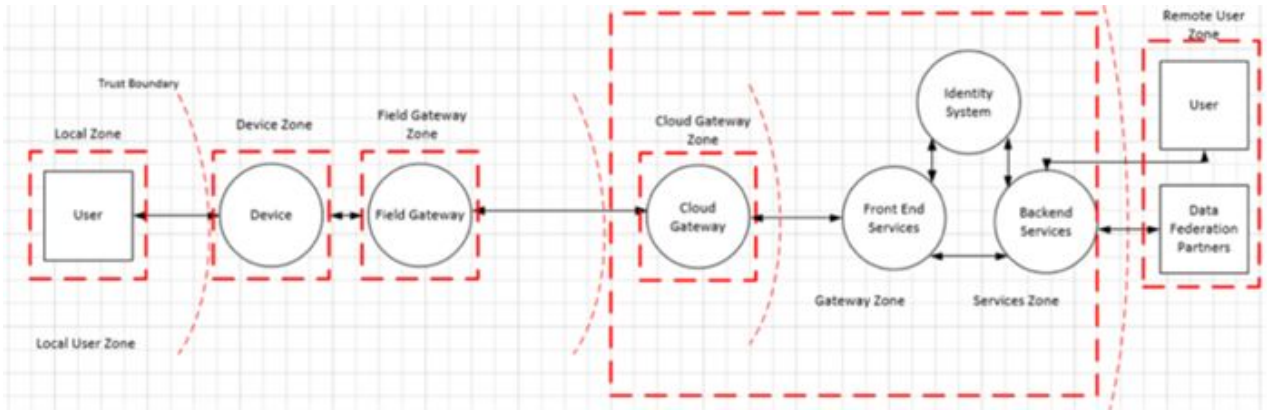
Investigating and costing a shared fiber backbone will take time and may risk losing out on Black Spot Program funding. Tactically, to provide connectivity sooner, the LHIB could approve Black Spot Program Telstra cell deployment and fund a second (and or third) cell at the middle and southern end of the Island. For any specific areas that the LHIB wish to enhance the visitor experience then deploying a visitor Wi-Fi could be undertaken but only in

key locations. The more public Wi-Fi locations are deployed, the more support infrastructure is needed, and the ongoing costs increase.

This report identifies the benefits of network connectivity, explores the connectivity options, and provides rough order of magnitude (ROM) costs for network deployment. The challenges of delivering and deploying any infrastructure on the Island make it difficult to accurately estimate costs and this needs to be factored into the accuracy of the estimates provided.

8 Appendix 1:

The Microsoft security architecture for IoT



From this model a deployment architecture should be planned, and providers / technology selected.

Device Zone: These devices will vary greatly and will be selected by the local deployment based on their requirements. Standards for identification, connectivity, security, OS patching etc. should be created and published.

Field Gateway: A consistent deployment across all locations results in many devices connecting. A standard LoRaWAN gateway deployed under the control of a central body (eg LHIB) with a standard model of access to the Internet will result in control of devices connecting.

Cloud Gateway: A cloud gateway is a system that enables remote communication from and to devices or field gateways deployed in multiple sites and enables a cloud-based control and data analysis system.

Services zone

A service can collect data from the devices and command and control those devices. A service is a mediator that acts under its identity towards gateways and other subsystems to store and analyse data, issue commands to devices based on data insights or schedules and expose information and control capabilities to authorised end users.

In a large multi-user and multi-group environment it is key that a cloud gateway and service zone solutions are deployed to create an environment that can be used by multiple teams and business units in a secure way. For LHIB this may not be necessary and could be overkill. A single network, perhaps several gateways and antennas could be managed by a small team for all users.

9 Appendix 2:

9.2.1 Sites

The table below lists observations we have made for the 12 sites on Lord Howe Island.

Point of interest	Comment	Location	Existing Wi-Fi	Existting backhaul	Power	Existing Infrastructure
1) Old Settlement						
Old Settlement Beachfront	Picturesque beach on the north side of the island. As many residents live on this side, along with tourists, we would expect to see moderate internet usage in this area	Outdoors	No	No	Tap into current power from the toilet.	Satellite imaging shows very little in the form of infrastructure, as is to be expected of a beach. Poles will need to be installed to mount WAPs
2) Neds Beach						
Neds Beach, beachfront, just outside of the shed	Calm, family beach. This would see similar internet usage as that of the old settlement	Outdoors	No	No	Tap into current power from the shed	Satellite shows a paved road leading a shed on the beachfront, the shed may serve as a mounting point for a WAP

3) The Jetty						
The Jetty carpark	Place where people will come to fish or board boats. Internet usage here would be quite minimal	Outdoors	No	No	Tap into current power from the jetty building	Satellite shows two buildings and a carpark. Either one of the buildings would be suitable for mounting a WAP
4) Under the pines CBD						
Outside Lord Howe Island Marine Park	Central CBD area, this is where you would see the highest rate of internet usage	Outdoors	No	No	Tap into the distribution pillars	Many buildings surrounding the area, ample area where power can be tapped into and mount WAPs. It would be safe to assume there would also be some trenches in the area where fiber could be run
5) The Playground						
Playground area	Family area where children play. This site	Outdoors	No	No	Tap into the power from	Images online show the existing

	would see moderate internet usage				the public toilet	playground with a large sail, and lamp posts, these may be suitable mounting points for WAPs
6) The hospital						
Gower Wilson Memorial Hospital	The hospital would be an area with a high density of people. As such, it would be safe to assume that there would be moderate to heavy internet usage in this area	Outdoors	No	No	Tap into distribution pillars around that area, or could tap into the power from the hospital	Satellite images show quite a few buildings on this site, any of which would serve as mounting points for WAPs. It's important to note that due to the thick surrounding bush, multiple APs would be required for this area.
7) Middle Beach						
Middle beach	One of the quieter beaches on Lord Howe, here we would expect to see	Outdoors	No	No	Tap into the power from the powerhouse	Imaging does not show much if any infrastructure, aside from

	lower internet usage					the electrical generators away from the beach. Poles would need to be installed to mount APs
8) The Airport						
Airport Terminal	Busy single airport terminal. There would be heavy internet usage here	Outdoors	No	No	Tap into power from the airport building	Lots of infrastructure already present on site. Should easily be able to mount APs almost anywhere on site.
9) Cobbies Corner						
Cobbies Corner Beachfront	Small picnic area on the beach front. Here we would expect low to moderate internet usage.	Outdoors	No	No	No power on site. May have to be solar	Imaging does not show much in the way of infrastructure. Power and poles would be needed to install WAPs
10) Little Island Start						
Beach entrance, near roundabout	Starting point of the little island trail. This area would see	Outdoors	No	No	No power on site. May have to be solar	Imaging does not show any infrastructure on site. Poles

	moderate to low internet usage.					will need to be built to mount APs
11) North Bay						
North Bay Beachfront	Secluded beach accessible either on foot or by water. Here we would expect moderate internet usage	Outdoors	No	No	Current solar power + battery set up on site. If power supply is not suitable, this may require a slight upgrade.	Imaging does not show any infrastructure by we have been told solar is available. Poles will still be needed to mount APs
12) Intermediate Hill						
Bush setting	VHF radio location. Wi-Fi would be very restricted. Possible LoRaWAN gateway location but topographical inspection required	Outdoors	No	No	Current solar power + battery set up on site. If power supply is not suitable, this may require a slight upgrade.	Imaging does not show any infrastructure.

9.2.2 Wi-Fi connectivity modelling

Network equipment required to establish wireless networks at the 12 sites spanning across Lord Howe:

Point of interest	WAP (Wireless Access Points)	Comment	WAP Count	Switch count	Location	Existing Wi-Fi	Existting backhaul	Power
1) Old Settlement								
Old Settlement Beachfront	MR76 + MA-ANT-20	Each WAP can support around 50 users at any one time	1	1	Outdoors	No	No	Tap into current power from the toilet.
2) Neds Beach								
Neds Beach, beachfront, just outside of the shed	MR76 + MA-ANT-20	Each WAP can support around 50 users at any one time	1	1	Outdoors	No	No	Tap into current power from the shed
3) The Jetty								
The Jetty carpark	MR76 + MA-ANT-20	Each WAP can support around 50 users at any one time	1	1	Outdoors	No	No	Tap into current power from the jetty building
4) Under the pines CBD								
Outside Lord Howe Island Marine Park	MR76 + MA-ANT-20	Each WAP can support around 50 users at any one time	1	1	Outdoors	No	No	Tap into the distributio n pillars
5) The Playground								
Playground area	MR76 + MA-ANT-20	Each WAP can support around 50 users at any one time	1	1	Outdoors	No	No	Tap into the power from the public toilet
6) The hospital								

Gower Wilson Memorial Hospital	MR76 + MA-ANT-20	Each WAP can support around 50 users at any one time	2	1	Outdoors	No	No	Tap into distributio n pillars around that area, or could tap into the power from the hospital
7) Middle Beach								
Middle beach	MR76 + MA-ANT-20	Each WAP can support around 50 users at any one time	1	1	Outdoors	No	No	Tap into the power from the powerhou se
8) The Airport								
Airport Terminal	MR76 + MA-ANT-20	Each WAP can support around 50 users at any one time	2	1	Outdoors	No	No	Tap into power from the airport building
9) Cobbies Corner								
Cobbies Corner Beachfront	MR76 + MA-ANT-20	Each WAP can support around 50 users at any one time	1	1	Outdoors	No	No	No power on site. May have to be solar
10) Little Island Start								
Beach entrance, near roundabout	MR76 + MA-ANT-20	Each WAP can support around 50 users at any one time	1	1	Outdoors	No	No	No power on site. May have to be solar
11) North Bay								
North Bay Beachfront	MR76 + MA-ANT-20	Each WAP can support around 50 users at any one time	1	1	Outdoors	No	No	Current solar power + battery set up on site. If

								power supply is not suitable, this may require a slight upgrade.
12) Intermediate Hill								
VHF tower location	MR76 + MA-ANT-20	This is likely to be a very restricted location. Questionable benefit of Wi-Fi at this location	1	1	Outdoors	No	No	Current solar power + battery set up on site. If power supply is not suitable, this may require upgrade.

9.2.3 Backhaul modelling

Required number of switches and WAPs for each backhaul option mentioned above, along with the supporting infrastructure present on site:

Point of interest	Backhaul options	Location	Supporting infrastructure	Additional Infrastructure
1) Old Settlement				
Old Settlement Beachfront	Option1: Star link Option 2: Wireless bridge Option 3: Fiber	Outdoors	Tap into current power from the toilet.	Options 1: cabling (copper/fiber), ethernet adapter from Starlink and poles for mounting. Option 2: wireless bridge (ubiquity AF-24), cabling, and poles for mounting Option 3: trench dug from site to core uplink site. You will also need fiber that runs the length of the trench.
2) Neds Beach				
Neds Beach, beachfront, just outside of the shed	Option1: Star link Option 2: Wireless bridge Option 3: Fiber	Outdoors	Tap into current power from the shed	Options 1: cabling (copper/fiber) and the ethernet adapter from Starlink. Option 2: wireless bridge (ubiquity AF-24) and cabling. Option 3: trench dug from site to core uplink site. You will also need fiber that runs the length of the trench.
3) The Jetty				
The Jetty carpark	Option1: Star link Option 2: Wireless bridge Option 3: Fiber	Outdoors	Tap into current power from the jetty building	Options 1: cabling (copper/fiber) and the ethernet adapter from Starlink. Option 2: wireless bridge (ubiquity AF-24) and cabling. Option 3: trench dug from site to core uplink site. You will also need fiber that runs the length of the trench.

4) Under the pines				
Outside Lord Howe Island Marine Park	Option1: Star link Option 2: Wireless bridge Option 3: Fiber	Outdoors	Tap into the distribution pillars	Options 1: cabling (copper/fiber) and the ethernet adapter from Starlink. Option 2: wireless bridge (ubiquity AF-24) and cabling. Option 3: trench dug from site to core uplink site. You will also need fiber that runs the length of the trench.
5) The Playground				
Playground area	Option1: Star link Option 2: Wireless bridge Option 3: Fiber	Outdoors	Tap into the power from the public toilet	Options 1: cabling (copper/fiber) and the ethernet adapter from Starlink. Option 2: wireless bridge (ubiquity AF-24) and cabling. Option 3: trench dug from site to core uplink site. You will also need fiber that runs the length of the trench.
6) The Hospital				
Gower Wilson Memorial Hospital	Option1: Star link Option 2: Wireless bridge Option 3: Fiber	Outdoors	Tap into distribution pillars around that area, or could tap into the power from the hospital	Options 1: cabling (copper/fiber) and the ethernet adapter from Starlink. Option 2: wireless bridge (ubiquity AF-24) and cabling. Option 3: trench dug from site to core uplink site. You will also need fiber that runs the length of the trench.
7) Middle Beach				
Middle beach	Option1: Star link Option 2: Wireless bridge Option 3: Fiber	Outdoors	Tap into the power from the powerhouse	Options 1: cabling (copper/fiber), ethernet adapter from Starlink and poles for mounting. Option 2: wireless bridge (ubiquity AF-24), cabling, and poles for mounting

				Option 3: trench dug from site to core uplink site. You will also need fiber that runs the length of the trench.
8) The Airport				
Airport Terminal	Option1: Star link Option 2: Wireless bridge Option 3: Fiber	Outdoors	Tap into power from the airport building	Options 1: cabling (copper/fiber) and the ethernet adapter from Starlink. Option 2: wireless bridge (ubiquity AF-24) and cabling. Option 3: trench dug from site to core uplink site. You will also need fiber that runs the length of the trench.
9) Cobbies Corner				
Cobbies Corner Beachfront	Option1: Star link Option 2: Wireless bridge Option 3: Fiber	Outdoors	No power on site. May have to be solar	Options 1: cabling (copper/fiber), ethernet adapter from Starlink and poles for mounting. Option 2: wireless bridge (ubiquity AF-24), cabling, and poles for mounting Option 3: trench dug from site to core uplink site. You will also need fiber that runs the length of the trench.
10) Little Island Start				
Beach entrance, near roundabout	Option1: Star link Option 2: Wireless bridge Option 3: Fiber	Outdoors	No power on site. May have to be solar	Options 1: cabling (copper/fiber), ethernet adapter from Starlink and poles for mounting. Option 2: wireless bridge (ubiquity AF-24), cabling, and poles for mounting Option 3: trench dug from site to core uplink site. You will also need fiber that runs the length of the trench.
11) North Bay				

North Bay Beachfront	Option1: Star link Option 2: Wireless bridge Option 3: Fiber	Outdoors	Current solar power + battery set up on site. If power supply is not suitable, this may require a slight upgrade.	Options 1: cabling (copper/fiber), ethernet adapter from Starlink and poles for mounting. Option 2: wireless bridge (ubiquity AF-24), cabling, and poles for mounting Option 3: trench dug from site to core uplink site. You will also need fiber that runs the length of the trench.
12) Intermediate Hill				
VHF location	Starlink	Outdoors	Current solar power + battery set up on site. If power supply is not suitable, this may require a slight upgrade.	Cabling (copper/fiber), ethernet adapter from Starlink and poles for mounting.

I've forwarded your requests back to Jordan. As I mentioned, we only have funding for a single small cell, and we are not sure how much longer the Govt will make the funds available.

As mentioned previously, the small cell will only provide coverage to the immediate populated area with line of sight coverage extending further. Our modelling software doesn't work on Lord Howe Is; however a line of sight indication from Google Earth shows:

This estimate obviously comes with the following disclaimer:

All mobile devices have been tested to operate within the coverage contours of the displayed coverage maps. Mobile device coverage depends on where you are, the device you are using and whether it has an external antenna attached. For tips on maximising your coverage, visit the Maximise Your Coverage page.

Customers should be aware that the Telstra mobile coverage maps displayed have been created using tools that predict the likely areas of coverage. Not every particular location within the identified coverage areas has been individually tested for coverage. This means that while the footprint of coverage outlined on the maps is generally accurate, there will be specific areas described as being within a coverage area where a customer's device will not work. This is a common characteristic of wireless systems. For example, coverage could be degraded or not existent in specific locations due to certain physical structures or geographic features or as a result of the device used. Physical structures which may block or inhibit coverage could include basements, lifts, underground car parks, concrete buildings, tunnels and road cuttings. Geographic features which may block or inhibit coverage could include formations such as hills and mountains or even trees.

Customers should also be aware the Telstra mobile coverage maps also may indicate planned coverage expansions of the Telstra mobile network. Coverage planned for the future is based on Telstra's rollout schedule. Telstra reserves the right to modify this schedule without notice, as required from time to time.

Data speeds experienced on Telstra's mobile networks may be affected by network availability, the type and configuration of customer equipment, the performance of external networks (for example the Internet), the signal strength of the device used and other factors such as the type of application.

I hope that helps the board make a decision on the current project whilst considering the longer term plan.

Board Meeting: September 2023	**Agenda Number:** 11.06	**Record Number:** ED23/3674

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Motor vehicle importation or transfer status report.

Recommendations

1. **Note** the information provided in this report.
2. **Note** the amendment to conditions of approval for replacement vehicles

Current position

Since the last Board meeting, twenty-two (22) vehicle applications to import or transfer were determined by the Chief Executive Officer under the 'Vehicle Importation, Transfer and Use Policy'.

The table below shows the vehicle applications determined since the May 2023 Board meeting.

Applicant	Vehicle Type	Preferred Vehicle	Use	Variation to Applicant	Comment
Scott Wilson & Chelsea Holden	Suzuki Grand Vitara	N	Private	1	Approved 14/04/2023 – Transferred from Ed Rourke
Fletcher & Katharina Owens	Mitsubishi Triton Ute	N	Private	1	Approved 18/04/2023
Lord Howe Island Board	Toyota Hilux Ute	N	Essential	0	Approved 03/05/2023 – Replacement
Blue Lagoon	Toyota Workmate	N	Commercial	0	Approved 12/05/2023 – Replacement
Noah Busteed	Toyota Hilux Ute	N	Commercial	1	Approved by full Board Out of Session – Temporary approval for 2 years to 20/06/2025
Lord Howe Island Board	Toyota Hilux Ute	N	Essential	0	Approved 24/05/2023 - Replacement
Christina Venables	Boat Trailer	N	Private	1	Approved 16/06/2023
Lord Howe Island Board	Tipper Truck	N	Essential	0	Approved 16/06/2023 - Replacement
Lord Howe Island Board	Tipper Truck	N	Essential	0	Approved 16/06/2023 - Replacement

Applicant	Vehicle Type	Preferred Vehicle	Use	Variation to Applicant	Comment
Stanley Fenton	Mazda CX3 SUV	N	Private	0	Approved 16/06/2023 - Replacement
Annette Young	Hyundai i30	N	Private	1	Approved 29/06/2023 – transferred from commercial use to private use vehicle
Annette Young	Hyundai Imax 2016	N	Commercial	0	Approved 29/06/2023 - Replacement
Brenton Kirkpatrick, BMAN Contracting	Toyota Hilux Ute	N	Commercial	1	Approved 01/07/2023 – transferred from Corey Davies
Stephanie Treloar & Thorne Nyker	Toyota Hiace	N	Private	1	Approved 13/07/2023 – Transferred from Brad Palmer
Tanya Brcina	Honda Odyssey	N	Private	0	Approved 13/07/2023 - Replacement
Malcolm Shick	Boat Trailer	N	Private	1	Approved 18/07/2023 – transferred from Issac Bennett
Marine Parks Authority	Boat Trailer	N	Commercial	0	Approved 18/07/2023 - Replacement
Leanda Lei	Suzuki Baleno	N	Hire	0	Approved 21/07/2023 - Replacement
Suzie Christensen	FMS Boat Trailer	N	Private	0	Approved 19/07/2023 – Replacement – Transferred from Brad Palmer
Kellie Ellis	LDV Gio Van	N	Commercial	0	Approved 25/07/2023 – Replacing her private vehicle
Jack Shick	Box Trailer	N	Commercial	1	Approved 01/08/2023 - Retrospective approval for trailer already on island
Lord Howe Island Board	Box Trailer for Emergency Generator	N	Commercial	1	Approved 18/07/2023

NOTE: Variation column relates to the applicant and not the increase of vehicles to the island.

Vehicle status as of 3 August 2023

Registered Road Vehicles by classification						
Essential	Commercial	Private	Hire	Plant & Equipment	Imported without approval	Total
30	122	178	8	24	59	421

Registered Road Vehicles by vehicle type						
Car/Utility	Bus	Motorcycle / Scooter	Truck	Plant & Equipment	Trailers	Total
193	31	35	15	41	106	421

Legacy vehicles imported without approval

There remains a total of 59 vehicles imported without approval prior to the current policy:

- 51 vehicles were imported without approval prior to and in 2014. The majority of these vehicles were trailers.
- 1 vehicle, a boat trailer, was imported without approval in 2015.
- 4 vehicles, all boat trailers, were imported without approval in 2016.
- 1 vehicle, a mower was imported without approval in 2019.
- 1 vehicle, a mobility scooter was imported without approval in 2020.
- 1 vehicle, a mobility scooter was imported without approval in 2023 (imported by Blue Lagoon Lodge – clarification required as to whether this is for guests)
- 6 vehicles have been replaced and are awaiting removal.

The following table shows further differentiation in the vehicle statistics to identify the types of vehicles that have been imported without written approval.

Vehicles Imported Without Approval – By Type						
Car/Utility	Bus	Motorcycle / Scooter	Truck	Plant & Equipment	Trailers	Total
4	0	6	5	6	38	59

COMPLIANCE AUDIT

In February 2023, the CEO requested that an audit of the vehicle register be undertaken to investigate any outstanding compliance issues.

There is a total of 42 vehicles awaiting removal. The replacements have been imported, however, the condition to remove the replaced vehicle has not been adhered to by the applicant.

Vehicles due for removal – By Type						
Car/Utility	Bus	Motorcycle / Scooter	Truck	Plant & Equipment	Trailers	Total
18	0	8	3	4	9	42

A number of other compliance issues were identified: -

- Owners – deceased;
- Owners - left island;
- Owners - moved premises;
- Others – such as non-removal of bull bar.

The Board has eight (7) vehicles due for removal which are Included in the above total, being one (3) truck, four (3) plant & equipment and three (1) trailers.

A plan is in development for the Board vehicles highlighted for removal and once the actioning of that plan has commenced:-

- A householder will be issued to the community reminding vehicle owners of their obligations.
- Compliance letters will be issued to the vehicle owners in breach of their conditions of approval.

Process improvements are in development and will be implemented to ensure stronger compliance with the Vehicle Importation, Transfer and Use Policy in the future.

Attachments

Attachment	Title
	Nil Attachments

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Lynda Shick	Land & Property Officer

Board Meeting: September 2023	**Agenda Number:** 11.07	**Record Number:** ED22/6580

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Application to import a dog – Suzie Christensen – September 2023

Recommendations

Approve Recommend approving the importation of a Border Collie belonging to the Christensen family.

Current position

Background

Suzie Christensen has submitted an application to import her family dog. The border collie is registered to Mr Connor Christensen who resides full time with Suzie.
Approval may be given to import a dog to LHI in line with relevant clauses in the *Lord Howe Island Regulation 2014* and the *Companion Animals Act 1998* and subject to the following conditions:

1. The applicant meets the minimum residency and dogs per household requirement
2. The dog is free of disease and parasites
3. The dog is de-sexed, or if eligible a bond is lodged
4. The dog has completed the Dog Obedience Assessment Checklist, or a bond is lodged

Supporting evidence

Under the LHI Dog Importation and Management Policy, a person may be permitted to import a dog to the island if they own the dog prior to becoming a temporary resident of the island. Suzie has provided evidence that she has lived on the island since 5 December 2021 and her tenancy agreement is for two years. Evidence has also been provided that the dog is microchipped and registered to Mr Connor Christensen, who lives full time with Suzie Christensen at their Lord Howe Island residence.

Veterinary certificates have been provided confirming that Daisy, the Border Collie X female dog is free from any illness or injury, has been vaccinated and de-wormed, and has been desexed. Daisy has also demonstrated that she is able to meet the necessary obedience criteria outlined in the dog obedience training and validation assessment.

Based on the supporting documentation, it is recommended that the Board approve Suzie's application to import her family dog Daisy to Lord Howe Island.

Attachments

Attachment	Title
A	Application – Dog Importation – Daisy – Christensen Suzie – 30 August 2023
B	Supporting Document – Tenancy Agreement – Residential – Government House – Christensen Suzie

Approval and contact

Approver	Position
Michael Chalmers	Manager Business and Corporate Services
Preparer	**Position**
Cristina Venables	Team Leader World Heritage

Appendix B: Application to Import a Dog

LORD HOWE ISLAND BOARD
APPLICATION TO IMPORT A DOG

Please complete the following details to enable your dog importation application to be assessed.

Name of applicant	Suzanne Christensen
Address	1 Bowker Ave
Lease where dog will be kept	1 Bowker Ave
Name of dog	Daisy
Breed and description of dog	Border Collie
D.O.B of dog	01/06/2016
Is the dog free of disease and parasites and certificate is attached? *(See section 3.1.2 of the Policy)*	☑ Yes ☐ No Certificate must state dog is up-to-date with C5 vaccination, heartworm protection, broad spectrum intestinal worm control and external parasite control including fleas, ticks and mites.
Is the dog de-sexed and certificate attached? *(See section 3.1.3 of the Policy)*	☑ Yes ☐ No *A bond must be lodged (10 Penalty units; $1,100).* All female dogs must be de-sexed prior to importation. Male dogs under the age of four months may be permitted provided the dog is de-sexed or otherwise rendered permanently incapable of reproduction prior to seven months of age.
Has the dog completed the Dog Obedience Assessment Checklist and certificate attached? *(See Appendix D: Dog Obedience Training and Validation Assessment)*	☑ Yes ☐ No *A bond must be lodged (10 Penalty units; $1,100).*
Reason for importation	Relocation as pet dog.

I, Suzie Christensen being the applicant, have read the Lord Howe Island Board's *Dog Importation and Management Policy 2014* and understand the provisions and conditions therein. I understand that failure to abide by the conditions of the policy may result in the termination of approval to have a dog on the Island, that fines may be imposed, and that it may also render future applications ineligible.

Signature: ..... Date: 30.08.23

OFFICE USE ONLY

Criteria	Yes	No
Does the applicant meet the residency requirement?	✓	
Does the applicant meet the dogs per household requirement?	✓	
Does the applicant provide a reason for importing the dog?	✓	
Is the dog free of disease and parasites and certificate is attached?	✓	
Is the dog de-sexed and certificate attached?	✓	
Has the dog completed formal Dog Obedience Assessment Checklist and certificate attached?	✓	
Is a bond required?		✓

If all criteria meet the conditions of importation under the *Dog Importation and Management Policy 2014*, approval can be issued by the Chief Executive Officer. If all criteria are not met, the Lord Howe Island Board members must consider the application.

☐ APPROVED

☐ DEFERRED FOR BOARD CONSIDERATION

..... Date: .....

CHIEF EXECUTIVE OFFICER

Assessment Notes:

Appendix D: Dog Obedience Training and Validation Assessment

Prior to importation, dogs over the age of four months must have attained a basic level of obedience and be certified by an accredited trainer according to the following criteria:

Criteria	Description	Validation	Comments
Sociability *On lead*	In an open area, a non-aggressive dog or puppy on-lead approaches the dog with a person two meters away. The person has a short conversation with the owner. The dog must remain under the owner's control, not displaying any signs of aggression, stress or vocalizations towards the other dog or puppy.	☑ Pass ☐ Fail	
Heel *On lead*	Hold dog by owner's side while walking. Dog must not pull.	☑ Pass ☐ Fail	
Sit *On lead*	Dog must be controlled and focused on the handler. Dog must sit on command.	☑ Pass ☐ Fail	
Stay *Off lead*	Dog must not move until commanded to move. Dog must be able to demonstrate a stay of 30 seconds.	☑ Pass ☐ Fail	
Come *Off lead*	Dog must return to handler on command.	☑ Pass ☐ Fail	
No *Off lead*	Dog must stop behaviour on command.	☑ Pass ☐ Fail	

Overall Assessment

☑ PASS

☐ FAIL

Validators name: Dr Clara Chin Position: Veterinarian BVSc 6501

Validators Signature: [signature] Date: 28/08/23

Assessment Notes:

Daisy has all basic obedience commands well understood, she is over focused & looks for direction with the distraction of other dogs, people & noises around. Great heal, recall, stay & sit control.

In the event the dog is under the age of four months and/or considered too young to be trained, a bond equivalent to 10 penalty units ($1,100.00) must be lodged with the Lord Howe Island Board prior to importation.

This bond will be refunded upon the production of the appropriate training certificate or veterinary certificate demonstrating compliance with this clause prior to the dog reaching one year of age.

Failing to have the dog certified to a Basic Level of Obedience following the criteria above before reaching one year of age will be deemed to be a breach of the conditions of the approval to import and will result in the approval being terminated.

Passionate about Pets

Greencross Vets

VETERINARY SURGEONS
Dr. Sarah Cross BVSc (Hons) BBus Man (Hons)
Dr. Danielle Terry BVSc (Hons)

Mr Connor Christensen

Certificate of Health

OWNER	Mr Connor Christensen
NAME	Daisy
BREED	Border Collie X
DESCRIPTION	Tan And White Female dog
MICROCHIP	900079000104190
WEIGHT	24.7 kgs

CONTACT NUMBERS:
Mobile 0416 704 374
Email connor.christensen97@gmail.com

I HAVE CONDUCTED A FULL CLINICAL EXAMINATION ON **DAISY** ON **28/08/2023**. I HAVE FOUND **DAISY** TO BE FREE FROM ANY ILLNESS OR INJURY. IT IS MY OPINION THAT SHE IS FIT TO FLY ON A COMMERCIAL AEROPLANE

CERTIFIED BY:
Dr Clara Chin BVSc BSc Rego: 6501

GREENCROSS TENERIFFE 28/08/2023

Please be aware if your pet is overdue for vaccination, or has not completed a full course of vaccinations, it may be at higher risk of contracting an infectious disease while in our hospital as we are unable to provide full isolation facilities for every patient.

ABN 76 130 686 743
www.greencrossvet.com.au

Greencross Vets Teneriffe
29 Florence St, Teneriffe QLD 4005
Phone 07 3257 1099
greencross.teneriffe@greencrossvet.com.au

Greencross Vets

VETERINARY SURGEONS
Dr. Sarah Cross BVSc (Hons) BBus Man (Hons)
Dr. Danielle Terry BVSc (Hons)

Certificate of Vaccination

OWNER	Mr Connor Christensen
NAME	Daisy
BREED	Border Collie X
DESCRIPTION	Tan And White Female dog
MICROCHIP	900079000104190
WEIGHT	24.700
DATE OF BIRTH	01/06/2016

CONTACT DETAILS:

Mobile 0416 704 374
Email connor.christensen97@gmail.com

Current Vaccination Details:
28/08/2023 Oral vaccine: Bordetella

Next Vaccination Details:

28/08/2026	Vaccination & Physical Examination
28/08/2024	Heartworm Injection
28/08/2024	Vaccination & Physical Examination
25/09/2023	Vaccination & Physical Examination

ADMINISTERED BY:

DR CLARA CHIN BVSC BSC REGO: 6501
GREENCROSS TENERIFFE

ABN 76 130 666 743
www.greencrossvet.com.au

Greencross Vets Teneriffe
29 Florence St, Teneriffe QLD 4005
Phone 07 3257 1099
greencross.teneriffe@greencrossvet.com.au

Greencross Vets

VETERINARY SURGEONS
Dr. Sarah Cross BVSc (Hons) BBus Man (Hons)
Dr. Danielle Terry BVSc (Hons)

Micro-chip Certificate

OWNER	Mr Connor Christensen	**CONTACT NUMBERS:** Mobile 0416 704 374 Email connor.christensen97@gmail.com
NAME	Daisy	
BREED	Border Collie X	
DESCRIPTION	Tan And White Female dog	**Breeder Identification Number**:
MICROCHIP	900079000104190	
WEIGHT	24.7 kgs	**Verify** - *qdbr.daf.qld.gov.au*

This is to certify that, **DAISY**, who details appear above, has been scanned at our clinic, and is micro-chipped.

DAISY's microchip number is **900079000104190**.

Dr Clara Chin BVSc Rego: 6501
Greencross Teneriffe
28/08/2023

Greencross Vets

VETERINARY SURGEONS
Dr. Sarah Cross BVSc (Hons) BBus Man (Hons)
Dr. Danielle Terry BVSc (Hons)

Certificate of Desexing

OWNER: Mr Connor Christensen

PATIENT: Daisy **SEX:** Female

D.O.B: 01/06/2016 **AGE:** 7y 2m

BREED: Border Collie X

COLOUR: Tan And White

MICROCHIP: 900079000104190

On examination of the above animal I confirm that the pet has :

- A tattoo in the left ear indicating that it has been desexed previously
- A scar on the ventral abdomen consistent with desexing or laparotomy

Base on the above information I am comfortable to provide an certificate that the above mentioned animal has been desexed.

Veterinarian: Dr Clara Chin BVSc BSc 6501
Greencross Teneriffe

ABN 76 130 686 743
www.greencrossvet.com.au

Greencross Vets Teneriffe
29 Florence St, Teneriffe QLD 4005
Phone 07 3257 1099
greencross.teneriffe@greencrossvet.com.au

NSW GOVERNMENT

Standard form from 28 September 2020

Residential tenancy agreement

Residential Tenancies Regulation 2019 Schedule 1 Standard Form Agreement (Clause 4(1))

IMPORTANT INFORMATION

Please read this before completing the residential tenancy agreement (the ***Agreement***).

1. This form is your written record of your tenancy agreement. This is a binding contract under the *Residential Tenancies Act 2010*, so please read all terms and conditions carefully.
2. If you need advice or information on your rights and responsibilities, please call NSW Fair Trading on 13 32 20 or visit www.fairtrading.nsw.gov.au before signing the Agreement.
3. If you require extra space to list additional items and terms, attach a separate sheet. All attachments should be signed and dated by both the landlord or the landlord's agent and the tenant to show that both parties have read and agree to the attachments.
4. The landlord or the landlord's agent **must give the tenant** a copy of the signed Agreement and any attachments, two copies or one electronic copy of the completed condition report and a copy of the Tenant Information Statement published by NSW Fair Trading.

THIS AGREEMENT IS MADE ON 05/12/2021 **AT** Lord Howe Island Board

5 Bowker Avenue Lord Howe Island NSW 2898

BETWEEN

Landlord Name (1):

Lord Howe Island Board

Landlord Name (2):

Landlord telephone number or other contact details: (02) 6563 2066

If not in NSW, the State, Territory or country (if not Australia) the landlord ordinarily resides in: 5 Bowker Avenue Lord Howe Island NSW 28

Note: *The above information **must** be provided for landlord(s), whether or not there is a landlord's agent*

Address for service of notices (can be an agent's address):

PO Box 5

Suburb: Lord Howe Island

State: NSW

Postcode: 2898

Note: *The landlord(s) business address or residential address **must** be provided for landlord(s) if there is **no** landlord's agent*

Tenant Name (1): Suzanne Christensen

Tenant Name (2):

Tenant Name (3):

Add all other tenants here:

Address for service of notices (if different to address of residential premises):

"Government House", 1 Bowker Avenue

Suburb: Lord Howe Island

State: NSW

Postcode: 2898

Contact details:

Home phone: (02) 6563 2449 Mobile: 0409209336

For information about your rights and responsibilities under this agreement, contact NSW Fair Trading at www.fairtrading.nsw.gov.au or call 13 32 20.

Landlord's agent details: [*If applicable*]

Agent name:

Business address for service of notices:

Suburb: State: Postcode:

Contact details: [*This must include a telephone number*]

Tenant's agent details: [*If applicable*]

Agent name:

Address for service of notices:

Suburb: State: Postcode:

Contact details:

Term of agreement:

The term of this agreement is –

☐ 6 months ☐ 12 months ☑ 2 years ☐ 3 years

☐ 5 years ☐ Other (please specifiy): ☐ Periodic (no end date)

starting on 5 / 12 / 2021 and ending on 4 / 12 / 2023 [*Cross out if not applicable*]

Note: *For a residential tenancy agreement having a fixed term of more than 3 years, the agreement must be annexed to the form approved by the Registrar-General for registration under the Real Property Act 1900*

Residential premises:

The residential premises are [*Insert address*]:

"Government House" 1 Bowker Avenue, Lord Howe Island NSW 2898

The residential premises include:

2-seater lounge, 2 queen beds, 1 single bed + mattresses, 2 x cane outdoor seats, various small tables, bar/glassware

[*Insert any inclusions, for example a parking space or furniture provided. Attach additional pages if necessary.*]

Rent:

[redacted]

Note: *Under section 33 of the Residential Tenancies Act 2010, a landlord, or landlord's agent, must not require a tenant to pay more than 2 weeks rent in advance under this Agreement.*

For information about your rights and responsibilities under this agreement, contact NSW Fair Trading at www.fairtrading.nsw.gov.au or call 13 32 20.

The method by which the rent must be paid:

(a) [redacted]

(b)

(c)

Note: *The landlord or landlord's agent must permit the tenant to pay the rent by at least one means for which the tenant does not incur a cost (other than bank fees or other account fees usually payable for the tenant's transactions) (see clause 4.1) and that is reasonably available to the tenant.*

RENTAL BOND [*Cross out if there is not going to be a bond*]:

A rental bond of $ n/a must be paid by the tenant on signing this agreement. The amount of the rental bond must not be more than 4 weeks rent.

The tenant provided the rental bond amount to:

☐ the landlord or another person, or
☐ the landlord's agent, or
☐ NSW Fair Trading through Rental Bond Online.

Note. *All rental bonds must be lodged with NSW Fair Trading. If the bond is paid to the landlord or another person, it must be deposited within 10 working days after it is paid using the Fair Trading approved form. If the bond is paid to the landlord's agent, it must be deposited within 10 working days after the end of the month in which it is paid.*

IMPORTANT INFORMATION

Maximum number of occupants

No more than 8 persons may ordinarily live in the premises at any one time.

Urgent repairs

Nominated tradespeople for urgent repairs

Electrical repairs: Greg Higgins Telephone: 02 6563 2080, 02 6563 2066

Plumbing repairs: Warren O'Brien Telephone: 02 6563 2283

Other repairs: LHI Board Carpenter Telephone: 02 6563 2066

Water usage

Will the tenant be required to pay separately for water usage? ☐ Yes ☑ No

If yes, see clauses 12 and 13.

Utilities

Is ***electricity*** supplied to the premises from an embedded network? ☑ Yes ☐ No

Is ***gas*** supplied to the premises from an embedded network? ☐ Yes ☑ No

For more information on consumer rights if electricity or gas is supplied from an embedded network contact NSW Fair Trading.

Smoke alarms

Indicate whether the smoke alarms installed in the residential premises are hardwired or battery operated:

☐ Hardwired smoke alarms

☑ Battery operated smoke alarms

If the smoke alarms are battery operated, are the batteries in the smoke alarms of a kind the tenant can replace? ☐ Yes ☑ No

If yes, specify the type of battery that needs to be used if the battery in the smoke alarm needs to be replaced: Consult Greg Higgins SEO before changing

If the smoke alarms are hardwired, are the back-up batteries in the smoke alarms of a kind the tenant can replace? ☐ Yes ☑ No

If yes, specify the type of back-up battery that needs to be used if the back-up battery in the smoke alarm needs to be replaced: Consult Greg Higgins SEO before changing

If the *Strata Schemes Management Act 2015* applies to the residential premises, is the owners corporation of the strata scheme responsible for the repair and replacement of smoke alarms in the residential premises? ☐ Yes ☑ No

Strata by-laws

Are there any strata or community scheme by-laws applicable to the residential premises? ☐ Yes ☑ No

If yes, see clauses 38 and 39.

Giving notices and other documents electronically [*Cross out if not applicable*]

Indicate below for each person whether the person provides express consent to any notice and any other document under section 223 of the *Residential Tenancies Act 2010* being given or served on them by email. The *Electronic Transactions Act 2000* applies to notices and other documents you send or receive electronically.

Note. *You should only consent to electronic service if you check your emails regularly. If there is more than one tenant on the agreement, all tenants should agree on a single email address for electronic service. This will help ensure co-tenants receive notices and other documents at the same time.*

Landlord

Does the landlord give express consent to the electronic service of notices and documents? ☑ Yes ☐ No

If yes, see clause 50.

[Specify email address to be used for the purpose of serving notices and documents.]

administration@lhib.nsw.gov.au

Tenant ☐ Yes ☐ No

Does the tenant give express consent to the electronic service of notices and documents?

If yes, see clause 50.

[Specify email address to be used for the purpose of serving notices and documents.]

Condition report

A condition report relating to the condition of the premises must be completed by or on behalf of the landlord before or when this agreement is given to the tenant for signing.

Tenancy laws

The *Residential Tenancies Act 2010* and the *Residential Tenancies Regulation 2019* apply to this agreement. Both the landlord and the tenant must comply with these laws.

The Agreement

RIGHT TO OCCUPY THE PREMISES

1. **The landlord agrees** that the tenant has the right to occupy the residential premises during the tenancy. The residential premises include the additional things (if any) noted under ***'Residential premises'*** *on page 2 of this agreement.*

COPY OF AGREEMENT

2. **The landlord agrees** to give the tenant:
   - **2.1** a copy of this agreement before or when the tenant gives the signed copy of the agreement to the landlord or landlord's agent, and
   - **2.2** a copy of this agreement signed by both the landlord and the tenant as soon as is reasonably practicable.

RENT

3. **The tenant agrees:**
   - **3.1** to pay rent on time, and
   - **3.2** to reimburse the landlord for the cost of replacing rent deposit books or rent cards lost by the tenant, and
   - **3.3** to reimburse the landlord for the amount of any fees paid by the landlord to a bank or other authorised deposit-taking institution as a result of funds of the tenant not being available for rent payment on the due date.

4. **The landlord agrees:**
   - **4.1** to provide the tenant with at least one means to pay rent for which the tenant does not incur a cost (other than bank fees or other account fees usually payable for the tenant's transactions) and that is reasonably available to the tenant, and
   - **4.2** not to require the tenant to pay more than 2 weeks rent in advance or to pay rent for a period of the tenancy before the end of the previous period for which rent has been paid, and
   - **4.3** not to require the tenant to pay rent by a cheque or other negotiable instrument that is post-dated, and
   - **4.4** to accept payment of unpaid rent after the landlord has given a termination notice on the ground of failure to pay rent if the tenant has not vacated the residential premises, and
   - **4.5** not to use rent paid by the tenant for the purpose of any amount payable by the tenant other than rent, and
   - **4.6** to give a rent receipt to the tenant if rent is paid in person (other than by cheque), and
   - **4.7** to make a rent receipt available for collection by the tenant or to post it to the residential premises or to send it by email to an email address specified in this agreement by the tenant for the service of documents of that kind if rent is paid by cheque, and
   - **4.8** to keep a record of rent paid under this agreement and to provide a written statement showing the rent record for a specified period within 7 days of a request by the tenant (unless the landlord has previously provided a statement for the same period).

Note. *The landlord and tenant may, by agreement, change the manner in which rent is payable under this agreement.*

RENT INCREASES

5. **The landlord and the tenant agree** that the rent cannot be increased after the end of the fixed term (if any) of this agreement or under this agreement if the agreement is for a fixed term of 2 years or more, unless the landlord gives not less than 60 days written notice of the increase to the tenant. The notice must specify the increased rent and the day from which it is payable.

   Note: *Section 42 of the Residential Tenancies Act 2010 sets out the circumstances in which rent may be increased during the fixed term of a residential tenancy agreement. An additional term for this purpose may be included in the agreement.*

6. **The landlord and the tenant agree** that the rent may not be increased after the end of the fixed term (if any) of this agreement more than once in any 12-month period.

7. **The landlord and the tenant agree:**
   - **7.1** that the increased rent is payable from the day specified in the notice, and
   - **7.2** that the landlord may cancel or reduce the rent increase by a later notice that takes effect on the same day as the original notice, and
   - **7.3** that increased rent under this agreement is not payable unless the rent is increased in accordance with this agreement and the *Residential Tenancies Act 2010* or by the Civil and Administrative Tribunal.

RENT REDUCTIONS

8. **The landlord and the tenant agree** that the rent abates if the residential premises:
   - **8.1** are destroyed, or become wholly or partly uninhabitable, otherwise than as a result of a breach of this agreement, or

8.2 cease to be lawfully usable as a residence, or

8.3 are compulsorily appropriated or acquired by an authority.

9. The landlord and the tenant may, at any time during this agreement, agree to reduce the rent payable.

PAYMENT OF COUNCIL RATES, LAND TAX, WATER AND OTHER CHARGES

10. The landlord agrees to pay:

10.1 rates, taxes or charges payable under any Act (other than charges payable by the tenant under this agreement), and

10.2 the installation costs and charges for initial connection to the residential premises of an electricity, water, gas, bottled gas or oil supply service, and

10.3 all charges for the supply of electricity, non-bottled gas or oil to the tenant at the residential premises that are not separately metered, and

Note 1. *Clause 10.3 does not apply to premises located in an embedded network in certain circumstances in accordance with clauses 34 and 35 of the Residential Tenancies Regulation 2019.*

Note 2. *Clause 10.3 does not apply to social housing tenancy agreements in certain circumstances, in accordance with clause 36 of the Residential Tenancies Regulation 2019.*

10.4 the costs and charges for the supply or hire of gas bottles for the supply of bottled gas at the commencement of the tenancy, and

10.5 all charges (other than water usage charges) in connection with a water supply service to separately metered residential premises, and

10.6 all charges in connection with a water supply service to residential premises that are not separately metered, and

10.7 all charges for the supply of sewerage services (other than for pump out septic services) or the supply or use of drainage services to the residential premises, and

10.8 all service availability charges, however described, for the supply of non-bottled gas to the residential premises if the premises are separately metered but do not have any appliances, supplied by the landlord, for which gas is required and the tenant does not use gas supplied to the premises, and

10.9 the costs and charges for repair, maintenance or other work carried out on the residential premises which is required to facilitate the proper installation or replacement of an electricity meter, in working order, including an advance meter, if the meter installation is required by the retailer to replace an existing meter because the meter is faulty, testing indicates the meter may become faulty or the meter has reached the end of its life.

11. The tenant agrees to pay:

11.1 all charges for the supply of electricity or oil to the tenant at the residential premises if the premises are separately metered, and

11.2 all charges for the supply of non-bottled gas to the tenant at the residential premises if the premises are separately metered, unless the premises do not have any appliances supplied by the landlord for which gas is required and the tenant does not use gas supplied to the premises, and

Note. *Charges for the supply of gas in certain circumstances may also be payable by a tenant under a social housing agreement in accordance with clause 36 of the Residential Tenancies Regulation 2019.*

11.3 all charges for the supply of bottled gas to the tenant at the residential premises except for the costs and charges for the supply or hire of gas bottles at the start of the tenancy, and

11.4 all charges for pumping out a septic system used for the residential premises, and

11.5 any excess garbage charges relating to the tenant's use of the residential premises, and

11.6 water usage charges, if the landlord has installed water efficiency measures referred to in clause 10 of the *Residential Tenancies Regulation 2019* and the residential premises:

11.6.1 are separately metered, or

11.6.2 are not connected to a water supply service and water is delivered by vehicle.

Note. Separately metered *is defined in section 3 of the Residential Tenancies Act 2010.*

12. The landlord agrees that the tenant is not required to pay water usage charges unless:

12.1 the landlord gives the tenant a copy of the part of the water supply authority's bill setting out the charges, or other evidence of the cost of water used by the tenant, and

12.2 the landlord gives the tenant at least 21 days to pay the charges, and

12.3 the landlord requests payment of the charges by the tenant not later than 3 months after the issue of the bill for the charges by the water supply authority, and

12.4 the residential premises have the following water efficiency measures:

12.4.1 all internal cold water taps and single mixer taps for kitchen sinks or bathroom hand basins on the premises have a maximum flow rate of 9 litres a minute,

12.4.2 on and from 23 March 2025, all toilets are dual flush toilets that have a minimum 3 star rating in accordance with the WELS scheme,

12.4.3 all showerheads have a maximum flow rate of 9 litres a minute,

12.4.4 at the commencement of the residential tenancy agreement and whenever any other water efficiency measures are installed, repaired or upgraded, the premises are checked and any leaking taps or toilets on the premises have been fixed.

13. The landlord agrees to give the tenant the benefit of, or an amount equivalent to, any rebate received by the landlord for water usage charges payable or paid by the tenant.

POSSESSION OF THE PREMISES

14. The landlord agrees:

14.1 to make sure the residential premises are vacant so the tenant can move in on the date agreed, and

14.2 to take all reasonable steps to ensure that, at the time of signing this agreement, there is no legal reason why the premises cannot be used as a residence for the term of this agreement.

TENANT'S RIGHT TO QUIET ENJOYMENT

15. The landlord agrees:

15.1 that the tenant will have quiet enjoyment of the residential premises without interruption by the landlord or any person claiming by, through or under the landlord or having superior title to that of the landlord (such as a head landlord), and

15.2 that the landlord or the landlord's agent will not interfere with, or cause or permit any interference with, the reasonable peace, comfort or privacy of the tenant in using the residential premises, and

15.3 that the landlord or the landlord's agent will take all reasonable steps to ensure that the landlord's other neighbouring tenants do not interfere with the reasonable peace, comfort or privacy of the tenant in using the residential premises.

USE OF THE PREMISES BY TENANT

16. The tenant agrees:

16.1 not to use the residential premises, or cause or permit the premises to be used, for any illegal purpose, and

16.2 not to cause or permit a nuisance, and

16.3 not to interfere, or cause or permit interference, with the reasonable peace, comfort or privacy of neighbours, and

16.4 not to intentionally or negligently cause or permit any damage to the residential premises, and

16.5 not to cause or permit more people to reside in the residential premises than is permitted by this agreement.

17. The tenant agrees:

17.1 to keep the residential premises reasonably clean, and

17.2 to notify the landlord as soon as practicable of any damage to the residential premises, and

17.3 that the tenant is responsible to the landlord for any act or omission by a person who is lawfully on the residential premises if the person is only permitted on the premises with the tenant's consent and the act or omission would be in breach of this agreement if done or omitted by the tenant, and

17.4 that it is the tenant's responsibility to replace light globes on the residential premises.

18. The tenant agrees, when this agreement ends and before giving vacant possession of the premises to the landlord:

18.1 to remove all the tenant's goods from the residential premises, and

18.2 to leave the residential premises as nearly as possible in the same condition, fair wear and tear excepted, as at the commencement of the tenancy, and

18.3 to leave the residential premises reasonably clean, having regard to its condition at the commencement of the tenancy, and

18.4 to remove or arrange for the removal of all rubbish from the residential premises in a way that is lawful and in accordance with council requirements, and

18.5 to make sure that all light fittings on the premises have working globes, and

18.6 to return to the landlord all keys, and other opening devices or similar devices, provided by the landlord.

Note. *Under section 54 of the Residential Tenancies Act 2010, the vicarious liability of a tenant for damage to residential premises caused by another person is not imposed on a tenant who is the victim of a domestic violence offence, or a co-tenant who is not a relevant domestic violence offender, if the damage occurred during the commission of a domestic violence offence (within the meaning of that Act).*

LANDLORD'S GENERAL OBLIGATIONS FOR RESIDENTIAL PREMISES

19. The landlord agrees:

19.1 to make sure that the residential premises are reasonably clean and fit to live in, and

Note 1. *Section 52 of the Residential Tenancies Act 2010 specifies the minimum requirements that must be met for the residential premises to be fit to live in. These include that the residential premises:*

a) are structurally sound, and

b) have adequate natural light or artificial lighting in each room of the premises other than a room that is intended to be used only for the purposes of storage or a garage, and

c) have adequate ventilation, and

d) are supplied with electricity or gas and have an adequate number of electricity outlet sockets or gas outlet sockets for the supply of lighting and heating to, and use of appliances in, the premises, and

e) have adequate plumbing and drainage, and

f) are connected to a water supply service or infrastructure that supplies water (including, but not limited to, a water bore or water tank) that is able to supply to the premises hot and cold water for drinking and ablution and cleaning activities, and

g) contain bathroom facilities, including toilet and washing facilities, that allow privacy for the user.

Note 2. *Premises are structurally sound only if the floors, ceilings, walls, supporting structures (including foundations), doors, windows, roof, stairs, balconies, balustrades and railings:*

a) are in a reasonable state of repair, and

b) with respect to the floors, ceilings, walls and supporting structures – are not subject to significant dampness, and

c) with respect to the roof, ceilings and windows – do not allow water penetration into the premises, and

d) are not liable to collapse because they are rotted or otherwise defective.

19.2 to make sure that all light fittings on the residential premises have working light globes on the commencement of the tenancy, and

19.3 to keep the residential premises in a reasonable state of repair, considering the age of, the rent paid for and the prospective life of the premises, and

19.4 not to interfere with the supply of gas, electricity, water, telecommunications or other services to the residential premises (unless the interference is necessary to avoid danger to any person or enable maintenance or repairs to be carried out), and

19.5 not to hinder a tradesperson's entry to the residential premises when the tradesperson is carrying out maintenance or repairs necessary to avoid health or safety risks to any person, or to avoid a risk that the supply of gas, electricity, water, telecommunications or other services to the residential premises may be disconnected, and

19.6 to comply with all statutory obligations relating to the health or safety of the residential premises, and

19.7 that a tenant who is the victim of a domestic violence offence or a co-tenant who is under the same agreement as the victim of the domestic violence offence

but is not a relevant domestic violence offender is not responsible to the landlord for any act or omission by a co-tenant that is a breach of this agreement if the act or omission constitutes or resulted in damage to the premises and occurred during the commission of a domestic violence offence.

URGENT REPAIRS

20. The landlord agrees to pay the tenant, within 14 days after receiving written notice from the tenant, any reasonable costs (not exceeding $1,000) that the tenant has incurred for making urgent repairs to the residential premises (of the type set out below) so long as:

20.1 the damage was not caused as a result of a breach of this agreement by the tenant, and

20.2 the tenant gives or makes a reasonable attempt to give the landlord notice of the damage, and

20.3 the tenant gives the landlord a reasonable opportunity to make the repairs, and

20.4 the tenant makes a reasonable attempt to have any appropriate tradesperson named in this agreement make the repairs, and

20.5 the repairs are carried out, where appropriate, by licensed or properly qualified persons, and

20.6 the tenant, as soon as possible, gives or tries to give the landlord written details of the repairs, including the cost and the receipts for anything the tenant pays for.

Note. *The type of repairs that are* ***urgent repairs*** *are defined in the Residential Tenancies Act 2010 and are defined as follows:*

(a) a burst water service,

(b) an appliance, fitting or fixture that uses water or is used to supply water that is broken or not functioning properly, so that a substantial amount of water is wasted,

(c) a blocked or broken lavatory system,

(d a serious roof leak,

(e) a gas leak,

(f) a dangerous electrical fault,

(g) flooding or serious flood damage,

(h) serious storm or fire damage,

(i) a failure or breakdown of the gas, electricity or water supply to the premises,

(j) a failure or breakdown of any essential service on the residential premises for hot water, cooking, heating, cooling or laundering,

(k) any fault or damage that causes the premises to be unsafe or insecure.

SALE OF THE PREMISES

21. The landlord agrees:

21.1 to give the tenant written notice that the landlord intends to sell the residential premises, at least 14 days before the premises are made available for inspection by potential purchasers, and

21.2 to make all reasonable efforts to agree with the tenant as to the days and times when the residential premises are to be available for inspection by potential purchasers.

22. The tenant agrees not to unreasonably refuse to agree to days and times when the residential premises are to be available for inspection by potential purchasers.

23. The landlord and tenant agree:

23.1 that the tenant is not required to agree to the residential premises being available for inspection more than twice in a period of a week, and

23.2 that, if they fail to agree, the landlord may show the residential premises to potential purchasers not more than twice in any period of a week and must give the tenant at least 48 hours notice each time.

LANDLORD'S ACCESS TO THE PREMISES

24. The landlord agrees that the landlord, the landlord's agent or any person authorised in writing by the landlord, during the currency of this agreement, may only enter the residential premises in the following circumstances:

24.1 in an emergency (including entry for the purpose of carrying out urgent repairs),

24.2 if the Civil and Administrative Tribunal so orders,

24.3 if there is good reason for the landlord to believe the premises are abandoned,

24.4 if there is good reason for serious concern about the health of the tenant or any other person on the residential premises and a reasonable attempt has been made to obtain consent to the entry,

24.5 to inspect the premises, if the tenant is given at least 7 days written notice (no more than 4 inspections are allowed in any period of 12 months),

24.6 to carry out, or assess the need for, necessary repairs, if the tenant is given at least 2 days notice each time,

24.7 to carry out, or assess the need for, work relating to statutory health and safety obligations relating to the residential premises, if the tenant is given at least 2 days notice each time,

24.8 to show the premises to prospective tenants on a reasonable number of occasions if the tenant is given reasonable notice on each occasion (this is only allowed during the last 14 days of the agreement),

24.9 to value the property, if the tenant is given 7 days notice (not more than one valuation is allowed in any period of 12 months),

24.10 to take photographs, or make visual recordings, of the inside of the premises in order to advertise the premises for sale or lease, if the tenant is given reasonable notice and reasonable opportunity to move any of their possessions that can reasonably be moved out of the frame of the photograph or the scope of the recording (this is only allowed once in a 28 day period before marketing of the premises starts for sale or lease or the termination of this agreement),

24.11 if the tenant agrees.

25. The landlord agrees that a person who enters the residential premises under clause 24.5, 24.6, 24.7, 24.8, 24.9 or 24.10 of this agreement:

25.1 must not enter the premises on a Sunday or a public holiday, unless the tenant agrees, and

25.2 may enter the premises only between the hours of 8.00 a.m. and 8.00 p.m., unless the tenant agrees to another time, and

25.3 must not stay on the residential premises longer than is necessary to achieve the purpose of the entry to the premises, and

25.4 must, if practicable, notify the tenant of the proposed day and time of entry.

26. The landlord agrees that, except in an emergency (including to carry out urgent repairs), a person other than the landlord or the landlord's agent must produce to the tenant the landlord's or the landlord's agent's written permission to enter the residential premises.

27. The tenant agrees to give access to the residential premises to the landlord, the landlord's agent or any person, if they are exercising a right to enter the residential premises in accordance with this agreement.

PUBLISHING PHOTOGRAPHS OR VISUAL RECORDINGS

28. The landlord agrees that the landlord or the landlord's agent must not publish any photographs taken or visual recordings made of the inside of the residential premises in which the tenant's possessions are visible unless they first obtain written consent from the tenant.

Note. *See section 55A of the Residential Tenancies Act 2010 for when a photograph or visual recording is* ***'published'.***

29. The tenant agrees not to unreasonably withhold consent. If the tenant is in circumstances of domestic violence within the meaning of section 105B of the *Residential Tenancies Act 2010*, it is not unreasonable for the tenant to withhold consent.

FIXTURES, ALTERATIONS, ADDITIONS OR RENOVATIONS TO THE PREMISES

30. The tenant agrees:

30.1 not to install any fixture or renovate, alter or add to the residential premises without the landlord's written permission, and

30.2 that certain kinds of fixtures or alterations, additions or renovations that are of a minor nature specified by clause 22(2) of the *Residential Tenancies Regulation 2019* may only be carried out by a person appropriately qualified to install those fixtures or carry out those alterations, additions or renovations unless the landlord gives consent, and

30.3 to pay the cost of a fixture, installed by or on behalf of the tenant, or any renovation, alteration or addition to the residential premises, unless the landlord otherwise agrees, and

30.4 not to remove, without the landlord's permission, any fixture attached by the tenant that was paid for by the landlord or for which the landlord gave the tenant a benefit equivalent to the cost of the fixture, and

30.5 to notify the landlord of any damage caused by removing any fixture attached by the tenant, and

30.6 to repair any damage caused by removing the fixture or compensate the landlord for the reasonable cost of repair.

31. The landlord agrees not to unreasonably withhold consent to a fixture, or to an alteration, addition or renovation that is of a minor nature.

Note. *The Residential Tenancies Regulation 2019 provides a list of the kinds of fixtures or alterations, additions or renovations of a minor nature to which it would be unreasonable for a landlord to withhold consent and which of those fixtures, or alterations, additions or renovations the landlord may give consent to on the condition that the fixture or alteration, addition or renovation is carried out by an appropriately qualified person.*

LOCKS AND SECURITY DEVICES

32. The landlord agrees:

32.1 to provide and maintain locks or other security devices necessary to keep the residential premises reasonably secure, and

32.2 to give each tenant under this agreement a copy of the key or opening device or information to open any lock or security device for the residential premises or common property to which the tenant is entitled to have access, and

32.3 not to charge the tenant for the cost of providing the copies except to recover the cost of replacement or additional copies, and

32.4 not to alter, remove or add any lock or other security device without reasonable excuse (which includes an emergency, an order of the Civil and Administrative Tribunal, termination of a co-tenancy or an apprehended violence order prohibiting a tenant or occupant from having access) or unless the tenant agrees, and

32.5 to give each tenant under this agreement a copy of any key or other opening device or information to open any lock or security device that the landlord changes as soon as practicable (and no later than 7 days) after the change.

33. The tenant agrees:

33.1 not to alter, remove or add any lock or other security device without reasonable excuse (which includes an emergency, an order of the Civil and Administrative Tribunal, termination of a co-tenancy or an apprehended violence order prohibiting a tenant or occupant from having access) or unless the landlord agrees, and

33.2 to give the landlord a copy of the key or opening device or information to open any lock or security device that the tenant changes within 7 days of the change.

34. A copy of a changed key or other opening device need not be given to the other party if the other party agrees not to be given a copy or the Civil and Administrative Tribunal authorises a copy not to be given or the other party is prohibited from access to the residential premises by an apprehended violence order.

TRANSFER OF TENANCY OR SUB-LETTING BY TENANT

35. The landlord and the tenant agree that:

35.1 the tenant may, with the landlord's written permission, transfer the tenant's tenancy under this agreement or sub-let the residential premises, and

35.2 the landlord may refuse permission (whether or not it is reasonable to do so) to the transfer of the whole of the tenancy or sub-letting the whole of the residential premises, and

35.3 the landlord must not unreasonably refuse permission to a transfer of part of a tenancy or a sub-letting of part of the residential premises, and

35.4 without limiting clause 35.3, the landlord may refuse permission to a transfer of part of the tenancy or to sub-letting part of the residential premises if the number of occupants would be more than is permitted under this agreement or any proposed tenant or sub-tenant is listed on a residential tenancy database or it would result in overcrowding of the residential premises.

Note: *Clauses 35.3 and 35.4 do not apply to social tenancy housing agreements.*

36. The landlord agrees not to charge for giving permission other than for the landlord's reasonable expenses in giving permission.

CHANGE IN DETAILS OF LANDLORD OR LANDLORD'S AGENT

37. The landlord agrees:

37.1 if the name and telephone number or contact details of the landlord change, to give the tenant notice in writing of the change within 14 days, and

37.2 if the address of the landlord changes (and the landlord does not have an agent), to give the tenant notice in writing of the change within 14 days, and

37.3 if the name, telephone number or business address of the landlord's agent changes or the landlord appoints an agent, to give the tenant notice in writing of the change or the agent's name, telephone number and business address, as appropriate, within 14 days, and

37.4 if the landlord or landlord's agent is a corporation and the name or business address of the corporation changes, to give the tenant notice in writing of the change within 14 days, and

37.5 if the State, Territory or country in which the landlord ordinarily resides changes, to give the tenant notice in writing of the change within 14 days.

COPY OF CERTAIN BY-LAWS TO BE PROVIDED *[Cross out clauses if not applicable]*

38. The landlord agrees to give to the tenant, before the tenant enters into this agreement, a copy of the by-laws applying to the residential premises if they are premises under the *Strata Schemes Management Act 2015*.

39. The landlord agrees to give to the tenant, within 7 days of entering into this agreement, a copy of the by-laws applying to the residential premises if they are premises under the *Strata Schemes Development Act 2015*, the *Community Land Development Act 1989* or the *Community Land Management Act 1989*.

MITIGATION OF LOSS

40. The rules of law relating to mitigation of loss or damage on breach of a contract apply to a breach of this agreement. (For example, if the tenant breaches this agreement, the landlord will not be able to claim damages for loss which could have been avoided by reasonable effort by the landlord.)

RENTAL BOND

[Cross out clauses if no rental bond is payable]

41. The landlord agrees that, where the landlord or the landlord's agent applies to the Rental Bond Board or the Civil and Administrative Tribunal for payment of the whole or part of the rental bond to the landlord, the landlord or the landlord's agent will provide the tenant with:

41.1 details of the amount claimed, and

41.2 copies of any quotations, accounts and receipts that are relevant to the claim, and

41.3 a copy of a completed condition report about the residential premises at the end of the residential tenancy agreement.

SMOKE ALARMS

42. The landlord agrees to:

42.1 ensure that smoke alarms are installed in accordance with the *Environmental Planning and Assessment Act 1979* if that Act requires them to be installed in the premises and are functioning in accordance with the regulations under that Act, and

42.2 conduct an annual check of all smoke alarms installed on the residential premises to ensure that the smoke alarms are functioning, and

42.3 install or replace, or engage a person to install or replace, all removable batteries in all smoke alarms installed on the residential premises annually, except for smoke alarms that have a removable lithium battery, and

42.4 install or replace, or engage a person to install or replace, a removable lithium battery in a smoke alarm in the period specified by the manufacturer of the smoke alarm, and

42.5 engage an authorised electrician to repair or replace a hardwired smoke alarm, and

42.6 repair or replace, a smoke alarm within 2 business days of becoming aware that the smoke alarm is not working, unless the tenant notifies the landlord that the tenant will carry out the repair to the smoke alarm and the tenant carries out the repair, and

42.7 reimburse the tenant for the costs of a repair or replacement of a smoke alarm in accordance with clause 18 of the *Residential Tenancies Regulation 2019*, that the tenant is allowed to carry out.

Note 1. *Under section 64A of the Residential Tenancies Act 2010, repairs to a smoke alarm (which includes a heat alarm) includes maintenance of a smoke alarm in working order by installing or replacing a battery in the smoke alarm.*

Note 2. *Clauses 42.2-42.7 do not apply to a landlord of premises that comprise or include a lot in a strata scheme (within the meaning of the Strata Schemes Management Act 2015) if the owners corporation is responsible for the repair and replacement of smoke alarms in the residential premises.*

Note 3. *A tenant who intends to carry out a repair to a smoke alarm may do so only in the circumstances prescribed for a tenant in clause 15 of the Residential Tenancies Regulation 2019.*

Note 4. *Section 64A of the Act provides that a smoke alarm includes a heat alarm.*

43. The tenant agrees:

43.1 to notify the landlord if a repair or a replacement of a smoke alarm is required, including replacing a battery in the smoke alarm, and

43.2 that the tenant may only replace a battery in a battery-operated smoke alarm, or a back-up battery in a hardwired smoke alarm, if the smoke alarm has a removable battery or a removable back-up battery, and

43.3 to give the landlord written notice, as soon as practicable if the tenant will carry out and has carried out a repair or replacement, or engages a person to carry out a repair or replacement, in accordance with clauses 15-17 of the *Residential Tenancies Regulation 2019.*

Note. *Clauses 43.2 and 43.3 do not apply to tenants under social housing tenancy agreements or tenants of premises that comprise or include a lot in a strata scheme (within the meaning of the Strata Schemes Management Act 2015) if the owners corporation is responsible for the repair and replacement of smoke alarms in the residential premises.*

44. The landlord and tenant each agree not to remove or interfere with the operation of a smoke alarm installed on the residential premises unless they have a reasonable excuse to do so.

Note. *The regulations made under the Environmental Planning and Assessment Act 1979 provide that it is an offence to remove or interfere with the operation of a smoke alarm or a heat alarm in particular circumstances.*

SWIMMING POOLS

[*Cross out the following clause if there is no swimming pool*]

45. The landlord agrees to ensure that the requirements of the *Swimming Pools Act 1992* have been complied with in respect of the swimming pool on the residential premises.

[*Cross out the following clause if there is no swimming pool or the swimming pool is situated on land in a strata scheme (within the meaning of the Strata Schemes Management Act 2015) or in a community scheme (within the meaning of the Community Land Development Act 1989) and that strata or community scheme comprises more than 2 lots*]

46. The landlord agrees to ensure that at the time that this residential tenancy agreement is entered into:

46.1 the swimming pool on the residential premises is registered under the *Swimming Pools Act 1992* and has a valid certificate of compliance under that Act or a relevant occupation certificate within the meaning of that Act, and

46.2 a copy of that valid certificate of compliance or relevant occupation certificate is provided to the tenant.

Note. *A swimming pool certificate of compliance is valid for 3 years from its date of issue.*

LOOSE-FILL ASBESTOS INSULATION

47. The landlord agrees:

47.1 if, at the time that this residential tenancy agreement is entered into, the premises have been and remain listed on the LFAI Register, the tenant has been advised in writing by the landlord that the premises are listed on that Register, or

47.2 if, during the tenancy, the premises become listed on the LFAI Register, to advise the tenant in writing, within 14 days of the premises being listed on the Register, that the premises are listed on the Register.

COMBUSTIBLE CLADDING

48. The landlord agrees that if, during the tenancy, the landlord becomes aware of any of the following facts, the landlord will advise the tenant in writing within 14 days of becoming aware of the fact:

48.1 that the residential premises are part of a building in relation to which a notice of intention to issue a fire safety order, or a fire safety order, has been issued requiring rectification of the building regarding external combustible cladding,

48.2 that the residential premises are part of a building in relation to which a notice of intention to issue a building product rectification order, or a building product rectification order, has been issued requiring rectification of the building regarding external combustible cladding,

48.3 that the residential premises are part of a building where a development application or complying development certificate application has been lodged for rectification of the building regarding external combustible cladding.

SIGNIFICANT HEALTH OR SAFETY RISKS

49. The landlord agrees that if, during the tenancy, the landlord becomes aware that the premises are subject to a significant health or safety risk, the landlord will advise the tenant in writing, within 14 days of becoming aware, that the premises are subject to the significant health or safety risk and the nature of the risk.

ELECTRONIC SERVICE OF NOTICES AND OTHER DOCUMENTS

50. The landlord and the tenant agree:

50.1 to only serve any notices and any other documents, authorised or required by the *Residential Tenancies Act 2010* or the regulations or this agreement, on the other party by email if the other party has provided express consent, either as part of this agreement or otherwise, that a specified email address is to be used for the purpose of serving notices and other documents, and

50.2 to notify the other party in writing within 7 days if the email address specified for electronic service of notices and other documents changes, and

50.3 that they may withdraw their consent to the electronic service of notices and other documents at any time, by notifying the other party in writing, and

50.4 if a notice is given withdrawing consent to electronic service of notices and other documents, following the giving of such notice, no further notices or other documents are to be served by email.

BREAK FEE FOR FIXED TERM OF NOT MORE THAN 3 YEARS

51. The tenant agrees that, if the tenant ends the residential tenancy agreement before the end of the fixed term of the agreement, the tenant must pay a break fee of the following amount if the fixed term is not more than 3 years:

51.1 4 weeks rent if less than 25% of the fixed term has expired,

51.2 3 weeks rent if 25% or more but less than 50% of the fixed term has expired,

51.3 2 weeks rent if 50% or more but less than 75% of the fixed term has expired,

51.4 1 week's rent if 75% or more of the fixed term has expired.

This clause does not apply if the tenant terminates a fixed term residential tenancy agreement for a fixed term of more than 3 years or if the tenant terminates a residential tenancy agreement early for a reason that is permitted under the *Residential Tenancies Act 2010*.

***Note**. Permitted reasons for early termination include destruction of residential premises, breach of the agreement by the landlord and an offer of social housing or a place in an aged care facility, and being in circumstances of domestic violence. Section 107 of the Residential Tenancies Act 2010 regulates the rights of the landlord and tenant under this clause.*

52. The landlord agrees that the compensation payable by the tenant for ending the residential tenancy agreement before the end of the fixed term of not more than 3 years is limited to the amount specified in clause 51 and any occupation fee payable under the *Residential Tenancies Act 2010* for goods left on the residential premises.

***Note.** Section 107 of the Residential Tenancies Act 2010 also regulates the rights of landlords and tenants for a residential tenancy agreement with a fixed term of more than 3 years.*

ADDITIONAL TERMS

[Additional terms may be included in this agreement if:

(a) both the landlord and the tenant agree to the terms, and

(b) they do not conflict with the Residential Tenancies Act 2010, the Residential Tenancies Regulation 2019 or any other Act, and

(c) they do not conflict with the standard terms of this agreement.

*Any additional terms are not required by law and are **negotiable.**]*

ADDITIONAL TERM—PETS

[Cross out clauses if not applicable]

53. The landlord agrees that the tenant may keep the following animal on the residential premises *[specify the breed, size etc]*:

54. The tenant agrees:

54.1 to supervise and keep the animal within the premises, and

54.2 to ensure that the animal does not cause a nuisance, or breach the reasonable peace, comfort or privacy of neighbours, and

54.3 to ensure that the animal is registered and micro-chipped if required under law, and

54.4 to comply with any council requirements.

55. **The tenant agrees** to have the carpet professionally cleaned or to pay the cost of having the carpet professionally cleaned at the end of the tenancy if cleaning is required because an animal has been kept on the residential premises during the tenancy.

Insert any other agreed additional terms here.
Attach a separate page if necessary.

NOTES

1. Definitions

In this agreement:

- ***landlord*** means the person who grants the right to occupy residential premises under this agreement, and includes a successor in title to the residential premises whose interest is subject to that of the tenant and a tenant who has granted the right to occupy residential premises to a sub-tenant.
- ***landlord's agent*** means a person who acts as the agent of the landlord and who (whether or not the person carries on any other business) carries on business as an agent for:
  (a) the letting of residential premises, or
  (b) the collection of rents payable for any tenancy of residential premises.
- ***LFAI Register*** means the register of residential premises that contain or have contained loose-fill asbestos insulation that is required to be maintained under Division 1A of Part 8 of the *Home Building Act 1989*.
- ***rental bond*** means money paid by the tenant as security to carry out this agreement.
- ***residential premises*** means any premises or part of premises (including any land occupied with the premises) used or intended to be used as a place of residence.
- ***tenancy*** means the right to occupy residential premises under this agreement.
- ***tenant*** means the person who has the right to occupy residential premises under this agreement, and includes the person to whom such a right passes by transfer or operation of the law and a sub-tenant of the tenant.

2. Continuation of tenancy (if fixed term agreement)

Once any fixed term of this agreement ends, the agreement continues in force on the same terms as a periodic agreement unless the agreement is terminated by the landlord or the tenant in accordance with the *Residential Tenancies Act 2010* (see notes 3 and 4). Clauses 5 and 6 of this agreement provide for rent to be able to be increased if the agreement continues in force, with certain restrictions.

3. Ending a fixed term agreement

If this agreement is a fixed term agreement, it may be ended by the landlord or the tenant by giving written notice of termination. The notice may be given at any time up until the end of the fixed term but cannot take effect until the term ends. The landlord must give at least 30 days notice and the tenant must give at least 14 days notice.

4. Ending a periodic agreement

If this agreement is a periodic agreement, it may be ended by the landlord or the tenant by giving written notice of termination. The notice may be given at any time. The landlord must give at least 90 days notice and the tenant must give at least 21 days notice.

5. Other grounds for ending agreement

The *Residential Tenancies Act 2010* also authorises the landlord and tenant to end this agreement on other grounds. The grounds for the landlord ending the agreement include sale of the residential premises requiring vacant possession, breach of this agreement by the tenant, due to hardship or if the agreement is frustrated because the premises are destroyed, become wholly or partly uninhabitable or cease to be lawfully usable as a residence or are appropriated or acquired by any authority by compulsory process. The grounds for the tenant include breach by the landlord of information disclosure provisions under section 26 of the Act (not revealed when this agreement was entered into), breach of this agreement by the landlord, due to hardship or if the agreement is frustrated because the premises are destroyed, become wholly or partly uninhabitable or cease to be lawfully usable as a residence or are appropriated or acquired by any authority by compulsory process.

For more information refer to that Act or contact NSW Fair Trading on 13 32 20.

6. Warning

It is an offence for any person to obtain possession of the residential premises without an order of the Civil and Administrative Tribunal or a judgement or order of a court if the tenant does not willingly move out. A court can order fines and compensation to be paid for such an offence.

THE LANDLORD AND THE TENANT ENTER INTO THIS AGREEMENT AND AGREE TO ALL ITS TERMS.

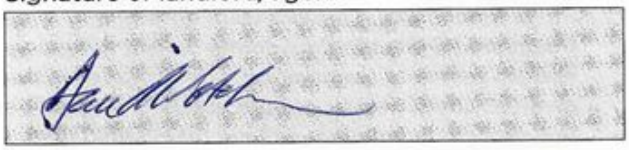
Note. *Section 9 of the Electronic Transactions Act 2000 allows for agreements to be signed electronically in NSW if the parties consent. If an electronic signature is used then it must comply with Division 2 of Part 2 of the Electronic Transactions Act 2000.*

SIGNED BY THE LANDLORD/AGENT

Name of landlord/agent

Lord Howe Island Board - David Waterhouse - Manager Infrastructure and Engineering Services

Signature of landlord/agent



on the 13 day of 12 2021

LANDLORD INFORMATION STATEMENT

The landlord acknowledges that, at or before the time of signing this residential tenancy agreement, the landlord has read and understood the contents of the **Landlord Information Statement** published by NSW Fair Trading that sets out the landlord's rights and obligations.

Signature of landlord/agent

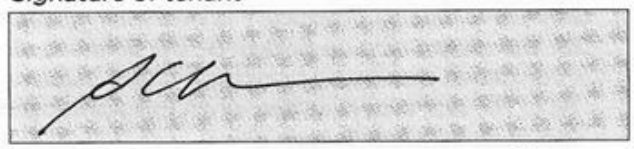
on the 13 day of 12 2021

SIGNED BY THE TENANT (1)

Name of tenant

Suzanne Christensen

Signature of tenant



on the 14 day of December 2021

SIGNED BY THE TENANT (2)

Name of tenant

Signature of tenant

on the day of 20__

SIGNED BY THE TENANT (3)

Name of tenant

Signature of tenant

on the day of 20__

SIGNED BY THE TENANT (4)

Name of tenant

Signature of tenant

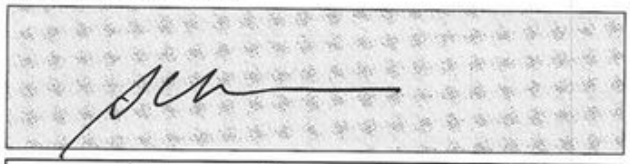
on the day of 20__

For information about your rights and responsibilities under this agreement, contact NSW Fair Trading at www.fairtrading.nsw.gov.au or call 13 32 20.

TENANT INFORMATION STATEMENT

The tenant acknowledges that, at or before the time of signing this residential tenancy agreement, the tenant was given a copy of the **Tenant Information Statement** published by NSW Fair Trading.

Signature of tenant



on the 14 day of December 2021

For information about your rights and obligations as a landlord or tenant, contact:

(a) NSW Fair Trading on 13 32 20 or www.fairtrading.nsw.gov.au, or

(b) Law Access NSW on 1300 888 529 or www.lawaccess.nsw.gov.au, or

(c) your local Tenants Advice and Advocacy Service at www.tenants.org.au

Board Meeting: September 2023	**Agenda Number:** 12.01	**Record Number:** ED23/5117

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Owner Consents approved under Delegated Authority status report

Recommendations

1. **Note** the information provided in this report

Current position

The Minister for the Environment has approved delegated authority regarding the issuing of owner consents by the CEO providing:

1. The development value is not more than $2 million,
2. Does not relate to development for the purpose of a new dwelling, and
3. Complies with any planning instrument in force relating to the Island.

Two (2) Owner Consent Applications were determined by the CEO since the last Board meeting in May 2023.

OC	Applicant	Site	Proposal	Zone	Decision
OC2022.8	Chad Wilson	Lot 1 DP1279044	Proposed Tourist Accommodation incorporating alterations and additions and conversion of existing dwelling as a 4-bedroom guest house. Construction of a new transit lounge, new laundry and storage shed and construction of a replacement dwelling and new wastewater system	Zone 2 Settlement	Approved subject to fifteen (15) conditions 14/06/2023
OC2022.7	Fletcher Owens	Lot 2 DP1261010	Decommissioning of Existing Tourist Accommodation (Unit 2) and conversion to Meeting/Assembly/Conference Room at Lorhiti Lodge	Zone 2 Settlement	Refused 07/08/2023

OC2022.7 – Fletcher Owens – Reason for refusal

i) Required information to confirm compliance with the Building Code of Australia 2019 Amendment 1 Volume 1, the Disability (Access to Premises – Building) Standards

2010 and associated Australian Standards regarding fire separation upgrades, provision of fire extinguishers, smoke alarms/ smoke detection systems and disability access upgrades has not been submitted.

Attachments

Attachment	Title
Nil	

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Lynda Shick	Land & Property Officer

Board Meeting: September 2023	**Agenda Number:** 12.02	**Record Number:** ED23/5118

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Development Applications approved under Delegated Authority status report

Recommendations

1. **Note** the information provided in this report

Current position

The Minster for the Environment, under section 80(1) of the *Environmental Planning & Assessment Act 1979,* issued authority to the CEO to determine development applications providing:

1. The development value is not more than $150,000;
2. No more than 3 written objections are received within the exhibition period; and
3. The application has not been called up for full Board determination by any Board Member. (All Lord Howe Island Board development applications are to be determined by the full Board).

One (1) development application has been determined by the CEO since the last Board meeting in May 2023.

DA	Applicant	Site	Proposal	Zone	Decision
OC2022.7	Fletcher Owens	Lot 2 DP1261010	Decommissioning of Existing Tourist Accommodation (Unit 2) and conversion to Meeting/Assembly/Conference Room at Lorhiti Lodge	Zone 2 Settlement	Refused 07/08/2023

OC2022.7 – Fletcher Owens – Reason for refusal

i) Required information to confirm compliance with the Building Code of Australia 2019 Amendment 1 Volume 1, the Disability (Access to Premises – Building) Standards 2010 and associated Australian Standards regarding fire separation upgrades, provision of fire extinguishers, smoke alarms/ smoke detection systems and disability access upgrades has not been submitted.

Attachments

Attachment	Title
NIL	

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Lynda Shick	Land & Property Officer

Board Meeting: September 2023	Agenda Number: 13.01	Record Number: ED23/5119

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Status of Public Accommodation Licence Transfer Applications

Recommendations

1. **Note** the quarterly report on status of public accommodation transfer applications approved at the December 2022 Board Meeting (Attachment A to this report).

Current position

At the December 2022 Board Meeting, the Board approved three (3) public accommodation licence transfer applications as follows: -

- Transfer of two licences from Kevin Wilson (Ocean View Apartments) to Ian Hutton - ONGOING
- Transfer of four licences from Lisa Makiiti and Rod Oxley (Lagoon Landing) to Kylie Owens and Rahnie Owens (Lagoon Landing) - COMPLETE
- Transfer of twelve licences from Diane Owens (Lorhiti) to Diane Owens, Fletcher Owens (Lorhiti) and Jessica Owens - ONGOING

The Board Members requested that management provide a quarterly report on the status of each of the public accommodation licence transfer applications, including an update on the decommissioning of accommodation units where relevant.

Attachments

Attachment	Title
A	Report – Quarterly – Status of public accommodation licence transfer applications - Closed

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Lynda Shick	Land & Property Officer

Board Meeting: September 2023	Agenda Number: 13.02	Record Number: ED23/5970

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

PL2000.04 - Early Termination of sublease - Adrian Skeggs

Recommendations

1. **The Board recommends** that the Minister approve the early termination of the sublease of Perpetual Lease 2000.04 from Adrian Lisle Skeggs to David Chlumsky on 14 January 2024 on receipt of the form signed by both parties.

Current position

On 19 July 2019, in an Out of Session, the Board resolved to recommend to the Minister to consent to the sublease of Perpetual Lease 2000.04 from Adrian Lisle Skeggs to David Chlumsky for a period of five years to 26 February 2024, which the Minister approved on 2 October 2019.

Background

Perpetual Lease 2000.04 is held by Adrian Lisle Skeggs and has been consistently sublet since 23 January 2011. By subletting to Mr Chlumsky, Mr Skeggs was able to satisfy the requirement that an Islander reside on his perpetual lease on his behalf.

Mr Skeggs has advised the Board in writing that he will be returning to the island to live on his lease on 15 January 2024. As the lease is currently sublet to Mr Chlumsky until 26 February 2024, he has requested the early termination of the sublease to Mr Chlumsky on 14 January 2024. A completed form with both parties agreeing has been requested, and is expected to be received once Mr Chlumsky returns to the Island.

Attachments

Attachment	Title
Nil	

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Paula Pollock	Senior Manager Environment & Community Services

Board Meeting: September 2023	**Agenda Number:** 13.03	**Record Number:** ED23/5884

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Proposed extension of the term of Special Leases

Recommendations

1. **The Board recommends** that the Minister approve the extension of the special leases listed in the table below for a period of two years from the 1 January 2024 to 31 December 2025 subject to the existing conditions of the leases.

Lease No	Holder	Portions/Lots	Chargeable Area
2011.01	DIGNAM KATHERINE	220	80,215
2011.02	FENTON EK	123	65,037
2011.03	FENTON SJ	113 & 115	2,475
2011.08	WILSON GC	101	14,910
2012.01	ROURKE EM & ROURKE D	234	77,157
2011.10	THE ESTATE OF RETMOCK WP	40	1,460
2011.11	THE ESTATE OF SHICK RJ	125	4,500
2011.12	THOMPSON BRUCE	160	*0
2011.13	THE ESTATE OF THOMPSON BARRY THOMPSON DESMOND & THOMPSON RODNEY	214	*0
2011.15	WILSON KB	65	10,120
2011.16	WILSON KB	72	27,600
2011.17	WILSON GC	268	37,440
2011.18	WILSON GC	289 & 290	7,810
2011.20	WILSON GC	338	15,370
2011.21	YOUNG BRC	66	46,330
2011.22	YOUNG BRC	276	30,870
2021.01	TURNER THERESE	7	3,200
2021.02	JEREMY ROBERT	32	8,827
2021.03	WILSON GC	291 & 292	8,354

*Table 1 - *Note - Base fee charged only – all land is zoned nature conservation**

Background

All land on Lord Howe Island is Crown land and may only be dealt with in accordance with the provisions of the *Lord Howe Island Act 1953* (the Act). Pursuant to Section 22 of the Act, the Minister may grant Special Leases for agriculture or other uses to perpetual leaseholders on

the recommendation of the Board. Attachment A – Special Lease Information Sheet provides an overview of Special Leases on Lord Howe Island.

In October 2005, a detailed land assessment of Special Leases on Lord Howe Island was conducted by the Department of Lands, in accordance with the standards established under the NSW *Crown Lands Act 1989*.

In November 2005, expressions of interest were invited from members of the community for the use of vacant crown land for grazing, agricultural and associated activities, under Special Lease.

On 1 January 2006, on the recommendation of the Board, the NSW Minister for the Environment approved the granting of 18 Special Leases. Since this date, a number of Special Leases have been created, transferred to other individuals or surrendered.

The special leases were issued for a period of 5 years, with an option to renew for a further 5 years, subject to the management and use of the land in accordance with the Property Management Plan (PMP) for the land and the Special Lease conditions.

In 2012, the Minister approved an extension of the term of all Special Leases from 1 January 2011 for the full five-year period (until 31 December 2015), subject to compliance with the management and use of the land in accordance with the PMP and conditions of the Special Lease.

In March 2014 the Government announced a review of land allocation and tenure arrangements for Lord Howe Island and appointed the Hon Ken Handley AO QC to conduct the review. Following consultation with the Island community and other stakeholders, a discussion paper seeking public comment was released in August 2014. Public submissions closed in October 2014. The final report on the Handley review was completed in February 2015. The final Government response to the Handley report was released in February 2017.

During the course of the Handley review and report, the term of Special Leases became due to expire. In order to forestall the expiry the Minister, on recommendation of the Board, approved the extension of term of all Special Leases for an additional two years. This extension concluded on 31 December 2017.

At the September 2017 Board meeting the Board resolved to extend all Special Leases a further two years. This extension concluded on the 31st December 2019.

At the September 2019 Board meeting the Board resolved to extend all Special Leases a further two years. This extension concluded on the 31st December 2021.

At the September 2021 Board meeting the Board resolved to extend all Special Leases a further two years. This extension is due to expire on 31st December 2023.

Current position

There are currently 19 Special Leases on the Island. Table 2 below shows the current lease holders with comments.

Lease No	Holder	Portions	Chargeable Area	Comments
2011.01	DIGNAM KATHERINE	220	80,215	
2011.02	FENTON EK	123	65,037	
2011.03	FENTON SJ	113 & 115	2,475	
2011.08	WILSON GC	101	14,910	
2012.01	ROURKE EM & ROURKE D	234	77,157	
2011.10	THE ESTATE OF RETMOCK WP	40	1460	Leaseholder passed away 22/3/2023, estate not finalised, awaiting application to transfer the special lease from the Executor
2011.11	THE ESTATE OFSHICK RJ	125	4500	Leaseholder passed away 05/10/2021 – application to transfer special lease to beneficiary, Jack Shick received and is tabled for August 2023 in a separate business paper, Item: 14.02.
2011.12	THOMPSON BRUCE	160	*0	
2011.13	THE ESTATE OF THOMPSON BARRY THOMPSON DESMOND & THOMPSON RODNEY	214	*0	Leaseholder passed away 06/03/2019 – application to transfer special lease to beneficiary, Marie Thompson received and is tabled for August 2023 in a separate business paper, Item 14.03
2011.15	WILSON KB	65	10,120	
2011.16	WILSON KB	72	27,600	
2011.17	WILSON GC	268	37,440	
2011.18	WILSON GC	289 & 290	7,810	
2011.20	WILSON GC	338	15,370	
2011.21	YOUNG BRC	66	46,330	
2011.22	YOUNG BRC	276	30,870	
2021.01	TURNER THERESE	7	3,200	
2021.02	JEREMY ROBERT	32	8,827	
2021.03	WILSON GC	291 & 292	8,354	

Table 1 Existing Leases proposed to be renewed for a period of two years

Renewal Process

All Special Leases are due to expire on the 31st December 2023, with the leaseholders having no legal right to renew the lease.

The Handley Review, and the final Government response contain recommendations which have direct implications for Special Leases if adopted. Table 4 summarises the Handley's recommendation and the Government's response:

Handley Recommendation	Government Response
Special Leases should be granted for 20-year terms with strong covenants to encourage new investment and ensure that the land is fully and properly used.	The *Lord Howe Island Act 1953* ('The Act') will be amended to increase the Special Lease term to 20 years. The addition of covenants can be done without legislative change. Applicants seeking renewal of their expiring Special Leases or initial grants will be required to lodge draft management plans for the use of the land for designated pastoral, agricultural or horticultural purposes. If successful in their application for a Special Lease, fully developed management plans will be requested and Lessees will be obliged by strict covenants (attached to the Lease) to make the land productive. Provision will also be made in the Special Lease for a review of the lessee's performance against the conditions of the lease every five years during the term.

Table 3 Special Leases - Handley Recommendation and Government Response

Board staff have previously engaged with the Department of Planning and Environment to pursue the necessary legislative changes to the Act through parliament. At the time of drafting of this paper no timeline for submission to parliament has been identified.

The government has also recommended that in order to grant lease holders an extended Special Lease term that they be required to develop detailed management plans and be obliged by binding covenants.

The negotiation of these management plans and drafting up measurable and legally enforceable covenants will be resource intensive, possibly requiring legal advice for each contract. To assist with the development of the covenants and to guide management plans, Board staff will develop a draft Special Lease policy for further consideration by the Board. The policy will consider the following elements:

- Consideration of the productive capacity and economic viability of agricultural use on the land;
- Expression of interest and Special Lease allocation process;
- Template and guidelines for the development of property management plans, including the development of clear metrics to monitor ongoing compliance with property management plans;
- Community consultation of the draft policy.

Next Steps

In the immediate short-term the proposal is to extend the term of the leases for a further two years as per s22(2) of the LHI Act. Section 22 of the LHI Act states:

> *(2) The term of a lease under this section may be fixed for any period not exceeding ten years, but such term may, on the recommendation of the Board, be extended by the Minister for such period as the Board may recommend.*

The process to extend the leases will follow the same procedure as with previous extensions. The special leases will be renewed based on the current conditions and property management plan. Extending the leases for two years will give the Board time to prepare a procedure in accordance with the government recommendation of the Handley Review and for the Act to be amended allowing new leases from 2026 to be granted for a term of 20 years.

Resource implications/risks

To date, the resources required to give effect to the Handley and Government recommendations regarding renewal of special leases has exceeded the resourcing capacity of the Board's Environment and Community Services unit. Additional project management resource will now be applied to support the delivery of the special lease renewal within the next two years.

Further once the new protocols are developed including enforceable covenants, it is likely that additional Board resources to monitor and enforce in the medium and long term will be required.

Conclusion

A further extension of current Special Leases is recommended, enabling progression of a significant body of work involved in their renewal, and in establishing a Special Lease policy. This will include development of management plans and binding covenants that will see land dedicated to special lease utilised for productive purposes. An extension will importantly provide time to appropriately engage with the community around these changes.

This report recommends that special leases be extended for a further two years.

Attachments

Attachment	Title
A	Information Sheet – Special Leases on Lord Howe Island

Approval and contact

Approver	Position
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Paula Pollock	Senior Manager Environment & Community Services

Rec No: ED23/5884.01 OPEN Attachment: A

LORD HOWE ISLAND BOARD

PLAIN LANGUAGE GUIDE TO THE LORD HOWE ISLAND ACT

Information Sheet 6: Special Leases on Lord Howe Island

What are Special Leases?

Under the *Lord Howe Island Act 1953* (the Act), all land on the island is NSW Crown Land. The Act does not allow freehold private ownership of land.

Instead, the Act provides for Perpetual Leases for Islanders to reside on, and Special Leases for other uses. While Special Leases may be granted for a wide range of purposes, they have almost exclusively been granted for agricultural purposes such as cultivation and grazing. The zoning of land under the Lord Howe Island Local Environmental Plan 2010 would play a significant role in determining where, and for what purpose, a Special Lease can be issued.

The issuing, transfer or subleasing of Special Leases is strictly controlled and constrained by the Act. These provisions date back to1953 and were designed to protect the interests of Islanders and to prevent speculation and trading in island land.

Is there a Register of Special Leases?

Yes. The Lord Howe Island Board keeps a register containing particulars of leases granted under the Act. It may be inspected by the public at the Island office of the Board.

Who can be granted a new special lease?

New Special Leases can only be granted to a person who holds a Perpetual Lease on the Island. For more information about Perpetual Leases, see the fact sheet entitled “Perpetual Leases”. You do not need to be an Islander to be granted a Special Lease, but you do need to hold a Perpetual Lease.

What is the term of a Special Lease?

A Special Lease may be granted for up to 10 years and may be extended with Ministerial approval upon the recommendation of the Board.

Can a Special Lease be cancelled or not renewed?

Yes, in specific circumstances which are strictly controlled by the Act. For example, if the land is required for home sites or for public purposes during the term of the lease, the Minister may withdraw from the lease on the recommendation of the Board.
A Special Lease may not be renewed if the land the Minister, on the recommendation of the Board, determines that it is required for housing or another public purpose.

Compensation may be claimed by the Special leaseholder in these circumstances. The amount of compensation is determined by the Valuer-General, subject to any regulations under the Act, and is subject to appeal in the Land and Environment Court.
The Act states that compensation may be paid for the loss of the land and the loss of the improvement on the land.

Compensation for the loss of the land is calculated based on the unexpired period of the lease. If the unexpired portion of the lease is less than 5 years, then the unexpired portion of the lease is to be calculated at 5 years.

In other circumstances, a Special Lease could be cancelled if, for example, the holder does not pay the rent or fails to comply with any condition applying to the lease.

If the holder of a perpetual lease forfeits that lease, any Special Lease held by that person is automatically forfeited.

In this circumstance, the Minister may waive or reverse forfeiture where it appears to the Minister, after a report from the Board, that there are good and sufficient reasons to do so. The Minister may waive or reverse the forfeiture absolutely or on conditions.

The holder of a Special Lease may surrender the whole or part of the land in the lease. The holder must complete a surrender form available from the Board's Island office and the surrender will take effect on the day of its acceptance by the Minister on the recommendation of the Board.

What is the Rent for a Special Lease?

The annual rent for a Perpetual Lease is payable in advance. The amount is determined from time to time by the Board in accordance with the *Lord Howe Island Regulation 2014.* The Regulation imposes a maximum annual rent that the Board may determine, based on a flat dollar amount plus an amount per square metre of land comprised in lease. Generally, the Board may make a new determination of the annual rental every three or more years. The maximum amounts (both the fixed amounts and the amounts per square metre of land) are increased on 1 September each year in accordance with the Consumer Price Index.

Other legal fact sheets forming part of this series include the following titles:

- Information Sheet 1: History of the Lord Howe Island Act 1953
- Information Sheet 2: NSW and Commonwealth Laws on Lord Howe Island
- Information Sheet 3: Owning and Inheriting Land on Lord Howe Island
- Information Sheet 4: Who is a Lord Howe Islander?
- Information Sheet 5: Perpetual Leases on Lord Howe Island
- Information Sheet 7: Permissive Occupancies on Lord Howe Island

Board Meeting: September 2023	**Agenda Number:** 15.01	**Record Number:** ED23/5113

LORD HOWE ISLAND BOARD
BUSINESS PAPER

OPEN SESSION

Item

Proposed quarterly Board meeting dates for the 2024 calendar year.

Recommendations

1. **Approve** the proposed Board meeting dates for the 2024 calendar year.

Current position

It is proposed to set the quarterly meeting dates for 2024 and proceed with travel bookings to secure flight and accommodation bookings for the coming year. Flights and accommodation for the Appointed Board members will be booked to arrive on Tuesday and depart on Wednesday

The following quarterly board meetings dates are proposed for the 2024 calendar year.

	Proposed Dates	
Meeting 1	12th & 13th March 2024	On Island
Meeting 2	21st & 22nd May 2024	On Island
Meeting 3	20th & 21st August 2024	On Island
Meeting 4	9th October 2024 Closed Session (Annual Report)	Teams Meeting – 2 hours
Meeting 5	26th & 27th November 2024	On Island

Attachments

Attachment	**Title**
Nil	

Approval and contact

Approver	**Position**
Suzie Christensen	Chief Executive Officer
Preparer	**Position**
Chelsea Holden	Executive Assistant