

LORD HOWE ISLAND BOARD

Business Paper

OPEN SESSION

ITEM

Lord Howe Island Rodent Eradication Project (REP) Implementation.

RECOMMENDATION

That the Board:

1. Pursue cost recovery of legal fees from the Supreme Court challenge.
2. Note the update to the rest of the project.

BACKGROUND

The REP is now well advanced in *Stage Three: Implementation and evaluation of the eradication plan*.

Stage Three involved delivery of the eradication plan (planned for implementation in winter 2019) over an approximate three – four month period. Key elements are:

- Finalise detailed logistics and operational planning including Property Management Plans
- Assemble and train remaining resources
- Finalise construction of captive management facilities for the woodhen and currawong
- Capture of woodhens and currawongs
- Operational readiness check
- Implementation of ground and aerial baiting
- Follow up monitoring and release of woodhens and currawongs
- Maintaining an ongoing biosecurity and rodent detection monitoring network.

CURRENT POSITION

An update on elements that have changed or advanced since the previous meeting is provided below.

1) Legal Challenges

Administrative Appeals Tribunal

A final version of the revised APVMA permit was received on 9 May 2019. The Crown Solicitors Office (CSO) revised fee estimate for this defense is ~\$137,000. No cost recovery is available.

Supreme Court

On 17 May 2019, proceedings in the Supreme Court were launched against the LHIB by Gai Wilson alleging breaches of the APVMA permit. The NSW CSO again represented the LHIB. The matter was heard on 6 June. On 18 June 2019, the Supreme Court handed down its' judgement dismissing the plaintiffs' claim for declaratory and final relief, and ruling comprehensively in the LHIB's favour and awarding costs. The full decision can be viewed at <https://www.caselaw.nsw.gov.au/decision/5d04ec48e4b02a5a800c198a>

The CSO's fee estimate for this defence is ~\$140,000. It is likely that approximately 70% can be recovered, should the LHIB seek to recover costs. A decision on whether to pursue cost recovery needs to be made by the Board.

Defending both legal challenges diverted the project's Senior Leadership Team including the Project Manager and LHIB CEO. The need to respond to the legal challenges resulted in time being taken away for the critical planning and implementation stages, as well as administering and providing services to the island. The legal challenges resulted in a very significant financial burden on the project through direct and indirect costs. These costs have been well above the direct legal costs quoted above and will impact the Board's finances well beyond that figure.

2) Biosecurity Control Order

A DPI compliance officer visited the island in mid-June and early July to discuss obligations under the Control Order with a small number of residents. To date there have been no incidents of non-compliance with the Control Order.

3) Staffing

The majority of the international expert field supervisors finished up with the project at the end of July, having successfully commenced the program and developed capability in the local team. Some stayed for a few weeks later.

- Assistant Project Managers Graeme Beech and Jaclyn Pearson finished in July and August respectively.
- Technical Advisor Keith Springer finished on island at the start of Aug but continues to provide technical advice remotely.
- Ground Operations Manager Grant Harper finished on island in mid-August and has handed remaining tasks over to Simon Pahor. Grant continues to provide technical advice remotely. Simon will remain until the end of the scheduled baiting.
- Rosie Willacy joined the team as Field Supervisor until the end of the scheduled baiting.
- Peter Carr (Maj) and Darryl Birch departed the island temporarily but will return to assist with the final baiting rounds and the pack down process.
- 12 local supervisors were promoted from the ground team.
- There has been some turnover of field officers and replacements have been recruited as needed.

4) Regulatory Compliance

To ensure compliance with the various permits, a compliance register was developed. Various reporting requirements under the permits have been completed, updates provided and queries answered. Two regulatory agencies also undertook project inspections:

- Inspection by Office of Environment and Energy Regional Operations Group 3-6 June 2019
- Inspections by Environmental Protection Authority 29 Oct – 2 Nov 2018 and 11-14 June 2019

No major concerns were raised.

5) Captive Management Update

Bird Capture:

- A total of 129 Currawong and 237 Woodhen were caught and accepted into the captive management facility
- A total of 50 woodhens were collected from the mountains (38 from Mt Gower, 5 from Mt Lidgbird and 7 from Big Slope) in the last week of May with the assistance of the helicopters.
- Processing into the facility included, banding, a physical health assessment, DNA sampling and blood samples taken for a subset of birds to establish baseline data on population health.
- All birds coming into the facility and daily individual reports are recorded in ZIMS (Zoological Information Management System).
- Birds are housed in numbered aviaries or pens with experienced Taronga keepers undertaking the day to day care of individuals now within the facility.

Bird Health

Birds have generally settled well into captive management and day to day husbandry and management routines are now established. Each fortnight the birds consume approximately 85 kgs of fresh food, 16 dozen eggs and 6 kg of meal worms. 10 cubic metres of mulch is replaced fortnightly.

To date, four Currawongs had been euthanised due to animal welfare concerns regarding aspergillosis. Taronga Zoo implemented a preventative anti-fungal treatment regime for other birds.

To date three Woodhens have died in captivity. One died from a non-infectious respiratory disease. One was a bird that was brought in after the initial capture and was observed eating bait in the wild. Despite being given Vitamin K the bird did not survive. One bird sustained an injury to one of its toes and was separated into a smaller pen containing two other birds for treatment since woodhen tend not to eat well when housed individually. These birds were aggressive towards it so it was moved to another enclosure with only one bird on and given extra cover. Unfortunately it was attacked overnight and died the following morning despite treatment.

Whilst these deaths in captivity are unfortunate, it should be remembered that a normal wild population has regular deaths.

Scheduled release:

After monitoring bait break down, ten Currawongs fitted with radio tracking devices were released on 2 Sept. Tracking shows all birds were alive and well at the time of writing this report. The remaining currawongs are scheduled for release from 23 Sept 2019.

Mountain woodhens are scheduled for release in Oct (coinciding with a weed eradication project helicopter visit) and lowland birds in mid Nov, once bait has been removed from stations in the settlement area.

Site Decommissioning

Future end use of the captive management site and aviaries need consideration by the LHIB. Options for consideration and further discussion in a November Business Paper could include:

- Leave the facility in situ for future use. Examples could include:
 - insurance population / captive breeding of woodhens
 - on island breeding of phasmids prior to release
 - aviaries for quarantine for future bird species translocations
 - commercial lease to business
- Reuse of aviary components on island. Examples could include:
 - Colour bond panels for reuse in solar array screening
 - Relocation of the new shade structure for use as a plant and equipment storage shed
 - Sale of materials on island (i.e. currawong panels and colour bond panels as chicken pens, dog kennels or sheds)
 - Sale of materials off island
 - Complete dismantling of all infrastructure to allow future use of the site.

6) Ground Baiting

Ground baiting tasks undertaken since the previous meeting include:

- Completion of bait station bar coding, labelling and cattle cover assembly.
- Line cutting and marking for bait stations and 9,500 hand broadcast points.
- Set up of approximately 18,900 external stations on a 10 m x 10 m grid. 2,300 of these have a wooden cattle cover.
- Set up of approximately 4,300 internal bait stations.
- Baiting in stations commenced on 22 May. At the time of writing this report round 10 (of 12 rounds) of bait station baiting was underway (baiting scheduled to end of October 2019).
- The servicing schedule has changed from every 7 days to approximately 10 days based on the difficulty in access properties in accordance with owner instructions and resources available.
- Hand Broadcast was undertaken over 164 hectares each application. The first application (12 kg /ha) was undertaken between 28 May and 20 June. The second application (8 kg / ha) between 19 June to 12 July 2019. Very small amounts of bait may still be placed strategically within or close to sites with positive rodent sign or that may be good refuge habitat.
- A variety of non-toxic monitoring tools have now been deployed on a 30 x 30m grid to supplement the bait station network.
- A mainland roofing contractor has been engaged to assist with baiting in rooves with no access.

7) Aerial Baiting

- 2 Helicopters arrived on island on 14 May 2019 along with 3 spreader buckets, 2 pilots and other air crew (Engineer, GIS Officer, and Load Supervisor).
- The first round of aerial baiting (12 kg/ ha) commenced on 8 June and was completed on 12 June 2019.
- The second round of aerial baiting (8 kg/ha) commenced on 19 June and was completed on 8 July.
- Total flying hours for aerial baiting and associated tasks was 76 hours. Associated flying tasks included boundary familiarisation and logging, deflector bait bucket calibration, and weather reconnaissance.

- Other flying activities costed to the REP included hover exit and entry training for Woodhen capture team, transport of capture team to mountains, ferrying captured woodhens from mountains
- Cost recovered flying (16 non REP Hours) undertaken by helicopters included ferrying weed eradication teams, SES equipment and other LHIB sling work.

Due to inclement weather significant standby time costs were incurred over what was budgeted.

8) Last remaining rodents

The baiting to date had seen very dramatic decrease in rodent activity and has so far followed the pattern we would expect in relation to rodent activity, bait take, and the persistence of final individual rodents in the settlement bait station area. Bait station operations typically require a longer period of time to achieve eradication success when compared to programs which utilise only aerial and/or hand-broadcast bait application. These methods place bait on the ground for any rodent to freely encounter as it moves through its environment. The seemingly small step of placing the bait in a station introduces the requirement for each rodent to decide to enter the station to access bait. It is typical to see bait take and activity rates rapidly decrease to very low levels followed by 'blips' or small, sporadic spikes in activity as the operation continues. This occurs as the remaining individuals, which were more cautious than others, decide to enter the stations. These behaviours lead to a typical pattern in bait take and rodent. It is not uncommon for mouse activity to continue for longer than rat activity.

It is important that we do not relax towards the end of the baiting operation and that we continue to apply pressure to the final remaining rodents to achieve successful eradication. As activity decreases there is a risk that complacency or concessions slip in which decrease the pressure being applied to the final individuals. By definition of being those that are remaining, these final few rodents are the most difficult to remove and require the most effort which must be sustained at the greatest possible intensity. By 'de-activating' stations too early or not baiting areas, we create an island of refuge within the bait station network. Any rodents which may have gone undetected within this area, or any that may by chance find their way into this area will not be exposed to bait. A consistent pressure on the population must be maintained up until the scheduled end of baiting.

Our rodent detector dogs Sebbi and Zuma (and handlers) have been actively seeking remaining rodents in the settlement over the last few weeks. They have been joined by mainland handler Steve Austin and his dog Tommy and will again in mid-October.

9) Masked Owl Eradication

A total of 14 Masked Owl carcasses have been found to date, significantly reducing owl numbers on the island. The contract shooter conducted his first visit in July and has two more scheduled visits to the island over the coming months. Several local shooters are now licensed and available for responding to owl sightings / calls.

A deceased boobook owl was found in July. Investigation by OEE and the Australian Museum staff have narrowed the specimen to either a New Zealand morepork or possibly a Tasmanian boobook, but definitely not a relic individual of the extinct Lord Howe boobook. It is not unusual for birds to travel large distances and this is how birds naturally colonise islands across the globe. DNA analysis is pending to confirm the exact species.

10) Risk Mitigation and Monitoring

Office of Environment and Energy staff have been undertaking a range of monitoring.

Monitoring of Masked Booby and Providence Petrel colonies before and during aerial baiting operations showed no disturbance from the helicopter activities.

The environmental monitoring program has commenced to meet permit conditions. So far samples of seawater, freshwater, groundwater, milk, eggs and fish have been collected and tested for brodifacoum in an accredited laboratory.

Milk and egg samples were collected five days after bait stations were first loaded in the dairy herd area and from two locations where laying hens are being kept. No detectable levels of Brodifacoum were found in any sample, however the precautionary advice regarding consuming milk and eggs remains in place. Additional sampling will be undertaken in the coming months to confirm that consumption of milk and eggs can resume as normal.

Coastal seawater samples were collected from the sea adjacent to creek mouths every second day for two weeks after both the first and second aerial application. Fresh water samples were collected from some creeks, bores and rainwater tanks after the aerial bait application. No detectable levels of Brodifacoum were found in any sample. The precautionary advice to not drink from streams currently remains in place. Final samples will be collected in early November (four months after the second application).

Fish samples (liver and flesh) were collected after the first and second aerial applications from a number of Kingfish, Trevally, Bluefish, Garfish and Mullet from near the shore. After the first application, a small number of samples (mostly livers) were found to contain very low traces of brodifacoum. Two flesh samples out of 20 (one Mullet and one Bluefish flesh sample) were found to contain very low residue levels, just above the limit of detection and well below the Human Health Risk Assessment (HHRA) guideline criteria. After the second application, only one fish sample (mullet flesh and liver) was found to contain traces of brodifacoum, again well below the guideline criteria. Dr Robert De Mott, who led the HHRA has reviewed all fish monitoring results to date and compared them to the guideline criteria set in the HHRA. He has assured the Board that there are no indications from the monitoring results that there is any risk of acute (short term) or chronic (long term) effects on human health, even for the most sensitive receptors (small children). Marine Parks have been advised of the results. The precautionary advice regarding not consuming fish livers from fish caught near the shore of the island currently remains in place. Final fish samples will be collected in early November (four months after the second application)

Non- target species monitoring walks commenced after the start of aerial baiting. Low numbers of non-target species carcasses have been collected and are all well below thresholds for mitigation established in regulatory approvals. It is important to note that the overall objective of the REP is to permanently reduce impacts to more than 70 species on LHI.

11) Knowledge Sharing

The project has gained and shared knowledge globally via the following mechanisms:

- Recruitment of international experts into the field team from New Zealand, the United Kingdom and Mexico
- Secondment of GIS Officer Dion Fabbro from the New Zealand Department of Conservation
- Operational Readiness checks from members of the Island Eradication Advisory Group (New Zealand)

- Secondment of Anthony Wilson from the Department of Environment and Energy
- Hosting a post Graduate researcher, Peter Kappes from the United States Department of Agriculture - National Wildlife Research Center in Hawaii
- Engagement of expert witnesses from the United States and New Zealand for the court challenges

12) Community Engagement Update

Information continues to be provided to the community and visitors via householders, newsletters, The Signal and information sheets distributed to arriving passengers.

The Conservation Volunteers program is running well and results will be compiled once the program is completed at the end of Sept.

13) Operational Planning

Operational planning over the coming months will focus on killing the last remaining rodents, completion of baiting in the settlement area, bird release, environmental monitoring and pack down and divestment of all REP equipment. Investigations into resale of bait stations has commenced.

14) Biosecurity

Responsibility for rodent biosecurity has essentially been handed over to the Environment and Community Services section. Activity includes

- Fortnightly biosecurity checks at Port Macquarie commenced in April
- Biosecurity operating procedures have been reviewed externally and refined.
- Ongoing liaison with Birdon regarding contractual biosecurity arrangements and training of their staff continues
- The on island biosecurity monitoring network will be established before completion of bait station baiting

15) Budget

It should be restated that project funding was secured in 2012 with implementation originally scheduled for 2015. Implementation has been delayed until 2019 in order to increase the robustness of the program, to reduce real and perceived risks, and to reassure the community and decision makers. This has included increased community consultation, additional studies, extra mitigation and costs associated with delay not originally budgeted for. Many changes in scope and timing have occurred during that time, with major changes by agreement of the Steering Committee.

Significant additional costs have been or will be incurred in implementing the most complex project of its type in the world. It should be recognised that this project is ground breaking for eradications on inhabited islands in Australia and globally. Whilst budget estimates have been developed based on extrapolation of global experience, the knowledge to accurately forecast every element did not exist before the project commenced. For example the bait station component alone is an order of magnitude above anything else that has ever been attempted. However the lessons learnt from this project will be shared to enhance project planning on future eradications.

Whilst considerable progress has been made implementing the project and many aspects of the project have been achieved, the funding originally committed is now insufficient to cover the entirety of the project.

Grant funds received are now effectively exhausted and there is approximately a significant shortfall to undertake the work required to complete the project.

To address the predicted funding shortfall, the following actions have been undertaken:

- a) The budget has been redeveloped from the bottom up to identify remaining essential and non-essential items and where potential cost savings can be made. The budget is being actively managed.
- b) Revenue opportunities from resale of some project assets and infrastructure have been identified for further investigation. This includes some GIS equipment, the currawong aviaries and potentially bait stations.
- c) An additional \$1.1M of funding through the Commonwealth Department of Environment and Energy was successfully secured for the FY18-19 financial year. The funding was delivered through a contract between the LHIB and North Coast Local Land Services under their regional partnerships agreement with the Department. Payment was made to the LHIB on invoicing for agreed milestones.
- d) Formal requests for additional funds have been made to the Environmental Trust in Dec 2018 and May 2019. A revised request was issued in Sept 2019.
- e) Additional funding from other external sources continues to be investigated:
 - With the approval of the Steering Committee, the LHIB engaged a consultant to undertake a Fundraising Campaign Readiness Assessment in order to identify potential philanthropic sources of additional funding. The report found that given the timeframe to completion of major elements of the REP, it was unlikely that sufficient philanthropic donations could be secured. Many interviewees also firmly considered the shortfall a government responsibility. The interviews with potential donors did however identify two opportunities for grant submissions. Invited proposals totalling \$800,000 have been submitted (and awaiting decision) to:
 - Foundation for Australia's Most Endangered Species (\$342,000)
 - Foundation for National Parks and Wildlife (\$466,500)
- f) Formal requests for additional funding have been made to various sources.
- g) A Memorandum of Understanding has been developed with the Invasive Species Council to allow joint fundraising between the LHIB and the ISC for a range of invasive species projects including the REP. This importantly allows collection of tax deductible donations through the ISC (a Deductible Gift Recipient). An Action Plan for the REP needs to be developed detailing what each party is responsible for and how money collected for the REP is granted to the LHIB and accounted for

Securing additional funds now is critical to ensure the eradication can be completed as planned and is successful. Implementation has fully commenced and the funds need to be secured as soon as possible to meet financial commitments including staff wages and regulatory compliance in the Financial Year 2019-20.'

SUMMARY

The operational baiting phase is nearing completion with focus on killing remaining rodents. The project will then move into a decommission phase.

RECOMMENDATION

That the Board:

1. Pursue cost recovery of legal fees from the Supreme Court challenge.
2. Note the update to the rest of the project

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