



## **OPERATIONAL REVIEW OF**

*Eradication of Pacific Rats in July 2011 from Far and Away Islands,*

*Republic of Pacifica*

***Written by***

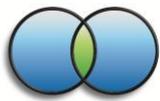
*Viliamu Reed*

***Date: 1<sup>st</sup> August 2011***

*Explanation: The Operational Review is an informal document that records the experience of the operation team in conducting the eradication. It is a place for recording how the operation went, any lessons that the team learned and suggestions for next time. The Operational Review is used by the Implementing Agency to help build expertise, skills and capacity in its eradication team. The Operational Review is not a document meant for wide circulation outside of the implementing agency and so can be less structured and formal than other Resource Kit documents.*

*Prompts:*

- *Delete this Help Box once you have written the Operational Review*
- *The structure of each Operational Review will vary greatly from project to project and depend on the details of the project and the experience of the team- consider using the suggested section headings below; add or remove them where you see fit.*
- *The Operational Review should cover all aspects of the operation, not just the technical details.*
- *The purpose of the Operational Review is used to promote up skilling, learning and capability building with in the implementing agency.*
- *It is useful to record the mistakes that were made (and what should be done differently next time) – but do not be judgemental; this is not meant to blame people.*
- *The Operational Review is written after a post-operational de-brief in which the whole operation team share their experiences and learnings from the operation.*
- *Remove this Help Box when the Operational Review is complete*



## INTRODUCTION

Prompts:

- *Provide a brief background to the eradication operation*
- *Remove this Help Box when the Operational Review is complete*

An operational debrief on the Far and Away rat eradication planning and fieldwork was held in the National Parks and Conservation Head Office in Port Pacifica on 30 July 2011 to capture the lessons from the project.

Present during the debrief were T. Wilson (Director, NPC); V. Reed, R. Suleosi, F. Paua and T. Tokoa from NPC staff, D. Sagolo and S. Jolie (WMPA officers); A. Eagle (Auckland Zoo aviculturist). M. Toa was not available, having already returned home to New Zealand but left some written thoughts with V. Reed.

A separate informal discussion has been held with Magaia village leaders at their village, and comments made there are also incorporated into this report.

## REVIEW HOW THE OPERATION WENT

Explanation: *An overview of how well the major parts of the project went*

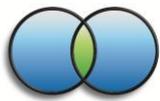
Prompts:

- *Delete this Help Box once you have written the Operational Review*
- *Walk through the major parts of the operation and record how well they went*
- *Remove this Help Box when the Operational Review is complete*

Overall, the project felt like it ran very well, and we are quietly confident of success, though we will have to wait a year or so before we can be sure of that. All the key tasks were achieved without major mishap. Some comments on individual aspects of the project are discussed below:

### Planning

- The planning and preparation of documents went very well, and the considerable input of experienced and knowledgeable outside staff was essential for this. The Project Manager admitted to being a bit lost at times with the amount of paperwork, but could gain some satisfaction by measuring progress against the 'steps' as identified in the PII Resource Kit.
- The relatively short time frame for planning did place a lot of pressure on the Project Manager, and consequently on other members of the NPC as they took over many of his normal roles as well as maintaining their own. The Project Manager was often drawn back



into his other roles to guide his 'relieving' staff in aspects of his other work that they were not familiar with. This was a distraction to planning for this project.

### **Approvals**

- Most approvals were given readily but written permission to use brodifacoum in the Republic of Pacifica (from the Registrar of Poisons) took some time to be received. Two enquiries from the Project Manager received assurances 'it was coming' but when nothing happened for some time the involvement of the Director of NPC to his counterpart in the Ministry of Agriculture ensured this vital approval was granted quickly, as the bait had to be ordered and paid for well in advance of the operation.

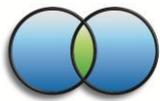
### **Track-cutting**

- It took a day or so for the teams to work out a system where the tracks could be cut accurately (i.e. in the right direction) without too much error. The two-person teams worked so that the person operating GPS would walk ahead and the cutter would work towards them. Tasks would be swapped when the cutter needed a rest, and this system worked very well.
- Initial tracks were probably cut too wide (i.e. too well for the temporary purpose), and this threatened to take up too much time, so an on-site 'standard' was agreed upon so all track-cutting teams knew what was expected. Team members were also spending time trying to get track directions 'perfect' using the GPS but soon realised this was not possible, and that some variance and 'wiggles' in the tracks were acceptable. The plotting of tracks on maps showed that in general the tracks were parallel. There were only two short sections where tracks moved more than 30m apart (both on steep ground). Rather than re-cut the tracks the Technical Advisor noted where these locations were and during the baiting made a special application of bait off-track in both locations to cover the perceived gap in coverage.

### **Bait Storage**

- Storage conditions in the NPC storeroom were good. No insect or rodent damage was noted to the bait while it was in storage.
- The bait arrived for use on the islands in good condition, though there were noticeably a few crumbs from crushed pellets in some bags. Some handlers had to be reminded that the bait was easily damaged and care needed when handling the bags (no throwing of the bags, etc).
- Some bait not used in the first applications was successfully stored on the islands, well-wrapped in tarpaulins (Far Is) or dry bags (Away Is) while on wooden pallets and under the shade of the forest canopy, were it kept well for the 7-10 days in both the tarpaulins and dry bags.

### **Baiting**



- Baiting generally went very well, and within schedule. The pre-planning to have bait depots established at strategic places meant amount of walking to replenish bait supplies was minimise which was appreciated by everyone!
- With one exception (see Lessons Learnt) the baiters carried out their task very well and amount of bait used was only slightly more than calculated, drawing slightly on contingency amounts.

### **Captive Ground doves**

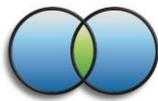
- The recently cut tracks meant the team members could move around the island quickly and locate the doves relatively easily. Most doves were caught quite rapidly, using mist-nets often strung along the cleared track paths, and the target quota (25) of doves was obtained in just 5 days. This meant that the doves were in captivity for almost two weeks before the baiting was due to begin, but it was decided not to change schedules just because this part of the project had been completed ahead of time.
- The doves generally adapted well to captivity but more visible 'screening' around the cages when the doves were first released would have been good to reduce the chances of doves flying into the wire netting and doing harm to themselves. Fortunately no doves suffered serious injury from flying into the wire, and they soon settled down. They readily adapted to the captive diet and weights of some increased during their captivity while none appeared to lose significant amounts of weight.
- One dove died in captivity, for no obvious reason. An autopsy was carried out by A. Eagle (the aviculturist) but there was no conclusive reason for the death.
- Bait monitoring on the islands meant doves were able to be released back onto the island just 10 days after the final baiting, once all bait had disappeared.
- The combination of the experienced aviculturist and the excellent local and field knowledge of the assistant (T. Tokoa from NPC) meant this part of the operation went very successfully.

### **Monitoring**

- It had been planned that bird monitoring especially could 'fit around' the other operational work as and when possible. However, with the shortage of staff because they had been allocated to other tasks (track-cutting, baiting, and dove capture and aviculture) it was a struggle to find both a suitable time and enough staff to carry out the task.

### **Weather/Timing**

- Weather forecasts received during the fieldwork proved to be accurate enough for operational decisions to be made accurately. Wind delayed the dove team getting to Far Island for 2 days, and a similar delay was experienced by the baiting team in transferring from Away to Far Island for the second bait application. Neither delay was considered of any



operational significance. The weather therefore should not have played any part in whether the project is successful or not.

### Community Relations

- Having a government official based at Magaia (D. Sagolo, the WMPA officer) who was also involved in the project was extremely beneficial. The relationships built up with the local community meant that discussions about the project were often very open and direct. It was felt that without David's unofficial role as the 'go-between' for NPC and the local community, they may have been less open to discussing issues.
- The strong support from the outset for the project from some locals was also vital in gaining overall community support. Involvement of some local men in the track-cutting, dove capture, baiting and boating operations reinforced the concept that the project would be good for local employment and local prestige. Most seemed to enjoy the work (and the resultant income) and a few showed a very positive attitude toward conservation work that may be able to be built upon in future.

## LESSONS LEARNT and RECOMMENDATIONS

*Explanation: What useful lessons did the team learn from the project?*

*Prompts:*

- *What do you recommend that the implementing agency does to better prepare for the next project?*
- *What do you recommend that is done differently for the next eradication project?*
- *Remove this Help Box when the Operational Review is complete.*

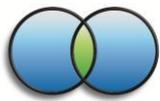
### CHOICE OF ISLANDS

Given the limited experience of the project team, two islands of the size of Far and Away Island was a real stretch for the team. While the operation did go well, a single island of the size of Away Island (25 ha) was felt by the team to have been a more realistic next-step for the team.

In retrospect, Far Island was a considerable challenge using hand-broadcasting as a technique, being over 100ha in size and densely forested with a variety of hill-slopes. As many of the staff involved were previously inexperienced in this work the challenge seemed even greater. While the track-cutting necessary to establish the baiting grid was achieved, it took a considerable amount of effort, and the team felt a little daunted after realising the amount of work involved. Had a helicopter been available I'm certain we would have used it instead!

### Recommendation:

- The next eradication project undertaken by NPC should involve no more than two islands both of which should be less than Far Island (108ha) in size.



## **SKILLS AND CAPACITY BUILDING**

Buddying the NPC Eradication Officer, Falatau Paua, with the technical co-ordinator proved an effective training technique in transferring technical expertise to NPC staff. Falatau's skills and experience have been greatly enhanced by the project. There would be significant benefit to continuing to build the skill-base of NPC if this approach was used in future projects.

As the only person with previous in-depth eradication experience and knowledge of what was required on the ground for such large projects, the Technical Co-ordinator was at times hard-pressed to keep up with demands for his time to provide on-site advice and checks. The NPC needs more staff trained and experienced in the technical aspects of eradication operations, to continue to grow its eradication operation capacity.

NPC project managers need to gain further experience in managing eradication projects. The relative lack of experience of the Project Manager meant there was a lack of confidence even when things were going well. It would have been valuable to have had at least one more experienced person to assist in providing the on-site supervision and decision-making.

Independent technical reviewers were a valuable part of the process. The involvement of several eradication experts in the review process helped immensely in the planning and in identifying tasks and schedules. Their experienced eyes could see a few things that had been forgotten or not given enough priority. We believe this played a significant part in the fact the project ran so well.

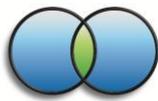
### **Recommendations:**

- NPC should continue to use buddying NPC staff with contracted experts as an effective up-skilling approach.
- NPC should begin training more project managers in eradication projects.
- NPC should continue to have all key project documents reviewed by independent reviewers.

## **MANAGING THE TEAM**

The project leadership could in hindsight have better prepared the workers for what was expected of them and the camping conditions on the islands. The imprecise nature of how long the work would take (both the track-cutting and baiting) meant there was a bit of confusion about when they would be finished and what day they would get home. Toward the end of the track-cutting especially this caused some unhappiness among one or two team members who missed prior appointments.

While several of the villagers were excellent, it soon became apparent that one person was not particularly interested in the project or in the hard work involved. This became a concern in that he was involved in baiting and his work partner was concerned he was not spreading the bait well, and was putting too much bait out at each stop simply to lighten the load, and was going far too slow and therefore taking too much time to complete the task. Fortunately this happened fairly early on in the baiting process, and their early work was able to be checked (and deemed okay) by the Technical Co-ordinator. The person involved was talked to, and given the option to 'improve or



leave'. He was subsequently paired with the Project Manager so that the PM could keep a close eye on him and he gave no further trouble.

#### **Recommendations:**

- Future NPC eradication projects should include a more detailed pre-operation briefing for the eradication team.
- As many as possible of the tasks that can be done 'anytime' should be carried out sooner rather than later, to avoid 'bottlenecks' at the busy times in the project.
- Field team members should be selected carefully for various aspects such as fitness, willingness to work as part of a team, and demonstrated enthusiasm for the project – less capable or enthusiastic team members create the risk of work not getting done properly with the associated risk of operational failure.
- Future NPC eradication projects should continue to strongly encourage local participation in all aspects of the project.
- The project manager should be allocated full-time to the eradication project with their usual responsibilities temporarily assigned to other NPC staff.

#### **TRANSPORT AND COMMUNICATION**

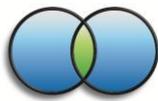
Boat transport was in general very good and operators were skilled and reliable. There were minor issues with engine reliability with a delay on one departure due to an outboard failing to start (the problem was simply a very old sparkplug). In hindsight, a request for outboards to have been recently serviced would have been beneficial from a reliability and safety viewpoint, and this could have been done if requested and a small pre-payment made so that spares could be purchased.

VHF radio communication with NPC headquarters proved reliable in terms of being able to send and receive transmissions, but it was soon discovered that the office was frequently unattended (in part due to so many staff members being involved in the project!). A scheduled reporting time each day may have helped in this regard so that any on-duty office workers could ensure someone was there. The back-up system of the satellite phone was technically not required for official use, but was tested satisfactorily on several occasions.

#### **Recommendations:**

- Budgets for future eradication projects should include costs for the pre-operation servicing of all essential boats.
- Ensure radio check-ins have pre-determined times and an office member is assigned to undertake this.

#### **APPROVALS**



Some delays were experienced in receiving approvals - other agencies may not have the same urgency to complete tasks to fit to your schedule. Allow plenty of time (and perhaps request a deadline) for approvals and input from agencies that have a regulatory input but are not directly involved in the operation.

**Recommendation:**

- Begin seeking approvals as early in the project as possible.

**MONITORING**

The monitoring aspect of the operation appeared to suffer most from the over-commitment of local staff in the project. More monitoring should have taken place earlier in the project when other project tasks were not competing for the same staff resources. In future, it was felt that each individual staff member should have their roles assigned and schedule planned to ensure no conflicts occur with demands for their time, and that each aspect of the operation has enough staff allocated to it.

**Recommendation:**

- Undertake the pre-operation monitoring as early in the project as possible; well before the team become focussed on preparing for the eradication operation.

**BIOSECURITY**

More hands-on education is required to ensure the message of prevention gets home to all the villagers or even the NPC's own staff. It became apparent that a few did not appreciate how to apply biosecurity to their own situation, or believe it applied to them personally. They turned up to travel to the island with personal gear in open plastic shopping bags and jute or plastic sacks, rather than place the gear in the plastic bins and buckets provided.

On inspection prior to loading in the boat, one sack containing some food (local fruit) had a number of ants inside and this had to be emptied, and the contents checked thoroughly and repacked into an approved plastic container. They did not look like crazy ants (identification still pending from the samples taken) but it drove home the message to everyone about how easy it was to accidentally introduce invasive species to the islands.

**Recommendations:**

- NPC conduct an internal biosecurity training program covering all staff.
- Biosecurity prevention awareness raising should include face-to-face demonstrations of the measures to be undertaken.