



Te Matau a Māui project update Interim report

August 2019

Native species thrive where we live, work and play



Kaumātua Bevan Taylor blessing the resting place for manu/birds as part of a Poutiri Ao o Tāne Hiko.

Photo: Melissa Brignall-Theyer

Contents

Executive summary	4
1. Project management update.....	5
1.1 Community advisory group update.....	7
1.2 ‘Big picture’ update.....	7
1.3 Engagement with Māori.....	9
2. Workstream update: 1 January – 30 June 2019	10
2.1 Research and monitoring.....	10
2.1.1 Progress towards outcomes.....	11
2.1.2 Significant risks update.....	15
2.1.3 Significant opportunities update.....	15
2.2 Community engagement.....	16
2.2.1 Progress towards outcomes.....	16
2.2.2 Significant risks update.....	19
2.2.3 Significant opportunities update.....	19
2.3 Biodiversity and species.....	20
2.3.1 Progress towards outcomes.....	20
2.3.2 Significant risks update.....	22
2.3.3 Significant opportunities update.....	23
2.4 Habitat restoration.....	23
2.4.1 Progress towards outcomes.....	23
2.4.2 Significant risks update.....	24
2.4.3 Significant opportunities update.....	25
2.5 Pest control.....	26
2.5.1 Progress towards outcomes.....	26
2.5.2 Significant risks update.....	29
2.5.3 Significant opportunities update.....	29
3. Work planned for 1 July – 31 December 2019.....	31
3.1 Research and monitoring.....	31
3.2 Community engagement and education	31
3.3 Biodiversity and species.....	31
3.4 Habitat restoration.....	31
3.5 Predator control.....	31
4. Conclusion.....	32
Appendix 2: Project outputs so far.....	33

Executive summary

This report presents an update on Te Matau a Māui project status and activities for the period from 1 January to 30 June 2019.

Possum eradication and predator suppression in Whakatipu Māhia was the focus of the last 6 months. This has included employing three new team members: one to help with project management and two with predator control.

The Te Matau a Māui milestones are on track for completion by the end of 2019. The kākārīki translocation is on hold due to increased rat numbers.

Some highlights of the period are set out below.

- Over 70 percent of Whakatipu Māhia landowners have signed up to the new Regional Pest Management Plan (RPMP). This means they now sit under the mechanism that will ensure eradication is maintained in the long term.
- The *Whakatipu Māhia possum eradication modelling* report was completed. It identified areas for greater intensification of eradication effort.
- Deployment of collared possums on Māhia, part of possum movement research, has started.
- Waitangi the tītī returned to Poutiri Ao ō Tāne once more and brought some friends.
- Unbanded toutouwai/robins continue to be seen in Cape to City, signalling the ongoing success of the translocation.
- Two more engaging Hikoi were run under Poutiri Ao ō Tāne – reconnecting tangata whenua with their whenua/land.
- The Environmental Education partnership between Cape to City, EIT, Air New Zealand Environment Trust (AirNZET), EnviroSchools, Mangarara and Wildlab (Gisborne) continues to build in impact. There is now a management structure, project manager, a research programme, increased engagement with the teaching degree students, and site development. A Memorandum of Understanding (MOU) was signed between the partners and a celebration was held accordingly.
- The Predator Free Hawke's Bay (PFHB) logo and branding were completed and are being used.
- The Cape to City education team, in partnership with EnviroSchools, ran the second of four workshops with early childhood, primary and secondary school teachers on how to use the environment as a context for learning.
- Wendy Rakete-Stones and Campbell Leckie were panel members at the Crazy and Ambitious 2 conference in May.
- The team participated in another successful hui held by Manaaki Whenua - Landcare Research (LCR) to review the past year of research and to prioritise research for the coming year. This year the Taranaki Predator Free team joined, which was valuable.

Over the next 6 months, permanent wireless trap-monitoring networks will be installed in Poutiri Ao ō Tāne, and the 4,000 ha extension will be complete. The PFHB website will be completed, the Connected to Nature project will be officially launched, teacher professional development workshops will continue, and the next LCR research contract will come into effect.

1. Project management update

The project and governance teams are operating well. Some new faces have joined Whakatipu Māhia in both milestone delivery and stakeholder representation. Connie Norgate has left DOC's Napier office, so Melissa Brignall-Theyer is standing in as Species Workstream Lead while a new Operations Manager is recruited.

The recruitment process for the three new PFHB roles was completed in March, and the new trainee roles have been filled and have worked 'on the ground' since then. These roles were filled by Kaya Cooper (Rongomaiwahine iwi), Michaela King-Peters (Maungaharuru Tangitū Trust), and Lynn Dragovich (who filled the trainee Project Manager role).

The new Whakatipu Māhia project team members are Mark Bowan, Richard Coop and George Cooper (see **Figure 1**).

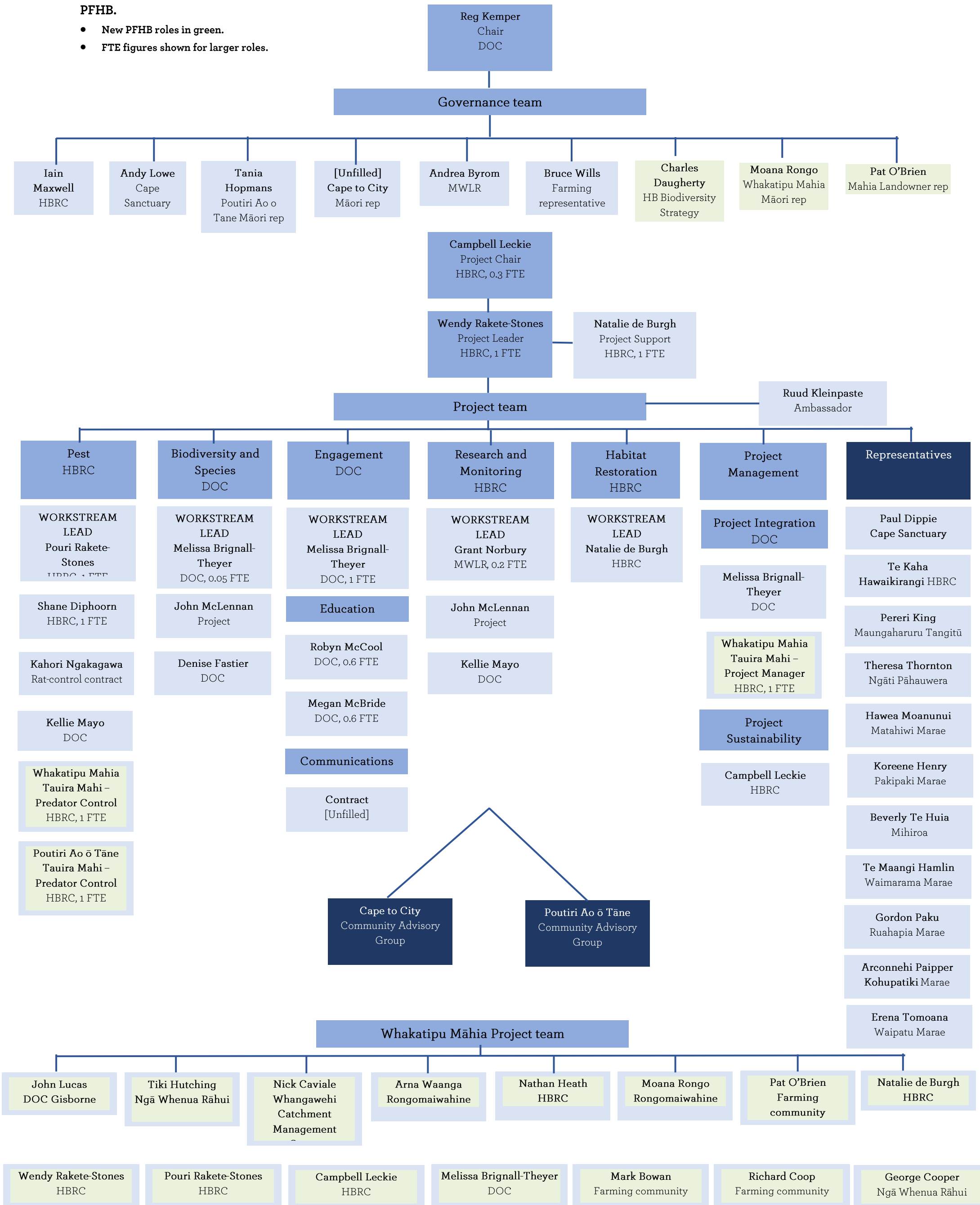


Welcoming Lynn Dragovich, Michaela King-Peters and Kaya Cooper (front row from left) to the PFHB Whanau. *Photo: Melissa Brignall-Theyer*

Cape to City and Poutiri Ao ō Tāne and PFHB project structure

Figure 1: Project structure to deliver Cape to City, Poutiri Ao ō Tāne and PFHB.

- New PFHB roles in green.
- FTE figures shown for larger roles.



1.1 Community advisory group update

The Poutiri Ao ō Tāne Community Advisory Group has met a couple of times in the past 6 months. Ngāti Hineuru are becoming more involved when they are able.

The Cape to City Community Advisory Group has not met this year. A meeting is planned in August.

1.2 'Big picture' update

Predator Free 2050 and Predator Free Hawke's Bay

The team has been working on the range of operational implementation detail and logistics for Whakatipu Māhia. The recruitment process for the three new Predator Free Hawke's Bay (PFHB) roles was completed in March and the new recruits are now settled in their roles. The first 1,500 ha is underway with bait stations/trapping; land user and iwi support for the project is building. Subject to funding being available, the learning over the next 3 years on farmland possum eradication will prepare us for the potential regional roll out of possum eradication (outside of the Māhia Peninsula) in Cape to City. This is another key phase in the projects' lifecycle, as the eradication of possums will set up the transition to feral cat and mustelid control. The plan is to use the Māhia Peninsula alongside Cape to City and Poutiri Ao ō Tāne to showcase the vision 'Native species thrive where we live, work and play'.

Zero Invasive Predators (ZIP)

The team continues to engage closely with the ZIP team over the last 6 months. ZIP has provided valuable support as we build the eradication plan for Whakatipu Māhia, both on the technical aspects of the eradication and in understanding the tools and techniques they are developing for eradication. ZIP has agreed that we can use its wireless trapping technology, including webserver back-office software it developed to manage the monitoring of wireless traps. This is a valuable partnership as it allows the team to be aware of, and plan for, the most cutting-edge predator control technology available.

Tangata whenua

The team is increasing its engagement with Tangata whenua within the project. Rongomaiwahine iwi have completed their Treaty settlement and sit on the project management team and the project governance group. This is a long-term engagement and will build over time.

Connected to Nature – Air New Zealand Environment Trust proposal

This project now has a solid management structure (steering group and user group) and a part-time project manager. The terms of reference, guiding principles, mission and vision have all been created. The vision is: *Learning with nature for a sustainable future.*

Research is underway to evaluate the 'Education in the Environment' programmes at EIT, and the design of the outdoor learning site is complete and development underway. A lot of engagement within EIT has been done to bring all departments on board. On 5 June, an MOU between EIT and AirNZET was [celebrated at the site](#).

Regional Pest Management Plan for Hawke's Bay

The Hawke's Bay Regional Pest Management Plan (RPMP) has been set up to provide a policy and statutory process for securing the gains made in Poutiri Ao ō Tāne and Cape to City predator control over the past 8 years. The plan incorporates the option of possum eradication areas, which will set the foundation for the incremental roll out of possum eradication in 3-4 years. This use of the RPMP to create predator control and possum eradication areas is a first in New Zealand. The RPMP was passed without legal challenge and is now operative, with its provisions for possum eradication and predator control legally binding. Māhia is the first place where this process will be used; we are tracking well to achieving and exceeding the 75 percent landowner sign-up requirement.

1.3 Engagement with Māori

Kaumātua Trevor Taurima, with support from the project team, has been organising a Hikoī Tutuki (discovery and learning walks) programme to help hapū and community to reconnect with the whenua/land stories, and with Poutiri Ao ō Tāne and Cape to City. There have been five hikoī so far. The two most recent hikoī were held in March. Over 40 participants, including Rongamaiwhine iwi members, took part in Hikoī Tutuki ki Maungaharuru; participants visited the seabird site at Poutiri Ao ō Tāne for the blessing of the manu/bird burial site and Pou (a carved post representing a significant place). Hikoī Tutuki ki Boundary Stream, Bellbird Bush and Lake Opouahi was about unveiling plaques that commemorate the gifting back of the reserve from the hapū of Maungaharuru Tangitū to the people of Aotearoa.



Tamariki/kids enjoying the plaque unveiling as part of one of the Hikoī.
Photo: Hayley Lawrence

2. Workstream update: 1 January – 30 June 2019

This section outlines progress on the activities and objectives outlined in Attachment 1 of the Aotearoa Foundation contract. These activities and objectives are separated into five workstreams: research and monitoring; community engagement and education; biodiversity and species; habitat restoration; and pest control. **Table 1** summarises progress in each workstream.

Table 1: Progress on 2019 activities

Workstream	Number of activities	% complete
Research and monitoring	7	47
Community engagement and education	6	50
Biodiversity and species	4	73
Habitat restoration	3	50
Pest control	7	43

Significant risks and opportunities are reported under each workstream. These risks have been kept the same as the August 2015 interim report so that progress can be measured against them. New risks and opportunities have been added as appropriate. The full list of risks and opportunities (as provided in the August 2015 interim report) can be viewed if required.

2.1 Research and monitoring

The research and monitoring workstream is led by Manaaki Whenua – Landcare Research (LCR). There are four strands to this research: pests, indigenous biodiversity, social research and economic research. This work is substantially delivered through milestones described in two contracts: one between LCR and the Hawke’s Bay Regional Council (HBRC), the other between HBRC and John McLennan (private consultant).

2.1.1 Progress towards outcomes



Pouri Rakete-Stones installing an Automatic lure dispenser (ALD) developed by ZIP alongside a motion sensitive camera in Māhia, so that residual predators can be monitored. *Photo: Kaya Cooper*

Highlights

- The *Whakatipu Māhia possum eradication modelling* report was completed. It identified areas for intensification of eradication efforts, which are being implemented by the team.
- Radio-tracking collared possums have been deployed on Māhia to help understand possum movements around the peninsula under an eradication context.
- The team participated in another hui held by LCR to review the past year of PFHB research and to prioritise research for the coming year. This year, the Taranaki Predator Free team joined the discussion, which was valuable.

Updated progress towards specific research and monitoring milestones

Table 2: Progress towards research and monitoring milestones

Milestone	2019 activity	Update	% complete
Research outputs.	A minimum of three research outputs, two of which are submitted to peer-reviewed journals.	<p>Research outputs since the beginning of Te Matau a Māui:</p> <ul style="list-style-type: none"> • 12 research articles published in science journals • 5 manuscripts (either submitted or drafted) • 29 conference presentations • 48 unpublished reports • 7 public lectures • 5 newsletter articles • 3 PhD theses 	50
Methods of monitoring introduced mammalian predators before and after control.	Compare camera traps with electronic tracking pads being developed by Connovation (if available).	<ul style="list-style-type: none"> • Connovation tracking pads are not ready for trial. • Motion-sensitive cameras are still used in predator monitoring and are becoming the tool of choice in this area nationally. • Software for image recognition is being developed by our researchers and should be publicly available by the end of 2019. 	NA
Decision-analysis models for predicting the most cost-effective trapping configurations for managing introduced predators over large areas.	No 2019 milestone.	A variety of models have been created through this project. These are currently being modified and tested for possum eradication in Māhia.	NA

Milestone	2019 activity	Update	% complete
Increase in skinks, geckos and native invertebrates in the Cape to City area; continued increase in skinks, geckos and native invertebrates in the Poutiri Ao ō Tāne area.	Continue Poutiri and Cape to City monitoring (Poutiri monitoring times may be extended). Data analysed to determine changes in abundance.	<ul style="list-style-type: none"> • Annual monitoring report has been completed. Still too early to tell if changes in biodiversity in Cape to City are a response to predator control. • Power analysis was done on Cape to City monitoring data to ensure enough data is being collected to see a significant biodiversity response (if there is one). Some adjustments to data collection will be made in response to this research. • The project team has decided to discontinue biodiversity monitoring at Poutiri Ao ō Tāne. Biodiversity responses have already been published, but there are now too many confounding factors in this project to get a clear understanding of biodiversity responses from now on. 	70
Analysis and reports on the integrated economic benefits of Te Matau a Māui.	Produce and promote economic benefits report.	This report will be done in the final 6 months of the year.	0

Milestone	2019 activity	Update	% complete
Decrease of toxoplasmosis-related lamb abortion rates. Because of research and reduction in cat numbers, vaccinations will no longer be necessary, leading to significant economic benefits to the region and nation.	Produce final programme review, including detailed economic assessment, and assessment of toxoplasmosis disease in the landscape.	Data collection is ongoing. Final report will be completed in final 6 months of the year.	10
Use of restored habitat by native wildlife.	Develop template for future projects on optimising habitat connectivity between private and public land.	Research will be completed in second half of this year. This will build on all the other habitat connectivity research done through this project over the past 4 years.	50
Student participation.	Engage two tertiary students in the project each year.	In June, two international students from Massey University were involved in the projects. The second-year Early Childhood trainee teacher completed her summer scholarship on 'effective ways of integrating learning in the environment into teacher education'.	100
Increasing the participation in pest management and ecological restoration by landowners and the community.	Complete surveys on attitudes and barriers to participation to determine changes over the course of the project.	Both urban and rural survey drafts are complete. Surveys will be run and data analysed in the next 6 months.	50

Note: research progress is also reported in other workstream updates.

2.1.2 Significant risks update

- | | |
|----------|--|
| Original | Insufficient pest-control intensity to achieve desirable biodiversity outcomes is a potential risk that will be mitigated by monitoring and adaptive management. |
| Update | Research continues into pest-density impact functions to address this issue. <i>No change to this update.</i> |

2.1.3 Significant oppportunities update

- | | |
|----------|---|
| Original | Working closely with the Biological Heritage National Science Challenge (BHNSC). |
| Update | We continue to work closely with the BHNSC, with the Director on the Governance team. Both Campbell Leckie and Wendy Rakete-Stones had places on panels at the BHNSC conference in May. |
| Original | LCR is considering aligning another of its core research portfolios ('Enhancing biodiversity') to Te Matau a Māui. This work is in progress. |
| Update | Research from the Enhancing Biodiversity portfolio continues to be aligned with the project through the 2017/18 LCR contract and will continue into 2018/19. <i>No change to this update.</i> |

2.2 Community engagement

This workstream is led by DOC, but with significant input from other project partners because it is intimately linked to all other workstreams. The workstream has three strands: education (school and curriculum-based), communications, and community engagement in general.

2.2.1 Progress towards outcomes



Sharing the wētā with EIT staff and students at the EIT and AirnzET MOU celebration.

Photo: EIT

Highlights

- Over 40 participants, including Rongamaiwhine iwi members, were involved in Hikoi Tutuki ki Maungaharuru – a Poutiri Ao ō Tāne. This involved a hīkoi to the seabird site at Poutiri Ao ō Tāne for the blessing of the manu burial site and Pou. This was also a wonderful link between Tangata Whenua from Poutiri Ao ō Tāne and Whakatipu Māhia. The other Hikoi was unveiling of plaques commemorating the gift back of three reserves from hapū of Maungaharuru Tangitū Trust to the people of Aotearoa.
- Two teacher professional development workshops have been run in partnership with Enviroschools. These workshops have been over-subscribed and have included participation from early childhood, primary and secondary teachers enabling cross-curriculum and cross-sector learning.
- Working with the EIT lecturers at their Napier campus has enabled DOC in Gisborne to work with the EIT lecturers there, too. The Cape to City coordinators have been supporting DOC staff, and were recently involved in the EIT Whanau day in Gisborne, enabling a similar learning experience for students in Hawke’s Bay and Gisborne.
- There was a ‘soft’ launch of the learning site at EIT, celebrating the MOU between AirNZET and EIT. The site is not quite ready for a full launch yet.

<https://www.youtube.com/watch?v=GG2jwCus00&feature=youtu.be>

Updated progress towards specific milestones

Table 3: Progress on community engagement and education milestones

Milestone	2019 activity	Update	% complete									
A marked increase in the number of volunteers participating in the programmes over the next 5 years.	A 25% increase on baseline in the number of volunteers participating in the programmes over the previous 5 years.	<p>There was significant volunteer effort in the kōruru translocation at Poutiri Ao ō Tāne. Overall volunteer hours are slightly down due to less translocation activity and habitat restoration this year.</p> <p>The volunteer effort in Cape to City has been mostly through supporting the education programmes.</p> <p>Volunteer hours (to June 2019):</p> <table border="1"> <thead> <tr> <th></th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Poutiri Ao ō Tāne</td> <td>1,636</td> <td>386</td> </tr> <tr> <td>Cape to City</td> <td>35</td> <td>32</td> </tr> </tbody> </table>		2018	2019	Poutiri Ao ō Tāne	1,636	386	Cape to City	35	32	50
	2018	2019										
Poutiri Ao ō Tāne	1,636	386										
Cape to City	35	32										
Increased involvement of schools in the various conservation initiatives.	Ensure process is in place with strong commitment from schools to continue their investment in education using the environment as the context.	<p>The education coordinators are working with Tamatea Intermediate School to build on the freshwater programme, so that it is built into the school's technology and arts curriculum for a whole year, rather than just a term.</p> <p>Two teacher professional development workshops have been run in partnership with Enviroschools.</p> <p>Increasing engagement with EIT teaching degree students has included running their induction/whanau day, two early childhood student programmes and three primary-student programmes.</p>	50									

Milestone	2019 activity	Update	% complete
Communications strategy.	Implement communications strategy.	<ul style="list-style-type: none"> Facebook articles continue to be posted at least once or twice a week. A new PFHB website is being developed to replace the Cape to City and Poutiri Ao ō Tāne websites, so that all projects sit under one site. As part of this process we have developed new branding, in line with the logo, which will be used in newsletters, factsheets, presentations and banners. 3 media releases have been submitted, all of which have been published (see Appendix 2) 	50
Through the social engagement strategy and communication plan, the Hawke's Bay community will value the importance of biodiversity and act accordingly, so that sustainability behaviours become part of the social norm.	Continue to attract other investors; target minimum \$300,000.	This milestone was completed in the first half of 2018 with Predator Free 2050 Ltd and AirNZET Investments.	100
	Review and implement community engagement strategy.	<ul style="list-style-type: none"> Two more successful hīkoi have been run - one at the Poutiri Ao ō Tāne seabird site and the other at three reserves in Poutiri Ao ō Tāne. Campbell Leckie and Wendy Rakete-Stones were panel speakers at the BHNSC conference in May. A developmental evaluation research project has begun between EIT, University of Waikato and Cape to City. This research will evaluate the 'Connected to Nature' project with the Teaching degrees at EIT. 	50

Milestone	2019 activity	Update	% complete
	Review the use of citizen science in Te Matau a Māui	This review will be completed in the second half of 2019.	0

2.2.2 Significant risks update

Original	If we do not engage iwi in a meaningful way, we risk losing a key partner and jeopardising the success of the project. We therefore need to formalise engagement with iwi at a communication and participation level, and make sure engagement is genuine and visible in all our communications.
Update	The project team has now engaged with all marae affiliated with Cape to City. These Marae have each committed a marae representative to the project.
Original	There is a lot of interest and excitement about the education programmes. This has created many opportunities for links and involvement outside the project milestones. There is risk that the project team starts working in areas outside the project's contracted deliverables and is unable to meet them due to resource and time constraints. This risk is being mitigated by assessing all opportunities as a team.
Update	All staff involved in the community workstream are now very good at working within scope. All opportunities are discussed by the whole project team to prioritise opportunities. <i>No change to this update.</i>
New (January report)	Delivering the education milestones would be at risk if, for some reason, the project lost the education coordinator. This risk will be mitigated by setting up systems to make it easy for someone to take over in the coordinator's absence, and by teaching other team members some of the necessary skills.
Update	A part-time coordinator has been employed to support Robyn McCool. <i>No change to this update.</i>

2.2.3 Significant opportunities update

Original	An initial presentation and meeting with EIT teacher-training faculty staff and students has provided an opportunity to link the teacher-training programme with Cape to City. This is a significant step towards the 2017 milestone, 'Engage a minimum of six schools in the Cape to City project plus at least one tertiary institute initiative'.
Update	A Memorandum of Understanding (MOU) between the project and EIT has been signed and is now being implemented. The project and EIT have also been successful with a grant from the AirNZET to create outdoor learning spaces for teachers and trainee teachers to enable them to become confident in using the environment as a context for learning. This programme is now being implemented.

Original	The Community Conservation Partnerships Fund (\$26 million over 4 years), administered by DOC, is a significant opportunity for community groups to receive funding and be aligned with. Proposals are being considered.
Update	Projects already funded continue. The Maraetōtara Tree Trust has just been awarded further funding under the DOC Community Fund. <i>No change to this update.</i>

2.3 Biodiversity and species

This workstream is led by DOC but has significant input from John McLennan and LCR. There are two main strands: species re-introductions and biodiversity monitoring.

2.3.1 Progress towards outcomes



The 4 kākā chicks from progeny of birds initially released under Poutiri Ao ō Tāne. *Photo: Kelly Eaton*

Highlights

- Waitangi the tītī returned again to Poutiri Ao ō Tāne, and brought some friends. There was some lovely camera footage that was put on Facebook. There was also a [media article](#) about Waitangi returning to Poutiri Ao ō Tāne.
- Toutouwai/robins continue to be seen on the Maraetotara Plateau.

Updated progress towards specific milestones

Table 4: Progress on biodiversity and species milestones

Milestone	2019 activity	Update	% complete
Re-introduction and re-establishment of kōrure/mottled petrels.	Continue same work as 2018. Prepare report describing best methodology for seabird translocations.	Returning birds continued to be seen in cameras into March. Hopefully more return next spring/summer. Monitoring will start in September 2019.	50
Increase in the abundance of introduced and native birds that are already present in the area.	Continue bird monitoring; analyse data to determine changes in abundance over the preceding 4 years in rural and urban landscapes.	A draft report has been completed. It recommends extending out monitoring periods to every 2-3 years is enough to show any significant changes in bird abundance.	60
Re-introduction and establishment of several threatened bird species into the Cape to City area. Some species will spread from Cape Sanctuary; others will be reintroduced and actively managed until self-sustaining.	Prepare publication for a peer-reviewed journal, describing the 'halo effect' of Cape Sanctuary and its influence on wildlife communities in the surrounding hinterland.	A paper is being drafted that explains this 'halo effect' of sanctuaries.	80
Successful re-establishment of North Island brown kiwi onto the Maraetotara plateau in the Cape to City footprint.	Scope kiwi translocation to Māhia following possum eradication and predator control.	The project team would like to relocate this translocation to Māhia, into the PFHB possum eradication and predator suppression area, where risks of re-invasion are much lower and extra support (including from other stakeholders and funders) should be higher.	NA

Milestone	2019 activity	Update	% complete
Successful re-establishment of whio/blue duck on the Maraetotara River (subject to risk analysis and resourcing). Successful colonisation of ponds and wetlands by pāteke in the Cape to City and Poutiri Ao ō Tāne areas.	Introduce first whio juveniles into the Maraetotara River. Continue egg collection from wild pairs; successful colonisation of ponds and wetlands by pāteke in the Cape to City and Poutiri Ao ō Tāne areas.	This was reported on previously, and the project team determined that this translocation is not currently feasible.	NA
Improvement in the numbers of long-tailed bats inhabiting Mohi Bush.	Monitor bat population and review success.	It has been determined the cost of bat monitoring is prohibitive and will outweigh any environmental and project benefit in this area. The project team asks to remove this milestone.	NA
Re-introduction and re-establishment of kōruru/mottled petrels, tītī/Cook's petrels, kākā, kākārīki, and pāteke in the Poutiri Ao ō Tāne area.	Transfer and successfully fledge petrels. Petrels from previous releases are returning to breed.	Petrels are returning. But future translocations will only go ahead if breeding is successful. We continue to monitor returning birds over spring and summer. The kākārīki translocation will not go ahead at this stage, due to volatility in rat monitoring rates. The latest was a 14% tracking rate.	100

2.3.2 Significant risks update

Original	It is yet unknown what level of predator control is sufficient for survival of pāteke and whio; there is therefore a risk that control cannot be achieved to levels supporting the survivability of these species. This will be managed through monitoring and adaptive management.
Update	After review, it was concluded that it would be unwise to release more pāteke while the current level of predator control is in place. Increasing predator control

at this stage would interfere with the wide-scale predator control experimental design. *No change to this update.*

Original	The species team has advised us to make sure that control and planning for kiwi translocation are adequate. If adequately sized founder populations cannot be achieved due to limited numbers of source birds, the project is at risk of not reaching sustainable populations in the release area.
Update	This is a long-term risk and can be planned for. <i>No change to this update.</i>

2.3.3 Significant opportunities update

Original	Techniques developed for petrel translocations will enable further populations to be established elsewhere in New Zealand.
Update	Rachael Sagar’s PhD that will inform this opportunity is still to be completed. The first paper from this PhD has been published. We receive enquiries from other restoration projects about how best to go about these sorts of translocations.

2.4 Habitat restoration

This workstream, led by the HBRC, is focused on restoring native habitat and water quality through planting.

2.4.1 Progress towards outcomes



Planting at Lake Tūtira. *Photo Melissa Brignall-Theyer*

Highlights

- Most of the milestones in this workstream are complete. Now, the priority is to maintain the planting areas to ensure plant survival and effective restoration.

Updated progress towards specific milestones

Table 5: Progress on habitat restoration milestones

Milestone	2018 activity	Update	% complete
Improved water quality in the Maraetotara River following stock exclusion and riparian revegetation.	Complete detailed 5-year review of water quality trend data.	Monitoring continues. A report will be completed in the next 6 months.	50
Increase in native habitat in the Cape to City area.	Ensure a minimum of 50,000 plants planted within project footprint by partners or community groups.	This milestone was completed in June 2017 and reported on in August 2017 interim report. Weeding and general maintenance of the plantings continues.	100
Enhancement of DOC's efforts on public conservation land through landscape-scale ecological restoration on private land.	Conduct 5-year analysis of benefits to conservation programmes in terms of conservation outcomes and operational savings.	A report will be completed in the next 6 months to address this question.	0

2.4.2 Significant risks update

Original	Not delivering maintenance after planting is a risk that often becomes a reality due to lack of resources for weeding, watering and other maintenance. This is being managed with effective planning and resource allocation.
Update	DOC 'Dirty Dozen' funding is delivering \$30,000 for old man's beard and banana passionfruit control to the Maraetotara. The Maraetōtara Tree Trust has also been awarded DOC community funding to infill earlier plantings. This planting work was completed. <i>No change to this update.</i>

Original	Lack of landowner cooperation is another risk; this will be managed through landowner/council agreements and by forming solid relationships with landowners and community groups.
Update	Landowner support is growing as the results of the Maraetōtara Tree Trust and Cape to City plantings become more visible. Likelihood of being required to fence off (due to HBRC plan changes) is helping increase landowner interest in being involved in programme. <i>No change to this update.</i>
New (Aug 2017 report)	The myrtle rust incursion could restrict new and existing plantings of mānuka. Two organisations – Scion, and Plant and Food Research – have launched a research programme, but the effects of the rust are unclear as the research is not complete. <i>No change to this update.</i>

2.4.3 Significant opportunities update

Original	HBRC is working on a partnership with Million Metres Streams for Maraetotara River as part of the project. This organisation raises money for riparian restoration through sponsorship.
Update	There have been two successful Million Metres Streams projects, highlighted in previous reports. No more Million Metres Streams projects are planned at this stage. <i>No change to this update.</i>
New (Feb 2017 report)	There is an opportunity to establish mānuka for honey production on erodible land (classes 6 and 7) within the footprint. Planting mānuka will provide important habitat and erosion control. This is a partnership between HBRC, Kauri Park, AGS (Afforestation Grant Scheme) and landowners.
Update	The mānuka site on Taurapa Station is growing well. <i>No change to this update.</i>
New (Feb 2018 report)	Waimarama Marae successfully applied to the Ministry for the Environment Community Environment Fund for a planting project on the Waingongoro Stream. Cape to City will partner with the marae by organising HBRC willow removal and funding weed control prior to planting. The decision is due in February.
Update	Funding was approved and so Cape to City partnered with the marae to support willow removal. <i>No change to this update.</i>

2.5 Pest control

Although led by HBRC, this workstream has substantial input from LCR. It covers wide-scale suppression of predators within Poutiri Ao ō Tāne and Cape to City.

2.5.1 Progress towards outcomes



Kaya Cooper with a new PodiTrap on Māhia Peninsular with Waikawa Island in the background.

Photo: Pouri Rakete-Stones

Highlights

- Over the last six months the predator control team have been installing the bait stations, signing up landowners to the RPMP and have started putting in the maintenance trapping network with PodiTraps. Over 70% of Māhia landowners have been signed up to the RPMP so far.
- The trap network at Poutiri Ao ō Tāne has been optimised and is currently being extended to a further 4000ha.

Updated progress towards specific milestones

Table 6: Progress on pest-control milestones

Milestone	2019 activity	Update	% complete
High-level landowner participation in pest control in the Cape to City area. 'In principle' agreement among participating landowners to continue predator control beyond timeframe of the programme.	Obtain voluntary agreements; review landowner commitment.	Voluntary agreements have been obtained from all landowners.	100
A marked reduction in introduced predators in the Cape to City area.	Graduate 50% of farmers to maintenance of predator control.	We will be requesting a deferment of this milestone	NA
Use of wireless trap networks to optimise control.	Review wireless trapping trials	A range of knowledge has been gained so far. Currently the use of wireless is being upscaled, using other products not previously available to broaden our knowledge. This will assist in better understanding the best use of wireless and which product to use in different scenarios.	50

Milestone	2019 activity	Update	% complete
Examination of the long-term effectiveness and reliability of self-resetting traps for rat control in Boundary Stream mainland island.	Review effectiveness and reliability of self-resetting rat traps	The latest rat tracking results in May showed an increase from January results – from 3% to 14%. This is too high for a kākāriki translocation. The project team are going to trial having three trap maintenance checks per year, as two may not be enough to keep the lure fresh enough. A review will be completed by the end of 2019.	50
Sustained suppression of introduced predators at low densities in the Poutiri Ao ō Tāne pest-control area.	Continue contractor control at reduced control intensity.	Maintenance checks of traps continues. The trap network at Poutiri Ao ō Tāne has been optimised and is currently being extended.	50
Demonstration that effective ongoing predator control in the Cape to City area can be undertaken for less than ~\$3/ha.	Analyse final maintenance control costs across programme.	Analysis to be completed by end of year	0
Demonstration that the cost of predator control can be met by transferring resources from possum control programmes, while still maintaining possums at low densities.	Monitor project possum programme to establish if there are any early trends for possum numbers increasing as a result of more targeted control.	Monitoring is ongoing, but it is probably too early to determine if there are any early signs of possum numbers changing as a consequence of increased predator control. While we still believe transition of resources is achievable and the long-term solution for the region, there is still work to do before we are able to move to transferring resources from possum control to predator control	50

Milestone	2019 activity	Update	% complete
Operational monitoring for predator control.	Undertake monitoring. Analyse data to determine changes over the preceding 4 years	Planned to be analysed by end of this year	0

2.5.2 Significant risks update

- Original The perception that rabbits increase after predator control is a risk that will be mitigated with good communications and research. LCR has published a scientifically credible review demonstrating that rabbit numbers are driven by bottom-up influences such as climate, disease and pasture growth, rather than by predators.
- Update There are two landowners with high rabbit numbers. The project and governance teams decided not to control predators on the two properties, but instead to maintain a cat-trapping buffer around the properties to control re-invasion into the treated area. Monitoring of rabbits will continue; these properties are being considered for a new calici-virus trial in 2017. The virus was released in 2018 but appears to have had minimal effect throughout New Zealand. *No change to this update.*
- Original To make biodiversity and economic gains (through reduction in toxoplasmosis) we need to control feral cats. This is an emotive subject in New Zealand and there is the risk that a farm or domestic cat gets caught, prompting negative media coverage. To manage this risk, we have developed a communications plan and will place traps where they are least likely to trap farm or domestic cats. Where the risk of catching pet cats is high (eg around urban areas) we will use live-capture cage traps.
- Update Buffer zones for kill traps have been created around landowner dwellings. As part of the roll-out, vets and the SPCA were consulted and landowners were offered the chance to have their domestic cats photographed and/or microchipped. Options were discussed with landowners, including putting their cats in a cattery. *No change to this update.*

2.5.3 Significant opportunities update

- Original Initial meetings have been held with Zero Invasive Predators (ZIP) and the BHNSC to align appropriate parts of each project, or to learn from the work these groups are doing.
- Update
- The project team and ZIP will partner under PFHB to deliver possum eradication at Māhia. *No change to this update.*
 - The project continues to work in partnership with the BHNSC. *No change to this update.*

New (Feb 2017 report) In July 2016 PF2050 was announced. Cape to City was used as an example in the announcement and has a very good chance of benefitting from PF2050.

Update The Predator Free Hawke's Bay proposal was successful and was signed off in late June 2018. This is a \$4.86m project over 4 years. *No change to this update.*

3. Work planned for 1 July – 31 December 2019

In the next 6 months the project team will focus on:

3.1 Research and monitoring

- The next research contract for 2019–20 will be signed off.
- The Te Matau a Māui Case study will be concluded.
- Work will continue to complete current contract research projects.

3.2 Community engagement and education

- There will be two more professional development teacher workshops.
- Work with Tamatea Intermediate School will continue.
- A final hīkoi is scheduled for November.
- The new PFHB website will be launched.
- The outdoor learning site as part of EIT will be open and being used by various groups. Promotional videos will be complete.

3.3 Biodiversity and species

- Work will start looking into feasibility of species translocations to Māhia.
- Numbers of seabirds returning to Poutiri Ao ō Tāne will continue to be monitored.
- It is possible more kākā will be translocated to Poutiri Ao ō Tāne.

3.4 Habitat restoration

- Planting maintenance will continue.

3.5 Predator control

- Possum eradication on Māhia will continue.
- Poutiri Ao ō Tāne extension will be completed.
- Implement wireless trap monitoring across 4,000 ha of Cape to City.

4. Conclusion

Getting the possum eradication and predator suppression underway in Whakatipu Māhia was the focus of the last 6 months. This has included employing three new team members, one to help with project management and two with predator control.

The Te Matau a Māui milestones are on track for completion by the end of 2019.

Some highlights of the period are set out below.

- Over 70 percent of Whakatipu Māhia landowners have signed up to the new RPMP. This means they now sit under the mechanism that will ensure eradication is maintained in the long term.
- A powhiri was held at Tuahuru Marae to welcome the three new trainees to the projects.
- The *Proof of possum eradication* modelling report was completed. It identified areas for greater intensification of eradication effort.
- Deployment of collared possums on Māhia, part of possum movement research, has started.
- Waitangi the tītī returned to Poutiri Ao ō Tāne once more, and brought some friends.
- Unbanded toutouwai/robins continue to be seen in Cape to City, signalling the ongoing success of the translocation.
- Two more hīkoi were run under Poutiri Ao ō Tāne – reconnecting Tangata Whenua with their whenua/land.
- The Environmental Education partnership between DOC and EIT, AirNZET, Enviroschools, Mangarara and Wildlab (Gisborne) continues to build in impact. There is now a management structure, project manager, a research programme, increased engagement with the teaching degree students, and site development. An MOU was signed between the partners, and a celebration was held accordingly.
- The PFHB logo and branding were completed and are being used.
- The Cape to City education team, in partnership with Enviroschools, ran the second of four workshops with early childhood, primary and secondary teachers on how to use the environment as a context for learning.
- Wendy Rakete-Stones and Campbell Leckie were panel members at the Crazy and Ambitious 2 conference in May.
- The team participated in another successful hui held by LCR to review the past year of research and to prioritise research for the coming year. This year the Taranaki Predator Free team joined the hui, which was valuable.

Over the next 6 months, permanent wireless trap monitoring networks will be installed in Poutiri Ao ō Tāne and Cape to City, and the Poutiri Ao ō Tāne 4,000 ha extension will be completed. As many Māhia landowners as possible will have signed the RPMP, and possum eradication will continue. The PFHB website will be completed, the Connected to Nature project will be officially launched, teacher professional development workshops will continue, and the next LCR research contract will be underway.

Appendix 2: Project outputs so far

Workstream	Title	Status	Description	Interim report date
Community engagement	<i>Backyard Biodiversity</i> teachers' resource for primary and intermediate school students (years 5-8)	Published	Teacher resource that is part of the Backyard Biodiversity education programme.	August 2015
	Cape to City on Nature Watch naturewatch.org.nz/projects/cape-to-city	Published	Cape to City set up as a project on the Nature Watch website.	August 2015
	Project pledges \$6 m for conservation	Published	<i>Hawke's Bay Today</i> 18 December 2014 – article about Te Matau a Māui signing.	August 2015
	Redressing human impact	Published	<i>Hawke's Bay Today</i> 18 December 2014 – editorial about Te Matau a Māui signing.	August 2015
	Hawke's Bay TV presentation	Published	Campbell Leckie gave a presentation on Hawke's Bay TV in June 2015 about Cape to City.	August 2015
	Nature corridor	Published	Short article on Cape to City in May 2015 issue of Bay Buzz magazine.	August 2015
	Back to the way it was	Published	Article on Cape to City in the <i>Profit</i> Magazine – May 2015 issue.	August 2015
	Cape to City on Facebook www.facebook.com/capetocity	Active	Cape to City Facebook page set up.	August 2015
	Trustworthy Biodiversity measures www.landcareresearch.co.nz/science/plants-animals-fungi/animals/birds/biodiversity-measures/research-updates	Published	Highlights the results from the Building Trustworthy Biodiversity Measures focus groups.	August 2015

Workstream	Title	Status	Description	Interim report date
Community engagement cont.	Andy Lowe gave a speech at the Deer Industry Conference www.youtube.com/watch?v=tARC D82ACy8 (4 hr 14 min)	Published	Link to Andy Lowe's speech at the Deer Industry Conference in May 2015.	August 2015
	Sir Jerry visits Sanctuary	Published	<i>Hawke's Bay Today</i> , 11 June 2015, p5. Governor General visited Cape Sanctuary with Andy Lowe and Ruud Kleinpaste; a small part of the article is about Cape to City.	August 2015
	Hawke's Bay DOC update	Completed	Dave Carlton gave a talk to the Napier branch of Forest & Bird about DOC, but focused on Te Matau a Māui.	August 2015
	Pushing for a predator-free New Zealand	Published	<i>Hawke's Bay Today</i> , 4 July 2015, pp12-13. Double-page spread of articles about Cape to City.	February 2016
	Cape to City website	Active	http://capetocity.co.nz/	February 2016
	Radio article – Rod Dickson interviewed	Published	Radio New Zealand article on morning rural news, 5 November 2015, about Cape to City (forward to 1 min 28 s). http://www.radionz.co.nz/audio/player/20177443	February 2016
	Te Matau a Māui: Māori Communications and Engagement Strategy (Draft)	Draft	Draft Māori Communications and Engagement Strategy.	February 2016
	Pair bring skills to work in Cape to City project	Published	Article in <i>Hawke's Bay Today</i> , 6 January 2016, p4 about the Sir Peter Blake Ambassadors.	August 2016
	Cape to City and Poutiri Ao ō Tāne: Education for our future	Published	An information brochure on the Te Matau a Māui Education programmes, to be distributed to parents and whanau, via schools engaged in the programmes.	August 2016

Workstream	Title	Status	Description	Interim report date
Community engagement cont.	Project document templates	Completed	A set of templates – Powerpoint, letter, factsheet and banners, designed by DOC’s Publishing team – to give all project documents across Te Matau a Māui (Cape to City and Poutiri Ao ō Tāne) a common ‘branding’ look that transcends those of individual projects and related agencies.	August 2016
	Backyard Biodiversity Teachers' Resource for Primary and intermediate school students (Years 5-8)	Published	DOC blog story about school programme done with Te Mata School.	August 2016
	Bugman helps in nature push	Published	Hawke’s Bay Today article, 5 March 2016, p.9, about education programmes.	August 2016
	Poutiri Ao ō Tāne and Cape to City overview talk	Presentation	Melissa Brignall-Theyer gave an overview talk to lower North Island Biosecurity Institute meeting – April 14 2016.	August 2016
	Cape to City Newsletter (winter 2016)	Published	Articles include: info from the rural survey, education programmes, mānuka, habitat restoration, cat trapping, toxoplasmosis and bringing nature back into peoples’ lives.	August 2016
	Digging deep to create a better world	Published	Article in <i>Hawke’s Bay Today</i> , July 2016, advertising the Clifton County Cricket Club planting day.	February 2017
	Planting for the future	Published	Article in <i>Hawke’s Bay Today</i> 25 July 2016, regarding the Clifton County Cricket club planting day.	February 2017
	Project overview talk	Completed	NETS conference presentation by Campbell, July 2016.	February 2017
	Project overview talk	Completed	Campbell and Wendy gave a talk at the BHNSC general meeting in August 2016.	February 2017
	Cape to City was included in Lou Sanson speech for Conservation Week 2016	Completed	Cape to City was included in Lou Sanson’s speech for Conservation Week 2016.	February 2017

Workstream	Title	Status	Description	Interim report date
Community engagement cont.	Poutiri Ao ō Tāne endorsed in Maungaharuru Tangitū newsletter Parikaranga, August 2016	Completed	Poutiri Ao ō Tāne endorsed in Maungaharuru Tangitū newsletter 'Parikaranga', August 2016.	February 2017
	Kaitiakitanga Hui at Waimarama	Completed	Hui held at Waimarama Marae 14 September 2016 to gauge how local Hapū want to be involved in Cape to City.	February 2017
	Kaitiakitanga Hui mentioned in Hawke's Bay today	Completed	Small piece on page 2 in the "what you need to know" section of <i>Hawke's Bay Today</i> , Thursday 15 September 2016.	February 2017
	Submission on the draft National Strategy for Environmental Education for Sustainability	Completed	Cape to City submission on the draft National Strategy for Environmental Education for Sustainability.	February 2017
	Cape to City and Poutiri Ao ō Tāne brochure	Brochure	Brochure with an overview of the projects to be used at events, etc.	February 2017
	Painting helps restore natives	Published	<i>Hastings Leader</i> p.5. Oct 19 2016. Article promoting Cape to City and Poutiri Ao ō Tāne involvement in the Hawke's Bay A&P show, and prints of 'Boundary Stream' by local artist John Staniford.	February 2017
	A closer look at Cape to City	Published	A DOC blog/intranet story providing an introduction and overview of the Cape to City project. https://blog.doc.govt.nz/2016/10/31/cape-to-city/	February 2017
	Hawke's Bay A&P show exhibit	Completed	Cape to City and Poutiri Ao ō Tāne exhibit at the Hawke's Bay A&P show.	February 2017
	New Cape to City website	Completed	A revamp of the original Cape to City website to improve efficiency, design and user friendliness. Server relocated to HBRC (December 2016).	February 2017
	Cape to City overview talk	Completed	Campbell gave a talk at the New Zealand Association of Resource Managers conference (Napier). Audience of around 150.	February 2017
Cape to City overview talk	Completed	Campbell gave a talk at the Ecological Resilience Conference in Hamilton in November 2016.	February 2017	

Workstream	Title	Status	Description	Interim report date
Community engagement cont.	Spotlight: Cape to City, in New Zealand Biodiversity Action Plan 2016-2020	Published	Spotlight: Cape to City, in New Zealand Biodiversity Action Plan 2016-2020. There is an overview of Cape to City on p.35 of the action plan.	February 2017
	Tuku Whenua - gifting of treasured lands	Published	Media release about Maungaharuru Tangitu giftback week in Jan 2017, which included Poutiri Ao ō Tāne, http://community.scoop.co.nz/2017/01/tuku-whenua-gifting-of-treasured-lands/ Also on: https://blog.doc.govt.nz/2017/01/31/tuku-whenua/	Aug 2017
	Conservation at heart of community hui at Matahiwi Marae	Published	http://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=11850278	Aug 2017
	National bird survey starts today	Published	Media article about the New Zealand Garden bird survey: http://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=11881274	Aug 2017
	Cape to City overview talks by Campbell Leckie and Andy Lowe at the Crazy and Ambitious - Biological Heritage National Science Challenge conference. May 2017	Completed	https://youtu.be/-PuaqoEK7xM	Aug 2017

Workstream	Title	Status	Description	Interim report date
Community engagement cont.	Cape to City overview talks by Campbell Leckie to various audiences	Completed	<ul style="list-style-type: none"> • Parliamentary Commissioner for the Environment staff visit 13 December 2016 – Napier • Business and innovation function 2 March 2017 – Napier • Environment and services committee (HBRC) 15 March – Napier • Corporate services group (HBRC) 17 May – Napier • Zero Invasive Predators 18 May – Wellington • OMV Group 7 June – Wellington • Minister for Research and Technology Paul Goldsmith 15 June – Napier • Regional biodiversity Implementation group 15 June – Napier • Annual pest contractors meeting 16 June – Napier 	Aug 2017
	Cape to City and Tumbleweed Ts partnership launched	Online	<p>Cape to City and Tumbleweed Tees went into partnership. Tumbleweed Tees is a t-shirt company which sells t-shirts and gives some of the properties to conservation projects.</p> <p>https://www.tumbleweedtees.com/pages/long-tailed-bat-conservation</p>	Feb 2018
	Volunteers Mulch in for tree planting scheme	Published	<i>Hastings mail</i> article p7, August 2 2017	Feb 2018
	Cape to City bird relocation success	Published	<p><i>Hawke's Bay Today</i> article p8, 23 August 2017</p> <p>http://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=11908713</p>	Feb 2018
	EIT puts green values at core with partnership	Published	<p><i>Hawke's Bay Today</i> article 30 Sept 2017</p> <p>http://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=11928164</p>	Feb 2018
	Predator Free by 2050 on Target	Published	<p><i>Hawke's Bay Today</i> 28 July 2017</p> <p>http://www2.nzherald.co.nz/the-country/news/article.cfm?c_id=16&objectid=11895429</p>	Feb 2018

Workstream	Title	Status	Description	Interim report date
Community engagement cont.	Minister wants wider use of traps in Hawke's Bay	Published	<i>Hawke's Bay Today</i> 9 th Sept 2017 http://www2.nzherald.co.nz/the-country/news/article.cfm?c_id=16&objectid=11918965	Feb 2018
	Conservation week Radio Kidnappers articles	Completed	Robyn McCool, Campbell Leckie and Melissa Brignall-Theyer were interviewed on Radio Kidnappers during Conservation week Oct 2017 on various parts of the projects.	Feb 2018
	Hawke's Bay A&P show exhibit	Completed	Cape to City and Poutiri Ao ō Tāne exhibit at the Hawke's Bay A&P show in October 2017	Feb 2018
	Transforming Biodiversity: Challenging the Boundaries Conference	Completed	Cape to City and Poutiri Ao ō Tāne conference 14-16 November 2017 http://www.capetocity.co.nz/conference/	Feb 2018
	Hawke's Bay showcases transformation for biodiversity	Published	<i>Hawke's Bay Today</i> article 22nd Nov 2017 http://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=11946397	Feb 2018
	Twitter Feed from Transforming Biodiversity Conference	Published	https://storify.com/NZBatman/transforming-biodiversity-challenging-the-boundari	Feb 2018
	Te Kaea, Māori TV episode including Poutiri Ao ō Tāne. Part of Conference	Published	Go to 18.47 min into the episode for the article http://www.maoritelevison.com/tv/shows/te-kaea/S14E320/te-kaea	Feb 2018

Workstream	Title	Status	Description	Interim report date
Community engagement cont.	Cape to City overview talks by Campbell Leckie to various audiences	Completed	<ul style="list-style-type: none"> • Biodiversity implementation planning group Napier – 3rd July • Ravensdown management team – 1 August • Biodiversity National Policy Statement working group • HBRC internal staff presentation – bite-sized lunch time talks – mid August • Minister for research, technology and innovation – 7 September • Ed Chignall CEO of Predator Free 2050 Ltd – 12 September • Māhia – key community members – 13 September • ZIP and Taranaki Mounga teams – 18 September • Transforming biodiversity conference – Napier (opening address, one talk, two panel discussions and assisting with two other talks) – 13-15 November • Spark digital team on Lora wireless technology and Cape to City – 23 November 	Feb 2018
	Cape to City and Poutiri Ao ō Tāne presentation by Wendy Rakete-Stones	Completed	Kohupatiki Marae 18 September 2017	Feb 2018
	Building home for birds and bugs	Published	Press article about the education programme outcomes at Taikura Rudolf Steiner school. <i>Hastings Leader</i> page 5, 20th Dec 2017	Feb 2018
	Poutiri Ao ō Tāne Education Review	Completed	A review of education initiatives in and around the Poutiri Ao ō Tāne project area. Information taken from interviews with education providers.	Feb 2018
	Hawke's Bay Fish and Game – Fish-out Day	Completed	Cape to City was promoted at an event organised by Fish and Game.	August 2018
	Helping the mountains roar again	Published	Article about Poutiri Ao ō Tāne in the MPI newsletter: Biosecurity 2025 (March–April 2018 edition)	August 2018
	Restoring the cloak of Papatuanuku	Published	In Living Hawke's Bay Magazine, Winter 2018 edition. About Poutiri Ao ō Tāne and seabird translocations	August 2018

Workstream	Title	Status	Description	Interim report date
Community engagement cont.	Cape to City and Poutiri Ao ō Tāne short promo film for Fieldays 2018	Completed	Short film about Cape to City and Poutiri Ao ō Tāne produced by DOC promoting Predator Free at the 2018 Fielday DOC pavilion. https://www.youtube.com/watch?v=HLJWAZ2GFvk&feature=youtu.be	August 2018
	Cape to City and Poutiri Ao ō Tāne were presented at Fieldays 2018	Completed	Posters and info provided at Fieldays in the DOC Predator Free pavilion	August 2018
	Predator Free projects shown	Published	Hastings leader, page 2, July 4th 2018. Article is about Cape to City and Poutiri Ao ō Tāne being showcased at Fieldays in Waikato	August 2018
	Origin of Poutiri Ao ō Tāne	Presentation	Trevor Taurima presented Poutiri Ao ō Tāne to the Kahungunu fish hook summit. https://www.kahungunu.iwi.nz/e--fish-hook	August 2018
	Predator Free Hawke's Bay promo film	Completed	Short film about PFHB – produced for the PFHB launch July 2018 https://youtu.be/OouMFs16NzU	August 2018
	Govt to put up \$1.6m over four years for predator-free Hawke's Bay	Published	<i>Hawke's Bay Today</i> article 2 July 2018 https://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=12081755	August 2018
	Ed Chignell: Predator Free 2050 crucial push	Published	<i>Hawke's Bay Today</i> article 3 July 2018 https://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=12081528	August 2018
	Maungaharuru-Tangitu Trust leads the way for a predator free Hawke's Bay	Published	<i>Hawke's Bay Today</i> article 7 July 2018 https://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=12083784	August 2018
	Early Childhood – Lifelong learning, by Robyn McCool and Megan McBride	Completed	Information presentation given to Environmental Education Forum participants as part of Early Childhood – Lifelong Learning-themed workshop	August 2018
	Predator Free education workshop	Completed	Napier Intermediate school (PF2050 context) teacher workshop 27 April 2018	August 2018
ECE teacher Workshop	Completed	Workshop for Early Childhood Teachers on teaching in the environment	August 2018	

Workstream	Title	Status	Description	Interim report date
Community engagement cont.	Learning in the environment presentation to EIT students	Completed	Learning in the environment presentation to EIT Bachelor of teaching Primary (BTP) students Science – Year One Candidate teachers	August 2018
	Using the Environment as a context for learning Presentation to EIT students	Completed	Using the Environment as a context for learning Presentation to EIT BTP 7.01 Pedagogy and Curriculum – Year Three Candidate teachers	August 2018
	Enviroschools Hui – Cape to City and the Air New Zealand Proposal – Presentation – 2018	Completed	Presentation on Cape to City Education and Air New Zealand proposal at Enviroschools' hui prior to work-shopping feedback from teachers on EIT Nature Time Learning Space site development	Feb 2019
	Cape to City – It's in our Nature: Nurturing Children's Wairua	Completed	Megan McBride presented at ECE Research Symposium as a guest speaker (not presenting research) on Cape to City Education: our ECE work in terms of "Nurturing Children's Wairua"	Feb 2019
	Minister endorses Pest-Free goal	Published	<i>Wairoa Star</i> 29 Aug 2018. Article about the Minister of Conservation visit to Māhia	Feb 2019
	Predator-Free Māhia is their aim	Published	<i>Gisborne Herald</i> 29 Aug 2018. Article about the Minister of Conservation visit to Māhia. http://gisborneherald.co.nz/localnews/3586349-135/a-predator-free-Māhia-is-their-aim	Feb 2019
	Cape to City presentation to Predator Free Wellington	Completed	Pouri and Wendy Rakete-Stones presented on 5 September to Capital Kiwi who are part of the PF Wellington project	Feb 2019
	Cape to City and Poutiri Ao ō Tāne presentation to Auckland DOC Partnerships team	Completed	Melissa Brignall-Theyer was invited by the Auckland DOC partnerships team 31 July to talk about what we have learned in the landscape scale restoration project context.	Feb 2019
	A&P Show Nature Shed	Completed	Focus for the Nature shed at the A&P show this year was enhancing biodiversity on farmland – Ko Tū koe, ko Rongo koe. It was a collaboration between 15 organisations. This is a 3-day event.	Feb 2019

Workstream	Title	Status	Description	Interim report date
Community engagement cont.	Predator Free New Zealand Trust workshop	Completed	Predator Free New Zealand Trust held a workshop on 30th October for all predator free groups to share and learn. Pouri Rakete-Stones, Wendy Rakete-Stones and Melissa Brignall-Theyer attended. Melissa and Pouri presented.	Feb 2019
	Garden Project Ready	Published	Article in Hastings Leader 7 Nov 2018, p1. about the blessing of the Biodiversity project developed by Taikura students after the Cape to City education programme. http://hastingsleader.communitynews.co.nz/hastings-leader/20181107	Feb 2019
	Connected to Nature 2 day workshop	Completed	As part of the Connected to Nature Air New Zealand Environment Trust grant, EIT school of education, Enviroschools, University of Waikato, Waikereru Ecosanctuary, Cape to City and Mangarara – The Family Farm came together, to develop a vision where future teachers will be able to confidently use the environment as a context for learning throughout the curriculum	Feb 2019
	Cape to City talk at Te Mata Peak	Completed	Cape to City was presented by Melissa Brignall-Theyer at Te Mata Peak as part of the Hawke’s Bay Environment Centre series on Sustainable backyards	Feb 2019
	Cape to City newsletter (Summer 2018)	Completed	https://www.capetocity.co.nz/resources/good-reads/article/33/cape-to-city-newsletter-summer-2018	Feb 2019
	Poutiri Ao ō Tāne Newsletter (November 2018)	Completed	http://www.poutiri.co.nz/wp-content/uploads/2012/05/Poutiri-Ao-o-Tane-Newsletter-Nov-2018_small.pdf	Feb 2019
	Hikoi Tutuki programme	Completed	Two Hikoi have been held so far this year. One was to the Poutiri Ao ō Tāne seabird site and the other to DOC reserves in Poutiri Ao ō Tāne.	Aug 2019
	Cadets to start pest-free work on Māhia peninsula	Published	Media article about the new cadet roles created as part of PFHB http://gisborneherald.co.nz/localnews/3993585-135/cadets-to-start-pest-free-work-on	Aug 2019

Workstream	Title	Status	Description	Interim report date
Community engagement cont.	Outdoor environmental education as a critical part of teacher education	Completed	Report by Summer Scholarship student Rachel Speedy. The scholarship was a Cape to City, EIT and University of Waikato partnership. This study was also presented at a conference	Aug 2019
	Teacher professional development workshops	Completed	Cape to City education team in partnership with Enviroschools facilitators ran a second workshop in a series of four with Early Childhood, Primary and Secondary teachers around using the environment as a context for learning. https://www.hbrc.govt.nz/our-council/news/article/691/connecting-teachers-to-nature	Aug 2019
	Crazy and Ambitious 2 Conference panels	Completed	Wendy Rakete-Stones and Campbell Leckie were members of two panel discussions around predator free topics at the conference	Aug 2019
	AirNZET EIT partnership celebration	Completed	An event was held in June at the new outdoor learning site at EIT to celebrate the signing of an MOU between EIT and AirNZET, which Cape to City is a partner. https://www.eit.ac.nz/2019/06/air-new-zealand-environment-trust-and-eit-embrace-outdoor-learning/	Aug 2019
	PFHB presentation at Kiwis for kiwi hui		Campbell Leckie presented PFHB at the Kiwis for Kiwi hui https://vimeopro.com/nakedidv/kiwis-for-kiwi-hawkes-bay-2019	Aug 2019
Pest Control	Trapped pests will trigger text message	Published	<i>Hawke's Bay Today</i> article 30 April 2015, about the launch; article syndicated by the <i>Dominion Post</i> and <i>Farmers Weekly</i>	August 2015
	Hi-tech traps target possums	Published	<i>Hawke's Bay Today</i> , 5 November 2015, p17. Article about wireless predator traps - not possums (that was a mistake in the title).	February 2016
	Farmer war on feral cats	Published	<i>Hawke's Bay Today</i> , 19 November 2015, p7. Article about the toxoplasmosis trial.	February 2016
	Cape to City: Next phase - predator control goes wireless	Published	Article in <i>Our Place</i> newsletter, November 2015 issue, p8 (HBRC publication).	February 2016
	Cat hunt after toxoplasmosis found	Published	<i>Hastings Mail</i> , 2 December 2015, p.15. Article about the toxoplasmosis trial.	February 2016

Workstream	Title	Status	Description	Interim report date
Pest Control	Traps target feral cats	Published	<i>Hastings Mail</i> , 13 April, 2016, p.8. Newspaper article about cat trapping in Cape to City.	August 2016
	Catching more rats using run-through tunnel traps	Published	ZIP article about trapping at Poutiri Ao ō Tāne. http://zip.org.nz/findings/2016/2/catching-more-rats-run-through-vs-single-entry-traps	August 2016
	New podiTRAP a long time in the making	Published	PFNZ article on PodiTRAP. November 30th 2017 https://predatorfreenz.org/new-poditraps-long-time-making/	Feb 2018
	Predator Free Hawke's Bay presentations	Completed	Campbell Leckie and Pouri Rakete-Stones presented at PF2050 Ltd March 2019 workshop	Aug 2019
Biodiversity and Species	Pāteke fly home after time away	Published	<i>Hastings Leader</i> , 27 May 2015, p.6. Article about the pāteke release.	August 2015
	Norbury, G; McLennan, J. (2015) Biodiversity and predator monitoring for Cape to City Hawke's Bay Project. Report (LC2237) prepared for Hawke's Bay Regional Council	Completed	Biodiversity monitoring plan for Cape to City.	February 2016
	Mohi Bush rodent control operation 15/16	Completed	Report on the rat control and monitoring at Mohi Bush for the robin and tomtit translocation.	August 2016
	Kōrure settling into new home	Published	<i>Hawke's Bay Today</i> article on kōrure translocation, 18 April, p.6.	August 2016
	Massive effort to restore Maungaharuru for endangered Kōrure	Published	Te Kaea, Māori TV article, 17 April 2016, on kōrure translocation. http://www.Māoritelevison.com/news/regional/massive-effort-restore-maungaharuru-endangered-korure	August 2016
	Release returns robin's song to former homes	Published	Article in <i>Hawke's Bay Today</i> 9 July 2016, regarding the toutouwai release to Cape to City.	February 2017

Workstream	Title	Status	Description	Interim report date
Biodiversity and Species cont.	The Cape to City Project: Baseline bird counts in treatment and in non-treatment area. Unpublished report by John McLennan, March 2017.	Completed	Baseline report on initial bird survey data	Aug 2017
	Re-establishing mottled petrels in the Bay	Published	Media release about the kōrure release in <i>Hawke's Bay Today</i> , 12 April 2017, p7.	Aug 2017
	Cape-to-City bird relocation success	Published	Article in <i>Hawke's Bay Today</i> 22 August 2017. http://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=11908713	Feb 2018
	Tītī discovered at nesting site	Published	Article in Hasting leader. 24 Jan 2018, p11.	August 2018
	Project returns native seabirds to Hawke's Bay range near Napier	Published	Article in <i>Hawke's Bay Today</i> 28 February 2018. http://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=12003550	August 2018
	Critter of the week	Published	Radio New Zealand article about seabirds returning to Poutiri Ao ō Tāne. https://www.radionz.co.nz/national/programmes/afternoons/audio/2018634442/critter-of-the-week-mottled-petrel	August 2018
	Kōrure Translocation	Published	DOC Blog on Kōrure translocation – series of 3. https://blog.doc.govt.nz/tag/korure-translocation/	August 2018
	New kōrure chicks relocated to Hawke's Bay's Maungaharuru Range	Published	<i>Hawke's Bay Today</i> , 17 April 2018. https://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=12034132	August 2018
	<i>BayBuzz</i> kōrure article	Published	Short article on the kōrure translocation in May–June 2018 <i>BayBuzz</i> magazine, May–June 2018	August 2018

Workstream	Title	Status	Description	Interim report date
Biodiversity and Species cont.	Shifting seabirds inland Hawke's Bay shows results	Published	This article was on TV1 6 pm news. It is about the kōrure translocation. https://www.tvnz.co.nz/one-news/new-zealand/shifting-sea-birds-inland-hawkes-bay-shows-results	August 2018
	Sagar, R. et al (In Press): Regular handling reduces corticosterone stress responses to handling but not condition of semi-precocial mottled petrel (Pterodroma inexpectata) chicks. General and Comparative Endocrinology.	In Press	Regular handling reduces corticosterone stress responses to handling but not condition of semi-precocial mottled petrel (Pterodroma inexpectata) chicks	Feb 2019
	Celebration for all the translocations to Poutiri Ao ō Tāne	Completed	On 1 Dec 2018 a special event was held at Tangoio Marae to celebrate all the translocations and thank all who have been involved over the years. People came from all over the country	Feb 2019
	Returning wingbeats to Maungaharuru worth celebrating	Published	Media release about the celebration event for all the Translocations to Poutiri Ao ō Tāne. https://www.doc.govt.nz/news/media-releases/2018/returning-wingbeats-to-maungaharuru-worth-celebrating/	Feb 2019
	Cook's petrel returns to Hawke's Bay - this time with a friend	Published	Media article about tītī returning to Poutiri Ao ō Tāne. https://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=12192492	Aug 2019
Research and monitoring	Milestones 1.1 and 1.2 report on integrated research workstream of Te Matau a Māui activities	Completed	The report summarises the main activities within the research workstream, including aligned components that are not directly related to this contract.	August 2015

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Optimising translocation efforts of mottled petrels (<i>Pterodroma inexpectata</i>): growth, provisioning, meal size and the efficacy of an artificial diet for chicks	Published	Link to Rachael Sagar's presentation at inaugural world seabird twitter conference: storify.com/Seabirders/wstc1 .	August 2015
	MacLeod, L.; Dickson, R.; Leckie, C.; Stevenson, B.; Glen, A.S. 2015: Possum control and bird recovery in an urban landscape, New Zealand. <i>Conservation Evidence</i> 12: 44-47.	Published	Bird recovery in an urban landscape.	August 2015
	Glen, A.; Dickson, R. 2015: Wide-scale predator control for biodiversity in Hawke's Bay. <i>Kararehe Kino/Vertebrate Pest Research</i> 25: 6-7.	Published	Newsletter article on wide-scale predator control.	August 2015
	Jones, C.; Norbury, G.; Glen, A.; Dickson, R. 2015: Predator control benefits native species but not rabbits. <i>Kararehe Kino/Vertebrate Pest Research</i> 25: 14-15.	Published	Newsletter article on the effects of predator control on native birds and rabbits.	August 2015
	Glen, A.; Perry, M.; Ruscoe, W. 2014: Wide-scale trapping suppresses predators and promotes biodiversity in Hawke's Bay. Proceedings of the 28 th Australasian Wildlife Management Society Conference. Brisbane, AWMS.	Conference	Effects of wide-scale predator control on biodiversity.	August 2015

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Ruscoe, W.; Glen, A.S.; Perry, M.; Forrester, G. (in prep): Impacts of rabbit grazing on pasture in Hawke's Bay, New Zealand. <i>Wildlife Research</i>	Submitted	Rabbit grazing impacts on pasture production.	August 2015 updated Aug 2016
	Norbury, G.; Jones, C. 2015: Pests controlling pests: does predator control lead to greater European rabbit abundance in Australasia? <i>Mammal Review</i> 45: 79-87.	Published	Predator and rabbit interactions.	August 2015
	Glen, A.S.; Anderson, D.; Veltman, C.J.; Garvey, P.M.; Nichols, M. 2016: Wildlife detector dogs and camera traps: a comparison of techniques for detecting feral cats. <i>New Zealand Journal of Zoology</i> , 43, 127-137	Published	Comparing techniques for detecting cats.	August 2015 - updated Aug 2016
	Nichols M, Glen AS, Garvey P, Ross J (2017). Influence of horizontal versus vertical camera placement to detect feral cats and mustelids. <i>New Zealand Journal of Ecology</i> 41, 145-150	Published	Camera-trap orientation and predator detection.	August 2015 - updated Feb 2018
	Nichols, M.; Gormley, A.; Garvey, P.; Glen, A.S.; Ross, J. (in prep): Estimating abundance of feral cats: a comparison of techniques. <i>Methods in Ecology and Evolution</i> .	In prep	Feral cat abundance estimates.	August 2015

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Garvey, P.; Nichols, M.; Glen, A.S.; Pech, R.P.; Clout, M.N. (in prep): Response of mesopredators to removal of feral cats. <i>Journal of Applied Ecology</i> .	In prep	Response of mesopredators to the removal of feral cats.	August 2015
	Glen, A.; Dickson, R.; Leckie, C. 2015: Wide-scale predator control and fauna recovery: Lessons from Hawke's Bay. NETS conference.	Conference	Biodiversity recovery following predator control.	August 2015
	Glen, A. 2014: Camera traps for monitoring pest animals. In: <i>Abstracts, NETS Conference</i> . NPCA, New Plymouth.	Conference	Camera traps.	August 2015
	Perry, M.; Glen, A.; Ruscoe, W. 2014: Quantifying rabbit damage to pasture in Hawke's Bay, New Zealand. <i>Proceedings of the 16th Australasian Vertebrate Pest Conference</i> (ed. M. Gentle). VPC, Brisbane, p.115.	Conference	Rabbit damage to pasture.	August 2015
	Milestone 2.1 (LCR contract)	Completed	Proposed strategy for radio tagging possums in the Cape to City footprint to generate detection probability data used for identifying areas of low, medium, and high possum numbers. This will enable forecasting of where and when control should be applied.	August 2015
	Milestone 2.3 (LCR contract)	Completed	The feasibility of the 'Ramsey' model (which uses occupancy data to estimate population density) for use in analysis of Poutiri Ao ō Tāne camera trap data to generate go and sigma values for feral cats is determined.	August 2015

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Milestone 2.4 (LCR contract)	Completed	A scoping report on optimising a monitoring design for Cape to City using cameras. Includes a critical review of potential gaps that should be addressed, using initial data from the Poutiri Ao ō Tāne camera trap work to date, to minimise risks associated with the use of this method.	August 2015
	Milestone 3.1 (LCR contract)	Completed	Identifies four or five possible scenarios for predator control to test, based on the actual property footprint for Cape to City. Includes the implications of 'friction surfaces' (eg poorly accessible areas) for contractors (in consultation with contractors in the project).	August 2015
	Milestone 4.4 (LCR contract)	Completed	Based on lessons from the Poutiri Ao ō Tāne project and other wide-scale predator control initiatives (eg the Aorangi proposal being developed by LCR for OSPRI), a 10-page scoping document was produced (linking to the high-level milestones developed for the Aotearoa Foundation) outlining the design for biodiversity monitoring in the Cape to City footprint.	August 2015
	Glen AS, Latham MC, Anderson D, Leckie C, Niemiec R, Pech RP, Byrom AE (2016). Landholder participation in regional-scale control of invasive predators: an adaptable landscape model. <i>Biological Invasions</i> 19, 329–338.	Published	This research models a range of landowner participation rates on the success of predator control.	February 2016 Updated August 2017
	Milestone 4.2 (LCR Contract)	Completed	Brief options paper that scopes the development of coupled social-ecological models for the Cape to City footprint in tandem with the Biological Heritage National Science Challenge.	February 2016

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Milestone 2.5 (LCR Contract)	Completed	Review of the wireless trial results (Feb/March 2015) from the perspective of operational delivery of wireless technology into the field, and analysis of the ability of wireless technology to reduce operational costs.	February 2016
	Milestone 2.6 and 2.7 (LCR Contract)	Completed	Determined how the Poutiri Ao ō Tāne trap network might be optimised for the maintenance control phase by using existing Poutiri Ao ō Tāne trap data in a simulation model, including three or four scenarios for optimal trap spacing and frequency of checks.	February 2016
	Milestone 4.3 (LCR Contract)	Completed	Report on the findings of the Biodiversity Trustworthy indicators focus groups.	February 2016
	Jones, C.; Warburton, B.; Carver, J.; Carver, D., 2015. Potential applications of wireless sensor networks for wildlife trapping and monitoring programmes. <i>Wildlife Society Bulletin</i> 39: 341-348.	Published	Potential applications of wireless sensor networks for wildlife trapping and monitoring programmes.	February 2016
	Ozarski, J. 2015: Cooperation for Mutual Benefit: Opportunities for Primary Industry and the New Zealand Department of Conservation.	Published	Report by Jill Ozarski (Fulbright fellow), who uses Poutiri Ao ō Tāne as a case study. http://www.fulbright.org.nz/publications/cooperation-for-mutual-benefit-opportunities-for-primary-industry-and-the-new-zealand-department-of-conservation-to-operate-public-private-partnerships/ . Her presentation is at: http://www.fulbright.org.nz/news/video-ian-axford-new-zealand-fellowship-seminar-jill-ozarski/ .	February 2016

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Nichols, M.; Glen, A. 2015: Camera trapping to monitor the results of predator removal on Waitere station	Completed	This report assessed the ability of camera traps as a non-invasive method for monitoring the presence of feral cats. Another objective was to determine the optimal statistical approach to estimating cat abundance from the camera trapping data.	February 2016
	Landcare Research 2015: Predator busters: Hawke's Bay predator control project. <i>Discovery</i> 40.	Published	Article in <i>Discovery</i> (issue 40, Nov 2015) about Cape to City, includes a video. This is an LCR publication: http://www.landcareresearch.co.nz/publications/newsletters/discovery/discovery-issue-40/Predator-busters	February 2016
	Lowe, A. 2015: Cape Sanctuary. <i>NZES 2015 Talk Abstracts</i> . Talk during plenary symposium 'Non-government conservation initiatives'. New Zealand Ecological Society Conference, Christchurch, November 2015: p60.	Conference	Andy Lowe's talk at the Ecological Society conference.	February 2016
	Sagar, R.L.; Leseberg, A.; Hunt, K.; Nakagawa, K.; Dunphy, B.; Rayner M.J. 2015: Optimising translocation efforts of mottled petrels (<i>Pterodroma inexpectata</i>): growth, provisioning, meal size and the efficacy of an artificial diet for chicks. <i>Emu</i> 115 (2): 137-145.	Published	Paper on optimising translocation efforts of mottled petrels	February 2016

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Sagar, R.L. 2015: Cumulative impact of handling on chick physiology, growth. World Seabird Conference 2015.	Conference	Results of the study of the cumulative impact of handling on chick physiology, growth and condition were presented at the Second World Seabird Conference, Cape Town, in October 2015.	February 2016
	Milestone 7.1 Community Survey Brief report	Completed	Brief report by Pike Brown on the Cape to City community survey done end 2015.	August 2016
	Shiny App	Completed	Prototype 'shiny app' has been developed to allow managers to predict trap catch by altering trap configurations online.	August 2016
	Pech R and Maitland M (2016) Conservation of native fauna in highly invaded systems: managing mammalian predators in New Zealand. Restoration Ecology 24, 816-820.	Published	Conservation of native fauna in highly invaded systems.	August 2016
	Niemiec, R.M., Pech, R., Norbury, G., Byrom, AE. (2017). Landowners' Perspectives on Coordinated, Landscape-Level Invasive Species Control: the Role of Social and Ecological Context. Environmental Management 59, 477-489.	Published	This paper uses the data from the Cape to City rural survey.	August 2016 Updated February 2017
	Garvey, P.M., Glen, A.S., Clout, M.N., Wyse, S.V., Nichols, M., Pech, R.P., (2017). Exploiting interspecific olfactory communication to monitor predators. Ecological Applications 27, 389-402.	Published	This paper looks at using sense of smell as communication between species as a way of monitoring predators.	August 2016 Updated February 2017

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Gormley, A.M.; Warburton, B. (in prep): Optimising a kill-trap network for cost-effective predator control.	In Prep	Optimising a kill-trap network for cost-effective predator control.	August 2016
	Glen, A.S.; Perry, M.; Yockney, I.; Cave, S.; Gormley, A.M.; Leckie, C.; Dickson, R.; Rakete-Stones, W.; Rakete-Stones, P.; Norbury, G.L.; Ruscoe, W.A. (in prep). Wide-scale predator control for biodiversity conservation: a case study from Hawke's Bay, New Zealand.	Submitted	A look at wide-scale predator control for biodiversity, using Cape to City as a case study.	August 2016 Updated February 2017
	Byrom, A.; Brignall-Theyer, M.; Brown, P.; Dickson, R.; Glen, A.; Leckie, C.; Millard, P.; Norbury, G.; Pech, R.; Warburton, B. 2015: Managing pest mammals in a whole-of-system context: a case study from Hawke's Bay. NETS conference	Conference	Managing pest mammals in a whole-of-system context: a case study from Hawke's Bay.	August 2016

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Cowan, P.; Glen, A.; Norbury, G.; Byrom, A.; Dickson, R.; Leckie, C. 2015: Scaling up: From Island to Mainland Eradication. Proceedings of Vth International Wildlife Management Congress. Sapporo, Japan.	Conference	Scaling up: From Island to Mainland Eradication.	August 2016
	Glen, A.; Anderson, D.; Veltman, C.; Garvey, P.; Nichols, M. 2015: Canine vs camera: comparing camera traps with sniffer dogs for detecting feral cats. P43 in: <i>Abstracts of the 28th Australasian Wildlife Management Society Conference</i> . Australasian Wildlife Management Society, Perth.	Conference	Comparing camera traps with sniffer dogs for detecting feral cats.	August 2016
	Innes, J.; Fitzgerald, N. 2016: Possible bird-related research in the Hawke's Bay Cape to City project. Unpublished report to Hawke's Bay Regional Council, June 2016.	Completed	Possible bird-related research in the Hawke's Bay Cape to City project.	August 2016

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Brown, S.J.; Latham, C.; Warburton, B. 2016: Cape to City Chew Card Analysis. Unpublished Landcare Research Contract Report LC2582, prepared for Hawke's Bay Regional Council.	Completed	Cape to City chew card analysis.	August 2016
	Gormley, A.M.; MacLeod, C.J. 2016: Assessment of data sources for monitoring birds in Cape to City. Unpublished Landcare Research Contract Report LC2622, prepared for Hawke's Bay Regional Council.	Completed	Assessment of data sources for monitoring birds in Cape to City.	August 2016
	Watts, C.; Holdaway, R.; Davis, C.; Wood, J.; Dickie, I.; Thomson, F.; Thornburrow, D. 2016: Novel invertebrate monitoring opportunities within Cape to City: Research Synthesis 2015/2016. Unpublished Landcare Research Contract Report LC2541, prepared for Hawke's Bay Regional Council.	Completed	Invertebrate monitoring opportunities within Cape to City.	August 2016

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Byrom, A.E. 2016: The Cape to City project and its relationship to New Zealand's Biological Heritage National Science Challenge. Invited presentation, Hawke's Bay branch of the Royal Society of New Zealand, June 2016.	Presentation	Public lecture on Cape to City.	August 2016
	Innes, J.; Fitzgerald, N. 2016: Restoring birds in Cape to City. Four-page infographic for Hawke's Bay Regional Council, June 2016.	Completed	Infographics on restoring birds in Cape to City.	August 2016
	Glen, A. 2016: Cape to City predator monitoring: initial knockdown. Unpublished Landcare Research Contract Report, prepared for Hawke's Bay Regional Council.	Completed	Report on initial knockdown phase of Cape to City.	February 2017
	Glen, A.; Norbury, G. 2016: Biodiversity monitoring in Cape to City: lizards and invertebrates. Unpublished Landcare Research Contract Report, prepared for Hawke's Bay Regional Council.	Completed	Lizard and invertebrate monitoring in Cape to City.	February 2017
	Cape to City: Pest management and restoration science at scale	Lecture	LINK Seminar in Wellington, by Campbell and Grant in July 2016. http://www.landcareresearch.co.nz/about/news/events/link-seminars	February 2017

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Norbury, G.; Leckie, C.; Dickson, R.; Glen, A.; Byrom, A.; Pech, R. 2016: Regional-scale biodiversity restoration: towards a Predator-Free New Zealand, in Conference Programme and Abstracts of the 2016 Australasian Wildlife Management Society Conference, Auckland. 29 Nov - 1 Dec, 2016.	Conference	Regional-scale biodiversity restoration using Cape to City and Poutiri Ao ō Tāne as examples.	February 2017
	Norbury, G.; Glen, A.; Pech, R.; Byrom, A.; Leckie, C.; Dickson, R. 2016: Regional-scale biodiversity restoration in Hawke's Bay: towards a Predator-Free New Zealand. Kararehe Kino Vertebrate Pest Research Newsletter, Issue 28, pp7-8.	Newsletter	Regional-scale biodiversity restoration in Hawke's Bay using Cape to City and Poutiri Ao ō Tāne as examples.	February 2017
	Warburton B, Leckie C, Rakete-Stones W. 2017. Remote monitoring traps using wireless networks. 17th Australasian Vertebrate Pest Conference. Canberra. May 1-4.	Conference	Remote monitoring traps using wireless networks	Aug 2017
	Warburton B, Jones C, Ekanayake J (2017). The economics of using wireless networks for monitoring traps. Kararehe Kino - Vertebrate Pest Research 29.	Newsletter	The economics of using wireless networks for monitoring traps	Aug 2017

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Glen A, Norbury G, Warburton B, Pech R. 2016. Predator monitoring for compliance in Cape to City: Discussion paper. Unpublished Landcare Research Contract Report, prepared for Hawke's Bay Regional Council.	Completed	Predator monitoring for compliance in Cape to City	Aug 2017
	Glen A, Norbury G, Garvey P, Dickson R. 2017. Effectiveness of feral cat control using para-aminopropiophenone (PAPP) on Toronui Station, Hawke's Bay. Unpublished Landcare Research Contract Report LC2743, prepared for Hawke's Bay Regional Council.	Completed	Effectiveness of feral cat control using para-aminopropiophenone (PAPP) on Toronui Station, Hawke's Bay	Aug 2017
	White, D. (2016). <i>Toxoplasma gondii</i> screening in cats and mice using PCR as part of the Cape to City Initiative. Unpublished Landcare Research Report, prepared for Hawke's Bay Regional Council.	Completed	<i>Toxoplasma gondii</i> screening in cats and mice using PCR as part of the Cape to City Initiative.	Aug 2017
	Flood S. 2017. Education review for TMAM – Cape to City and Poutiri Ao ō Tāne. Project discussion document. Unpublished Landcare Research Report prepared for Hawke's Bay Regional Council.	Completed	Education review for TMAM – Cape to City and Poutiri Ao ō Tāne.	Aug 2017

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Norbury G, Glen A, Pech R. 2017. Linking predator camera trap monitoring to biodiversity and economic benefits: density-impact functions in principle. Unpublished Landcare Research Scoping Report, prepared for Hawke's Bay Regional Council.	Completed	Linking predator camera trap monitoring to biodiversity and economic benefits: density-impact functions in principle.	Aug 2017
	Norbury G.; Pech R.; Glen A. (2017). Linking predator camera trap monitoring to biodiversity and economic benefits: how to derive density-impact functions for Cape-to-City. Unpublished Landcare Research followuUp report, prepared for Hawke's Bay Regional Council.	Completed	Linking predator camera trap monitoring to biodiversity and economic benefits: how to derive density-impact functions for Cape to City.	Aug 2017
	Cowan P, Warburton B. 2016. Economic outcomes of broadscale predator control in the Hawke's Bay region. Unpublished Landcare Research Contract Report LC2738, prepared for Hawke's Bay Regional Council.	Completed	Economic outcomes of broadscale predator control in the Hawke's Bay region.	Aug 2017

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Niemiec, R.M., Pech, R., Norbury, G. and Byrom, A. 2017. Policy recommendations based on landholder's perspectives on coordinated pest control. Hawke's Bay Regional Council Policy Brief 2_1_2017.	Completed	Policy recommendations based on landholder's perspectives on coordinated pest control.	Aug 2017
	Glen, A. and Norbury, G. 2017. Cape to City and Poutiri Ao ō Tāne: pest and biodiversity responses. Unpublished Landcare Research Progress Report, prepared for Hawke's Bay Regional Council.	Completed	Cape-to-City and Poutiri Ao ō Tāne: pest and biodiversity responses.	Aug 2017
	Norbury, G., Campion, WM., Brown, S., Garvey, P. 2017. Milestone 1.5 Conduct a ferret body odour longevity trial to determine how long odour lasts, and therefore how often it needs to be refreshed in the field. Unpublished Landcare Research Progress Report, prepared for Hawke's Bay Regional Council.	Completed	Ferret body odour longevity trial to determine how long odour lasts, and therefore how often it needs to be refreshed in the field.	Aug 2017
	Latham ADM, Latham MC, Warburton B 2017. Effect of predator control at Poutiri Ao ō Tāne on Boundary Stream Mainland Island.	Completed	Effect of predator control at Poutiri Ao ō Tāne on Boundary Stream Mainland Island.	Aug 2017

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Burge OR, Innes J, Fitzgerald N, Richardson SJ 2017. Habitat availability for native New Zealand bird species within the Cape-to-City footprint – a preliminary assessment.	Completed	Habitat availability for native New Zealand bird species within the Cape to City footprint	Aug 2017
	Gormley AM, Warburton B. 2017. TrapSim: A decision-support tool for simulating predator trapping. Unpublished Landcare Research Contract Report LC2993, prepared for Hawke's Bay Regional Council.	Completed	TrapSim: A decision-support tool for simulating predator trapping.	Aug 2017
	Flood S 2017. HBRC Aotearoa PFNZ: Project 5.1: Education review for TMAM – Cape to City and Poutiri Ao ō Tāne: Report on initial data analysis. Unpublished Landcare Research Contract Report, prepared for Hawke's Bay Regional Council.	Completed	Education review for TMAM – Cape to City and Poutiri Ao ō Tāne: Report on initial data analysis.	Aug 2017
	Watts C, Dopheide A, Holdaway R, Davis C, Wood J, Thornburrow D, Dickie IA 2017. DNA metabarcoding as a new tool for invertebrate community monitoring – a case study comparison with conventional techniques. Restoration Ecology.	Submitted	Comparing eDNA with conventional invertebrate sampling techniques.	Feb 2018

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Glen A 2017. Controlling feral cats on farmland with a new toxin: PAPP. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	Controlling feral cats on farmland with PAPP.	Feb 2018
	Glen A 2017. Using cameras for operational and compliance monitoring. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	Using cameras for operational and compliance monitoring.	Feb 2018
	Glen A 2017. Outcomes of predator control: responses of lizards and invertebrates. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	Responses of lizards and invertebrates to predator control.	Feb 2018
	Warburton B, Leckie C 2017. Transformational levers – wireless trap monitoring. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	Wireless trap monitoring.	Feb 2018

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Watts C 2017. Invertebrate monitoring using conventional methods and eDNA. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	Invertebrate monitoring using conventional methods and eDNA	Feb 2018
	Gormley A, Warburton B 2017. Fewer traps but still delivering large scale success-optimising trapping. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	Fewer traps but still delivering large scale success-optimising trapping	Feb 2018
	Norbury G 2017. Linking predator camera trap monitoring to biodiversity benefits. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	Linking predator camera trap monitoring to biodiversity benefits	Feb 2018
	Garvey P 2017. Long life lures - how close to reality for field use? Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	Long Life Lures	Feb 2018

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Burge O, Innes J, Fitzgerald N, Richardson S 2017. Joining the dots on habitat. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017. Presented by G Norbury	Conference	Habitat connectivity	Feb 2018
	Pech R 2017. It's about people and outcomes - landowner participation modelling. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	Socio-ecological modelling participation	Feb 2018
	Warburton B 2017. Economic outcomes of predator control. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	Economic outcomes of predator control	Feb 2018
	Norbury G, Latham D, Binny R 2017. The importance of the right foundation for predator catch data. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	The importance of the right foundation for predator catch data	Feb 2018

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Greenaway A 2017. Insight into the team – Cape to City case study. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	Insight into the Cape to City and Poutiri Ao ō Tāne Project team	Feb 2018
	Byrom A. 2017. The problem with rabbits and other perverse outcomes. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	The problem with rabbits and other perverse outcomes	Feb 2018
	Flood S 2017. Measuring education outcomes. Transforming Biodiversity Conference: 'Challenging the boundaries', Napier, 14-16 November 2017.	Conference	Measuring education outcomes	Feb 2018
	Warburton B. 2017. Economic assessment of using wireless monitoring for managing large-scale trap networks. Unpublished Landcare Research Contract Report LC2915, prepared for Hawke's Bay Regional Council.	Completed	Economic assessment of using wireless monitoring for managing large-scale trap-networks	Feb 2018

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Reynolds F, Greenaway A. 2017. Implementing social-ecological transformation through Cape-to-City and Poutiri Ao ō Tāne: an interim case study report. Unpublished Landcare Research Contract Report, prepared for Hawke's Bay Regional Council.	Completed	Implementing social-ecological transformation through Cape to City and Poutiri Ao ō Tāne	Feb 2018
	Watts C, Dopheide A, Holdaway R, Davis C, Wood J, Thornburrow D, Dickie IA 2017. DNA metabarcoding as a new tool for invertebrate community monitoring – a case study comparison with conventional techniques. Unpublished Landcare Research Contract Report, prepared for Hawke's Bay Regional Council.	Completed	DNA metabarcoding as a new tool for invertebrate community monitoring – a case study comparison with conventional techniques	Feb 2018
	Norbury G, Binny R, Latham D. 2018. Milestone 3.3 National framework for pest density-impact functions. Unpublished Landcare Research Report, prepared for Hawke's Bay Regional Council.	Completed	The importance of developing a national framework for pest density-impact functions. These functions show the level of pest control required for to get biodiversity gains for different native species.	August 2018

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Latham ADM, Binny RN, Norbury G. 2018. National framework for predator monitoring using trap-catch data. Unpublished Landcare Research Report LC3112, prepared for Hawke's Bay Regional Council.	Completed	Report on using trap catch data as a monitoring tool and the need for a national framework, so that data is captured consistently.	August 2018
	White, D.; Tompkins, D. (2017). Progress report on impact of cat trapping on prevalence of <i>Toxoplasma gondii</i> in 1-year-old ewes as part of the Cape to City Initiative. Unpublished Landcare Research Report, prepared for Hawke's Bay Regional Council.	Completed	Progress report on impact of cat trapping on prevalence of <i>Toxoplasma gondii</i> in 1-year-old ewes as part of the Cape to City initiative.	August 2018
	Garvey, PM, Glen, AS, Clout, MN, Nichols, M and Pech, RP (submitted). Niche partitioning in a guild of invasive mammalian predators. <i>Journal of Animal Ecology</i> .	Submitted	Research paper on niche partitioning in a guild of invasive mammalian predators. Submitted to <i>Journal of Animal Ecology</i> .	August 2018
	Nichols, M, Glen, AS, Ross, J and Garvey, PM (submitted). A comparison of statistical modelling methods for evaluating the effectiveness of a feral cat control operation using camera traps. <i>Wildlife Research</i> .	Submitted	Research paper on a comparison of statistical modelling methods for evaluating the effectiveness of a feral cat control operation using camera traps. Submitted to <i>Wildlife Research</i> .	August 2018

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Glen A, Norbury G, Warburton B. 2018. Socially acceptable compliance monitoring of predators. Unpublished Landcare Research Report LC3160, prepared for Hawke's Bay Regional Council.	Completed	Report on socially acceptable compliance monitoring of predators.	August 2018
	Greenaway, A., July 2018. Exploring NZ's capacity to care for the environment. NZGS-IAG Conference 'Creative conversations, constructive connections'. The University of Auckland, New Zealand.	Conference presentation	Presentation which included the Cape to City social transformation case study.	August 2018
	Norbury, G. (2018). Pest projects – Cape to City and Taranaki Mouna. Invited speaker at Department of Conservation Lower South Island Partnerships Team Meeting. Alexandra, April 17.	Completed	Talk on Pest projects – Cape to City and Taranaki Mouna to DOC partnerships team.	August 2018
	Garvey, P. M. (2016). Interspecific competition and olfactory communication between New Zealand's invasive predators. PhD Thesis, University of Auckland, Auckland	PhD thesis	Communication through olfaction between New Zealand invasive predators.	August 2018

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Nichols, M. (2017). Optimal monitoring and statistical modelling methods for feral cats and other mammalian predators in a pastoral landscape. PhD Thesis, Lincoln University, Lincoln	PhD thesis	Mostly based around using motion sensitive cameras as a monitoring tool.	August 2018
	Garvey, P., Glen, A., Clout, M., Nichols, M., and Pech, R. (2018). Alien encounters: Community ecology in a system dominated by invasive mammalian predators. In 'Proceedings of the Gordon Research Conference on Predator-Prey Interactions.' (Ventura)	Conference presentation	Alien encounters: Community ecology in a system dominated by invasive mammalian predators.	August 2018
	Flood S, Brignall-Theyer M, McBride M, McCool R. Empowering students, teachers and communities in conservation: a review of the cape to City environmental education programme. New Zealand Association for Environmental Education (NZAEE) 9th Biennial Conference: An Ecosystem for Environmental Education - He Pūnaha Hauropi mō te mātauranga a taiao), Wellington, April 2018.	Conference presentation	Empowering students, teachers and communities in conservation: a review of the cape to City environmental education programme.	August 2018

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Glen AS, Perry M, Yockney I, Cave S, Gormley AM, Leckie C, Dickson R, Rakete-Stones W, Rakete-Stones P, Norbury GL, Ruscoe WA (2018). Wide-scale predator control for biodiversity conservation: a case study from Hawke's Bay, New Zealand. <i>New Zealand Journal of Ecology</i> . 43: 3358	Completed	A research paper using the Poutiri Ao ō Tāne biodiversity and predator monitoring data from the widescale predator control.	Feb 2019
	Watts C, Dopheide A, Holdaway R, Davis C, Wood J, Thornburrow D, Dickie IA (accepted). DNA metabarcoding as a new tool for invertebrate community monitoring - a case study comparison with conventional techniques. <i>Restoration Ecology</i> .	Completed	DNA metabarcoding as a new tool for invertebrate community monitoring - a case study comparison with conventional techniques.	Feb 2019
	Glen A, Norbury G 2018. Biodiversity monitoring in Cape to City and Poutiri Ao ō Tāne: Summer 2018 progress report. Unpublished Landcare Research Report prepared for Hawke's Bay Regional Council.	Completed	Biodiversity monitoring in Cape to City and Poutiri Ao ō Tāne: Summer 2018 progress report.	Feb 2019

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Lustig A 2018. Progress on socio-ecological modelling of Cape to City project. Unpublished Landcare Research Report prepared for Hawke's Bay Regional Council.	Completed	Progress on socio-ecological modelling of Cape to City project.	Feb 2019
	Watts C 2018. Review of threatened and iconic plant, bat, lizard, frog, terrestrial invertebrate, and fungi species in Cape to City and Poutiri Ao ō Tāne. Unpublished Landcare Research Contract Report LC3283, prepared for Hawke's Bay Regional Council.	Completed	Review of threatened and iconic plant, bat, lizard, frog, terrestrial invertebrate, and fungi species in Cape to City and Poutiri Ao ō Tāne.	Feb 2019
	Nelson T. 2018. Te Matau a Māui: Kaupapa Māori research to restore biodiversity in Hawke's Bay. Unpublished Contract Report, prepared for Hawke's Bay Regional Council.	Completed	Te Matau a Māui: Kaupapa Māori research to restore biodiversity in Hawke's Bay.	Feb 2019
	Garvey P, Norbury G 2018. Development of ferret lure for wildlife management. Unpublished Landcare Research Report LC3375, prepared for Hawke's Bay Regional Council.	Completed	Development of ferret lure for wildlife management.	Feb 2019

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Flood S (edited by Kannemeyer R) 2018. Cape to City environmental education programme review. Unpublished Landcare Research Report LC3374, prepared for Hawke's Bay Regional Council.	Completed	Cape to City environmental education programme review.	Feb 2019
	Watts C, Richardson S, Dopheide A, Thronburrow D 2018. The habitat value of mānuka for invertebrates following the establishment of a mānuka plantation: project plan. Unpublished Landcare Research Contract Report LC3341, prepared for Hawke's Bay Regional Council.	Completed	The habitat value of mānuka for invertebrates following the establishment of a mānuka plantation: project plan.	Feb 2019
	Howard S, Gormley A. 2018. TrapSim for Whakatipu Māhia. Unpublished Landcare Research Contract Report LC3378, prepared for Hawke's Bay Regional Council.	Completed	TrapSim for Whakatipu Māhia.	Feb 2019
	Norbury G. 2018. Predator Free NZ. Invited speaker at University of the Third Age. Alexandra, August 3.	Completed	Predator free NZ	Feb 2019

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Latham, M.C., Latham A.D.M (2018) Predator Trap optimisation for Poutiri Ao ō Tāne. Unpublished Contract Report LC3402. Manaaki Whenua	Completed	Predator Trap optimisation for Poutiri Ao ō Tāne.	Aug 2019
	Lustig, A., Gormley, A (2019) Whakatipu Māhia possum eradication modelling. Unpublished contract Report: LC3455. Manaaki Whenua	Completed	Whakatipu Māhia possum eradication modelling	Aug 2019
	Sweetapple, P., Latham, D (2019) Interim report: Possum home range and movement behaviour in Māhia Peninsula. Unpublished	Completed	Update on possum home range and movement behaviour in Māhia Peninsula	Aug 2019
	Martha C. Monroe, Alison E. Adams & Alison Greenaway (2019) Considering research paradigms in environmental education, Environmental Education Research, 25:3, 309-313, DOI: 10.1080/13504622.2019.1610863	Published	Considering research paradigms in environmental education, Environmental Education Research	Aug 2019
	Glen A, Norbury G, Watts C. 2019. Predator and biodiversity response monitoring in Cape to City and Poutiri Ao ō Tāne. Unpublished Manaaki Whenua Report prepared for Hawke's Bay Regional Council.	Completed	Predator and biodiversity response monitoring in Cape to City and Poutiri Ao ō Tāne.	Aug 2019

Workstream	Title	Status	Description	Interim report date
Research and monitoring cont.	Latham MC, Glen A 2019. Power analysis for biodiversity monitoring in Cape to City. Unpublished Manaaki Whenua Contract Report LCxxxx, prepared for Hawke's Bay Regional Council.	Completed	Power analysis for biodiversity monitoring in Cape to City.	Aug 2019
	Predator Free NZ aspirations, and central Otago's Mokonoko Dryland Sanctuary	Completed	Norbury G 2019. Predator Free NZ aspirations, and central Otago's Mokonoko Dryland Sanctuary. Invited speaker to Mokihi Trust. Cromwell, March 27.	Aug 2019