ECONET STRATEGIC PLAN (2020)

Improving conservation outcomes through integrated IT systems

WHAT IS ECONET

EcoNet is a Charitable Trust focussed on making IT in conservation more connected and accessible for more people.

We are determined to see more integrated, friendly, and functional software for individuals, groups or contractors working in conservation.

EcoNet will help bring together data and communities so conservation outcomes can be analysed and improved.

WHAT WE DO

EcoNet improves conservation outcomes by collaborating on information technology systems and data sharing to support and engage communities in conservation activities.

WHAT WE WANT TO SEE

EcoNet envisions a world where:

- Excellent information technology and knowledge systems make conservation easier, more attractive and collaborative
- Conservation groups grow strongly and more New Zealanders are actively contributing to conservation
- Conservation data standards enable collaborative systems to deliver shared data - this enables ongoing refinement of conservation techniques and monitoring of progress
- Evolving conservation best practice is dynamically disseminated to a wide range of groups and individuals.
- New technologies are developed and deployed efficiently through user-friendly, open and continuously improving systems

WHY DO WE NEED ECONET?

New Zealand/Aotearoa aims to be predator free by 2050. Pest free goals will require millions of hours of work from meaningfully deployed, actively engaged New Zealanders. Organisations, businesses, informal groups, as citizen scientists or as whanau or individuals will be a part of this.

Achieving this goal is not just an in-field conservation challenge, it is also an information management and social engagement challenge.

Current conservation IT is too fragmented to respond to these challenges. New Zealand needs integrated, collaborative information technology systems and standards to engage a much wider spectrum of community activities.

Specialist expertise in information technology and stakeholder engagement is necessary to achieve the required rapid acceleration and expansion of conservation efforts.

WHAT ARE PEOPLE TELLING US

Chair of a restoration network: Volunteers and contractors need easy to use, powerful tools that give access to an integrated view of existing information and enable them to maintain the body of knowledge to a high and consistent standard with flexibility for growth. I need the tools to manage and monitor this work.

Coordinator of a pest eradication group: I'm struggling with many spreadsheets and disconnected systems, which prevent me communicating easily with our volunteers and funders how we are doing and what needs to be done. I want to be able to budget, schedule, monitor and reward group and individual activities and share progress and volunteer hours with funders and stakeholders..

Contractor or company manager: Good quality technology that allows me to schedule and manage my staff activities and observations will allow us to be more efficient. It will also allow us to enjoy two-way sharing of information about pest locations and work undertaken with Council and voluntary groups - but without reducing my competitive advantage or compromising my proprietary or commercially-sensitive information.

Council conservation manager: Council and department managers have no mechanism to get a landscape scale overview of what is happening across organisational silos, contractors and volunteer groups - this creates gaps and overlaps, wasting time and money.

Employee of a conservation organisation:. A smart IT tool that can be used in the field would enable me to record my work in a more consistent way to benefit my employer and others working to eradicate pests.

Volunteer: As someone who wants to help with the eradication of pests in New Zealand, I want to be able to understand what I can do to help, even if it is as simple as reporting a pest sighting. I would like to have a checklist of things to do and things done. I would like to see how my work contributes to PF2050 and I would like to see how my work fits with what everyone else is doing - ideally in a map or graphical format..

Property manager: I am responsible for maintaining my properties, to minimise plant and animals pests. Good IT will help me. I need help to define protection zones around threats or protected species.

Bush block owner (private): we want to see on a map what devices/methods our animal and plant pest control contractors have deployed on our block and the species they have controlled. I want seasonal reminders to repeat weed control work with a record of activities so I can track their cost effectiveness. I want to plot the location of kauri on my block as a reminder to contractors to observe phytosanitary precautions.

Politician: I support the Government policy to eradicate pest species from New Zealand by 2050. I am also aware of a rising public interest in activities that will help preserve the native flora and fauna of Aotearoa. With constraints on budgets, we need to ensure that we maximise collaboration on activities and information management across agencies, businesses and volunteer groups. Good tools will help to optimise and demonstrate achievements. I would like to see a broad spectrum of the population engaged at home, at work and in their community.

Researcher or teacher: I am aware of many organisations that collect pest information and my research and teaching would benefit from being able to search, filter, download, compare, collate and analyse pest data. Having all the information from across the country collected and presented in a consistent, structured and time & geo-referenced manner would assist. I am happy to share my data provided I know it will be properly managed according to best practice.

Software vendor/developer: I need well defined, non-proprietary, data standards and business rules that allow my team to develop optimal systems that are easy to use, fit for purpose and support data sharing and interoperability. I need a reputable

community of professionals which set and maintain these standards and databases, so I have the confidence to plan my product around third-party data sources.

WHO WE ARE WORKING WITH

EcoNet trustees and Advisory Board members have spoken to many stakeholder representatives working in a wide range of conservation and ecological improvement projects across New Zealand/Aotearoa. EcoNet believes the engagement of conservation sector stakeholders is core to achieving our vision, mission and goals.

We are committed to working with a wider group of partners including:
- Mana whenua
- Funders (donors, central and local government)
- Data standards agencies
- Software and technology vendors
- Local government and national elected representatives
- Educators, researchers and students
- Not for profit conservation and community groups.

OUR GOALS

- EcoNet has a comprehensive view of conservation IT systems and processes and overview of the gaps & needs
- EcoNet ensures conservation groups have access to excellent IT tools and support
- EcoNet is an active advocate for the development of comprehensive conservation data standards
- EcoNet ensures that software users collect conservation data in an agreed, nationally standardised format
- EcoNet facilitates sector wide conservation data aggregation
- EcoNet supports and educates community conservation groups to improve systems and processes
- EcoNet advocates on behalf of community groups for better IT systems

OUR TRUSTEES

Dr Richard Hursthouse, Chair

Richard has worked as a volunteer leader on various conservation projects on the North Shore for 30 years, including the Centennial Park and Tuff Crater environmental restoration projects. He currently chairs Centennial Park Bush Society, Restore Hibiscus & Bays, and EcoNet. He is on the board of Pest Free Kaipatiki, Forest & Bird and has been chair of Forest & Bird North Shore Branch.

Keith Salmon

Keith has been involved in Le Roys Bush, on Auckland's North Shore since 2006. A keen member of the Kaipatiki Restoration Network from 2009 and Pest Free Kaipatiki from 2016. Now full-time in a voluntary role in conservation projects, Keith worked for 40 years in information technology in a range of jobs including PeopleSoft implementations. From 2006 to 2016, he implemented and supported a large customer relationship management system.

Annalily van den Broeke

Annalily is chair of Forest and Bird Waitakere. She brings strong volunteer, ground-up, advocacy to the EcoNet board with her background in not-for-profit conservation project management with Bethells Bufferzone and Matuku Link. She has a background in public arts and museum project management in the Netherlands and Auckland. Annalily advocates strongly for volunteer community groups. In her work she has discovered that tools which connect volunteer conservation project management with people, place and outcomes are not available, making volunteer management and contribution difficult to measure and reward.

OUR ADVISORS

Olivia Rothwell

Olivia has been working at the intersection of conservation and technology for over 9 years, and has been at the forefront of the design and roll-out of conservation technology and data management programmes for organisations/companies including the Zoological Society of London, SMART Partnership, United for Wildlife, Encounter Solutions Limited, Predator Free 2050 Ltd and EcoTrack. Olivia is a strong believer that innovation is crucial in solving current challenges in conservation. She feels that with the support of collaborative initiatives like EcoNet, community groups across New Zealand can achieve rapid, scalable, and

successful conservation.

Craig Steed

Craig has been involved in the health IT sector for over 30 years, in a number of roles including solution architect, development manager and technical services manager. He specialises in databases, data analysis and technical integration, and brings knowledge of data sharing and integration in the health sector based on the Health Level 7 standard, which enabled broad and deep integration between health IT systems.

Andrew Rossaak

Andrew Rossaak has over 20 years of ecological and environmental experience gained in southern Africa, Antarctica and New Zealand. Andrew's experience across these diverse regions has provided extensive understanding in the design and implementation of environmental, ecological and protected area projects at scales from a few hectares to many thousand. Andrew is particularly interested in rural landscapes, watercourses, wetlands, biodiversity management and systematic 'big picture' understandings and decision support systems. Andrew is the Science Team Leader at Morphum Environmental where he enjoys working with a skilled team on a broad range of projects. When Andrew is not working, you will find him pursuing his hobbies of sailing, flying and walking with his family.

Simon Fraser

Simon has worked in IT for more than 25 years, designing and developing cloud-based web and mobile applications. He has specialised in building geo-spatial applications for real-time management of projects, including data visualisation, route-planning, asset tracking, and work allocation. Today he's very interested in the role geo-spatial software can play in conservation, including citizen science, tracking pest species, planning, prioritising, and costing of conservation projects.