
THE ROLE OF A WEED MANAGEMENT AGENCY – A SMART APPROACH TO DELIVERING INNOVATIVE BIOSECURITY SERVICES

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Dave has been the Senior Portfolio Manager (Biosecurity) at Land Information New Zealand (LINZ) since 2012, moving into this position from a policy role at LINZ, which also had a biosecurity component. Dave has spent his career in a variety of technical and management roles at LINZ and its predecessor departments, specialising in the geospatial areas of topographic mapping and hydrographic charting, which LINZ took over from the Navy in 1996.

ABSTRACT

Over the past year, Land Information New Zealand (LINZ) has taken a new approach to biosecurity as a result of significant external factors and a new, organisation-wide 10 year vision. We have reviewed our biosecurity aims and goals, and re-examined the tools and processes that determine our ability to fulfil these overarching outcomes and objectives.

Our new thinking about biosecurity has been informed by what we call SMART procurement, and this approach has encouraged innovation, ensured a better focus on outcomes, and laid the foundations for a truly strategic partnership with our suppliers. This presentation will outline our SMART philosophy, and offer some thoughts on its benefits over traditional models of biosecurity management, focusing in particular on our aquatic weed control work.

TRANSCRIPT

Thank you for the introduction, I should point out that I am not a practitioner. I picked up the biosecurity portfolio about 6 years ago and found it fascinating. Through that time I have been involved with new legislation with the Biosecurity Act and an opportunity came up to cross the fence into operations and I have been in this position for the last 2½ years.

I would also like to applaud the two previous speakers who were brilliant. I was concerned initially that what I will talk about may have cross over, but thankfully not. I echo and reinforce what they talked about. I will take a different tact and talk about the significant transformation within LINZ over the last 12-24 months; a snapshot looking at the past, the present and future direction of LINZ biosecurity. In my area we hope to take more of a leadership role. We have introduced a new business model which will hopefully provoke some thinking amongst the agencies here that can be applied to your type of work.

The Role of a Weed Management Agency

I would like to begin with a bit of context and look at the big picture. **(Slide 1)** We all play a part in enhancing or maintaining those biodiversity values that we hold so dear, unique New Zealand values which enhance our environment for recreation, economic purposes, cultural identity and of course the health of the environment. When I first came into the job I wanted to see where LINZ biosecurity saw itself at the time, its position and looking forward. How did LINZ want to position itself in the future?

Slide 1

The bigger picture – NZ Inc. 

Recreational use Economic potential
Environmental health Cultural identity



LINZ's Role as a Weed Management Agency

On behalf of the Crown governed by the Land Act 1948, LINZ manages roughly 8% of New Zealand land which equates to about 3 million hectares. This includes some of the iconic high country pastoral leased farms and a number of iconic lakes, most of which are in the South Island, such as Lakes Pukaki, Benmore, Whakatipu and Wanaka. **(Slide 2)**

Slide 2

Some of NZ's iconic lakes.... 



We have a special role with the Rotorua Lakes since the Te Arawa settlement in 2006. **(Slide 3)** We co-manage these lakes and I will describe that later on.

Slide 3



We manage some of the rivers shown in **Slide 4**. Top left is part of the Tasman River with Mount Cook in the background, Waimakariri on the top right and the Shotover.

Slide 4



LINZ's Biosecurity Programme

Among LINZ's management activities is its biosecurity programme. We have an annual appropriation of about \$1.5 million, which is ring fenced, and together with partner contributions it is about \$2 million a year we spend, half of which goes on aquatic weed control. That leaves another million dollars to spread, and the big ticket items are wilding pines which is very topical at the moment and our old favourite gorse and broom and to a lesser degree rabbits. **(Slide 5)**

Slide 5



What we do....

- LINZ spends approximately \$2million per annum including partner contributions – almost half is spent on aquatic weed control



We prioritise funding at two levels:

- Compliance or acting as a responsible land owner
 - Relevant standards and legislation
 - Compliance with Regional pest management strategies
 - Act as a responsible land owner and good neighbour
- At a site level
 - Site value + risk of spread + cost benefit
- Types of programmes
 - Eradication/exclusion
 - Progressive containment
 - Sustained containment

We need to be compliant and work under the Biosecurity Act and other relevant legislation. We also work closely with the Regional Pest Management Strategies to ensure there is compliance, but just as importantly LINZ consider ourselves a responsible land owner and good neighbour. There will be more about this good neighbourliness when the new legislation comes in shortly, but that is another story.

At a lower level we look regionally and establish plans on the principles behind site value, the risk of spread and the cost benefit. That is how we would approach a programme and that then translates to the type of programme to employ. Some examples are eradication and exclusion, such as at Lake Whakatipu which is considered weed free at this stage so

we would just undertake a monitoring programme. If we find the occasional weed then it is removed.

A good example of progressive containment is in Lake Wanaka where we are completing a 10 year strategy plan and it has worked very well. NIWA are reviewing that plan for another 10 years. We have progressively rolled that weed back and it is almost near the Wanaka township. Anything north of the containment line is now classed at eradication or exclusion and suction-dredged or hand-picked.

We cannot say the same for Lake Dunstan at the other end of the Clutha River which flows out of Wanaka and into Dunstan. There we are obliged to undertake a sustained control and concentrate on the high value which is all we can do because it is not going to go away until the problem upstream is fixed. There is an additional site led programme, we have one or two but they are just sites.

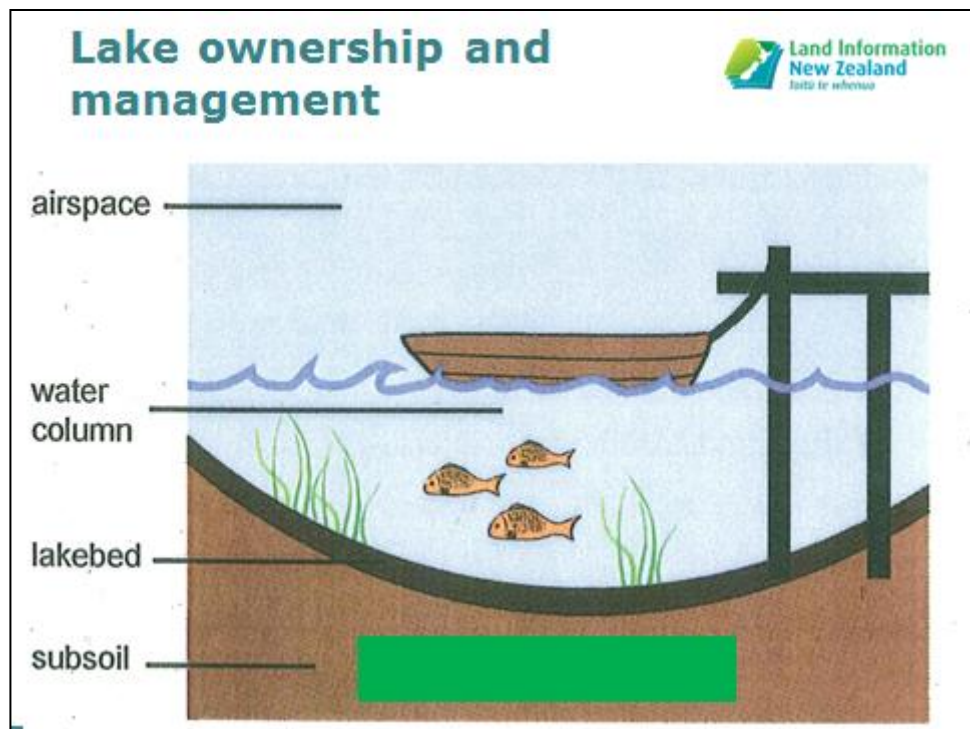
How We Operate

Up until recently LINZ has used a traditional outsource and contract model. In 2009 we contracted Boffa Miskell that is an environmental consultancy company based in Christchurch with offices in Wellington, Tauranga and Auckland. They are my operational arm and consult and develop together the annual work programmes, run the contracts use sub-contractors, do post-control audits, etc.

Let's talk about lakes. We use traditional herbicide control methods, diquat and endothal. It comes down to what is most appropriate and cost effective, diver-based control, weed harvesting or weed cordons. We would consider alternative biocontrol methods such as the use of grass carp, provided they were ultimately viable.

Lake Ownership and Management

Slide 6



Ownership or management of lakes is complicated and it took a while to get my head around it. For Crown owned lakes LINZ owns the stratum which consists of the subsoil, the lake bed, the space where the water is and the air. **(Slide 6)** But of course there are other organisations and interested parties involved that make up the successful achievement of our business requirements and goals. **(Slide 7)**

Slide 7



For instance the Regional Council has an interest in the water column and the District Council has an interest in the structures around it. DOC looks after margin strips and biodiversity values, Fish and Game for the fish and game. The difference with the Rotorua Lakes is that from 2006 the lake bed and subsoil was handed to Te Arawa and we retained the stratum for above the lake bed to the air, and the weeds, but the rest stays the same.

Success Relies on Working with Others

There has been a lot of talk over the last couple of days of collaboration and the need for team work and I can only reinforce that going forward. Success relies on working with others and I treat this on two levels. On a national scale it is very important LINZ and most of you here work with MPI and other Crown agencies like DOC in the overarching policy and governance roles.

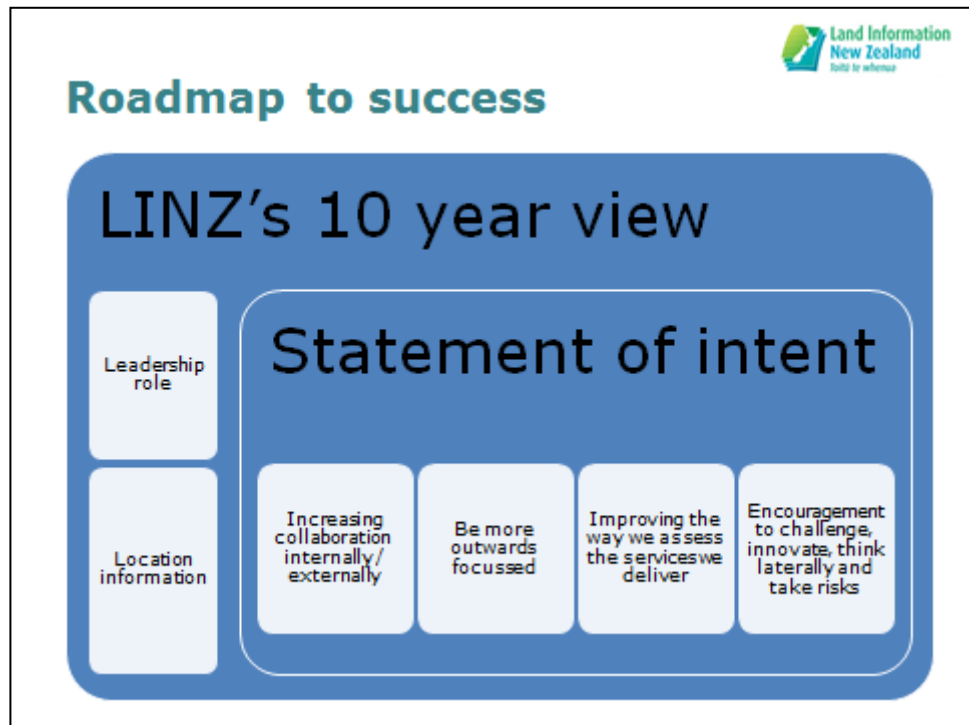
At a regional level we can establish relationships or partnerships to achieve our business goals. Lake Benmore, for example, there is a partnership with Meridian Energy. They have their own drivers for hydro-electricity and we have ours, but jointly fund an annual programme and have a strategy going forward. In Rotorua we have the Aquatic Pest Coordinating Group (Aptag) which consists of LINZ, Regional Council, District Council, Te Arawa, Fish and Game and DOC and together there is joint funding, the bulk is for weed management, mostly LINZ but Bay of Plenty do contribute.

Wanaka is probably the most successful lake we have with all the same stakeholders as well as the Guardians of the Lake which is like a Trust. But the plan that we have in place

there has been a real success story. If we could adopt that type of model going forward here it would be great, because the success over the last 10 years has been so noticeable.

Future Role of LINZ as a Weed Management Agency

Slide 8



In mid-2013 LINZ and the whole system went through a huge transition. **(Slide 8)** Within LINZ a new chief executive brought fresh ideas and a 10 year vision called 'The Power of Where' which is a powerful value proposition. This vision promotes leadership, the first key word. LINZ's Statement of Intent also contains 4 clear messages:

- to promote collaboration
- to be more outwards focussed
- to effectively improve our services
- to challenge ourselves to be innovative and take risks

Historically, reasons for not doing things rather than reasons for doing things existed, but we have changed that paradigm to challenge ourselves and go forward and 'just do it'.

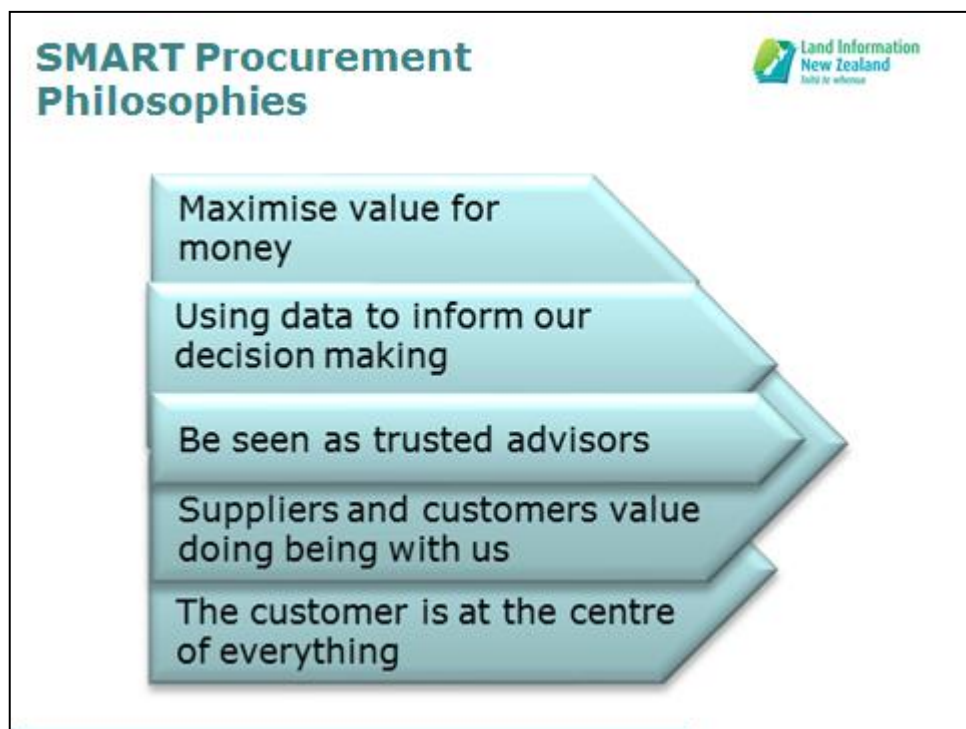
At that same time the contract with Boffa Miskell was about to expire. For the previous five years they had performed very well, establishing relationships with our stakeholders and maintaining them extraordinarily well. There were also external things happening as we came out of a recession. There was a zero budget and we had to do the best we could with what we had which was not much. Importantly there were changes to legislation based around a complete review of the biosecurity system undertaken by MPI which started around 2009 and is still rolling out. It is huge culminating with the national plan of action which has effectively replaced the biosecurity strategy of 2003.

There were some extenuating factors in terms of a supplier and a direction for LINZ biosecurity going forward. Taking all these things into consideration, internal factors and our new direction for LINZ plus the externalities, we came up with three key drivers:

- It had to be outcome focussed to think longer term, more sustainable and do the best we can with what we have and aligning with stakeholders
- It was about legislation and compliance to protect LINZ's interest
- To provide a better public service and value for money, common sense to be smarter.

LINZ has adopted SMART procurement philosophies. **(Slide 9)** SMART is an acronym used in many ways, I am not sure what SMART stands for in this case but these are the principles behind our SMART philosophy. What I have learnt over the last 12 months is that things that I previously thought not possible can be done and very easily.

Slide 9



On 1 July 2014 LINZ entered a 10 year strategic partnership with Boffa Miskell that was the first of its kind, certainly for LINZ and Boffa, and probably the first of the kind across government because it is a true partnership. MBIE are treating this partnership as a case study and there is interest in this particular model going forward. It is a true partnership. What was a 62 page very prescriptive contract is now 2 pages and suits the outcomes that we want. Previously, like most contracts, it was so prescribed that you tell the contractor how to do their jobs. In this case you know there are controls in place like health and safety, which fulfils that prescription.

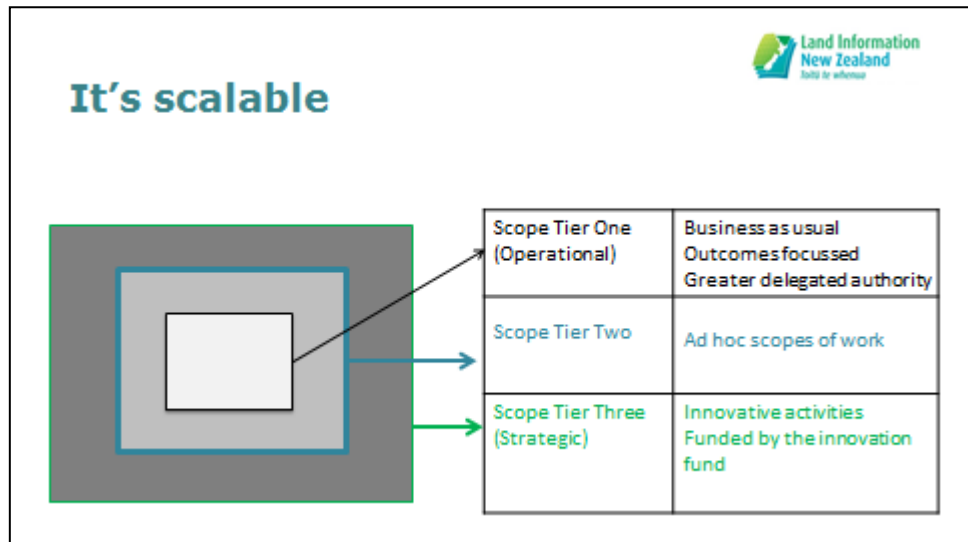
Both parties are working towards a mutual goal striving for mutual gain:

- vested in each other's business
- committed to learning from each other
- measures consider how successful the partnership is, not how well the work is done
- innovation underpins our purpose

In a similar vein we have an MOU between the two agencies and have established a governance board, and it's important to note the individual make-up of that Board. On the LINZ side there are three, myself as the business owner, a representative from Policy to ensure that we are not pushing too far outside our remit and to make us aware of relevant legislation and strategies that might be appropriate for the partnership going forward. The third is the Procurement Manager who understands the business and provides an effective procurement system and process.

This business model is future proof. It promotes collaboration and ensures alignment with our stakeholder's outcomes and objectives. It shares technology with our stakeholders and also resources and information. In terms of measuring our success, we have a list of no more than five or six key success indicators (KSIs) such as partnership effectiveness and relationship health. We measure the performance of the partnership as opposed to the performance of the services. The KSIs are based around risk, such as preserving the reputation of both chief executives and the minister, operational health and safety, and success factors around the delivery of strategies and programmes. These are measured annually and have targets. There is a matrix on the health of the partnership, where we started from and where we want to be and individuals mark off where we are. Where we are not measuring up we can identify those areas and take remedial action.

Slide 10



This model is also scalable and **Slide 10** shows the makeup of the partnership. Tier 1 is business as usual, our core business, the annual programme and the expert advice, relationship management, everything to do with our key goals. Tier 2 promotes ourselves as a centre of expertise to provide advice and pick up biosecurity work where it seems beneficial or more effective for us to do so, whether that is from another business group within LINZ or an external stakeholder. An example could be that if down the track LINZ would pick up the properties in the red zone area of Christchurch. Currently it would be a Tier 2 that would come with a resource and eventually it might come to Tier 1 as business as usual.

Tier 3 is the exciting fun part. We have established an innovation fund where both parties put in a significant amount annually, capped at \$60,000 at the moment, for more effective and efficient business functions. Now we have an innovation register, a log, where the board consider ideas. The fund is for innovative tools and investment in research education or if a programme is failing somewhere we have the capability to pump it back

into a programme. There is growing capability in the sector. We can think outside the square and come up with these innovative ideas on how and where to succeed.

The first purchase has been a drone and this has taken on a life of its own with the amount of interest not only by colleagues and other business groups, but external parties. We talked to MPI, the Police and everyone is talking about drones. We have purchased it for our own business requirements for surveillance or monitoring areas that we cannot access currently or with the use of a helicopter. A helicopter costs \$2,000 an hour, this just needs someone to drive it.

LINZ is the national mapping agency and home to a lot of public spatial information, which is made available - but can it be made available in a more accessible form. There are a couple of tools here which have wider applications using and sharing location information. We have recently introduced a new service called LINZMaps which is not available externally but will be shortly. It is a visualisation tool, web based and takes information largely the same layers as on LDS and puts it in a web view and we can add as many new layers as you like.

A prime purpose of this service is when we do work with our stakeholders - you external stakeholders - so we are all looking at the same information. We can take layers from you and collectively make informed decisions. One project I am involved in is the National Wilding Pines Strategy and LINZ is leading that with mapping and monitoring which is quite an exciting venture.

In summary it is all about collaboration and working together. We can make some improvements. Guy Salmon certainly mentioned a couple of opportunities going forward but without that cooperation we will not succeed. Cooperation and collaboration lead to more effective, more efficient decision making and more efficient processes. Partnerships such as the formal type we have adopted can only be of benefit where we are aligned and share the same vision, objectives and business requirements, become a centre of expertise, and last but not least to apply innovation which can really be fun!

Everything leads back to the first slide where we all contribute equally to the bigger picture, New Zealand lakes and maintaining those values, thank you very much.

