Office of Hon Dr Nick Smith

MP for Nelson
Minister for the Environment
Minister for Building and Construction

4   OCT 2017

17-O-01210

Edward Ellington
via @requests.fyi.org.nz

Dear Mr Ellington

Thank you for your email of 25 August 2017 requesting the following information under the Official Information Act 1982 (OIA):

> *'In mid to late 2014 you requested a report on the TV Takeback project following the closure of the original contractor in June of that year. Please could you provide me with a copy of the report on this project?'*

In considering this request, we interpret this to mean the final independent report into the TV Takeback programme, commissioned by the Ministry and undertaken by IQANZ, entitled "Ministry for the Environment TV Takeback Programme – Programme Evaluation Independent Quality Assurance Report".

The attached table lists the report falling within the scope of your request and notes any OIA provisions that have been applied.

Under section 28(3) of the OIA, you have the right to ask the Ombudsman to review my response to your request.

Yours sincerely

Hon Dr Nick Smith
Minister for the Environment

Documents falling within the scope of your request

No.	Date	Content	Decision	OIA Section/s applied
1	3 February 2015	Ministry for the Environment TV Takeback Programme – Programme Evaluation Independent Quality Assurance Report	Release in full	N/A

Ministry for the
Environment
Manatū Mō Te Taiao

Ministry for the Environment
TV Takeback Programme

Programme Evaluation
Independent Quality Assurance
Report

Date: 03 February 2015

Version: 1.0 FINAL

IQANZ
INDEPENDENT QUALITY
ASSURANCE NEW ZEALAND

Table of Contents

Document Control

Document Information

Document Name	MfE TV Takeback Programme Evaluation Report
Contact Person	Nicki Carruth Associate Director IQANZ
Status	Final

Document History

Author	Description of Change	Date of Issue	Version
Peter O'Connor	Initial Document	14 Nov 2014	0.1
Peter O'Connor	For release to the programme	14 Nov 2014	0.3
Nicki Carruth	Updates following programme factual accuracy	22 Dec 2014	0.4
Nicki Carruth	For management comment	06 Jan 2015	0.5
Nicki Carruth	Updated with minor clarifications and management comment	02 Feb 2015	0.6
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Nicki Carruth	Internal quality review	14 Nov 2014	0.1
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Mike Mendonça	Director, Operations	03 Feb 2015	1.0

Associated Documents

Document Name	Date of Issue	Version
MfE TV Takeback Programme Lessons Learned SOW	14 Oct 2014	1.0

What Happened?

Evaluation Objectives

The objectives of this evaluation were to evaluate the:

- commissioning, including an analysis of the Ministry's capability and capacity to undertake the programme, and if other options were explored and benefits assessed
- programme governance journey through the phases of the programme, focusing on key decision making
- project management disciplines and processes used, and a comparison with best practice.

Context

TV Takeback: an opportunity to advance waste minimisation

E-waste can be nasty. Along with lead, mercury, arsenic and cadmium it contains organic compounds that when burnt release dioxins and furans – among the most toxic substances known. If released into the ecosystem through leaching or burning, these can accumulate in the food chain. It is also valuable – concentrations of gold, silver and palladium are 40 to 50% more concentrated than mined ores.[1]

E-waste can be reprocessed safely. Controlled recovery and landfilling ensures safety from cradle to grave. Reprocessing ensures safety from 'cradle to cradle', the gold standard in waste minimisation, but at a significant cost. It can also be dumped safely in lined landfills.

Until 2010 New Zealand had a poor track record in e-waste segregation and management. With Ministry for the Environment (MfE) facilitation, the electronic and consumer appliance industries had developed a proposal for mandatory product stewardship in 2007. This proposal was in abeyance while government monitored the progress of voluntary stewardship regimes within New Zealand and mandatory ones overseas.

In 2008 and 2009 the eDay New Zealand Trust had conducted two eDays with funding from the Waste Minimisation Fund (WMF). While they demonstrated public support, they also highlighted the limitations of one-off, short term activities. The eDays were annual events that did not provide a year-round recovery and recycling service. They collected only 1.5% of the estimated e-waste stream and recycled only a proportion of collected material. Collection costs were very high and the WMF had to meet additional storage and recycling costs in addition to the original grants. eDays were restricted to computers, cell phones and the like. They excluded televisions and electrical appliances.

The digital switchover provided an opportunity to stimulate New Zealand's e-waste sector. In 2006 government had triggered decisions that would lead to the switchover from analogue to digital TV transmission. The Ministry of Culture and Heritage (MCH) launched its 'Going Digital' programme in May 2010 and received $18.7M funding for an extensive public communications campaign and to provide a 'targeted assistance package' for specified groups of vulnerable people. While cathode ray tube (CRT) televisions could be used after the digital switchover, it was estimated that up to 600,000 units might be dumped into landfills about the time of the switchover.

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1   'The politics of e-waste: A cadmium lining.' The Economist. 26 January 2013

On 23 August 2010 Cabinet considered a submission from MCH on the digital switchover. At the request of the Minister for the Environment, Cabinet resolved that "officials from the Ministry for Culture and Heritage and the Ministry for the Environment will work together to develop an e-waste strategy to address the issue of cathode [ray] tube televisions."[2]

MfE in 2010: Intense demands and organisational change

Since 2008 MfE has faced, and successfully responded to, intense demands: freshwater reform; resource management simplification; EEZ policy; climate change; formation of the EPA; natural resources sector leadership. It has also rebuilt its policy and organisational capability. While in 2008 it was described as broken, it is now a high performing organisation.[3] That magnitude of change wasn't painless: to achieve long term gains there was significant staff turnover.

MfE is principally a policy leader with limited experience and capability in operational activities. The funds management team had experience in providing grants to community and industry projects for environmental activities. But these projects were simpler, lower cost and run at arm's length from MfE.

The Cabinet directive arrived in an organisation that was under significant pressure and had just enough experience funding small projects to think that it had the capability to oversee a project to respond to the directive.

Programme Outcomes and Objectives

The desired outcomes of the programme were to:

- remove end of life TVs from the waste stream
- increase recycling infrastructure and sector capability
- improve knowledge about e-recycling to inform the development of a long term e-waste management regime
- raise public awareness of the hazards of improper disposal of TVs and the benefits of recycling, and to build public support for e-waste management.[4]

The explicit objectives were to:

1. divert up to 320,000 TVs from landfill and subsidise the cost of recycling these[5]
2. establish more than 200 retail locations offering takeback services for TVs
3. establish more than 40 new recycler collection sites for TVs
4. develop the capability and capacity of the TV recycling sector
5. educate the public about the benefits of recycling.

Additional implicit objectives can be deduced from programme plans and Ministerial approvals:

6. meet waste electrical and electronic equipment (WEEE) standards for the recovery and disposal of e-waste
7. build support from suppliers, retailers, owners, councils and recyclers for a long term approach to e-waste management
8. increase MfE's and the sector's knowledge of e-waste[6]

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2   CAB minute (10) 30/10

3   See http://www.mfe.govt.nz/sites/default/files/media/About/performance-improvement-framework-follow-up-review.pdf

4   Briefing note to Minister Adams, 'TV TakeBack Programme and transition to mandatory producer responsibilities for TVs', August 2012

5   This was initially 500,000. The figure was revised down in February 2013 when targets, subsidy process and owner contributions were set.

9. meet deadlines for the Digital Switchover

10. operate within the $12.5m budget for communication, collection, recycling and programme management activities.

The Results

	Objective	Achievement	Assessment
1.	Recycle 320,000 TVs by 1 December 2014; 80% of TVs by weight to be reused or recycled	230,000 units were recovered and 132,000 units were recycled Across the 3 firms, 34% of the waste was reprocessed.	72% of collection target achieved; 43% of recycling target
2.	Establish more than 200 retail locations offering takeback services for TVs	This is not explicitly reported, but it is clear from programme documentation that this target was exceeded.	Exceeded
3.	Establish more than 40 new recycler collection sites for TVs	130 council and independent sites were established during the programme. A number of sites are still operating but the number is not reported.	Exceeded
4.	Develop the capability and capacity of the TV recycling sector	One operator who reprocessed 50,000 units continues in e-waste and reports that the programme contributed significantly to its e-waste business. Another who reprocessed 1,300 units won the legacy project contract to recycle 98,000 units and demonstrates significant capacity. $2.7M was allocated for infrastructure and equipment. RCN assets funded from WMF grants are probably lost.	Partly achieved
5.	Educate the public about the benefits of recycling	The programme had a target of achieving 50% awareness of the TV Takeback programme at the time their regions switched over. This was achieved in phases 1 and 2 but not 3 and 4.	Partly achieved
6.	Meet WEEE[7] standards for the recovery and disposal of e-waste	Two contractors met WEEE standards with the exception of plastics that could not be exported.	Partly achieved
7.	Build support from suppliers, retailers, owners, councils and recyclers for a long term approach to e-waste management	Reports are anecdotal and mixed. Some contractors and retailers are positive about their experience with the programme, while a small number stated that they would be reluctant to participate in similar activities in the future.	Partly achieved
8.	Increase MfE's and the sector's knowledge of e-waste	The two remaining recyclers have increased knowledge of e-waste recovery, reprocessing, compliance and costs. They report strong relationships with local collection sites and councils. MfE has a better understanding of the drivers for, and decision-makers in, international e-waste minimisation. It also understands the whole framework needed to establish and	Partly achieved

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6   We infer from programme plans and briefing papers that this might include one-off and long term volumes of e-waste; willingness of parties to participate and pay for recycling; end-to-end processes; costs and revenues; environmental and business risks; environmental outcomes

7   waste electrical and electronic equipment

	Objective	Achievement	Assessment
		sustain a future e-waste regime. But quantitative information on e-waste flows, benefits and costs is still poor.	
9.	Meet deadlines for the Digital Switchover	The programme met the deadlines on a 'just in time' basis.	Achieved
10.	Operate within the $12.5m budget	The Minister approved a $12m from the WMF and $0.5 was allocated from the departmental budget. The total programme spend was $9.9m. (Note that the legacy project required to recycle the unprocessed 98,000 units is $4.8m, resulting in an increased total spend of $2.2m across both projects.)	Achieved

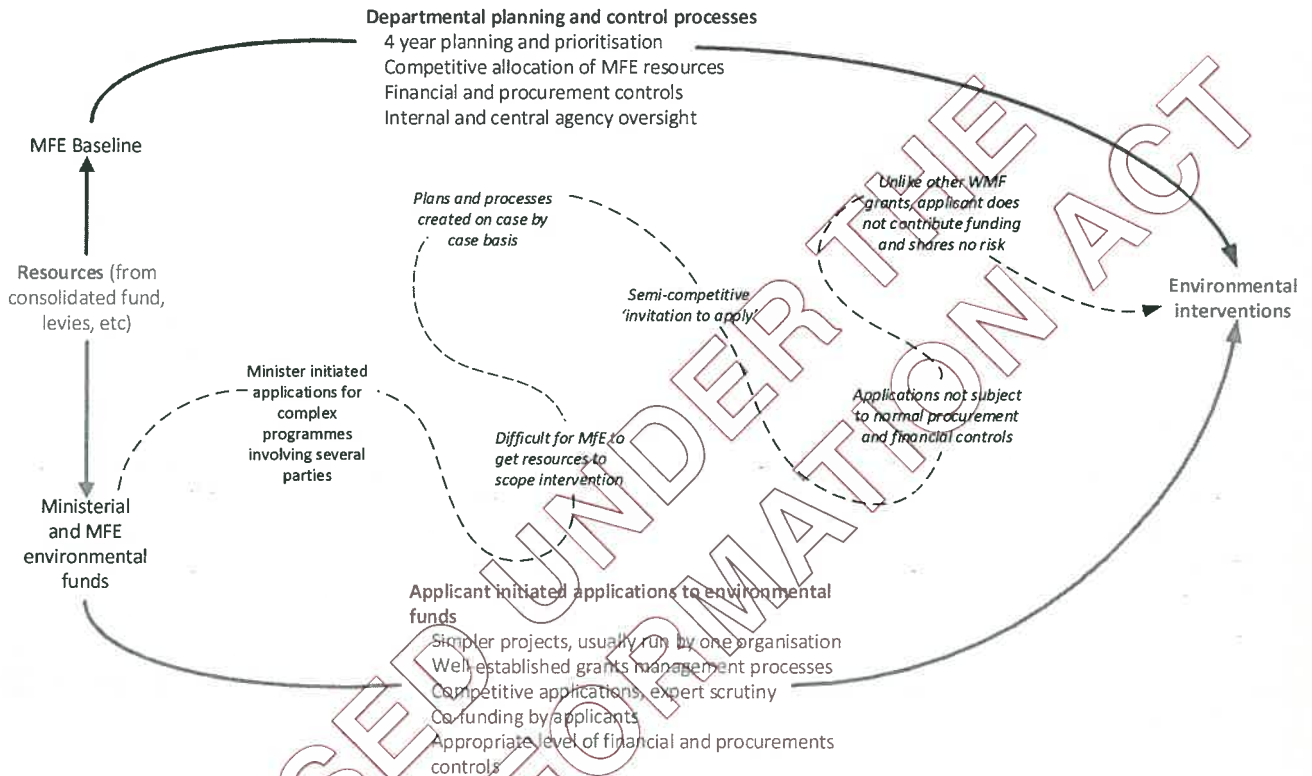## Programme Preparedness, Planning and Delivery: A Game of Two Halves

Match readiness

In 2006 government triggered decisions that would lead to the digital switchover. While CRT televisions could be used after the digital switchover, it was estimated that up to 600,000 units might be dumped into landfills about the time of the switchover. In 2008 MfE had also worked with the electronics and consumer appliance sectors to develop proposals for an electronic product stewardship regime. In 2010 the Minister approved three WMF grants for e-waste. So while the Cabinet directive was a surprise, the problem of end-of-life CRT TVs should not have been. Nor should the Minister's interest in e-waste projects funded from the WMF have been.

As well as being blind to the emerging issue, MfE did not have processes and controls to manage a large programme, like TV Takeback, funded under the WMF. Small projects receiving standard grants from the WMF are assessed by specialist panels and regularly monitored. Recipients of small grants usually contribute about 50% of the funding, so with skin in the game, there are strong performance incentives. A high trust model for grants monitoring is apt. Programmes funded from the Ministry's baseline go through robust planning, prioritisation, budgeting, control and performance reporting processes.

The standard controls applied to baseline-funded projects are not applied to projects funded from the WMF. Expressions of interest are sought to elicit interest and capability, suitable organisations are selected, they are then invited to apply for grants, and they get on with project delivery. Processes suitable for smaller WMF grants are not sufficiently robust to control a large programme like TV Takeback. There may be multiple participants funded from the WMF. MfE by default becomes the operational controller but has neither the experience nor resources to do this. Organisations have nothing at risk and monitoring and accountability measures are insufficient to provide the strong control needed to offset this.

Diagram: **COMPARISON OF THE CONTROLS IN PLACE FOR PROJECTS FUNDED FROM MfE BASELINE, STANDARD WMF PROJECTS, AND COMPLEX MINISTER-INITIATED WMF APPLICATIONS**

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Departmental planning and control processes
4 year planning and prioritisation
Competitive allocation of MFE resources
Financial and procurement controls
Internal and central agency oversight

MFE Baseline

Resources (from consolidated fund, levies, etc)

Ministerial and MFE environmental funds

Plans and processes created on case by case basis

Minister initiated applications for complex programmes involving several parties

Difficult for MfE to get resources to scope intervention

Semi-competitive 'invitation to apply'

Unlike other WMF grants, applicant does not contribute funding and shares no risk

Applications not subject to normal procurement and financial controls

Environmental interventions

Applicant initiated applications to environmental funds
Simpler projects, usually run by one organisation
Well established grants management processes
Competitive applications, expert scrutiny
Co-funding by applicants
Appropriate level of financial and procurements controls

So, with high risks, few processes and weak controls, it's unsurprising that this programme encountered challenges.

A punishing first half - programme initiation and planning

It took from August 2010 to February 2011 to prepare a response to the Cabinet directive. Even then, the quality of the problem definition and option analysis was not robust and the benefits were not defined. There was little awareness of the commercial and operational skills that the programme manager and team would need to deliver the programme. In interviews, people explained that they were responding to the Cabinet decision in addition to their existing work. No single manager took the lead. It was difficult to get support from across the Ministry and the work appeared to be of low priority. In total about 1.5 FTE worked on the programme at this time. Without leadership, these people did as well as they could.

MfE issued an Expression of Interest (EOI) to identify the number and capability of firms that might participate in the programme. The idea of an EOI was sound, and identified the recycling and communications firms that would provide the required delivery capability. The communications firm came on board quickly and established a strong working relationship with the MCH Going Digital Team.

The defining factors during this phase were characterised by the Ministry's lower project management maturity and assumptions around the applicability of the existing (and well-functioning) WMF processes. The Ministry's lower project management capability contributed to delays in clarifying requirements and understanding the Ministry's accountability. Decision making was complex but a clear decision making framework was not agreed up front. The work's priority was unclear resulting in a subsequent lack of urgency. Scoping of the programme was also unclear which contributed to failure to nail down the benefits and to focus on the must do's needed to realise those benefits. The programme's contractual, commercial and logistic complexities were not well understood. Programme management and governance was insufficient for a programme of this nature, with difficulties in defining the role and competencies of the programme manager, securing resourcing on more than a part-time basis, and establishing a governance group of appropriate experience.

A number of assumptions were made during the early phase which drove how the programme was established and run. These centred on the existing WMF approaches. For example, the Ministry assumed the WMF processes (which had served smaller WMF projects well) would be sufficient for the much bigger, multi-party programme. In the same vein, the fact that the three recycling firms had participated in earlier and smaller WMF projects, led the Ministry to assume they'd have the technical and financial wherewithal to participate in the larger scale programme. Some potential contractors assumed that previous WMF practices (such as the WMF covering additional costs) would also apply to the TV Takeback Programme.

Fundamentally, the greatest errors were a failure to assess the benefits and challenge the approach; the slow recognition that the programme was larger and more complex than MfE could handle by itself; the reluctance to get technical and commercial advice from the get go; and delays in supporting staff and escalating issues. In brief, lack of strong leadership.

A new Minister for the Environment was appointed in March 2012, requiring further briefings and fresh decision-making. This resulted in some delays. Had initial briefings been of higher quality, the delays might well have been less.

In August 2012, just two months before the start of Phase 1, a new acting Operations Director took ownership of the programme, strengthened governance and appointed an internal staff member as Programme Manager. By this stage about six MfE people were working on the programme, but they were all part-time and dispersed across Environment House. There was also high turnover in this 'virtual team' with people being allocated and withdrawn in response to fluctuations in their BAU workload.

The new Programme Manager negotiated the full-time commitment of the team and located them together. The team now comprised eight staff and the Programme Manager. In addition, the interim Director was working 50-75% of his time on TV Takeback.

There was still no detailed programme plan and schedule. Decisions needed to be made on the fly. And, with the information system still in development, the team was working with only anecdotal information.

A brave fight back - programme delivery

From such a difficult start the programme team responded remarkably well. The first stage of the digital switchover covered Hawke's Bay and the West Coast – large enough to be a real test, but still of manageable dimensions to work through issues as they arose. There was no financial contribution from TV owners during this pilot and this increased community response. There was good teamwork with the MCH communications team, and relationships with the retailers, recyclers and councils were strong. The team identified a number of health and safety issues and took swift corrective action. The team describe this period as both exhausting and reassuring.

Due diligence occurred after the recycling firms had started work and the report was received in November 2012. Medium risks were identified for RCN, primarily because they were newly established, and high risks were flagged for SIMS because of their plans to charge TV owners $25 per unit. The due diligence report was silent on further risk monitoring, and certainly raised no major concerns.

The information system was implemented during Phase 2. The team was under pressure to support operational activities and there was little time to verify and analyse performance information - a case of the urgent trumping the important.

The recyclers commissioned their own technical audits. A standard approach designed by MfE might have resulted in more consist information on technical performance.

The team evaluated the pilot and, based on preliminary results, MfE presented the Minister with options for volumes, recycling subsidies and user contributions. In February 2012 the Minister approved the updated targets, subsidy prices and maximum owner contribution. Phase 2 (covering the rest of the South Island) went live that month.

Responses in some centres were unexpectedly high, with some stores being inundated with CRT TVs. While this created a logistical headache for retailers, it increased customer numbers and business. As a short-term activity many retailers loved it, but their enthusiasm soon waned when storage and transport problems outweighed increased sales.

Especially at the beginning of the programme, community response was high and media coverage was enthusiastic. Despite the inherent hazards of a new programme handling heavy TVs and dismantling toxic waste, there were no operational incidents.

The issue of export permits under the Basel Convention was problematic, with it often taking six months to get EPA approval. During this time contracts with offshore processors sometimes expired and the recyclers had to start negotiating export deals again, all the time incurring storage and finance costs.

At this stage contractor performance was going to plan. RemarkIT was on target to achieve its quota of 50,000 units. SIMS had recycled their quota of 1,500 units and withdrawn from the programme due to low profitability. Throughout phases 3 and 4 (August 2013 to March 2014) RCN accelerated its collection. It boosted the number of collection points and removed the requirement for an owner contribution. From one perspective this was positive, but from another it might have triggered concerns – the lowest priced operator was expanding remarkably quickly. It's important to acknowledge that during this period a relatively new team was focussing on getting things done. There wasn't any time for reflection.

The successes during this stage were attributable to:

- stronger governance and clearer direction
- freeing the team from other commitments, co-locating then and providing positive team leadership
- having a small lower risk pilot with sufficient time to apply lessons for the next phase
- a high level of goodwill between participants and a degree of flexibility during phases 1 and 2
- active learning after each phase, with quick corrective action.

And as with any new programme there were significant challenges.

- **Decision making was complex and time consuming**

    Decision making during this period was complex: retailers and collection stations were putting operational arrangements into place with recyclers, who in turn were negotiating with MfE, who then had to seek detailed approvals from the Minister. Some parties took this in their stride, while a few became deeply frustrated.

- **Uncertainties weren't well understood and new waters were being charted**

    In the areas with high collection rates, the recyclers needed to arrange additional storage. In many cases the increased costs were covered from the WMF. But in other areas with low collection volumes, recyclers had booked storage space and incurred costs but were not receiving income to cover those sunk costs. This was new territory for everyone involved and consequently, risk allocation was not explicit in the contracting process and issues were resolved on a case by case basis as events occurred. Requests for additional storage and infrastructure costs were often approved. When toxic plastics could not be exported recyclers lost a revenue stream and incurred an additional cost. The WMF rejected requests for price adjustments.

- **Programme and performance information was inadequate**

    The IT system had been something of an afterthought and was not implemented until the beginning of phase 2. People reported that the system wasn't ideal and training was incomplete. When retailers, collection stations and recyclers had problems they contacted the TVTB team and, for a time, support consumed one full-time person in an already hectic team. There was little time to verify and analyse performance information.

- **Work pressure increased staff turnover, which reduced continuity, which exacerbated the pressure, which required more people**

    Without a clear plan, the programme was reliant on staff knowledge and continuity. Although people on the programme team had been released from their other duties, there was continuing turnover.

Injury time - the collapse of RCN

When RCN requested bridging finance the programme team became concerned about its financial position and requested an investigation by Grant Thornton in November 2013-February 2014. This uncovered a weak financial position, debts to Inland Revenue and other parties, and high management fees to associated parties. The investigation also found that collected units were in storage and were not being recycled. The programme team responded promptly. RCN and associated parties are currently subject to an investigation by the Serious Fraud Office.

WMF practices that were perfectly appropriate for smaller co-funded projects appeared to create a 'high trust' mindset that, in turn, led to a false sense of comfort across the programme. In our view the programme should have initiated due diligence reviews earlier and in greater depth, but it is uncertain whether issues around RCN would have been picked up without detailed analysis of plans, budgets and payments to associated parties. Independent auditing of processes, data and technical compliance certainly would have discovered that units were not being recycled over this eight month period. But the fact is that the programme did identify and act on concerns within a reasonable timeframe.

Conclusion

Response and problem analysis

The first objective of this review was to evaluate commissioning, including an analysis of the Ministry's capability and capacity to undertake the programme, and if other options were explored and benefits assessed.

It has been necessary to look broader than this at all the circumstances around the response, planning and programme initiation. In short, there were numerous omissions and failures during this period.

Programme leadership and decision-making

The second objective was to evaluate the programme governance journey through the phases of the programme, focusing on key decision making.

During planning stages leadership was absent and decision-making confused. When a new Programme Sponsor was appointed in June 2012, a fresh Programme Manager came on board and the team members were allowed to focus on delivering the programme. Things began to recover.

Project disciplines

Our third objective was to assess project management disciplines and compare them with best practice.

Project disciplines were largely absent at the beginning of the programme. From mid-2012 the PMO manager provided some support and helped the team retrofit project processes into the programme. This contributed to the steady improvement in leadership and team performance after June 2012. Lessons from this programme have contributed to some improvements in project management practice and resourcing within MfE.

The final score?

The programme resulted in the collection of 72% of the target 320,000 units and recycled 34% (by weight) of those 230,000 units.

Despite the hazards of heavy TVs and toxic materials, there were no reported incidents. This is a remarkable result.

Publicity and media coverage were positive, with the exception of the RCN receivership.

The programme has lifted the capacity and experience of the e-recycling sector with two of the three recyclers now having significant capacity. It has lifted the game of the sector in many ways: stronger relationships, improved Basel compliance, and strong health and safety practices.

Importantly the programme has brought a degree of maturity and experience to e-waste debates. It's helped people learn what recycling activities are best done locally and which ones require international muscle, and when it's best to reprocess e-waste to WEEE standards or to dump it in controlled landfills.

People interviewed were emphatic that, for e-recycling to become sustainable in New Zealand, it needs to operate with the support of a mandatory product stewardship regime. It is possible that this programme might take New Zealand a step or two closer acceptance of regulation for electronic products.

People worked through the many problems and frustrations, mostly with good humour. In interviews, most people were complimentary about the TV Takeback Programme. A few said they don't want to work with MfE again, but they were in the minority.

So despite a poor state of readiness and shocking first half, hard work and goodwill from most of the participants achieved a partly successful outcome. An admirable result for an organisation with no preparation and a team with limited operational know-how.

IQANZ

Ministry for the Environment, TV Takeback Programme
Independent Quality Assurance Review
Programme Evaluation [November 2014]

So What? Learnings for MfE

Lessons Already Applied

The TV Takeback Programme has already been dissected and improvements have been made across MfE including:

- reinforcing accountability so that issues are tackled promptly, resources are allocated and people supported
- increasing the profile of waste in MfE and scanning emerging issues
- reinforcing the PMO so that it can guide governance boards, support project teams and promote sound project disciplines from the outset
- strengthening links across MfE between sector strategy, policy, environmental reporting and funds management
- starting to reframe funds management so that MfE uses all of its levers—policy, information, regulation, remediation and innovation — to effect environmental outcomes
- reflecting on what MfE does best as a policy agency and when and how it should work through other parties.

Those were the (relatively) easy learnings to apply. Some knotty challenges remain.

Further Challenges

It's extremely unlikely that New Zealand will ever again have 600,000 end of life CRT TVs. Just as it was unlikely that the *Rena* would run aground on the Astrolabe Reef in 2011 or that MfE would get enmeshed in remediation of toxic sites in 2004. But it's almost certain that situations will develop where MfE is expected to respond to operational matters (or determine what response is required, who should be responsible and who might pay). The crucial steps to address these challenges will be:

1   **Strengthen WMF processes to handle large and high risk programmes**

Ministry processes work well for projects funded from MfE's baseline. WMF processes, we are told, are perfectly appropriate for smaller projects that are co-funded by applicants. The current processes, when applied to urgent programmes delivered by multiple parties, are clearly inadequate.

2   **Find a simpler way to resource the scoping of major WMF programmes**

The TV Takeback Programme has required a $9.9M investment over four years. Programmes of this scale and complexity demand early and top quality planning. The trajectory of this programme is typical of situations where planning was 'undercooked'. Money might be saved on inception, but overspends and problems later in the project far outweigh any economies. In our experience, 7 - 15% of a programme budget might be allocated to planning, consultation, communication and monitoring. A reasonable sum was allocated for programme scoping and planning, but it was initiated too late and, in this case, using external people did not work. So the programme had to stumble on, borrowing resources from other parts of MfE. In the end the programme did consume $1.437M (or 14% of its budget) on programme management, but it certainly wasn't the most effective way to do it.[8]

This creates a conundrum: how can MfE adequately plan and commission high-value projects if it cannot access these funds and cannot reprioritise 'in flight' activities to the required extent?

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[8]   This comprised $908,000 from MfE internal resources, $439,000 from MfE funded contracts, and $90,000 from WMF funded contracts

3   **Respond rapidly**

When MfE received the Cabinet directive in August 2010, delays resulted in lost opportunities. And the longer the delays, the more MfE boxed itself into (i) responding with an operational project, and (ii) leading that project. We recommend that the ELT and directors in MfE have a response checklist to guide people to respond positively to Ministers and other stakeholders. (We also acknowledge the challenge of responding to diverse and unpredictable expectations.)

4   **Target interventions to deliver tightly defined benefits — and track performance**

European e-waste standards have a seductive quality. They entice people towards gold-standard approaches to 'cradle to cradle' waste management. Reprocessing lead in CRT tubes, for example, takes on a value in its own right regardless of competing opportunity costs.

But what were the specific outcomes New Zealand wanted to achieve? Reprocessing a heavy metal, or preventing it entering the environment and the food chain? If the latter, a lined landfill will achieve the same end. Similarly with BFR plastics. They are toxic burnt at low temperatures or processed into other products, but are equally harmless whether they are processed at an accredited plant offshore or landfilled in New Zealand. If the benefit was to achieve maximum reprocessing, then the programme met its goals. If it was to build a long term e-waste capability then priority might have been given to processing metals and plastics and landfilling the CRT tubes.

For a myriad of reasons this programme had patchy performance information and no benefit measures. With timely programme information and benefits measures, it might have been possible to make tradeoffs between volume, cost, treatment method and benefits.

An investment logic map (ILM) might have forced the project team and stakeholders to prioritise the 'needs' from the 'likes' and to quantify the benefits. The beauty of the ILM process is that it can be completed quickly and forces clear definition of the problem, benefits and priorities. ILMs often describe mid-term benefits at a high level. In these situations, detailed and immediate benefits must be crystal clear, measurable — and measured. It's noteworthy that the MCH evaluation of the digital switchover recommended the development of a simple statistical model to track performance and inform decisions.

We therefore recommend that, at the very start of a programme, the team
–   prepare an ILM to define the problem, benefits and scope
–   develop a statistical model to forecast demand, measure benefits and inform decisions
–   immediately design a simple and useful information system.

We suggest the MfE compile a library of collateral that teams can use or adapt. If the resource library was primarily for MfE, it might be best managed by the PMO. If used across the Natural Resources Sector, then the NRSU might be the appropriate home.

5   **Recognise complexity and risk**

Should another *Rena* run aground the degree of urgency would be obvious. But the complexity of programmes like TV Takeback can emerge slowly and a course might be charted before the team appreciates the full picture. We recommend that MfE prepare a 'complexity assessment guide' to profile a potential programme. Factors might include:
–   the clarity of purpose of the programme
–   current knowledge of end-to-end processes, drivers, costs and benefits
–   decision-makers, stakeholders and the degree of influence MfE can exercise
–   the degree of technical complexity
–   the practical experience that MfE and its partners have in the area

— urgency of response.[9]

6 Scope the problem and assess options — quickly

The programme's scope was poorly defined and unrealistically broad. Was it just a short term project to deal with end of life TVs, part of a long-term product stewardship, or an effort to build community support and sector capability? The outcomes were not prioritised and the benefits were not quantified.

We suggest that MfE use a *simplified* version of Treasury's *BBC Lite* business case[10] model to tightly define benefits and identify options. We also express caution. Preparing business cases can become an art form that loses touch with business imperatives and timeframes. When responding to a potential operational situation time is of the essence, so the trick will be to balance a systematic approach, robust thinking and a timely response.

7 Assemble a small team of constructive critics to challenge decisions and performance

Even with the best leadership and smartest policy advice, this programme required an appreciation of the commercial, logistic, contractual and technical aspects of waste management — across New Zealand and internationally. MfE will never have all those skills immediately on hand.

We recommend that MfE quickly gather a small team of 'constructive critics' with practical experience in:
— standing up complex programmes at short notice
— designing and commissioning services to achieve tightly defined benefits
— working with (ideally inside) the likely commercial and logistic partners
— communications, managing expectations and influencing behaviour
— delivering technical projects
— working in an agile way and making trade-offs to maximise benefits.

We suggest a mix of internal and external people. It might be useful to have a core group in place – they may well add value to other MfE programmes like freshwater reform and RMA simplification. We also recommend that this 'review panel' conduct:
— challenge sessions for crucial plans and recommendations
— brief stage gate reviews at points in the project.

8 Formalise processes for commissioning major programmes

In interviews we asked people how MfE might respond in similar situations. Several people were emphatic that MfE should never get enmeshed in operational interventions. We disagree. That conclusion is simplistic and unrealistic. There is a crucial step between problem analysis and execution. It's commissioning. MfE can outsource 'delivery' activities but it can't contract out of service design, contracting and accountability. Commissioning involves:
— assessing the value of the planned benefits and setting global parameters for the programme
— identifying stakeholders who should be involved in decision-making and design
— understanding sector drivers, capability and incentives and determining how to influence system behaviour and outcomes
— evaluating options and developing the best mix of interventions — incentives, regulation, reporting and innovation
— where service delivery is involved, developing the best procurement approach (partnering, competitive provision, development of sector capability) and designing the contractual approach

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[9] See for example the risk profile assessment (RPA) used by central agencies for capital intensive projects http://www.ssc.govt.nz/gateway-rpa-agency-responsibilities. While the RPA was designed for different requirements, the approach is probably similar.

[10] Information on Treasury' Better Business Case (BBC) model is available at http://www.infrastructure.govt.nz/bbc/resources.html.

- developing the implementation approach and testing operability
- designing and implementing information and evaluation systems.

The concept of commissioning is well developed in social, health and justice sectors but we are not aware of exemplars in environmental management. There are, no doubt, examples of projects that use commissioning concepts and practices. We suggest that MfE work with regional councils and Natural Resources Sector agencies to document examples of commissioning-like projects. These case studies, while emergent, would be invaluable for a team charged with commissioning MfE's next programme. They might also help learning and collaboration between these agencies.

9   Streamline decision processes

Funding decisions needed to be approved by the Minister, as required under the Waste Minimisation Act. During this programme retailers and collection stations were putting operational arrangements into place with recyclers, who in turn were negotiating with MfE, who then had to seek detailed approvals from the Minister. This carried significant costs, but is recognised as a statutory requirement.

The initial advice and plans presented to the Minister might not have engendered a great deal of confidence. Had Ministers been presented with clear, evidence-based and credible proposals they might well have loosened their reins on detailed funding decisions.

At the beginning of any future programme, we recommend that MfE

- map out what decisions need to be made, by whom and with what notice
- define the strategic and funding decisions that need to be taken by the Minister
- define the operational decisions that need to be taken by contractors and councils, for example.

Some people took the delays in decision-making in their stride while others became frustrated. It's highly likely that any future programme will also experience this difficulty. We recommend that, when engaging contractors and participants in future programmes, MfE set out its processes, constraints and ground rules. While they mightn't be any happier, people won't be taken by surprise.

10   Plan, assign and support great staff

Over the last four years, 70 MfE people worked on the programme: 32 were policy or funds analysts, 10 contractors and temporary staff, four programme managers, 7-8 lawyers, and 17 managers or directors on the governance board. Many worked on a part-time basis in addition to their regular jobs. It wasn't until August 2012 that people were freed from their 'other jobs' to be able to commit full-time to the programme. People stated that hours were long and stress was high. A number commented on the huge stress and personal cost paid by staff. A few said that for long term experience and career development, time on the programme was invaluable. No doubt the absence of and stress on these people impacted on their 'home teams' as well.

It is likely that, with early planning and prioritisation, the right resourcing level would have been identified, fewer people could have been seconded and supported during the programme, the work would have been done better and quicker, and total disruption across MfE would have been less. Early scoping, planning and prioritisation are essential. But this in turn requires access to funding, whether from MfE baseline or the environmental funds.

There were many contractors and parties involved the programme, contracts were loose and plans were light. Projects are sometimes like that, even with better planning. We recommend that for future programmes, MfE:

- identify mid-term resource requirements and release staff on a full time basis
- recognise the benefits and efficiencies that come from staff continuity
- co-locate people as soon as practicable and provide strong team leadership
- minimise turnover by targeting the root causes of unreasonable workload and stress
- support people to transition into the new roles and use it as a chance to build new skills and stretch their resilience

     –   ensure continuity in governance roles as well as the programme team.

MfE has already made significant improvements as the result of the TV Takeback Programme. These recommendations will enable MfE to respond to future programmes with evidence-based interventions, better coordination, stronger organisation and cost-effective outcomes. It has the ability to make significant improvements quickly. These next steps won't be easy. It's imperative to build these foundations now, as they will be virtually impossible to implement after the next request for an operational intervention.

Now What?
Suggested Good Practice for Future Operational Interventions

This section outlines our preliminary thoughts on what good practice might look like the next time MfE is called on to respond to an operational issue. This is intended to trigger debate on what a simple and fast process might look like.

We strongly recommend that MfE use this framework and draw on its own people and experience with the Rena, Mapua, Christchurch Response, and TV Takeback programmes. The product from this exercise would then be a simple resource that draws out the successes, lessons and resources from these projects.

This is not intended to form a response manual or text book to constrain, slow and frustrate the project team.

"It is better to have a simple model backed by excellent people than the other way round."

Warren Buffett

Phases	Actions	What might good practice look like?	Results
Readiness		As part of its planning and communication processes, MfE scans emerging issues and opportunities.	MfE understands the outcomes, risks and opportunities that these emerging issues create.
Respond: MfE receives a request, or sees an opportunity, for an operationally-focused intervention.	Assign ownership and allocate resources.	Assign a accountable manager, allocate a 'response lead' and identify preliminary support resources	One person has the authority, accountability and ability to develop a preliminary response plan.

	With stakeholders, assess the presenting problem and opportunity.	The response lead identifies the major stakeholders and works with them to:
		• identify 'NZ Inc' and all of government perspectives
		• understand the presenting problem/ opportunity and rapidly assess short and long term perspectives
		• rapidly map out end to end processes, drivers and incentives
		• identify how all the levers might be applied to the problem
		  – evidence-based policy
		  – national or local regulation
		  – environmental reporting
		  – funding for innovation
		  – funding to lift capability and skills
		  – funding for remediation
			A preliminary assessment which summarises:
			• the short-term problem
			• longer-term opportunities that the problem creates
			• the breadth and complexity of business processes, policy responses and solution
			• the crucial decision-makers who need to be involved
			• further information and analysis required.

	Assess potential value and priority	The response lead briefly assesses the potential value of the problem and opportunity, and how it fits with or competes against other MfE priorities.	MfE identifies synergies with, and tensions between, any response and other MfE activities.
	Clarify MfE's potential role and contribution.	The response lead assesses MfE's potential role as a: • driver (either as the leader or an active proponent) • active supporter but not take a leadership role in (e.g., contributing knowledge and advice, providing significant innovation funding through environmental funds, actively brokering arrangements with other parties • passive supporter (e.g., providing information and advice, short-term funding)	MfE forms a preliminary view on its role in leading or supporting a short term response, and seizing longer term opportunities.

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Phases	Actions	What might good practice look like?	Results
	Advise the Minister (and other stakeholders as appropriate)	MfE leadership engages with the Minister to agree: • the initial problem definition • how it links with MfE priorities and levers • the potential risk and value of any response • the best role of MfE in the initial response phase • MfE's initial actions • stakeholders who should be involved in scoping (if recommended) • communications messages • delegated decision making framework.	The Minister or Leadership Team approve: • the commencement of scoping plan, or • support for another organisation leading a response with MfE support, or • no action.
	Prepare brief for the scoping phase	If project scoping is required: • the accountable manager appoints a governance group (ideally with external representation and expertise in fast moving and complex projects) • the response lead prepares a project brief • the accountable manager musters the appropriate people for the scoping phase • the accountable manager initiates steps to secure budget for scoping and design	
Scope: MfE scopes, or assists another party to scope, the response	**Review point** Clearly define the problem, strategic response and solution requirements.	Test (i) the strategic benefits and risks of responding (or not responding), (ii) the problem definition, (iii) MfE's role, and (iv) scoping plan The accountable manager and response lead commission ILM workshops with MfE staff and selected stakeholders to clearly define the: • short term problem (and the specific benefits that will accrue) • long term opportunity (and specific ways in which the short term problem create ways to nudge toward that long-term solution) • strategic response • solution definition with tightly delineated priorities – must have, should have, could have, or won't have for now (MoSCoW)	Consensus on (or at least mutual understanding of): • the immediate problem • tangible and measurable benefits • specific ways in which the problem might advance longer term opportunities

Phases	Actions	What might good practice look like?	Results
	Identify dependencies, risks and constraints.	The response lead works with internal staff stakeholders to define the crucial dependencies, constraints and risks.	
	Assess complexity	The governance group seeks to understand:	
		• the sources and level of complexity in the programme	
		• the experience and capability of the team, participants and sector	
		• gaps between complexity and capability	
		• contingencies that should be applied to programme outcomes, timeframes and budget	
		• additional expertise required on team and governance board	
	Agree selection criteria	The governance group determines the assessment criteria for option assessment and shortlisting.	
	Review point	Test the ILM, strategic response, complexity – capability assessment, and assessment criteria	
	Identify and long-list options.	With stakeholders, the response team enumerates approaches and options. Separately it assesses then and forms a long-list of preferred options or combinations of options.	
	Assess long-listed options	With stakeholders, the response team collates information on likely benefits, operability, impacts and costs of the long-listed options and reports to governance board.	
	Review point	Test the identified options, shortlisting process and recommendations.	
	Summarise strategic case	Present the strategic case (using Treasury BBC model) to Leadership Team and Minister and seek approval to continue (or stop).	
	Shortlist	The governance board shortlists options and presents to Leadership Team and Minister.	
	Complete indicative business	The response team completes the remaining elements of the BBC Strategic	

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Phases	Actions	What might good practice look like?	Results
	case	Business case (to a level of detail appropriate to the urgency, risk and complexity of the situation) summarising: • the problem • short and long term benefits and the case for change • specific investment objectives • complexity, capability, dependencies and risks • the preferred way forward • longlisted and shortlisted options • an outline of the commercial case (operability and feasibility) • an outline of the management case (implementation and timing)	
	Review point		
	Approve or decline indicative case	Test the indicative business case against Treasury BBC criteria.	
		The accountable managers presents the indicative case to Leadership Team and Minister (taking into account agreed delegated decision making levels).	
	Secure resourcing	The accountable manager secures people and budget for the design and commissioning phase.	
	Re-form team	The accountable manager and response lead reassess the skills for the next phase and might supplement or reform the response team.	
Design and commission: MfE designs and commissions the intervention	Map end to end processes, drivers and decision-makers	The response team completes detailed business analysis of business processes, decision processes and drivers.	
	Assess sector capability	With stakeholders, the response team assesses sector capability (covering central and local government, iwi, business and community organisations).	
	Design the intervention	The response team commissions a service design process to: • understand how users and stakeholders will navigate through the services, incentives, regulations, etc. • develop design concepts	

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Phases	Actions	Results

What might good practice look like?

- prototype and test services / interventions
- assess resource requirements and service operability
- plan full-scale delivery
- plan service evaluation (both during and at end of the project)

Design procurement approach

The response team:

- engages with MfE Procurement Team for ongoing advice and support
- tests market / sector interest and capability
- assesses the possible approaches to procurement (single supplier, competitive supply, development of sector capability) and designs the contractual approach
- identifies and allocates risk across MfE, contractors and other stakeholders
- determines who is best place to make which decisions (outcomes, value for money, service coordination, service delivery) and maps out decision rights
- drafts and tests contract terms and conditions.

Develop performance measurement and accountability processes

The response team:

- finalises performance criteria (including health and safety)
- designs monitoring and audit processes
- defines relationship management processes and structures

Information and reporting

The response team commissions:

- performance information (from contractors)
- performance reporting (to MfE, Minister and stakeholders)

Review point

Test the proposed service design, procurement approach and accountability arrangements.

Procure suppliers

The response team:

- invites tenders / proposals
- evaluates and shortlists responses

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Phases	Actions	What might good practice look like?	Results
	Confirm procurement	• completes due diligence (financial, technical, capacity). • selects preferred suppliers and negotiates conditions • finalises contract conditions. The accountable manager (in conjunction with MfE Procurement) approves suppliers, contract conditions and budgets.	
	Induct suppliers	The response team inducts the selected suppliers, finalises schedules and action plans.	
	Review point	Test implementation readiness	
Deliver and adapt: MfE oversees the delivery of services and interventions, monitors progress, reports progress and amends plans.	Monitor and report progress		
	Identify and manage operational issues and risks		
	Adapt delivery plan to optimise resourcing and outcomes		
	Review points	Review implementation processes, results and efficiency	
Close project			

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Recommendations

When	#	Recommendation	Who
Now	1.	Find ways to fund high quality scoping for major projects.	Dir Operations
	2.	Prepare a 'response checklist' guide to help people respond positively to requests from Ministers and other stakeholders for operational responses to problems (possibly based on the outline of suggested good practice).	Dir Operations
	3.	Prepare a simple 'complexity assessment guide' to identify programme complexity and risk prior to scoping and design.	Dir Operations
	4.	Compile collateral from earlier projects and programmes that could be used in future programmes.	PMO
	5.	With Natural Resources Sector agencies and regional councils, develop exemplars to case study emerging examples of commissioning-like activities in the environmental sector.	Director NRSU
	6.	Strengthen governance training and consider the appointment of external people to programme and project boards so that, in the event of a rapid response, MfE directors and managers are already skilled in programme governance.	PMO
On immediate response to a potential request for an operational response	7.	Prepare an investment logic map to define the problem, benefits and scope.	Dir Operations
	8.	Appoint a programme manager with the authority to deliver the programme, and personal accountability for its success.	Dir Operations
	9.	Scope the programme to meet essential requirements first, and potentially expand when the fundamentals are in place.	Programme Manager
	10.	Develop a quantitative model to describe end-to-end processes, forecast demand, measure benefits and inform decision making.	Programme Manager
	11.	Assess resource requirements, form a team, free them from their current jobs, and support them to adjust to the demands, pace and stresses of their programme roles.	Programme Manager
	12.	Form a small team of 'constructive critics' with practical experience covering standing up complex programmes at short notice; designing and commissioning services to achieve tightly defined benefits; commercial and logistics management; communications and behaviour change; delivering technical projects (as appropriate to the situation).	Dir Operations
	13.	Design and quickly deploy a simple and useful information system.	Programme Manager
	14.	Map out what decisions will need to be made over the course of the programme, by whom and with what notice, specifically: - strategic and funding decisions by the Minister - service design decisions by MfE people - operational decisions by contractors, councils, etc - set the ground rules and manage expectations for decision-making processes and timeframes.	Programme Manager

When	#	Recommendation	Who
	15.	Support the team to adjust to different roles in high-paced programmes; monitor stresses and problems for the team; take early corrective action to address the root causes of issues before turnover becomes a problem; and use the programme as a development opportunity for the people and the Ministry.	Programme Manager
Throughout any programme	16.	Ensure appropriate MfE Procurement Team and Legal Team involvement during planning and delivery activities.	Programme Manager
	17.	Convene the review panel to conduct: — challenge sessions for crucial plans and recommendations — brief stage gate reviews at key points in the project.	Dir Operations

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Management Comment and Signoff

Management Comment

As this report has identified, TVTB was a challenging and complex programme, with imperfect information, and against the backdrop of a dynamic and busy time in the Ministry. In this context, the successful recycling of the televisions is testament to the staff involved.

However there is no escaping that some decisions (or non-decisions) were sub-optimal, and that leadership and governance in particular were lacking at critical times, and in this area the report provides some stark lessons for the Ministry. In some areas changes have already been made, for example Directors now have greater oversight of work programmes and risks, and are more forthcoming and proactive in managing both of these.

But changes are still required in other areas. Directors will receive a summary of this report with a view to embedding these changes in people, processes and systems.

The Ministry is committed to ongoing and sustained change to ensure that future projects of this nature learn from the TVTB experience.

Next Steps

We are happy to meet with MfE leaders and staff to discuss the report, specific issues relating to TV Takeback, and the broader opportunities to apply the lessons across MfE.

Document Signoff

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Mike Mendonça   [date]
Director, Operations and Programme Sponsor
Ministry for the Environment

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Appendix A – Review Scope and Approach

Scope

In Scope Components

The scope of this review included the following:

- Conduct targeted interviews and workshops with project team members and key stakeholders to assist in the evaluation of and to identify lessons associated with the TV Takeback Programme, with respect to the following components:
  - Governance and decision making
  - Ministry capacity and capability in undertaking the programme
  - Project scope and objectives, including analysis of options for delivery
  - Project management and control mechanisms (including time, resources, cost, benefits, risks, issues, dependencies and quality) against good practice in a NZ government setting
  - Procurement approach, including supplier commissioning
  - Contract Management and delivery (suppliers commissioned from the procurement processes)
- Identify strengths, improvement opportunities and lessons learned that can be incorporated into other projects or within the Ministry.
- Preparation of an initial draft Evaluation & Lessons Learned Report (suitable for Ministerial and wider government agency-level consumption) to the Programme Sponsor for a factual accuracy review.
- Preparation of a final Evaluation & Lessons Learned Report providing an independent view of project lessons, their causes and suggested actions.

Scope Exclusions

- Any investigation and analysis of specific suppliers, in particular RCN
- Any analysis or accounting for public monies associated with the TV Takeback Programme
- An assessment of the achievement of project objectives, critical success factors or benefits.

Review Team

Team Member	Role	Substantive Role
Peter O'Connor	Senior Consultant	Senior Consultant
Nicki Carruth	Engagement Lead	Associate Director