

Jane Kominik  
Chair  
New Zealand Film Archive  
P O Box 11449  
Manners Street  
WELLINGTON, 6142

Dear Jane

### LETTER OF EXPECTATIONS

This letter sets out my expectations for the New Zealand Film Archive (the Archive) for 2013/14. I expect you to factor my expectations into the development of your 2013-2016 Statement of Intent (SOI).

I acknowledge the important work the Archive has achieved in 2011/12 while operating under considerable constraints. The transfer of responsibility for managing Radio New Zealand's Sound Archive Ngā Taonga Kōrero to the Film Archive is an important step in the process of building a national audiovisual archive and in consolidating New Zealand's film and sound heritage. I am aware the Archive is facing uncertainty in determining its long term structure, organisational capability and governance and these will gradually be resolved as the consolidation process progresses.

The Prime Minister has set out the Government's focus on greater efficiency across the public service and the effective expenditure of every taxpayer dollar. This includes a mix of innovative thinking, interagency collaboration and reduction in costs. As I signaled in my previous letter, you should plan on no budget increases in existing appropriations before 2015.

In the context of Government priorities, I support and encourage the collaborative work being undertaken by the cultural agency chief executives. They have identified workstreams of common interest – increasing participation, digital delivery and growing the funding base – as part of their efforts to achieve better results and greater efficiency across the system.

Below I have outlined specific agency priorities, Ministerial and government priorities I would like Te Papa to focus on over the upcoming 12 months.

Specific priorities for the NZ Film Archive

I expect the Board and management of the Archive to:

1. *work constructively with MCH and your partner agencies on improving the management of New Zealand's audiovisual heritage as a whole, especially with a view to making important heritage works more accessible to New Zealanders*
2. *successfully manage the Sound Archive Ngā Taonga Kōrero and develop an integrated sound and film archive*
3. *report on your progress towards developing a fully digitised archive of Māori television and sound material, including the establishment of an archive of the output of iwi radio stations*
4. *report regularly to me within your normal reports on:*
  - *the Saving Frames project*
  - *your management of the Sound Archive Ngā Taonga Kōrero collections and staff*
  - *the development of the Sound Archive Digitisation Project*
  - *progress on long-term storage for New Zealand's vulnerable nitrate film collections.*
5. *advise me on your assessment of the potential for development of internet-based programmes for use by education and classroom audiences.*

Minister's and Government Expectations

WW100 and New Zealand Wars commemorations

I look forward to your contribution to the national WW100 commemorations. I understand the Archive is developing a project with the National Film and Sound Archive in Australia to repatriate and make accessible World War 1 footage and I will endeavour to encourage sources of funding for this and other WW100 projects.

6. *I expect you to continue to work collaboratively with other agencies to provide historic WW1 footage for joint commemorative projects.*

Rebuilding Christchurch

Supporting rebuilding of the cultural sector and providing access to cultural opportunities in Christchurch is an important objective.

7. *I expect the Archive to continue to support the recovery of archive heritage in Christchurch, and to see your SOI include your plans to retain the Sound Archive operations in Christchurch for the foreseeable future.*



### Delivering better public services

The Better Public Services programme reinforces the role of boards in delivering on ministerial expectations, and the role of monitoring agents in supporting ministers.

8. *I expect the Archive to support the Better Public Services programme, by*
- *demonstrating the Board is taking a direct responsibility and interest in delivering on ministerial expectations*
  - *demonstrating the Archive is meeting best practice and achieving higher than ever levels of sector satisfaction in all parts of its operations*
  - *taking opportunities to work with other agencies on shared services and delivering key results to maximise sector-wide efficiency and effectiveness.*

### Diversifying revenue sources

In an environment with limited opportunities for access to additional taxpayer funding, diversifying your revenue base is essential.

9. *I expect you to include in your planning documents your efforts to increase your revenue, with reference to the Archive's fundraising programme, recommendations of the Cultural Philanthropy Taskforce and contributions encouraged by Archive Trustees.*

### Ensuring effective performance

10. *I expect you to lead the Board in evaluating its performance in 2013 and report to me on this assessment, any skills gaps or other issues, and how these will be addressed. This should be completed by the end of March each year.*
11. *I expect you and the Board to ensure you have a clear line of sight between your services and the broader outcomes you are seeking to achieve, stated in simple language and able to be readily reported against within a clear performance measurement framework that covers:*
- *clearly defined specific measures that provide Ministers with a good understanding of what is being measured and the performance results*
  - *reporting against the performance measures which demonstrates how you are ensuring improvement in your delivery and operational management*
  - *an indication of the impact and costs of delivering your priority outputs over time.*

### Relationship management

12. *I expect you to maintain the existing "no surprises" approach to briefing me, and to work constructively with the Ministry in its Vote performance monitoring role. You should ensure the Ministry is engaged when the Board is considering significant issues that may materially affect your plans and operations.*

13. *I expect you to provide my Ministry with copies of the reports your Board receives about the substantive issues raised in this letter, within two weeks of the end of each meeting.*

Please advise me by **15 March 2013** of your response to these expectations and how you see them aligning with your priorities. Your comments are welcomed, as this is intended as a basis for discussion of your priorities and plans. In the first instance, you should discuss this letter with Ministry officials.

I am happy to then meet with you and your Board to consider any implications arising from these expectations. I look forward to engaging further with the NZ Film Archive throughout the year.

Yours sincerely

Hon Chris Finlayson  
**Minister for Arts, Culture and Heritage**

cc Frank Stark, Chief Executive, NZ Film Archive



22 January 2013

Jane Kominik  
Chair  
New Zealand Film Archive  
PO Box 11 449  
WELLINGTON

Dear Jane

## **SOUND ARCHIVES NGĀ TAONGA KŌRERO ISSUES**

### Context

As part of the due diligence process during recent negotiations over the transfer of responsibility for Sound Archives Ngā Taonga Kōrero (SANTK), including the employment of SANTK staff, Radio New Zealand advised that the cost of redundancy provisions for the entire staff amounted to \$141,670.

The New Zealand Film Archive (NZFA) was concerned about taking on an unfunded liability of this nature, in part because of its size, and in part because employment contracts at the NZFA do not have redundancy provisions.

Accordingly, an assurance was sought from the Ministry for Culture and Heritage (MCH) that should at any stage in the future it would be necessary to make staffing changes resulting in the need to make redundancy payments, funds for this purpose could be drawn from the one-off grant being made available for a sound archiving digitisation project. As you know, funds for this project amount to \$1m and are being disbursed in equal instalments over 2012/13 and 2013/14.

You have recently asked that we re-confirm the assurance we gave earlier this year so that plans for the use of the one-off project funding can be developed with confidence. Under the terms of the MoU between the NZFA and the Minister for Arts, Culture and Heritage, the NZFA is required to discuss these plans with MCH by 15 December.

On a separate matter, MCH agreed that should any one-off costs associated with the transfer of SANTK exceed the provision made as part of the reconciliation with Radio New Zealand of funding for expenses in the first quarter of 2012/13 (\$40,000), MCH would consider the case for additional provision from the one-off project.

### Comment

During the course of discussions about the recent transfer, the NZFA made it clear that it had no intention of contemplating any significant changes to SANTK until it had developed a better understanding of its business. It was indicated that at least two years would be needed to develop such an understanding.

We assume and hope that this position reflects current thinking. We note, however, that staffing matters are for solely the NZFA to determine. MCH's interest lies in the delivery of services which are being purchased by the Minister (as set out in the MoU between the NZFA and Minister). It is up to the NZFA to decide what staffing is needed to deliver these services.

With respect to the issue of how the cost of any future redundancy payments would be met, we are not averse to a sum of up to \$141,670 being held for this purpose for a few years.

Provided that the NZFA delivers the services that have been agreed with the Minister, it is free to decide when to spend allocated monies. If a restructuring decision were announced, however, it would be necessary to accrue estimated redundancy costs and reflect this position in the MoU with the Minister. Equally, we would not expect these funds to be locked away indefinitely. Unless they were required to meet restructuring costs, we would expect them to be spent in line with their original purpose.

With respect to the deadline for the development of plans for the use of the one-off project, we are relaxed about you taking more time to work these through. Our expectation is that there is a robust process for determining what the priorities will be that has buy-in from key stakeholders with an interest in sound archiving. In the meantime, however, we propose not to disburse further funding until a plan is in place that meets with our approval in this respect.

With respect to one-off transition costs over and above those already provided for, we remain prepared to consider any request for additional relief as a charge against funds from the one-off project.

### Conclusion

We hope that this letter gives the NZFA the assurance it needs to continue to provide excellent value for money for the Government in delivering audiovisual archiving services.

Yours sincerely



Lewis Holden  
Chief Executive  
Ministry for Culture and Heritage



**MEMORANDUM OF UNDERSTANDING**

between

**THE MINISTER FOR ARTS, CULTURE AND HERITAGE**

and

**THE NEW ZEALAND FILM ARCHIVE**

for the period

**1 JULY 2013 – 30 JUNE 2014**

RELEASED UNDER THE  
OFFICIAL INFORMATION ACT

## MEMORANDUM OF UNDERSTANDING

### **PURPOSE AND SCOPE**

- 1.1 This Agreement sets out the responsibilities and accountabilities of the Minister for Arts, Culture and Heritage (the Minister) and the New Zealand Film Archive (the NZFA) for the period 1 July 2013 to 30 June 2014 inclusive.
- 1.2 The Schedules 1 to 4 form part of this document.

### **INTRODUCTION**

#### **The NZFA:**

- 2.1 is an independent charitable trust registered under the Charitable Trust Act 1957;
- 2.2 is subject to any obligation imposed by law.

#### **The Crown:**

- 3.1 is a major source of funding for the NZFA;
- 3.2 expects the Minister to be accountable to Parliament for the use of public funds appropriated to the NZFA through Vote Arts, Culture and Heritage;
- 3.3 recognises that the NZFA must consider not only the Crown's interests in its outputs as stated in its Statement of Intent, but also the requirements and expectations of its other stakeholders, including audiences;
- 3.4 through the Minister, has appointed the Ministry for Culture and Heritage (the Ministry) to advise the Minister on the NZFA's service and financial performance relating to the collection, preservation and archiving of New Zealand audiovisual material.

#### **Outcomes and Outputs**

- 4.1 The NZFA will work to achieve the outcomes and deliver the outputs for archiving services as set out in Schedules 3 and 4.

### **RESPONSIBILITIES**

#### **The Board of the NZFA will:**

- 5.1 be accountable to the Minister for the NZFA's performance;
- 5.2 ensure the NZFA complies with the terms of this Agreement, the provisions of the Charitable Trust Act 1957 and other relevant legislation;
- 5.3 consult with the Minister on necessary variations to the Agreement where the NZFA plans or anticipates significant changes in agreed outputs and related performance measures;
- 5.4 initiate a review of the NZFA's structure, governance and capability following the



transfer of the Sound Archives Ngā Taonga Kōrero and consult with the Ministry on proposed changes;

- 5.5 evaluate its performance as a Board and advise the Minister of its conclusions and plans for future development by 30 June 2014.

**The NZFA will:**

- 6.1 follow the 'no surprises' policy, namely briefing the Minister (or Ministry) if any matters may have implications for the Government or may be controversial, or may attract wide positive or negative public interest, including prior to the public release of information by the NZFA;
- 6.2 collaborate with the Ministry and other public entities where practicable on government-wide interests, such as those arising from the Better Public Services programme. In meeting the Minister's expectation that the NZFA deliver enhanced services to the public through greater collaboration and increased sharing of services and information with other cultural agencies, the NZFA will work towards establishing a closer relationship with other agencies involved with archiving;
- 6.3 cooperate with the Ministry on work to improve arrangements for managing New Zealand's audiovisual archives, especially with respect to their accessibility;
- 6.4 agree to apply funding allocated to the former Radio New Zealand Sound Archives Ngā Taonga Kōrero to deliver the interim outputs and outcomes for sound archiving as set out in Schedule 4. The parties acknowledge that the management of the content and outputs of Sound Archives Ngā Taonga Kōrero will require the NZFA to scope new outputs and performance measures. The NZFA will provide a confirmed business plan for 2013/14 for the use of the baseline funding for sound archiving to the Ministry by 31 July 2013;
- 6.5 provide a plan for the use of funding provided for the Sound Archives Digitisation Project to the Ministry by 1 July 2013 and report separately on the agreed plan within its regular reports to the Ministry;
- 6.6 provide a plan for the use of funding provided for the Iwi Radio Archive to the Ministry by 1 July 2013 and report regularly on progress against the agreed plan to the Ministry.

**The Minister will:**

- 7.1 subject to the above provisions, recognise the independence of the NZFA in managing its operations;
- 7.2 follow the 'no surprises' policy, namely briefing the Ministry, and the NZFA, if any matters relating to the remit of this Agreement may have implications for the NZFA or may be controversial, or may attract wide positive or negative public interest, including prior to the public release of information by the Minister or Ministry;
- 7.3 acknowledge that it may not be possible for the NZFA to achieve some performance measures for its outputs covered in this Agreement due to circumstances beyond its control. However, if there is significant or sustained



failure to produce the outputs specified in Schedules 2, 3 and 4 or significant non-compliance with the terms of the Agreement, the Minister will consider the most appropriate action, if any, that needs to be taken. These actions may include:

- amending the Agreement to reflect the new situation; or
- withholding payment of a proportion of the NZFA's appropriation until the terms of the Agreement have been met.

- 7.4 not undertake such actions referred to in paragraph 7.3 without prior consultation with the Board of the NZFA. Any changes will be recorded in writing and attached to the Agreement;
- 7.5 consult the NZFA on the development and introduction of an expectations manual to replace this MOU. At such time as the expectations manual is agreed by the Minister, the Minister may cancel this MOU. The Crown's obligation in clause 5 to pay the 2013/14 funding in the instalments set out in Schedule 2 will survive any such cancellation;
- 7.6 consult the NZFA before making a decision to provide funding to the NZFA for a specific purpose or in a specific way ("tagged funds");
- 7.7 provide, in accordance with the Estimates of Appropriations for 2013/14 (on behalf of the Crown), operating funding of **\$3,020,000** (GST exclusive) toward the outputs to be provided by the NZFA, **\$1,000,000** of which is being allocated for archiving of Sound Archives Ngā Taonga Kōrero material;
- 7.8 provide funding of **\$200,000** received from Te Māngai Pāho for archiving of Māori Television productions to the NZFA in equal quarterly statements (*Schedule 2*);
- 7.9 provide funding of **\$240,000** received from Te Māngai Pāho for archiving of Iwi Radio material to the NZFA in equal quarterly statements (*Schedule 2*);
- 7.10 provide funding of **\$850,000** for a digitising project for sound archives in equal quarterly payments over the financial year.

**The Ministry will:**

- 8.1 pay the agreed funding to the NZFA in four instalments (see *Schedule 1*);
- 8.2 provide the NZFA with timely feedback on the reports provided under *Schedule 2*;
- 8.3 consult with the NZFA, where appropriate, on the content of briefings to the Minister. The NZFA's comments will be taken into account and, where agreement cannot be reached, these comments can be included (if the NZFA wishes) along with the Ministry's advice to the Minister;
- 8.4 draft replies to Parliamentary Questions and Ministerial correspondence. The NZFA and the Minister and/or Ministry will supply each other with any information required to carry out their work in a professional and timely manner, and to meet externally imposed deadlines. The Ministry (and/or the Minister) can withhold information from the NZFA where it is appropriate to do so (for example, in accordance with the provisions of the Privacy Act 1993), or where they may be separately liable for any legal proceedings;

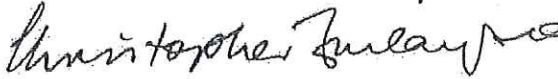


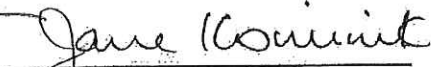
- 8.5 refer correspondence to the NZFA for direct reply if this is considered appropriate (for example, where it concerns the operational responsibilities of the NZFA);
- 8.6 use its best endeavours to inform the NZFA of significant issues that could concern the NZFA's operations, and maintain regular dialogue and co-operate on matters of mutual interest including reviews of the work and/or funding of the NZFA. If any issue or dispute arises between the Ministry and the NZFA both parties will work to resolve the dispute promptly;
- 8.7 use its best endeavours to advise the NZFA of press statements that comment on the NZFA prior to the release of any statement;
- 8.8 renegotiate this agreement if during its term the work or environment of the NZFA is so altered that the Agreement's contents are no longer appropriate.

#### FORCE MAJEURE

- 10.1 In this Agreement "force majeure" means an event which is beyond the reasonable control of any of the parties and which makes a party's performance of its obligations under this Agreement impossible or so impracticable as reasonably to be considered impossible. It does not include industrial action where that action is within the power of the party invoking force majeure to prevent.
- 10.2 No party should be liable to the other party for any breach of its obligations under this Agreement, or for losses or damages sustained by the other party, where such breach or non-performance is caused by force majeure.
- 10.3 If either party is unable to perform, or is delayed in the performance of this Agreement due to force majeure, that party shall notify the other party as soon as practicable of the event of force majeure. This Agreement may thereupon be suspended or terminated by agreement between the parties.

#### SIGNATURES

  
Hon Christopher Finlayson  
Minister for Arts, Culture and Heritage

  
Jane Kominik  
Chair, New Zealand Film Archive

Date

19 June 2013

Date 28 June, 2013

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#### Schedule 4 – Application of Sound Archives Funding

The NZFA will accession a minimum of 1100 hours of broadcast audio programmes which are likely to be of historical interest in New Zealand during the contract period.

These will comprise:

200 Minimum hours of Māori broadcast audio programmes

850 Minimum hours of other broadcast audio programmes

50 Hours of historical audio programmes

The NZFA will preserve a minimum of 400 hours of acquired broadcast audio programmes during the contract period.

The parties acknowledge that the management of the content and services of the former Radio New Zealand Sound Archives Ngā Taonga Kōrero will require the NZFA to scope new outputs and performance measures for inclusion in its Statement of Intent.

The NZFA will consult MCH about policies and processes for the ongoing selection of material for deposit and archiving.

The NZFA will handle, preserve and store the deposited material in accordance with international best archiving practice for sound archiving and any standards agreed between the NZFA and MCH.

The NZFA will report on its sound archiving activities, including the above outputs, as a separate section in its regular reporting as outlined in Schedule 2. This will include its use of funding provided for the Sound Archives Digitisation Project.

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Revised 21 June 2013

## Schedule 1 – 2013/14 Crown Payments to the NZFA

	Appropriation (\$ GST Exclusive)	GST (\$)	Disbursement (\$ GST Inclusive)
1 July 2013	755,000	113,250	868,250
1 October 2013	755,000	113,250	868,250
3 January 2014	755,000	113,250	868,250
1 April 2014	755,000	113,250	868,250
<b>\$ Total</b>	<b>3,020,000</b>	<b>453,000</b>	<b>3,473,000</b>

## Māori Television and Iwi Radio Archiving Funding

	Appropriation (\$ GST Exclusive)	GST (\$)	Disbursement (\$ GST Inclusive)
1 July 2013	220,000	33,000	253,000
3 January 2014	220,000	33,000	253,000
<b>\$ Total</b>	<b>440,000</b>	<b>66,000</b>	<b>506,000</b>

## Sound Archives Digitisation Project Funding

	Appropriation (\$ GST Exclusive)	GST (\$)	Disbursement (\$ GST Inclusive)
1 July 2013	212,500	31,875	244,375
1 October 2013	212,500	31,875	244,375
3 January 2014	212,500	31,875	244,375
1 April 2014	212,500	31,875	244,375
<b>\$ Total</b>	<b>850,000</b>	<b>127,500</b>	<b>977,500</b>

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THE FILM ARCHIVE  
Nga Kaitiaki O Nga Taonga Whitiāhua The New Zealand Film Archive

**SOUND ARCHIVES**  
**NGĀ TAONGA KŌRERO**

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**PROJECT PROPOSAL**  
**AUDIO DIGITISATION**

June 2013

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## 1. BACKGROUND

1.1 The Sound Archives Nga Taonga Korero collection contains over 80,000 items with an estimated running time of more than 35,000 hours. It is held on a variety of analog formats including acetate and vinyl disks, open reel and cassette tapes and some early digital formats, most notably DAT (Digital Audio Tape). It presents a range of conservation and preservation challenges arising from the durability of the original media and the availability of the equipment required to reproduce them. At the same time, it is a reflection of more than 80 years of New Zealand's broadcasting history and its contents can also be assessed on the basis of their importance to cultural, social and technological history.

1.2 In common with all audiovisual archives, the SANTK collection faces significant issues of physical deterioration and format obsolescence. The disruption to the previous preservation programme caused by the Canterbury earthquakes has set back efforts by more than two years and the useful life of crucial analog equipment is dwindling all the time.

1.3 In an ideal world, the entire collection would be preserved by transfer to digital storage. That process would address the physical risks to its long-term survival and make all of its contents available for access on demand. However, there are practical constraints on any ambition to digitise such a large collection. 20,000 hours of content would take more than 10 years of machine time to transfer and for each hour of transfer there would have to be at least an equivalent allowance of time for preparation, repair and collection management. Such a project would cost an estimated \$5 million on top of the ongoing operating costs of the Archives.

## 2. OUTLINE

2.1 The decision by NZ on Air and the Ministry for Culture and Heritage to provide \$1 million for digitisation of the audio collection provides a great opportunity, but also throws up some difficult choices. It should allow for approximately 50% of the collection to be digitised. Without any certainty of funding for the balance of the work, that investment will have to be applied to the highest priority tasks. This paper outlines an effective approach to digitisation within the available resources, balancing conservation and curatorial imperatives to achieve the best possible outcome and laying the foundation for sustainable digital preservation following the completion of the project.

2.2 Sound Archives staff already have the necessary in-depth knowledge of the content and condition of the collection to design and manage a content selection process which balances preservation and curatorial priorities. Their specialist conservation skills will be crucial in preparing a variety of legacy tape and disk materials for transfer. To date, approximately 15% of the collection has been digitised through largely manual processes. Material is held on digital storage systems with offsite data tape backup. Much of the collection is now publicly searchable via an online database.

2.3 The Film Archive has planned and completed a number of comparable digitisation projects based on technology and workflow advice from US-based audiovisual digitisation consultant Jim Lindner. In recent years, for example, it has undertaken targeted collection transfers of the Chapman Archive (13,000 news and current affairs programmes), Kohanga Reo Trust (1,500 hours of video) and the National Television Collection (9,000 hours of broadcast material). The Film Archive medialab digitises between 5,000 and 10,000 film and video titles per year. In total it has now digitised 30,000 audiovisual items, representing a total of over one million Gigabytes of data. The resulting digital media collection is held on an integrated system of file servers for immediate access and off-line data tapes for archival retrieval, tracked and managed via the Film Archive's database.

### 3. TARGETS

3.1 Based on initial research and consultation, Sound Archives and Film Archive staff have identified three principal focuses for the proposed audio digitisation project: the Nga Taonga Korero collection; the holdings of DAT cassettes; and high priority material selected from the main collection.

#### 3.2 NGA TAONGA KORERO

The Nga Taonga Korero collection includes the majority of Māori radio programmes broadcast since the early 1960s, recordings of many important hui dating back to the 1930s, oral traditions related by tribal experts in te reo Maori, recordings of traditional moteatea and many recordings of cultural competitions. The collection contains over 20,000 items, the majority of which are on open reel tape. Other formats include DAT and cassette. Most of the collection was initially recorded on acetate disks and open-reel tape and, following an unsuccessful attempt to transfer it to Compact Disk some years ago, it is an urgent priority for transfer to digital file form. Approximately 6,500 hours of tape material will be digitised with a combination of mass digitisation and specialised repair and transfer.

<b>NTK Collection</b>	
Mass digitisation (hours)	5,750
Problem material (hours)	750
Productivity ratio*	1
Operators	2
<b>Working hours</b>	<b>2,875</b>
<b>Team weeks</b>	<b>77</b>

- The estimated number of work-hours required to produce one hour of digital material (see Section 4).



### 3.3 DIGITAL AUDIO TAPE

Ironically one of the most pressing cases for digital preservation is for material which was initially recorded by a digital process. Digital Audio Tape or DAT was an early proprietary digital recording format which flourished in the 1980s and 1990s but has since ceased to be supported by Sony, its manufacturer. As a result, it has become very difficult to obtain and maintain the necessary replay equipment and it is now a matter of urgency to transfer material from DAT tapes to digital file format. The Sound Archives hold a substantial number of DAT tapes, including a sequence of Morning Report programmes from the 1990s. A total of 3,000 hours will be transferred to digital file format.

DAT Collection	
Mass digitisation (hours)	2,750
Problem material (hours)	250
Productivity ratio*	0.6
Operators	1
<b>Working hours</b>	<b>2,025</b>
<b>Operator weeks</b>	<b>54</b>

- The estimated number of work-hours required to produce one hour of digital material (see Section 4).

### 3.4 SELECTION FROM SOUND ARCHIVES COLLECTION

The Sound Archives collection reflects more than 80 years of New Zealand radio broadcasting. While the ultimate objective is to transfer all of it to digital form to aid its long-term preservation, the current project will not allow for that to be done immediately. Consequently a selection process will be implemented to choose both the most significant and most at-risk material for digitisation. The selected programmes will span the full timeline of the collection (with a strong emphasis on the earliest recordings) and the full range of physical media (with a strong emphasis on the most fragile formats). The result will be a digital collection of around 7,000 hours, replicating and making available around 60% of the most valuable Sound Archives holdings outside the specialist collections detailed above.



<b>Selection</b>	
Mass digitisation (hours)	6,000
Problem material (hours)	1,000
Productivity ratio*	1
Operators	2
<b>Working hours</b>	<b>3,000</b>
<b>Team weeks</b>	<b>80</b>

- The estimated number of work-hours required to produce one hour of digital material (see Section 4).

### 3.5 CONSERVATION AND PRESERVATION

As noted above, each area of the collection has a specific set of technical issues. For the analog holdings (cylinders, disks, tapes and cassettes) in both Nga Taonga Korero and the main SANTK collection, this problem material is best separated from the mass digitisation workflow and handled by specialist conservators. Based on existing information about the collections, the proportion of material needing specialist treatment is estimated at about 15% to 20% of the total holdings. In the context of the digitisation project, that will represent about 2,000 hours to be dealt with by the SANTK conservation unit.

<b>Tape Preservation</b>	
Problem material (hours)	1,250
Productivity ratio*	3
Operator	1
<b>Working hours</b>	<b>3,750</b>
<b>Operator weeks</b>	<b>100</b>

- The estimated number of work-hours required to produce one hour of digital material (see Section 4).

<b>Disk Preservation</b>	
Problem material (hours)	750
Productivity ratio*	5
Operator	1
<b>Working hours</b>	<b>3,750</b>
<b>Operator weeks</b>	<b>100</b>

- The estimated number of work-hours required to produce one hour of digital material (see Section 4).

#### 4. METHODOLOGY AND PRODUCTIVITY

4.1 The approach proposed for the digitisation project reflects both the range of needs within the collections and the logistical constraints which arise from limited funding. An all-encompassing digitisation programme for the SANTK collection has been estimated to need at least twice the time and money available under this project. In recognition of these factors, the Film Archive and Sound Archives will combine the "digitisation factory" methods suggested by our consultants and colleagues with more hands-on, conservation-based methods for problem material which is not suitable for mass transfer. The resulting combination of techniques is designed to produce the best value for money along with the best preservation outcomes.

#### 4.2 THE DIGITISATION FACTORY

Mass digitisation of audiovisual collections has evolved over the last decade particularly through experience gained on large-scale transfer projects such as those undertaken at the US Library of Congress and the BBC and by European broadcasters and archives under the Europeana project. While these projects operate with a high degree of automation at an establishment cost which is not applicable here, their basic methods can be effectively implemented on a smaller scale with human operators rather than robots. The key to their productivity is a commitment to minimum material handling and the use of multiple parallel work streams by a single operator. The table below indicates the basis for calculating the output of a single appropriately trained and equipped technician. It allows for one hour of preparation and post-transfer handling for each hour of real-time transfer and assumes that technician will be able to operate and monitor two sets of equipment in parallel. In the Sound Archives collection, this approach is most appropriate for tape-based material and all or most disks will have to be treated individually.

MASS DIGITISATION	
Preparation (hours)	1
Transfer (hours)	1
Work streams	2
<b>Productivity ratio</b>	<b>1 : 1</b>

#### 4.3 PROBLEM MATERIAL

Not all original analog material is suitable for mass digitisation. Disks and tapes showing the symptoms of significant physical deterioration have to be identified and set aside from the mass digitisation workflow for specialist repair and conservation. The SANTK preservation staff have the necessary skills and equipment to prepare damaged or worn material and take it through a more closely monitored transfer. Even for tape material this more intensive process has a significantly lower productivity yield than the factory approach, with twice the handling time allowed and a single transfer work stream to allow close monitoring.



### TAPE PRESERVATION

Preparation (hours)	2
Transfer (hours)	1
Work streams	1
<b>Productivity ratio</b>	<b>3 : 1</b>

For disks an even greater level of preparation and hands-on intervention in the transfer process is required.

### DISK PRESERVATION

Preparation (hours)	4
Transfer (hours)	1
Work streams	1
<b>Productivity ratio</b>	<b>5 : 1</b>

#### 4.4 DIGITAL AUDIO TAPE

Digital Audio Tape represents a particular technical challenge. Although the content is already digital, replay machines are aging and present significant maintenance issues. In some cases, the carrier tapes show signs of deterioration. Where the tapes are in good condition, it is possible to achieve relatively high levels of throughput, taking advantage of their consistent format and the advantages of data transfer rather than analog signal connection. An experienced technician should be able to operate and monitor three parallel DAT work streams.

### DAT - MASS TRANSFER

Preparation (hours)	1
Transfer (hours)	1
Work streams	3
<b>Productivity ratio</b>	<b>0.6 : 1</b>

Where unacceptable error rates are encountered in a DAT transfer or obvious physical impairment is discovered prior to transfer, the tapes need to be set aside for any necessary physical repair and more carefully monitored copying, analogous to the digital preservation process above. Once again, in those cases the productivity will be significantly lower.



<b>DAT - PROBLEM MATERIAL</b>	
Preparation (hours)	1
Transfer (hours)	1
Work streams	1
<b>Productivity ratio</b>	<b>2 : 1</b>

4.5 In each case, the throughput rates are calculated to allow sufficient time for the transfer technician to capture and record essential metadata about the material undergoing transfer. Some of this information is contextual information necessary for the development of finding aids in the catalogue while some is technical file information generated by the workstation. Both elements are essential to the establishment of a comprehensive digital asset management system.

4.6 While the various work streams will be co-ordinated and share important resources, each will essentially run to its own timetable, reflecting the slightly different circumstances of each collection and the capabilities of each team. Some are ready to commence at the beginning of the 2013-2014 year, while others will need some further preliminary work. A schematic view of the timescales involved is attached in Appendix C.

## 5 RESOURCES

5.1 The success of such a digitisation project will depend upon the combination of technical/audio staff with cataloguing staff and a documentation programme to enable the identification and scanning of supporting material to enable the results of digitisation to be described and made accessible.

5.2 While the biggest cost in setting up and implementing the project is inevitably staffing, there will also need to be significant capital investment (see Appendix A). The key items required are workstations for the transfer operators - essentially specialised and augmented PCs - and servers to hold the resulting files. In addition the data management and storage regime calls for data tape back-up units. The other major technical component in the transfer project is the wide range of obsolete replay equipment, particularly turntables and tape decks, required to ingest the original analog recordings into the workstations. This machinery, in many cases impossible to find now, will be provided and kept operable by SANTK, Radio NZ and supporters in the industry.

## 6. OUTCOMES

- 6.1 Over its two-year span, the digitisation project will produce approximately 16,500 hours of digital audio material represented by more than 30,000 data files (24 bit .wav format sampled at 96 kHz). That quantity of data equates to 35,000 gigabytes or 35 terabytes of storage needed by the end of the project. As detailed in Appendix B, the files will be held and kept accessible on a central server, located in Christchurch, and archived on duplicated LTO data tapes held under vault conditions in both Christchurch and Wellington. As a further precaution, files made in Auckland from the Nga Taonga Korero transfer will also be held on a local server and backed up to data tape before they are sent on to the central server.
- 6.2 The Film Archive is currently developing a Digital Asset Management system to provide a seamless connection between its catalogue database and its digital media files, enabling rapid retrieval of material from central servers or from data tapes in the vaults. This system will be deployed over the coming year as throughput from the audio digitisation project ramps up and will ultimately encompass all the digital holdings of both archives.
- 6.3 The relatively smaller size of audio-only files makes it possible to maintain all SANTK digitised items at full resolution on a ready-access server, while video files have to be compressed or off-loaded to tape storage. As a result, all the material produced by the project will be instantly available to staff for use in public access programmes and, once it has been catalogued, it will be available for direct public access.
- 6.4 As noted above, the digitisation programme, while very welcome, does not allow for the digitisation of the entire SANTK collection or of any future analog acquisitions. However, the investment in digital equipment and the implementation of digital file creation and management systems will provide the basis for ongoing work. With adequate baseline funding, it is projected that the entire SANTK collection could be converted to digital file form by 2020.



APPENDIX A  
BUDGETS

OPERATING EXPENDITURE

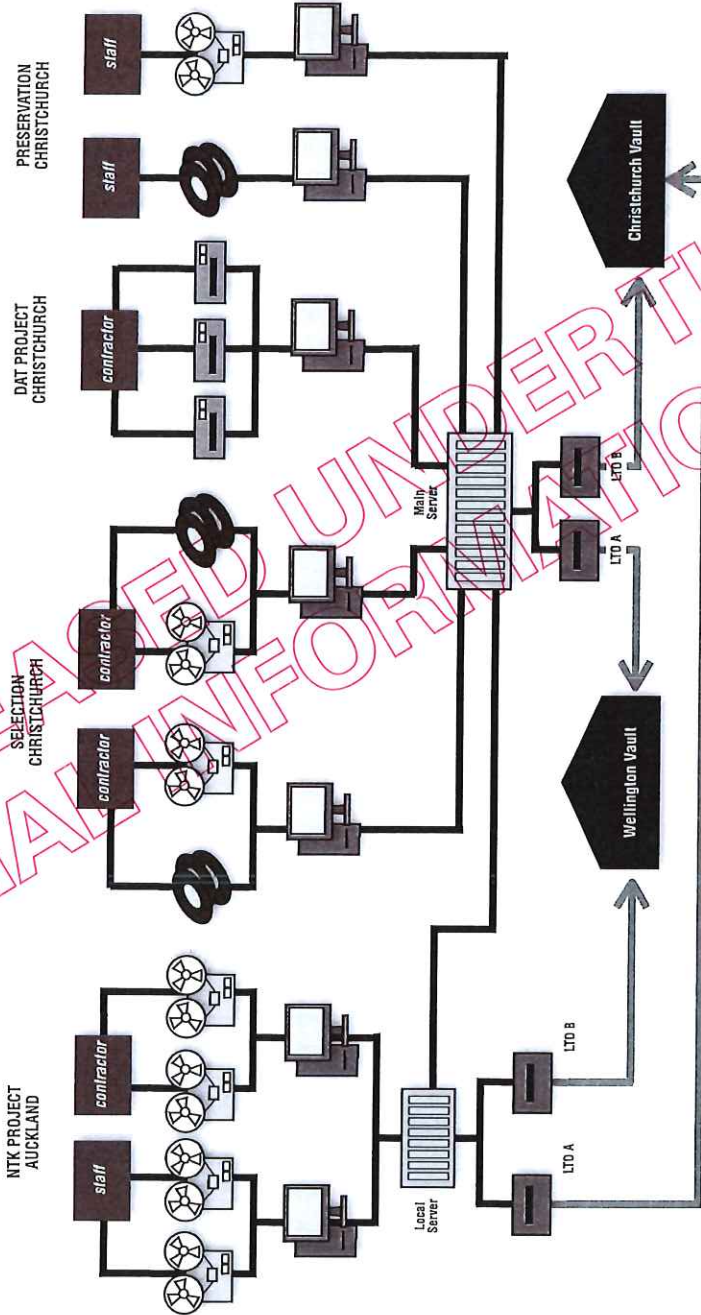
	Year 1	Year 2
Staffing	175,000	200,000
Consultants, tech support	25,000	10,000
Management support	25,000	25,000
Training	15,000	5,000
Travel	10,000	10,000
Communications, data transfer	10,000	10,000
Accommodation	20,000	20,000
Repairs and maintenance	10,000	15,000
LTO tapes	10,000	10,000
Depreciation	30,000	45,000
<b>Total</b>	<b>330,000</b>	<b>350,000</b>

CAPITAL EXPENDITURE

	Year 1	Year 2
Workstations	50,000	20,000
Servers	100,000	0
Networking	10,000	0
LTO decks	50,000	0
Transfer studios	50,000	0
Software	10,000	0
<b>Total</b>	<b>270,000</b>	<b>20,000</b>

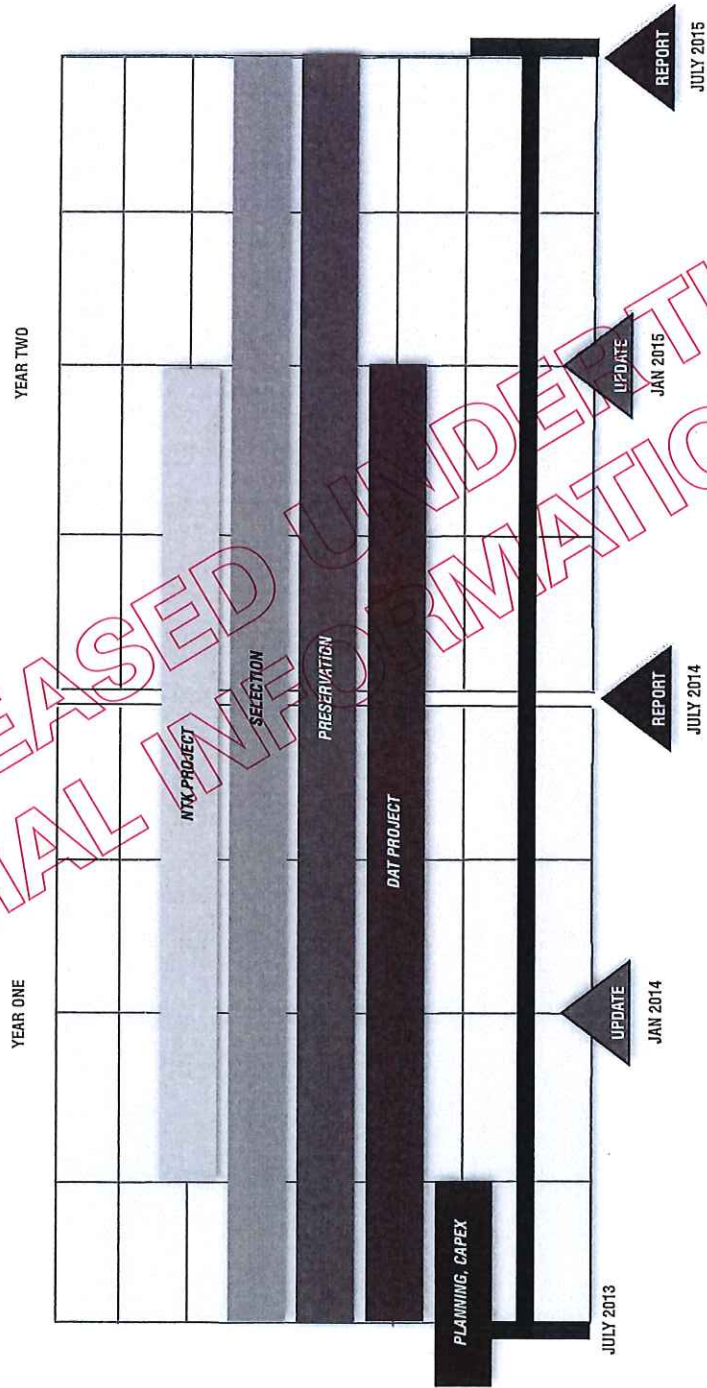


APPENDIX B  
WORKFLOW



RELEASED UNDER THE OFFICIAL INFORMATION ACT

APPENDIX C  
TIMELINE



RELEASED UNDER THE  
OFFICIAL INFORMATION ACT

RELEASED UNDER THE  
OFFICIAL INFORMATION ACT