



Public Records Audit Report for Toitū Te Whenua | Land Information New Zealand

Prepared for Te Rua Mahara o te Kāwanatanga Archives
New Zealand

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We are independent of Archives in accordance with the independence requirements of the Public Records Act (PRA) 2005.

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1. Executive summary

Toitū Te Whenua Land Information New Zealand (LINZ) is the New Zealand Government's lead agency for property and location information, Crown property and managing overseas investment across land, sea, data and regulatory areas. LINZ stores and manages high value public records, including land titles, geodetic and cadastral survey systems, topographic information, hydrographic information, and Crown property.

There are approximately 900 staff employed at LINZ, including a dedicated Knowledge Management team that supports staff enquiries, internal transfers and projects and tracks compliance with LINZ's information management responsibilities.

Records are maintained electronically and physically, with hard copy records stored offsite at a commercial storage facility, at Archives and across different LINZ offices. Electronic records are contained in an electronic content management system (ECMS) which has an established functions based classification structure. These records can also be stored temporarily on shared drives and Microsoft 365 applications. LINZ also has a publicly available system that enables access to public records such as land titles and related information.

This audit was initially performed in February 2022, and virtually due to COVID 19 restrictions. Storage inspections for Hamilton, Wellington and Christchurch were also performed virtually.

A reassessment of all topics, excluding topics 5, 8, 20 and 22, was performed in February 2023. The purpose of this reassessment was to assess the Landonline system. Landonline is the major repository of land titles (dealings) and survey data. Landonline plays a significant role in providing information to the New Zealand public and it is also a primary output of LINZ. Given this, the overall assessment for each topic has been updated to reflect the maturity of the Landonline system. The findings and recommendations set out in this report detail the maturity of both LINZ's corporate systems and Landonline.

LINZ's information management maturity is summarised below. Further detail on each of the maturity assessments can be found in Sections 4 and 5 of this report.

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Optimising



2. Introduction

KPMG was commissioned by Archives to undertake an independent audit of Toitū Te Whenua Land Information New Zealand under section 33 of the PRA. The audit took place remotely in February 2022 and February 2023.

LINZ's information management (IM) practices were audited against the PRA and the requirements in the [Information and records management standard](#) as set out in Archives Information Management Maturity Assessment.

Archives provides the framework and specifies the audit plan and areas of focus for auditors. Archives also provides administrative support for the auditors as they undertake the independent component of the audit process. The auditors are primarily responsible for the onsite audit, assessing against the standard, and writing the audit report. Archives is responsible for following up on the report's recommendations with your organisation.

3. This audit

This audit covers all public records held by LINZ, including both physical and digital information.

The audit involved reviews of selected documentation, interviews with selected staff, including the Executive Sponsor, Knowledge Management staff, the Information Technology team, the Digital Delivery team, and a sample of other staff members from various areas of LINZ. Note that the Executive Sponsor is the senior responsible officer for the audit.

The audit reviewed LINZ's information management practices against the PRA and the requirements in the Information and records management standard and provides an assessment of current state maturity. Where recommendations have been made, these are intended to strengthen the current state of maturity or to assist with moving to the next level of maturity.

This report provides an overview of both the corporate systems and Landonline system at LINZ. Landonline is the major repository of land titles (dealings) and survey data. Landonline plays a significant role in providing information to the New Zealand public. It is also a primary output of LINZ. Given this, the overall rating primarily reflects the assessment of this system. However, the recommendations made cover both Landonline and the corporate systems and are designed to address the lower maturity of the corporate systems.

The summary of maturity ratings can be found at Section 4, with detailed findings and recommendations following in Section 5. LINZ has reviewed the draft report, and a summary of their comments can be found in Section 6.

4. Maturity Assessment

This section lists all assessed maturity levels by topic area in a table format, refer to Appendix 1 for an accessible description of the table. For further context about how each maturity level assessment has been made, refer to the relevant topic area in the report in Section 5.

Category	No.	Topic	Maturity				
			Beginning	Progressing	Managing	Maturing	Optimising
Governance							
	1	IM strategy			•		
	2	IM policy and processes				•	
	3	Governance arrangements & Executive Sponsor			•		
	4	IM Integration into business processes			•		
	5	Outsourced functions and collaborative arrangements		•			
	6	Te Tiriti o Waitangi			•		
Self-monitoring							
	7	Self-monitoring			•		
Capability							
	8	Capacity and capability		•			
	9	IM roles and responsibilities			•		
Creation							
	10	Creation and capture of information				•	
	11	High-value / high-risk information			•		
Management							
	12	IM requirements built into technology systems				•	
	13	Integrity of information				•	
	14	Information maintenance and accessibility			•		
	15	Business continuity and recovery			•		
Storage							
	16	Appropriate storage arrangements			•		
Access							
	18	Information access, use and sharing			•		
Disposal							
	20	Current organisation-specific disposal authorities		•			
	21	Implementation of disposal decisions		•			
	22	Transfer to Archives		•			

Please note: Topics 17 and 19 in the Information Management Maturity Assessment are applicable to local authorities only and have therefore not been assessed.

5. Audit findings by category and topic



Governance

The management of information is a discipline that needs to be owned from the top down within a public office. The topics covered in the governance category are those that need senior-level vision and support to ensure that government information is managed to ensure effective business outcomes for the public office, our government, and New Zealanders.

TOPIC 1 – IM Strategy

Managing

Summary of findings

LINZ has a document called “LINZ Information and Data Strategy 2019-2021”. It was confirmed in interviews that the document had been approved by senior management. The strategy sets out LINZ’s vision and desired future state and includes an information and data roadmap for the period 2019/2020 to 2021/2022. The strategy identifies initiatives and implementation activities across four key areas, also referred to by LINZ as the drivers for change:

- Governance;
- Operating Model and People;
- Processes; and
- Data Sets, Platforms and Tools.

The strategy provides strategic direction on information management and supports the business needs of LINZ. However, it is not specifically linked to other organisational strategies and is not referenced when designing other organisational policies.

There was a strong awareness of the strategy across the LINZ staff who were interviewed.

Recommendation

Update the Information and Data Strategy to align with business needs and strategic direction, including for information management aspects of other organisational strategies and policies.

TOPIC 2 – IM policy and processes

Maturing

Summary of findings

LINZ has a detailed and comprehensive information management policy called the ‘Data and Information Management policy’. This policy is owned by the Chief Information Officer and was approved by LINZ’s Chief Executive in February 2020. The Chief Information Officer reports to the Kaihautū for Digital Delivery who is the Executive Sponsor at LINZ. Policies are reviewed and renewed on a three-year cycle.

The policy specifically outlines roles and responsibilities about information management at LINZ, covering different levels at LINZ as well as specific positions, such as Chief Executive and Deputy Chief Executive. The policy is consistent with the Archives standard and links to relevant legislation and internal documents. The policy’s requirements are built into some LINZ corporate information systems and business processes. For example, the ‘High Level Requirements for Clearances Electronic File Transfer’ document indicates the transition from physical

records to electronic records to provide staff and third parties with easy and timely access to information and future proof digital storage solutions. This document states clear roles and responsibilities and design considerations for the ECMS.

For Landonline, information management policy requirements are actively built into the system, for example, through business rules such as requiring an area quantity to be assigned to a portion of land and automated checks for information and data accuracy. Landonline is available as part of the data.govt.nz national knowledge base.

Staff interviews indicated a strong awareness of the Data and Information Management Policy and the responsibilities that are required of them. Staff noted that the policy was introduced to them as part of their onboarding and induction training and that subsequent updates/changes made to the policy are communicated via organisation-wide emails. Interviews indicated that breaches of the policy / information management responsibilities are actively addressed by the Knowledge Management (KM) team, raising it with the staff member to resolve.

There are good supporting information management related business activities to drive understanding and action related activities, such as the regularly updated information management training available to staff on the intranet. Information management is addressed in performance reviews as required based on individual capabilities selected from the All of Government Te Kawa Mataaho's Leadership Success Profile.

All staff positions at LINZ have information management responsibilities. However, only some job descriptions make specific references to these responsibilities, such as the Document Management Advisor. These responsibilities are not part of the standard job description template. A review is underway to align current roles to new broad-based role descriptions which include information management responsibilities. Technical roles, including IT, developers, and members of the Digital Delivery business group, have transitioned to the new broad-based role description. The broad-based role descriptions will eventually cover all roles across LINZ.

Recommendation

Ensure that the information management responsibilities are included in all job descriptions going forward and addressed in performance management plans for staff and contractors as relevant.

TOPIC 3 – Governance arrangements and Executive Sponsor

Managing

Summary of findings

Information management is widely acknowledged at LINZ as being at the core of its business activity. Although there is no information management governance group established at LINZ, there is an established security governance group that management and the Executive Sponsor are involved in. Staff interviewed indicated that this governance group intends to include information management within its core responsibilities and focus in the future. It currently governs IT security and manages any risk of information loss at LINZ. A recently established Microsoft 365 governance group at LINZ is currently planning to implement Microsoft 365 tools and support information management projects. The governance group report to the Chief Information Officer who relays key information to the Executive Sponsor.

There is a Board in place to govern the Survey and Title Enhancement Programme (STEP) to modernise Landonline. The Board (comprising of multiple senior management personnel at LINZ) meets monthly to discuss all risks and issues related to this programme, including information management, where necessary. STEP reporting and progress updates go to the LINZ Board with staff indicating the Board is heavily invested in the STEP Programme and attentive to system updates and demonstrations. STEP is also supported by a Landonline working group (LOG - Landonline Operations Group) comprising of internal and external stakeholders, including solicitors, surveyors and council representatives, who meet quarterly to discuss STEP updates, progress and provide feedback.

The Executive Sponsor understands their responsibilities for information management and performs their oversight and monitoring role. The Executive Sponsor is informed of breaches or areas of concern but does not receive specific or regular reporting regarding information management. The KM team runs regular reports on the ECMS to monitor compliance with internal information management policy and processes and provides these reports to the Executive Sponsor in instances of serious non-compliance. The Chief Information Officer also provides predominantly informal updates to the Executive Sponsor.

The Executive Sponsor receives Landonline information management activity through monthly IT operations reporting and quarterly security reports.

Recommendations

Plan to establish a governance group or use an existing governance group to cover corporate information management.

Design reporting that provides useful and actionable information for the Executive Sponsor and the Leadership team at LINZ.

TOPIC 4 – IM integration into business processes

Managing

Summary of findings

Information management responsibilities for business owners, including the Chief Executive, Deputy Chief Executives and Data Manager, are documented in the Data and Information Management policy (refer to Topic 2 – IM Policy and Processes). In addition, formal training provided during the onboarding process is to help further integrate an understanding of these responsibilities. Staff noted that these responsibilities are taken seriously amongst business owners and groups, given that information is a core component of LINZ's operational activity.

While information management responsibilities are not formally documented in all staff job descriptions, staff members interviewed were well aware of their responsibilities. They noted that any issues relating to information management could be directed to the KM team.

Staff members interviewed noted requirements for managing information are integrated into some business processes and activities. For example, the KM team oversee relationships with third parties that handle LINZ digital and physical information. The Project Capability and KM team have informal discussions on how to build information management initiatives and considerations into all projects on an ad hoc basis.

For Landonline, requirements for managing information are integrated into core business processes and activities and are considered in business process change. For example, a process for biannual updates of Landonline includes testing before updates are implemented, sending release notes to staff outlining system updates and recording all changes in LINZ's issue tracking software. Information management expertise, such as Digital Specialists, are always included in business process change and support business activity by providing daily, weekly and monthly reporting on Landonline targets including processing time and accuracy, as well as bulk data extracts prioritised by business owners.

The responsibility for management and quality of information is included in performance plans as required.

Recommendation

Formalise the KM team's involvement with Project Capability in all projects involving information management to ensure information management requirements are integrated into all core corporate business processes and activities.

TOPIC 5 – Outsourced functions and collaborative arrangements

Progressing

Summary of findings

Requirements for managing information were identified in some but not all contracts sampled for outsourced functions and collaborative agreements. Further, the contracts reviewed did not recognise the status of the documents handled as public records.

Roles and responsibilities for information management and monitoring practices were clearly identified in the contracts sampled.

Recommendation

All contracts for outsourced functions and collaborative arrangements going forward should include information management requirements. These requirements should be actively monitored and where necessary, issues addressed.

TOPIC 6 – Te Tiriti of Waitangi

Managing

Summary of findings

LINZ recognises that all land information held is potentially of importance to Māori. LINZ have a strong relationship with the Māori Land Court to supply records that may support land or Treaty settlement cases. There is a dedicated team (Business with Māori) led by the Kaihautū for Māori Crown relations, that maintains relationships with iwi while supporting pastoral land and treaty settlements.

Information management expertise is involved in any new agreements with Māori or that are of importance to Māori to ensure information management implications are analysed and documented. This is evident in a recent relationship agreement formed between LINZ and a Māori entity. This agreement allows LINZ to provide access to or copies of information identified as being of relevance to this entity.

An updated Landonline public search function can be used to access land title and survey records for specific geographical areas, and this has significantly improved the accessibility and discoverability of information of importance to Māori. LINZ have actively worked with Māori, including regular and ongoing engagement with the Māori Land Court, to match survey titles and ensure reconciliations are performed. The search function can be used by the public without a Landonline account and flags information of importance to Māori as well as links search results to the relevant survey title on the Māori Land Online site.

Although information management implications within Treaty of Waitangi settlement arrangements are understood, nothing is formally documented.

Recommendation

Formally document information management implications for information held that is of importance to Māori.

Self-monitoring

Public offices are responsible for measuring and monitoring their information management performance for planning and improvement purposes. This helps to ensure that IM systems and processes are working effectively and efficiently. It also ensures that public offices are meeting the mandatory Information and records management standard as well as their own internal policies and processes.



TOPIC 7 – Self-monitoring

Managing

Summary of findings

Staff noted during interviews that the KM team and the Information Management Advisor regularly monitor compliance against internal information management policies and processes for the purposes of identifying potential and wider reoccurring issues. As a result, the KM team then put in place the appropriate corrective actions to address these issues, for example training, refreshers and guidance.

The KM team addresses the cases of non-compliance with education rather than reprimanding the non-compliant staff members. Interviewees stated that they are comfortable in seeking help from the KM team if there were any issues or queries. However, while the KM team addresses instances of non-compliance, there is no documented process or evidence of a structured approach to implement corrective actions. If there are any significant breaches or

issues with compliance, the Executive Sponsor and senior management are verbally notified during monthly performance reviews across the organisation.

Microsoft 365 is occasionally used to share information of temporary value (such as working drafts) between staff members, however, there are no sufficient monitoring tools available for the system. The KM team advised that they are actively planning to roll out a monitoring tool.

Monitoring activities for Landonline such as staff performance and compliance are reported across the organisation, including to the Board, senior management and relevant team managers. Reports outline compliance and whether standards are met for measures including accuracy, processing errors and timeliness. Staff members are actively monitored for quality control purposes and to ensure accuracy of data input into Landonline. This is recognised in percentages and as 'work checked'. If a staff member was non-compliant or took extended leave, their percentage of work checked would be adjusted accordingly. Furthermore, a training environment in Landonline allows staff to practice in a safe and non-risk environment.

Information management monitoring and reporting forms part of the STEP Programme's risk management processes through inclusion in the STEP risk register and discussions in monthly STEP Board meetings. The STEP programme has a dedicated risk manager who works through potential risks quarterly and discusses risks at regular STEP meetings.

Recommendation

Implement a formal documented process to monitor compliance and address issues of non-compliance, related to corporate information management, to ensure a systematic and timely approach. This will also allow LINZ to track trends and address those issues accordingly.

Capability



Information underpins everything our public offices do and impacts all functions and all staff within the public office. Effective management of information requires a breadth of experience and expertise for IM practitioners. Information is a core asset, and all staff need to understand how managing information as an asset will make a difference to business outcomes.

TOPIC 8 – Capacity and capability

Progressing

Summary of findings

Information management capability requirements are starting to be addressed, notably through an organisational restructure at LINZ. It is anticipated that a new team (Application Management Team) will be formally established. The purpose of the team will be to become owners of orphan systems, establishing and formalising application owner roles, as well as the content for these systems. It is expected that this team will work closely with the KM team. Additionally, staff interviews noted specialist capability is required to support Microsoft 365 ongoing transition/roll-out across LINZ.

While information management capability requirements are not fully addressed, the KM team do play a significant role in information management at LINZ. They provide and offer support to staff to ensure they remain accountable and responsible to their information management related duties and tasks. The KM team have access to professional development opportunities to further enhance their existing skillsets, this is funded through an allocated budget set.

The KM team acknowledges that additional resource is required to support ongoing work streams. There is no formal plan to address information management capacity requirements. However, interviews suggest that LINZ is recruiting for the IT testing team, which, once filled, may increase information management capacity. Responsibilities for this team include conducting forward testing for technology upgrades or changes to confirm systems are operating as expected and data remains intact.

Recommendation

Ensure information management capacity and capability requirements are regularly assessed and monitored against business needs.

TOPIC 9 – IM roles and responsibilities

Managing

Summary of findings

Information management responsibilities are initially communicated to all staff and contractors through induction training. This is reinforced by other training and internal documents, such as the Code of Conduct and data and information management policy. The KM team also offers support. Any amendments made to internal documents, including those regarding information management roles and responsibilities, are communicated organisation-wide via email or can be tracked on the Intranet. Interviews confirmed that LINZ staff have a strong awareness and understanding of their information management responsibilities due to this communication activity.

As referenced in Topic 2, not all job descriptions for staff outside the KM team contain clearly outlined information management responsibilities. A review is underway to align current roles to new broad-based role descriptions which include information management responsibilities. Technical roles, including IT, developers, and members of the Digital Delivery business group, have transitioned to the new broad-based role description. The broad-based role descriptions contain standard wording relating to managing data and information responsibilities and will eventually cover all roles across LINZ, following the completion of an ongoing internal review.

As well as induction training on information management, there is some targeted training available for staff and contractors. For example, targeted Landonline training modules include information management components on how to create different forms of information correctly.

Recommendation

Information management responsibilities should be included in all staff job descriptions and performance plans going forward.

Creation



It is important to take a systematic approach to the management of government information, and this starts with an understanding of what information must be created and captured. It is expected that public offices create and capture complete and accurate documentation of the policies, actions and transactions of government. Knowing what information assets are held by public offices is essential to IM practice.

TOPIC 10 – Creation and capture of information

Maturing

Summary of findings

Interviews confirmed that staff are aware of their legal obligations to create full and accurate records under internal policy (which is linked to the Public Records Act 2005). Information management practices are included as part of the induction training provided to all new starters and are explicitly included in the Code of Conduct.

Information is routinely created and captured as part of all business functions, systems and activities.

Landonline is a core business system and considered to be a key organisational asset. Landonline is managed and resourced by the Digital Delivery business group at LINZ, as well as managed externally by Datacom. As a system that manages valuable information, Landonline is mandated to be available 99.5% of the time. Automated alerts will notify of system failure and reports on Landonline information usability, reliability and trust issues go up to Ministerial level.

Landonline is a source of truth for multiple external enterprises such as banks, surveyors, solicitors, homeowners and iwi. All information captured in Landonline is reviewed and monitored regularly for accuracy and completeness (through monthly and quarterly reviews). Metadata is incorporated as BAU. Staff compliance and performance is reported on to Senior Management as part of regular monitoring and review of information management issues.

For LINZ's corporate systems, most information is managed in the controlled environment of the ECMS to ensure usability and reliability. Interviews suggest that although some descriptive metadata functionality is used by some staff, it is not consistently used across the organisation. Working drafts and documents of temporary value may be stored in uncontrolled environments, such as shared drives or Microsoft 365. Where the file is too large to be held in the ECMS, it can be held on a shared drive. There is currently no monitoring or oversight over information that is created or saved on shared drives or Microsoft 365.

LINZ has identified information that may not be usable or readable (i.e., old physical documents that have wear or tear, or historic data that is no longer in usable formats) and is planning a work programme to digitise and update the format of these records. However, the work programme to digitise and update the format will not include all information due to limited resources.

Recommendation

Formalise oversight and monitoring activities over LINZ's shared drive platforms and Microsoft 365 applications.

TOPIC 11 – High-value / high-risk information

Managing

Summary of findings

LINZ has an information asset register on its intranet that details information held in digital systems. LINZ has an awareness of what digital information it holds that could be considered high-value or high-risk. For example, they have categorised the information they have into the categories of 'Critical', 'Essential', 'Necessary' and 'Desirable'.

In addition, there has been some analysis of risks to high-value/high-risk information assets, refer to Topic 3 on discussion relating to the STEP program. These are all acknowledged as high-value (critical) and high-risk information, although it is not formally recognised or identified in the system. There are strong and well-established controls in place to protect against any unauthorised changes or access to the records held on Landonline. Any changes made are subject to either internal or external audit checks to ensure accuracy and completeness of information. Further, key risks related to information are recorded in a 'STEP Risk Management update' pack delivered to the STEP Board and are managed appropriately by a dedicated Risk Manager.

There is no information asset register for physical information. However, LINZ does have a good understanding of what physical information is considered to be of high-value and high-risk. It is currently actioning processes to mitigate risk to these documents, for example digitising and transfers to Archives.

Recommendations

Create an information asset register for physical information that identifies information that is of high-value or high-risk to LINZ.

Conduct periodic analysis of risks to high-value and high-risk information, and ensure measures to mitigate against such risks are documented.

Management



Management of information should be designed into systems to ensure its ongoing management and access over time, including following a business disruption event. Information must be reliable, trustworthy and complete and managed to ensure it is easy to find, retrieve and use, as well as protected and secure.

TOPIC 12 – IM requirements built into technology systems

Maturing

Summary of findings

Information management expertise is fully involved in the design, configuration and implementation in the STEP upgrade project. Information management expertise is heavily involved across all aspects of the upgrade and new configuration. This expertise includes a dedicated team (Digital Delivery), the establishment of a STEP Board, as well as the Landonline Operational Group which includes representatives from Datacom. These groups support and maintain the integrity of the information on Landonline and ensure information management requirements are actively addressed and implemented, as Landonline is upgraded and modernised through the STEP programme.

In the existing Landonline system, metadata requirements are compulsory, and any risk identified is mitigated / actively addressed as quickly as possible. Additionally, disposal requirements are not applicable for Landonline as nothing can be deleted or disposed of. Records are instead archived when updated information is lodged into the system – see Topic 21.

However, information management expertise is not consistently involved in designing, configuring and implementing new business systems and decommissioning old business systems for LINZ's corporate systems. There is currently no documented standard information management requirements for new, upgraded or decommissioned business systems. Although, updates that are loosely linked to information management requirements for these types of projects, are reported in the IT operations monthly report.

The KM team and IT team are inconsistently engaged with for internal projects that have an information/record component. Engagement with either team is sometimes retrospectively done due to projects going awry or staff establishing projects prior to considering information management requirements. The KM team advised that they have developed supporting material for project managers as a knowledge bank and to ensure that a consistent approach to projects across LINZ is applied.

LINZ is currently setting up an application ownership process. This will ensure that each software application has an owner responsible for managing the system and the information stored within, including the sensitivity of this information.

Recommendation

Create standardised information management requirements for new and upgraded corporate systems and ensure the formal inclusion of information management expertise as part of this process.

TOPIC 13 – Integrity of information

Maturing

Summary of findings

High value is placed on ensuring that information managed on Landonline is trustworthy, findable and retrievable. This shows the importance placed on the Landonline system at LINZ and by the wider New Zealand public. For example, this is reflected in the search functionality implemented on Landonline in March 2020. Previously, users of the system were required to know exactly what they were searching for in order to access the record needed. The new search functionality was introduced to improve and facilitate users, staff and contractors' ability to retrieve information with ease. For example, users can use key words to search for what they're looking for.

There are strong controls in place to ensure all information recorded on Landonline is reliable, usable, comprehensive and complete. This includes, but is not limited to:

- Fortnightly meetings with the Māori Land Court (MLC) to reconcile and confirm accuracy of titles and surveys records between Landonline and the MLC system.
- Security checks conducted (both internally with a sign-off process and externally with Datacom) on changes made to titles on Landonline prior to release in the public domain. This is to ensure no unauthorised changes or access has been made.
- Annual audit and sample testing performed internally on details and changes input by solicitors at law firms.
- External audits performed on Landonline to provide an independent assessment.
- Quality control team checks and reports monthly on work recently done in Landonline. Results are circulated to the Registrar General of Land team, team leads, senior management and to the Ministers' office (level of detail lessens on seniority).
- Quarterly reporting performed includes error rate data pulled from Power BI reporting. This report includes details such as 'x number of titles submitted' and 'x number of title errors identified'. Quarterly reporting is shared upwards.

Findings and risks identified from these controls are dealt with appropriately and promptly to mitigate any further exposure to risk. LINZ places high value on ensuring information and records lodged in Landonline are accurate, complete and reliable.

Staff provided variable experiences when searching and retrieving information within the ECMS. Those interviewed said that it is easier to consult the owner of the information rather than trying to find it themselves. Management is aware of the guidance for naming conventions, however, some staff were not aware guidance existed and noted that approach varies between business units as there is no consistent approach. For Landonline, search functionality is enhanced, due to the public search function. This enables users, both staff and public users, to locate desired information in an easier and more systematic way.

However, staff expressed confidence that information that is retrieved and used from the ECMS is reliable and trustworthy. The ECMS provides staff with automatic document versioning, comprehensive audit trails and role-based permissions (monitored closely by the KM team). In addition, LINZ has a dedicated testing team that tests the controls on systems as part of the technology project.

Recommendation

To enable consistent results in retrieval of information from the ECMS implement training for staff including standardised naming conventions.

TOPIC 14 – Information maintenance and accessibility

Managing

Summary of findings

There are strategies in place to manage and maintain digital information during some business and system change projects for LINZ corporate systems. For example, testing prior to and after migration and constant monitoring by the KM team to assign and track role-based permissions.

System changes made to the current Landonline system are currently underway as part of the STEP program. Strategies are in place to manage and maintain the integrity and accuracy of all records lodged on both the existing system and the planned new system. The transition to the new system will not result in changes to any records (outside of normal BAU activity). The STEP program intends to modernise and refresh the system to ensure information available on Landonline is more accessible, has better metadata and is better supported in the long-term.

Monthly risk reporting to the STEP Board confirms risks have been identified to business changes and technology transitions as it relates to Landonline. Controls in place to mitigate inherent risk include extensive piloting of

enhancements made, quality monitoring through internal and external checks, and change management unit in place to liaise with business units. Some of these controls are 'effective' while some are 'partially effective'.

Some risks for the ongoing accessibility of physical information have been identified, such as preservation needs. LINZ currently has a work programme to digitise the majority of physical records. However, there are no formal documented strategies to maintain and manage physical information during business and system changes.

Preservation and continuity needs for digital information are identified, and plans are in place to address these. All systems have processes to ensure data is protected and preserved, and any aging data LINZ holds is migrated across systems. Long term formats are identified for this process and a master and user copy are also stored. To store data, LINZ predominantly uses cloud storage, allowing for easy access.

Recommendation

Establish a periodic review of ongoing accessibility risks and preservation needs for physical and digital information.

TOPIC 15 – Business continuity and recovery

Managing

Summary of findings

LINZ has Business Continuity Plans (BCPs) and disaster recovery plans (DRP) for different areas of the organisation. LINZ also has a Business Continuity Management Policy that outlines roles and responsibilities and provides an overview of the BCM lifecycle and how to activate BCPs.

For this audit, a sample of three BCPs were assessed and reviewed, such as the Digital Delivery BCP (Landonline), Business Transformation BCP and Land Information BCP. The BCPs identified critical information and business functions necessary for critical business activities, although these predominantly related to digital information (e.g., Landonline is completely digital). In addition, there are recovery plans (in some instances), recovery checklists, as well as testing, training and review schedules. The BCPs reviewed are up to date and approved by the Executive Sponsor.

LINZ maintains the highest number of physical records of any public office in New Zealand, with records extending as far back to the 1800s. These records are maintained by a third-party provider and also across their Wellington, Christchurch and Hamilton offices. DRPs primarily relate to digital information and information systems, and not physical records. There is no formal plan for the salvage of physical records at LINZ.

As per staff interviews and according to the Business Continuity Management Policy, BCPs are tested annually and after any critical process changes to ensure it works as expected. In addition, an annual Disaster Recovery test is conducted for Landonline alongside Datacom – this was most recently performed in late 2022. All residual risks were assessed as Low, demonstrating controls are in place and effective.

Recommendations

Ensure the salvage and restoration of physical information is considered and appropriately handled in BCPs developed. Appropriate updates should be reflected during the next review cycle.

Develop DRPs for physical records at LINZ.

Storage



Good storage is a very important factor for information protection and security. Appropriate storage arrangements for both physical and digital information ensures information remains accessible and usable for as long as it is required for business and legal purposes and for accountable government.

TOPIC 16 – Appropriate storage arrangements

Managing

Summary of findings

There is some protection and security for physical information against unauthorised access, loss or destruction. Items in all locations are clearly labelled. At both the Christchurch and Hamilton offices, information is largely stored and maintained in secure and locked rooms, where access is granted to specific individuals. In Wellington, physical information is available to all staff on an open-access floor and is not secured in locked rooms or cabinet spaces. Although it is unlikely, there is the opportunity for some physical information, not directly stored near specific teams, to be inappropriately taken, misused or deleted by other LINZ staff. Neither office maintains a log that informs what document / record has been taken, by whom and on what date. There is an informal system in the Christchurch and Hamilton offices, where a note is left in the place of the document/record taken.

Environmental hazards that may impact the information storage environment across all offices have been identified and some mitigations have been put in place. For example, there are sprinklers, barriers on shelves to stop physical information falling in the event of an earthquake and shelves are lifted and lipped in case of flooding. These hazards are not formally documented in a register.

There is protection and security for digital information against unauthorised access, loss, deletion, or destruction (including third party storage providers). LINZ has an agreement with an IT provider that states all data must be backed up and information has role-based access controls. Digital information stored on LINZ's corporate systems is secured from unauthorised deletion by restrictions set by the KM team. Staff need to request a deletion which needs to be approved by the KM team. There are clear audit trails on different LINZ systems, including Landonline and role-based privileges for some corporate information systems i.e., finance and HR records are locked and can only be viewed by those teams.

Information stored on Landonline cannot be deleted. Information that is amended or updated will supersede the previous version which is then archived (not visible to the public). There is an established sign-off process in place to ensure these changes are appropriate, accurate and are made with authorised access. These protection and security mechanisms are tested annually through disaster recovery and BCP testing. Landonline is run on a group of machines to ensure information can continue to be available and accessible in the event one is disconnected or disrupted. These machines also protect against potential hazards, such as physical damage or disconnection to one machine. These machines are closely monitored and managed to ensure they are operating as expected, with any updates raised in relevant Landonline meetings.

Recommendation

Create a process / system for physical information stored onsite that allows staff to track whether information has been tracked and returned.



Access

Ongoing access to and use of information enables staff to do their work and the public to hold government accountable. To facilitate this, public offices need mechanisms for finding and using this information efficiently. Information and/or data sharing between public offices and with external organisations should be documented in specific information sharing agreements.

TOPIC 18 – Information access, use and sharing

Managing

Summary of findings

The ECMS has a file plan structure to facilitate consistent management and discovery of information. Interviews noted that staff have received training on how to use the ECMS and that they feel confident in using internal business systems.

Access to specific folders and information systems at LINZ are controlled by role-based user-access. In some instances, LINZ staff do not always have access to certain information they require, however, staff noted that they can request access to required information where appropriate. The KM team regularly reviews and updates the documented access controls and roles as part of restructuring, onboarding, offboarding, and internal transfers.

Metadata is automatically applied and is compulsory on the Landonline system. Metadata used in Landonline complies with Archives minimum metadata requirements.

Information management processes are applied to incoming and outgoing information and data shared with external parties. For example, staff interviewed at the Christchurch office advised that external parties view physical information in a separate room, and they cannot access the secure room where the physical items are stored and maintained. Information is then returned to staff prior to departure. It is expected that all external parties must adhere to internal LINZ policies, such as the Data and Information Management policy, as well as responsibilities outlined in contracts held.

For digital information, information management processes are applied to data shared with external parties. This could be strengthened further. For example, at a high level the Te Kooti Whenua Māori and Toitū Te Whenua (LINZ) engagement document describes information management processes at each level (Governance, Strategic and, Operational). This includes confirming responsibility for oversight of quality of data, coordination and communication regarding MLC and LINZ systems, and mitigating errors if identified.

The responsibility for managing digital information within business units is consistently assigned to business owners through role-based permissions. There is no formal documentation of the different access granted to each business unit. Instead, the list of roles is maintained by the Human Resource team as a personnel record, rather than there being a distinct list of which role has a certain permission. The KM team track personnel who have changed or been added to a role to update permissions accordingly.

Recommendation

Update data sharing agreements with external parties to clearly articulate information management processes expected to be applied and adhered to.

Disposal



Disposal activity must be authorised by the Chief Archivist under the Public Records Act. Public offices should have their own specific disposal authority as well as actively use the General Disposal Authorities for disposal of general or more ephemeral information. Disposal should be carried out routinely. Information of archival value, both physical and digital, should be regularly transferred to Archives (or have a deferral of transfer) and be determined as either “open access” or “restricted access”.

TOPIC 20 – Current organisation-specific disposal authorities

Progressing

Summary of findings

LINZ has three current disposal authorities that are due to expire in 2023, although these do not cover all information held by LINZ. The current disposal authorities only relate to physical information and do not as yet include digital information.

Recommendation

Develop an organisation-specific disposal authority that covers all formats and is approved by Archives.

TOPIC 21 – Implementation of disposal decisions

Progressing

Summary of findings

Disposal activity varies between repositories and formats. Disposal requirements are mapped across the ECMS but not across shared drives and Microsoft 365. Staff are able to delete information from shared drives and Microsoft 365, but staff interviewed noted that only information such as working documents are stored on these platforms with final and high-value documents stored on the ECMS

Documents retained on the ECMS cannot be deleted by staff without appropriate approval. Staff can request the disposal of a document on ECMS that is supported by rationale. These requests are reviewed and assessed by the KM team, with the hard delete process actioned monthly. The internal document ‘Deleting documents from LinZone’ outlines the process. Disposal actions for digital documents on the ECMS are retained on audit trails, a disposal register, and metadata.

As stated previously, information retained on Landonline cannot be deleted or disposed of. Where titles and surveys are updated or superseded by more up-to-date information, the previous version is archived and retained. This not visible to the public for viewing. The archived information provides LINZ an audit trail of changes made.

Disposal of physical information requires approval from the KM lead prior to disposal. Some physical information is disposed of in a secure bin at each office. These disposals are documented in a register for records destruction.

The KM team performs checks on digital systems to ensure no copies of information are retained after disposal.

Recommendation

Develop a plan to apply disposal actions to all systems, including the shared network drives and Microsoft 365.

Summary of findings

LINZ is planning and in discussion with Archives to draft a schedule of information and records of archival value for transfer. Transfers have been conducted previously, with the most recent transfer of physical information actioned in 2021.

Transfers of digital information to Archives is slightly more complex due to complex data sets, such as, issues relating to land titles which can be linked to Treaty settlement claims and historical disputes. This data is considered to be of archival value as well as of business value, meaning it is deemed necessary to support Official Information Act requests. Staff noted that transfers of these complex data sets to Archives will require LINZ to delete all copies of digital information. As LINZ does not have a disposal authority related to digital information it has not yet transferred any digital information.

Most information over 25 years old, whether it is of archival value or not, is deemed to have open access to the public. The exceptions to this are records that relate to Crown or financial settlements, or where there may be privacy implications. These are deemed to be closed access to the public.

Recommendations

Continue to discuss transfer options with Archives to prepare for when digital disposal is approved.

Classify physical information as open or restricted in preparation for transfer.



6. Summary of feedback

Toitū Te Whenua welcomes this audit of our information management practices and we are keen to use the findings to assist us in continuing to mature our information and data management practices.

We are the central government agency with responsibility for managing the land title systems, geodetic and cadastral survey systems, topographic information, hydrographic information, managing Crown property and supporting government decision making around foreign ownership. As such we are a data rich agency and take our responsibilities around the accuracy and effective management of the information that we are entrusted with (historical and otherwise) very seriously.

We are grateful for the patience of the Auditors and Archives New Zealand and their constructive engagement throughout the process as we worked together to complete this audit. The issues we raised broadly revolved around the document-centric audit model which has limited understanding of the differences inherent in rich structured data models and systems.

We believe that the detailed feedback provided, on the underlying audit methodology and assumptions of the Archives New Zealand audit model, will assist in strengthening future iterations of the audit model.

Although Toitū Te Whenua still has reservations with some of the report assumptions, we are broadly in agreement with the audit findings and note that many of the actions proposed are already reflected in our work programme.

We look forward to working with the Archives New Zealand on the follow up actions..

7. Appendix 1

The table in Section 4, on page 3 lists all assessed maturity levels by topic area in a table format. This table has been listed below for accessibility purposes:

Topic 1, IM strategy – Managing

Topic 2, IM policy and processes – Maturing

Topic 3, Governance arrangements & Executive Sponsor – Managing

Topic 4, IM integration into business processes – Managing

Topic 5, Outsourced functions and collaborative arrangements – Progressing

Topic 6, Te Tiriti o Waitangi – Managing

Topic 7, Self-monitoring – Managing

Topic 8, Capability and capacity - Progressing

Topic 9, IM roles and responsibilities - Managing

Topic 10, Creation and capture of information - Maturing

Topic 11, High-value / high-risk information - Managing

Topic 12, IM requirements built into technology systems - Maturing

Topic 13, Integrity of information - Maturing

Topic 14, Information maintenance and accessibility - Managing

Topic 15, Business continuity and recovery – Managing

Topic 16, Appropriate storage arrangements – Managing

Topic 18, Information access, use and sharing – Managing

Topic 20, Current organisation-specific disposal authorities – Progressing

Topic 21, Implementation of disposal decisions – Progressing

Topic 22, Transfer to Archives – Progressing

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28 July 2023

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Tēnā koe Adrienne

Public Records Act 2005 Audit Recommendations

This letter contains my recommendations related to the independent audit of Toitū Te Whenua Land Information New Zealand (LINZ) completed by KPMG under section 33 of the Public Records Act 2005 (PRA). Thank you for making your staff and resources available to support the audit process.

Introduction

Te Rua Mahara o te Kāwanatanga Archives New Zealand (Archives) is mandated by the PRA to regulate public sector information management (IM). The audit programme is a key regulatory tool in our Monitoring Framework.

Monitoring IM practice across the public sector gives assurance that the government is open, transparent and accountable by providing visibility of public sector IM practices. Full, accurate and accessible information improves business efficiency and government decision-making and accountability, which in turn enhances public trust and confidence. Information that is well managed unlocks the value of government information for the benefit of everyone.

We are confident that you and your organisation are committed to delivering high-quality, trusted information to decision-makers, other government organisations, customers and stakeholders. We trust that the audit process will support this commitment. The audit report and this letter recommend changes to support improvement of your organisation's IM practices.

Audit findings

In the audit report, the auditor has independently assessed your information maturity against the framework of our IM Maturity Assessment. Prior to the audit, your organisation completed the Maturity Assessment. This provided a self-assessment of IM maturity for your own use and as context for the auditor about your organisation.

Kia pono ai te rua Mahara – Enabling trusted government information

Organisations that are assessed as having a maturity level of 'Managing' across all IM topics are broadly meeting the minimum requirements expected by the PRA and Archives' mandatory Information and records management standard. The IM maturity at LINZ has been assessed as firmly at Managing with a few topics at higher and lower maturity.

The production of the audit report has taken a considerable time as initially Landonline was not included. Its inclusion meant a change to maturity levels as Landonline receives a greater level of oversight from the organisation than the corporate systems. We believe a fair balance has been reached and appreciate the feedback from LINZ staff involved.

The oversight of the Landonline tool is impressive. Clearly, LINZ understands the data and information quality assurance necessary to maintain this key tool including governance, training, monitoring and risk analysis.

As this audit was being finalised, LINZ has scoped a plan for comprehensive disposal coverage with three new disposal authorities to be developed in sequence. This approach was outlined in the 10 May 2023 memo to Archives from Russell Clark, the LINZ Manager, Knowledge Leadership. The three disposal authorities would cover legacy physical records, current corporate records, and digital data including systems such as Landonline. This approach will substantially address the audit recommendations on disposal, and Archives commits to supporting this approach. Our resource constraints in 2023/24, and potentially in outyears, will require us to allocate and sequence our work on disposal authorities carefully, but the importance of LINZ records means we will give it the highest priority possible.

Prioritised recommendations

The audit report lists 24 recommendations to improve your organisation's IM maturity.

We endorse all recommendations as appropriate and relevant. To focus your IM improvement programme, we consider that your organisation should prioritise the nine recommendations as identified in the Appendix.

What will happen next

The audit report and this letter will be proactively released on the Archives website shortly. We would be grateful if you would advise of any redactions that your organisation considers are necessary within 10 working days.

As required by the PRA, I will also provide the Minister of Internal Affairs with a report on the results of the audit programme for each financial year, which is tabled in the House of Representatives.

We will follow up this letter with a request to your Executive Sponsor that your organisation provides us with an action plan to address the prioritised recommendations. Our follow up process will track your progress against the action plan.

Thank you again for your support with the audit. We would greatly appreciate further feedback on the audit process and the value it provides to organisations. We have sent a feedback survey link for the attention of your Executive Sponsor in the accompanying email.

Nāku noa, nā



Anahera Morehu
Poumanaaki Chief Archivist
Te Rua Mahara o te Kāwanatanga Archives New Zealand

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APPENDIX

Category	Topic Number	Auditor's Recommendation	Archives Comments
Governance	3: Governance arrangements and the Executive Sponsor	<i>Plan to establish a governance group or use an existing governance group to cover corporate information management.</i>	This would help to raise awareness of corporate IM at higher management level and would provide greater oversight for IM improvement.
Governance	5: Outsourced functions and collaborative arrangements	<i>All contracts for outsourced functions and collaborative arrangements going forward should include information management requirements. These requirements should be actively monitored and where necessary, issues addressed.</i>	It is important that public offices understand that information created under contracts is the responsibility of the contractor and that IM requirements are clearly described and monitored to ensure they are met. This also applies to data sharing agreements described in Topic 18: <i>Information access, use and sharing.</i>
Governance	6: Te Tiriti o Waitangi	<i>Formally document information management implications for information held that is of importance to Māori.</i>	This is relevant to corporate IM as well as the Landonline system.
Self-monitoring	7: Self-monitoring	<i>Implement a formal process to monitor compliance and address issues of non-compliance, related to corporate information management, to ensure a systematic and timely approach. This will also allow LINZ to track trends and address those issues accordingly.</i>	Results of self-monitoring could be reported to the governance group to raise awareness of IM issues and trends.
Capability	8: Capacity and capability	<i>Ensure information management capacity and capability requirements are regularly assessed and monitored against business needs.</i>	The skills needed for specialist IM and IT roles are different but complimentary. Understanding the relationship and what is needed from each to support work streams would enhance the high capability of the existing KM team.

Category	Topic Number	Auditor's Recommendation	Archives Comments
Creation	11: High-value/high-risk information	<i>Create an information asset register for physical information that identifies information that is of high-value or high-risk to LINZ.</i>	The amount and importance of physical information that LINZ holds is significant. Expanding the existing IAR to include physical information would assist prioritisation of its management.
Management	12: IM requirements built into technology systems	<i>Create standardised information management requirements for new and upgraded corporate systems and ensure the formal inclusion of information management expertise as part of this process.</i>	IM expertise is strongly involved in work with the Landonline system and that should be replicated for corporate systems.
Management	13: Integrity of information	<i>To enable consistent results in retrieval of information from the ECMS implement training for staff including standardised naming conventions.</i>	This supports staff in their work across work areas by lessening frustration and increasing productivity.
Disposal	20: Current organisation-specific disposal authorities	<i>Develop an organisation-specific disposal authority that covers all formats and is approved by Archives.</i>	This activity would enable better management of the legacy paper and current digital information. Archives and LINZ will proceed with the three-part disposal authority to be developed over multiple years, as recently proposed by LINZ.