

Office of the Minister for Land Information

Chair, Cabinet Government Administration and Expenditure Review Committee

‘Modernising NZ’s Land Information Platform & Services’ Programme Business Case

Proposal

- 1 I seek approval of the ‘Modernising NZ’s Land Information Platform & Services’ Programme’s preferred investment option and delivery pathway outlined in the attached Programme Business Case.
- 2 I also seek delegated authority to joint Ministers (Minister for Land Information, Minister of Finance, and Minister for Government Digital Services) to approve the necessary Single Stage Business Case for tranche 1 and subsequent tranches of the Programme, and to approve the release of the necessary funding for each tranche from the Budget 2018 contingency [CAB-18-MIN-0158.18 refers].

Executive Summary

- 3 Confidence in property rights and accurate land information are critical for New Zealand. Property is a key economic asset that contributes to New Zealanders’ wellbeing. Buyers and sellers rely on services from Land Information New Zealand (LINZ) to know the physical extent of their property, legally register ownership in land, transfer property, and to have confidence in the Crown guarantee of issued title.
- 4 LINZ is the regulator of survey and title information and provider of property rights services through Landonline. Landonline was a first generation digital transformation implemented between 1998 and 2003. [REDACTED] responding to changing requirements with updates is slow and costly. The core software language is not recommended for use in new development.
- 5 The ‘Modernising NZ’s Land Information Platform & Services’ Programme (the Programme) will deliver essential improvements to maintain confidence in the regulatory underpinning of property ownership, deliver customer service improvements, enable better wellbeing, and maintain the financial and banking systems by:
 - 5.1 improving the agility and efficiency of the survey and title platform. This will [REDACTED] deliver a backlog of customer improvements;
 - 5.2 enabling improved end-to-end processes across the property system, preparing LINZ to play its part in improving property registration and sub-division; and
 - 5.3 improving the accessibility and quality of property rights information to inform decisions on property, including three-dimensional capability, as part of a fully digital, interoperable future.

- 12.2 The Treasury completed a Gateway Review in June 2018 and rated the programme amber/green, saying that “successful delivery appears probable” and no recommendations for further action were made.
- 12.3 KPMG’s independent quality assessment of the PBC concluded that all cases achieved “fully meets” against the criteria of which it was assessed.

Property is a key economic asset and contributor to New Zealanders’ wellbeing

- 13 As of 2017, there was \$1.079 trillion (estimated current value) of residential property in New Zealand.³ The value of this property is dependent on property rights providing the extent of what is owned, and the Government guarantee of land titles. Many small businesses secure funding through loans against property. Without property as collateral these businesses could not access the finance they need to grow.
- 14 This investment will make it easier to register survey plans, improving efficiency and productivity. This should reduce the time it takes to have a survey completed and successfully submitted, speeding up the development of 100,000 Kiwibuild houses.
- 15 The Programme proposes to primarily use New Zealand ICT providers and developers, with the flow-on benefits to the New Zealand economy. It will be included in the upcoming joint overview report on future and current ICT-related initiatives by the GCDO, working with the Treasury.
- 16 Additionally, the investment prepares LINZ for a fully digital 21st century. LINZ will be well placed to work with key central and local government agencies on further streamlining the processes for registering property and sub-dividing property. It can be built upon in the future to provide, for example a register of State Land.
- 17 The Government has a strong focus on improving the wellbeing of New Zealanders – beyond their material wellbeing. In addition to the benefits to wellbeing outlined above, this Programme will enable LINZ to make significant contributions to wellbeing. Specifically, it will enable contributions to five of the 12 aspects of wellbeing identified in the Treasury’s Living Standards Framework:
 - 17.1 income and consumption – by enabling people to make better property-related decisions based on more complete and integrated property information, and lower search costs to access it;
 - 17.2 housing – by enabling central, local government and investors to formulate informed plans for better housing outcomes, including use of land and infrastructure;
 - 17.3 jobs and earnings – the ICT development will be undertaken in NZ. When completed, the Programme will contribute to efficiencies and planning in the property development and construction industries;
 - 17.4 civic engagement and governance – continuing to assure the public’s confidence in NZ’s property system; and

³ Reserve Bank of New Zealand (March, 2018). Retrieved from <https://www.rbnz.govt.nz/statistics/m10>

- 17.5 safety – by enabling significant improvements in property-related emergency management through more detailed and granular information at the building level (e.g. entry points, floor-by-floor data, etc.).
- 18 Significant benefits for future wellbeing and New Zealand’s ability to safeguard wellbeing over the longer term will be achieved by:
 - 18.1 building financial/physical capital – by better-informed assessments of risks and returns in relation to property purchase, investment and development decisions through access to more complete and integrated property information;
 - 18.2 maintaining natural capital – by providing a property data base (ownership; boundaries; rights and responsibilities) that can be linked with location-specific data about environmental conditions (such as water management; pest control; coastal erosion); and
 - 18.3 building social capital – by strengthening public confidence in a “single source of truth” about property in New Zealand, reducing instances of inaccurate and conflicting information, and strengthening people’s trust in and understanding of New Zealand’s property system.

Landonline is the core register of New Zealand’s property rights

- 19 LINZ provides a range of services so that New Zealanders can record and transact property rights through the land information platform. It administers the foundational property datasets for where property is and what rights come with that property. It provides the only way New Zealanders can register title and adjust boundaries through surveying.
- 20 As the Crown guarantees title (registered ownership is backed by a statutory compensation regime for loss arising from error or fraud) and total reliance is placed on title records when land is bought or sold, the system and its supporting technology needs to deliver the highest levels of integrity.
- 21 LINZ’s role in the property system is to provide:
 - 21.1 a robust transactional platform for registering and transferring rights, restrictions and responsibilities for property, as legal ownership is dependent on registration;
 - 21.2 confidence and certainty in property rights;
 - 21.3 complete, comprehensive, authoritative, and accurate property information. Its two key records are:
 - *the cadastre*, the register of survey datasets lodged with LINZ, containing approximately 2.5 million primary survey plans defining the spatial boundaries of land parcels, and
 - *the register of titles*, which contains titles that provide legal rights to approximately 2.2 million land parcels, and have a Crown guarantee of title for land registered under the Land Transfer Act 1952.
- 22 LINZ has been a forefront digital agency since it went through a first generation digital transformation with Landonline in the early 2000s. Paper was eliminated, processes

automated, and offices and staff were downsized. As a result approximately 87% of title transactions are automated. LINZ led the world in publishing open and free access to property data, and it continues to apply, use, and contribute to the development of international standards.

- 23 The accuracy of the authoritative registers is maintained by authenticating users and quality control on any changes. There are around 12,000 active users of Landonline, and tens of thousands of indirect users of the information it holds – from home buyers searching property websites to modellers of natural hazards. Only users such as surveyors, conveyancing⁴ professionals, and Territorial Authorities can request changes to the registers to update a survey plan, transact a title, or approve a subdivision. All changes are processed by LINZ:
 - 23.1 Last year 10,763 survey plans were submitted by 1,600 surveyors for processing and approval;
 - 23.2 Last year 582,316 instruments to titles for various property transactions (e.g. changing ownership, registering mortgages, or easements) were submitted by 7,700 conveyancing professionals through 'e-dealing'. Approximately 87% of these title transactions were fully automated; and
 - 23.3 315 users from 78 Territorial Authorities who access Landonline to perform consent activities for subdivisions.
- 24 The costs of Landonline and related services are fully recovered from users who pay regulated fees. Fee revenue fluctuates with activity in the property market, and was \$72 million (2016/17) and \$69 million (2017/18 provisional accounts).

It is essential to invest in modernisation

- 25 Landonline has been well managed and maintained since development began in 1998 and going live in 2000. Its data model and underlying business logic remain world class, and it provides the ability to undertake the complex mathematical adjustments required to maintain land boundaries.
- 26 Landonline [REDACTED]
[REDACTED] The application requires full end-to-end manual testing before any change to software is released, and the core software is approaching end of life and not recommended for new development.
- 27 Rebuilding Landonline is critical for LINZ and its customers. There is strong customer support from the professional bodies that represent LINZ's primary direct customers, the New Zealand Institute of Surveyors (NZIS), the Property Law Section of the New Zealand Law Society, and the Property Law Committee of the Auckland District Law Society.
- 28 LINZ was reviewed in early 2018 as part of the regular PIF Review Process, the reviewers commented specifically on this Programme:
 - 28.1 "...Not least is the requirement to future-proof one of the critical LINZ systems, the Landonline platform, and ensure that the absolute confidence New

⁴ Lawyers and licenced conveyancers who are able to transact property interests

Zealanders enjoy regarding their property titles is ensured through the delivery of the Landonline upgrade project. This will be a critical building block in compiling New Zealand's authoritative land information platform and one which underpins overwhelming value nationally, locally and individually.”

“Previous attempts by LINZ to seek funding to develop such platforms and to update current technology have either stalled or are being reconsidered. However, the case for investment is becoming increasingly compelling as agencies from across government and the private sector struggle to access the validated information they require to manage risk, make smart investment choices, responsibly manage and plan for the Crown's current and future asset requirements and reduce inefficiency.”

- 29 The Programme Business Case (PBC) outlines the case for change, the options considered and preferred, and the commercial, financial, and management implications of the preferred option (attached). The Programme will deliver improvements in three broad categories: improving the agility and efficiency of the survey and title platform, enabling improved end-to-end processes across the wider property system, and improving the accessibility and quality of property rights information.

Change is needed to improve the agility and efficiency of the survey and title platform

- 30 Landonline has not delivered upgrades in functionality for its customers for almost five years. Major upgrades can only be made twice each year due to the extensive testing requirements to ensure integrity of the platform. Maintaining the security of Landonline and meeting regulatory responsibilities has been the priority.⁵ As a result, it has not kept up with the modern day-to-day practices of surveyors, conveyancing professionals, and Territorial Authorities.
- 31 For LINZ to continue to provide New Zealand with property rights now and in the future requires investing in a highly flexible modular ICT platform with modern customer service processes. With the investment LINZ will be able to quickly put in place new regulatory responses that the Government requires in the future. Blockchain has been specifically considered and shows promise. However, the technology is too early in its lifecycle to be clear about the benefits compared to the existing part of the system that uses digital signatures to verify authenticity. The Programme will keep watching in case it becomes compelling in a later programme tranche.
- 32 It will improve the agility of the survey and title platform, and its customer focus will provide on-going benefits to users. Making it easier for surveyors, conveyancing professionals, and Territorial Authorities to complete their land administration work and flow through into quicker services for New Zealanders. Surveyors will be able to submit plans to LINZ directly from within their special software. Conveyancing professionals will be able to use any device they want to submit information to LINZ, and LINZ will automatically notify the Territorial Authorities and banks of the transaction, improving efficiency and reducing the likelihood of any errors. Territorial Authorities will receive notice of a transaction automatically, and will be able to approve subdivisions more easily.

⁵ For example, the recent updates to respond to property tax changes and the Land Transfer Act 2017.

- 33 The Programme will also provide all New Zealanders with an ability to directly search the registers through a public website. When linked with an off-the-shelf map interface, it will improve searching and the process to order a copy of a title will be more efficient.

Enabling improved end-to-end processes across the wider property system

- 34 Landonline is a first-generation ICT platform that lacks modern capability. The data in Landonline is well managed but the core software needs to be updated.
- 35 The rebuilt system will provide automatic 'machine-to-machine' links that deliver the technical ability to join up processes across the property system. For example, the Programme will leave LINZ ready to work with central and local government to streamline the process of property registration and sub-division in the future.

Improving the accessibility and quality of property rights information

- 36 Landonline shows property rights in two-dimensions, but the technology exists to capture complex urban centres with three-dimensional data. This would provide architectural/building modelling data for reuse in the future.
- 37 Three-dimensional capability will provide for more complex property rights in modern cities, such as unit titles in multi-story buildings. Smart cities will increasingly rely on trusted property information to provide the foundation for decision making and new services.
- 38 The new 'machine-to-machine' links will deliver the technical ability to link up property information across the public sector. Central and local government will be more able to access and join-up information to inform decisions. For example, combining property ownership with information on natural hazards that may be changing due to climate change, to better understand who is likely to be affected by sea level rise. It will also enable innovation in the private sector, delivering improved economic activity.

Setting up for successful delivery

- 39 As outlined in the PBC, the preferred way forward is to deliver a modern, highly flexible modular ICT platform by rebuilding Landonline. This is approximately a five year programme of work, comprising of four tranches.
- 40 The advantage of a tranced approach is that it allows the programme to take advantage of any emerging technologies while working flexibly alongside other programmes and managing the risk of a large investment by providing deliberate on-ramps for successive tranches. By using staff and local vendors engaged on a tranche-by-tranche commitment with a gradual ramp-up, it will not have the risks of large multi-year up-front commitment to multinational ICT companies.
- 41 Rebuilding the existing platform became more viable with improved technological advancements such as cloud hosting services like [REDACTED], and technology development processes and solutions to assist with re-writing old software in new languages and in a modular fashion. The Programme seeks to take advantage of these processes and solutions as it will maintain the underlying database and database logic while rebuilding the "application layer". From a technology point of view the rebuild is less complex and risky than migrating data to a new platform.

- 42 Before tranche 2 begins, LINZ will carry out full due diligence on the data sovereignty, security, and privacy impacts of a moving the Land Register and Cadastre to the cloud. This will be completed in conjunction with GCDO to ensure that accessing cloud hosting services from [REDACTED], under the Crown Framework Agreement established by GCDO, mitigates [REDACTED] data sovereignty challenges.
- 43 The past two years of 'discovery and definition' work has provided a roadmap for delivery in four tranches. These tranches are staged to focus [REDACTED], rebuilding customer and staff user functionality in modular architecture, and to delivering identified customer improvements. During this period, LINZ will continue to shift towards its target operating model and develop its team of staff and suppliers.
- 44 The key elements and timing of the four tranches are as follows:
- 44.1 *Tranche 1: search and notices* will allow registered customers and the public to purchase copies of titles and survey plans through a new website. It will improve the workflow of conveyancing professionals by providing an automatic notice of sale to territorial authorities and notice of mortgagee to financial lenders. (March 2019 – May 2020). Key developments include:
- Build a public web search capability.
 - Notify banks and territorial authorities for changes in ownership or mortgages.
 - Search customers moved onto new system.
 - Due diligence on data sovereignty, [REDACTED] and privacy impacts.
- 44.2 *Tranche 2: customer improvements* will replace the surveyor, conveyance and Territorial Authority access to Landonline with new web-based tools, improving their workflow. (June 2020 – November 2021). Key developments include:
- Customers can upload and validate surveys.
 - Customers can submit land title dealings.
 - All customers moved onto new system.
 - Back end database moved to cloud (if proof of concept in tranche 1 successful).
- 44.3 *Tranche 3: staff improvements* will change the staff workplace from Landonline to new web-based tools, improving workflow (June 2021 – January 2023). Key developments include:
- Improved staff processing.
 - All staff moved onto new system (i.e. no users left on current system).
 - Ability to introduce policy change or new registers.
- 44.4 *Tranche 4: 3-D and innovation* will allow registered customers to interact with LINZ via 'machine-to-machine' links, allowing integration with specialist conveyancing and survey software. It will also implement 3-D capabilities. (December 2022 – November 2023). Key developments include:
- Implement 3-D cadastre for survey.
 - Back end database moved to cloud (if not moved in tranche 2).
- 45 A preparation phase is necessary before beginning tranche 1.⁶ This will allow for time to prepare for implementation and provide evidence of readiness through a SSBC. The

⁶ The preparation phase has been costed into the Crown capital injection that will be requested with the SSBC for Tranche 1.

details of the preparation phase are outlined in paragraph 72. It is anticipated that the necessary funding will be approved by Ministers following the completion of the SSBC for each tranche.

- 46 The changes for customers and staff will be managed through a measured approach that has been developed in consultation with stakeholders. As customers are the primary beneficiaries of this change, there has been significant effort to work closely to understand current user expectations and behaviour. As a result, LINZ is confident that customers will be ready for change when it occurs. For staff, there will be changes to internal processes at different points in the programme, but no major reductions to Landonline operations staff are proposed.
- 47 The ICT resources for the programme will be a mixture of in-house staff, and contracted/supplier support. The design and build of the new system will involve building as a series of interdependent modules using a “DevOps” methodology⁷ within a “Scaled Agile Framework” (SAFe). ‘Agile’ teams will develop new software and test its operation in sprints, with teams working collaboratively to complete deliverables on regular basis. This approach also utilises public cloud, open source toolkits (where appropriate) and standards to future-proof, ensuring it will be reliable, flexible, and able to be kept up to date.
- 48 Blockchain has been specifically considered and shows promise. However, the technology is too early in its lifecycle to be clear about the benefits compared to the existing part of the system that uses digital signatures to verify authenticity. The Programme will keep watching in case it becomes compelling in a later programme tranche.

Confidence in the proposed investment

- 49 Since scoping and business case development work began in 2012, LINZ has carefully followed the Treasury’s Better Business Case model and the PBC recommends the best option for both quality and price. The case for investment has been thoroughly analysed, all possible options have been examined including an ‘as a Service’ approach, purchasing an alternative ICT solution [REDACTED], and a bespoke new build.
- 50 Key past Cabinet decisions relating to the Programme are:
 - 50.1 In November 2013, Cabinet Economic Growth and Infrastructure Committee (EGI) received an Indicative Business Case for the ASaTS project and noted work needed to begin on a second generation replacement for Landonline [EGI-13-MIN-27/14].
 - 50.2 In November 2015, EGI received a Detailed Business Case and endorsed the case for change for modernising survey and title services, while noting that final decisions on investment options, project funding, and delivery approaches would be made as part of Budget 2016 [EGI-15-MIN-0152].
 - 50.3 In April 2016, EGI received an Addendum to the Detailed Business Case and agreed to invest in ASaTS ‘as-a-Service’ [EGI-16-MIN-0062].

⁷ “DevOps” is a software engineering culture and practice that aims at unifying software development (Dev) and software operation (Ops).

50.4 In June 2017, Cabinet Committee on State Sector Reform and Expenditure Control received an oral update on ASaTS [SEC-17-MIN-0037].

- 51 Following the Cabinet decision in 2016, LINZ's market engagement resulted in selecting a single preferred supplier. This preferred supplier was [REDACTED] and their associated consortium members. LINZ completed comprehensive diligence on [REDACTED], negotiated a Master Services Agreement and then entered into the 'discovery and definition' phase for ASaTS using the 'as a Service' model.⁸ After 2½ years of investigating options, LINZ concluded that 'as a Service' was not appropriate.
- 52 Work with [REDACTED] then continued under a traditional capital build funding model. However, after much analysis, including assessing [REDACTED] capital build option, modernising Landonline is preferable on value for money, functionality, and quality grounds.
- 53 In May 2018, following engagement with the Treasury's Investment Management and Asset Performance (IMAP) team and with the support of Central Agencies, the New Zealand Government Procurement and Property (NZGPP) branch of the Ministry of Business, Innovation and Employment, and the GCDO, it was decided to pursue an iterative rebuild approach authorised under a PBC.

Economic overview of the benefits and costs

- 54 Investing will provide the continuity of service that New Zealanders expect from the survey and title system, with the added ability to implement changes needed by Government or customers in a much more responsive way.
- 55 The investment will benefit customers by delivering new survey and title services and improving existing services. This will streamline the process of submitting survey plans, registering and transacting property, and providing new property information that is needed by the government and wanted by the public.

⁸ The 'as a Service' model is similar to renting. [REDACTED] would design, build, implement, operate and own the ASaTS platform. LINZ would have rights to access and use ASaTS 'as a Service', and would own the property rights data held within ASaTS.

What service	Who benefits and how	Monetised value (\$m)
Continuity of property rights services	All New Zealanders who own or seek to own property can be certain of the extent of what is owned and guaranteed of their rights as the owner.	Not monetised.
Better interface with customer systems	Surveyors, conveyancing professionals and Territorial Authorities will spend less time interacting with LINZ per transaction, by removing duplication of effort between users' software and Landonline. <i>For example, surveyors can directly submit survey plans from their own ICT software, eliminating time spent re-working plans before submitting to Landonline.</i>	34.9 – 45.5
Reduced survey error rate	Surveyors benefit from reduced survey error rates. This results in less re-work, decreased costs and quicker turnaround times for property developers	1.1 - 1.5
Notice of Sale service	Territorial Authorities and conveyancing professionals benefit from this service. It reduces re-work time spent manually providing this information. Territorial Authorities will receive authoritative information immediately after a transaction, reducing delays in processing. <i>For example, a conveyancing professional will have a pre-populated notice of sale form for them to add sales information (e.g. price) before sending to a council. The council will save time in processing the notice of sale.</i>	39.3 – 45.4
Notice of Mortgage registration	Conveyancing professionals and lending institutions benefit from this service. It removes the need for conveyancing professionals to manually provide this information to lending institutions, and for the lending institutions to manually update records. <i>For example, a conveyancing professional will not need to send a notice to the finance institution because this will be done automatically</i>	42.0 – 48.4
Web-based search	New Zealanders benefit from being able to search for a title through a web-based service <i>For example, any New Zealander can use a web search to purchase titles or surveys, without contacting an external provider (e.g. a Territorial Authority), phoning LINZ, or completing an online form for LINZ to process.</i>	2.0 – 2.0
3D cadastral data	With ~85% of New Zealanders living in urban areas, there will be continued growth in multi story buildings with multiple owners. 3D property rights will enable innovation to support future planning, and provide a better evidence base to inform decision makers	Not monetised.
Ability to connect property information	Central and local government and data users want to be able to connect property information with other information sources to improve understanding of current issues. For example, joining property ownership with information on natural hazards and climate change to inform climate change adaption policies.	Not monetised.

Whole of life costs

56 The whole of life costs are the nominal cost over the lifetime of the Programme. The capital expenditure is over the 5 years build phase, while the on-going operating expenditure is based on a 10-year useful life. These are calculated following the

completion of a Quantitative Risk Assessment (QRA), which quantifies the probability of risks and uncertainty, as per the Treasury's Better Business Case processes.

Quantitative risk assessed whole of life cost range

Expenditure category (\$m)	Expected Cost (QRA 50 th percentile)	Cost including contingency (QRA 85 th percentile)
Capital Expenditure	106.6	128.2
Operating Expenditure	31.9	51.7
Incremental whole of life project costs (excluding capital charge and depreciation)	138.5	179.9

57 The benefit cost ratio (BCR) expresses the monetary benefits of a project relative to its monetary costs (expressed in present value terms). The BCR of the preferred pathway is in the table below. For the comparison of the preferred pathway and the alternative pathway, see the attached PBC (Attached, pg.46). At the 50th percentile the benefit cost ratio is between 1.2 and 1.5.

Benefit cost ratio	QRA ⁹ 50 th percentile	QRA 85 th percentile
Benefits		
Present value whole of life benefits (high) (\$m)	142.9	142.9
Present value whole of life benefits (low) (\$m)	119.4	119.4
Costs		
Present value whole of life costs (\$m)	98.5	120.4
Benefit cost ratio (against do nothing)		
Benefit cost ratio (high)	1.5	1.2
Benefit cost ratio (low)	1.2	1.0

It will enable other programmes of work

58 As the Programme is progressed, LINZ is well placed to support other related work programmes currently underway or planned. These programmes will require business change within LINZ and other agencies, and with other customers. They may also require policy and/or regulatory change. Programmes include:

- 58.1 developing a State Land Register which will provide up-to-date digital information for land held by Central and Local Government agencies in a single place;
- 58.2 Integrated Property Services which will provide a framework for structured linking of data about a property to enable innovation; and
- 58.3 any support to work on Māori Land records.

⁹ Quantitative Risk Assessed

LINZ can deliver the Programme

- 59 LINZ is confident it can deliver the investment and the leadership team are fully engaged in the Programme. The delivery approach is informed by lessons from other ICT projects including Novopay, the Joint Border Management System, as well as reports from Office of the Auditor General and The Treasury relating to major projects. The programme has incorporated relevant recommendations from those reports into its delivery approach.
- 60 The change process required by the Programme is well understood and supported by LINZ leadership and key external stakeholders. LINZ will manage changes in internal processes and support stakeholders in order to achieve the full benefits. The Programme will progressively work to redesign processes, ensure governance remains fit-for-purpose, and implement changes to services.
- 61 LINZ will ensure confidence in delivery by starting small in the first tranche. It will progressively ramp up to the more challenging aspects in subsequent tranches of work after completing pilots when necessary and as LINZ's capability and expertise builds. Using this methodology, LINZ is confident that sufficient NZ ICT resource is available to implement the Programme.
- 62 LINZ has been regularly engaging with key stakeholders to ensure they are aware of and prepared for any change the Programme will deliver. Key stakeholders who have been regularly engaged include: the New Zealand Law Society, the Auckland District Law Society, New Zealand Institute of Surveyors, the Institute of Cadastral Surveyors, New Zealand Institute of Legal Executives, New Zealand Bankers Association, and New Zealand Society of Conveyancers, Auckland Council, Wellington City Council and other Territorial Authorities, commercial providers of cadastral survey and conveyancing software packages.
- 63 External monitoring and rigorous assurance checks provide an extra layer of confidence. The Programme is monitored by the Treasury and has undergone mandatory Gateway Reviews, independent quality analysis, and an independent quantitative risk assessment on proposed costings.
- 64 LINZ has worked closely with Central Agencies, NZGPP, and the GCDO, particularly from late 2017. The Programme's Central Agency Monitoring Group (the Treasury, State Services Commission, Department of Prime Minister and Cabinet, and GCDO) has provided feedback throughout the Programme.
- 65 The Programme has the support of the Central Agency Monitoring Group which includes representatives from the Treasury, State Services Commission, the GCDO, and NZGPP.
- 66 The Programme recently went through a second Gateway 3 review and was rated amber/green. The review reported that the Programme "is currently in a healthy position" with successful delivery appearing probable, and made no further recommendations. This reflects that LINZ team has fully implemented the recommendations of the Gateway 3 review in February 2018, and is in a good position to deliver on the proposed investment.
- 67 KPMG's independent quality assessment of the PBC in September concluded that the overall business case provides a new reader with sufficient understanding of the purpose of the project. All cases achieved "fully meets" against the criteria of which it was assessed.

Delegating future decision making

- 68 The Programme will be delivered in four tranches. The contingency funding from Budget 2018 will need to be released prior to each tranche commencing with the approval of a SSBC.
- 69 It is proposed that Cabinet authorise joint Ministers consisting of Minister for Land Information, Minister of Finance, and Minister for Government Digital Services with power to approve the necessary Single Stage Business Case for tranche 1 and subsequent tranches of the Programme and to approve the release of the necessary funding for each tranche from the Budget 2018 contingency [CAB-18-MIN-0158.18 refers], on behalf of Cabinet.
- 70 This approach will provide the Programme with Ministerial oversight in a highly responsive manner, with sufficient development lead-in times for each tranche. It would not reduce the level of oversight provided to the Programme by Central Agencies.
- 71 The following parameters to this delegated authority are that:
- 71.1 any significant change to scope, benefits, costs or timeframes (including the Programme tranches) would require the Programme to return to Cabinet rather than joint Ministers;
 - 71.2 joint Ministers receive regular reports, for example a status update, on the Programme's progress including on resourcing of the programme;
 - 71.3 the nature and sequencing of advice to joint Ministers provides for them to influence priorities and scope/direction of the Programme, and have confidence that the investment proposals will meet evolving Government, customer, business and regulatory needs consistent with the PBC; and
 - 71.4 the Minister for Land Information be invited to provide an update Cabinet on the progress of implementing the Programme in September 2019.

The next step is to prepare for Tranche 1

- 72 LINZ is confident they have a robust plan and are ready to begin preparations for Tranche 1. Key activities of the preparation phase include:
- 72.1 LINZ taking stock of its current way of working and aligning the Programme with the new operating model that will drive the way LINZ delivers on its mandate as efficiently and effectively as possible;
 - 72.2 Beginning procurement arrangements to ensure the necessary ICT expertise is in place for the beginning of tranche 1; and
 - 72.3 Establishing the necessary governance for the Programme to ensure accountability and confidence in delivery from the start of tranche 1.
- 73 This preparation work will be incorporated into a SSBC to be completed at the start of 2019 and provided to joint Ministers for approval. This will then allow tranche 1 to begin in March 2019.

Consultation

74 The following agencies or part of agencies have been consulted in the preparation of this paper and the attached PBC: the Treasury, State Services Commission, the Government Chief Digital Officer, and New Zealand Government Procurement and Property. The Department of Prime Minister and Cabinet has been notified.

Financial Implications

75 Funding will be sourced from a repayable capital injection and from LINZ's capital reserves.

76 The Programme received contingency funding through Budget 2018. \$103 million in funding was agreed to as a 10-year repayable capital injection [CAB-18-MIN-0158.18 refers].

Budget 2018 Capital Contingency Funding

Initiative Name	\$m - increase/(decrease)				
	2017/18	2018/19	2019/20	2020/21	2021/22
Advanced Survey and Titles Services	-	13.000†	45.000†	33.000†	12.000†

† No impact on capital allowance

77 LINZ will be contributing \$32.9 million from capital reserves to the Programme. This funding is primarily made up of Landonline depreciation funds.

78 The preferred pathway can be funded from within the \$103 million capital injection and LINZ's capital reserves. It requires a capital injection of up to \$95.4 million, to be drawn down over years 2-7 of the programme. The timeframe to repay from the initial drawdown will be 10 years. The projected annual phasing of the capital funding needed is as follows:

Phasing of Capital Funding at QRA 85th percentile

Whole of life 85 th percentile cost (\$m)	Year 1 ¹⁰	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Total
Funding requirement for capital expenditure								
<i>Incremental capital expenditure</i>	19.0	18.2	22.7	23.0	20.9	12.2	12.2	128.2
<i>Minus available LINZ capital</i>	(22.7)	(3.7)	(3.5)	(3.0)				(32.9)
Crown capital injection required	-	10.8	19.3	20.0	20.9	12.2	12.2	95.4

¹⁰ Year 1 starts when preparation begins.

The Programme’s impact on fees

79 LINZ’s property rights services (survey and title services such as title search, e-dealing for title transactions, and survey plan lodgement) are operated on a full cost-recovery basis, including the recovery of associated depreciation and capital charge. These costs are recovered through fees paid by Landonline users, mainly cadastral surveyors and conveyancing professionals, operating on behalf of property purchasers/sellers and land developers.

80 LINZ needs to review the survey and title third party fees which have not been changed since 2011. Policy work is required to examine whether the three different types of fees are (survey and title services such as title search, e-dealing for title transactions, and survey plan lodgement) set at the right levels, and are appropriately covering operating costs and depreciation.

81 [REDACTED]

82 [REDACTED] For context, fee revenue was \$72 million (2016/17) and \$69 million (2017/18 provisional accounts).

83 [REDACTED] LINZ will complete a review of the survey and title third party fees and regulations for amended fees in place by early 2021. This fees review will follow a robust process that typically takes 6-12 months resulting in setting fees by Order in Council. Joint Ministers will be informed of the fees review and provided with the opportunity to input into the process. Fees will be set to recover the following costs:

83.1 fixed costs involved in maintaining survey and title systems before any product or service can be provided (including network costs, depreciation and capital charge); and

83.2 direct costs incurred by providing each product or service (usually salary and wages).

84 In the future it is important that the fees for survey and title services are regularly reviewed as part of robust regulatory stewardship practice. To begin this, an additional fees review will be conducted in late 2023 or early 2024. At this time we will have further information on the impact of the Programme, such as the efficiency gains from the programme and operating costs.

85 [REDACTED]

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Human Rights

86 There are no human rights implications arising from the proposals contained in this paper.

Legislative Implications

87 There are no legislative implications arising from the proposals contained in this paper.

Regulatory Impact Analysis

88 No Regulatory Impact Analysis is required as there are no direct legislative implications from the proposals contained in this paper.

Gender Implications

89 There are no gender implications arising from the proposals contained in this paper.

Disability Perspective

90 There are no disability implications arising from the proposals contained in this paper.

Publicity

91 I propose that this paper and the attached Programme Business Case, with appropriate redactions, will be proactively released on the Land Information New Zealand website.

Recommendations

- 1 **Note** that confidence in property rights and accurate land information are critical for New Zealand. Buyers and sellers place complete reliance on services LINZ provides through its central register of survey and title information, and the Crown guarantees that the issued title is correct.
- 2 **Note** LINZ has completed a Programme Business Case (PBC) for ‘Modernising NZ’s Land Information Platform & Services’ (the Programme). The Programme proposes an iterative rebuild approach with tranches and deliberate “on ramp” processes with Single Stage Business Cases (SSBC) to initiate each tranche to ensure confidence in the delivery of the Programme.
- 3 **Note** the Programme is planned to be delivered in four tranches over five years. Work is prioritised to provide benefits for customers and [REDACTED] as quickly as possible.
- 4 **Note** the Programme will deliver essential improvements to maintain confidence in the regulatory underpinning of property ownership, deliver customer service improvements, enable better wellbeing, and maintain the financial and banking systems by:
 - 4.1 improving the agility and efficiency of the survey and title platform. This will [REDACTED] and deliver a backlog of customer improvements.
 - 4.2 enabling improved end-to-end processes across the property system by preparing LINZ to work with other agencies to improve property registration and sub-division; and
 - 4.3 improving the accessibility and quality of property rights information to inform decisions on property, including three-dimensional capability, as part of a fully digital, interoperable future.
- 5 **Agree** to the preferred investment option and delivery pathway from the PBC that will deliver a modern modular ICT platform and customer service enhancements by fully rebuilding Landonline and improving LINZ’s customer service processes.
- 6 **Note** the Programme will deliver \$119.4-\$142.9 million in quantified benefits, at a benefit cost ratio of between 1.2 and 1.5, as the table below illustrates:

Benefit cost ratio	QRA 50 th percentile	QRA 85 th percentile
Benefits		
Present value whole of life benefits (high) (\$m)	142.9	142.9
Present value whole of life benefits (low) (\$m)	119.4	119.4
Costs		
Present value whole of life costs (\$m)	98.5	120.4
Benefit cost ratio (against do nothing)		
Benefit cost ratio (high)	1.5	1.2
Benefit cost ratio (low)	1.2	1.0

- 7 **Note** the present value whole of life costs of the Programme are \$98.5 million. The expected nominal whole of life costs, at the 50th percentile of a quantitative risk assessment, are \$138.5 million (excluding capital charge and depreciation).
- 8 **Note** that as part of Budget 2018, Cabinet agreed to \$103 million capital contingency funding as a repayable capital injection for the Programme [CAB-18-MIN-0158.18 refers]. The preferred pathway can be funded within this contingency funding as it requires a capital injection of up to \$95.4 million, to be drawn down over years 2-7 of the programme. This will be repaid within 10 years.
- 9 **Note** LINZ is contributing \$32.9 million from capital reserves to the Programme, primarily made up of Landonline depreciation funds.
- 10 **Authorise** the Minister for Land Information, Minister of Finance, and Minister for Government Digital Services jointly to approve the necessary SSBC for tranche 1 and subsequent tranches of the Programme, on behalf of Cabinet.
- 11 **Authorise** joint Ministers to draw down the tagged capital contingency funding in recommendation 8 (establishing any new appropriations as necessary), subject to their satisfaction with the necessary SSBC or associated work.
- 12 **Agree** to extend the expiry date for the Advanced Survey and Title Services tagged contingency to 1 February 2024.
- 13 **Agree** that any significant change to scope, benefits, costs or timeframes (including the Programme tranches) would require joint Ministers to return to Cabinet.
- 14 **Note** LINZ's survey and title services such as title search, e-dealing for title transactions, and survey plan lodgement operate on a full cost-recovery basis [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]. Current fee revenue was \$72 million (2016/17) and \$69 million (2017/18 provisional accounts).
- 15 **Agree** that LINZ will complete a survey and title third party fees review (title search fees, e-dealing fees for title transactions, and survey plan lodgement fees) by early 2021 [REDACTED]
[REDACTED].
- 16 **Note** that LINZ will complete another survey and title third party fees review when the Programme is completed.
- 17 **Note** that joint Ministers will be kept informed of the survey and title third party fees review, and provided with the opportunity to input into the process.
- 18 **Invite** the Minister for Land Information to update Cabinet on the progress of the Programme in September 2019.
- 19 **Note** the past decisions relating to the Advanced Survey and Title Services (ASaTS):

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- 19.1 In November 2013, Cabinet Economic Growth and Infrastructure Committee (EGI) received an Indicative Business Case for the ASaTS project and noted work needed to begin on a second generation replacement for Landonline [EGI-13-MIN-27/14].
 - 19.2 In November 2015, EGI received a Detailed Business Case and endorsed the case for change for modernising survey and title services, while noting that final decisions on investment options, project funding, and delivery approaches would be made as part of Budget 2016 [EGI-15-MIN-0152].
 - 19.3 In April 2016, EGI received an Addendum to the Detailed Business Case and agreed to invest in ASaTS 'as-a-Service' [EGI-16-MIN-0062].
 - 19.4 In June 2017, Cabinet Committee on State Sector Reform and Expenditure Control received an oral update on ASaTS [SEC-17-MIN-0037].
- 20 **Note** that in November 2017, LINZ concluded that the 'as-a-Service' delivery model was not viable.
- 21 **Agree** to this paper and the attached Programme Business Case being proactively released on the Land Information New Zealand website with appropriate redactions.

Authorised for lodgement

Hon Eugenie Sage

Minister for Land Information

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Attachment: The Programme Business Case for Modernising New Zealand's Land Information Platform and Services