

In Confidence

Office of the Minister for Land Information

Chair, Cabinet Government Administration and Expenditure Review Committee

Modernising Landonline – Progress Update November 2019

Proposal

1. This paper asks Cabinet to note progress on the rebuild of Landonline, New Zealand's central register of survey and title information administered by Land Information New Zealand (LINZ).

Executive Summary

2. In October 2018 Cabinet approved a Programme Business Case (PBC) for the modernisation of Landonline [GOV-MIN-0078 refers]. I was invited to report back to the Cabinet Government Administration and Expenditure Review Committee on the Programme's progress in September 2019. The report back was delayed to provide Cabinet with a more substantive update on progress than would have been possible by the earlier deadline.
3. Landonline is critical economic infrastructure underpinning all land transactions in New Zealand. Cabinet noted that modernising the aging Landonline technology platform (established between 1999 and 2003) is essential if New Zealanders are to have continued confidence in property rights and accurate land information.
4. The rebuild of Landonline as a flexible and modular ICT platform will improve the efficiency of land transaction processes and make land information more accessible and easier for the public to use. The rebuild is taking place in four tranches over five years using primarily New Zealand ICT resources. It will deliver benefits for customers, enable wellbeing, improve LINZ's processes and secure the platform from business continuity risks.
5. A Single Stage Business Case (SSBC) for the Programme's first tranche was approved by joint Ministers (Minister of Finance, Minister for Government Digital Services and Minister for Land Information) on 1 April 2019 acting under Cabinet-delegated authority.
6. The Programme, now called the Survey and Title Enhancement Programme (or STEP), is working to deliver a suite of customer service improvements (such as public web search for property information) by the conclusion of the tranche in June 2020. Work has also begun addressing risks related to Landonline's out-of-date software, and laying the ground for more challenging work in tranches 2 to 4. The Programme is operating within budget.
7. Due diligence of a proposal to host Landonline's database of property information in an offshore public cloud service in Australia is being undertaken. LINZ expects to make a decision by the end of 2019. This decision will take account of broader consideration by Digital and Data Ministers of use of cloud services by government agencies.
8. In July the STEP Board moved the Programme's overall status from "amber" to "red". This was in response to the need to increase the Programme's focus on two key challenges identified in its first three months:

8.1 aligning the release of Programme products with planned reviews of survey and title fees. LINZ cannot recover the increased operating costs of new services forecast by the PBC until updated fee regulations are in force (expected in early 2021).

8.2 ensuring product integration with LINZ business (systems, processes and resources) and strategic outcomes. Progress developing products was outpacing the Programme's capacity to integrate products with LINZ business groups through change and engagement activities.

9. LINZ has considered the implications of the fees challenge described at 8.1 above.

These changes will benefit LINZ customers and to delay releasing them until new fees are introduced would lower the benefits customers receive.

10. The first of two planned fees reviews is in its very early stages; recommendations to Ministers on new fee levels will be determined after detailed modelling and consultation with stakeholders. As noted at paragraph 8.1, new fees are expected to be in force by early 2021.

11. Significant progress has been made on business integration since July, including the creation of an integrated tranche 1 plan that includes both product delivery and related LINZ business changes. Satisfactory resolution of the business integration challenge is expected by the end of November 2019.

Background

12. Landonline is 20 years old, becoming expensive to maintain, and difficult to change and secure. The aging platform poses risks to LINZ's ongoing ability to deliver reliable property services. Modernising Landonline is essential if New Zealanders are to have continued confidence in property rights and accurate land information.

13. Cabinet approved a PBC in October 2018 for a rebuild of Landonline that 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:

13.1. improving the agility and efficiency of the survey and title platform. This will mitigate existing risks due to outdated software and deliver necessary customer improvements;

13.2. enabling improved end-to-end processes across the property system, preparing LINZ to play its part in improving registration of property transactions and subdivisions; and

- 13.3. 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.
14. 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 processes for registering and sub-dividing property. In future it will be much simpler to add functionality when needed to support decision making.
15. Landonline will be fully rebuilt as a modern modular ICT platform, with delivery via four tranches over five years using primarily New Zealand ICT resources. Each tranche:
 - must operate within the overarching scope and budget of the PBC, and
 - is subject to a Single Stage Business Case (SSBC) approved by joint Ministers.
16. The Programme's estimated capital cost is \$128.3 million at the 85th percentile risk contingency. This is funded from:
 - a \$95.4 million repayable capital injection (drawn in years 2-7 of the Programme and repaid within 10 years) sourced from tagged capital contingency of \$103 million approved in Budget 2018 [CAB-18-MIN-0158.18], and
 - \$32.9 million from LINZ capital reserves.
17. An estimated \$119.4–\$142.9 million in quantified benefits is expected to accrue to users of LINZ's survey and title services over the 12 year life of the investment.¹
18. The Programme is applying Agile delivery methodology, an incremental and iterative approach in which work is broken down and completed in smaller portions in frequent, repeated cycles. Agile teams closely engage with the actual users and customers of the product so that quality can be built in and tested during development. Risk and assurance plans are being reviewed and updated and will be provided to the Government Chief Digital Officer for review and oversight. Building off recommendations from an independent Gateway review, a governance framework comprising the Programme Leadership Team, Programme Board, and LINZ Executive Leadership Team (ELT) is in place.

Tranche 1 SSBC authorised by joint Ministers

19. Joint Ministers approved a SSBC for tranche 1 "Search and Notices" on 1 April 2019. The tranche is timetabled to run between April 2019 and June 2020. Tranche expenditure of \$33.39 million (at the 85th percentile risk contingency) was authorised.
20. The PBC acknowledged that adopting Agile delivery at scale would challenge the organisation. For this reason, tranche 1 was deliberately set up to start small, build capability and allow LINZ to identify, learn and adapt from challenges early in the build.
21. This would put LINZ in a stronger position to carry out more complex work in subsequent tranches, and ensure that Programme outputs were properly integrated with the business and aligned with LINZ strategic outcomes – to operate a world class property system and provide high value geographic and property information.

¹ Refer to paragraph 33 - Benefits Refresh - which signals further benefits management refinement activity.

22. Key tranche deliverables are:

22.1. low-risk customer service improvements addressing pain points currently experienced by the public, territorial authorities, conveyancers and financial institutions when accessing property information:

- web-based search will provide the public with real-time ability to easily search for and purchase products such as a title record
- a new search interface will enable other websites to connect directly to Landonline property data, enabling users to search for and purchase products
- a notice of change of ownership and occupancy service will automatically deliver a notice to territorial authorities when a property transaction is completed, enabling accurate updating of rating information
- a notice to mortgagee service will automatically notify financial institutions when mortgages are registered or discharged on a title

22.2. a start made to the crucial work of addressing risks related to Landonline's out-of-date software, and laying the ground for more challenging work in tranches 2 to 4, and

22.3. completing due diligence on the risks of migrating the Landonline database of property information (the Land Register and Cadastre) to an offshore public cloud service.

\$90 million in customer benefits

23. The customer service improvements described above were estimated by the PBC to deliver \$90 million in benefits to customers over the investment's 12 year life through greatly improved real-time access to property information, and reductions in time and cost involved in what are often manual processes. Non-monetised benefits will begin accruing to customers, LINZ and the economy from work started on de-risking the platform.²

Tranche 1 progress: 1 April to 30 September 2019

24. The Programme team was successfully established, built capacity quickly, and has operated within budget in its first six months. A strong foundation for Agile delivery was laid within the Programme, and software teams developing search and notice products are producing working versions of products for ongoing testing and review.

25. Two key challenges emerged in the first quarter (April to June):

25.1. aligning the release of Programme products with planned reviews of survey and title fees and charges. LINZ cannot recover the increased operating costs of new services forecast by the PBC until updated fee regulations are in force. As a result LINZ survey and title services will operate at a deficit until new fees are promulgated because the operational costs of the STEP Programme and increased costs associated with providing new services cannot be fully recovered from existing fees.

25.2. the need to advance plans for integrating Programme products with LINZ processes, systems and strategies. This arose because progress developing

² Refer to paragraph 33 - Benefits Refresh - which signals further benefits management refinement activity.

products had outpaced the Programme's capacity to integrate products with LINZ business groups through change and engagement activities.

26. In response to the integration challenge, LINZ commissioned independent reviews into LINZ's change and engagement capabilities and how well Agile delivery had been embedded within the Programme.
27. In July, the Programme Board moved the Programme's overall status from "amber" to "red" because neither challenge had been sufficiently resolved and more management focus and oversight of them was required, in particular on business integration.

Business integration

28. Significant progress has been made on business integration since July, including the creation of an integrated tranche 1 plan that includes product delivery and related LINZ business changes. In September the Board signalled increased confidence in key shifts LINZ had made to address business integration. Satisfactory resolution is expected by the end of November.
29. LINZ has also begun implementing recommendations of the independent reviews. These identified gaps in LINZ's capacity to manage STEP-related organisational change, noted that wider organisational engagement was needed, and that Agile delivery, while successfully embedded at a Programme level, needed adaptation to ensure uptake across LINZ.
30. The Programme Board acknowledged the Programme's ability to identify the business integration challenge early and adapt its work programme accordingly, validating the overall tranche approach to start small, and identify, learn and adapt from challenges early in the build.
31. The integration focus has not impacted overall tranche delivery targets. A web search product was released in October to a small number of registered Landonline users for real world testing and feedback on design, functionality and integration with LINZ back office functions (e.g. finance, Landonline support). Further releases of this product for testing purposes will be made as user feedback is incorporated.

Aligning fees and charges reviews with product releases

32. LINZ has investigated the implications of releasing products before new fee regulations are in place and is satisfied the increased operating costs arising from STEP can be met in the meantime from the current surplus balance in the survey and title memorandum account (see Financial Implications – paragraphs 45-56 – for more details).

Benefits Refresh

33. LINZ is revising the model used to calculate monetised benefits the Programme was expected to generate over the 12-year investment cycle. The benefits estimated for the PBC (\$119 million to \$143 million) were based on baseline data collected in 2015 for the Programme's Detailed Business Case. LINZ has now completed the first phase in a refresh of the estimated benefits, building on an April 2019 customer survey. This will inform an update of the financial models underpinning the Programme. A further phase of work to complete the benefits refresh will involve liaising with other government

agencies employing Agile methodology to identify current best practice tools and processes for benefits management in the government sector.

Due diligence on cloud hosting proposal

34. The use of an offshore public cloud service to deliver customer services (such as public web search) was a key component of the PBC from an operational and cost management perspective. The rebuild became more viable with technological advancements, processes and solutions offered by cloud hosting services like Amazon Web Services (AWS) in Australia. From a user experience perspective, the rebuild will take advantage of cloud technology to significantly improve the way LINZ delivers Landonline services to its customers and the public.
35. Cloud technology also offers innovative ways to store the underlying data used to deliver property information to Landonline users. Offshore data storage is an acknowledged risk and a decision on further use of the cloud to host Landonline's land register and cadastre will not be made until due diligence of data sovereignty, privacy, social licence and security implications/advantages is completed. LINZ is actively working with the Government Chief Digital Officer (GCDO) to ensure that any decision takes account of broader consideration of Government use of cloud services by Digital and Data Ministers.
36. LINZ expects to confirm its position on hosting the database in offshore public cloud services by the end of 2019 as this is a key input to the Programme's approach to the tranche 2 SSBC. Joint Ministers will be informed of LINZ's position prior to a formal decision.

Stakeholder engagement

37. The Programme has an active change and engagement programme in place aimed at ensuring feedback from key stakeholders (survey and conveyancing groups, and local authorities) is reflected in new product design and that Landonline users are ready for the release of new products.
38. Engagement has included quarterly progress demonstrations to stakeholder representatives, regular LINZ participation in professional fora, and LINZ hosted workshops. These initiatives are building support for the Programme and allowing stakeholders to offer regular feedback on products as they are being developed, and to contribute to product design and planning from a customer and user perspective.

Programme assurance

39. LINZ is actively managing the Programme and applying appropriate levels of oversight and assurance. This includes:
 - internal programme controls
 - active governance by the Programme Board and LINZ ELT
 - external quality assurance of programme health and technical quality
 - Gateway Reviews facilitated by the Treasury, as an additional layer of assurance mandatory for high risk projects
 - following published GCDO assurance guidelines and requirements.

40. The Programme Board meets monthly. The Board comprises the Senior Responsible Owner (LINZ DCE Property System Infrastructure), other LINZ Deputy Chief Executives and the Chief Financial Officer, three independent external members (one of whom is the Board chair), and a number of standing attendees from the Programme. The Board participated in several risk workshops during tranche 1.
41. LINZ provides quarterly reports on Programme progress to joint Ministers as tranche 1 progresses. Regular risk and assurance reports are being provided to the Programme Board and LINZ ELT, and quarterly meetings are held with central agencies. These processes allow LINZ to escalate challenges early, so that Ministers are informed and so that LINZ can ensure the Programme has appropriate support.
42. A risk and assurance advisor and independent quality assurance (IQA) provider have been appointed with responsibilities for providing independent advice to the Board and Programme. The IQA provider will review aspects of Programme delivery as necessary and participate in planning activities. The Programme must provide the GCDO with the updated Assurance Plan for review and oversight.

Preparation for Tranche 2

43. Tranche 2 is due to run from July 2020 to December 2021 and preparatory work has begun on the tranche 2 SSBC. LINZ currently plans to deliver the SSBC for approval by joint Ministers in April 2020. A working group has begun engaging with central agencies with the aim of ensuring the Programme's approach to the timing and release of funding for tranche 2 aligns with Treasury requirements.

Consultation

44. The following agencies or parts of agencies have been consulted in the preparation of this paper: 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

45. Joint Ministers authorised capital expenditure for tranche 1 of up to \$30.01 million at the 85th percentile, \$5 million less than that estimated in the PBC. This variation is the result of a more detailed resource estimate carried out for the tranche 1 SSBC, and lower implementation risks associated with the work being undertaken.
46. In addition to capital expenditure, tranche 1 will incur operating expenditure of \$3.38 million, paid for by fees charged to customers, bringing total estimated expenditure (capital plus operating) for the tranche to \$33.39 million.
47. Joint Ministers also gave LINZ approval to draw down up to \$10.8 million from the capital contingency agreed by Cabinet noted at paragraph 16. LINZ advises it does not expect to draw down any capital until the later part of the 2019/20 financial year.
48. Tranche 1 is operating within budget. Expenditure to 30 September 2019 is recorded in the table below.

Period	Budget (modelled cost - millions)	Actual (millions)
1 April - 30 September 19	\$9.14	\$5.15

49. The underspend noted above is due to a combination of recruitment timing and a phased approach to on-boarding resources, along with savings on staff and contractor rates. Expenditure is being monitored to identify any full tranche trends.

Review of survey and title fees

50. Work has commenced on the first of two planned reviews of LINZ survey and title fees signalled in the PBC. This review covers all existing LINZ survey and title related facilities and products, including changes and additions being made as part of the Programme. New fee regulations are expected to be in place by early 2021.

51. The current phase of the review is centred on understanding the characteristics of existing LINZ survey and title outputs and the costs of inputs for providing them.

[REDACTED]

53. The Agile approach that LINZ is following allows the key deliverables of the tranche to be released to customers earlier than a more conventional approach. These changes benefit LINZ customers and to delay releasing them until new fees are introduced would decrease the benefits to customers.

54. Therefore, existing survey and title fees will continue to be used until the first review of survey and title fees has been completed.

[REDACTED]

An increase in operating cost was included in the PBC and can be met from the current surplus balance in the survey and title memorandum account which was \$31.8 million at 30 June 2019.

- 55.

[REDACTED]



56. A second review of survey and title fees is timed to take place at the completion of STEP (2023/24). This second review will update fees where necessary.

Legislative Implications

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

Regulatory Impact Analysis

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

Human Rights

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

Gender Implications

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

Disability Perspective

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

Publicity

62. I propose that this paper, with appropriate redactions, will be proactively released at an appropriate time 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** that in October 2018 Cabinet approved a Programme Business Case (PBC) and authorised capital expenditure for the modernisation of Landonline [GOV-MIN-0078]. The Programme involves an iterative rebuild 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** that in 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 Programme 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.
4. **Note** LINZ is contributing \$32.9 million from capital reserves to the Programme, primarily made up of Landonline depreciation funds.

5. **Note** that on 1 April 2019 joint Ministers (the Minister of Finance, Minister for Government Digital Services and Minister for Land Information) acting under Cabinet delegated authority approved a SSBC and expenditure for tranche 1 “Search and Notices”.
6. **Note** that work has begun on low-risk service improvements for the public, territorial authorities, conveyancers and financial institutions when accessing or receiving property information:
 - 6.1. Web-based search will provide the public with real-time ability to easily search for and purchase products such as a title record
 - 6.2. A new search interface will enable other websites to connect directly to Landonline property data, enabling users to search for and purchase products
 - 6.3. A notice of change of ownership and occupancy service will automatically deliver a notice to territorial authorities when a property transaction is made, enabling accurate updating of rating information
 - 6.4. A notice to mortgagee service will automatically notify financial institutions when mortgages are registered or discharged on a title.
7. **Note** that Joint Ministers authorised tranche 1 capital expenditure of up to \$30.01 million at the 85th percentile, \$5 million less than that estimated in the PBC. This variation is the result of a more detailed resource estimate carried out for the tranche 1 SSBC, and lower implementation risks associated with the work being undertaken.
8. **Note** that the tranche 1 work programme to date is on track, with resourcing targets for ICT staff being met, and working software being developed and tested by LINZ staff and Landonline users.
9. **Note** that capital expenditure of \$5.15 million to 30 September 2019 is within budget for the tranche.
10. **Note** that the Programme Board moved the Programme’s status to “red” in July 2019 and sought increased management focus on and oversight of:
 - 10.1. how the Programme was integrating product delivery with LINZ business and strategic outcomes, and
 - 10.2. alignment of product delivery with survey and title fees.
11. **Note** that significant progress on integration planning since July has increased Board confidence, and satisfactory resolution is expected by November 2019.
12. **Note** that LINZ has begun the first of two reviews of survey and title third party fees requested by Cabinet to identify fee levels required to recover Programme operating costs, capital charge, and depreciation. The first review is expected to be completed in 2021.
13. 

14. **Note** that LINZ expects to decide by the end of 2019 whether or not to host the Landonline database of property information in an offshore public cloud service. This will take account of work by Digital and Data Ministers on use of cloud services by government agencies.
15. **Note** that LINZ will deliver a SSBC for tranche 2 of the Programme for joint Minister approval in April 2020.
16. **Invite** the Minister for Land Information to update Cabinet on Programme progress in March 2021.

Authorised for lodgement

Hon Eugenie Sage

Minister for Land Information

PROACTIVELY RELEASED