2024

Digital

Asset Management Plan

Christchurch City Council

Asset Management Plan Summary

Digital

Asset management plans

Together, our 14 asset management plans present a detailed description of all the things – roads, cycleways, footpaths, pipes, buildings, vehicles, parks and so on – that the Christchurch City Council owns, across all areas of work, and how these 'assets' are planned, managed, operated and funded.

All our assets belong to and are managed and operated on behalf of ratepayers.

Ensuring our assets are appropriate for the city's needs enables us to deliver the services that make Christchurch and Banks Peninsula a great place to live, work and visit.

What we do

Our main role is to provide technology advice and maintain services across a range of platforms to deliver the Council's Digital Strategy programme. We are responsible for maintaining IT services and ensuring business service level expectations are met.

Why we do it

We provide a range of tools to enable staff to carry out the Council's statutory, regulatory and commercial business.

Increasingly we're providing self-service applications and web-hosted solutions to make it easier for people to work with us and to increase transparency.

We enable internal and external communication, data collection and information sharing, monitoring and management of systems and infrastructure and we support all business activities across the Council.

Our assets

We own and manage hardware and software. Hardware is largely a mix of Dell devices and screens, and software is a mix of individual licences, perpetual licensing, concurrent licences, software as a service and cloud services. Unlike other areas of infrastructure, technology (both software and hardware) generally has a short lifecycle.

Where we've come from

For the past 30 years our role has been to provide in-house services to support the use of information and communication technology.

In 2010, Council moved to a more managed service environment. Initially this involved outsourcing management and maintenance of our server assets, using Infrastructure as a Service (IaaS) agreements.

Over time, we have moved to include Software as a Service (SaaS), Telecommunications as a Service (TaaS) and a range of cloud based enterprise solutions to enable scales of economy to ensure expenditure provides value for money.

Our issues and risks

Many of our risks have fairly clear-cut effects – either the service is available (customers can connect, transactional activities activity can still occur and staff can operate), or it's not.

Digital's areas of risk fall into three broad categories – demographic changes, natural events (earthquakes, tsunami, flooding and the effects of climate change) and globalisation. Our risk mitigations are set out in our Asset Management Plan.

- **Demographic changes**
    - Increasing cultural diversity

        - Need for improved communication channels
        - Need to improve engagement levels
    - A more dispersed city
        - Need different approaches for services offered locally
        - Need to introduce more cloud-based services
    - A more mobile population
        - Need new ways to provide for transactional activity
        - Need consolidation of customer information
        - Need more app-based transactional functionality
        - Need new ways of engaging with ratepayers
    - Workplace skills
        - Need succession planning to stop loss of organisational intelligence
        - Need to upskill workforce as new technology is introduced
        - Could struggle to get skilled workers because of national and international competition
- **Natural events**
    - Disruption to or failure of multiple systems
    - Disruption of service for essential workers
    - Disruption of service to critical facilities
    - Failure of or disruption to alert systems
    - Disruption to or failure of external organisations' service provision
- **Globalisation**
    - Location may affect supply chains
    - Currency fluctuations may affect budget
    - Political or health emergencies may affect trade agreements
    - Security systems may be compromised by cyber attacks
    - Terrorism may result in local, national or international restrictions
    - Production capabilities may be affected by climate change

What it costs

Our proposed budget in Year 1 of the 2024 LTP is $55.64 million, with the operating expenditure projected at $32.59 million and the capital expenditure at $39.78 million. Tables for each area of spending are included in our asset management plan (Appendix 5-3).

*The proposed operational and capital programme is indicative only. It will be updated through the LTP 2024-34 capital prioritisation process.

How we are funded

A user-based financial model calculates a flat rate per user charge for our operational funding. Our capital expenditure is managed through the Capital Investment Programme.

This is a simplified model of fund accumulation and does not necessarily show where the true costs of IT are derived. Nor does it provide a view of how efficient or inefficient business units are in their use of technology.

How it's delivered

Delivery is via a combination of Council staff and tendered contracts with partner organisations and private providers.

Our work often requires skill-sets not available in-house, so delivery may be completed using a combination of Council staff and external providers. Outsourcing is also used for areas of work that are not our core business.

Outsourcing selective services and increasing Software as a Service delivery highlights a need to strengthen strategic vendor management capabilities across Digital.

We are increasingly customising or tailoring products to be Council-specific. This may increase operational costs where customisation relies on staff having specific skill sets.

Procurement of technology services also uses all-of-government contracts negotiated centrally to benefit the public sector.

Our functions and services

Our goal is to deliver the required level of service to existing and future customers in the most cost-effective way.

Digital services are involved in almost all aspects of the Council's business. We are responsible for the data network, information and communication technology hardware and software, cyber security and business continuity planning.

We ensure the technology has the capability to meet the needs of elected members, staff and the public. We manage information and records, including over 25 million digital records, 28,000 cartons of hard copy files and 1600 linear metres of historical records.

Active monitoring and management of all Digital assets ensures applications are appropriate and are renewed or replaced at the right time, and ensure capacity is adequate for the Council to operate. We operate a secure, robust and resilient data network which connects facilities, provides remote response capabilities for critical services (water, waste, transport operations and civil defence) and is a secure access point for sharing information with other government agencies.

We provide a Digital Service desk to monitor systems and support staff, we provide expert advice to business units, and we manage cyber security risks.

Looking ahead

If we are to be proactive to customer requirements a coordinated approach will be needed across all business units. This will ensure that any existing or proposed technology has the capacity to supply interactive data flows that build, at a high level, a profile of total business activity, and at a more granular level give total visibility to customers of all their dealings with council.

This work is still in development, but we know there will need to be more emphasis on social platforms as an avenue for undertaking transactional activity. Higher use of spatial platforms will be required to plot and model in-ground and above ground infrastructure. Monitoring will need to be more proactive, rather than reactive after an event. These will need to be tied to regulatory and financial systems that ensure we are meeting statutory obligations and providing value for money for ratepayers.

The Digital Unit will strengthen its partnership with business units, as enablers and to add value. This requires us to better understand the internal customer base and the services they provide.

This will enable renewal and replacement programmes to be developed that ensure all systems are optimally configured at all times. It will also ensures that adequate resources are in place to facilitate deployment programmes and that these are coordinated with the business owners to minimise any impact on normal operations.

Growth

In the current environment, growth will be driven by regional, national and global 'new norms'. These will have to be assessed as they emerge and current programmes may need to reassessed for relevance.

Whatever our forward momentum looks like, we will need foundation investment to ensure systems are fit for purpose and provide an adequate level of future-proofing to 'get the basics right'.

Continuous improvement

We have a strong commitment to improving our asset management practices, with a focus for the next two or three years on bringing these up to an appropriate level of capability.

The Digital Asset Management team report directly to the Digital Service Operations Manager.

This is the Digital Unit's second Asset Management Plan and our first AMMA assessment with the rest of the council. The Asset Maturity Assessment shows we are at an intermediate level.

Our aim is to ensure effective and sustainable asset management practices for IT.

The independent Asset Management Maturity Assessment process provides a sound basis for prioritising and monitoring improvements. We need to benchmark our internal assessments and conclusions against external entities and ensure plans are critiqued before implementation.

Our continuous improvement will be resourced through current operational funding as part of core delivery, however some investment will be needed for initial data gathering, consolidation and report creation.

Funding across Council is constrained, so it will be important to plan to ensure the highest priority improvements are delivered first and that future delivery costs are well understood, with sufficient funding allocated in the Long Term Plan 2024-34.

Document Control

Version Control

Version numbering changes when a document is approved. Draft document numbering starts at 0.01. Released or approved numbering starts at 1.01.

Version	Date	Description
0.01	01/06/2023	Draft document
1.01	02/02/2024	Draft for consultation
1.02	03/07/2024	Final following adoption of LTP

Document Acceptance and Release Notice

This is a managed document. For identification of amendments each page contains a release number and a page number. Changes will only be issued as a complete replacement document. Recipients should remove superseded versions from circulation. This document is authorised for release once all signatures have been obtained.

Name	Role	Status	Signed	Date
Anurag Madan	Head of Digital / CIO	Final	A Madan	02/02/2024
Nick Dean	Finance Business Partner	Final	N Dean	12/03/2024
Bede Carran	GM Resources/CFO	Final	B Carran	13/03/2024

Long Term Plan documentation

Christchurch City Council's Long Term Plan (LTP) consists of a group of integrated documents intended to be read in conjunction with each other.

Activity Plans include community outcomes, levels of service KPIs, future impacts and demands (such as growth) and finances. Asset Management Plans specifically cover asset lifecycles and asset risks.

This enables Council to meet the detailed requirements of the Local Government Act 2002, which applies to all councils in New Zealand.

Other approaches to asset management (for example the International Infrastructure Management Manual or ISO 55000) should consider both plans together, rather than Asset Management Plans in isolation.

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1 Introduction to our Asset Portfolio

1.1 Background

From the city's first foray into technology in the 1970's, we have seen a profound shift from centralised on premise compute to a decentralised cloud and managed service model. The earthquakes in 2011 and pandemic in 2021 have only accelerated the rate of change with work from anywhere and a focus on service criticality, risk and resilience, and climate change.

With this comes a need to better invest in infrastructure like networking and cloud partners with robust levels of service levels to support council levels of service.

Following our first Asset Management Plan in 2020, it became clear the nature of both our tangible and intangible assets and services still needs similar rigour to demonstrate good stewardship.

Critical to any asset management are policy, process, people, systems, and temporal reporting.

Asset management has progressed with a continuous process of reviewing and updating information of the asset portfolio by identifying and confirming assets, assessing their condition and valuation, preparing and updating the AMP, establishing regular programmes of maintenance, renewal, and condition assessment, and ensuring the correct asset information is made available in all instances to support evidence-based decision making across the asset management lifecycle.

Digital asset management is becoming less about devices and software and more about managed cloud services. As a result, the focus is more about the management of operational spend than capital investment.

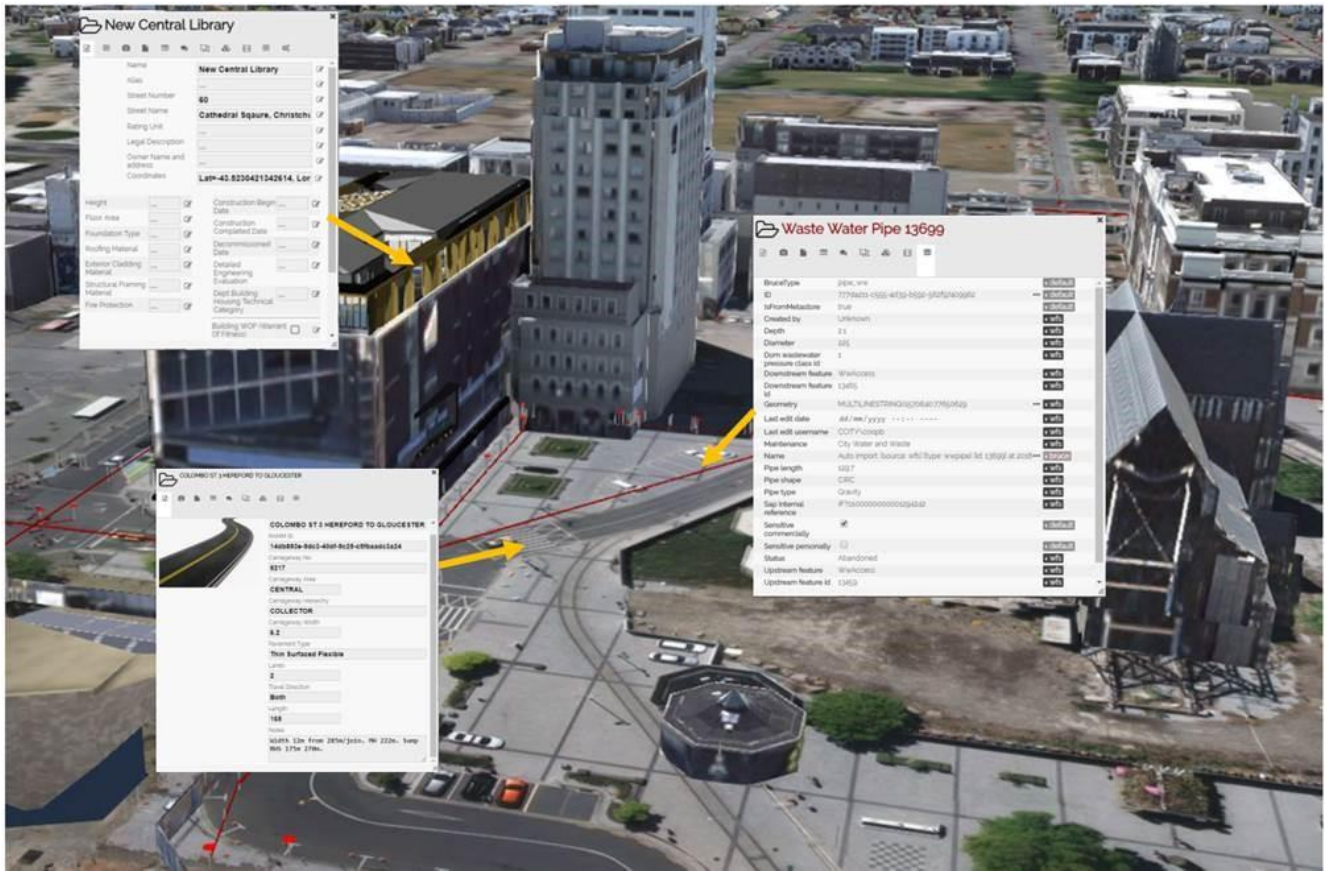


Figure 1-1: Tūranga Building Information Model (BIM)

1.2 Asset Lifecycle Approach

Council has established a lifecycle management framework, aligned to the *International Infrastructure Management Manual* as illustrated in Figure 1-.

We aim to ensure that all hardware is within a warranty period. This means that we operate on 3-, 5-, and 10-year lifecycles with most equipment being replaced within the three-year cycle.

In terms of software and enterprise solutions, we are more often or not taking a turnkey cloud based managed service rather than developing and building solutions.

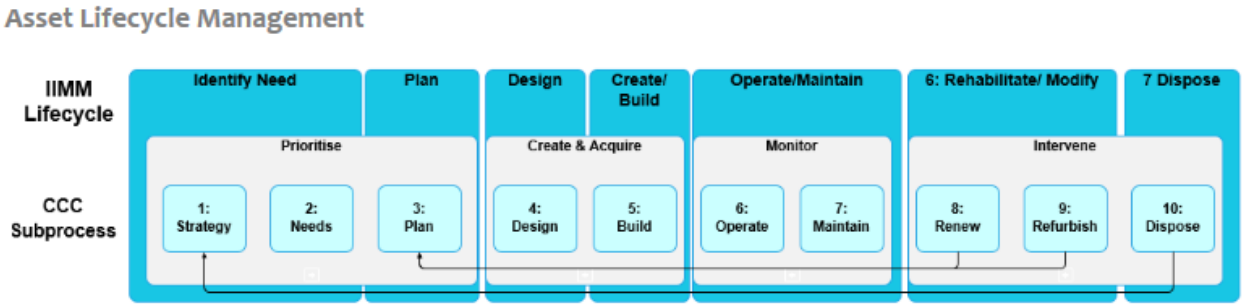


Figure 1-2: Asset Lifecycle Categories

1.3 Goals and objectives of Asset Management

Asset management is a business process which guides the lifecycle management of assets. Lifecycle management includes the planning, acquisition, operation, maintenance, renewal and disposal of assets.

Effective asset management enables the delivery of levels of service in the most cost-effective manner to present and future communities.

The Council's Asset Management Policy (approved by Council's Executive Leadership Team on 26 March 2018) provides the organisation's long-term vision, values and direction for asset management. The policy aligns with the organisation's strategic framework. The policy relates to Council's overarching intentions for asset management and the asset management system and not specifically assets or asset decisions.

The five principles underpinning the policy are:

- Asset management outcomes align with the strategic direction of Council.
- Asset management is an organisational wide practice.
- Decisions about assets are based on well-managed, quality information.
- Asset management maturity is appropriate to the assets, services and risks we manage.
- Asset management plans are living documents.

The Asset Management policy sets out the assets Council manages in accordance with its asset management principles, and therefore within the asset management system scope.

The Asset Management Policy demonstrates commitment to maintaining an Asset Management System that promotes responsible management of assets to deliver value to customers and support business objectives, in accordance with best practice and alignment across the organisation. This provides a framework for establishing detailed plans and targets that support these objectives; and are measured and monitored to ensure continual performance improvement for Asset Management.

The Asset Management objectives (see Appendix 5.1) enable the management of assets in a manner consistent with the principles of the policy, and the organisation's objectives.

2 Lifecycle Management Plans

2.1 Asset Overview (what assets we have)

The following assets are covered in this AMP.

Table 2-1: Scope of Assets and Services Covered in this Plan

In Scope	Out of Scope
Data Network	in-building cabling
Hardware	Infrastructure that has no IT component.
Software (including end user devices (desktops and mobile devices, server, and cloud)	Follow Me Printing
Managed Services	EFTPOS
Cyber Security	Managed Services where there is no IT component
Business Continuity Planning	

2.2 Location and Value

In the Te Pūrongo-ā-tau Annual Report 2022, Fixed Assets under direct Council Control carried a book value of $14.2 billion.

Table 2-2: Asset Portfolio Value

Asset Class	Book Value (inc AUC) 31st May 2023	% of CCC Asset Base
Application	**$88,294,692.24**	
PC	**$3,003,393.30**	
Smartphones	**$480,733.14**	
Network	**$853,083.13**	
Printer	**$47153.32**	
Large Display	**$7,413.37**	
Tablet	**$187,390.53**	
Other	**$243,642.97**	
Total value Digital Assets	**$93,117,502.90**	**<0.1%**

In comparison with the book value, the replacement value shows a figure in the region of $148 million. Book value will give us the current value inclusive of depreciation cycles whereas the replacement value will give us an approximate cost of total replacement within today's market.

These costs will change year on year as depreciation is applied, book value will reduce, as new assets are procured book value will rise and replacement costs will reflect the estimated cost total renewal.

Replacement cost will always reflect an inflated value against the book value if replacement is deferred.

Technology generally has very short lifecycles compared to traditional infrastructure. Hardware lifecycles are based upon the speed with which device development occurs.

2.3 Inventory Age and Lifecycle Stage

The age profile of the assets include in this AMP is shown in Figure 2.4. The uniform nature of this profile is a result of previous work to level spend over the given lifecycle based upon previous trends.

The age profile (or remaining life profile) of digital assets varies depending on the asset type, and vendors recommendation. For Digital, that can be three years to five years to ten years.

The Council Digital Asset Replacement and Renewals Policy requires tangible assets be replaced within a year of the manufacturers recommended warranty period. Intangible assets like software applications rely on warranty and utility i.e. as long as the assets continue to meet the Council's requirements, they are maintained so they remain under support from the vendor.

Equipment that is older than 2018 are for specialised line of business purposes deemed low risk and have a longer lifecycle that standard equipment e.g. UPS.

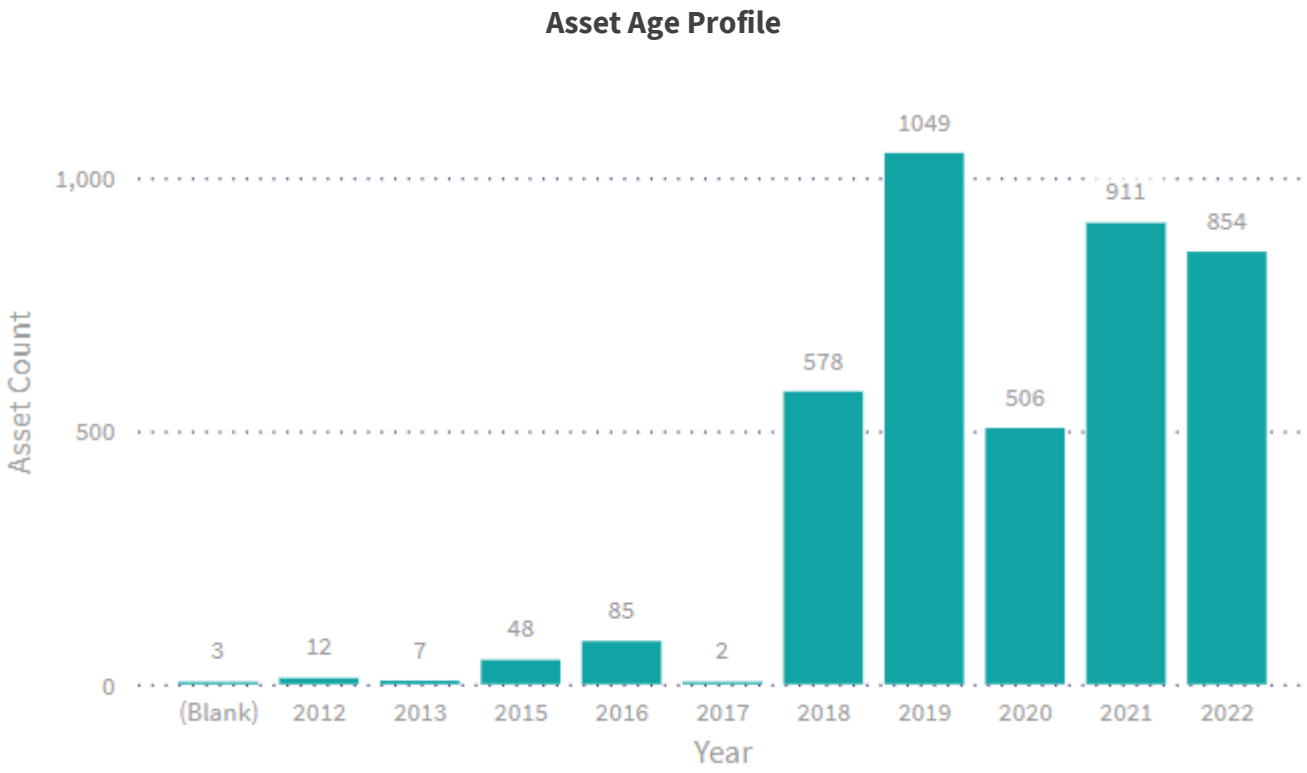


Figure 2-1: Asset Age Profile

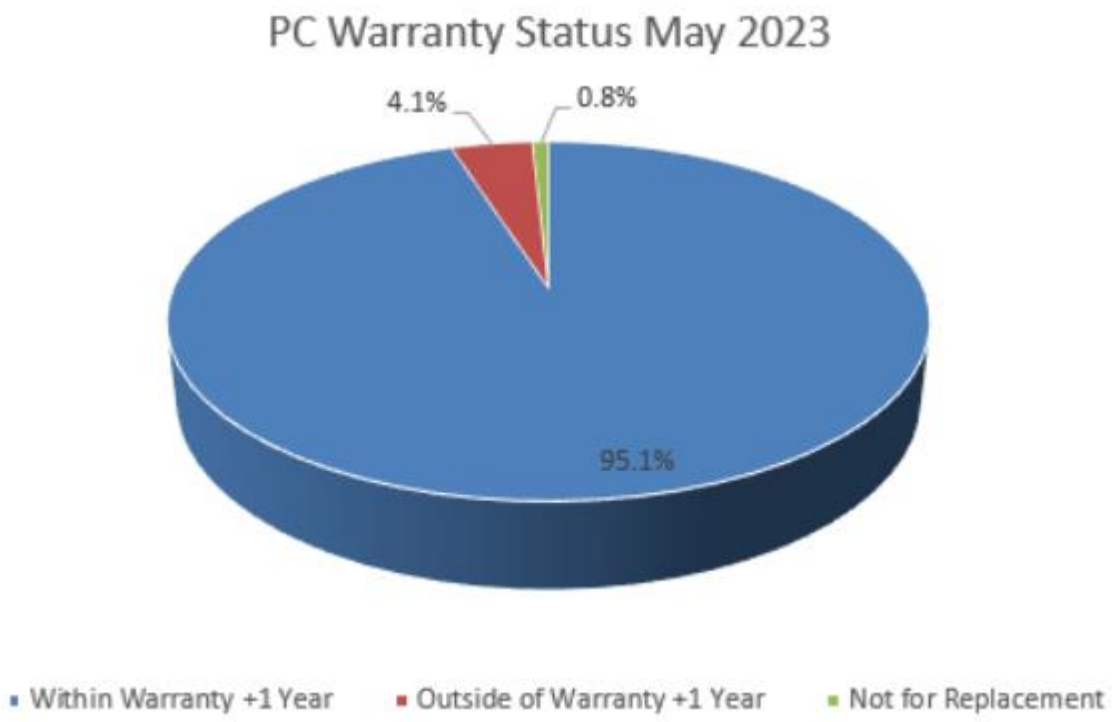


Figure 2-2: PC Warranty Status

The lifecycle stage of the assets is a useful indicator of whether the portfolio is healthy and balanced.

In the scenario blow, we have 2500 units which should be rotated on a lifecycle of 500 units per annum. This ensures optimal performance and best use of cash flow. If replacement is deferred, cost escalate in relation to the level of deferment.

This very flat model shows a maximum increase in cost of $1,150,000 if costs are deferred for two rotations. This does not consider potential servicing and maintenance cost which are like to come with 'sweating' assets or increased labour cost to service over time then the management of a large-scale development.

Cost Of Ownership

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total Cost
500	500	500	500	500	500	500	500	500	500	
$ 750,000	$ 800,000	$ 825,000	$ 850,000	$ 875,000	$ 900,000	$ 925,000	$ 950,000	$ 975,000	$ 1,000,000	$ 8,850,000
				$ 4,100,000					$ 4,750,000	
				2500					2500	
				$ 4,375,000					$ 5,000,000	$ 9,375,000
									5000	
									$ 10,000,000	$ 10,000,000

Figure 2-3: Cost of Ownership

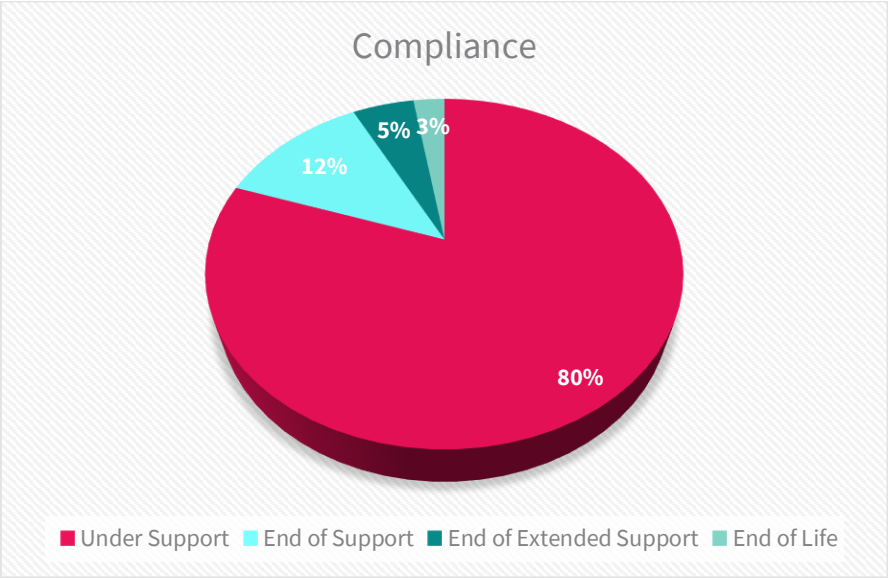


Figure 2-4: Technology Platform Compliance

Technology Platform or Software Application Compliance highlights the following.

- While software is intangible, it is still an asset and needs to be treated as such, managed over its expected lifecycle.
- Like hardware, it has a support life or warranty. However, as new versions are released, older versions fall out of support. Monitoring and reporting like this informs planning to ensure the software is kept up to date and under support.
- We work with stakeholders to ensure software is still fit for purpose as requirements change over time.
- This is coupled with annual and 90 day reviews and our software usage monitoring platform before contracts and renewals occur, to ensure we are reviewing what we still need.

2.4 Critical Assets

Critical assets are those whose failure would likely result in a significant disruption in service and financial, environment and/or social cost, and therefore warrant a higher level of asset management.

The criteria used for assessing criticality for Digital assets is based upon the business function that digital supports. Similar tools may be used across differing business units. The criticality is determined by the activity carried out by the business unit.

These definitions are applied to all hardware and software solutions to inform:

- response and resolve times.
- replacement and renewals.
- levels of service.

The following tables show the digital assets and services deemed critical to the corresponding Business Unit. More detail can be found in:

- IT Security - Protect - Business Continuity Plan - IT Unit - (BCP) Business Continuity Plan TRIM://19/680215

All assets have service contracts or warranties to ensure crucial services can maintain their level of service.

Table 2-3: Priority 1 - Service Recovery: Activation/ Recovery Time Objective < 24 hours

Priority 1 - Service Recovery: Activation/ Recovery Time Objective < 24 hours						
Service Plan / LoS	**Service Plan**	**Unit**	**Description**	**Crucial IT Systems & Databases**	**Other Crucial Resources, Activities, processes**	**Risk Mitigation**
Potable Water	Water Supply	Three Waters & Waste	Water Supply, Water Conservation	SCADA, Outlook, Pivotal, SAP Hybris, WaterOutlook, Network		Contract SLAs with Vendors
Traffic Safety	Traffic Safety & Efficiency	Transport	Traffic safety, Roading & Street lighting	SAP Hybris, Luxriot, Milestone, FLIR Latitude, Network, Outlook		Contract SLAs with Vendors
Transport Routes	Stormwater Drainage (Three Waters & Waste)	Transport	Flood Management, Snow Response, Geotech/ Land slip Response	SCADA, SAP Hybris, CPMS, WaterOutlook, ArcGIS, Geomedia, Network, Outlook	Christchurch Waste Treatment Plant	Contract SLAs with Vendors
Waste Water	Wastewater Collection Treatment & Disposal	Three Waters & Waste	Wastewater Collection, Treatment & Disposal	SCADA, SAP Hybris, Pivotal, WaterOutlook, Network, Outlook	Christchurch Waste Treatment Plant	Contract SLAs with Vendors
City Governance & Decision Making	Governance & Decision Making	Community Support, Governance and Partnerships	Engaging with elected members – e.g.: Mayor, Councillors, Community Boards	InfoCouncil, Hub, Fundforce, Network, Outlook	Unit has 90% of staff with laptops and cell phones	Contract SLAs with Vendors
Art Gallery Climate Control & Security	Christchurch Art Gallery	Art Gallery	Physical integrity of collection	Fortecho Aspect, Gallagher Security, Network, Outlook	Power, water & data, access to site	Contract SLAs with Vendors
Libraries Archive & Heritage Security	Libraries	Libraries and Information	Physical integrity of collection	Digital Heritage Repository, Network, Outlook		Contract SLAs with Vendors
Call Centre Communications	Citizen and Customer Services	Customer Services	Call-centre services	Genesys PureCloud, Internet/Intranet, Network, Email	Desktop computers, Sip stations, headsets etc if required to relocate	Contract SLAs with Vendors
Media Relations	Communications & Engagement (formerly Public Information & Participation)	Communications & Engagement	Media relations	Hub, Newsline, Facebook, Twitter, Sprout Social Intranet/Internet, TRIM, Network, Outlook	laptops x 6 minimum, cell phones 6 x minimum	Contract SLAs with Vendors
CDEM (EOC) Response	Civil Defence and Emergency Management	Civil Defence Emergency Management	Readiness, Response & Recovery	D4H, Network, Outlook		Contract SLAs with Vendors

Table 2-4: Priority 1 - Enablers: Activation /Recovery Time Objective < 24 hours

Priority 1 - Enablers: Activation /Recovery Time Objective < 24 hours						
Service Plan / LoS	**Service Plan**	**Unit**	**Description**	**Crucial IT Systems & Databases**	**Other Crucial Resources, Activities, processes**	**Risk Mitigation**
Procurement	Resources	Procurement & Contracts	Procurement management.	SAP, Network, Outlook, SharePoint, TRIM	Procurement Manual & Policy, Google drive back-up	Contract SLAs with Vendors
Property (Facilities Management)	Recreation, Sports, Community Arts & Events	Facilities, Property & Planning	Liaison & support for Council facilities & leased facilities	SAP, Network, Outlook, SharePoint	TBA	Contract SLAs with Vendors
Information Technology	Resources	Information Technology	Management, capture, analysis & reporting of corporate data. ICT systems and data recovery	Network, Outlook		Contract SLAs with Vendors
Human Resources & Health & Safety		Human Resources	Employee info, rostering & support Emergent hazard advice, ACC, EPA.	SAP, Noggin, TRIM, SharePoint (Hub), Network, Outlook, Excel	Team Have 28 laptops & 19 cell phones	Contract SLAs with Vendors
Internal & External Communications Support	Communications & Engagement	Communications & Engagement		Network, Outlook		Contract SLAs with Vendors
Payroll is Processed		Financial Management	Payment of staff	SAP, Network, Outlook	Have one laptop, access to banks	Contract SLAs with Vendors
Financial Support		Financial Management	Cash availability	SAP, Network, Outlook, Visual Risk	BNZ and 1B4B internet banking service, Banking "key access" Treasury Policy, Delegations Register	Contract SLAs with Vendors
Legal Support		Legal Services	Legal advice as required	LEX, Network, Outlook, TRIM	Business Support staff, City care sexton staff, laptops, cell phones and Ipads x 2, printer capability	Contract SLAs with Vendors

2.5 Asset Data Confidence

Digital Asset Data confidence is high as we either are under warranty or support via service contracts. Our policy has 85% of our applications under support.

Asset data is held in SAP, Alemba Service Manager, and SNOW platforms.

SAP Improvement Asset Management workstream has descoped managing assets in SAP.

Asset Data Improvements

The following improvements to data quality are included in the AM Improvement Plan in Section 4.

- Continued use of SNOW Asset Discovery tool so we can monitor hardware and software, licensing compliance, temporal reporting, and support levels.
- Implementation of Asset Management in SAP so we have a single source of truth of assets, contracts, and financials
- Automating workflow in our Service Management tool to ensure consistency and free up time for higher value activities. Note this is current descope managing assets in SAP. We are activity asking it is in scope
- Implementing STATE3 as a system of record of landscape to better understand what we have, why we bought it, what capabilities it provides what business activities. In turn, reduce instances of duplicate assets that provide similar capabilities.
- Implemented Microsoft Intune and PatchMyPC to reduce the number of versions of software, ensure up to date and secure, ensure hardware is patched and up to date.
- ASM Upgrade with integration to SNOW and STATE3
    - reduce human error and the reliance on manual input
    - improved temporal and exception reporting
    - identify and improve data quality

3 Managing Risk

3.1 Managing Risks

Council's approach to managing risk is detailed in its Risk Management Policy.

3.1.1 Risk Management plan (risk framework)

Risk management is inherent in all of Council's asset management processes. Significant risk management strategies for this activity include:

- **Escalation and review**
  - Digital hold monthly meetings to review operational and capital programmes and intervene where required
- **Asset Design and Delivery**
  - For Council delivered projects, all elements are designed to ensure the following project management framework and defined levels of service are met.
    - **Availability** – ensuring the service is designed to meet a defined availability target by aligning underpinning contract service level agreements as part of good governance.
    - **Capacity** – managing and ensuring sufficient capacity for growth to prevent disruption to levels of service, ensuring suppliers report on consumption trends as part of good governance.
    - **Security** – by design and through regular security patching and maintenance to ensure security vulnerabilities are eliminated or mitigated through monitoring and audits.
    - **Service Asset and configuration Management** – as built design configurations are documented and recorded in our Service Management tool to ensure we have what we need in the event of reactive and proactive change.
    - **Robustness** – seismic standard of data centres and managed environments as part of good contract governance and reporting
    - **Redundancy** – design networks, power, and services to remove single points of failure as part of good design, leveraging qualified third parties to review design.
- **Insurance**
  Council's general insurance coverage
- **Business Continuity and Emergency Response Planning**
  Digital Unit BCP

3.2 Critical Risk Identification and Management

3.2.1 Climate Change Impacts

Please refer to section 2.3 of the Digital Activity Management Plan

3.2.2 Asset Risks

The Digital unit also identifies and records risks at a more detailed level, as shown on the following page.

There are currently no outstanding asset risks.

Refer the Digital Unit section of the Risk Register https://go.promapp.com/ccc/Risk/Register

Table 3-1: Medium, high, and very high inherent risk items

ID	Risk Description	Inherent rating	Treatments in place (today)	Residual impact	Residual likelihood	Residual rating	Proposed additional treatments
01	There is a risk that critical business services may be impacted if we do not understand what digital assets they rely on	Medium	Business Continuity plans	Moderate		Medium	Work is underway to map business activities to digital assets as well as keep updated the business continuity plans
02	Business or digital service disruption due to technology failure. There is a risk that critical systems will be unavailable or only partially available due to unplanned downtime resulting in business and service disruption (or needing to revert to manual processes)	Medium	Contract SLAs in place	Moderate	Likely	Medium	
03	Business change not enabled by technology Due to resource constraints, lack of capital funding, change fatigue, competing priorities, lack of business or digital readiness the anticipated business change is not delivered and delivery of digital service or technology to the community may be impacted	Medium	Meet and review with stakeholders	Moderate	Likely	Medium	For all Digital changes, Change Management is applied to ensure business adoption and value.

4 Continuous Improvement

4.1 Overview of the Improvement Programme

Council has made a strong commitment to improvement of asset management practices and seeks to further improve the approach. Council acknowledges the need to focus efforts to further asset management practices over the next 2-3 years to an appropriate level of capability.

4.2 Current Asset Management Maturity

Digital was included in the Council wide asset management maturity assessment (AMMA) for the first time in September 2023. The assessment determined the level of maturity 'intermediate'. The assessment acknowledged the following.

Digital | What works well

Category	#	Theme	Observations	Evidence/examples
Systems: The systems to enable decision making are fit for purpose	29	Asset data quality	• Asset data completeness and accuracy is known and used to inform decision making **(4.2)** • Multiple data sources are utilised to enable reliable data capture **(4.2, 4.3)**	• Asset quantities, age, compliance status and warranty status are known and are documented in the AMP. Validity of the data is unknown. • Data sources used are SAP, SNOW, Intune and Alemba Service Manager. The team is actively reviewing the data captured within the data sources i.e., the suitability of software with the relevant team(s)
Process: Processes are in place to enable AM practices	30	Documentation and formalisation of business processes	• Criticality of assets are defined **(4.4)** • Asset renewal processes are defined and followed consistently **(4.4)**	• Asset criticality is captured in the AMP • Processes surrounding renewals of assets (e.g., software) are communicated with the relevant teams prior to being actioned
People: The team has the necessary capability to allow for successful asset management practices	31	Internal resourcing capability	• The structure of the team is consistent and the team's collective outcome is understood	• The digital team's objective is to be an enabler to the wider organisation to allow them to carry out their roles in order to deliver community outcomes

Figure 4-1: 2023 AMMA Digital | What works well

Improvement items raised in 2020, and 2023, have been reviewed and included in Digital's asset management improvement plan. The improvement programme, available in Section 4.5, seeks to close the remaining maturity gaps and address the weaknesses identified during the development of this AMP.

Section 4.5 provides a programme of activities required to close the remaining maturity gaps and address the weaknesses identified during the development of this AMP.

Overview | IIMM Maturity Rating by Unit

IIMM Section	2.4: Asset Condition and Performance	3.5: Asset Financial Planning & Management	4.2: Asset Data & Information	4.3: Asset Management Information Systems	4.4: AM Process Management	4.5: Outsourcing & Procurement	4.6: Continuous Improvement	Overall Unit Rating*
Digital	Intermediate	Core/Intermediate	Intermediate	Core/ Intermediate	Intermediate	Intermediate	Intermediate	**Intermediate**

Figure 4-2: Asset Management Maturity Assessment for Digital Activity

4.3 Review of Progress against Previous Plan

The last improvement plan was developed as part of the 2020 AMP update. The indicative term of the improvement programme was three years. Table 4.2 provides an update on the status of the improvement programme items as at November 2020.

In addition to the items within the improvement programme, the following improvements have been made to the activity since the last AMP:

- Enabled our Asset Management team in a due diligence capacity.
- Implementing several tools
- Restructuring how we operate.
- Putting forward a policy for operation
- Implementation of priority recommendations in the improvement plan

Table 4-1: Progress against 2021 Improvement Plan

Task ID	Action/Task	Timeline	Progress and Action
Item 2-1	Document level of service process in Promapp	TBC as part of the FY25 improvement plans.	Complete, monitored through ProMapp
Item 2-2	Develop real-time monitoring systems.	TBC as part of the FY25 improvement plans.	In progress, 70% complete, ongoing improvements throughout the FY
Item 2-3	Develop and document procedures for reconciling levels of service, price projections and demand projections.	TBC as part of the FY25 improvement plans.	In progress, 50% complete, carry forward.
Item 2-4	Development of a modelling strategy	TBC as part of the FY25 improvement plans.	In progress, 70% complete, carry forward.

4.4 Review of Progress against Previous Plan

The last improvement plan was developed as part of the 2020 AMP update, The indicative term of the improvement was three years. Table 4.5 provides an update on the status of the improvement plan as of January 2024.

Additional improvement items were identified during the maturity assessment and as part of this asset management plan review. These items were added to the outstanding items from the 2020 Improvement programme.

Table 4-3 details those tasks that will be continue as part of continuous improvement. These tasks have focused specifically on those areas where the risk is most critical. To facilitate the practical implementation of the improvement programme tasks have been designed to address several issues concurrently and be programmed to ensure a logical progression towards the 3 –year target.

Table 4.3 - Asset Management Improvement Programme – Digital Progress Report since November 2021

#	Project Name	Milestones		Deliverable(s)	Critical Success Factors (Evaluation Criteria)	Benefits / Outcome	RAG Status	Progress Commentary
		Start	Finish					
1	Demand modelling	WIP	Ongoing	End user services improved: - improved lifecycle management of hardware - improved support for software - improved management of asset related services	- Renewing hardware within a 3-3.5 replacement programme. - Ensure no software that is end of support/extended support or end of life. - Utilising new AM tools to provide better visibility of our asset fleet.	Decrease in service requests Cost avoidance Improved customer satisfaction Potential reduction in the number of devices		Continual improvement activity.
2	Contract management and Vendor Service Delivery	WIP	Ongoing	- Monitoring operational contracts to ensure fit for purpose/best price etc. - Regular meetings with vendors to ensure best practice.	Ensuring that all deliverables negotiated are delivered as per contract levels of service and as per agreed price.	Appropriate investment for the appropriate tool sets (contract KPIs met). Ongoing solid relationships with vendors (partnership model).		Continual improvement activity.
3	Software licensing, hardware & system enhancements	WIP	Ongoing	IT - Software Licensing - Understanding who is using what and when - Adjusting deployments to fit usage - Ensuring license type equates to a value proposition - Procurement at best value.	All end users have the appropriate hardware and software for them to undertake their role.	Cost avoidance Rationalisation of types of hardware – monitoring numbers, installations, and usage. Rationalisation of types of software – monitoring, installations and usage.		Continual improvement activity.
4	Risk & audit assessment	WIP	Ongoing	Monthly report on software security and compliance (under support).	All applications are patched appropriately. All applications are under support.	Reduced risk of external penetration – number of blocked attacks. All applications are at a supported version level.		Continual improvement activity.
5	AMP review and development (2024)	WIP	Ongoing	AMP review (Dec 2024). Annual review of the milestones within the AMP.	Meeting milestones required within the current AMP. Being prepared for the next AMP.	Clearer view of the services offered by IT. Appropriate funding to support IT services.		On track to deliver as planned.
6	KPMG risk audit	WIP	Ongoing	Asset management maturity level reviewed.	Maturity level has improved from previous assessment.	Moved along the hardware AM and software AM maturity scale.		On track to deliver as planned.
7	Moving IT assets into SAP	WIP	Ongoing	Moving IT assets into SAP	IT assets are in SAP	A consolidated visualisation of our assets that allows reporting across a number of parameters i.e. financial, condition and performance.		Amber = Constrained by appropriate SAP resources to undertake the work.
8	IT asset lifecycle compliance	WIP	Ongoing	To ensure that all renewal and/or replacement programmes are aligned to provide sustainable and fit for purpose procurement.	All IT assets (software and hardware) are suitable and fit for purpose.	Improved productivity across the organisation. SNOW Platform monitors the warranty of all devices		On track to deliver as planned.
9	Policy review – BAU	WIP	Ongoing	IT asset management policies reviewed.	All IT asset management policies are updated, published and understood by the organisation.	Improved collaboration between Business Units and IT.		Amber = Duration may extend due to approval timeframes.
10	Data network upgrade	WIP	Ongoing	Data network upgrade completed.	Network provides an adequate backbone with sufficient capacity for all users and limited outages.	Improved productivity across the organisation.		On track to deliver as planned.
11	Process Documentation	WIP	Ongoing	Documentation and formalisation of business processes		Clear, consistent process for people to follow		On track to deliver as planned.

Table 4-4: Asset Management Improvement Tasks

Task ID	Project / Task	AM Maturity Gaps	Priority (H, M, L)	Responsibility	Resources (teams, $)
01	Information Experience Programme		H	Tanya Stone	IM team
02	Data Network Project		H	Colin Lawrence	Digital Service Operations
03	Infrastructure as a Service		H	Colin Lawrence	Digital Service Operations
04	Business Service and Activity Mapping to Digital Asset		H	Colin Lawrence	Digital Service Operations

4.5 Monitoring and review

The Asset Management Improvement Programme (AMIP) will be reported to the Strategic Asset Management Team (SAM). All improvement items and the improvement programme will be monitored by the SAM team and reported to the Executive Leadership Team as required.

We produce monthly reports on compliance and support to our leadership team.

5 Appendices (Supporting information)

5.1 Asset Management Objectives

Table 5-1: Asset Management Objectives

Principle	Objective	
1. Asset management outcomes align with the strategic direction of Council	1.1	Linkages between Council's strategic direction and asset management outcomes are clear and understood
	1.2	All asset based services are linked to the attainment of Community outcomes
	1.3	A whole of life approach is taken for all asset management initiatives
	1.4	Asset management planning outputs provide the options and financial forecasts for the first draft of the Long-Term Plan (LTP)
	1.5	Investment in Infrastructure is optimised across all asset types
	1.6	Opportunities to increase resilience are considered in all asset management planning
2. Asset management is an organisational wide practice	2.1	The Strategic Asset Management Team (SAM) provides leadership of asset management practice at Council
	2.2	Asset management is co-ordinated across the organisation
	2.3	Core asset management processes are consistent across Council
	2.4	Asset management practice is compliant and appropriate
	2.5	Asset Management Teams across all lines of the business are motivated and driven by customer needs
	2.6	There is an organisational culture of continuous improvement in asset management
3. Decisions about assets are based on well managed, quality information	3.1	Asset data is available in corporate system for use in all decision making related to Council assets
	3.2	The performance and condition of assets is monitored and reported
	3.3	Decision making by asset owners and managers is outcome based and based on reliable asset information
	3.4	Supporting asset information is readily accessible
	3.5	Asset data is up to date
	3.6	Asset management decisions by asset owners and managers are based on evaluation of all viable options to deliver levels of service outcomes
4. Asset management maturity levels are appropriate to the assets, services and risks we manage	4.1	Identified asset management maturity gaps close over time
	4.2	The asset management capability of staff resources matches the needs of the organisation
	4.3	The organisation recognises the importance of AM and adequately resources the AM system
	4.4	Appropriate levels of asset management maturity are defined and reviewed as business needs change
	4.5	The level of AM practice is matched to the criticality of the assets
	4.6	Christchurch City Council gains recognition for its evolving AM practice
5. Asset management plans (AMPs) are living documents	5.1	AMPs are easy to follow
	5.2	AMPs are complete and at the agreed level of maturity
	5.3	AMPs reflect the current level of asset management practice for the asset type

	5.4	The asset management improvement programme in the plan, contains all actions necessary to close the existing maturity gaps
	5.5	AMPs contain the 30-year financial forecasts; suitable to develop the first draft of the Long Term Plan and the Infrastructure Strategy
	5.6	Life cycle strategies are articulated within the asset management plan

5.2 Capital Investment Programme 2025-34

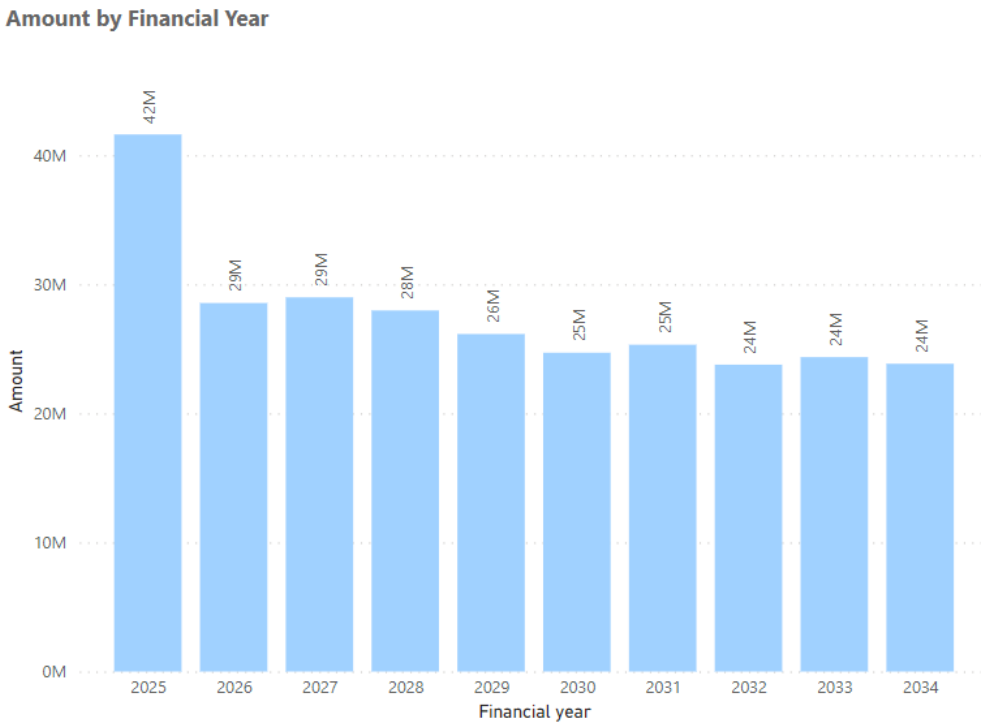


Figure 5-1: Digital Capital Programme FY 2025-34

For Details of all Programmes and Projects refer to Budget Interactive Budget Tool and the accompanying Schedule.

Orbviz Budget Interactive Tool– multiple viewpoints and functionality.

Home | CCC Consultation for Long Term Plan and Annual Plan - Projects | Christchurch City Council (orbviz.com)

5.3 Schedule 1 – Digital Capital Programme by Primary Driver

LONG TERM PLAN 2024 - 2034

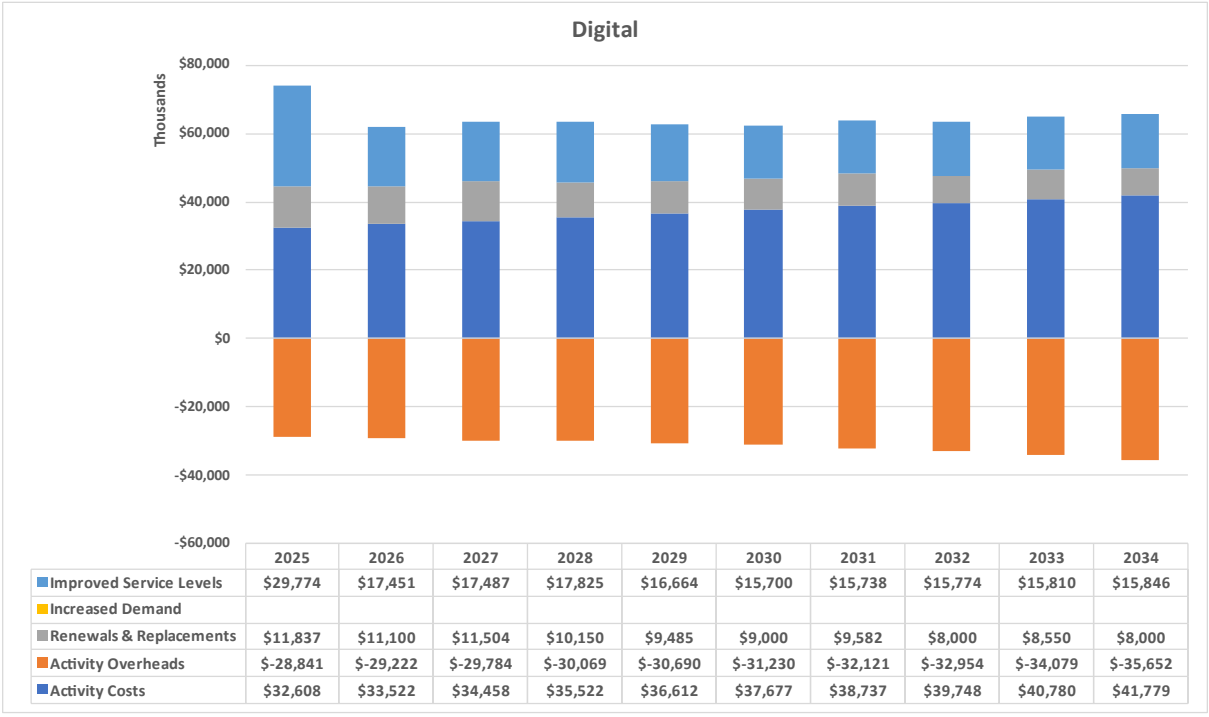
PLANNED CAPITAL PROGRAMME BY PRIMARY DRIVER (INFLATED)

(000s)

Primary Driver	ProjectID	Project Title	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	Total
Improve the Level of Service	34954	Get Off GEMS	908										908
	40552	Smart Cities Innovation	1,500	1,551	1,587	1,625	1,664	1,700	1,738	1,774	1,810	1,846	16,794
	434	Programme - Business Technology Solutions	1,266	500	2,000	2,500	2,500	2,000	2,000	2,000	2,000	2,000	18,766
	435	Programme - Continuous Improvement Technology	5,215	9,000	11,500	11,950	10,750	10,750	10,750	10,750	10,750	10,750	102,165
	55139	Data Network Upgrade New Design Future Phases	679										679
	57214	Digital Citizen Experience - Service Request & Related Enhancements	8										8
	62015	Rates Strike and Enhancements Bundle	10										10
	62026	Time Management		1,500									1,500
	63096	Digital Citizen Experience - Identity Platform Service	1,326										1,326
	64427	Digital Citizen Experience - Enhancement Bundle	150	150	150								450
	64452	Infrastructure as a Service (IAAS) Transition to Cloud	250	250	250	250	250	250	250	250	250	250	2,500
	65584	SAP Improvement Programme - Core S/4HANA Asset Management	5,090	2,000									7,090
	66124	Organisational Change IT Enablement Bundle FY24	50										50
	66136	Spatial Strategy Project	166										166
	66173	Information Management Enhancement Bundle	138										138
	67542	SAP Improvement Programme	4,213										4,213
	70323	Digital Citizen Experience	1,140	1,000	1,500	1,500	1,500	1,000	1,000	1,000	1,000	1,000	11,640
	73513	Three Waters Reporting and Enhancement Bundle	180										180
	75299	SAP Improvement Programme - Assets - Building Information Management S4HANA Integration	817										817
	75300	SAP Improvement Programme - Assets - GIS to S4HANA Two Way Integration	845										845
	75301	SAP Improvement Programme - Assets - SAP Business Technology Platform Asset Integration	991										991
	75302	SAP Improvement Programme - Assets - Asset Inventory Management	537										537
	75413	Integration Bundle FY24 - FY27	45										45
	75417	Contract Renewal/B2B Bundle FY24 + FY25 to FY27	100	100	100								300
	75908	SuccessFactors Performance and Goal Management Upgrade	275										275
	76022	CPMS to SAP Integration Upgrade	136										136
	76329	Pathway Upgrade FY24	250										250
	76557	Digital Capability Building	1,447	1,000									2,447
	76936	Card Payment Compliance – Phase One	702	500	500								1,702
Improve the Level of Service Total			**28,432**	**17,551**	**17,587**	**17,825**	**16,664**	**15,700**	**15,738**	**15,774**	**15,810**	**15,846**	**176,926**
Meet Additional Demand	64378	Digital Citizen Experience – CCC Web Search Engine Refresh	1										1
	65585	SAP Improvement Programme - Core Financial and Planning	1										1
	66125	SAP Improvement Programme - Procurement & Contracts	1,149										1,149
Meet Additional Demand Total			**1,150**										**1,150**
Replace Existing Assets	2203	IT Equipment Infrastructure & Device Replacements & Renewals	3,550	3,763	3,989	4,128	4,582	4,500	4,500	4,500	4,500	4,500	42,512
	436	Programme - Technology Systems Replacements & Renewals	2,477	5,876	6,311	5,572	3,968	4,500	4,500	3,500	3,500	3,500	43,704
	47335	Electronic Planning Software (EPLAN) Solution	350										350
	53098	BWOF ESRI Solution	250										250
	55465	Resource Management Act (RMA) Reforms			250								250
	57218	Delegations Register Replacement		250									250
	62012	Customer Booking & Management	293										293
	62017	Windows Server OS Upgrades	101										101
	62019	General Application Upgrades and Security Patching	313										313
	62771	Funding and Grants Management System Replacement	250										250
	63618	Information Management Transformation Programme (Stage 1)	1,671										1,671
	66132	Council Meeting Rooms (Staff Only & BYOD) Audio Visual Upgrade	400	400	450	450	450						2,150
	66133	Parking Enforcement Backend Replacement (PIPS) & Vehicle based enforcement	500										500
	72176	SAP S4HANA Upgrade FY24	289	711									1,000
	72600	Spaces and Places Bookings	747										747
	75303	SAP Improvement Programme - Assets - Asset Mobility	502										502
	829	Aerial Photography	337		404		485		582		550		2,359
Replace Existing Assets Total			**12,030**	**11,000**	**11,404**	**10,150**	**9,485**	**9,000**	**9,582**	**8,000**	**8,550**	**8,000**	**97,202**
Grand Total			**41,612**	**28,551**	**28,991**	**27,975**	**26,149**	**24,700**	**25,320**	**23,774**	**24,360**	**23,846**	**275,277**

Figure 5-2: Digital Long Term Plan Capital Programme

5.4 Total Capital and Operating Expenses for 2025-2034



	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Improved Service Levels	$29,774	$17,451	$17,487	$17,825	$16,664	$15,700	$15,738	$15,774	$15,810	$15,846
Increased Demand										
Renewals & Replacements	$11,837	$11,100	$11,504	$10,150	$9,485	$9,000	$9,582	$8,000	$8,550	$8,000
Activity Overheads	$-28,841	$-29,222	$-29,784	$-30,069	$-30,690	$-31,230	$-32,121	$-32,954	$-34,079	$-35,652
Activity Costs	$32,608	$33,522	$34,458	$35,522	$36,612	$37,677	$38,737	$39,748	$40,780	$41,779

Figure 5-3: Digital Capital and Operating Expenses 2025-2034