



Annexure 6 - Digital & Information Investment



QCA Price Monitoring Investigation – Part 2 Submission

Public Release

This Annexure is a key component, and forms part of, the overall Urban Utilities' Part 2 Submission to the Queensland Competition Authority's (QCA) price monitoring investigation for the period 1 July 2026 to 30 June 2030. The Urban Utilities' Part 2 Submission should be read as a whole and, because of the interrelated nature of the subject matter, no part should be read in isolation or taken out of context.

The Executive Narrative provides a summary of the entire Urban Utilities' Part 2 Submission, and this Annexure should be read in conjunction with that narrative.

Amongst other items, the Executive Narrative outlines how this technical Annexure, along with the other Annexures provided with the Part 2 Submission, specifically addresses different elements of the Part 2 Stated Matters of the QCA investigation covering the period FY28–30 (1 July 2027 to 30 June 2030).

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1 Executive Overview

1.1 Purpose of this Annexure

The purpose of this annexure is to outline Urban Utilities' forecast expenditure for digital, technology and information services delivered through the Digital and Information (D&I) Group. The annexure summarises forecast operational expenditure for operational activities and capital expenditure for investment activities. It assesses the prudence and efficiency of this expenditure, outlines the key digital investment drivers, and describes the customer outcomes expected to be delivered.

Digital capability in Urban Utilities

Digital capability is a core enterprise function that underpins Urban Utilities' operations, from the automation of field assets to the systems, processes and data that support service delivery, customer services and corporate functions. The digital estate enables Urban Utilities to operate effectively, deliver services, capture and use data, and serve its customers. It also protects Urban Utilities and its customers by defending against disruption, cyber intrusion, and the loss or compromise of essential services, critical business information and customer data.

1.2 The D&I Group

Urban Utilities was formed in 2010 through the merging of water and sewerage services from five South East Queensland local governments including Brisbane City Council, Ipswich City Council, Lockyer Valley Regional Council, Scenic Rim Regional Council, and Somerset Regional Council. This included the transfer of assets both physical and digital. In 2012, responsibility for managing digital services transferred from Council to Urban Utilities. Within Urban Utilities the digital estate and its services are managed by the D&I Group who are accountable for Information Technology (IT), Operational Technology (OT) and Internet of Things (IoT).

1.3 The Digital Estate

Urban Utilities relies on a digital environment that is complex, interconnected and spans enterprise systems, operational technologies, communications systems, infrastructure hardware and data environments. This reflects Urban Utilities' history of inheriting disparate digital environments. This has resulted in over a decade of incremental renewals, improvements and rationalisation to meet changing business, regulatory and operational requirements.

This rationalisation has improved efficiency of digital delivery as systems have become integrated and matured. In FY25, the business benchmarked as the 18th lowest (below the industry median) for information technology total expenditure as a proportion of regulated revenue across a range of comparable utilities. The focus on improvement continues, although the ability to identify and deliver greater efficiency – both within D&I and the business as a whole – is now limited without more fundamental modernisation of the digital estate. While the digital estate supports current operations, its characteristics have significant practical consequences for customers and the organisation. Many systems have reached, or are approaching, the end of vendor support or technological obsolescence.

Fragmented systems, inconsistent data and ageing technologies increase reliance on manual processes and workarounds, increasing complexity and risk and making processes less efficient and reliable. These characteristics increase the effort, cost and risk associated with

maintaining and enhancing the estate, while reducing the resilience, interoperability and security expected of a modern digital environment. Together, these factors constrain productivity, increase operational risk and limit Urban Utilities' ability to respond efficiently to changing business, regulatory and customer needs.

A new wave of digital investment is required to address these issues and to support the achievement of business-wide efficiency

1.4 Key Risks & Opportunities

Urban Utilities operates in an environment of increasing regulatory requirements, and customer and shareholder expectations. The organisation is required to maintain safe and compliant operations, improve productivity, manage cost pressures, strengthen cyber resilience, protect personal and sensitive information. It must make better use of data to inform operational and asset decisions while continuing to deliver reliable customer services.

The cyber threat environment is also evolving, increasing the importance of protecting enterprise and operational technology systems from disruption, intrusion and data loss. At the same time, increasing volumes of customer, employee and operational data create greater privacy, information management and governance obligations. Advances in data, automation and artificial intelligence (AI) present opportunities to improve productivity, decision-making, customer interactions and asset and operational performance while also presenting risks that must be managed. Realising opportunities safely, responsibly and effectively requires trusted data, appropriate governance, secure and integrated platforms, and clear controls over the use of information and AI.

Together, these risks and opportunities increase the need to strengthen the resilience, security and interoperability of the digital estate. They also create an opportunity to simplify the technology landscape, improve data quality and integration, reduce technical debt, and establish stronger digital foundations for future operational and customer capabilities.

1.5 Overview of D&I Investment

The characteristics of the current digital estate, together with increasing business, regulatory and customer expectations, present a challenge to rethink how digital investment is planned and shift from point solutions in isolation to consider whole of enterprise architecture fit for purpose.

Meeting this challenge requires more than incremental system maintenance and renewals; it requires strategic investment to modernise core platforms, strengthen cyber security and privacy capabilities, and improve Urban Utilities' data and integration foundations. Adopting this approach delivers greater value than a point solutions approach as it reduces duplication, minimises integrations, establishes common digital foundations and simplifies the whole digital estate overall.

D&I has adopted this approach in developing Urban Utilities program-based investment for the FY28–30 price monitoring period (price monitoring period). Programs are planned, sequenced and governed over multiple years, balancing transformation objectives with delivery risk, organisational capacity, regulatory obligations and financial capacity. D&I investment for the price monitoring period is structured into five strategic programs. These programs collectively provide a coordinated investment portfolio addressing the full lifecycle of Urban Utilities' digital capability, from protecting and sustaining the existing environment, through modernising core infrastructure and enterprise platforms, to improving operational intelligence and enabling automation and artificial intelligence. The programs have been

developed to deliver complementary outcomes while ensuring investment is sequenced and governed to maximise value, manage risk and support the organisation's long-term strategic objectives. The five strategic programs are outlined below:

- **Manage and Protect:** The Manage and Protect program strengthens Urban Utilities' ability to govern, secure and sustain its digital and data environment in the face of evolving cyber threats, increasing regulatory obligations and growing reliance on digital systems to deliver essential services. The program delivers coordinated uplift across information governance, cyber security, backup and recovery, service management, and the lifecycle sustainment of digital platforms. It focuses on protecting critical information and systems, ensuring regulatory compliance, and maintaining the resilience and reliability of the digital services that underpin core operations.
- **Infrastructure Modernisation:** The Infrastructure Modernisation program targets the core digital infrastructure that underpins Urban Utilities' operations, ensuring it remains secure, resilient, scalable and fit for purpose over the price monitoring period. This includes the renewal and modernisation of hosting platforms, networks, end-user computing, identity and access management, and foundational integration and infrastructure services. The program reduces technical debt, improves operational resilience, and establishes a secure and scalable foundation to support enterprise applications, data, automation and artificial intelligence.
- **Digital Core Modernisation:** The Digital Core Modernisation program modernises the enterprise systems that underpin Urban Utilities' finance, customer, billing, asset and workforce functions. It reflects the evolving organisational requirements, increasing regulatory expectations and the need for a more integrated approach to modernising the organisation's core business systems and addresses the current constraints of fragmented systems, manual processes, inconsistent data, high operating costs, and increasing lifecycle and cyber security risks, constraining operational efficiency, financial integrity and outcomes for customers and employees.
- **Operational Intelligence:** The Operational Intelligence program strengthens Urban Utilities' ability to use data, analytics and digital technologies to improve operational decision-making, asset performance and service reliability. The program focuses on strengthening data integration across operational systems, improving visibility of asset condition and performance, and enabling predictive and risk-based decision-making. These capabilities support more efficient operations, better prioritisation of maintenance and capital investment, improved environmental and regulatory reporting, and stronger operational outcomes across water and wastewater services.
- **Automation and Analytics:** The Automation and Analytics program improves organisational productivity by responsibly incorporating automation, analytics and artificial intelligence into business processes in a safe, practical and well-governed manner. The program establishes workforce enablement foundations, delivers targeted automation and analytics capabilities, completes priority data and analytics uplift, and builds on Urban Utilities' digital foundations to improve productivity and decision-making. It reduces reliance on manual processes, improves efficiency and organisational insight, supports workforce sustainability, and enables the governed adoption of automation and artificial intelligence within a regulated operating environment.

1.6 Expenditure over the Price Monitoring Period

Urban Utilities has developed a prudent and efficient D&I specific operational and capital expenditure program for the price monitoring period that will deliver customer benefits while supporting business and operational modernisation, productivity, efficiency and risk management. The forecast expenditure is summarised in Table 1-1.

Table 1-1 Proposed D&I Expenditure (\$ million nominal, rounded)

Enterprise Risk	FY28	FY29	FY30
Operating Expenditure	39.3	46.2	52.6
Capital Expenditure	68.6	57.1	57.2
Total Expenditure	107.9	103.3	109.8

Consistent with peer regulated water utilities, Urban Utilities classifies expenditure as either operating expenditure (opex) or capital expenditure (capex) to reflect the nature of the expenditure and the period over which customers receive the benefits (in the same way it does for physical assets). Expenditure associated with the day-to-day operation, management, support and licensing of digital services is classified as opex. Expenditure on investments that create or enhance assets and deliver benefits over multiple years is classified as capex.

The forecast operating and capital expenditure is detailed throughout this annexure. The expenditure has been developed through Urban Utilities' strategic planning, investment governance and customer engagement processes to ensure it is prudent, efficient and aligned with both customer expectations and the organisation's operational requirements

1.6.1 Digital investment improves enterprise performance

Investment in D&I is a key enabler of enterprise efficiency by improving productivity, resilience and performance across operational, customer and corporate functions. Modern platforms, integrated data and automation improve operational performance, reduce manual processes, strengthen decision-making by making decisions more informed, improving asset management and enhancing customer outcomes. As Urban Utilities becomes increasingly digital, investment in D&I delivers benefits across operational, customer and corporate functions.

1.6.2 The cost of deferring investment

Deferring investment would increase operational, cyber security and compliance risks. It would also significantly increase the operational cost of maintaining and supporting ageing and fragmented technology. Productivity improvements and operational efficiencies from better informed, data driven, decision making that would be enabled by modern digital platforms would not be achieved or be delayed. This would directly result in increased manual effort, higher support costs and continued technology complexity across the organisation.

Investment deferral would also increase the likelihood and consequence of security, service and data incidents. This will result in greater current and future expenditure on remediation and recovery. Critical technology assets are past their useful life, which is causing increased enterprise risks relating to cyber security, service continuity, data integrity and operational resilience. The planned renewal and modernisation of the digital estate outlined in this

annexure is the most prudent and efficient response. It addresses risks and avoids the higher financial, operational and risk costs associated with delayed investment.

2 Role of Digital Investment in Enterprise Risk and Efficiency

2.1 Purpose of this section

The purpose of this section is to establish the strategic rationale for forecast D&I expenditure. It explains the role of digital capability as essential operational infrastructure and demonstrates how investment in the digital estate supports the prudent management of enterprise risk, improves organisational efficiency and maintains critical business capability. In doing so, it explains how D&I investment is positioned within Urban Utilities capital prioritisation framework as the enterprise's principal efficiency enabler. The section also outlines the portfolio-based asset management and program governance approach that underpins the prioritisation and efficient delivery of the investment program.

2.2 Digital Capability as Essential Infrastructure

Digital capability is now a core component of Urban Utilities' operational infrastructure. The delivery of safe, reliable and efficient water and wastewater services depends not only on physical assets, but also on the integrated digital estate managed by D&I.

The digital estate includes:

- operational technology and control systems;
- communications networks and supporting infrastructure;
- enterprise applications and business platforms;
- cyber security capabilities;
- data platforms and information management systems; and
- digital services supporting operational, customer and corporate functions.

Together, these assets underpin service delivery, operational performance, regulatory compliance, enterprise risk management and customer outcomes.

As Urban Utilities has become increasingly digital, the role of D&I has evolved from delivering individual technology projects to stewarding an integrated portfolio of enterprise digital assets. Like physical infrastructure, these assets require ongoing lifecycle management, renewal and modernisation to remain fit for purpose. Investment in D&I should be regarded as investment in essential operational infrastructure. It maintains critical enterprise capability, supports organisational resilience, improves efficiency and enables the ongoing delivery of safe, reliable and efficient services to customers.

2.3 Digital Investment as Enterprise Risk Management

A primary purpose of D&I investment is the management of enterprise risk. As Urban Utilities has become increasingly dependent on digital capability, the performance, resilience and security of the digital estate have become directly linked to operational performance, customer service, organisational productivity, decision-making and regulatory compliance.

The importance of digital capability is recognised within Urban Utilities' Enterprise Risk Management Framework and Risk Appetite Statement. The Technology Risk Appetite establishes clear organisational expectations regarding the management of cyber security, system reliability, technology investment, data governance and operational efficiency. Collectively, these settings recognise that maintaining an effective, secure and modern digital estate is fundamental to the delivery of safe, reliable and efficient water and wastewater services.

Consistent with the risk assessment framework, D&I investment considers:

- aligning technology investment with enterprise strategy and customer outcomes;
- enabling technology-enabled productivity and operational efficiency across the organisation.
- maintaining cyber security capability and reducing the likelihood and consequence of cyber incidents;
- improving the reliability and resilience of critical business and operational systems; and
- strengthening enterprise data governance and trusted information.

The forecast investment program therefore represents a practical mechanism through which Urban Utilities maintains its technology risk profile within approved risk appetite while supporting efficient service delivery and long-term organisational capability. Table 2-1 summarises the principal enterprise risks managed through D&I capability and investment.

Table 2-1 Selected Enterprise Risks Managed Through D&I Investment

Enterprise Risk	Potential consequence without investment	Alignment with Technology Risk Appetite	Role of D&I investment
Strategic technology alignment	Technology investment becomes fragmented, increases complexity or delivers limited business value.	T1 – Strategic Technology Alignment	Prioritises investment that aligns with enterprise strategy, reduces complexity and delivers measurable operational outcomes.
Cyber security	Increased likelihood and impact of cyber attacks, service disruption and data compromise.	T2 – Cybersecurity	Maintains cyber security capability, resilience, monitoring and incident response to protect critical infrastructure and information.
Operational disruption and system reliability	Reduced availability of critical operational and customer systems, affecting	T3 – System Reliability	Improves resilience, redundancy, disaster recovery capability and lifecycle renewal of critical systems.

Enterprise Risk	Potential consequence without investment	Alignment with Technology Risk Appetite	Role of D&I investment
	business continuity and service delivery.		
Ageing technology	Increasing failures, higher support costs, reduced vendor support and growing operational risk.	T1, T3	Renews and modernises digital assets at the appropriate lifecycle stage to maintain sustainable operations.
Decision-making capability	Poor quality, fragmented or untimely information reduces the quality and timeliness of operational, asset and strategic decisions.	T4 – Data Governance	Strengthens enterprise data governance, integration, analytics and trusted information to support timely and informed decision-making.
Organisational productivity	Manual processes, duplicated effort and disconnected systems reduce workforce productivity and increase operating costs.	T5 – Operational Efficiency	Delivers automation, integrated platforms and modern digital capabilities that improve workforce productivity and organisational performance.
Critical infrastructure resilience	Increased exposure of operational technology and critical infrastructure to disruption.	T2, T3	Improves security, resilience and lifecycle management of operational technology and supporting infrastructure.
Regulatory compliance	Increased risk of non-compliance with cyber, privacy and critical infrastructure obligations.	Supports T2–T4	Maintains governance, compliance, assurance and reporting capability across the digital estate.

2.4 D&I Investment as an Enterprise Efficiency Enabler

D&I investment is the key enabler of enterprise-wide efficiency and improved organisational performance. Rather than improving the performance of the D&I function alone, investment enables operational, asset, customer and corporate functions across Urban Utilities to deliver services more efficiently.

Digital capability is foundational to Urban Utilities' operations, enabling everything from automated field assets to the systems, processes and data that support service delivery. Modern platforms, integrated data, automation and digital workflows reduce manual effort, improve information quality and decision-making, and increase organisational coordination. These capabilities enhance workforce productivity, optimise asset management, improve customer experience and service performance, while continued maturity strengthens operational planning, reduces complexity across the digital estate, and enables more efficient service delivery.

Many of the benefits arise from enhancing, integrating and modernising existing digital capabilities rather than introducing entirely new business services. The investment also delivers targeted capability uplift in areas including a modern digital core, AI and automation, customer engagement, secure and resilient communications networks, and enterprise data management. Together, these investments strengthen organisational productivity, resilience, decision-making and service delivery while protecting the long-term value of Urban Utilities' digital estate.

Table 2-2 provides a summary of selected key efficiency outcomes facilitated by D&I.

Table 2-2 Enterprise Efficiency Outcomes Supported by D&I Investment

Enterprise Efficiency Outcome	Contribution of D&I Investment
Improved workforce productivity	Automation, modern digital tools and streamlined workflows reduce manual effort and improve consistency.
Better operational decision-making	Integrated systems and trusted data improve operational visibility, planning and decision-making.
More efficient asset management	Digital asset information, analytics and lifecycle data support better maintenance, planning and investment decisions.
Improved customer service efficiency	Modern customer platforms and integrated processes reduce service friction and improve responsiveness.
Reduced technology complexity	Enterprise platforms and common digital capabilities reduce duplication, simplify support and improve whole-of-life efficiency.
Improved organisational performance	Enterprise data, automation and digital capability support continuous improvement, organisational resilience and long-term productivity.

2.4.1 Digital within the capital prioritisation framework

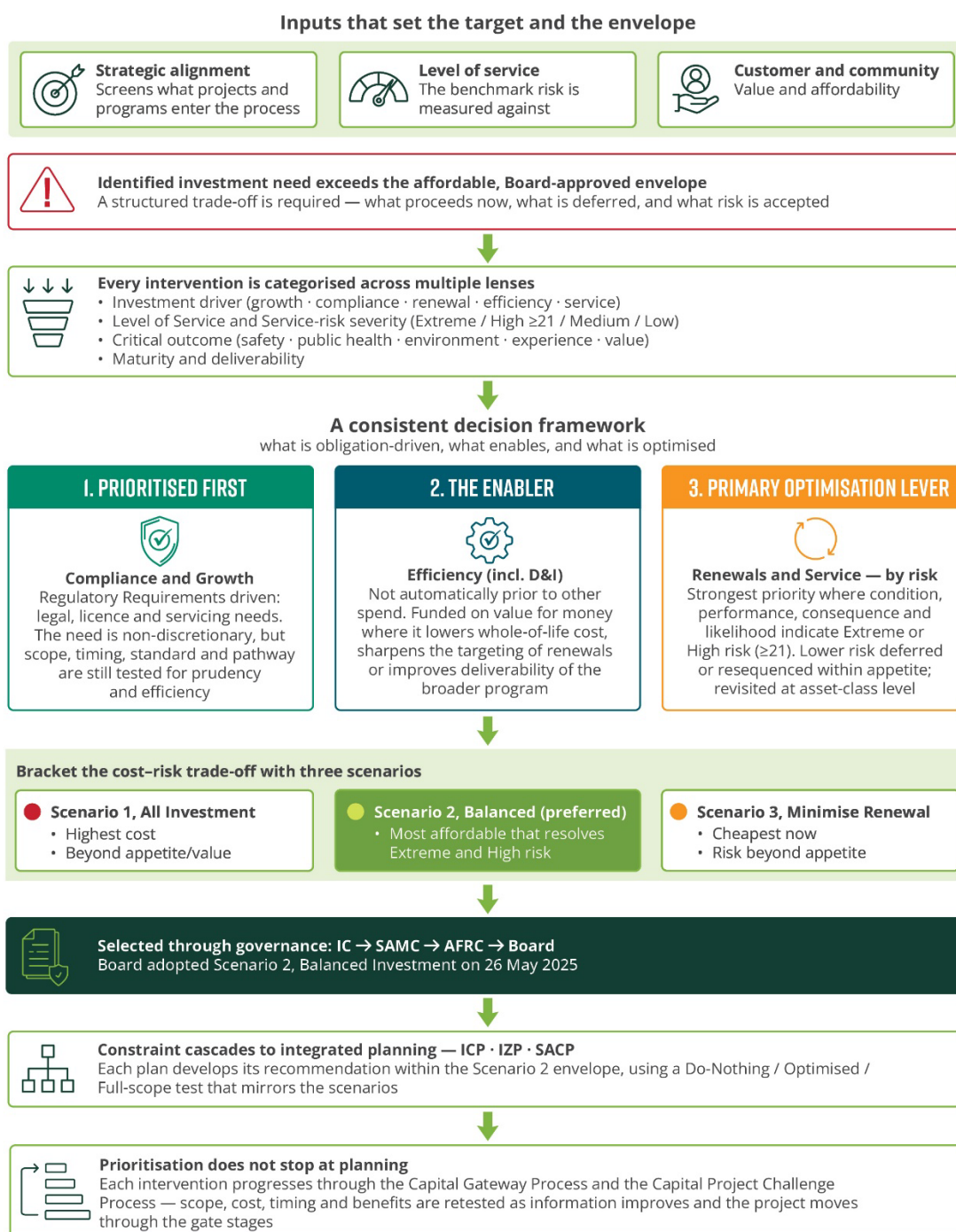
As described in Annexure 5 - Infrastructure Capital Expenditure, Urban Utilities plans its capital program within an affordability-constrained, Board-approved investment envelope, and applies a consistent, risk-based cost–risk–performance framework to prioritise investment across that program. Each intervention is classified by its primary investment driver and prioritised in a consistent order of precedence that reflects how much discretion Urban Utilities has over the need, timing and scope of the investment. Compliance and growth needs are recognised first, as they are largely non-discretionary. Efficiency investment is funded where it demonstrates value for money and enables the broader enterprise. Renewal and service investment are the primary optimisation levers, sequenced by risk and performance rather than deferred as a broad category.

As outlined above, the D&I program is the enterprise's principal efficiency enabler. Within the capital prioritisation framework digital is responsible for the vast majority of efficiency investment, alongside a smaller amount of non-digital efficiency investment. Figure 2-1 illustrates the framework and the position of digital investment within it.

Figure 2-1 Capital Prioritisation Process

HOW WE DECIDE WHAT TO FUND WITHIN THE AFFORDABLE ENVELOPE

THE SAME COST-RISK-PERFORMANCE LOGIC IS APPLIED AT THE PORTFOLIO LEVEL AND WITHIN EACH INTEGRATED PLAN



While the D&I program as a whole is the enterprise's principal efficiency enabler, its strategic programs are individually classified by their primary investment driver:

- Infrastructure Modernisation, Operational Intelligence, and Automation and Analytics programs are classified as efficiency, consistent with their role in reducing whole-of-life cost and improving productivity across the enterprise.
- Manage and Protect program is classified as compliance, reflecting its focus on cyber security, critical infrastructure and regulatory obligations.
- Digital Core Modernisation program is classified as renewal, reflecting the replacement and modernisation of ageing core business systems.

2.5 Measuring and Reporting Digital Efficiency

The efficiencies enabled by digital investment are realised across operational, asset, customer and corporate functions rather than within the D&I Group itself, which makes them more difficult to identify and attribute than a cost reduction within a single expenditure category. Ensuring these efficiencies are clearly identified, attributed and tracked is therefore essential if improvements are to be captured, embedded and repeated across the organisation.

The D&I Group is accountable for identifying, delivering and reporting the efficiencies enabled by new digital systems, processes and technology. These efficiencies will be captured, managed and tracked through Urban Utilities' broader Operational Efficiency Program, as outlined in Annexure 11 – Benchmarking and Efficiency.

D&I has commenced developing a productivity measure to track and report these digital-enabled improvements over time, and is consulting with peer regulated water utilities interested in adopting a similar approach. This measure will complement the enterprise OEP by providing additional visibility of the productivity improvements enabled by digital investment.

As this work matures, Urban Utilities will engage with the QCA on the measurement approach and periodically share the results, providing greater visibility of the efficiencies and productivity improvements being delivered. Over the price monitoring period this will provide an increasingly robust basis for measuring and demonstrating productivity improvements across the organisation.

2.6 Managing the Digital Estate as an Asset Portfolio

Urban Utilities manages its digital estate as an integrated portfolio of enterprise assets rather than a collection of individual technology projects. The portfolio is divided into three high order asset classes:

- Information Assets
- Application Assets
- Technology Assets.

Each asset class has distinct and varied lifecycle, risk and operational requirements. Managing these assets as an integrated portfolio creates more effective investment decisions by considering interdependencies, enterprise architecture, lifecycle requirements and whole-of-life value. This approach improves coordination across related investments, supports the reuse of common capabilities and reduces unnecessary duplication and complexity across the digital estate. The application of asset management principles to the digital estate provides a

disciplined basis for investment planning, ensuring expenditure is prioritised according to enterprise risk, operational need and long-term customer value.

2.7 Program-Based Investment

The interconnected nature of Urban Utilities' digital estate means investment cannot be effectively planned or delivered as a series of isolated technology projects. Many investment needs span multiple systems, business functions and operational processes. Accordingly, Urban Utilities manages D&I investment through strategic programs that group related initiatives around common business outcomes. This approach strengthens governance, improves investment prioritisation, enables the reuse of common platforms and capabilities, and supports more efficient whole-of-life investment across the digital estate. The strategic programs underpinning the forecast expenditure are described in the following chapters of this annexure.

3 Operating Context and Strategic Investment Drivers

3.1 Purpose of this section

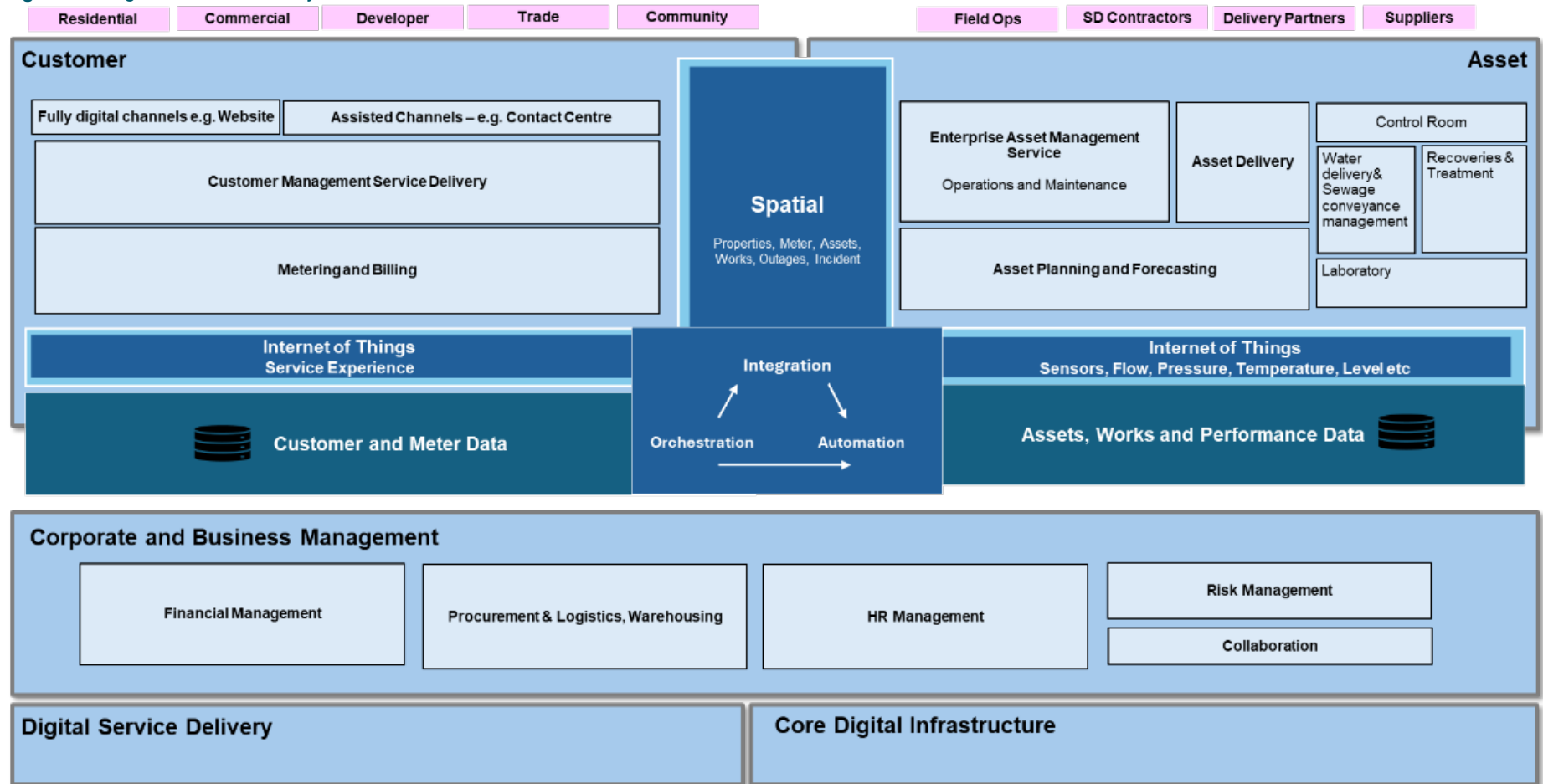
The section outlines the operating context for the D&I function and the principal drivers of the forecast expenditure program. It describes how changes in technology, cyber security, enterprise operations and customer expectations have increased the strategic importance of digital capability and explains why continued investment in the digital estate is required. It also summarises the key strategic investment drivers that underpin the proposed D&I expenditure throughout the price monitoring period.

3.2 Digital Operating Environment

Urban Utilities operates in an increasingly digital environment in which the delivery of safe, reliable and efficient water and wastewater services depends on a secure, resilient and modern digital estate. Digital capability underpins operational technology, customer services, asset management, regulatory compliance and corporate operations.

The digital estate has progressively evolved through targeted investment that was appropriate to Urban Utilities' operational maturity and technology environment at the time. However, increasing cyber security regulation, greater integration of operational and information technology, growing reliance on enterprise platforms and data, and ageing technology assets have materially changed the operating environment and investment requirements. Figure 3-1 illustrates the breadth and interconnected nature of Urban Utilities' digital estate.

Figure 3-1 High Level Business Systems Architecture



The environment extends beyond individual technology systems to comprise integrated customer, operational, asset, corporate and digital infrastructure capabilities that collectively support the delivery of essential water and wastewater services. The digital estate includes hundreds of applications, enterprise platforms, operational technology systems, communications networks, data platforms and supporting infrastructure that must operate reliably as a single enterprise capability.

As a result, further incremental enhancement of existing systems is no longer the most prudent or efficient investment response. Continuing to extend ageing platforms would increase enterprise risk, constrain operational efficiency and result in higher whole-of-life costs. The forecast expenditure focuses on renewing and modernising the digital estate while strengthening enterprise platforms, cyber resilience, data capability and operational efficiency.

Accordingly, D&I investment maintains a critical enterprise capability that supports service delivery, manages enterprise risk and enables long-term organisational productivity, resilience and customer outcomes.

3.3 Cyber Security and Critical Infrastructure

Cyber security is a principal driver of D&I investment. As Urban Utilities has become increasingly dependent on digital capability, cyber resilience has become fundamental to the safe, reliable and compliant delivery of water and wastewater services. Urban Utilities operates interconnected operational technology, enterprise systems, communications networks and information platforms that support critical infrastructure. These environments are exposed to evolving cyber threats, increasing supply chain risks and heightened regulatory obligations, including those arising under the Security of Critical Infrastructure framework.

Maintaining cyber resilience requires ongoing investment in governance, security architecture, monitoring, detection, protection, response and recovery capabilities. These investments reduce enterprise risk, maintain regulatory compliance and strengthen operational resilience. Given Urban Utilities' role as a critical infrastructure provider, cyber security investment is a non-discretionary requirement. It is a foundational enterprise capability that supports the secure and reliable operation of critical services.

3.4 Technology Lifecycle, Technical Debt and Modernisation

Technology lifecycle management is a significant driver of D&I investment during the price monitoring period. Urban Utilities manages a diverse portfolio of digital assets with varying lifecycles, technology maturity, vendor support arrangements and operational criticality. As these assets age, vendor support reduces, security vulnerabilities increase, maintenance becomes more complex and costly, and the ability to adopt modern digital capabilities is constrained.

Deferred renewal also creates technical debt, which is the accumulated cost, complexity and risk associated with continuing to operate ageing or outdated technology beyond its optimal lifecycle. As technical debt increases, greater effort and expenditure are required to maintain legacy systems, integrate new capabilities and respond to operational and security issues, reducing organisational efficiency and increasing whole-of-life costs.

The planned investment program adopts a disciplined lifecycle management approach by renewing and modernising priority digital assets before lifecycle risks materially affect operational performance. This reduces technical debt, improves supportability and security, and positions the digital estate to support future organisational capability while avoiding the higher costs and risks associated with deferred renewal.

3.5 Enterprise Architecture and Integrated Platforms

Enterprise architecture provides the framework for managing the digital estate as an integrated enterprise capability. It ensures that investment decisions are considered in the context of the broader technology environment rather than as isolated system implementations. The planned investment program is guided by enterprise architecture principles that promote integrated platforms, standardisation, interoperability and the reuse of common capabilities. This approach reduces unnecessary duplication, simplifies the digital estate and supports consistent technology decisions across the organisation.

Enterprise architecture also improves investment efficiency by enabling common enterprise capabilities to be delivered once and reused across multiple business functions. This reduces implementation complexity, improves maintainability and optimises whole-of-life value from D&I investment.

3.6 Enterprise Efficiency and Customer Outcomes

D&I investment enables operational improvements across Urban Utilities by strengthening the systems and information that support service delivery. Modern enterprise platforms, integrated data, automation and digital workflows improve productivity, support better operational and asset management decisions, strengthen workforce capability and improve coordination across operational, customer and corporate functions. These improvements enable Urban Utilities to deliver services more efficiently while maintaining reliability and resilience.

Customer outcomes are an important consequence of these investments. Improved customer platforms, digital service channels, operational visibility and incident management capabilities contribute to more responsive, reliable and accessible services while supporting the efficient delivery of essential water and wastewater services.

3.7 Operational Intelligence, Data and Analytics

Operational data has become a strategic enterprise asset supporting operational performance, risk management and decision-making. Urban Utilities relies on trusted operational, customer, asset and compliance information to support planning, operational management and regulatory reporting. As the volume and importance of this information continues to increase, investment in data management, integration and governance becomes increasingly important.

The planned investment program strengthens operational intelligence through improved data quality, enterprise integration and analytics capabilities. These investments support more informed decision-making, enable automation and provide the foundation for emerging technologies, including advanced analytics and artificial intelligence, while ensuring information remains secure, reliable and appropriately governed.

3.8 Strategic Alignment and Enterprise Architecture

D&I investment is developed within an integrated strategic planning framework that aligns enterprise strategy, enterprise architecture and investment governance. Enterprise strategy establishes the organisational outcomes and enterprise capabilities required to support future service delivery. Enterprise architecture translates these objectives into a coherent digital design by guiding technology standards, platform selection, integration, interoperability and the reuse of common capabilities. Strategic programs then identify, prioritise and sequence investment initiatives that are subsequently developed through the stage-gate business case process.

This integrated approach ensures that both the ongoing operation of the D&I function and planned investment activities remain aligned with enterprise objectives, customer outcomes and organisational priorities. It also strengthens investment governance by promoting standardisation, reducing unnecessary complexity, improving coordination between initiatives and supporting prudent, efficient and deliverable investment decisions.

4 D&I Investment Planning, Governance and Delivery Framework

4.1 Introduction

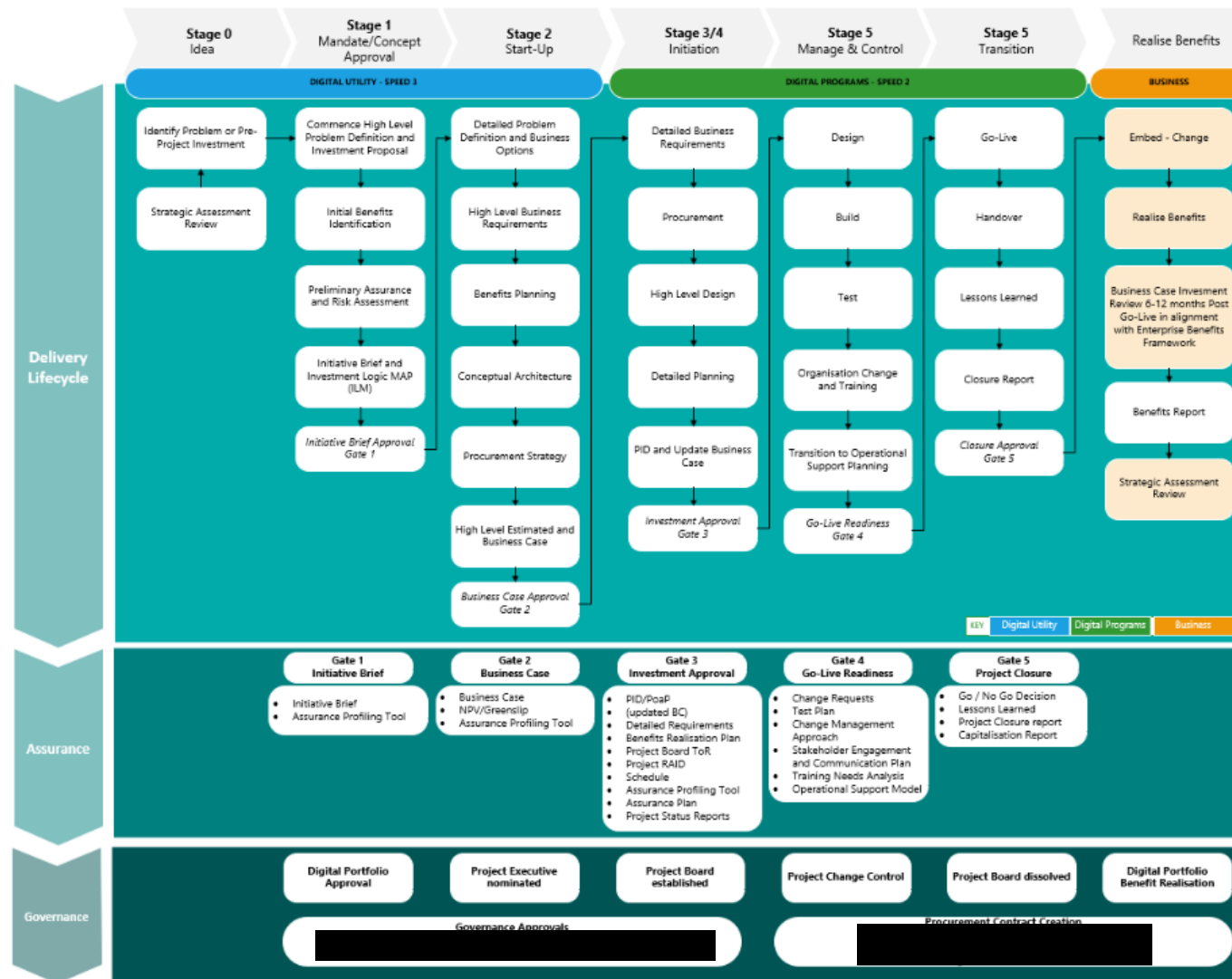
Urban Utilities has established an integrated planning, governance and assurance framework to support the operation of D&I and the development, prioritisation, delivery and review of D&I investment. The framework aligns operating and capital expenditure with Core Four enterprise priorities, enterprise risk, enterprise architecture and organisational priorities to support prudent, efficient, affordable and deliverable investment decisions.

The framework integrates digital asset stewardship, strategic planning, portfolio management, stage-gate investment development, project delivery and benefits realisation into a single investment lifecycle. Investment proposals are progressively identified, developed, challenged, prioritised and refined before funding is committed, with increasing levels of analysis, design maturity, cost certainty and governance applied throughout the investment lifecycle.

The D&I investment lifecycle applies the same gated investment discipline used for infrastructure capital works delivered through Infrastructure Planning and Delivery, with progressive approval points, increasing evidence requirements, defined governance accountabilities and benefits realisation. It has been tailored to reflect the different risk profile and delivery environment of digital assets, including enterprise architecture alignment, cyber and information security, technology procurement, testing, change management, transition to support and benefits adoption.

Figure 4-1 summarises the D&I investment planning, governance and delivery lifecycle applied by Urban Utilities. The following sections describe the principal elements of the framework and how they support prudent, efficient and coordinated investment across the D&I portfolio.

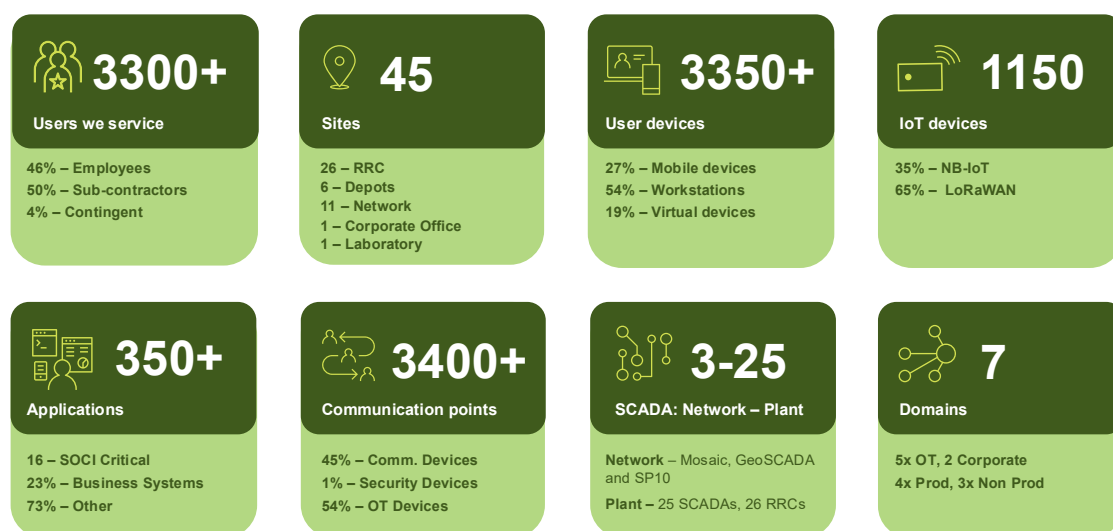
Figure 4-1 D&I Investment planning lifecycle



4.2 Digital Architecture Shaping the Digital Portfolio

Figure 4-2 demonstrates the scale, complexity and interconnected nature of Urban Utilities' digital architecture. D&I supports more than 3,300 users across 45 operational sites through a technology environment comprising over 350 applications, 1,150 IoT devices, more than 3,400 communication points and multiple operational technology domains. This extensive digital architecture underpins the delivery of essential water and wastewater services and requires disciplined enterprise architecture, lifecycle management, cyber resilience and ongoing investment to maintain safe, reliable and efficient operations.

Figure 4-2 Digital Asset Base



This digital architecture exhibits several characteristics that shape the composition and priorities of the digital investment portfolio, as summarised in the following table.

Table 4-1 Digital Architecture Characteristics Shaping the Digital Portfolio

Digital Architecture Characteristic	Description
Customer and Service Enablement	Supporting efficient, responsive and reliable service delivery through enterprise-wide digital capabilities that improve customer outcomes, operational performance and organisational productivity.
Integrated Enterprise Platforms	Maintaining an interconnected technology environment that enables information sharing, process integration and consistent capability across corporate and operational functions.
Data as a Strategic Asset	Establishing trusted, governed and accessible data foundations to support decision-making, regulatory reporting, operational optimisation, analytics and long-term planning.

Digital Architecture Characteristic	Description
Digital Estate Stewardship	Renewing, modernising and sustaining ageing and unsupported digital assets to manage technology obsolescence, maintain architectural integrity and optimise whole-of-life value.
Secure by Design	Embedding cyber security, governance and compliance within the enterprise architecture to protect critical services and manage increasing digital risk.
Operational Resilience	Maintaining resilient digital and operational technology capabilities that support business continuity, network operations and the reliable delivery of essential water and wastewater services.

These characteristics demonstrate that Urban Utilities' digital architecture has evolved into a critical enterprise capability underpinning the organisation's operations. The digital investment portfolio is therefore directed towards maintaining a secure, resilient and sustainable architecture that reduces enterprise risk, supports informed decision-making, enables operational efficiency and provides the digital foundation required to meet Urban Utilities' long-term service delivery obligations.

4.3 Strategic Planning and Digital Asset Stewardship

Urban Utilities manages D&I capability as an integrated portfolio of enterprise digital assets comprising three primary asset classes shown in Figure 4-3.

Figure 4-3 Digital Asset Classes



These asset classes collectively comprise Urban Utilities' digital estate and are managed using structured asset management principles, including lifecycle planning, performance monitoring, risk assessment and investment prioritisation. This ensures digital assets remain secure, reliable, fit for purpose and aligned with the organisation's operational and strategic requirements.

Investment needs are identified through an integrated planning process that considers enterprise strategy, asset condition and performance, technology lifecycles, enterprise risk, business capability requirements and enterprise architecture. Enterprise architecture guides

technology standards, integrated platforms and the reuse of common capabilities, ensuring the digital estate evolves in a coordinated and efficient manner.

The outputs of this planning process are translated into investment opportunities that are subsequently prioritised and developed through the strategic program and investment governance framework described in the following sections.

Table 4-2 Strategic Planning Inputs

Strategic Investment Driver	Description
Enterprise strategy	Defines organisational objectives and future capability requirements.
Digital asset stewardship	Assesses the condition, performance and lifecycle requirements of information, application and technology assets.
Enterprise risk	Identifies cyber security, operational, compliance and technology risks requiring investment.
Business capability requirements	Identifies opportunities to improve service delivery, productivity and customer outcomes.
Enterprise architecture	Guides technology standards, integration, interoperability and capability reuse.

4.4 Strategic Programs and Portfolio Planning

Investment needs identified through strategic planning and digital asset stewardship are translated into strategic programs that group related initiatives around common enterprise outcomes. This enables D&I investment to be planned and managed as an integrated portfolio rather than as a collection of individual technology projects.

The program model recognises that many digital investments are interdependent, supporting multiple business functions, enterprise platforms and operational processes. Managing these investments as coordinated programs improves investment prioritisation, strengthens governance, enables the reuse of common capabilities and reduces unnecessary duplication across the digital estate. It also supports the efficient sequencing of investment, balancing enterprise risk, customer outcomes, affordability, delivery capability and whole-of-life value.

The D&I investment portfolio is structured around five strategic programs.

Table 4-3 D&I Strategic Programs

Strategic Program	Primary Purpose
Manage and Protect	Strengthen cyber security, digital resilience, governance and foundational technology controls to protect critical services and information assets.
Infrastructure Modernisation	Renew and modernise the enterprise technology platform to maintain secure, reliable and supported infrastructure capable of meeting future business needs.

Strategic Program	Primary Purpose
Digital Core Modernisation	Modernise and optimise core enterprise platforms to improve business capability, simplify processes and support efficient service delivery.
Operational Intelligence	Develop integrated operational data, monitoring and decision-support capabilities to improve the management of water and wastewater services.
Automation and Analytics	Increase organisational productivity and decision-making capability through automation, advanced analytics and artificial intelligence.

These strategic programs provide the framework for developing, prioritising and coordinating investment across the D&I portfolio. Individual investment initiatives are subsequently developed through the stage-gate investment framework described in the following section. The strategic programs are outlined further at section 6 below.

4.5 Investment development and stage-gate assurance

Individual investment initiatives are developed through Urban Utilities' structured stage-gate investment framework. The framework progressively refines each proposal through increasing levels of analysis, design maturity, cost certainty and governance before significant capital expenditure is committed.

Each stage requires the investment need, options, costs, benefits, risks and delivery approach to be assessed and independently challenged before progressing to the next phase. This ensures investment decisions remain proportionate to the scale and complexity of the proposal while supporting prudent, efficient and evidence-based decision-making.

The stage-gate framework also provides assurance that investment proposals remain aligned with enterprise strategy, enterprise architecture, customer outcomes and portfolio priorities throughout the investment lifecycle. Table 4-4 provides a summary of the gate phases and their key function, which supports the detailed view at Figure 4-1 above.

Table 4-4 Strategic Programs

Gate	Purpose	Typical Outputs
Gate 1 – Strategic Assessment	Confirm the investment need, strategic alignment and problem definition.	Investment need, strategic objectives, initial scope, high-level costs and benefits, investment logic and approval to investigate options.
Gate 2 – Business Case and Options Analysis	Assess alternative options and identify the preferred investment approach.	Options assessment, cost-benefit analysis, benefits planning, risk assessment, preferred option, implementation approach and recommendation to proceed.
Gate 3 – Detailed Business Case	Develop the preferred option to an implementation-ready level of maturity.	Detailed scope, delivery strategy, cost estimate, procurement approach,

Gate	Purpose	Typical Outputs
and Investment Approval		implementation plan, benefits, risks and funding approval.
Gate 4 – Delivery and Implementation Readiness	Confirm organisational readiness before implementation commences.	Final design, procurement completed, governance established, delivery plan confirmed, resources mobilised and implementation authorised.
Gate 5 – Delivery and Benefits Realisation	Deliver the investment, monitor performance and confirm intended outcomes are achieved.	Delivery monitoring, cost and schedule reporting, benefits realisation, post-implementation review and lessons learned.

The stage-gate framework ensures that investment decisions are supported by appropriate evidence and assurance before progressing to implementation, reducing delivery risk while improving cost certainty and investment outcomes.

4.6 Portfolio Governance, Prioritisation and Benefits Realisation

D&I investment is governed as an integrated portfolio rather than as a collection of individual projects. This enables Urban Utilities to optimise investment across the portfolio, ensuring expenditure remains aligned with enterprise strategy, enterprise architecture, enterprise risk, customer outcomes and organisational priorities.

Portfolio governance provides ongoing oversight of investment priorities, delivery performance and emerging risks throughout the investment lifecycle. Investment initiatives are regularly reviewed and, where appropriate, reprioritised, resequenced or refined in response to changing organisational requirements, technology developments, delivery constraints and market conditions. This ensures the portfolio remains aligned with strategic objectives while maintaining enterprise architecture standards and delivery discipline.

The strategic planning process identified investment opportunities exceeding the level of expenditure that could reasonably be delivered within the available funding envelope and organisational delivery capacity. Investment opportunities were therefore systematically prioritised and sequenced having regard to enterprise risk, customer outcomes, affordability, enterprise architecture, delivery capability and whole-of-life value.

The proposed portfolio does not represent every identified investment opportunity. Rather, it reflects the outcome of a disciplined governance process that balances operational requirements, service continuity, enterprise risk, affordability and delivery capacity to determine the most appropriate investment program for the price monitoring period. Throughout this process, initiatives have been coordinated, refined and sequenced, including the optimisation of expenditure profiles across the price monitoring period to improve deliverability while maintaining the intended strategic outcomes.

Portfolio performance and benefits realisation are monitored throughout delivery to confirm that investments achieve their intended outcomes and to inform future investment decisions and portfolio planning.

Table 4-5 Portfolio Governance and Prioritisation

Governance Activity	Purpose
Portfolio optimisation	Balance affordability, whole-of-life value, delivery capability and expenditure across the price monitoring period.
Portfolio assurance	Monitor delivery performance, governance, risks and compliance throughout the investment lifecycle.
Benefits realisation	Measure investment outcomes and use lessons learned to continuously improve future portfolio planning and investment decisions.

4.7 Prudency, Efficiency and Deliverability

The integrated planning, governance and assurance framework described in this section provides the basis for Urban Utilities' assessment that the proposed D&I expenditure is prudent, efficient, affordable and deliverable. Investment opportunities are identified through strategic planning and digital asset stewardship, developed through a structured stage-gate process, and actively governed as an integrated portfolio throughout the investment lifecycle.

Throughout portfolio development, initiatives were refined, coordinated and sequenced, including the optimisation of expenditure profiles across the price monitoring period to improve deliverability while maintaining the intended strategic outcomes. Portfolio performance and benefits realisation are monitored throughout delivery to confirm that investments achieve their intended outcomes and to inform future planning and investment decisions.

Table 4-6 Summary Prudency and Efficiency Assessment

Assessment Area	Summary
Prudency	Investment is identified through strategic planning, digital asset stewardship and enterprise risk management, and is progressively tested and refined before funding is committed.
Efficiency	Enterprise architecture, strategic programs and portfolio management promote standardisation, capability reuse, coordinated delivery and whole-of-life value while reducing unnecessary duplication and complexity.
Deliverability	Investment is prioritised, challenged and sequenced to align with organisational capability, market capacity, implementation readiness and delivery risk.
Affordability	The proposed portfolio balances customer affordability, enterprise risk, delivery capability and long-term service outcomes within the available funding envelope.

Accordingly, Urban Utilities considers the proposed D&I expenditure represents a prudent, efficient and proportionate investment program that will maintain, protect and progressively

develop the digital capabilities required to support the delivery of safe, reliable and efficient water and wastewater services throughout the price monitoring period.

5 Operating Expenditure Forecast

5.1 Introduction

This section explains the development of the forecast D&I operating expenditure. This annexure outlines the ICT operating expenditure forecast associated with D&I. Other D&I-related operating expenditure, including labour and other cost categories, is forecast separately and described in Annexure 4 – Operating Expenditure.

The forecast has been developed using a Base Step Trend (BST) methodology, which is the primary forecasting approach adopted by Urban Utilities for operating expenditure categories where future costs are primarily driven by the continuation of existing services, identifiable changes in operating requirements and forecast cost escalation. For further detail on the operational expenditure forecast see Annexure 4 – Operating Expenditure.

The approach recognises that D&I operating expenditure is largely associated with the operation, support and management of existing digital capability. Accordingly, the forecast has been developed by establishing a representative base year, incorporating identified step changes and applying appropriate trend assumptions to reflect expected movements in underlying costs.

The forecast operating expenditure should be considered alongside the capital expenditure program described in Chapter 6 of this annexure. Together, these expenditure streams comprise the total D&I investment portfolio.

5.2 Base Year Expenditure

5.2.1 Base Year Methodology

The operating expenditure forecast has been developed from a normalised base year intended to represent the efficient ongoing cost of operating Urban Utilities' D&I environment.

The base year was developed through review of historical expenditure, identification of non-recurring items and assessment of expenditure categories to ensure the resulting forecast reflects continuing business activities rather than one-off events or temporary expenditure requirements.

The review process considered historical expenditure trends, project-related expenditure, abnormal operating events, accounting treatments and other non-recurring factors that may distort forecast expenditure if incorporated into the ongoing cost base.

The resulting base year provides the foundation for the forecast operating expenditure profile.

5.2.2 Base Year Composition

The D&I operating expenditure base includes expenditure associated with the following expense categories. In 2024–25, base year expenditure was \$27.7 million.

Table 5-1 FY25 D&I operating expenditure by expense category (\$ million, nominal)

Expenditure Category	Description	FY25 Actual Expenditure (\$m)
Digital Applications & Services	Enterprise applications, SaaS platforms, software licensing, vendor subscriptions and application support services.	12.56
Digital Experience	Digital workplace, end-user technology, service management, collaboration tools and support for users across the organisation.	7.40
Digital Infrastructure	Core technology infrastructure, cloud and hosting services, telecommunications, connectivity, cyber security operations and operational technology support.	7.13
Other Digital Expenditure	Other D&I operating costs, including architecture, governance, planning and allocated shared service costs.	0.62
Total		\$27.72m

To ensure that the base year reflects the ongoing cost of supporting Urban Utilities' current digital environment and provides the foundation for future expenditure requirements, adjustments have been made to remove non-recurring, non-regulated and capitalised expenditure from the base year. The base year presented in this section relates to the ICT cost category used in the QCA operating expenditure forecast, with labour and other operating costs forecast separately under their relevant cost categories.

These adjustments are set out below.

Table 5-2 FY25 base year operating expenditure adjustments (nominal)

Expenditure Category	FY25 Expenditure
Actual Base Year	\$27,715,204
Cyclone related costs (Non recurrent)	\$(3,213)
Non-regulated services for SAS lab ICT Costs	\$(281)
Capitalisation of costs	\$(226,226)

This approach is consistent with the approach taken across all operating cost categories and is explained in Annexure 4 - Operating Expenditure.

5.3 Forecast Step Changes

The FY25 operating expenditure base has been bridged to FY27 to establish the recurring starting point for the regulatory forecast. Consistent with Annexure 4 – Operating Expenditure, the bridge reflects growth, price movements and other recurring expenditure expected to form part of the FY27 cost base.

For ICT expenditure, the base captures relevant ICT costs across Urban Utilities regardless of the responsibility centre in which those costs are recorded. Labour and other operating costs are forecast separately under their relevant operating expenditure categories.

The principal D&I-specific adjustments between FY25 and FY27 relate to increases in software licence costs, additional licence requirements, new recurring expenditure and the centralisation of ICT-related costs. These adjustments form part of the broader FY25 to FY27 bridge and are incorporated into the FY27 starting point for the forecast.

From the FY27 starting point, forecast expenditure is then developed by applying the relevant trend assumptions and then incorporating material step changes arising during FY28–FY30. These step changes include incremental ICT operating costs associated with new or enhanced digital capabilities as they are commissioned and transitioned into business-as-usual operation.

5.3.1 D&I Operating and Maintenance Costs Arising from Capital Investments (Digital Strategic Programs)

A significant proportion of the D&I capital program will create new or enhanced capabilities that require ongoing operation and support. Examples include new cyber security capabilities, operational intelligence platforms, data and analytics capabilities, cloud infrastructure services and modernised enterprise applications.

As these capabilities are delivered, ongoing operating expenditure will be incurred to support software subscriptions, cloud consumption, vendor support arrangements, maintenance activities and operational management.

The table below isolates the technology-related component of the operating cost impact arising from D&I capital investments. Other operating cost impacts, including labour or business-side costs, are captured in the relevant operating cost categories outside this Information and Communications Technology (ICT)-specific view.

The ICT operating cost impact increases over time as capital initiatives are progressively implemented and transitioned into business-as-usual support. These costs reflect the residual operating expenditure required to sustain the uplifted digital capabilities delivered through the capital program, including platform support, software licensing, cyber and resilience capability, cloud consumption, data and analytics services, and ongoing systems management.

Table 5-3 *ICT component of net operating cost impacts arising from D&I capital investments (\$ million FY27 real)*

Digital Strategic Programs	FY28	FY29	FY30
Manage and Protect	–	1.23	2.30
Infrastructure Modernisation	–	0.28	0.52
Operational Intelligence	–	0.89	1.49
Digital Core Modernisation	–	0.87	1.63
Automation and Analytics	–	0.58	0.92
Total	-	3.84	6.86

5.3.1.1 Manage and Protect

The Manage & Protect program increases D&I operating expenditure because the related capital projects establish new cyber, resilience, governance, backup, monitoring and platform-management capabilities that must be operated on an ongoing basis.

The key cost drivers are recurring cyber and Software as a service (SaaS) licensing, Security Operations Centre (SOC) and monitoring capability, identity and access governance, backup and recovery testing, information governance, cloud and storage consumption, application lifecycle support, upgrades, patching and maintenance, Information Technology Service Management (ITSM) tooling and vendor governance. These costs are necessary to sustain the benefits of the capital program, including reduced cyber and outage risk, improved service continuity, improving digital risk controls to meet the increasing requirements of the Security of Critical Infrastructure Act 2018 (SOCIA) and information governance compliance, reduced reliance on legacy platforms, faster incident resolution and improved operational resilience.

While the program includes benefits from rationalisation, automation, reduced incident costs and risk reduction, these are not sufficient to fully offset the recurring Business As Usual (BAU) costs required to maintain the uplifted Manage & Protect capability.

5.3.1.2 Infrastructure Modernisation

The Infrastructure Modernisation program increases D&I operating expenditure because the related capital projects establish refreshed network, cloud, data centre, OT site infrastructure, IoT platform and automated infrastructure operations capabilities that must be supported on an ongoing basis.

The key cost drivers are recurring infrastructure support, network operations, cloud and hosting costs, OT site platform support, IoT lifecycle support, cyber monitoring, vendor licensing, data platform support, and monitoring / observability tooling. These costs are required to sustain a more segmented, secure, resilient and scalable IT/OT infrastructure environment.

The program is expected to deliver benefits through improved infrastructure resilience, reduced end-of-life technology risk, lower outage risk, reduced manual monitoring, more

efficient incident resolution, reduced site visits through remote management, and lower connectivity costs where network consolidation or dark fibre migration is achieved. However, these benefits are not sufficient to fully offset the recurring BAU costs required to operate the uplifted infrastructure environment.

5.3.1.3 Operational Intelligence

The Operational Intelligence program increases D&I operating expenditure because the related capital projects establish new operational control, IoT, spatial, operational analytics and enterprise historian capabilities that must be operated, monitored and supported on an ongoing basis.

The key cost drivers are recurring platform support, IoT device and connectivity management, cloud and data platform costs, control room application support, Geographic Information System (GIS) and historian licensing, data governance, analytics operations, model maintenance, integration support with Supervisory Control and Data Acquisition (SCADA) and enterprise systems, and persistent product team capability. These costs arise because the program materially increases the volume of operational data, connected field devices, analytics use cases and integrated operational technology platforms that need BAU support.

The program is expected to deliver benefits through improved operational visibility, better decision support, stronger field and asset intelligence, improved data availability, reduced manual work, improved incident response and stronger operational performance. These benefits reduce risk and improve efficiency, but the new operational technology and analytics capability still requires incremental BAU support to remain reliable, secure and useful.

5.3.1.4 Digital Core Modernisation

The Digital Core Modernisation program increases D&I operating expenditure because the related capital projects replace or modernise core enterprise platforms across finance, customer and billing, people and productivity, asset management, digital platforms and system rationalisation. These modernised platforms require ongoing BAU support once commissioned.

The key cost drivers are recurring SaaS and platform licensing, application support, vendor support, cloud and hosting costs, integration support, data governance, master data management, reporting and analytics support, cyber-by-design monitoring, training, and ongoing platform engineering. These costs reflect the shift from legacy or fragmented systems to modern enterprise platforms that require structured lifecycle support, vendor management and continuous improvement.

The program is expected to deliver benefits through consolidation and rationalisation of systems with overlapping capabilities, reducing manual workarounds, improving data quality, reducing reconciliation effort, improving user productivity, strengthening enterprise capability and reducing support complexity over time. However, the benefits from rationalisation and automation do not fully offset the recurring costs of operating the modernised digital core.

5.3.1.5 Automation & Analytics

The Automation & Analytics program increases D&I operating expenditure because the related capital projects establish new automation, AI, analytics, governance, risk, training and value realisation capabilities that need to be supported and embedded as BAU functions.

The key cost drivers are recurring AI and automation platform costs, Fabric / Power Platform / analytics consumption, cloud and storage costs, data pipeline operations, integration support, AI / automation Centre of Excellence capability, Machine Learning Operations

(MLOps), model monitoring, governance and risk management, security monitoring, training, adoption support and ongoing use-case delivery. These costs are necessary to ensure that automation and AI solutions are safe, governed, adopted, maintained and continuously improved.

The program is expected to deliver benefits through reduced manual effort, improved reporting automation, faster decision-making, reusable automation patterns, improved productivity, stronger governance, better risk controls and accelerated value delivery. These benefits are important but depend on adoption, data maturity, governance maturity and successful reuse of automation and analytics patterns. As a result, the benefits partially offset but do not eliminate the BAU costs required to sustain the uplifted Automation & AI capability.

5.3.1.6 Regulatory Comparison

Regulatory precedent supports the principle that digital and ICT capital programs can give rise to legitimate incremental operating expenditure once new systems, platforms and capabilities are commissioned. These operating costs may include software licensing, cloud services, vendor support, cyber security monitoring, platform maintenance, data services and ongoing operational management.

The scale of the operating cost impact varies by business and program. However, recent regulatory decisions demonstrate that material capex-related opex step changes are a normal and accepted feature of major digital investment programs.

Table 5-4 Regulatory precedents for digital capex-related opex step changes

Business / program	Capex	New opex	New opex as % of capex
South East Water – Digital Metering Program, net opex (2023)	\$206.0m	\$9.94m	4.8%
Sydney Water – Digitalisation and IT project opex (2025)	\$537.9m	\$159.0m	29.6%
Yarra Valley Water – Cloud ICT (2023)	\$113.8m	\$6.0m	5.3%
Urban Utilities	\$182.98m	\$10.70m	5.8%

Note: Comparator values are presented on the price basis reported in the relevant source.

5.3.1.7 South East Water's digital expenditure

The 2022 submission proposed \$206.0m in digital metering capex and additional operating cost increases for device communications (\$9.0m), IT/analytics platforms (\$6.9m) and customer engagement (\$2.4m).¹ Offsetting savings included reductions in meter reading, billing and other efficiencies (\$8.3m total). Thus the net opex step change was \$9.94m.² The Essential Services Commission's (ESC) Final Decision approved the digital metering capex of \$206m (as proposed) and the net opex step of \$9.94m.³

¹ South East Water (2022), *Price Submission: A submission for water and sewerage pricing for the 2023–28 regulatory period*, 30 September 2022, pp. 147–153.

² FTI Consulting (2023), *South East Water: Review of Expenditure Forecasts – 2023 Water Price Review*

³ Essential Services Commission (2023), *South East Water Final Decision – 2023 Water Price Review*, 23 June 2023, p. 24.

5.3.1.8 Sydney Water digital expenditure

Sydney Water proposed a major digital transformation (transition to cloud, new systems, cybersecurity, smart asset management, etc.) over 2025–30. The proposed capex was \$538m in the next period. The Independent Pricing and Regulatory Tribunal (IPART) allowed a related opex step change of \$154–155m⁴. This represents about 28.7% of the digital capex. IPART found that the digital opex costs were necessary given the new obligations associated with cyber security, vendor cloud transitions, and maintenance of ageing systems.

5.3.2 FY28 to 30 Step changes – ICT Costs

In addition to the operating costs associated with the strategic digital programs, Urban Utilities forecasts a number of discrete ICT step changes over FY28 to FY30. These step changes relate to the replacement or adoption of specific enterprise systems and software arrangements and are expected to increase ongoing licence, support and platform costs. Representative step changes included within the portfolio can be seen below. Refer to Annexure 4 - Operating Expenditure for further detail on how this is incorporated into the broader Operational expenditure forecast.

Table 5-5 FY28 to 30 Step changes ICT Costs (nominal)

Step Change	FY28	FY29	FY30
Core Enterprise Capability 1	1.18	1.21	1.19
Core Enterprise Capability 2	0.20	0.21	0.21
Core Enterprise Capability 3	0.37	0.40	0.47
Core Enterprise Capability 4	0.05	0.05	0.05
Total	1.80	1.87	1.92

5.4 Trend Assumptions

5.4.1 Overview

Following application of base year expenditure trend assumptions, have been applied to forecast future expenditure movements. Step changes are then applied separately (refer to Annexure 4 - Operating Expenditure for more details). Urban Utilities considers that a differentiated approach to trend application is appropriate for D&I expenditure due to the significantly different cost drivers affecting software, cloud and technology services compared with general operating expenditure categories. Accordingly, separate trend assumptions have been adopted for technology licensing and subscription expenditure and all remaining operating expenditure categories.

5.4.2 Software Licensing, Cloud and Subscription Services

Software licensing, cloud services, Software-as-a-Service (SaaS) platforms and technology subscriptions are materially different from other business input costs. Urban Utilities considers that applying CPI to these expenditure categories would understate expected future costs and would not reflect observed market conditions.

⁴ AtkinsRéalis (2025), *IPART Sydney Water Expenditure Review – Supplementary Report*, August 2025, p. 28.

The D&I operating environment is increasingly dependent on vendor-hosted platforms, cloud services, software subscriptions and consumption-based technology services. These expenditure categories have experienced sustained cost increases in recent years that have exceeded general inflation.

This reflects a combination of factors, including increasing functionality requirements, cyber security obligations, cloud adoption, artificial intelligence capability, vendor consolidation, and the shift from perpetual licensing models to subscription-based and consumption-based pricing arrangements. These cost drivers are expected to continue over the price monitoring period.

Urban Utilities has commenced market testing of potential renewal price uplifts, and the advice provided is the renewal uplifts will be in the vicinity of 10% to 40%.

Consistent with this cost environment, Urban Utilities has adopted a separate escalation assumption for software licensing, cloud and subscription expenditure.

Urban Utilities has reviewed recent material software contract renewals to inform the software escalation assumption.

The a core enterprise capability basket indicates annual price escalation of 6.3 per cent in FY26 and 7.6 per cent in FY27. This supports the use of a software escalation factor above CPI for the price monitoring period.

This is consistent with the 2025 regulatory review of Sydney Water: “the digital market is very volatile with increases well above inflation.”⁵

5.4.3 Remaining Operating Expenditure

All remaining D&I operating expenditure categories are forecast using CPI. These categories include labour-related costs, service management activities, governance functions, planning activities, telecommunications services, operational support functions and other expenditure not directly linked to software licensing, cloud services or subscription-based technology costs.

Urban Utilities considers CPI to be an appropriate forecasting approach for these expenditure categories because future cost movements are expected to broadly align with general inflationary pressures across the economy.

Based on a review of FY25 actual costs, the software escalation factor is applied to 81.6 per cent of D&I operating expenditure. CPI escalation is applied to the residual 18.4 per cent of costs.

Given the uncertainty associated with longer-term technology price movements, Urban Utilities has applied a conservative 7.0 per cent software escalation assumption across FY28–FY30 (allow below the lower limit estimated in market feedback). CPI of 2.5 per cent is applied to other digital costs.

Table 5-6 *Blended escalation rate*

	2028	2029	2030
Software Escalation	7.0%	7.0%	7.0%
Other digital costs	2.5%	2.5%	2.5%

⁵ AtkinsRéalis (2025), *IPART Sydney Water Expenditure Review – Supplementary Report*, August 2025

Blended rate	6.1%	6.1%	6.1%
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Refer to Annexure 4 - Operating Expenditure for further detail on how this is incorporated into the broader Operational expenditure forecast.

5.5 Growth Escalation

Urban Utilities proposes to apply a blended growth factor to recurrent digital operating expenditure. This recognises that digital services are an embedded part of how Urban Utilities delivers water and sewerage services, rather than a fixed back-office overhead that remains unchanged as the business grows. As Urban Utilities serves more customers, manages more connections, delivers more water, and operates a larger and more complex asset base, the digital systems that support those activities must also scale.

Growth in customers and connections increases the volume of customer records, accounts, billing transactions, meter data, service requests, digital interactions, notifications, complaints, payment activity and customer support workflows. It also increases the number of users and transactions processed through customer, billing, Customer Relationship Manager (CRM), meter data, field mobility and reporting platforms. These activities create additional demand for application support, data management, licence capacity, system monitoring, cyber controls, integration support and service management.

Growth in water deliveries and operational activity also creates additional digital workload. Higher network utilisation and a larger operating footprint increase the volume of telemetry, SCADA events, IoT data, control room information, work orders, asset records, maintenance history, GIS updates, operational analytics, incident data, compliance reporting and performance monitoring. These activities rely on digital platforms that must be maintained, integrated, secured, governed and supported on an ongoing basis.

A growth factor consistent with most other operating cost categories of 1.3% is therefore appropriate because recurrent digital opex does not remain fixed when the scale of the regulated business increases. While some digital costs are fixed in the short term, a material component is scalable.

5.5.1 Efficiency

Urban Utilities applies efficiency adjustments at the enterprise level rather than assigning a separate efficiency target to each expenditure category.

As explained in Annexure 4 – Operating Expenditure and Annexure 11 – Benchmarking and Efficiency, a \$10 million efficiency dividend has been applied to the FY27 efficient recurring base, reflecting opportunities identified through the Zero-Based Budgeting review and external benchmarking. An additional productivity adjustment of 1.5 per cent per annum is then applied over FY28 to FY30 to reflect an ongoing commitment to efficiency improvement.

For D&I, this means the category forecast is developed using its normalised FY27 cost base, forecast trend allowances and justified step changes, without a separate D&I-specific efficiency deduction.

5.6 Forecast Operating Expenditure Assessment

The forecast operating expenditure profile reflects the efficient ongoing cost of operating and supporting Urban Utilities' digital environment. The forecast has been developed using a structured Base Step Trend methodology, incorporates identified changes in operating

requirements and applies differentiated trend assumptions that reflect the underlying cost drivers affecting D&I expenditure.

Importantly, the forecast recognises the increasing role of software licensing, cloud services and subscription-based technology platforms within the modern utility environment. It also reflects increasing regulatory obligations, growing cyber security requirements and the ongoing operational impacts associated with investment in digital capability.

When considered alongside the capital expenditure program, the forecast operating expenditure profile supports the continued operation, maintenance and enhancement of a critical portfolio of digital assets that underpin the delivery of safe, reliable and efficient water and wastewater services. The forecast until 2030 is set out below.

Table 5-7 Opex expenditure forecast to 2030 (m nominal)

	2027	2028	2029	2030
Base	34.9	34.9	39.3	46.2
Trend		2.6	2.8	3.0
Step		1.9	4.1	3.4
Total Opex	34.9	39.3	46.2	52.6

5.7 Tracking and reporting of digital cost increases

Urban Utilities currently monitors D&I expenditure through its established annual budgeting, forecasting, financial reporting, procurement, contract management and project governance processes. This is complemented by Urban Utilities' Zero-Based Budgeting (ZBB) approach, which has been used to review expenditure and identify efficiency opportunities across the business. These processes provide ongoing oversight of operating expenditure, project expenditure, supplier commitments and emerging cost pressures across the D&I portfolio.

For the 2026–30 period, Urban Utilities will strengthen this existing monitoring by introducing a more structured cost-driver view for material digital cost increases. This will provide greater transparency over the key drivers of digital expenditure, including software licensing, cloud and subscription services, cyber security, contractor and workforce licence demand, data growth, and operating costs arising from new capital investments.

As part of this structured tracking, Urban Utilities will monitor data growth as a key driver of digital operating expenditure. As the business becomes more digitally enabled, the volume of data generated, processed, stored and retained will continue to increase. This creates ongoing costs associated with storage, backup, processing, cyber security, data governance and platform support.

Urban Utilities will also track the following material cost drivers:

- ICT input price escalation tracked through contract price movements, software renewals and supplier escalation
- Business growth tracked through scalable demand drivers such as connections, customers, water deliveries and transaction volumes
- Step changes / new obligations tracked through business cases, regulatory drivers, cyber requirements or new service capability

- New digital capex-driven opex tracked through scalable demand drivers such as connections, customers, water deliveries and transaction volumes.

The approach ensures that the increase in costs are closely tracked, and that cost drivers outlined are measured and accountable.

6 Strategic Program Portfolio

6.1 Strategic Capital Program Overview

Urban Utilities' D&I capital program has been developed through the strategic planning and governance framework described in Chapter 4 of this annexure. Investment is planned as an integrated portfolio of strategic programs, enabling enterprise risks, technology renewal requirements and organisational priorities to be considered collectively rather than through individual technology projects.

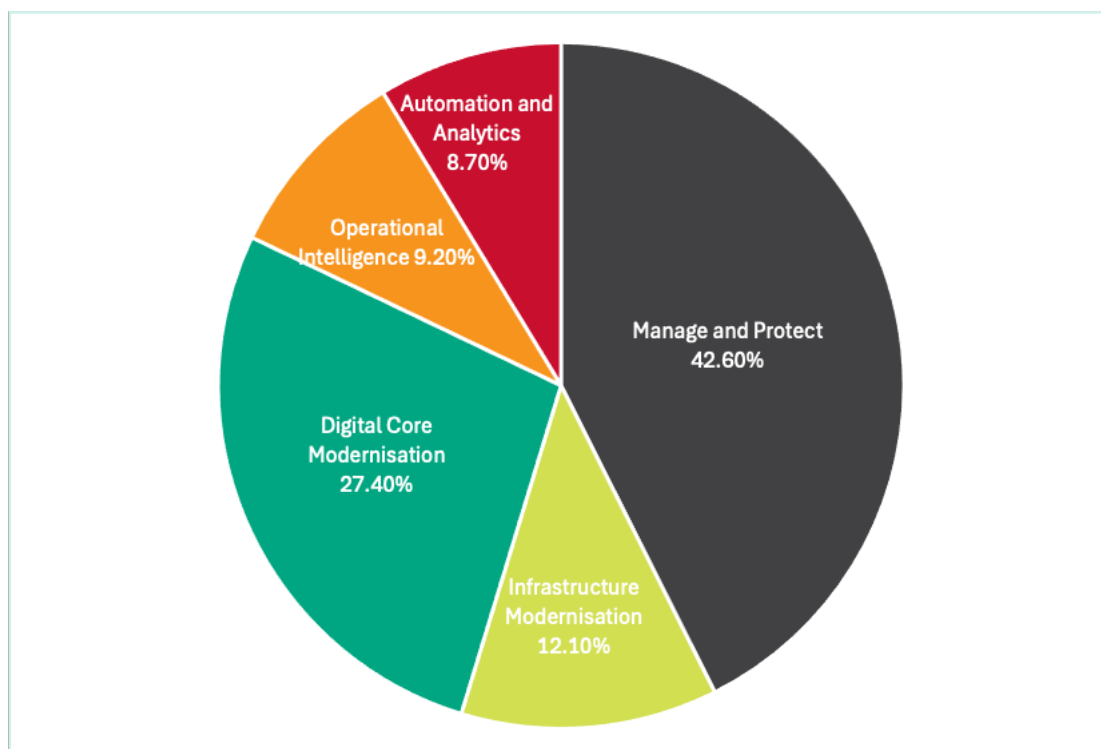
The portfolio comprises five strategic programs that together maintain, protect and modernise Urban Utilities' digital estate while supporting operational efficiency, customer outcomes and long-term organisational capability. Table 6-1 provides the overall planned cost on the five strategic programs during the price monitoring period.

Table 6-1 Strategic Capital Program Portfolio

Strategic Program	FY28	FY29	FY30	Total
Manage and Protect	\$32.42m	\$25.97m	\$19.53m	\$77.92m
Infrastructure Modernisation	\$13.56m	\$6.23m	\$2.38m	\$22.16m
Digital Core Modernisation	\$8.48m	\$16.38m	\$25.34m	\$50.20m
Operational Intelligence	\$6.78m	\$4.33m	\$5.74m	\$16.85m
Automation and Analytics	\$7.35m	\$4.25m	\$4.25m	\$15.85m
Total	\$68.59m	\$57.16m	\$57.24m	\$182.98m

During portfolio development, the expenditure profile was reviewed against organisational delivery capability, implementation sequencing and market capacity. This resulted in the optimisation of investment timing across the price monitoring period, producing a more balanced and deliverable capital program while maintaining the intended strategic outcomes. Figure 6-1 below shows the balance of the overall portfolio.

Figure 6-1 Strategic Capital Program Portfolio – Expenditure Distribution (FY28–FY30)



6.2 Strategic Program Framework

Urban Utilities has adopted a strategic program model to plan, prioritise and govern D&I investment as an integrated portfolio of enterprise capability. Rather than developing individual technology projects in isolation, related investments are grouped into strategic programs based on common enterprise outcomes, capability requirements and enterprise risks. This enables common platforms, shared capabilities and enterprise architecture to be developed once and leveraged across multiple initiatives, reducing duplication, improving consistency and supporting more efficient whole-of-life investment outcomes.

Importantly, the projects within each strategic program, and across the broader D&I portfolio, are intentionally designed as an integrated and interdependent portfolio. Individual projects often establish foundational capabilities, platforms, data assets, security controls or integration services that enable or enhance the delivery of other initiatives. As a result, the value, efficiency and deliverability of the portfolio depends on these interdependencies rather than on individual projects operating in isolation. Removing, deferring or materially changing an individual project will invariably reduce the benefits realised by other initiatives, increase delivery costs, require duplication of capability, create additional technical complexity, or increase enterprise risk.

The strategic program model therefore strengthens governance by enabling investment decisions to be made at a portfolio level, improving prioritisation and sequencing, coordinating delivery across related initiatives, and ensuring that individual projects collectively contribute to broader organisational objectives, enterprise architecture, risk reduction and long-term customer value.

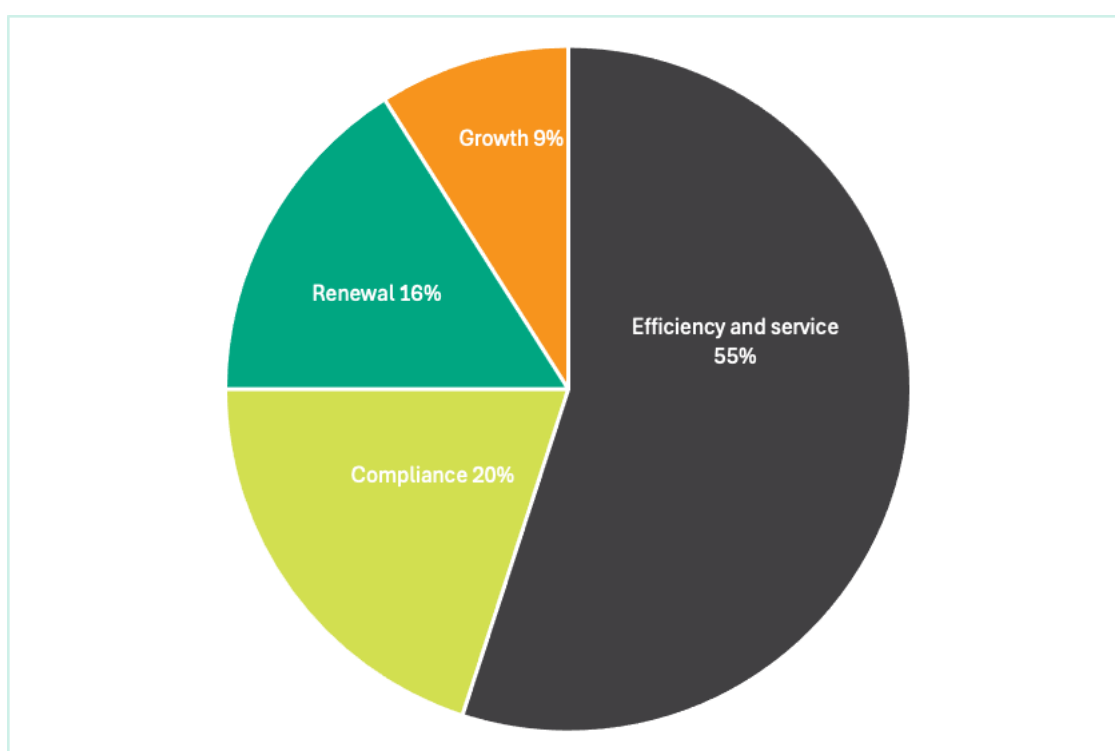
6.3 Portfolio Investment Drivers

The capital expenditure program is reported against the QCA investment drivers:

- efficiency and service (referenced together due to the nature of digital investment)
- growth,
- renewals, and
- compliance.

As shown in the following figure, across the price monitoring period, efficiency and service is the largest category at 55%, followed by compliance and renewals. Growth accounts for a relatively small portion at 9%.

Figure 6-2 Portfolio Capital Expenditure by Primary Investment Driver (FY28-FY30)



6.4 Program Planning and Delivery

The strategic programs provide the framework for planning, prioritising and governing investment, while delivery occurs through individual projects that progress through the stage-gate framework described in Chapter 4 of this annexure. Projects are identified through strategic planning, enterprise risk assessments, technology lifecycle reviews, enterprise architecture and business capability assessments. Each project must demonstrate its contribution to program objectives, enterprise outcomes and portfolio priorities before progressing through detailed business case development and investment approval.

This approach ensures that individual investment decisions are developed within the context of the broader D&I portfolio, supporting prudent and efficient investment while maintaining alignment with enterprise strategy, enterprise architecture and long-term customer value.

6.5 Strategic Program Portfolio

6.5.1 Manage and Protect

6.5.1.1 Program Purpose

The Manage & Protect program maintains the security, resilience and operational continuity of Urban Utilities' digital environment. It addresses cyber security, information governance, technology sustainment, service management and operational resilience to ensure critical digital services remain secure, available and fit for purpose. The program protects existing and digital capability while providing the foundational platforms, controls and governance required to support the delivery of the broader D&I investment portfolio.

6.5.1.2 QCA Driver Classification

Within the capital prioritisation framework, Manage & Protect is classified as a compliance-driven program, reflecting its focus on the cyber security, critical infrastructure and regulatory obligations that Urban Utilities is required to meet.

6.5.1.3 Investment Imperative

Urban Utilities' operations are heavily dependent on digital technology to deliver safe and reliable water and wastewater services. Cyber threats continue to increase, technology assets require ongoing renewal, and legislative and regulatory obligations continue to expand.

The primary drivers for investment are

- **Enterprise risk** – due to changes in the risk environment, cyber security risk must be reduced through additional capability and investment. This creates an organisational governance obligation to act.
- **Regulatory compliance** - external obligations arising from SOCI and associated requirements administered by the Department of Home Affairs, together with information governance requirements and broader legislative and regulatory expectations relating to cyber security, operational resilience and the protection of critical infrastructure.

Failure to undertake this investment would increase enterprise risk, reduce the resilience of critical digital services, increase the likelihood of operational disruption and compromise the organisation's ability to deliver its broader digital transformation program.

6.5.1.4 Investment profile

Table 6-2 Manage and Protect Program Investment Profile

Investment Area	Purpose of Investment
Information Governance	Strengthen information governance, records management and data stewardship to meet legislative obligations, improve information quality and support informed decision-making across the enterprise.
Cyber Security	Reduce enterprise cyber security risk through enhanced security controls, threat detection, identity and access management, vulnerability management and digital risk control uplift inline with increasing SOCI regulatory requirements.
Backup, Recovery & Business Continuity	Strengthen organisational resilience by ensuring critical digital services can be recovered quickly following cyber incidents, technology failures or other major disruptions, minimising impacts to operations and customers.
Service Management & Performance Monitoring	Improve the reliability, availability and performance of digital services through enhanced service management, proactive monitoring, operational governance and performance reporting.
Application Sustainment	Renew and sustain critical enterprise applications to address technology obsolescence, maintain vendor support, improve system reliability and reduce operational risk.
Infrastructure Sustainment	Replace ageing technology infrastructure and maintain secure, supported and resilient platforms that underpin enterprise operations and reduce the risk of service disruption.
Core Digital Enablement Sustainment	Sustain shared enterprise platforms and foundational digital capabilities that support business operations and enable efficient delivery of the broader D&I investment portfolio.
Program Governance	Coordinate portfolio governance, prioritisation, assurance and delivery to manage interdependencies, optimise investment outcomes and maximise whole-of-life value across the portfolio.

Substantive program expenditure is directed towards cyber security risk control uplift in line with increasing SOCI regulatory requirements. The balance is focused on sustaining critical digital assets, improving operational resilience and maintaining the shared digital capabilities required to support enterprise operations and future transformation.

6.5.1.5 Targeted Outcomes



6.5.2 Digital Core Modernisation

6.5.2.1 Program Purpose

The Digital Core Modernisation program renews and modernises Urban Utilities' core business systems to improve organisational productivity, strengthen operational and financial decision-making, enhance customer outcomes and reduce technology complexity.

The program replaces fragmented and ageing legacy systems with integrated, modern enterprise platforms that simplify business processes, improve data quality and establish the digital foundations required for future automation, artificial intelligence and advanced analytics. These modern platforms also provide the core business capabilities upon which the broader D&I investment portfolio depends.

6.5.2.2 QCA Driver Classification

Within the capital prioritisation framework, Digital Core Modernisation is classified as a renewal-driven program, reflecting the replacement and modernisation of ageing, fragmented legacy core systems that have reached the end of their effective life.

6.5.2.3 Investment Imperative

The investment is driven by the need to modernise core business systems that are increasingly fragmented, manually intensive and costly to maintain.

Key investment drivers include:

- **Legacy systems and technical debt** – Ageing and fragmented business systems increase operational complexity, reduce productivity, create cyber and operational risks, and increase the cost of maintaining core business capabilities.
- **Productivity and efficiency** – Modern enterprise platforms simplify business processes, reduce manual effort, improve data quality and enable more efficient ways of working across finance, customer, asset and workforce functions.

- **Decision-making and enterprise performance** – Integrated financial, operational, customer and asset information provides trusted data to support evidence-based planning, investment decisions and organisational performance.
- **Enterprise enablement** – Modern digital platforms provide the foundation for automation, artificial intelligence, advanced analytics and future digital services, while supporting integration across the broader D&I portfolio.

Failure to undertake this investment would increase technology complexity, constrain organisational productivity, reduce confidence in enterprise information and limit Urban Utilities' ability to modernise business operations and deliver future digital capability.

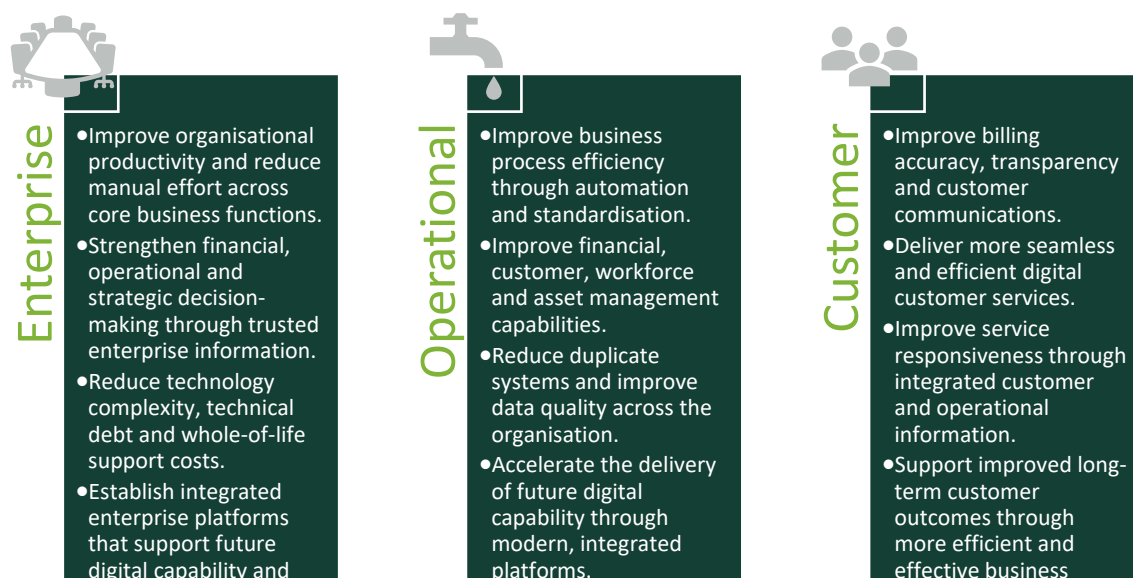
6.5.2.4 Investment Profile

Table 6-3 Digital Core Modernisation Program

Investment Area	Purpose of Investment
Financial Management Systems	Modernise finance, procurement and commercial management systems to improve financial integrity, automate processes and strengthen financial governance and decision-making.
Customer and Billing Systems	Modernise customer and billing platforms to support accurate billing, customer experience, digital service delivery and end-to-end customer lifecycle management.
People and Productivity Systems	Improve workforce planning, human resources and productivity through integrated people systems, improved workforce data and automated business processes.
Asset Management and Planning Enablement	Modernise enterprise asset management capabilities to improve asset information, lifecycle planning, maintenance optimisation and investment decision-making.
Modernising Digital Operations	Simplify and modernise digital operations through standardised platforms, automation, Development and Operations (DevOps) and improved service delivery practices that reduce technology complexity and improve operational efficiency.
System Rationalisation	Decommission redundant applications, platforms and integrations to reduce technical debt, simplify the technology landscape and lower whole-of-life support costs.
Program Governance	Coordinate portfolio governance, prioritisation, assurance and delivery to manage interdependencies and maximise whole-of-life value across the program.

The investment focuses on replacing ageing business systems with integrated enterprise platforms that improve organisational productivity, simplify operations and strengthen enterprise decision-making. Modernising these core systems also reduces technology complexity and establishes the digital foundation required for future automation, artificial intelligence and advanced analytics.

6.5.2.5 Targeted Outcomes



6.5.3 Operational Intelligence

6.5.3.1 Program Purpose

The Operational Intelligence program establishes an integrated operational data and analytics capability that provides real-time visibility of Urban Utilities' networks, assets and operations. It combines operational technology, IoT, SCADA, spatial information and enterprise data to improve operational decision-making, optimise asset performance and support safer, more reliable and efficient water and wastewater services.

The program transforms fragmented operational information into trusted enterprise intelligence that enables proactive operations, evidence-based investment decisions and continuous improvement across the organisation. It builds on the capabilities delivered through the other strategic programs and provides the operational insight required to maximise their value.

6.5.3.2 QCA Driver Classification

Within the capital prioritisation framework, Operational Intelligence is classified as an efficiency-driven program, reflecting the productivity, asset-performance and decision-making benefits it enables across the enterprise.

6.5.3.3 Investment Imperative

The investment is driven by the need to improve operational visibility, decision-making and asset performance through integrated operational data.

Key investment drivers include:

- **Operational visibility** – Critical operational data is currently fragmented across multiple systems, limiting situational awareness, delaying operational responses and reducing confidence in operational and investment decisions.

- **Operational performance** – Integrated operational intelligence enables earlier identification of failures, optimises maintenance activities, improves control room operations and supports more reliable water and wastewater services.
- **Capital optimisation** – Better operational and asset information supports evidence-based investment decisions, allowing capital expenditure to be better targeted, deferred where appropriate and supported by operational evidence.
- **Enterprise enablement** – The rapid growth of IoT devices, operational technology and real-time data requires scalable enterprise platforms capable of supporting advanced analytics, automation and future digital capability.

Failure to undertake this investment would maintain fragmented operational information, reduce the effectiveness of operational decision-making, increase operational and environmental risk, and limit Urban Utilities' ability to optimise asset performance and investment decisions.

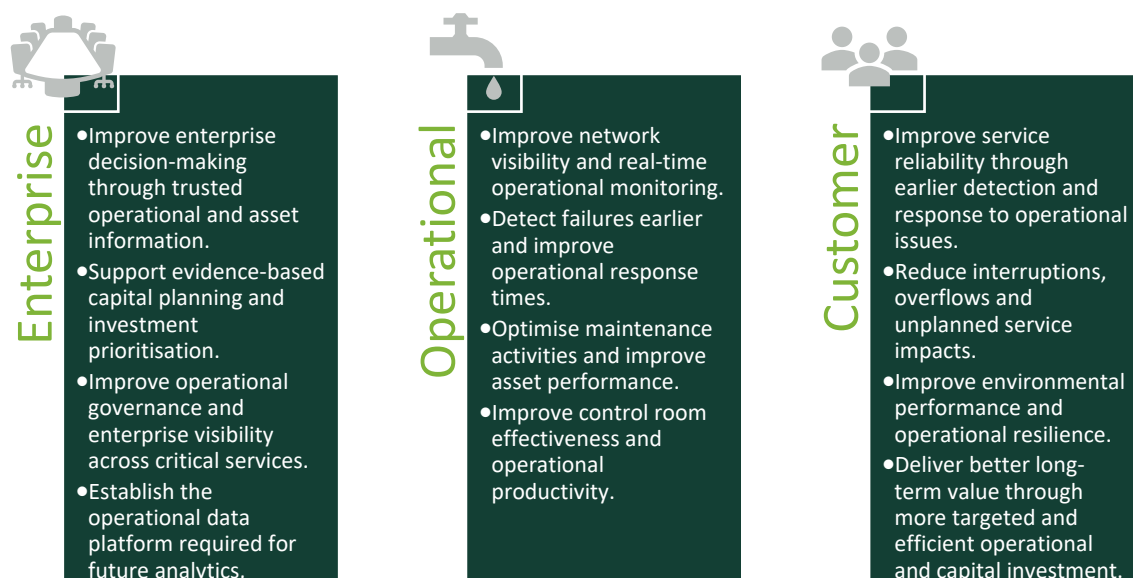
6.5.3.4 Investment Profile

Table 6-4 Operational Intelligence Program

Investment Area	Purpose of Investment
Operational Data Platforms	Establish integrated operational data and analytics platforms that combine SCADA, spatial, IoT and enterprise information to provide trusted operational intelligence and support evidence-based decision-making.
Control Room of the Future	Modernise operational monitoring and control capabilities through integrated control room technologies, improving situational awareness, operational response and network management.
IoT Rollout and Enablement	Expand enterprise IoT capability to provide real-time monitoring of water and wastewater networks, improve early fault detection, support predictive maintenance and optimise operational performance.
Enterprise Historian Replacement	Replace ageing historian capability with a secure, scalable enterprise platform for operational time-series data, supporting analytics, operational resilience and future digital capability.
Program Governance	Coordinate portfolio governance, prioritisation, assurance and delivery to manage interdependencies and maximise whole-of-life value across the program.

The program establishes the operational data foundation required to support intelligent network operations. Investment is concentrated in enterprise IoT capability, reflecting the significant opportunity to improve operational visibility, enable predictive maintenance, optimise capital investment and support safer, more reliable service delivery through real-time operational intelligence.

6.5.3.5 Targeted Outcomes



6.5.4 Infrastructure Modernisation

6.5.4.1 Program Purpose

The Infrastructure Modernisation program renews and modernises the enterprise technology infrastructure that underpins Urban Utilities' digital environment. It replaces ageing and fragmented infrastructure with secure, resilient and standardised platforms that support critical operations, improve service reliability and provide the capacity required for future digital capability. The program establishes the enterprise infrastructure required to support Digital Core Modernisation, Operational Intelligence, Automation, AI & Analytics and Manage & Protect. It provides the scalable and resilient digital backbone upon which the broader D&I investment portfolio depends.

6.5.4.2 QCA Driver Classification

Within the capital prioritisation framework, Infrastructure Modernisation is classified as an efficiency-driven program. While it renews ageing infrastructure, its primary driver is the whole-of-life cost, resilience and deliverability benefit of a standardised, scalable digital backbone that enables efficient delivery across the broader portfolio.

6.5.4.3 Investment Imperative

The investment is driven by the need to modernise critical infrastructure that is no longer fit for the operational, security and scalability requirements of the organisation.

Key investment drivers include:

- **Ageing infrastructure** – Critical network, compute and site infrastructure is approaching end of life, increasing the likelihood of failures, operational disruption and rising maintenance costs.

- **Operational resilience** – Modern, resilient and standardised infrastructure is required to improve service continuity, reduce outages and support critical operational technology environments.
- **Enterprise enablement** – The current infrastructure cannot efficiently support the expansion of IoT, automation, advanced analytics, Operational Intelligence and other strategic digital initiatives.
- **Security and compliance** – Infrastructure modernisation strengthens cyber security, supports SOCI obligations and improves the organisation's ability to manage technology risk.

Failure to undertake this investment would increase operational risk, constrain digital transformation, increase technology support costs and reduce the organisation's ability to safely and efficiently deliver critical water and wastewater services.

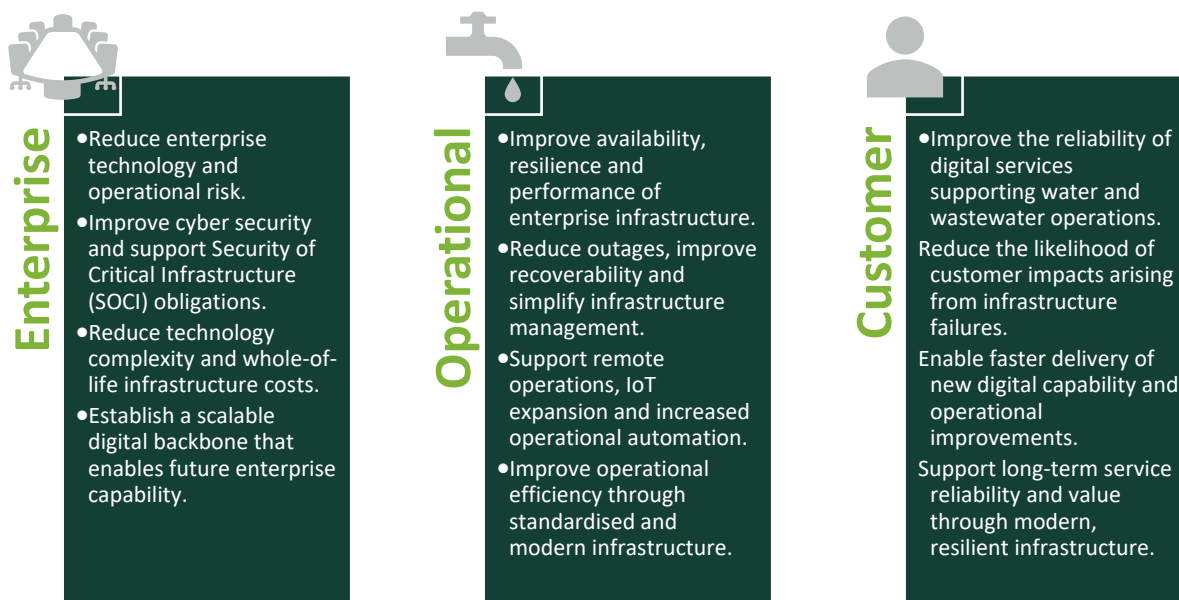
6.5.4.4 Investment Profile

Table 6-5 Infrastructure Modernisation Program

Investment Area	Purpose of Investment
Enterprise Network Enablement	Deliver a resilient, secure and scalable enterprise network supporting IT, OT, IoT, remote operations and future digital services across the organisation.
OT Site Infrastructure Refresh	Replace ageing OT infrastructure with standardised, modular and secure site architectures that improve reliability, simplify lifecycle management and support operational technology environments.
Automated Network & Operations	Improve network visibility, automation and operational management to increase reliability, reduce manual intervention and improve operational efficiency.
Data Centre Reset and Right Sizing	Modernise and optimise enterprise hosting infrastructure to improve resilience, reduce complexity, align capacity with future demand and support enterprise applications and operational systems.
Program Governance	Coordinate portfolio governance, prioritisation, assurance and delivery to manage interdependencies and maximise whole-of-life value across the program.

The investment focuses on renewing foundational digital infrastructure that supports enterprise operations and enables the delivery of broader digital capability. The program replaces fragmented and ageing technology with standardised enterprise platforms that improve resilience, reduce operational complexity and provide the infrastructure required to support future growth.

6.5.4.5 Targeted Outcomes



6.5.5 Automation and Analytics

6.5.5.1 Program Purpose

The Automation and Analytics program establishes the enterprise capability required to safely adopt automation, advanced analytics and artificial intelligence across Urban Utilities. It delivers the governance, technology platforms, workforce capability and delivery frameworks necessary to improve productivity, strengthen decision-making and enable continuous improvement while ensuring emerging technologies are adopted in a secure, responsible and value-driven manner. The program provides the enterprise foundations that enable Urban Utilities to progressively embed automation, analytics and AI across business processes, operational activities and decision-making. It especially complements the Digital Core Modernisation and Operational Intelligence programs by enabling the organisation to derive greater value from the data, platforms and digital capabilities established through those investments.

6.5.5.2 QCA Driver Classification

Within the capital prioritisation framework, Automation & Analytics is classified as an efficiency-driven program, reflecting the productivity, automation and continuous-improvement benefits it delivers across business and operational processes.

6.5.5.3 Investment Imperative

The investment is driven by the need to establish enterprise capability for automation, analytics and artificial intelligence in a controlled, secure and value-focused manner.

Key investment drivers include:

- **Enterprise productivity** – Many business processes remain highly manual, requiring significant effort to collect information, undertake analysis and complete repetitive administrative tasks. Automation provides opportunities to improve productivity while enabling employees to focus on higher-value activities.
- **Decision support** – Increasing volumes of enterprise and operational data require modern analytics capabilities to support faster, evidence-based operational, financial and investment decisions.
- **Technology governance** – Emerging automation and AI technologies introduce new governance, cyber security, privacy and information management risks. Enterprise policies, standards and controls are required to ensure these technologies are adopted responsibly and consistently.
- **Future capability** – Automation and AI technologies are rapidly becoming standard enterprise capabilities. Establishing enterprise platforms, workforce capability and governance now positions Urban Utilities to progressively realise future productivity and service improvements while avoiding fragmented or uncontrolled adoption.

Without this investment, automation and AI adoption would remain fragmented, inconsistent and difficult to govern, increasing operational and information risks while limiting Urban Utilities' ability to improve productivity, leverage enterprise data and respond efficiently to future service and operational challenges.

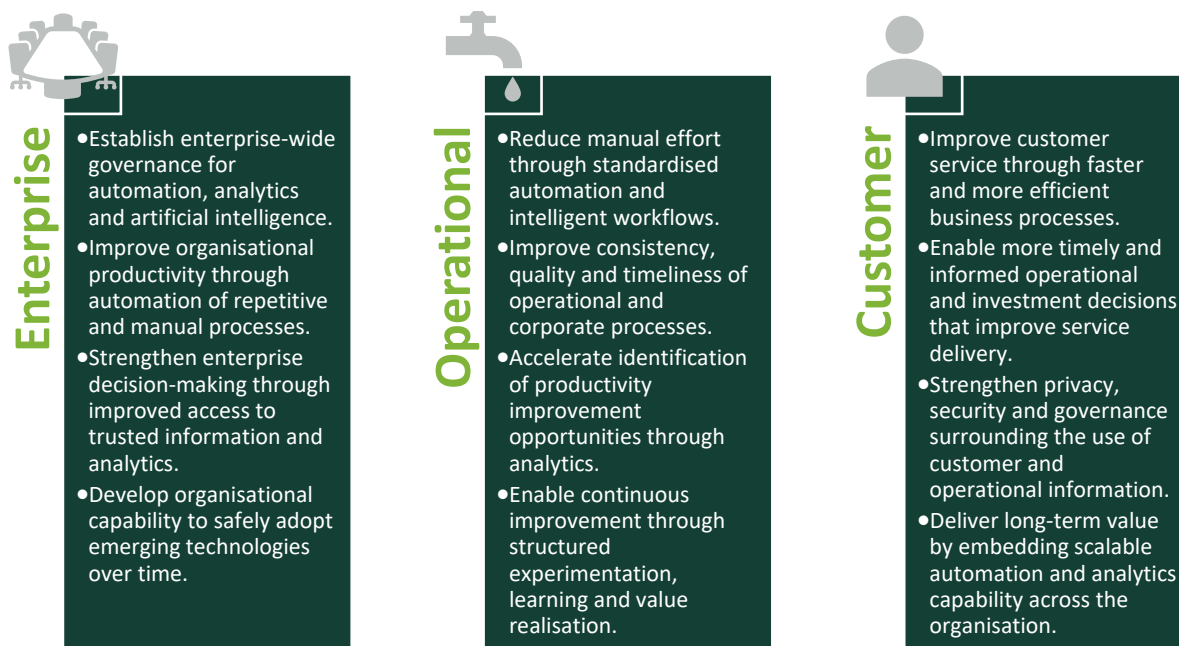
6.5.5.4 Investment Profile

Table 6-6 Automation and Analytics Program

Investment Area	Purpose of Investment
Skills and Culture	Develop workforce capability, change management and organisational readiness required to safely adopt automation, analytics and AI across the enterprise.
Governance and AI Foundations	Establish enterprise governance, policies, standards, risk management frameworks and delivery models to support secure, compliant and value-focused adoption of automation and artificial intelligence.
Technology Environment	Deliver the enterprise platforms, integration capability, analytics environments and supporting technology required to enable scalable automation, analytics and AI services.
Analytics and Use Cases	Develop, validate and progressively deploy high-value automation, analytics and AI use cases that improve operational performance, productivity and decision-making.
Program Governance	Coordinate portfolio governance, prioritisation, assurance and benefits realisation across the Automation and Analytics program.

The program is intentionally focused on establishing enterprise capability rather than deploying individual technologies at scale. Investment is directed towards governance, enabling platforms, workforce capability and the progressive development of high-value use cases that deliver measurable operational, financial and customer benefits while maintaining appropriate controls over emerging technologies.

6.5.5.5 Targeted Outcomes



6.6 Portfolio Assessment

The strategic program portfolio represents a coordinated and integrated response to the capability, risk and service requirements identified through Urban Utilities' planning processes.

The portfolio been constructed through a structured assessment of enterprise risks, customer outcomes, service requirements, technology lifecycle needs and organisational priorities. This approach enables investment decisions to be considered at the portfolio level and supports more efficient allocation of resources across the digital estate.

Importantly, the investment profile is overwhelmingly driven by service continuity, compliance, renewal and customer outcomes. Approximately 91 per cent of identified primary investment need is attributable to factors other than growth, demonstrating that the proposed expenditure is primarily directed towards sustaining and improving existing capability rather than expanding the scope of services.

The strategic program approach also provides important efficiency benefits. By coordinating investment across the portfolio, Urban Utilities is able to reduce duplication, improve architectural consistency, leverage shared capabilities and reduce the accumulation of technical debt. This supports lower whole-of-life costs and improved long-term sustainability of the digital environment.

The proposed portfolio therefore represents a prudent and efficient investment response to the challenges facing Urban Utilities' digital environment and provides a structured pathway for maintaining and improving critical digital capability throughout the price monitoring period.

7 Program Delivery and Commercial Model

7.1 Introduction

Urban Utilities has established a delivery and commercial model designed to efficiently deliver the D&I portfolio while maintaining appropriate governance, accountability and operational control. The model recognises that modern digital capability relies on a combination of internal expertise, strategic suppliers, managed services and specialist delivery partners.

The delivery approach has been developed to support the efficient delivery of a significantly expanded capital program while maintaining the ongoing operation of critical digital services. It combines disciplined portfolio governance, enterprise architecture, strategic program management and scalable delivery capability to ensure investment can be implemented efficiently and sustainably.

7.2 Delivery Model

Urban Utilities operates a hybrid delivery model comprising internal resources, managed service providers, technology vendors and specialist implementation partners.

Strategic functions, including enterprise architecture, portfolio management, governance, investment prioritisation and operational accountability, remain within Urban Utilities. External providers are engaged where they provide specialist capability, delivery capacity or operational efficiencies that would not be practical or economical to maintain internally.

Enterprise architecture provides the overarching framework for delivery. Common technology standards, integrated platforms and reusable enterprise capabilities enable investments to be designed once and leveraged across multiple initiatives. This reduces duplication, simplifies integration, improves interoperability and supports more efficient whole-of-life investment outcomes.

The delivery model provides the flexibility to scale delivery capability in response to program requirements while maintaining strong governance, organisational knowledge and strategic control. This approach ensures Urban Utilities can access specialist capability cost-effectively while retaining accountability for outcomes, supporting a prudent and efficient delivery model.

7.3 Procurement and Commercial Strategy

Procurement activities are undertaken within Urban Utilities' established procurement and delegated authority frameworks and are aligned with the enterprise architecture and investment governance framework described in Chapter 4 of this annexure.

Procurement decisions are based on whole-of-life value rather than initial acquisition cost alone. Assessments consider lifecycle costs, implementation complexity, cyber security, supportability, integration requirements, vendor capability and long-term sustainability. Preference is given to solutions that align with enterprise architecture, leverage existing platforms and maximise the reuse of common capabilities, reducing implementation effort and ongoing support costs.

Where appropriate, Urban Utilities utilises enterprise wide agreements, panel arrangements and strategic supplier relationships to improve commercial outcomes, reduce procurement costs and maintain consistency across the digital estate.

7.4 Managed Services and Vendor Management

Managed services form an important component of Urban Utilities' D&I operating model. They provide access to specialist technical capability, improve scalability and support service continuity in technology domains where maintaining equivalent capability internally would be inefficient or impractical.

Urban Utilities retains accountability for enterprise strategy, service outcomes, technology direction and operational performance. Managed service providers and technology vendors operate within established governance, contractual and performance management frameworks that ensure services remain aligned with organisational objectives and customer outcomes.

Vendor management also supports licence optimisation, supplier performance, lifecycle planning and vendor consolidation, improving commercial outcomes while reducing operational complexity across the digital estate.

7.5 Cloud and Hosting Strategy

Urban Utilities adopts a fit-for-purpose hosting strategy that selects the most appropriate deployment model for each capability based on enterprise architecture, cyber security, operational criticality, lifecycle cost, resilience and supportability.

The resulting environment incorporates cloud services, vendor-hosted platforms and traditional infrastructure where each provides the most appropriate whole-of-life outcome. This approach avoids unnecessary technology risk while supporting scalable, resilient and cost-effective digital services.

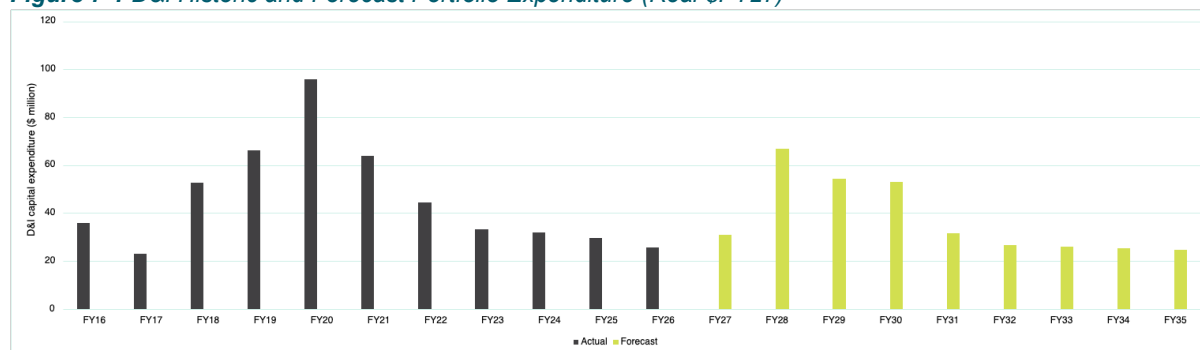
By aligning hosting decisions with enterprise architecture and portfolio planning, Urban Utilities reduces unnecessary complexity, improves integration and ensures technology investments contribute to an efficient, sustainable and secure digital environment.

7.6 Deliverability

7.6.1 Deliverability by Design

The planned D&I capital program includes a planned increase in investment during the price monitoring period as Urban Utilities undertakes a targeted program of digital renewal, cyber security uplift and enterprise modernisation. Figure 7-1 illustrates the planned expenditure profile over a 20-year period, showing both historical and forecast portfolio investment.

Figure 7-1 D&I Historic and Forecast Portfolio Expenditure (Real \$FY27) ⁶



The investment profile demonstrates that the increased expenditure during the price monitoring period is temporary and reflects the delivery of a concentrated renewal program rather than a permanent increase in D&I investment. As the major renewal and modernisation initiatives are completed, forecast portfolio expenditure reduces substantially, returning to a more typical level beyond the price monitoring period. This is discussed further in section 8.5.2 below.

Importantly, while expenditure is temporarily brought forward into the forthcoming price monitoring period, the total portfolio investment over the full ten-year planning horizon remains broadly equivalent to the level of investment delivered over the previous ten years. The proposed program therefore represents a re-phasing of investment to address accumulated renewal requirements rather than a structural increase in long-term expenditure.

The D&I portfolio program also represents only a relatively small proportion of Urban Utilities' overall capital investment program. Rather than being a large standalone investment, it is a targeted and strategic application of capital that enables the broader organisation to operate more efficiently, manage enterprise risk, improve service delivery and maximise the value of substantially larger investments in water and wastewater infrastructure. Investment in digital capability supports the planning, operation, maintenance and optimisation of the physical asset base and is therefore an important enabler of whole-of-business performance.

Deliverability has been a key consideration throughout development of the portfolio. Investment has been carefully scoped, prioritised and sequenced to align with organisational capability, market capacity and implementation readiness. The portfolio has been developed through both top-down strategic planning and bottom-up project development. Enterprise strategy, enterprise risk, enterprise architecture and strategic program planning establish investment priorities, while individual projects are progressively developed through the stage-gate framework. This approach progressively increases design maturity, implementation planning and cost certainty as projects move towards delivery, enabling delivery risks to be

⁶ FY31-FY35 figures are indicative only

identified and managed early and ensuring that only sufficiently mature and deliverable initiatives proceed to implementation.

7.6.2 Enterprise Architecture and Delivery Efficiency

Enterprise architecture is a key mechanism for improving both the efficiency and deliverability of the D&I portfolio. Common technology standards, integrated platforms and reusable enterprise capabilities reduce duplication, simplify integration and enable solutions developed through one initiative to be leveraged across multiple projects. This reduces implementation complexity, improves interoperability and lowers whole-of-life delivery and support costs. The strategic program model further supports delivery by coordinating related investments, shared delivery resources and common implementation activities across the portfolio, improving resource utilisation and reducing delivery risk.

7.6.3 Delivery Capacity and Commercial Model

Urban Utilities delivers D&I initiatives through a hybrid model comprising experienced internal leadership across portfolio delivery and architecture functions, supported by integrated end-to-end delivery capability, encompassing business analysis, testing and change management, and complemented by managed service providers, strategic technology partners and specialist implementation resources.

This approach enables Urban Utilities to retain strategic ownership and operational accountability while scaling delivery capability to meet changing program requirements. Specialist expertise is accessed where it provides greater efficiency or capability than maintaining equivalent permanent internal resources, providing flexibility without compromising governance or organisational knowledge.

Urban Utilities has successfully delivered significant D&I initiatives using this model and has established governance processes, experienced project managers, mature supplier relationships and proven delivery practices. The integrated delivery capability ensures initiatives are well-defined, delivered to quality standards and effectively adopted by the business, providing confidence in the organisation's ability to deliver the proposed capital program

7.6.4 Portfolio Sequencing and Risk Management

The portfolio has been actively reviewed against organisational delivery capability, implementation sequencing and market capacity. This resulted in the optimisation of expenditure across the price monitoring period, producing a more balanced and deliverable capital program while maintaining the intended strategic outcomes.

The strategic program framework enables investment to be sequenced according to enterprise priorities, project interdependencies, resource availability and operational requirements. This staged approach improves delivery efficiency, reduces implementation risk and provides flexibility to respond to changing business priorities throughout the price monitoring period.

Implementation risks associated with technology integration, cyber security, operational transition and supplier availability are managed through enterprise architecture, structured procurement, stage-gate governance and detailed implementation planning. These processes ensure that delivery risks are progressively identified, assessed and mitigated before implementation proceeds.

7.6.5 Deliverability Assessment

Urban Utilities considers the proposed D&I capital program to be both prudent and deliverable.

The portfolio has been developed through a structured planning and governance framework, supported by enterprise architecture, strategic program planning, disciplined project development and active portfolio optimisation. The hybrid delivery model provides access to specialist capability while retaining strategic control and accountability, enabling delivery resources to scale efficiently in response to program demands.

Collectively, these arrangements provide confidence that the proposed capital program can be delivered efficiently while maintaining the ongoing operation of critical digital services. They also provide a strong foundation for managing implementation risks, responding to changing business requirements and delivering long-term value for customers.

8 Efficiency and Cost Management

8.1 Introduction

Prudence and efficiency have been fundamental considerations throughout the development of Urban Utilities' D&I expenditure portfolio. The proposed expenditure has not been developed as a collection of independent technology initiatives, but through an integrated planning, governance and assurance framework that aligns investment with enterprise strategy, enterprise risk, enterprise architecture and customer outcomes.

Operating expenditure and capital expenditure have been planned as complementary components of a single D&I portfolio. Operating expenditure provides the resources required to operate, support and maintain the digital estate, while capital expenditure renews, modernises and enhances the enduring digital capabilities upon which the organisation increasingly relies. Together they represent the efficient whole-of-life investment required to maintain service continuity, manage enterprise risk and support the long-term delivery of safe, reliable and efficient water and wastewater services.

The following sections summarise the principal evidence supporting the prudence and efficiency of the proposed D&I expenditure portfolio.

8.2 Evidence of Prudence

8.2.1 Operating Expenditure

The operating expenditure forecast has been developed using the Base Step Trend (BST) methodology, providing a structured assessment of the efficient cost of operating, supporting and maintaining Urban Utilities' digital estate. The methodology establishes a normalised operating expenditure baseline, identifies justified step changes arising from changes in service requirements and applies trend assumptions that reflect the underlying cost drivers affecting D&I services.

The forecast includes a material step change in operating expenditure over the price monitoring period. This increase is both expected and appropriate given the scale of the proposed capital investment program. As new digital assets, enterprise platforms and cyber security capabilities are delivered, additional operating expenditure is required to support, maintain, licence and secure those assets throughout their operational life. These costs represent the efficient and unavoidable consequence of maintaining an expanded and more capable digital estate (with all of the efficiency opportunities that delivers) rather than growth in the D&I function itself.

Importantly, the relationship between capital investment and ongoing operating expenditure is consistent with comparable utilities undertaking significant digital renewal and transformation programs. The forecast therefore reflects the efficient operating cost of sustaining the capabilities delivered through the proposed capital program, rather than an expansion of business-as-usual activities.

8.2.2 Capital Expenditure

The proposed D&I capital expenditure is a prudent and proportionate investment in the enterprise capabilities required to deliver safe, reliable and efficient water and wastewater services. While significant over the price monitoring period, it represents only a small proportion of Urban Utilities' total capital program and is targeted towards capabilities that enable the broader organisation to operate more effectively.

The investment responds to increasing cyber security threats, Security of Critical Infrastructure regulation, ageing digital assets, growing technical debt and the increasing dependence of operational, customer and corporate services on digital capability. The program renews and modernises critical digital assets, strengthens enterprise platforms and establishes the digital foundations required to improve operational resilience, service delivery, automation, decision-making and organisational productivity.

The investment profile reflects a targeted renewal program rather than a structural increase in expenditure. Capital investment is concentrated during the price monitoring period to address identified renewal and modernisation requirements before reducing to lower levels beyond FY30. Over the broader ten-year planning horizon, total capital investment remains broadly consistent with the preceding decade, demonstrating that the program represents a re-phasing of investment rather than an increase in long-term expenditure.

Prudency is reinforced through Urban Utilities' structured investment framework. Enterprise strategy, asset stewardship, enterprise architecture and strategic program planning identify investment needs, while individual initiatives progress through staged business case development and assurance processes that progressively increase design maturity, implementation planning and cost certainty before funding is committed.

Approximately 91 per cent of the identified investment requirement relates to service continuity, customer outcomes, compliance, cyber security and asset renewal rather than growth. The proposed capital program therefore represents the minimum prudent investment required to maintain and modernise Urban Utilities' digital capability while supporting the efficient operation of the broader enterprise.

8.3 Evidence of Efficiency

8.3.1 Operating Expenditure

Efficiency has been embedded within the operating expenditure forecast through both the BST methodology and Urban Utilities' ongoing operational management practices. This assessment is also informed by the ZBB review, which has been used to test expenditure requirements and identify efficiency opportunities across the business

The hybrid delivery model enables specialist capability to be accessed through managed services and strategic delivery partners where this provides greater efficiency than maintaining equivalent permanent internal capability. Enterprise licensing arrangements, vendor management, cloud optimisation and commercial governance further improve value for money by reducing duplication, optimising technology utilisation and managing whole-of-life operating costs.

Enterprise architecture also contributes to operating efficiency by promoting standardisation, common platforms and integrated solutions that reduce operational complexity, improve supportability and lower the ongoing cost of operating the digital estate.

8.3.2 Capital Expenditure

Efficiency has similarly been embedded throughout the capital investment portfolio. Strategic program planning enables common enterprise capabilities to be developed once and leveraged across multiple initiatives, reducing duplication, improving coordination and supporting portfolio-wide outcomes. Enterprise architecture promotes standardisation, reusable platforms and integrated technology solutions, reducing implementation complexity, improving interoperability and lowering whole-of-life delivery and support costs.

The portfolio has also been actively reviewed against organisational delivery capability, implementation sequencing and market capacity. This resulted in the optimisation of expenditure across the price monitoring period, producing a more balanced and deliverable capital program while maintaining the intended strategic outcomes. Together, these measures demonstrate that efficiency has been considered not only within individual investments, but across the D&I portfolio as a whole.

As part of ongoing portfolio governance, assurance and continuous improvement, Urban Utilities has reviewed its historical digital investments to identify opportunities to improve delivery efficiency, project scope and cost outcomes. This review identified the Enterprise Asset Management System (EAMS) project as an investment where, with the benefit of now strengthened governance, procurement and estimating practices, the project is considered capable of having been delivered at a lower cost. The review concluded that historical procurement management and estimating practices contributed to the original cost outcome for this project. In the interests of transparency, prudent investment planning and delivering value for customers, Urban Utilities has voluntarily removed a portion of the historical EAMS expenditure from the Regulatory Asset Base (RAB).

8.4 Totex Assessment

Urban Utilities considers that the prudence and efficiency of the D&I portfolio is most appropriately assessed on a total expenditure (totex) basis.

Operating expenditure and capital expenditure are planned together to achieve the lowest whole-of-life cost while maintaining required service, risk and compliance outcomes. Investment decisions are based on lifecycle value rather than accounting treatment, recognising that many digital investments involve trade-offs between operating expenditure and capital expenditure while delivering equivalent or improved organisational outcomes.

The capitalisation methodology supports this approach by recognising that expenditure associated with the creation or significant enhancement of enduring digital assets should be capitalised where appropriate, while expenditure associated with operating and maintaining existing capabilities remains within operating expenditure. This provides a more accurate representation of the economic nature of D&I investment and aligns the financial treatment of digital assets with other long-lived enterprise assets.

Accordingly, operating expenditure and capital expenditure should be considered together when assessing the efficiency of the D&I portfolio, as together they represent the total investment required to operate, sustain, renew and progressively modernise Urban Utilities' digital estate.

8.5 Benchmarking

Benchmarking provides an important external assessment of the prudence and efficiency of Urban Utilities' proposed D&I expenditure. It demonstrates that both historical expenditure and the proposed investment program are consistent with the experience of comparable regulated water utilities and with recent regulatory decisions.

The benchmarking presented in this section considers three forms of evidence:

- comparison of Urban Utilities' historical digital expenditure with comparable regulated water utilities;
- comparison of the proposed investment program with the scale of digital investment undertaken by peer utilities; and

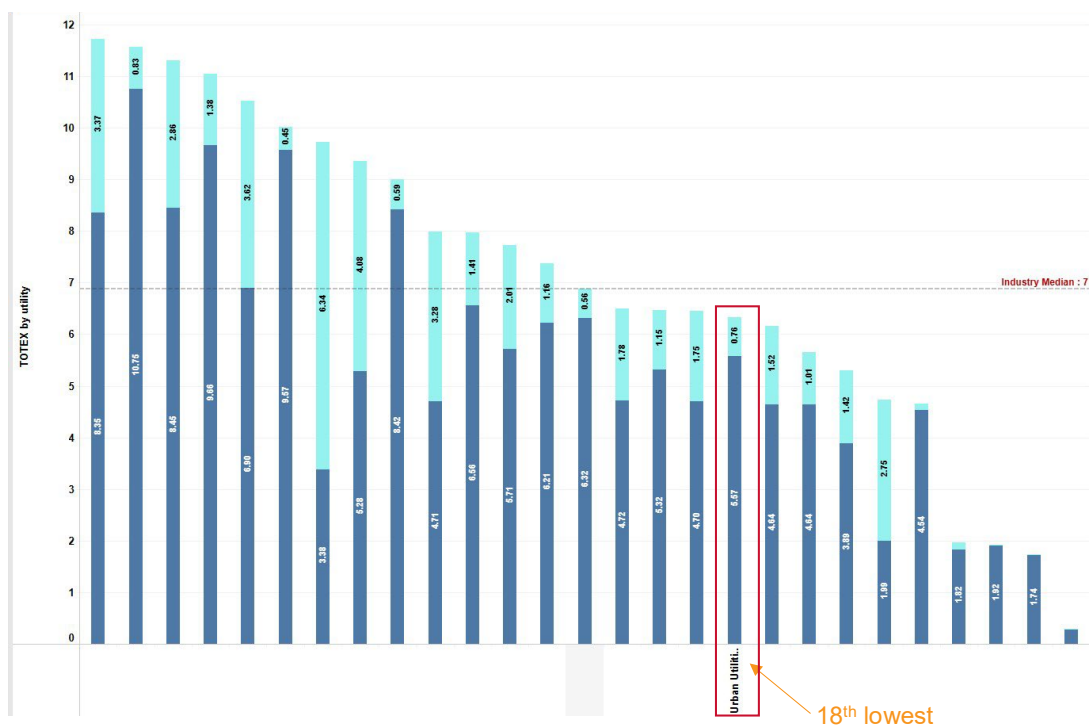
- recent regulatory decisions demonstrating that significant digital investment programs appropriately result in both capital expenditure and ongoing operating expenditure.

These comparisons demonstrate that Urban Utilities' proposed expenditure is proportionate to the size and complexity of the organisation, reflects prevailing industry practice and is consistent with expenditure that has been accepted by Australian economic regulators.

8.5.1 Historical expenditure benchmarking

Urban Utilities' historical D&I expenditure compares favourably with other Australian water utilities. Figure 8-1 shows FY25 information technology total expenditure as a proportion of regulated revenue across a range of comparable utilities.

Figure 8-1 Benchmarking IT Totex Spend



Source: WSAA, 2025 (Augmented by Urban Utilities, 2026)

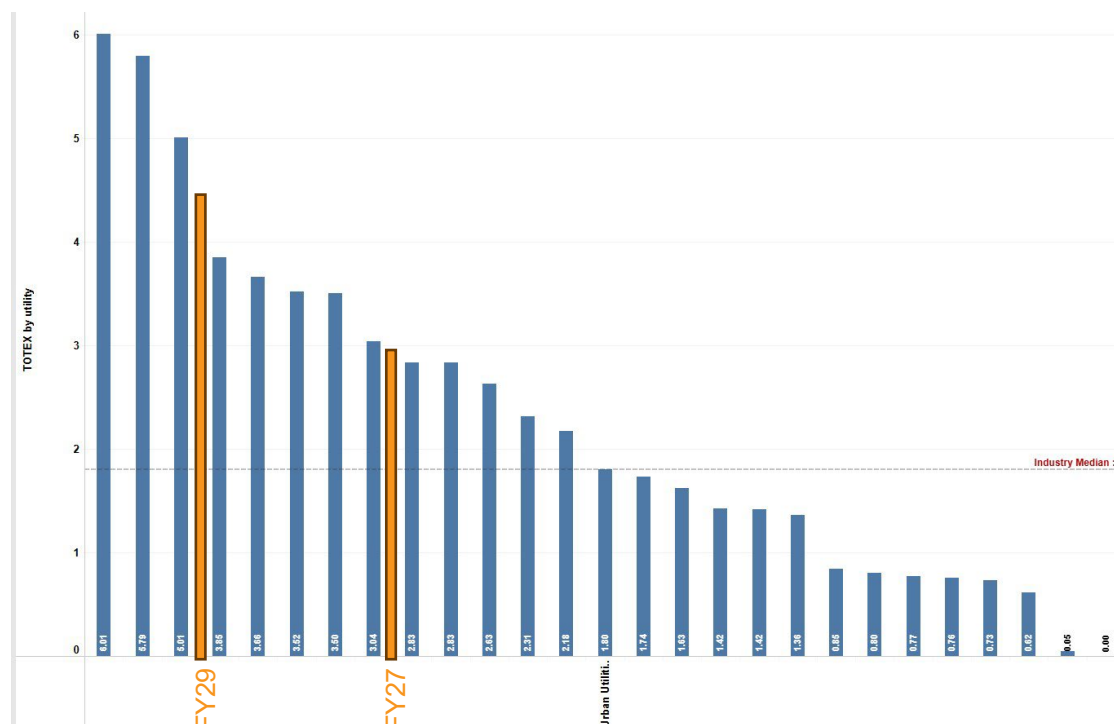
The comparison demonstrates that Urban Utilities' historical expenditure is around the industry median. This indicates that the existing cost base has been managed efficiently and does not reflect excessive investment or operating expenditure. It represents an appropriate level of expenditure for a metropolitan water utility operating an extensive digital environment supporting operational technology, customer services, enterprise systems, cyber security and corporate functions. This provides confidence that the proposed forecast has been developed from an efficient historical expenditure base.

8.5.2 Benchmarking the capital investment program

The proposed D&I investment program has been assessed against benchmarking information for comparable Australian water utilities using the Water Services Association of Australia (WSAA) benchmarking dataset. The assessment considers the impact of the proposed

expenditure on Urban Utilities' overall level of D&I investment relative to comparable regulated water businesses.

Figure 8-2 WSAA Benchmarking of D&I Investment as a Percentage of Utility Revenue



Source: WSAA, 2025 (Augmented by Urban Utilities, 2026)

Figure 8-2 demonstrates that the proposed investment results in a temporary increase in D&I expenditure relative to the WSAA benchmark during the price monitoring period. This increase reflects the delivery of a significant but time-limited program of digital renewal, cyber security uplift and enterprise modernisation rather than a permanent increase in the underlying cost base.

The increased expenditure is principally associated with the capital investment required to renew ageing digital assets, strengthen cyber resilience, modernise enterprise platforms and establish the digital capabilities required to support the future operation of the business. These investments respond to common challenges being experienced across the Australian water sector, including:

- increasing cyber security and critical infrastructure obligations;
- ageing digital assets reaching end of life;
- migration to modern cloud-based enterprise platforms;
- increasing reliance on operational technology and connected infrastructure;
- expanded use of enterprise data, analytics and automation; and
- increasing customer expectations for secure, reliable and responsive digital services.

Importantly, the proposed expenditure remains consistent with the range of investment undertaken by comparable regulated water utilities. The temporary uplift does not represent excessive or inefficient expenditure but reflects a prudent response to the renewal and modernisation requirements of Urban Utilities' digital estate. The investment establishes the foundational digital capabilities necessary to support safe and reliable service delivery, improve operational resilience and reduce the long-term risks and costs associated with ageing technology.

As the major capital investment program is completed, D&I expenditure is expected to reduce relative to the benchmark and stabilise. The modernised digital environment will deliver enduring benefits through lower lifecycle costs, reduced technology complexity, greater platform standardisation, improved automation, enhanced asset management and lower ongoing support and maintenance requirements. These improvements are expected to generate sustained operating and capital expenditure efficiencies beyond the price monitoring period while improving service reliability, organisational productivity and customer outcomes.

Accordingly, the benchmarking demonstrates that the proposed expenditure profile represents a prudent and efficient investment strategy. The temporary increase in expenditure reflects a deliberate investment in long-lived digital capability that will reduce whole-of-life costs, improve operational performance and establish a more efficient and sustainable digital operating model over the long term.

8.5.3 Regulatory precedent

As discussed in Chapter 7 of this annexure, recent Australian regulatory decisions demonstrate that significant digital investment programs are commonly accompanied by ongoing increases in operating expenditure. As new digital capabilities are implemented, additional operating expenditure is required to support software licensing, cloud services, cyber security monitoring, vendor support, platform maintenance, data services and ongoing operational management. These costs are an inherent consequence of maintaining modern digital capability rather than an indication of inefficient expenditure. Table 8-1 summarises recent regulatory precedents.

Table 8-1 Benchmarking operating expenditure step changes from capital investment

Utility	Digital Investment	Regulatory Outcome
South East Water	Digital Metering Program	Approved associated increase in operating expenditure.
Sydney Water	Enterprise Digital Transformation	Approved significant operating expenditure associated with new digital capability.
Yarra Valley Water	Cloud ICT Program	Approved ongoing operating expenditure supporting cloud-based digital services.

These decisions demonstrate that regulators recognise the relationship between digital capital investment and the ongoing operating costs required to maintain secure, reliable and effective digital capability. The operating expenditure forecast proposed by Urban Utilities is consistent with this established regulatory practice.

8.5.4 Overall assessment

The benchmarking presented throughout this annexure (section 5.3 & 8.5) indicates that Urban Utilities' D&I expenditure is consistent with comparable regulated water utilities and reflects recognised industry practice. Historical expenditure has been maintained at an efficient level relative to peers, while the proposed investment program responds to common sector-wide drivers including cyber security, technology renewal, cloud adoption and increasing digital dependence.

Collectively, this benchmarking provides independent evidence that the proposed operating and capital expenditure is prudent, efficient and proportionate to the scale, complexity and risk profile of Urban Utilities' operations.