DEPARTMENT OF CORRECTIONS
ARA POUTAMA AOTEAROA

Department of Corrections

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WIP Tranche 2A
Detailed Business Case

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Acronyms and Definitions

The table below provides a list of acronyms used, with some terms and their explanations added.

Term	Description
2021 PBC	Critical Infrastructure and Compliance 3 Waters Programme Business Case. Confirmed by Cabinet August 2021 (CAB-21-MIN-0317 refers)
AM	Asset Management
AMD	Asset Management Delivery
AM/FM	Asset Management / Facilities Maintenance
AMP	Asset Management and Planning
AoG	All of Government
ASCF	Auckland South Correctional Facility
BAU	Business as Usual – the normal functions of operations within a business
BCP	Business Continuity Plan
BOOT	Build, Own, Operate, Transfer (contract)
CAPEX	Capital expenditure
CBA	Cost Benefit Analysis
CMP	Christchurch Men's Prison
CS	Corrections Services
CSF	Critical Success Factors
DBC	Detailed Business Case
DBFM	Design, Build, Finance, Maintain (contract)
DBFMO	Design, Build, Finance, Maintain & Operate (contract)
DIA	Department of Internal Affairs
DoC	Department of Conservation
DWS	Drinking Water Standard
DWSP	Drinking Water Safety Plan(s)
ECI	Early Contractor Involvement
ELT	Executive Leadership Team
ERM	Enterprise Risk Management (Framework)
EOI	Expression(s) of Interest
FM	Facilities Management
HBRP	Hawke's Bay Regional Prison
IAP2	International Association for Public Participation
IC	Investment Committee
IFPGC	Infrastructure & Facilities Portfolio Governance Committee
ILM	Investment Logic Map

Term	Description
IMAP	Investment Management & Asset Performance (Treasury)
Infracom	Infrastructure Commission
$k	Thousand (New Zealand dollars)
LTIP	Long Term Investment Plan
LOS	Levels of Service
$m	Million (New Zealand dollars)
MBIE	Ministry of Business, Innovation and Employment
MCA	Multi-Criteria Analysis
MECF	Mount Eden Correctional Facility
MfE	Ministry for the Environment
MoJ	Ministry of Justice
MoH	Ministry of Health
NES	National Environment Standard (Freshwater)
NPC	Net Present Cost
NPS-FW	National Policy Statement for Freshwater Management
NPV	Net Present Value
NRCF	Northland Region Corrections Facility
NZDF	New Zealand Defence Force
OE	Offender Employment (Programme)
OPEX	Operating expenditure
P3M	Portfolio, Project and Programme Management
PAR	Planned Asset Replacement (Programme)
PBC	Programme Business Case
PCBU	The 'person conducting a business or undertaking'. Usually the employer. Those responsible for preventing and managing risks.
PGF	Provincial Growth Fund
PHRMP	Public Health Risk Management Plans
PNDS	Prison Network Development Strategy
PPP	Public Private Partnership
Reticulation	The pipe network of underground mains and associated fittings (e.g. valves, pumps) to distribute potable water, stormwater and wastewater
RfP	Request for Proposal(s)
RIB	Rapid Infiltration Basin System
RMA	Resource Management Act 1991
SHCF	Spring Hill Correction Facility

Term	Description
SMART	Specific, Measurable, Achievable, Relevant, & Time-bound
SRO	Senior Responsible Owner
SSBC	Single Stage Business Case
Taumata Arowai	The newly established regulatory authority for three waters and Drinking Water Standards for New Zealand
Te Arawhiti	Office for Māori Crown relations
Three Waters	Collective reference to potable/firefighting water, stormwater, and wastewater systems

Executive Summary

This Detailed Business Case (DBC) seeks formal approval to expedite significant investment in three waters infrastructure and compliance works via a recommended programme option 'Proactive Stewardship', sequenced to consider current funding allocations.

This programme will address levels of risk that are unacceptable to Ara Poutama Aotearoa - Department of Corrections (Corrections), including loss of prison services due to three waters infrastructure and compliance failure, and the resulting harm to people and the environment.

Corrections is seeking approval for expenditure of 9(2)(b)(ii) to enable Tranche 2A (T2A) to be delivered in a sequenced implementation of the preferred option total of 9(2)(b)(ii). $56.00m capital and $18.72m operating will be funded through the tagged contingency signalled in Budget 23, with another $4.00m provided by underspend during Tranche 1 (T1). 9(2)(b)(ii) [redacted]

Strategic Case

This Strategic Case validates and builds upon the case for change articulated in the previous Three Waters Programme Business Case (2021 PBC) (included as Appendix A), approved by Cabinet Government Administration and Expenditure Review Committee (GOV-21-MIN-0026) and confirmed by Cabinet (CAB-21-MIN-0317) in September 2021, and presents the need for continuing investment through T2A of the Waters Infrastructure Programme (WIP).

Access to safe, healthy, and reliable three waters services (wastewater, stormwater, and potable/firefighting water) is critical to ensuring the wellbeing of staff and people in prison. Any disruption to these services would directly impact the core functions and strategic outcomes of the front-line operational arm of Corrections at large, including the:

- effective and humanising management of the prison population,
- health, safety, and wellbeing of staff and people in prison,
- facilitation of rehabilitation opportunities, and
- necessary coordination and cooperation with our external partners that support these functions.

T1 of WIP expedited a programme of decisive and coordinated investigations to lay the foundations for required interventions to three waters assets at Corrections' custodial sites. Investigations of three waters assets during T1 validated the desktop assessments of the 2021 PBC regarding asset condition at sites and Corrections' ability to effectively manage these assets. Analysis of the collected asset condition and compliance data shows that ongoing investment is required in line with the programme established in the 2021 PBC to uplift assets and the management of three waters services into compliance with enacted and ongoing legislative and regulatory three waters requirements, which focus on reducing health and safety risks. Doing so now also improves Corrections' long-term strategic planning capability and asset stewardship, as required of CEOs and departments by Cabinet Office Circular CO (19) 6 'Investment Management and Asset Performance in the State Services'.

The preferred Programme Option identified in the 2021 PBC (Proactive Stewardship) has been validated as the most effective option to implement T2A and uplift assets into compliance, including with the Water Services Act 2021 and Drinking Water Standards for New Zealand regulated by Taumata Arowai, and to improve Corrections' long-term strategic planning and asset stewardship capability. While the risk mitigation approach outlined in the preferred Programme Option of the 2021 PBC remains the driving strategic outcome of T2A, implementation of this option has been considered through an adjustment in scope of delivery that focuses on investments at eight strategically critical sites within the prison network. This will allow Corrections to address the most critical risks at priority sites while also providing the

framework from which to scale up the programme to address the remaining balance of risks and sites over subsequent tranches.

Corrections is therefore requesting that Cabinet note the Strategic Case as described in the Cabinet approved 2021 PBC remains relevant and is a strong basis to continue progressing WIP.

Economic Case

The Economic Case identifies a preferred suite of investments that will reduce risk, maximise benefits, and best represents value for money for T2A of WIP for Corrections. The Case assesses four Programme Delivery Options against Critical Success Factors for Strategic Alignment, Market Attractiveness, Affordability and Value for Money. In general terms, these options escalate in terms of number of interventions proposed, cost of Programme, and level of risk mitigated. In summary, the four options tested are:

- **High urgency issues only:** Investment in assets and interventions to address 'high' urgency issues across the selected sites in line with current policy, and available funding to address the most critical assets.
- **Minimum compliance:** A targeted approach that focuses on achieving minimum compliance across all of the in-scope sites. This addresses both Site Assessment Reports (SAR) and the Drinking Water Safety Plan (DWSP). This approach will expand its investigation of potential consequences to include associated infrastructure, level of services, and resilience across the SAR. It further addresses all DWSP requirements within the selected sites.
- **Proactive stewardship:** A proactive approach to managing three waters infrastructure assets to increase resilience at an asset level. This approach will include all SAR Outputs and DWSP Outputs across 'high' and 'medium' urgencies.
- **Strategic resilience:** A further proactive approach to managing three waters infrastructure assets to manage risk across 'high' and 'medium' urgency levels across all sets and improves strategic resilience. This approach will look to deliver a full suite of assets that will look to mitigate risk to the lowest possible level with a lens to include future resilience.

This detailed assessment confirmed that the preferred T2A Programme Option is Option 3: 'Proactive stewardship'. 'Proactive stewardship' is comprised of 240 interventions, with a total economic cost of 9(2)(b)(ii) This option is considered preferred because:

- It best achieves the Strategic Objectives of the WIP.
- It is likely to be most attractive option to the market.
- It represents good value for money.

The only currently identified funding source for WIP is the $56.00m capital and $18.72m operating to be funded through the tagged contingency signalled in Budget 2023 and $4.00m of underspend during T1. Following the development of the options described above, and engagements with the Treasury and other partners in their development, the certainty of internal capital funding allocations has changed as Corrections has gone through an internal capital planning and prioritisation process across our entire portfolio of infrastructure. This change is partly due to the tagged contingency provided in Budget 23 ($56.00m capital and $18.72 operating through to 2026/2027) being scaled from the programme's B23 bid and partly due to internal reprioritisations resulting from other strategic projects and initiatives within Corrections not being successful with B23 bids, among other considerations. As the tagged contingency is the only funding currently available to the programme, WIP intends to sequence its planned works to 9(Engagement with the market is planned to occur based on the full 240 interventions of the preferred option, with one of two potential filtering approaches 9(2)(b)(ii) The decision as to which filter is employed will be made based on the insights

provided following design and engagement with the Managing Contractor, cross referenced against the critical success factors of the programme.

Corrections is therefore seeking Cabinet approval to the preferred option 'Proactive Stewardship (Sequenced)'.

Commercial Case

The Commercial Case presents the preferred procurement approach for T2A and how the procurement process has identified and mitigated the risks associated with this approach. A key factor identified for the successful delivery of T2A lies in attracting market participants with sufficient capability, capacity, and level of experience to deliver public value across the programme, while also meeting the time, cost, and outcome expectations of Corrections and its interested parties.

9(2)(b)(ii) [redacted]

Financial Case

The Financial Case sets out the financial implications of the preferred option identified in the Economic Case which will be delivered through the procurement method detailed in the Commercial Case and the management method detailed in the Management Case of this DBC.

The following tables summarise the expected cost to complete the full preferred sequenced option of T2A, as well as the funding breakdown including both capital costs (Table 1) and operating costs (Table 2).

Table 1 WIP capital costs and funding approach

9(2)(b)(ii) [redacted]

Table 2 WIP operating costs and funding approach

9(2)(b)(ii) [redacted]

Corrections is therefore seeking approval from Cabinet to release the Tagged Contingency identified in Budget 23 to enable the implementation of the preferred option. The release of this contingency is sought prior to 9(2)(b)(ii) [redacted] **.**

Management Case

The Management Case presents how the preferred option identified in the Economic Case will be implemented. This includes outlining:

- The scope of delivery – i.e., what will be implemented if funding is approved.
- A high-level schedule for implementation during the four-year period of T2A – that is for the four financial years starting FY23/24.
- The arrangements for programme governance and broader governance arrangements.
- The programme organisation more generally, to provide assurance that sufficient capacity and capability will exist to deliver the preferred option.
- The proposed programme processes and controls to manage delivery, including processes for risk and benefits management.
- The communications, engagement, and change management.
- The programme assurance arrangements.

1. The Strategic Case – Making the Case for Change

1.1 Strategic Case Summary

This Strategic Case validates and builds upon the case for change articulated in the 2021 PBC (included as Appendix A), approved by Cabinet Government Administration and Expenditure Review Committee (GOV-21-MIN-0026) and confirmed by Cabinet (CAB-21-MIN-0317) in September 2021, and presents the need for continuing investment through T2A of the WIP.

Access to safe, healthy, and reliable three waters services (wastewater, stormwater, and potable/firefighting water) is critical to ensuring the wellbeing of staff and people in prison. Any disruption to these services would directly impact the core functions and strategic outcomes of the front-line operational arm of Corrections and Corrections more broadly, including the:

- effective and humanising management of the prison population,
- health, safety, and wellbeing of staff and people in prison,
- facilitation of rehabilitation opportunities, and
- necessary coordination and cooperation with our external partners that support these functions.

T1 of WIP expedited a programme of decisive and coordinated action to lay the foundations for required interventions to three waters assets at Corrections' custodial sites. Investigations of three waters assets during T1 validated the desktop assessments of the 2021 PBC regarding asset condition at sites and Corrections' ability to effectively manage these assets. Analysis of the collected asset condition and compliance data shows that ongoing investment is required in line with the programme established in the 2021 PBC to uplift assets and the management of three waters services into compliance with enacted and ongoing legislative and regulatory three waters requirements, which focus on reducing health and safety risks. Doing so now also improves Corrections' long-term strategic planning capability and asset stewardship, as required of CEOs and departments by Cabinet Office Circular CO (19) 6 'Investment Management and Asset Performance in the State Services'.

The preferred Programme Option identified in the 2021 PBC (Proactive Stewardship) has been validated through T1 of WIP as the most effective option to implement T2A and uplift assets into compliance, including with the Water Services Act 2021 and Drinking Water Standards regulated by Taumata Arowai, and to improve Corrections' long-term strategic planning capability and asset stewardship. While the risk mitigation approach outlined in the preferred Programme Option of the 2021 PBC remains the driving strategic outcome of T2A, implementation of this option has been considered through an adjustment in scope of delivery that focuses on investment at eight strategically critical sites within the prison network. This will allow Corrections to address the most critical risks at priority sites while also providing the framework from which to scale up the programme to address the remaining balance of risks and sites over subsequent tranches.

1.2 Purpose of the Strategic Case

The Strategic Case outlines the strategic context and makes a compelling case for change. In doing so, this case:

- outlines the strategic context of Corrections, including our role and how this proposed continuing investment in three waters infrastructure fits within our strategic context,
- outlines the current state of Corrections' three waters infrastructure for the sites this DBC covers,
- outlines the need for investment, including the drivers for change, investment objectives, existing arrangements, and business needs,

- considers the potential business scope and key service requirements,
- confirms strategic alignment of ongoing investment, and
- identifies the potential benefits, risks, constraints, dependencies, and assumptions.

1.3 Overall Scope

The overall scope of WIP includes all three waters infrastructure at the 18 prison sites that Corrections is responsible for, including those operated or maintained through a Public Private Partnership (PPP) arrangement.

T2A, which this DBC considers, covers the following eight prison sites:

Table 3 Prison sites classification

Classification	Description of what is in-scope	Sites
Priority sites	Interventions to deliver construction and non-construction investment informed by the results of SAR.	• Mt Eden Corrections Facility • Rimutaka Prison • Arohata Prison • Rolleston Prison • Christchurch Men's Prison
Water safety sites	Interventions only water safety focus as informed by investigations undertaken for the completion of the DWSP.	• Waikeria Prison • Whanganui Prison • Christchurch Men's Prison • Christchurch Women's Prison

Note: *Christchurch Men's Prison has been considered under both 'priority site' and 'drinking water safety site' categories.*

Subsequent DBCs will be developed to consider the investment options for the remaining sites within the prison estate.

Some in-flight waters related capital projects have also been brought within scope of WIP governance during T1, though continue to be funded through existing departmental capital funding arrangements.

While the focus of construction activities throughout T2A is informed by identified interventions at these eight sites (interventions at the DWSP sites are water safety focused only[1]), non-construction activities will also be undertaken to build Corrections' capacity and capability to manage its waters assets on a long-term basis. These deliverables include water related policy and framework implementation, education and training opportunities, asset database development, and the application of waters monitoring, testing, and reporting requirements, that may span across multiple (or all) sites within the prison estate. The foundational work in instituting these delivery models provides value for money that will be carried into the delivery of future tranches of the programme, ensuring the ability of Corrections to have firm "business-as-usual" (BAU) arrangements for the ownership and management of waters assets.

1.3.1 Scope of Three Waters Asset Types

All three waters infrastructure external to buildings that services the eight Corrections sites noted above is included in the scope of this Strategic Case and, therefore, T2A of WIP. The table below provides further definitions of the scope of asset types, considered by waters type.

[1] Other interventions required at the DWSP sites will form part of a future business case

Table 4 Scope for three waters asset types for WIP T2A.

Waters Type	Asset Types in Scope	Asset Types Out of Scope
Potable / Firefighting	Bores Treatment Reticulation Storage (including firefighting)	Irrigation Internal plumbing Internal firefighting systems Stock watering infrastructure Other waters infrastructure not used for three waters purposes Three waters infrastructure that services property or land owned or operated by Corrections not related to prison sites
Stormwater	Storage Reticulation Swales Wetlands Retention ponds Discharge / Disposal	
Wastewater	Pump stations Reticulation Treatment Storage Discharge / Disposal	

1.3.2 Implications of Scope Inclusions and Exclusions

- Potable/firefighting water, wastewater, and stormwater associated with water bodies, farms, and piggeries on prison land is in scope, but is lower in priority.
- Waters infrastructure that is part of building mechanical or associated with non-prison sites and other water infrastructure not used for three waters purposes, such as stand-alone irrigation, will be addressed by future business cases or will be funded from current levels of Vote Corrections funding, as it is not in the scope of WIP or this DBC.
- It is assumed three waters infrastructure that is part of a building mechanical system will be addressed by future business cases for building refurbishment or will be funded from current levels of Vote Corrections funding, as it is not in the scope of WIP or this DBC.
- Three waters infrastructure associated with Corrections Community Services is assumed to have a lower risk profile due to criticality and are not in the scope of this DBC. Three waters systems servicing these sites are likely connected to council infrastructure and are significantly smaller structures and systems than prison infrastructure.

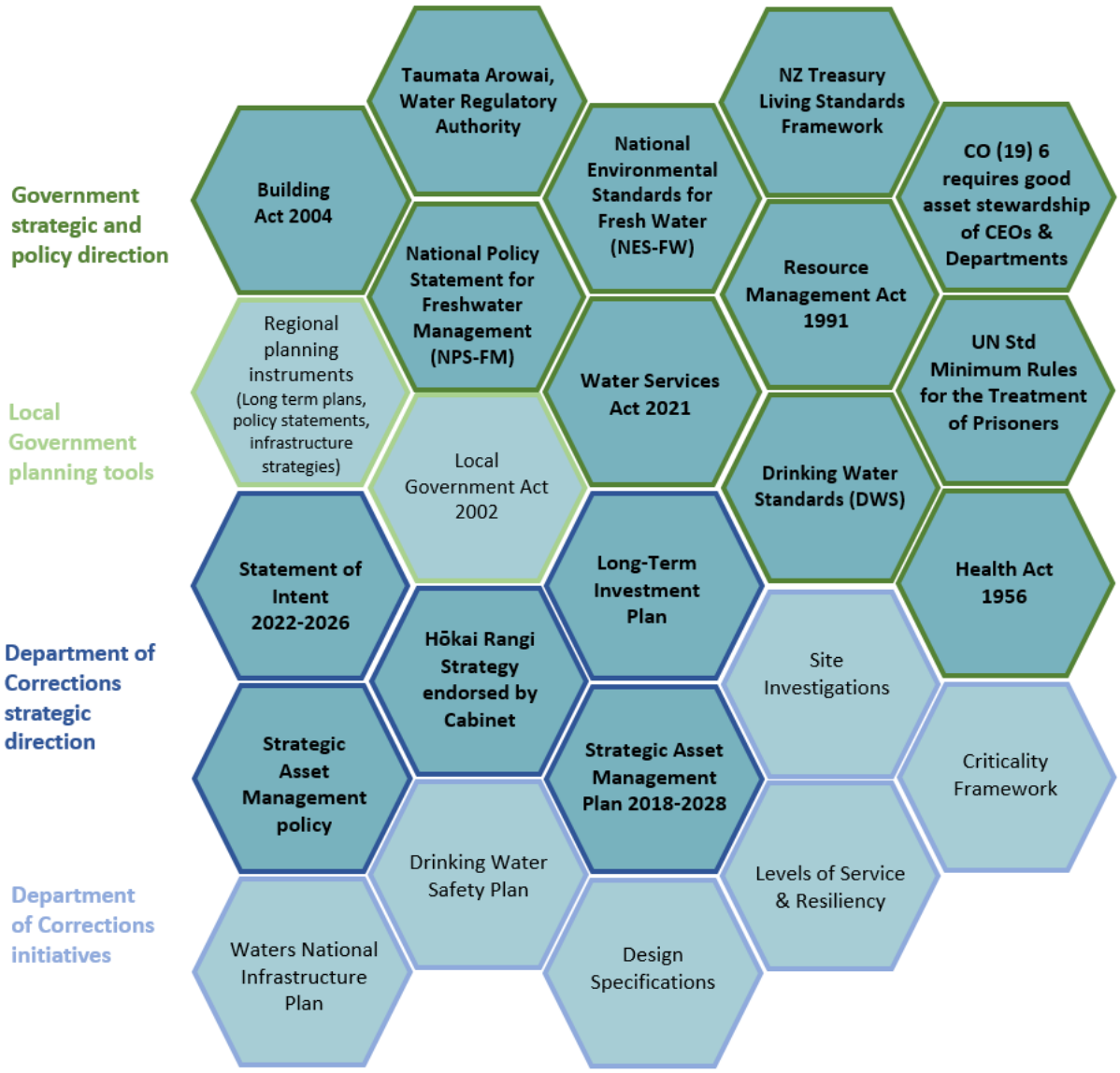
1.4 Strategic Context

1.4.1 Wider Strategic Context

The three waters industry is currently going through significant change as a response to historical underinvestment in water assets and changes in community expectations. The three waters regulatory environment directly influences the strategic direction of how Corrections manages its three waters assets.

The key strategic direction at the Government and Departmental levels are outlined in Figure 1 below.

Figure 1 Key strategic direction of WIP



Key	
Hexagonal border colours	**Strategic level of the drivers of direction**
Dark green	Government strategic and policy direction
Light green	Local government planning tools
Dark blue	Department of Corrections strategic direction
Light blue	Department of Corrections initiatives

The wider strategic context of WIP is most notably impacted by three waters regulatory reform and the associated legislation. The Affordable Waters Reforms aim to *"improve the regulation and supply arrangements of drinking water, wastewater and stormwater to better support New Zealand's prosperity, health, safety, and environment."*

The reforms include the establishment of Taumata Arowai as a regulatory authority to oversee and enforce new Drinking Water Standards for New Zealand that came into effect on 14 November 2022, with

an additional oversight role for the wastewater and stormwater networks. This context is discussed further in Section 1.3.3 Drinking Water Regulation.

The Affordable Water Reforms are also closely linked to the freshwater reforms, delivered through the National Policy Statement and National Environmental Standards for Freshwater Management (NPS-FW and NES respectively). These regulations came into effect on 3 September 2020 and direct regional councils to meet objectives and policies, through their plan change processes, toward a holistic and integrated freshwater management system that improves environmental outcomes and gives effect to Te Mana o Te Wai, the central concept for freshwater management; ensuring the health and wellbeing of the water is protected and human health needs are provided for before enabling other use of water[2].

Collectively, these reforms require regional councils to introduce more stringent rules and standards to improve freshwater quality and environmental outcomes. Heightened requirements also apply to Corrections and impact decision-making and resource consent and supply agreement processes regarding water takes and discharges, as per council plan change processes.

In addition, the regulatory changes increase the consequences of non-compliance for agencies and key individuals. These include significant financial penalties and potential for the imprisonment of responsible parties.

The investment in this DBC aligns with the Government's broader legislative context, the Affordable Water Reforms, and the Government's wellbeing focus for-purpose. This investment safeguards the health, safety, and wellbeing of people, and leads to improved environmental outcomes[3].

1.4.2 Strategic Context of T2A in the Broader WIP

The purpose of T1 of WIP was to lay the foundations for the delivery of WIP overall, to be delivered through subsequent tranches. In this context, the critical enabling objectives of T1 were to:

- deliver projects that mitigate already known critical risk,
- improve three waters asset information,
- uplift the capability of Corrections to manage its three waters assets,
- establish foundations for stakeholder engagement, and
- determine a preferred programme option for the implementation of T2A.

The key deliverables from T1 included:

- Detailed SAR for each of the five sites considered for T2A activities. These were informed by physical investigations of asset condition and resiliency at sites.
- A DWSP for the four sites where Corrections is classed as a supplier of drinking water.

These deliverables were key to establish the scope of interventions required of subsequent tranches of WIP and inform the selection of a preferred programme option to deliver these interventions.

Concurrently, departmental strategic asset management policy and frameworks were developed, including Levels of Service and Resiliency. This policy framework provided informational inputs to the criticality assessment of asset condition and maintenance and informed the selection of those sites to be considered under T2A.

T2A is positioned as the first tranche of construction and non-construction interventions, scaled to the five priority and four water safety sites within the custodial prison network. Construction activity at these sites will address the most critical risks identified during T1 and establish a means of intervention that can be

[2]Essential Freshwater Te Mana o Te Wai Factsheet, page 1, Ministry for the Environment

[3] See the 'Main Benefits' section of this Strategic Case. See also the PBC in Appendix A for the 'Wellbeing Impacts and Risks' which outlines how this DBC aligns with the Treasury's Living Standards Framework, and in particular, the Wellbeing Domains.

scaled up across the remaining custodial sites through future tranches. Future tranches will be considered by subsequent business cases e.g., the next business case will include broader construction interventions for Waikeria Prison, Whanganui Prison and Christchurch Women's Prison (CWP).

Non-construction activities during T2A will continue to build on the deliverables of T1. The focus of these activities has been on the foundational requirements of the programme, seeking to increase confidence in asset data and uplift the capability of Corrections to effectively manage its water assets.

Further detail on the governance and organisational arrangements for T2A is available in the Management Case.

1.4.3 Drinking Water Regulation

Corrections is a supplier of drinking water at four custodial sites, as defined by the Water Services Act 2021, and is committed to providing safe, high quality drinking water in accordance with Drinking Water Standards for New Zealand.

New Drinking Water Standards were implemented on 14 November 2022 and apply to the four sites where potable water is supplied under the management of Corrections. Investigations undertaken during T1 of WIP identified the need to uplift investment levels and resourcing in both physical assets and the stewardship of drinking water assets to meet compliance with new drinking water legislation and regulation at these four sites. As required by the Water Services Regulator, Taumata Arowai, a DWSP (refer to Appendix B for the summary of the DWSP) was developed and submitted, noting that additional investment was required to comply fully with new regulations. The investments considered in this DBC align with this objective, as implemented through T2A of WIP.

1.4.4 Organisational Overview

Corrections is responsible for the management of New Zealand's corrections system, including the administration of custodial and community-based sentences and orders. Corrections' Cabinet endorsed strategy, Hōkai Rangi, articulates that the purpose of Corrections' work is the wellness and wellbeing of people.

The Corrections Act 2004 describes Corrections' organisational purpose as to improve public safety and contribute to the maintenance of a just society. This includes ensuring that custodial sentences are administered in a safe, secure, humane, and effective manner, and that corrections facilities are operated in accordance with the Corrections Act and with consideration to other relevant guidelines as shown in Figure 1.

Corrections is responsible for 18 prison sites across the motu, detailed in Diagram 1. Two sites have public private partnership (PPP) contracts in place, where asset management and/or facilities maintenance services are contracted to other parties. A third site, Waikeria Prison, is currently being redeveloped under a PPP contract to design, construct, finance, and maintain the new facilities on site.

Figure 2 Corrections' prison sites

Nearly half of Corrections' prison sites are over 50 years old, with the 'newest' prison site (Auckland South Corrections Facility) opened in 2015. The 'oldest' prison (Invercargill Prison) was opened in 1910. Further asset investigations have confirmed the significant difference in both asset age and condition across all sites and demonstrates the significant need for investment in this infrastructure. This is further elaborated on in the Current State Analysis.

While the total prison population fluctuates, on average Corrections manages approximately 9,000 people in prison at any given time. This figure has been higher than 10,000 previously. Many of these individuals require careful management to accommodate complex physical, mental, or behavioural needs.

1.4.5 Organisational Strategy

Corrections is guided by a range of internal strategic documents. A high-level summary of these documents is provided in Table 5 below.

Table 5 High-level summary of strategic documentation

Strategic document	Description
Hōkai Rangi	The overarching purpose of this strategy is to enhance wellbeing of people serving sentences and orders, including seeking a reduction in overall reoffending and a reduction of the disproportionate representation of Māori we are managing. Access to clean water and hygienic sanitation are necessities of life and a key aspect of wellbeing.
Long Term Investment Plan (LTIP)	The LTIP sets out a clear intention to strengthen Corrections' prison network development to support legislative compliance, health, safety, and wellbeing, and build resilience against fluctuating demand, capacity, infrastructure, and environmental issues and impacts.
Corrections Strategic Asset Management Policy and Asset Management Plan 2022-2025	Corrections' asset management vision is "to plan, acquire, operate, maintain, replace, and dispose of assets over their lifecycle, to meet agreed service standards and the foreseeable future needs of the community and those Corrections care for in the most cost-effective way."

Critical amongst these documents is Corrections' cabinet endorsed organisational strategy, Hōkai Rangi. The purpose of Hōkai Rangi is "kotahi anō te kaupapa ko te oranga o te iwi"- the wellness and wellbeing of our people. This focus required a fundamental shift in Corrections' operating model.

Hōkai Rangi stresses the importance of 'humanising and healing' environments for the people in prison, to ensure rehabilitative objectives are met, reoffending is reduced, and the disproportionate representation of Māori in our prison population is reduced.

> *"**No one will be further harmed or traumatised** by their experiences with us … **our systems and environments will not cause further unnecessary stress** to people who are already experiencing hardship through having their liberty deprived and being separated from their whanau"*

Having reliable three waters infrastructure is a direct contributor to the health, safety, and wellbeing of people in our care through the provision of humanising and healing environments that do not harm, cause undue stress, or traumatise. Further detail on the alignment of WIP to Hōkai Rangi is provided in Appendix C.

The objective of this DBC is to provide robust and compliant three waters asset infrastructure delivering reliable and healthy three waters services. This is strongly aligned to Corrections' strategic context and is particularly true with respect to advancing a wellbeing approach that improves strategic asset management, planning for and building greater resilience into the network, and reducing the risks posed by failures of our three waters assets to the operating environment of our staff, the people in prison, and the communities we serve. Maintaining robust three waters infrastructure ensures that prison environments

are humanising and healing and contributes to better environmental performance. Working in partnership and engaging with hapū and iwi also contributes to enhanced relationships and improved environmental, compliance, and supply outcomes.

1.4.6 Existing Contractual Arrangements

Two prison sites - Auckland Prison (managed by Next Step Partners LP) and Auckland South (managed by Secure Future Wiri Ltd.) are currently operated under a PPP model. A third site, Waikeria Prison, is currently undergoing redevelopment under a PPP arrangement with Cornerstone Infrastructure Partners (CIP) to design, construct, finance, and maintain the new facilities. Corrections will be responsible for managing and operating the prison. It is assumed that new infrastructure installed at this site will not need to fall under the scope of WIP.

The Auckland Prison PPP contract requires the delivery of Asset Management and Facilities Maintenance (AM/FM) services to two parts of the Auckland facility - the existing (54-year-old) West Facility, where AM/FM services are contracted directly with Corrections and were commenced in 2016 for a 27-year term, and the new Maximum-Security facility (built by the PPP consortium) commenced in late 2018 for a 25-year term. The PPP scope is a design, build, and maintain based contract. Custodial services are provided by Corrections.

The Auckland South contract commenced in 2015 for a 25-year term. The prison is a purpose-built facility constructed by the PPP consortium and is built alongside the existing Auckland Regional Women's Corrections Facility. This PPP scope is design, build, maintain & operate, whereby Serco, as a consortium partner, provides custodial and AM/FM services within the scope of the agreement with Corrections.

Corrections has outsourced day-to-day AM/FM services for the remaining 16 prison sites to Downer, as per the Asset Management / Facilities Maintenance Agreement signed in 2018 for a 10-year period. The scope of works for Downer includes maintenance of the potable/firefighting water, wastewater, and stormwater infrastructure that is recorded in their asset register. There is a high reliance on the AM/FM provider for information ownership, maintenance, and monitoring levels of service and performance.

A breakdown of Corrections' AM/FM providers, including the roles and responsibilities of these contracts, is included in the 2021 PBC (Appendix A).

1.4.7 Treaty Partners

The Crown's relationship with hapū and iwi Māori is governed by Te Tiriti o Waitangi and guided by principles of partnership that form an intent for the Crown and Māori to act reasonably, honourably and in good faith towards each other as Treaty partners.

Corrections' partnership with Māori is also a fundamental principle of Hōkai Rangi, which demands a "commitment to a 'best practice' Māori/Crown relationship, with authentic shared decision making at all levels". This is an aspirational statement, and its application is currently being tested and explored in the context of other projects within Corrections, guided by the department's Partnership Framework. This framework highlights that:

> *"The word 'partnership' is coloured by historic partnership behaviours. In the past, it has not represented equal, mutually respectable, and reciprocal relationships."*

In this context, the Partnership Framework emphasises the importance of early and open relationships built on foundational understandings, with ongoing engagement to foster benefits for all parties.

> *"Partnerships take time to grow. When nurtured properly, they will produce sustainable benefits and value. Partnerships will not succeed without care, and the health of an initial agreement must be regularly reviewed and tended to."*

It is essential that our organisational commitment to best practice partnership with Māori is considered as WIP progresses, and the programme will draw from the Partnership Framework in the implementation of the programme.

Strong connections with water, and a role as kaitiaki in its care, contribute to the interest mana whenua have in three waters asset management. Early and ongoing engagement will ensure decision-making reflects Māori values for the use of freshwater and discharge of wastewater and stormwater. Collaborative partnership with iwi and mana whenua on future asset management decisions at the prison site level is therefore critical for ensuring approaches to, and the implementation of, the programme of works are fit for purpose, and align with iwi interests. Hapū and iwi have a key role regarding uses of water, land, and consents and supply agreements and licenses to operate. The Resource Management Act 1991 also recognises the role of Māori in the use of management of natural resources, including freshwater.

Corrections holds existing relationships and agreements with multiple iwi across the country, managed through the department's Māori Partnerships business group. The tenets of Corrections' holistic approach to iwi engagement will be considered and followed in the process of identifying stakeholders and engaging in a culturally appropriately way to share information and incorporate co-design and decision making.

Existing relationships and engagements have been built and enacted throughout the first tranche of WIP, most notably on pre-existing waters related activities including wastewater and stormwater projects at and surrounding the Whanganui prison site. While the geographic spread of sites will require bespoke engagements with each interested mana whenua group for T2A, the principles of open and collaborative engagement and information sharing established through these existing projects will inform planning for future works.

Further detail on the principles and management of stakeholder engagement and communications is detailed in the Management Case of this DBC.

1.4.8 External Stakeholders

To achieve the intended operating and strategic outcomes of WIP, varying degrees and methods of communication, engagement, and partnerships are required with several key external stakeholders. This approach to stakeholder engagement also aligns with broader departmental and Government objectives, detailed in the Strategic Context section of this Strategic Case.

Key external stakeholders for T2A include Corrections' AM/FM providers – Downer, and Cushman & Wakefield. Engagement with the drinking water suppliers who provide water services to Corrections is also vital for the management of our three waters assets and delivery of three waters services.

While in-depth external stakeholder and partner engagement has not been undertaken at a programme level for the development of this DBC, engagement with stakeholders and partners, including iwi and mana whenua, has been undertaken at a specific project level in the delivery of T1 activities and the associated programme planning for T2A. Corrections, through WIP, is also engaged with, and are represented on, the Government Services Reference Group. This group brings together Taumata Arowai and Department of Internal Affairs local government reform teams with government agencies that supply drinking water, such as the New Zealand Defence Force, the Department of Conservation, Kāinga Ora, and the Ministry of Education. The purpose of the reference group is to provide a platform for sharing knowledge and to understand the impact of emerging legislation and proposed reforms as they develop.

Some stakeholders, including AM/FM providers, are also regularly engaged as part of business-as-usual (BAU) activities. These stakeholders have been engaged in activities that form the outputs required to inform this DBC. Other parties and professional services providers (such as for legal and quality assurance activities) are engaged on an ad-hoc basis, as required.

The Management Case of this DBC provides further detail on the approach to communications and stakeholder engagement that will inform the planning, governance, and delivery of the programme during the period of T2A that this DBC encompasses.

1.5 Current State Analysis

Corrections is responsible for a significant network of three waters infrastructure across the motu. Our existing three waters infrastructure cannot support our objectives of the proactive stewardship of a resilient three waters asset base as nearly half of our prison facilities are over 50 years old. A desktop assessment completed during development of the 2021 PBC determined 70% of our waters infrastructure presents unacceptable risk levels of asset and/or compliance failures.

A significant gap identified during the current state analysis informing the development of the 2021 PBC is the state of our asset base data. Low levels of confidence in existing asset data means that, while physical investigations of waters infrastructure undertaken during T1 of WIP has provided meaningful qualitative data for the assessment of asset condition at the sites considered in this DBC, detailed quantitative data on the size and scale of our entire three waters asset base across all sites cannot yet be determined with certainty.

The qualitative assessments of the current condition of the Corrections' three waters assets (including as they relate to regulatory compliance), existing capability and capacity, and forecast funding profile has confirmed the assumptions of the 2021 PBC that these are insufficient to meet the elevated asset management expectations outlined in the Strategic Context section.

The following is a summary of the key drivers of the current state of our three waters assets.

1.5.1 Aging Asset Condition

Corrections facilities and infrastructure has been built up over many years, often in a piecemeal fashion, and many assets are close to, or past, their expected operational lifecycle. This has significant implications for not only managing the replacement of facilities as they become no longer fit for purpose, but also in managing the cost to Corrections as the maintenance and renewals required increases exponentially over time.

There are currently 18 operational prisons and one remand hub across the motu, which vary in size, age, design, and classification. Any asset that is in a moderate condition or worse (i.e., services that experience occasional outages, breakdowns, or blockages) is a risk to prison operations.

The Current State Report shows the year each prison opened and the related age of the facility. Nearly half of our prisons are more than 50 years old, and a quarter are over 80 years old. Given the usable life of three waters assets is estimated to be 80 years[4] it is implied that the need for the ongoing and significant current and future replacement programme is corroborated through T1 findings.

The SAR and DWSP (Appendix B) summarises the findings of investigative works and desktop assessments of asset condition at the eight sites considered by this DBC, completed in 2022 during T1.

The SAR and DWSP Summaries consider a total of 240 three waters assets requiring action throughout the course of T2A at the five "priority" sites and four "water safety" sites within scope, to varying degrees of confidence in asset data. While it is important to note that these reports are only one deliverable that informs the breadth of interventions considered for implementation during T2A, they do provide an overview of the scope and possible risks of inaction regarding three waters infrastructure at these sites.

Broadly, the results of site assessments validate the desktop findings of the 2021 PBC, namely that aging infrastructure represents an unacceptable risk for asset failure and non-compliance. Nearly three quarters of the assets identified as requiring intervention are considered high risk, with another 21% considered medium. The most recognised consequence to failure of all assets is infrastructure failure, particularly with

[4] Guidance provided by Corrections independent three waters technical advisors related to usable life of underground pipes, taking into consideration Corrections has significant asbestos concrete pipes which have a shorter lifespan than more modern materials.

regards to water reticulation. Notably, the availability and confidence of asset data, while drastically improved from the position Corrections was in prior to investigative works taking place, remains low. It is therefore assumed that other risks at these sites will be discovered through the course of activities during T2A.

Figure 3 below provides a breakdown of the scope of suggested interventions by site, while Figure 4, Figure 5, Figure 6 and Figure 7 respectively, demonstrate the urgency of required intervention, the number of assets within in-scope asset types, potential consequence categories for asset failure, and complexity of interventions required.

Figure 3 Breakdown of the scope of suggested interventions by site

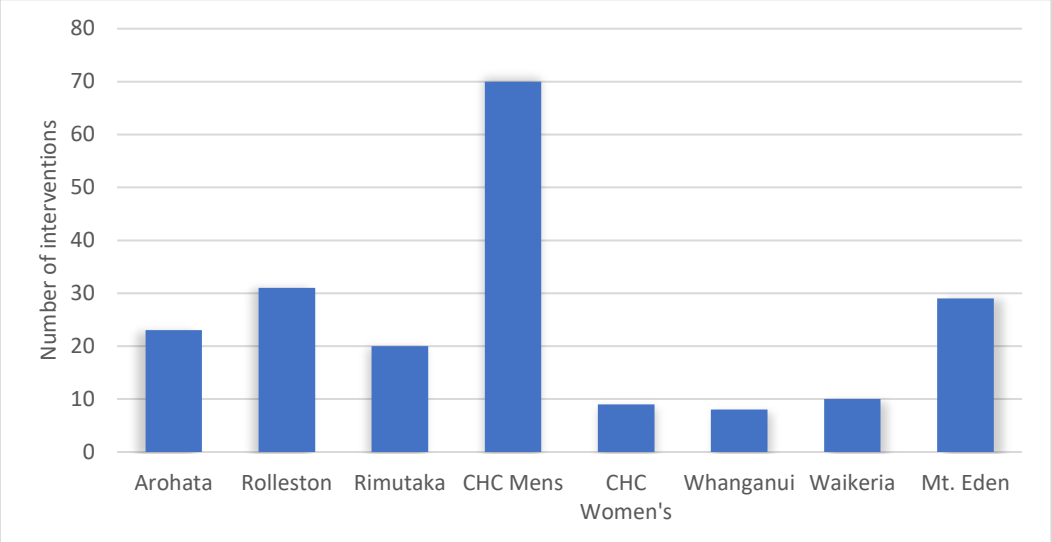


Figure 4 Urgency of required intervention across all T2A sites

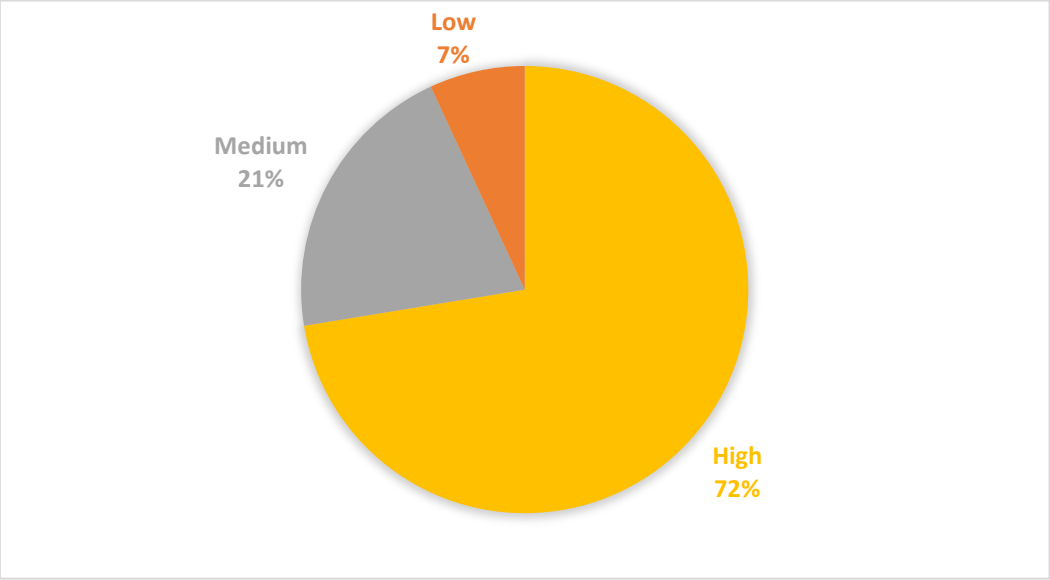


Figure 5 Number of assets within in-scope asset types

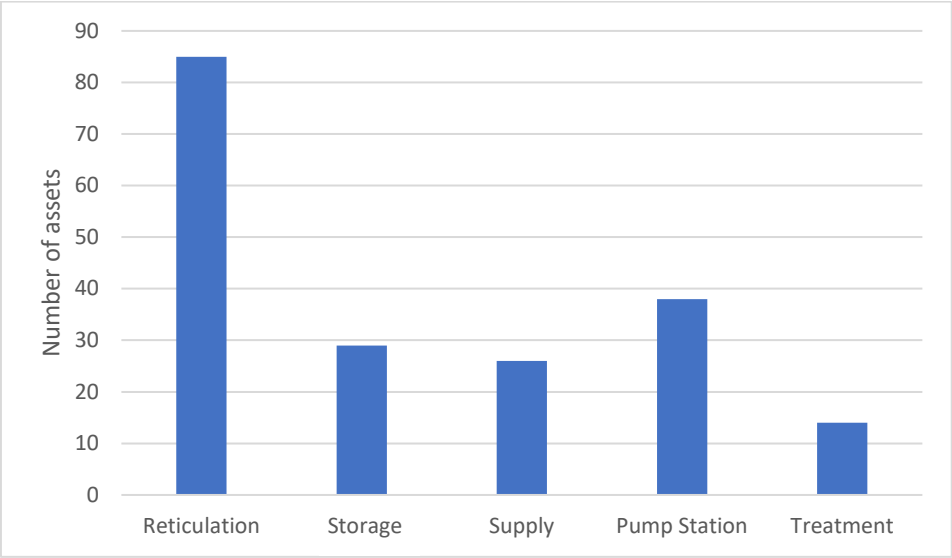


Figure 6 Potential consequence of asset failure across T2A in scope assets

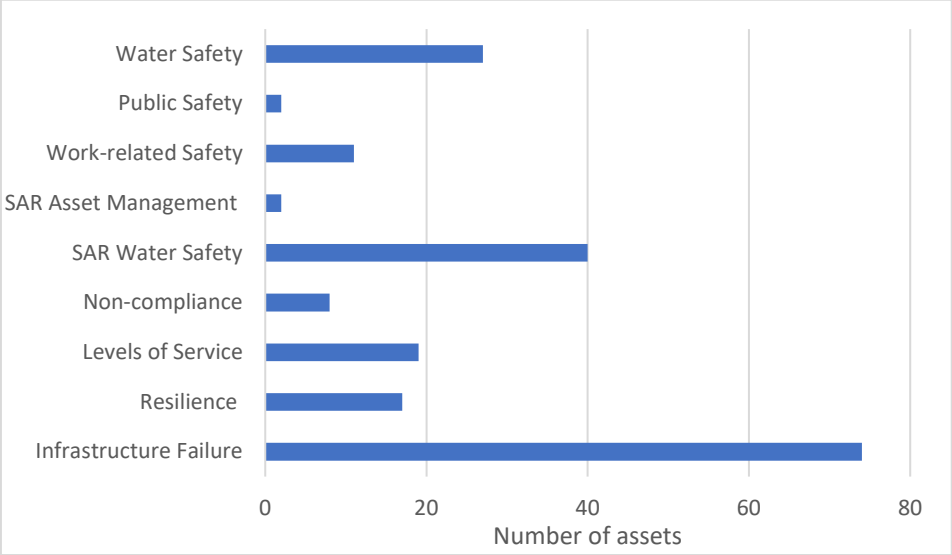
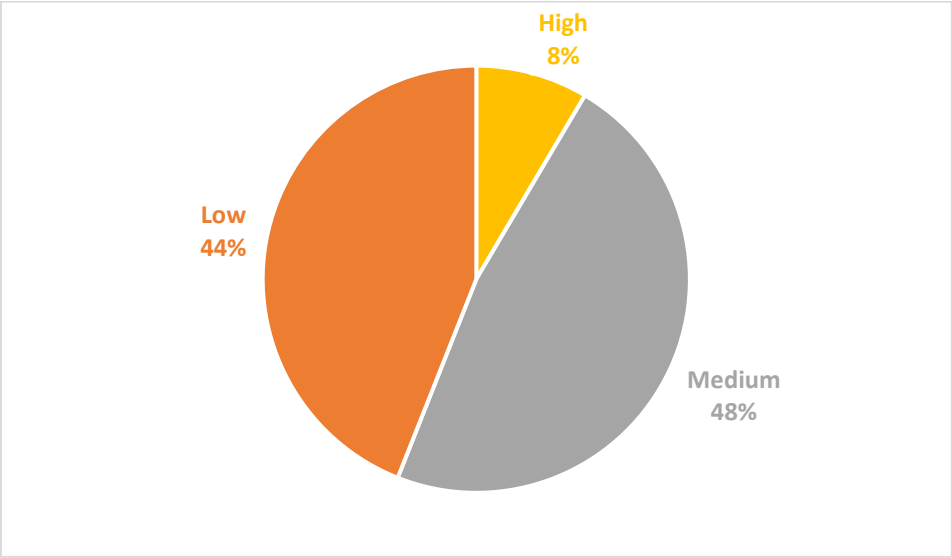


Figure 7 Complexity in scope interventions



1.5.2 Regulatory Non-Compliance

As noted in 1.3.3 above, Corrections' four drinking-water supplier sites have new and uplifted obligations under the Drinking Water Standards for New Zealand that came into effect on 14 November 2022. Investigative and policy and framework activities undertaken during T1 have informed the creation of a DWSP, submitted to Taumata Arowai as per requirements.

The SAR & Drinking Water Safety data noted above confirms that significant asset intervention is required to comply with all new standards and regulations at these sites. Figure 5 above shows the number of assets requiring intervention at "drinking water safety" sites exceed the number required for other "priority" sites, despite the scope of investigations being limited to drinking water safety solely at those four sites (i.e., to the exclusion of wastewater and stormwater infrastructure).

CMP has the largest number of assets identified for intervention – a significant proportion of which are at high risk of failure. It should be noted also that the interconnected nature of the CMP and CWP potable water systems means that many interventions at the Christchurch Men's site will also improve compliance and safety at CWP.

1.5.3 Poor Asset Information

Determining the condition of underground assets at prison sites was a key output of T1 activities to best inform the scope, phasing, and scheduling of a preferred programme option for T2A. Most of Corrections' three waters infrastructure is located underground, contributing to a significant gap in understanding the condition of three waters infrastructure.

Three 'above ground' condition assessments were undertaken between 2010 and 2018, to varying degrees of detail, with a further assessment for above ground assets undertaken in 2022. This analysis shows the uncertainty of available asset information, with 92% of the condition data available having a confidence grading of C (uncertain) or worse.

Site investigations undertaken in T1 have considerably increased the information available regarding Corrections' three waters infrastructure, however, given the lack of detailed and reliable asset information available at the outset of the programme, complete asset information with a high degree of confidence remains to be achieved. The table below outlines investigations undertaken at the five sites considered by this DBC.

Table 6 Investigations summary

Investigation Type	Description
Desktop-based Investigations	
Desktop Assessment	Documented current knowledge of three waters asset infrastructure performance and condition, identified gaps, and highlighted key risks and recommendations.
Backflow	Documented current knowledge of potable water back flow devices, identified gaps and highlighted key risks.
Supplier Discussions	Reviewed third-party supplier agreements and associated terms and conditions, as well as established third-party discussions to improve understanding of each other's three waters infrastructure and associated operations.
Fault History	Reviewed available fault history information from Downer's work orders from 2019 - 2022.
Resource Consent Compliance	Reviewed current consent compliance provided via Corrections' internal RMLM team based on existing monitoring programmes and data.
Fire Compliance Report	Reviewed fire compliance certificate and associated reports.
Potable Water Quality Risk Assessment for Third Party Supply Sites	Documented water quality risk assessment of current third-party supply and Corrections' distribution systems supplied by third party suppliers.
Site-based Investigations	
Topographical Survey	Topographical survey of existing three waters assets and revision of summary site plans
Above Ground Condition Assessment	Visual onsite inspection of three water assets. These included pumpstations, backflow devices, reservoirs, storage chambers, pumps, and control and instrumentation equipment.
Potholing	Selective potholing of potable water infrastructure was completed to ascertain asset information and condition.
CCTV	Selective CCTV inspections of wastewater and stormwater infrastructure was completed to ascertain asset information and condition.
Manhole Inspections	Selective manhole inspections of wastewater and stormwater infrastructure was completed to ascertain asset information and condition
Inflow and Infiltration	Monitored the wastewater network to identify problematic inflow and infiltration hotspots.
Leak Detection	Undertook leak detection and pressure transient monitoring, as well as step testing.

Investigations of the sites not considered by this DBC have continued throughout T1, with the balance of site investigations expected to be completed prior to the scheduled commencement of T2A. This timeline reduces the original planning of the 2021 PBC by several years and will allow efficiencies in delivery and economies of scale to be considered and established as the programme is able to scale up interventions across sites through future tranches. Some elements of the options assessment process may need to be revalidated through future Business Cases as the complete asset database is augmented.

1.5.4 Funding and Capital Planning

Depreciation funding in the last decade has largely been used to address recent requirements to focus on building capacity within the prison estate, and for asset replacement and general prison maintenance. The original 2021 PBC sought funding for the programme as three waters infrastructure investment was not 'ring-fenced' and unable to be funded within Corrections' current funding envelope.

Furthermore, rapid growth of the prison population was experienced between 2010 when our peak population in August was 8,829 and our 2020 peak of 10,242 (pre Covid). This growth resulted in existing funding being channelled to accommodate 'bed capacity' increases and localised changes. As a result, funding to address the state of Corrections' three waters infrastructure and compliance has been scarce.

A renewed focus on the need to invest in three waters infrastructure and a commitment to provide additional funding has been incorporated into the Corrections' capital planning process. The requirements and proposed allocations of internal capital funding is explored in detail in the Financial Case of this DBC.

While the presence of Corrections' asset management programme - Long Term Investment Planning (LTIP), and additional funding - is welcome, the 2021 PBC noted it would likely take over 100 years using funding not already committed to maintaining assets to reduce Corrections' risk exposure to below 'moderate'.

Simply put, almost all existing funding invested is being used to 'stand still' with regards to three waters infrastructure maintenance, which, by its nature, is contributing to infrastructure aging and the ongoing risk of services failure.

Historical underinvestment in three waters infrastructure is not unusual for central and local authorities. Indeed, this consideration was a significant factor to the genesis of the Government's Affordable Water Reform programme.

1.5.5 Organisational Capacity and Capability

Historically, Corrections has had limited three waters expertise to assist with strategic asset management and planning or technical three waters infrastructure matters, and this was identified this as one of the 'top three' constraints to achieving the investment objectives in the development of the 2021 PBC. The establishment of the Water Infrastructure Programme has led to the establishment of two new roles, a Three Waters Asset Manager, and a Three Waters Technical Advisor, in addition to the dedicated project delivery team.

1.5.6 Resilience

The unique nature of the operational environments of custodial sites leaves Corrections particularly vulnerable to the risk of potable water supply interruption and the ability to discharge wastewater from the prison sites. This was evidenced by the series of cyclone and flooding events experienced during the first half of 2023, which saw unprecedented levels of strain placed upon these systems, particularly in the Auckland region, where AM/FM resources were dedicated to cleaning up flooding activity and unable to undertake normal, operational activities.

While Business Continuity Plans were updated in line with the Levels of Service Framework established during T1, a review of water storage resilience on each prison site completed in March 2020 highlighted that 8 out of 18 prison facilities have less than 2 days potable water storage. Five of 18 have less than 24 hours (based on the number of days of storage at average annual water demand).

1.5.7 Localised Prison Population Change (Prison Capacity)

An important, but ultimately unknown, variable in assessing the current state, is an assessment of future prison capacity. Changes in total prisoner capacity across the prison estate has implications for three waters demand, asset utilisation, and determinations of prison criticality (and hence prioritisation of repair and remediation).

The number of people in prison has grown from 8,829 in August 2010 to 10,820 in March 2018 (the all-time high). The population peak in 2020 (pre COVID-19) was 10,243, with the population as at August 2022 being approximately 9,000. It is reasonable to expect this figure to be somewhat influenced by COVID-19.[5]

Additionally, and irrespective of changes to the total prison population, the cohorts and groups within prisons are also changing. In general terms, the changes in the prison population between March 2018, (when the population of people in prison reached an all-time high) and 2020 (prior to the impact of COVID-19) are as follows:

- Remand as a percentage of population has grown with male numbers growing up to 40% and female numbers growing up to 45%.
- More than 50% of the demand in growth is in the Central and Northern regions (with the bulk being in remand).
- The sentenced population as a percentage of total population is dropping.
- The number of prisoners with mental health issues has increased.
- Prisoners being sentenced for more serious types of crimes (category 3 and 4) is increasing, even if the overall population has dropped.
- Legislation changes regarding holding under 18-year-olds in prison has decreased demand for beds in youth units. However, a significant number of under 25-year-olds in prison can be considered vulnerable, requiring different and more resource intensive approaches to management and care when compared to the general prison population.
- A strong focus on developing tools and programmes specifically catering to the female prison population (rather than using those designed for men by default) is occurring.
- The number of 'aged' prisoners has increased, including those who may need 24/7 palliative care, or those who are suffering from age related illnesses.

These factors create the potential of differing requirements for three waters services per cohort and create different risk factors for ensuring the health and safety of prisoners when three waters services are disrupted and alternative services are provided (e.g., mobile truck showers or bottled drinking water).

The requirement to ensure the health and safety of all people being managed by Corrections in an increasingly complex prisoner cohort environment can also create challenges should the relocation of people within a prison, or between prisons, is required because of disruption to three waters services. A standard prison cell and related services will not meet the requirements of all types of prisoner cohorts. These factors show that even if there is a visible trend of the total prison population decreasing, it does not automatically provide greater flexibility to the operations of prison sites.

Current predictions are necessary to support future planning. However, like all predictive models, these forecasts are susceptible to changes in the general operating environment, including legislative changes.

It is therefore critical that three waters investments be firstly considered in line with the most impactful projections and assumptions, such as higher population projections, regardless of policy.

1.5.8 Changing Community Expectations and Obligations

The Havelock North campylobacter water contamination event in 2016, resulting in 5,000 people becoming ill and up to four associated deaths, highlighted the substantial risks to human health provided by unsafe sources of drinking water. The subsequent enquiry into the events in Havelock North concluded that people could not be confident that water is safe to drink, with systemic failures evident end-to-end in the provision

[5] Refer to the PBC in Appendix A for the Population Changes from 2010 – 2020: Figures provided by Corrections Network Configuration team.

of drinking water. Source water was not protected, required treatment was not in place, and management and governance were not suitable.

Moreover, iwi and community expectations increasingly require higher levels of service that minimise risks to people, property, freshwater, and the environment, in line with ongoing legislative reform. Non-compliance also impacts public confidence in organisations that source, treat, supply, or discharge water, including Corrections, negatively impacting relationships with iwi and the community.

There have been similar three waters service impacts on community perceptions, expectations and obligations highlighted by ongoing failures to aging water networks, including failures of wastewater and potable pipes experienced in Wellington, as well as the response to extreme weather conditions experienced in Northland through drought conditions and from extreme weather events and flooding in Auckland and Hawke's Bay e.g., Cyclone Gabrielle.

The wider Affordable Waters Reform Programme and the Water Services Act 2021 addresses these changing expectations through significant structural and legislative changes to the way New Zealand manages its water infrastructure.

1.6 Problem Definition

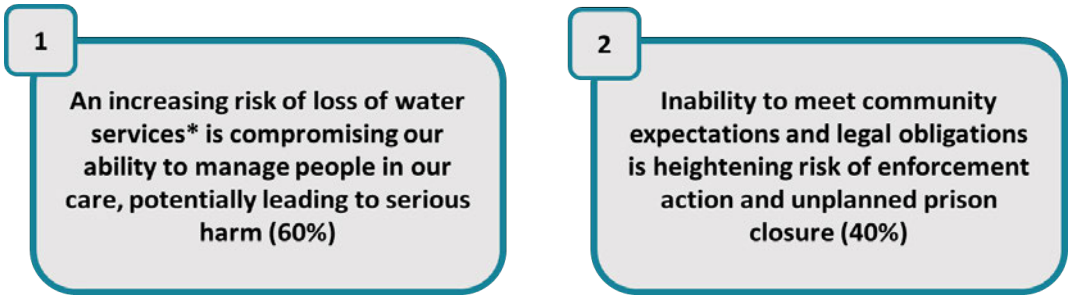
Fundamentally, the wider strategic context with regards to asset management has changed and Corrections now has increased expectations placed upon how it manages its assets, with a wider range of considerations existing in a rapidly changing regulatory, climatic, and community environment. However, without investment to the levels proposed in the original 2021 PBC, the current state of Corrections' asset base, internal capacity and capability, and necessary funding flows, remain static or continue to deteriorate.

This context was framed in two Investment Logic Mapping (ILM) workshops, held on 6 July (Problems) and 20 July (Benefits) 2020, with representatives from across Corrections in the following areas: Asset Management planning and delivery (including Facilities Maintenance), Business Management (including procurement) Operations, Strategic Finance, and the Enterprise Project Management Office[6].

These workshops were structured firstly on the problems facing Corrections within these shifts in strategic context, followed by a discussion of benefits. The outputs from these ILM workshops are provided in the 2021 PBC (Appendix A).

Two core problem statements were identified in the first ILM workshop and a provided in Figure 8 below. Of note is the recognition of the primacy of unacceptable levels of risk as a core problem facing Corrections.

Figure 8 Problem statements from ILM Workshops



[6] These were led by an accredited ILM Facilitator. A Treasury vote analyst attended both workshops and a Treasury Investment Management & Asset Performance (IMAP) representative attended the problem definition workshop. Stantec NZ, as Corrections' seconded technical lead, attended both workshops to outline asset evidence gathered to date and to test that key stakeholders were aware and agreed with, the evidence presented.

* *Potable Water, Wastewater (including Grey Water), and Storm Water*

Problem statement drivers

The drivers of the two problem statements are outlined the Current State Analysis.

Risks and impacts resulting from our Problem Statements, if left unaddressed

The problem statements noted above, if left unaddressed, will create consequential risks that will have drastic impacts on prison environments. These risks are stated in bold followed by a list of potential causes below:

Health risks, an increased risk of harm to people (prisoners, staff, their whanau, and the wider public), and the environment through:

- Risks to health and safety due to insufficient water treatment at drinking water supplier sites.
- Drinking water quality supplied by third party suppliers is unable to be mitigated.
- Backflow from non-drinking water systems (such as wastewater) into the drinking water system.
- Ingress of contaminants into the water reservoirs (including poor security for reservoirs located outside the prison perimeter).
- Unacceptable levels of contaminants to downstream waterways and land due to issues with water treatment and disposal systems.

These are immediate risks and could have severe consequences.

Risks to the health, safety and wellbeing of prisoners, staff and the wider public through the requirement to shut water systems down in response to infrastructure failure or water quality issues:

- Shutting down or restricting use of water systems may necessitate unplanned, urgent, or emergency relocation of prisoners between housing units within a prison or between different prison locations.
- Risks of violence, broader disturbance or escape are heightened when prisoners and staff are involved in unplanned movements due to urgent or an emergency need to relocate.
- Unplanned decanting and prisoner relocations procedures heighten the risks of violence, broader disturbances, or escape. These situations pose risks to the health, safety and wellbeing of prisoners and staff by:
    - Requiring more staff to manage prisoner movements.
    - Increase in ‘lock down’ or prison cell time for prisoners, leading to greater frustration and anxiety.
    - Reduced access to rehabilitation and meaningful purpose activities, including offender employment and rehabilitation support from staff and programmes – placing the wider strategic outcomes of Hōkai Rangi, including the reduction in recidivism, in jeopardy, while also increasing boredom and the risk of disturbance.
    - Risks to personal safety to staff when moving prisoners, as well as to prisoners given the potential risks of unplanned mixing of prisoner cohorts (such as vulnerable prisoners or gangs).
    - Increasing levels of stress and risk of burnout for staff already under considerable resourcing pressure.
    - Diverting staff away from their core functions with prisoners, not only impacting job satisfaction and general staff morale, but also directly impacting the relationships required to manage the prison population effectively and safely.
- Risks of broader disturbance or protest and violence are heightened when prisoner’s experience, whether tangible or perceived, a loss of services or a degradation in quality of services. Such actions by prisoners, when they take place, can cause significant amounts of damage to prison property and cause prisons or parts of prisons to shut down. These events also place the safety of prisoners and staff at risk.

Risks of non-compliance with legislation and regulations

Corrections is required to comply with, or is impacted by our suppliers' needs to comply with:

- Water Service Act 2021 and the Water Services (Drinking Water Standards for New Zealand) Regulations 2022 (DWS),
- New National Policy Statement for Freshwater Management (NPS-FM),
- New National Environmental Standards for Freshwater (NES-FW) to regulate activities that risk the health of freshwater & freshwater ecosystems.

There are several responses to non-compliance with the new regulations, including the imposition of significant fines or imprisonment for the worst offences.

Corrections does not have the means to develop the necessary capability and capacity to meet these requirements within the existing funding envelope, without additional sources of funding.

Risks to the natural environment

Regulatory non-compliance, especially with respect to discharge conditions and negative impacts on the environment (including risks to ecosystem health, biodiversity, increased pollutants, and erosion) as well as reducing opportunities for positive environmental impacts such as recreational, cultural, and spiritual uses.

Risks to operations and health and safety due to lack of Climate Resilience

Corrections does not currently have sufficient resilience within the prison network to meet the challenge associated with newly articulated expectations in how climate-change related risks are managed, including the ability to conserve and store water to levels that would maintain all prison services. This lack of resilience poses the potential for multiple operational issues and risks.

This was clearly evident in the response recent extreme weather events across the country. Particularly in 2020 when prison services experienced a reduction, or, in some cases, a complete stop in services such as the provision of toilet flushing, showers, drinking water, cleaning, laundry, kitchens, and employment, education and meaningful activities linked to water such as horticultural and forestry nurseries. The latter activities also provide valuable contact with community groups and iwi that were impacted as a consequence. The frequency of extreme weather events across Northland, Auckland, and Hawke's Bay in early 2023, and the associated impact to services provided by prison sites, also challenged the resiliency of Corrections' water assets. With the expectation that the frequency and severity of these events continues to increase there is a projected increase in risk to the ongoing functionality and resiliency of these assets. Corrections' current financial and resourcing capabilities to simply maintain assets at their current state leaves these networks, in real terms, increasingly unsuitable to respond to ongoing climate change.

Such service stoppages, aside from the immediate impacts on the health, safety, and wellbeing of those who live or work in prison environments, can also introduce heightened anxiety, boredom, tension, and frustration to an already difficult living and working environment for prisoners and staff. It is reasonable to assume that these operational risks are likely to increase and spread as other regions experience the impacts of climate change.

Operational, safety and reputational risks due to disturbance and negative media attention

If the current risk levels of asset and/or compliance failures are not addressed, it is highly likely that a high-profile incident – either through failure of infrastructure or in an inability to comply with legislative and regulatory requirements – will occur. An event such as this would have a damaging impact to the reputation of Corrections.

Corrections' unique operating environment offers unique opportunities for reputational damage. Lack of access to basic needs related to drinking water, water for personal hygiene (toilets, showers), disposing of wastewater (including sewage), and water for use in rehabilitation and education programmes and

meaningful activities outside of prison cells is likely to negatively impact public confidence in the Corrections' system.

In addition, increased tensions that result from decreased wellbeing could increase the chance of violent events or broader disorder events, which could in turn place the health and safety of the wider prisoner population, staff and the wider public at risk, and impact the public's perception of Corrections to discharge its core duties.

Continued friction with local iwi over water issues, if not resolved, restrict Corrections' ability to be considered genuine in their commitment to positive and meaningful engagement with Māori, in line with the Hōkai Rangi Strategy and as a Crown-Treaty Partner.

Continued friction with Councils and water suppliers over breach of consents and supply agreements and the challenging process of renewing these, if not resolved, also restrict Corrections' ability to be seen as a reliable and effective partner in relationships or partnerships that bring mutual efficiencies and other benefits to our key stakeholders.

Reputational damage, such as the examples above, compound the cost of business through delays and additional work required for consents and supply agreements, or to any changes to the use of our land and use of water resources.

1.7 Risk Assessment Framework

The initial 2021 PBC detailed a fit for purpose risk assessment that was developed to evaluate the veracity of the outputs from the Investment Logic Map (ILM) workshops noted above. The results of this assessment are presented across two equally important lenses – infrastructure and compliance risk.

- **Infrastructure risk** - refers to the risk of the infrastructure failing (e.g., pipe or valve failure) which would result in a loss of service.
- **Compliance risk** - refers to the risk of non-compliance, both now, and in the future to allow for changing legislation, new consents and supply agreements and renewal of current consents and supply agreements that are unlikely to be granted.

The resulting 'risk score' from this assessment corroborated the ILM and suggested that 30% of Corrections' assets under this framework can be considered 'very high risk', while 39% are considered 'high' or 'moderate' risks. Collectively, this indicated that 70% of Corrections' three waters assets had a residual risk higher than 'low'.

In addition, over half of all prison sites had **at least one very high-risk infrastructure or compliance issue that needs addressing imminently** and every Corrections facility, bar one, at least one high risk issue that needs to be addressed as a matter of priority within the next 15 years.

1.7.1 Validation of Risk Assessments During WIP T1

The SAR generated for the five sites considered within this DBC (summarised above in the Current State Analysis) documents updated and current assessments of three waters infrastructure at the sites considered, including:

- assessed condition and performance,
- the risk of loss of service due to infrastructure failure and compliance,
- the risks to health and safety of people, and
- where Corrections is not meeting the defined levels of service.

Renewal and improvement works were recommended where appropriate to mitigate these risks.

The basis of these assessments was a risk-based approach aligning with Corrections' Level of Service Framework and the Three Waters Prioritisation Framework developed during T1 of WIP. The methodology of these assessments was to categorise risk as:

High Urgency: Any asset with a total risk score of high or very high, and a likelihood score of 3 or greater, and any improvement works required to meet the Levels of Service Targets

Medium Urgency: Any asset with a total risk score of medium, and a likelihood score of 3 or greater

Low Urgency: Any asset with a likelihood score of 2 or lower, any asset with a total risk score of low, or works are not required to meet LOS 2026 targets.

In addition to the summaries of these provided in the Current State Analysis, further detail is provided in the SAR Summaries included in Appendix D.

The risks are scored based on both the current non-compliance and expected non-compliance with changes that are anticipated to occur in the next 5 years because of the updated National Environmental Standards (NES) and National Policy Statement (NPS) for freshwater management, as well as the Affordable Waters Reform Programme and Water Services Act 2021. It should be noted that the increased requirements for treatment and monitoring resulting from the renewal of consents has not been fully taken account of.

An assessment of Corrections' four potable water supplier sites (classed as a water supplier under the Water Services Act 2021) is summarised in the DWSP. The DWSP indicates that Corrections is not yet compliant with all new standards at these sites. There is a need to invest in several interventions, including infrastructure such as treatment and backflow, and in staffing and resourcing to meet testing and monitoring requirements, to achieve this.

Given the higher risk weighting assigned to the implications of an outage of potable water on the health, safety, and wellbeing of people in prison and our staff, as well as continued operations, potable water issues are prioritised over stormwater and wastewater issues.

With regards to stormwater, some sites have discharges which are currently permitted activities. The NES may require these to be consented in the future. Furthermore, some sites have consented discharges to ground or surface water but it is anticipated that changes to the rules for these consents may trigger the need for further upgrades. There are also specific compliance related issues to be resolved for stormwater, which is reflected in higher risk-based scores across the prisons as compared to compliance scores for both potable water and wastewater.

1.8 Investment Objectives, Existing Arrangements & Business Needs

1.8.1 Investment Objectives

Programme Investment Objectives for WIP were identified during the ILM workshops in July 2020. These were then challenged and validated through a separate workshop with representatives from across Corrections on 29 July 2020.

The result of all three workshops was that key stakeholders identified and agreed the following overall investment outcome and two key investment objectives in the 2021 PBC:

The overall Investment Outcome was confirmed as:

> ***"The risk of harm to people from failures in our waters services is materially reduced by 2035"***

The two Investment Objectives supporting this overall Investment Outcome were confirmed as:

1. **Investment objective one:** All our prison facilities have a reliable provision of three waters services by FY 2035/36 (weighted 60%)

2. **Investment objective two:** All our prison facilities meet regulatory requirements for human health and environmental standards by FY 2025/26[7] (weighted 40%)

These objectives have been reviewed and revalidated during T1 of the Waters Infrastructure Programme.

The weightings for the two Investment Objectives have been taken directly from the weightings associated with the problem statements in the ILM. Specific interpretations and considerations associated with these Investment Objectives are then provided below.

Table 7 Investment objectives

Investment Objectives			
#	**Investment Objective**	**Weighting**	**Interpretations**
1	**All our prison facilities have a reliable provision of three waters services by FY 2035/36**	**60%**	• This Investment Objective applies to all 'in scope' facilities as identified in the Overall Scope • Levels of Service were developed during T1 of WIP and are included as Appendix F • An end date of FY 2035/36 is chosen to align with the LTIP process.
2	**All our prison facilities meet regulatory requirements for human health and environmental standards by FY 2025/26**	**40%**	• This Investment Objective applies to all 'in scope' facilities as identified in the Overall Scope • Human health and environmental standards include (but are not limited to): UN Standard Minimum Rules for the Treatment of Prisoners ('Mandela Rules'), Corrections Regulations 2005, Resource Management Act 1991; Water Services Act 2021, Resource Management (National Environmental Standard for Sources of Human Drinking Water) Regulations 2007; National Environmental Standards for Freshwater 2020 and the Drinking-Water Standards for New Zealand (Revised 2022). • FY 2025/26 is chosen as the date that: most relevant Regional Councils will have implemented the National Policy Statement for Freshwater Management (NPS-FM)[8], transitional arrangements will have ceased in relation to water suppliers under the Water Services Act 2021 (see footnote 7), and the new water regulator Taumata Arowai will have been operating for four years, and it is expected that clear guidance would have been issued by this time.

1.8.2 Existing Arrangements and Business Needs

The Current State Report provides a comprehensive view of existing three waters infrastructure arrangements across Corrections' prison sites.

This section compares the current state to the investment objectives and demonstrates the business needs that are to be fulfilled through all tranches of WIP, with the Economic Case of this DBC addressing or contributing to those within the scope of T2A. The assessment provided below is a simplified presentation of this inherent complexity, to demonstrate the broad range of business needs that could be met through increased investment.

[7] This date is contingent on the establishment of the new water service entities (WSE) and their transitional arrangements. The Water Services Entities Amendment Bill was introduced to Parliament on 16 June 2023 and a key change to the Affordable Water Reform is the "staggered approach to WSE 'go live' dates, with all entities going live between 1 July 2024 and 1 July 2026". Therefore the 'go live' date for each WSE is still yet to be confirmed.

[8] Northland, Auckland, Hawke's Bay, Wellington, Canterbury (2027), Otago (2026) and Southland

Table 8 Summary of the existing arrangements and business needs

Investment Objectives	Descriptions
Investment Objective One	**All our prison facilities have a reliable provision of three waters services by 2035.**
Existing Arrangements	Aging infrastructure and inadequate renewal and maintenance of waters infrastructure increases risks to the health, safety and wellbeing of the public, staff, and people in prison. If not addressed, these issues will lead to the unacceptable loss of prison services and/or serious harm. The health, safety and wellbeing of our staff and prisoners are put at significant risk when prison services are lost due to waters infrastructure failure - particularly fire suppression, drinking water, water for showers, cooking and hygiene and disposal of sewage. These risks are heightened and spill over to the community when prisoners and staff are involved in urgent or emergency prisoner movements, both within the prison and between different prison locations.
Business Needs	The following list and description of business needs includes examples of the types of investments that are being sought in this DBC: • **Improve resilience to disruption and improve safe drinking water supply**. This includes new ring mains, potable water storage, and improvements to water treatment and bores to mitigate the impact of disruption events. Such investments would both ensure a safe water supply, and that water supply pipes can be isolated and continue to operate if an incident occurs elsewhere in the system. Wastewater storage would also improve resilience. • **Reduce the risk of intentional disruption**. This includes investments in security and fencing around existing waters infrastructure outside on prison land or outside the perimeter wire or repair and replacement of existing pipes to minimise the likelihood of disruption. Investments in spares management and improved Business Continuity Planning will also reduce the duration of disruptions. • **Reduce potable water waste and rationalise consumption**. This will have the effect of mitigating disruption by reducing on-site potable water waste and improving resilience to operate with less water E.g. through investments such as leak detection and mitigation • **Improve operational practices, response planning and increased operations costs**. These investments mean that when disruption occurs, work arounds can be implemented more quickly. For example, investigating pre-contracts with potable water suppliers to quickly divert to other water sources or be classed as an essential service as part of BCP investigations might limit the impact of a three waters disruption event. • **Improve fire-fighting compliance with building codes and increase operational resilience to service failure, through asset renewal.** Investing in asset renewals will reduce the overall age of infrastructure and reduce the likelihood of service failure and non-compliance. Additionally, foundational investments carried out during T1 require further investment to: • **Improve our asset evidence base and understanding of asset condition and risk exposure**. This will enable scarce capital, repair and maintenance funding to be allocated to investments that will provide the greatest value by minimising risk of disruption to three waters infrastructure. • **Improve the institutional capacity and capability of Corrections to deliver an effective asset management programme**. This will enable Corrections to deliver specific interventions and tools to our ways of operating (for example employing resource to design, implement and maintain an effective water reduction programme, or to review and update levels of service, design standards and resiliency policies as operational needs change). • **Improve relationships with water suppliers**. Greater compliance with our supply agreements and greater capacity and capability to engage with our suppliers will help ensure resiliency of water supply or disposal off-site during drought or flood, allow Corrections to benefit from use of supplier resiliency policies and help improve contractor

Investment Objectives	Descriptions
	procedures to avoid infrastructure 'strikes' during maintenance when pipes are mistakenly damaged or struck.
Investment Objective Two	**All our prison facilities meet regulatory requirements for human health and environmental standards by FY 2025/26.**
Existing Arrangements	There is evidence of prison sites, and three waters infrastructure, that are non-compliant with current consent and supply agreements with councils and water providers. This situation is compounded under recent three waters legislative changes and could lead to a loss of service or our license to operate, which would trigger the risks highlighted above. In addition, this situation could also lead to prosecution, fines and a loss of reputation and trust as a delivery provider. Specifically, non-compliance associated with three waters infrastructure that service the prison sites, including with Drinking Water Regulations are being addressed. However, many instances of non-compliance are complex and can take significant sums of money and time to address (in some cases millions of dollars and several years). Some instances can involve multiple different possible causes, some of which are outside of Corrections control but difficult to evidence e.g., contaminants from run off from nearby farms that enter Corrections' water systems.
Business Needs	Specific three waters investments are needed that seek to: • **Enable Corrections to meet future consent requirements**. Corrections needs to comply with, and/or is impacted by our suppliers' needs to comply with the; Water Services Act 2021 which has resulted in new Drinking Water Standards for New Zealand (DWS), a new National Policy Statement for Freshwater Management (NPS-FM), and new National Environmental Standards for Freshwater (NES-FW) to regulate activities that risk the health of freshwater & freshwater ecosystems. • **Enable Corrections to meet existing consent requirements**. This will have the effect of enabling prison sites to continue to operate as well as improving relationships with key stakeholders such as Councils, water suppliers and iwi/hapū. • **Reduce consumption.** This will have the effect of limiting the extent to which current water supplier agreements, or discharge consents, might be breached in the future. For example, the SHCF is currently non-compliant with our supplier agreements and RMA delegation associated with water delegation of $350m^3$/$350m^3$/day and wastewater delegation of $300m^3$/$300m^3$/day. Non-compliance is due to high water demands on-site, and the corresponding impact on wastewater flows. In addition, it will put Corrections in a better position to be able to meet future consenting requirements, which will be much more stringent under the Waters Services Act 2021. Additionally, foundational investments are sought to: • **Improve stakeholder engagement including with mana whenua**. This will enable effective engagement to take place, at the right time, and in the most culturally appropriate fashion. It will contribute to developing relationships, transforming relationships into partnerships and ensure consensus around the form and function of continued consent and supply agreements.

1.8.3 Accelerated Investment Reduces Risk

As noted above, Corrections is committed to be a mature asset manager and an effective steward for three waters infrastructure. This means that all investments contemplated will eventually be addressed by Corrections through BAU budgets. However, existing funding levels would require an investment

programme in excess of 100 years[9].

Given that over half of all sites have at least one three waters infrastructure or non-compliance issue that is deemed to be 'very high risk', and all sites have a three waters infrastructure or non-compliance issues that are deemed to be 'high risk' - this is an unacceptable level of risk to carry over such a long-term time horizon.

The funding sought in this DBC will support existing planning and enable three Waters infrastructure and non-compliance risks to be reduced at the eight sites (five priority and three water safety sites).

This would both maximise the value of existing expenditure and minimise the associated health and safety risks of harm to people (prisoners, staff, their whanau and the wider public) and the environment to be reduced to more acceptable levels faster.

1.9 Benefits, Risks, Constraints and Dependencies

1.9.1 Main Benefits

The benefits of addressing the identified problems regarding three waters infrastructure are extensive. These accrue both to the direct investment objectives of the Waters Infrastructure Programme but also indirectly have wider benefits for other Corrections' workstreams (including the achievement of Hōkai Rangi) as well as wider Government objectives, for example improving the wellbeing of New Zealanders, the sustainable use of natural resources, and Crown Treaty partner relations.

Benefits of the proposed investment programme were explored at a high level within our Investment Logic Map (ILM)[10] and have been further elaborated on through various consequence and tolerance workshops with Prison Directors and Operations Managers at six representative prison sites.[11]

Table 9 provides a summary of these benefits including an initial alignment to the Living Standards Framework, an assessment of whether the benefit is likely to be monetisable (or not) and whether it is a direct or indirect benefit.

The main benefits below, are assigned a % weighting in line with the outputs from our ILM Workshops.

[9] The Financial Case of the 2021 PBC (Appendix A) demonstrates that the 'Proactive Stewardship' programme of 16 years duration has an implied cost of $485.55M (including inflationary pressure). Given that current funding is $2.7M CAPEX p.a. post FY 22-23 (nominal value - no inflation & no discounting) this implies an investment programme of over 100 years.

[10] See Appendix E for the Investment Logic Mapping workshop outputs

[11] This includes: NRCF (Northland), MECF (Mount Eden), Hawkes Bay, Christchurch Men's, Rimutaka and Waikeria.

Table 9 Summary of main benefits – initial alignment to Treasury's Living Standards Framework

Main Benefits	Description	Monetisable or Non-monetisable	Direct or Indirect
Improved health, safety and wellbeing of people in prison, our staff and the public (50%) 	**Increase in health, safety and wellbeing of the people in prison, our staff and the public** The safety and wellbeing of prisoners, our staff and the public are put at significant risk when prison services are lost due to a three waters infrastructure failure or water quality issues leading to sickness or the requirement to shut water systems down. These risks are heightened when prisoners and staff are involved in unplanned movements due to urgent or emergency need to relocate prisoners between housing units within a prison or between different prison locations. Unplanned Prisoner relocations/Decanting procedures are high-risk activities which pose risks to the health, safety and wellbeing of prisoners and by: • Requiring more staff to manage prisoner movements • Increase in 'lock down' or prison cell time for prisoners • Reduced rehabilitation and meaningful purpose activities including offender employment and rehabilitation support from staff and programmes for prisoners, increasing boredom and risk of disturbance • Risks to personal safety when moving prisoners, including risk of mixing prisoner cohorts • Increasing levels of stress and risk of burnout for staff • Diverting staff away from their day-to-day jobs with prisoners which brings job satisfaction through meaningful work Corrections' staff are highly resilient and used to dealing with high-risk situations, with prison officers' interviews saying: *"we just get on with it".* However, increasing exposure to high-risk activities and heightened risk of burnout or impact on staff and their families does not align with Hōkai Rangi's focus on wellbeing. Minimising three waters infrastructure risks helps Corrections to improve the wellbeing of people in prison and our staff, through the provision of humanising and healing environments that do not harm, stress or traumatise.	Non-monetisable	Direct and Indirect
	Protect the natural environment Reducing current instances of non-compliance, especially with respect to discharge conditions, will minimise the negative impacts on the environment (including improved ecosystem health, biodiversity, reduced pollutants and erosion) as well as encouraging positive environmental impacts by enabling recreational, cultural and spiritual uses. Building resilience into the network to deal with climate-change related impacts and water conservation will improve sustainable and strategic asset management planning. Improving the management of three waters infrastructure will also contribute to regional councils being able to give effect to Te Mana o Te Wai.	Non-monetisable	Direct and indirect

Main Benefits	Description	Monetisable or Non-monetisable	Direct or Indirect
	Reduced water demand through reduced water waste Adopting newer technologies, or altering operational practices, can encourage more environmentally effective use of existing resources (water) or inputs (electricity, gas, chemicals). For example, in the case of economic water savings, it is expected that replacement of existing potable water pipe assets (asset renewals) in poor condition alone, without further interventions, will result in significant water demand reduction through avoided leaks. Asset renewal alone, without other interventions, is estimated to produce an average water demand saving of 10% across the prison sites where this intervention is proposed within the scope of T2A. When all water savings interventions are taken into account, i.e. asset renewal, leak detection, investment in water efficient devices such as low flush or low flow valves and implementation of water value and water use education programmes, this would result in a combined average of 16% total water demand saving across the entire network.[12] This equates to a saving of 565 m^3/day or 565,000 litres per day or 206.225m litres per year saved and counted as an economic saving.[13] Please note: • Economic savings are not the same as cash or financial savings for Corrections. • Leak detection and the subsequent repair of leaking pipes only at sites, without full asset replacement/renewal is expected to provide only a temporary reduction in water demand.	Partially Monetisable	Direct
	Avoided unplanned / emergency costs Improving three waters infrastructure assets, processes and systems will reduce unplanned & emergency repairs and 'workarounds' to maintain service levels. Such repairs are often more expensive than a planned maintenance approach, enabled by better information and adequate funding to enable required levels of planned asset replacement works.	Monetisable	Direct

[12] Refer to the PBC in Appendix A for the workings and assumptions for 'Water Savings' behind these figures. Please note that the figures within these assumptions use a figure of 340 litres per person per day water use assumption for Waikeria, to take into account the works done on that site to improve water services infrastructure, rather than the actual pre-works figure of 720 litres per person per day at that site. This is why the Water Savings noted in the PBC has an average current state use figure of 408 litres per person per day, rather than the 430 litres per person per day figure used in the Current State Report 'Figure 3 average water demand per person' (prisoners only, excluding staff and visitors).

[13] Not all sites pay for their water, so this benefit would be an economic benefit to the wider community and not necessarily a cash saving benefit to Corrections. However, even sites that don't pay for water have costs associated with supplying that water, where more water=more costs. E.g. Electricity (biggest cost), chemicals, increased wear and tear on pumps etc. It's likely that sites that pay for water to a third-party supplier will see the most economic benefit.

Main Benefits	Description	Monetisable or Non-monetisable	Direct or Indirect
Improved service reliability (30%) 	**Improved capital planning (through improved information and evidence base)** To effectively manage water resources, good information is essential. By good information, we mean information that is relevant, reliable, timely, accessible, and, ideally, comprehensive. Good information supports effective governance, engagement, and accountability.[14] An improved understanding of Corrections' three waters network, coupled with appropriate investments in capacity and capability, will support enhanced total expenditure planning, optimised cost allocation and contract negotiation with current and future service providers. This will drive more efficient capital planning, delivery, and budget allocation across Corrections' prison portfolio. This benefit can be partially monetised through an expected reduction in the 'funding risks', contingencies or margins that are priced into current and future contracts for service. In addition, with good asset information, and knowing that an asset is in good order, there may also be opportunities to reduce costs by deciding to use that asset longer than anticipated where it was pragmatic to do so e.g. at sites that have mixed aged assets, where waiting for some assets to 'catch up' in wear and tear would provide economies of scale upon replacement.	Partially monetisable	Direct and indirect
	Continuity of Service Provision and Improved levels of service A greater understanding of Corrections' three waters network, coupled with appropriate investments in capacity and capability, will strengthen operations and maintenance programmes that can maintain continuity of service provision and improve levels of service for staff, prisoners, and the community.	Non-monetisable	Direct
	Decreased three waters planned and unplanned or emergency mitigation costs Adopting interventions that can reduce costs associated with current and known/planned mitigation measures as well as reducing the risk of costs associated with unplanned mitigation measures. Corrections will also avoid much higher costs that would be incurred if the assets deteriorate to point of failure, and which leads to denial of service or business interruption at prisons.	Monetisable	Direct
	Increased compliance with legislative and regulatory requirements Corrections has a range of legislative and regulatory obligations that must be met when delivering three waters services. *Current requirements include:* • Three waters consenting requirements • Other RMA requirements • Drinking water standards	Non - monetisable	Direct and indirect

[14] Office of the Auditor General (2020) Reflecting on our work about water management. Accessed through: https://oag.parliament.nz/2020/water-management/docs/water-management.pdf

Main Benefits	Description	Monetisable or Non-monetisable	Direct or Indirect
	• Supply Agreements Responding to current cases of non-compliance will reduce existing non-compliance costs as well as reduce negative environmental impacts, and any resulting reputational damage. Between 2022-26 Corrections will need to comply with, and or will be impacted by our suppliers' needs to comply with: • Water Services Act 2021 and the new Drinking Water Standards for New Zealand (DWS) • National Policy Statement for Freshwater Management (NPS-FM) • National Environmental Standards for Freshwater (NES-FW) to regulate activities that risk the health of freshwater & freshwater ecosystems.		
Improved reputation, relationships, & partnerships (20%)  	**Increased trust and confidence regarding our license to operate** • Resolving three waters infrastructure issues will improve levels of service, mitigate risks, or enhance positive outcomes for prisoners, staff, and the community. This will improve trust and confidence of Corrections with iwi, other key stakeholders, and the wider community, leading to opportunities for mutually supportive partnerships. For example, to support new and renewed resource consents and water supply agreements, or support community initiatives such as riparian planting or growing seedlings for tree planting, as is done at NRCF.	Non-monetisable	Indirect
	Decrease in potential for reputational damage It is highly likely that a high-profile incident will occur and damage the reputation of Corrections as a result of three waters infrastructure failure or regulatory non-compliance. Corrections' unique operating environment offers unique opportunities for reputational damage. Lack of access to basic life needs related to drinking water, water for personal hygiene (toilets, showers), disposing of wastewater (including sewage), and water for use in rehabilitation and education programmes and meaningful activities outside of prison cells is likely to negatively impact public confidence in the corrections system. In addition, increased tensions that result from decreased wellbeing could increase the chance of violent events or broader disorder events, which could then put at risk the health and safety of the wider prisoner population, staff and the wider public. Continued friction with local iwi over water issues, if not resolved, restrict Corrections' ability to be considered genuine in their commitment to positive and meaningful engagement with Maori, in line with the Hōkai Rangi Strategy and as a Crown-Treaty Partner. Continued friction with Councils and Water Suppliers over breach of consents and supply agreements and the challenging process of renewing these, if not resolved, also restrict Corrections' ability to be seen as a reliable and effective partner in relationships or partnerships that bring mutual efficiencies and other benefits to our key stakeholders.	Non-monetisable	Indirect

Main Benefits	Description	Monetisable or Non-monetisable	Direct or Indirect
	Reputational damage such as the examples above, bring compounding cost of business due to delays and additional work required for consents, supply agreements or any changes to the use of our land and use of water resources.		
	Improve our ability to integrate with water suppliers or to divest of assets or supply Resolving three waters infrastructure issues, as well as improving asset information, can increase the ability of Corrections to transfer assets, or services, to third parties (should that be desired).	Non-monetisable	Indirect

1.9.2 Main Risks

Risk is an uncertain event or circumstance that, if it occurs, has a negative effect on at least one of our two investment objectives. The most significant risks that might prevent, degrade, or delay the achievement of the investment objectives are identified and analysed below. All risks will be monitored, managed, and updated as the programme is implemented over time.

For the avoidance of doubt, this risk assessment does not include specific site risks to three waters infrastructure – these are canvassed throughout this DBC.

Table 10 Initial risk analysis

ID	Main Risks	Description	Risk mitigation strategies
R1	**Regulatory change**	The Affordable Water Reform Programme and the NPS-FW programme both place stronger expectations on water suppliers and increases the penalties for non-compliance. These obligations are more stringent which will increase costs, have a direct impact on future levels of service, and may increase the risk exposure that Corrections faces.	The risks of future non-compliance are explicitly factored into the current risk assessments for T2A implementation, the development of programme options for T2A, and captured through the economic analysis.
R2	**Asset information risk**	Corrections has a poor record of the condition of our three waters infrastructure. Site investigations undertaken in T1 of WIP have considerably increased the information available regarding Corrections' three waters infrastructure, however, given the lack of detailed and reliable asset information available at the outset of the programme, complete asset information with a high degree of confidence remains to be achieved. Incomplete or inaccurate information and assumptions could create material time delays and affect scope, scale and/or cost of the programme – thereby increasing operating risk through both delivery of the programme (due to disruption) and following implementation (should the proposed solutions not be adequate and risks to three waters infrastructure remain or further materialise)	Corrections has and will continue to prioritise interventions into those areas that will have the highest risk to staff, contractors, prisoners, and the community. This includes readjusting intervention programmes and estimates as investigations improve the evidence base. The expedition of investigative work and the focus on eight critical sites has allowed the collection of more complete asset information to inform investment decisions. Staging sites across tranches also allows investigative works to be undertaken and the next phased sites while interventions are undertaken in the current tranche. Tailored and early communications and planning with key stakeholders (especially Corrections Services) will help to mitigate the risk of disruption to services.
R3	**Risk to operations**	Prison sites are at risk of service disruption through the implementation of the programme, which may drive unwelcome surprises for sites, and hasty, sub-optimal workarounds to reduce operating risks. For example, if potable water or wastewater services need to be shut off this could require partial decants depending on prison capacity levels. This disruption can impact	Tailored and early communications and planning with Corrections Services, contractors, operational staff, and other key stakeholders will help to mitigate the risk of disruption to services and improve operational staff have time to respond with solutions suitable to each Site. Identification and alignment of all planned changes across the Prison Network, in conjunction with the Deputy National

ID	Main Risks	Description	Risk mitigation strategies
		on the safety and wellbeing of people in prison and our staff. A further risk to operations is if the Programme 'overloads' individual Prisons or Regions with a greater amount of change than the Site or Region can respond to and accommodate.	Commissioner, will ensure planning takes account of all projects/programmes that are underway or planned for each site (including identification of where Asset Management master-planning will be advanced). Coordinate with the Facilities Management Team and the Main Contractor to ensure minimisation of impact on current infrastructure e.g., relay offline and grout up old pipes where possible to minimise outages. Early engagement with Prison Directors, Regional Directors and the Director of Change within Corrections, is essential to ensure this Programme is taken into account with all other change happening across the Network, to ensure peaks and troughs of work at Prisons and in Regions are flattened.
R4	**Market Capacity**	Risk to Delivery due to limited supplier capacity, driven by: • The highly specialised skillset required for aspects of programme delivery, such as water supply treatment • Increased demand due to: overall national pipeline of planned works for infrastructure, wider Affordable Waters Reform Programme and funding driving several central Government Agencies (NZDF, DoC, MoE) and Territorial Authorities (local, regional and district Councils) to upgrade their three waters infrastructure at the same time and supply constraints in the short to medium term - Significant quantities of three waters materials are produced outside of New Zealand and are imported - compounded by COVID-19 restrictions (such as low immigration and longer lead in times on materials). These constraints and impacts may lead to increased programme costs, reduced competition and/or material and Programme delays.	Leverage existing contractual arrangements and relationships with our AM/FM providers, Downer and Cushman & Wakefield to secure supply and better understand constraints to delivering the programme. Early engagement with existing providers to leverage existing contractual arrangements and relationships and understand constraints to delivering the programme. Early engagement with the market to test capacity, capability, and appetite, both for suppliers and in-house staff attraction and retention. Early contractor involvement in the design of interventions. Bundling of packages of work by site, region, and/or water type to improve market appetite. Longer lead times have been built into the programme to accommodate anticipated market constraints. T2A has been broken into further tranches to ensure Programme evolution and funding can match any changes due to the aforementioned constraints and risks.

ID	Main Risks	Description	Risk mitigation strategies
		There is a small contractor pool for three waters services in New Zealand. There is a risk that professional expertise and contractor availability in the sector may be further limited due to the Affordable Waters Reform Programme driving need across many agencies at once. This may make it hard for Corrections to hire contractors or in-house staff. Significant quantities of three waters materials are produced outside of New Zealand and are imported. This could also impact the ability to source materials for construction, when competing with other agencies for resource or due to supply chain delays as a result of COVID-19.	
R5	**Prison population change**	The ability of the prison network to accommodate prisoners through worst case scenarios (of partial or full decant of prisoners due to three waters infrastructure failure) is largely a function of current and forecast capacity, with consideration given to the needs of specific prisoner cohorts, e.g. High Dependency, Sex Offender or Mothers and Babies Units. Where there is significant prison capacity, this job more closely resembles business as usual. Where there is limited capacity, this scenario becomes exponentially more difficult to manage. Despite good prisoner forecasting exercises, the ultimate prison population (both across the network and on a site-by-site basis) is unknown and this exacerbates risk for Corrections. This uncertainty also poses additional challenges for the Project Team when prioritising investments. It is likely that Corrections will mothball or decommission appropriate buildings on sites in response to decreasing prisoner numbers. This will still require the bulk of three waters infrastructure on site to remain in use due to the system-based nature of this asset class. Even if prisoner numbers continue to decrease, there is still a significant latent demand for improved quality of beds or	It is proposed that any assessment involving an assumption of prison capacity uses 'todays' information as this is the best available information. Further to this, solutions have been scoped to assume maximum capacity of all prison sites.

ID	Main Risks	Description	Risk mitigation strategies
		prisoner spaces. Not every prisoner space will be suitable for every prisoner. Appropriate location of these spaces and support facilities across the country, allowing prisoners to be located close to their whanau is an important part of the Hōkai Rangi strategy. I.e., A drop in prisoner numbers in and of itself, will not fully resolve this issue. Finally, Rapid population growth was experienced between 2010 when our peak population in August was 8,829 and our 2020 peak of 10,243 pre Covid-1915. Currently, our population is closer to c. 9,000.	
R6	**Climate change**	A changing climate is already placing increasing stresses and shocks on prison sites. For example, some parts of New Zealand are subject to increasing drought conditions and subsequent water use restrictions that threaten potable water supplies, and this is expected to get worse. E.g. Northland, Auckland, Waikato, Hawke's Bay. Significant areas of New Zealand are subject to increasing flooding events which places a strain on stormwater systems. The uncertainty associated with climate change makes the prioritisation of interventions more difficult.	The risks of climate change exacerbation are explicitly factored into the current state risk assessment, the development of programme options, and captured through the economic analysis.
R7	**Information asymmetry**	There is a historically poor record of asset condition across three waters infrastructure AM/FM function with a third party (Downer), which 4 years ago took over from a previous third party (Spotless) for 16 out of 18 prison sites. The other two prison sites have contracts in place for AM/FM provision from Cushman & Wakefield through either a PPP arrangement (Auckland South Corrections Facility and half of the Auckland Prison site) or directly with Corrections (the other half of the Auckland Prison site).	It is proposed that the Programme options explicitly include interventions that review the form and function of existing contracts and data management systems. The inclusion of a specific tranche of work that is focussed on investigations to improve the three waters asset information and evidence base has gone some way to redressing any information asymmetries.

[15] Refer to the PBC in Appendix A for the Population Changes from 2010 – 2020: Figures provided by Corrections Network Configuration team.

ID	Main Risks	Description	Risk mitigation strategies
		Outsourcing can inherently create risks around information ownership and responsibilities.	
R8	**External Water Suppliers**	This DBC excludes costs associated with improving the risk profile of our current three waters suppliers i.e., we will retain 4 'very high risks' in our potable water supply risk profile, even after our programme of interventions, due to the water supply being outside of Corrections' control.	Corrections will continue to work with our water suppliers, improving relationships and understanding of both their supplier risks and our requirements. We will also review and update our Business Continuity Plans as part of T2A within our programme.
R9	**Strategic Directions e.g. Levels of Service**	Levels of Service or other strategic directions documents are different to that expected leading to an increased or decreased programme.	Key strategic directions including Levels of Service were developed during T1 of the Programme.

1.9.3 Constraints and Dependencies

The development of this DBC is subject to the following constraints, dependencies, and assumptions. A workshop was held on 29 July 2020 where key internal stakeholders provided an indication of constraints and dependencies facing the programme. These were then prioritised. Raw workshop notes on the constraints and dependencies are included in the 2021 PBC (Appendix A).

Management strategies and registers have been developed to record management of these variables and they will continue to be carefully monitored and managed during T2A of the programme. All constraints, dependencies and assumptions provide important context to the progression of the Economic Case. In particular they provide helpful guidance for the scale, nature and scope of interventions contemplated for inclusion in Programme Options.

We acknowledge that the following assumptions are for the purpose of the DBC and to ensure models used are kept relatively simple. We recognise the opposite to these assumptions could occur.

Table 11 Key constraints, dependencies, and assumptions

ID	Category	Notes and assumptions
ID	**Constraints**	**Notes and assumptions**
C1	**Prison environment**	Any future investments or interventions will likely take place 'within the wire' and therefore are subjected to cost premiums to account for the need to manage security (from a contractor perspective) or incur alternative prisoner management strategies (for Corrections staff). **Assumption:** A 20% cost premium has been applied to account for additional time for workers to navigate security on/off site, escort requirements for movement within the prison and the need to respect the regime, noise restrictions and lock down times of prisoners.
C2	**Availability of asset information**	Fundamentally there is a lack of asset information data. Existing data and information is maintained by Corrections and their AM/FM providers, who have

ID	Category	Notes and assumptions
		difficulty accessing and using this information - systems are not easily accessible and require specialised capability to use. **Assumption:** T1 objectives included work that is focussed on improving the evidence base of three waters assets and issues and accessibility to current asset information data.
C3	**Supplier agreements**	In many instances, Corrections is reliant on supplier agreements with councils to access sufficient potable water and dispose of wastewater. Recent changes to three waters legislation and regulations make accessing similar (or even reduced) water takes more challenging and where we don't have formal supply agreements in place, this can change instantly. In addition, support from iwi/hapū and local communities and potential relationships and partnerships with other Government water users such as Department of Conservation, DIA, Ministry of Education and NZDF will also become increasingly important. **Assumption(s):** It is assumed that the parties to these supplier agreements do not change in the short term, although this is likely to change under the Government's proposal to amalgamate three waters providers. Our current state risk assessment considers current and future compliance issues. Within the Commercial Case, opportunities regarding councils and water suppliers are considered. Within the Management Case, stakeholder engagement plan, communications with other Government agencies associated with accessing potable water and disposing of wastewater are considered. Each programme option should also consider water demand reduction initiatives to limit the effect of supply agreements that reduce water supply.
C4	**In-house three waters expertise**	Corrections has historically had limited three waters expertise to assist with strategic asset management and planning. Corrections is building capability both in-house, with the recent establishment of two dedicated three waters roles, the ongoing engagement of our three waters technical specialist consultants and with our AM/FM Providers. **Assumption:** The current level of capability and capacity will continue to increase, with any gaps in capability to be supported by our three waters technical specialist consultants and support provided to our AM/FM providers to increase their expertise.
ID	**Dependencies**	**Description of Dependencies and management strategies to address**
D1	**Regulatory environment and changing legislation**	Affordable Waters Reform Programme will impact on the requirements that Corrections have to follow regarding three waters infrastructure standards and overall asset management. Overall political direction on these issues will be a continuous dependency. **Management strategies:** This will be considered as part of the risk assessment.
D2	**Market capability and capacity**	Affordable Waters Reform Programme will increase the demand for three waters contractors and suppliers, likely creating a premium on this expertise within the market.

ID	Category	Notes and assumptions
		Management Strategies: Market activities undertaken during T1 of the programme and the resulting procurement strategies are discussed in the Commercial Case of this DBC. An 'uncertainty premium' of 30% has been applied to all cost estimates for projects involving construction given the lack of design. Additionally, in the Commercial Case considers possible options to package the preferred option for T2A, namely National Delivery and Regional Delivery approaches to make contracts more attractive.
D3	**Corrections relies on Downer and Cushman & Wakefield to collect and manage asset information across both our Corrections managed and PPP managed Prisons**	Corrections has access to information through the Downer applications and databases; DvDTM and SPM, however these systems are not easily analysed by Corrections staff. Corrections is reliant on Downer and Cushman Wakefield for data as little information is kept on Corrections' own system. **Management strategies:** As noted above, throughout T1 work has focused on improving the evidence base of three waters asset information and issues and Corrections accessibility to three waters asset information.
ID	**Other assumptions**	**Description**
A1	**Network capacity**	The current prison network capacity remains the same. This means that no new prison sites are opened over the modelling period, or that operational decisions to increase capacity (i.e., double bunking) are implemented. At the time of writing, consideration was being given to the design and consturction of a new Christchurch Mens prison. Depending on the final configuration of this prison, this may increase capacity.
A2	**Prison population**	The prison population as at August 2020 is used as a basis for future population/capacity estimates. It is acknowledged that the prison population is dynamic (both in terms of aggregate numbers, prisoner cohort numbers and the number of prisoners at a given facility) however incorporating this level of dynamism is unnecessary for a Cost Benefit Analysis (CBA).
A3	**Operating procedures**	Current operating practices, including BCP guidelines, do not change.
A4	**Levels of service**	Notional level of service (LOS) expectations do not change. Levels of Service were developed during T1 of WIP. While we have not predicated a future Levels of Service change in our assumptions, we have costed and allocated the Storage Intervention work within our programme based on 22.2L/person/day for 3 days water storage (plus allowance for livestock wellbeing) and 8 hours storage of the average dry weather wastewater flows, in line with current LOS requirements.

2. Economic Case – Exploring the Preferred Way Forward

2.1 Economic Case Summary

This Economic Case identifies a preferred suite of investments that will reduce risk, maximise benefits, and best represents value for money for T2A of the WIP for Corrections. WIP encompasses assets relating to potable/firefighting water, wastewater, and stormwater, often referred to as the 'three waters'.

The Economic Case assess four Programme Options for the delivery of investment in assets across five Priority Assessment Sites, and four sites where Corrections is a water supplier. These options were assessed against Critical Success Factors for Strategic Alignment, Market Attractiveness, Affordability and Value for Money. In general terms, these options escalate in terms of number of interventions proposed, cost of Programme, and level of risk mitigated:

- **Option 1 - High urgency issues only:** Investment in assets and interventions to address 'high' urgency issues across the selected sites in line with current policy, and available funding to address the most critical assets. This option has 95 in scope asset interventions with a total expected economic cost of 9(2)(b)(ii)

- **Option 2 - Minimum compliance:** A targeted approach that focuses on achieving minimum compliance across all of the in-scope sites. This addresses both SAR and DWSP. This approach will expand its investigation of potential Consequences to include associated infrastructure, level of services, and resilience across the SAR. It will further add to address all DWSP requirements within the selected sites. This option has 202 in scope asset interventions with a total expected economic cost of 9(2)(b)(ii) .

- **Option 3 - Proactive stewardship:** A proactive approach to managing three waters infrastructure assets to increase resilience at an asset level. This approach will include all SAR Outputs and DWSP Outputs across 'high' and 'medium' urgencies. This option has 240 in scope asset interventions with a total expected economic cost of 9(2)(b)(ii)

- **Option 4 - Strategic resilience:** A further proactive approach to managing three waters infrastructure assets to manage risk across 'high' and 'medium' urgency levels across all sets, and improve strategic resilience. This approach will look to deliver a full suite of assets that will look to mitigate risk to the lowest possible level with a lens to include future resilience. This option has 248 in scope asset interventions with a total expected economic cost of 9(2)(b)(ii)

This detailed assessment confirmed that the preferred T2A Programme Option is Option 3: 'Proactive stewardship'. 'Proactive stewardship' is comprised of 240 interventions, with a total economic cost of 9(2)(b)(ii) . (including contingencies). This option is considered preferred because:

- It best achieves the Strategic Objectives of the WIP.
- It is likely to be most attractive option to the market.
- It represents good value for money.

2.1.1 Option 3 – Proactive Stewardship (sequenced)

The only identified funding source for WIP is the $56.00M capital and $18.72M operating to be funded through the tagged contingency signalled in Budget 2023. Following the options development detailed below, and the engagements with the Treasury and other partners that informed it, the certainty of internal capital funding has changed as Corrections has gone through an internal capital planning and prioritisation process across our entire portfolio of infrastructure. This change is partly due to the tagged contingency provided in Budget 2023 being scaled from the programme's original budget bid, and partly due to internal reprioritisations resulting from other strategic projects within Corrections not being successful with B23 budget bids, among other considerations. As the tagged contingency is the only funding currently available, the programme intends to 9(2)(b)(ii) The overall intent of WIP remains to deliver the 'Proactive Stewardship' option, which remains a proactive approach to managing three waters infrastructure assets to increase resiliency at an asset level, and T2A is the next step in developing and implementing this.

Given the availability of only the scaled funding amount, WIP will employ the following approach:

- 9(2)(b)(ii) (the preferred commercial approach detailed further in the Commercial Case) will be engaged based on the full Proactive Stewardship option for T2A (240 interventions across eight sites), so that the potential cost and delivery approach can be understood. An important consideration to any decisions on sequencing is the determination of an accurate understanding of programme costs and so WIP intends to engage the Managing Contractor and complete detailed design prior to any of these decisions being made.

- Based on these discussions and early design, the level of available funding will require 9(2)(b)(ii) to create an initial sequence of works within T2A. This could occur in one of two ways:
  9(2)(b)(ii)

The decision on which filter is employed will be made based on the insights received from design, cross referenced against the critical success factors, as they are applied to the recommended option.

The remaining interventions (of the 240 identified in Option 3) 9(2)(b)(ii)

2.2 Introduction

2.2.1 Purpose

The purpose of this Economic Case is to identify a preferred suite of investments that will reduce risk, maximise benefits, and best represents value for money for T2A of the WIP for Corrections. WIP encompasses assets relating to drinking water (potable/firefighting), wastewater, and stormwater, often referred to as the 'three waters'.

The analysis in this Economic Case is completed with reference to:

- **Options Assessment Report,** which documents the identification and assessment Programme Delivery Options for T2A of the WIP. This document forms the basis for the majority of this Economic Case. The Options Assessment Report includes reference to two further documents, which are also referenced in this DBC.
    - **SAR**, which documents necessary three waters investments required across five high priority prison sites - Mt Eden Corrections Facility, Arohata Prison, Rolleston Prison, Rimutaka Prison, and CMP.
    - **DWSP,** which documents the current and future investment requirements to meet drinking water standards across CMP, CWP, Whanganui Prison and Waikeria Prison.
- **Critical Infrastructure and Compliance 3 Waters Programme Business Case,** which sought investment in three waters infrastructure and compliance works across all 18 prisons, through a recommended Proactive Stewardship programme option.

This Economic Case is also in alignment with the 2021 PBC and aims to support the achievement of the Programme level benefits, which include, but are not limited to:

Improved health, safety, and wellbeing of people in prison, our staff, and the public

Three waters infrastructure is essential to prisons and the communities that surround New Zealand's prisons. The functioning of a prison could be severely disrupted by poor quality and unreliable three water service provision, which also poses a threat to the security of prisoners, staff, and the surrounding communities. Corrections have a legal requirement to provide a minimum supply of three waters services to people in prison, particularly for potable water supply and wastewater management. Corrections people and staff cannot be self-sufficient if services are completely disrupted. I.e., they do not have the ability to collect, store, treat their own potable water and/or use safely dispose of their own wastewater.

People and their wellbeing are at central within Corrections' core priorities and values. Reliable infrastructure is a critical component to achieving these values, particularly Kaitiaki (Guardianship) and Wairua (Spirituality). Disruptions to the usual operations of a prison is a clear contributor to higher stress levels for both Corrections staff and people in prison, and this stress is further heightened if those disruptions are unplanned and unexpected. The renewal of assets will also inherently improve service reliability and resilience.

Protection of the natural environment

Upgrading and maintaining three waters infrastructure in and around prisons is vital to Corrections' goal of protecting the environment. Resilient and secure water infrastructure reduces or eliminates the chance of accidents occurring that harm the environment, such as burst pipes or unwanted erosion. Modernised water treatment facilities can ensure harmful pollutants do not reach local waterways. This also ensures that prisons maintain positive relationships with local stakeholders, such as community groups and iwi.

By committing to upgrading three waters infrastructure, prisons can ensure they preserve the natural environment for generations to come. Failure to invest in infrastructure can put the natural environment and ecosystems at risk of irreparable harm.

Improved reputation, relationships, and partnerships

Effective three waters service provision minimises disruption for, and impacts on, surrounding areas, leading to positive relationships with key stakeholders such as Iwi, councils, and advocacy groups, as well as partners within the Justice sector including Police.

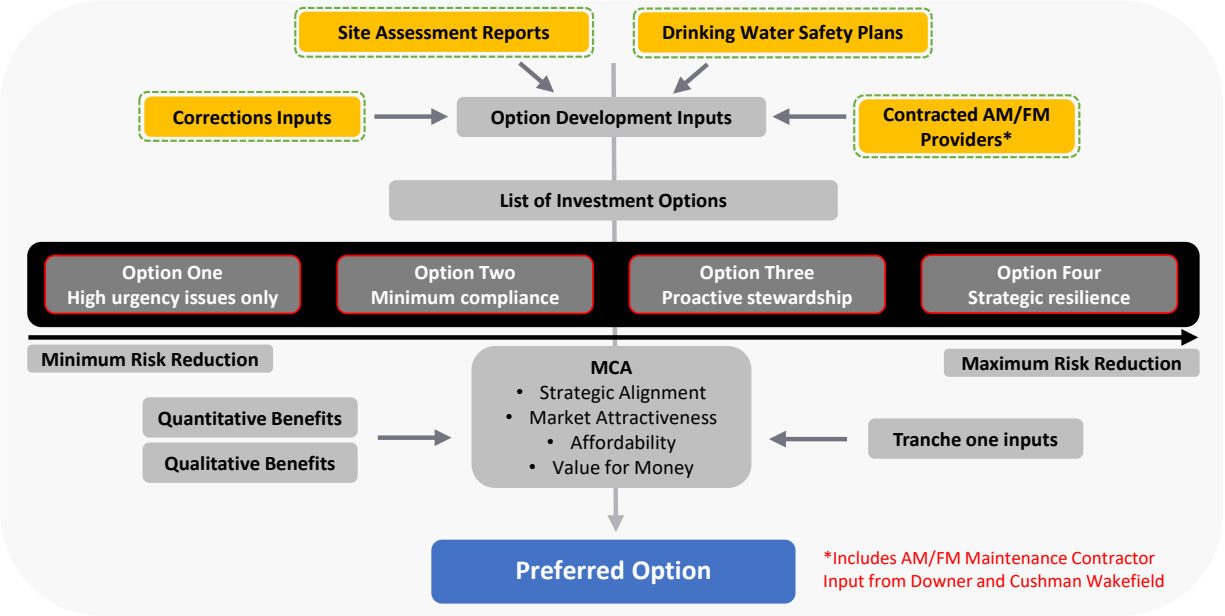
No intervention into the three waters infrastructure increases the risk of non-compliance with regulatory requirements, as well as the potential for large-scale incidents. Any incident would cause a significant disruption to the operation of the core functions of the prison estate and will also harm Corrections' reputation with both stakeholders and partners, and the public.

2.2.2 Assessment Methodology

A multi-step assessment methodology has been undertaken to develop the Options Assessment Report, which forms the key input for this Economic Case. Therefore, the Options Assessment Report Methodology also forms the methodology for the development of this DBC. This methodology involved collaboration between Corrections and Ernst & Young, along with inputs from additional Consultancies on key inputs (Figure 1). The methodology includes the following key steps:

- The identification and development of four Programme Delivery Options.
- Confirmation and refinement of the Critical Success Factors identified in the PBC, to better consider T2A.
- A detailed Multi-Criteria Analysis of the Programme Delivery Options.
- Selection of a Preferred Programme Delivery Option.

Figure 9 Options assessment methodology



2.3 Programme Option Identification

T2A Programme Options are different ways of meeting the Investment Objectives stated in the 2021 PBC, and earlier in the Strategic Case. The following sections summarise the process used to identify the Programme Options. This includes:

- A summary of the considerations used to develop each Programme Option (Section 3.2)
- A detailed description of the four shortlisted Programme Options. (Section 3.3)

To develop robust and realistic programme options that have scalability, 'variable' and 'fixed' components were used. This is in recognition of the fact that some activities will be required regardless of the option chosen, while other activities will scale depending on how much risk the option is looking to mitigate.

2.3.1 Key Inputs

Two key inputs to the development of Programme Delivery Options have been SAR and DWSP.

SAR

SAR have been produced by Stantec NZ. These assess the condition and performance of assets, the potential risk of service failure, and recommended renewal/improvement works that will mitigate this risk.

The work undertaken by Stantec NZ includes:

- a review of current internal institutional frameworks and guidelines and identification of associated compliance gaps,
- a review of current/impending national legislation and identification of associated compliance gaps,
- a review of available asset information from desktop and onsite assessments for each site (asset properties, condition, performance, and demand/growth forecast),

- a risk assessment of site-specific assets to identify their risk profile and potential remediation activities, and

- recommends interventions of work to mitigate these risks and meet Corrections' defined levels of service, including high level options development (at an asset level), priority ranking, CAPEX and OPEX (where explicitly contemplated) and durations.

The five SAR that were assessed include Mt Eden Corrections Facility, Arohata Prison, Rolleston Prison, Rimutaka Prison and CMP. These have been prepared with input and reviewed by Corrections and AM/FM Providers.

DWSP

Corrections is a water supplier as defined by the Water Services Act 2021 (WSA) for four Corrections facilities and is committed to managing water supply effectively to provide safe, high quality drinking water in accordance with Drinking Water Standards for New Zealand (or any replacement standard), and other regulatory requirements.

In 2019/20 Corrections identified the need to uplift investment levels and resourcing into the stewardship of three waters assets. This was due to risks associated with changes in drinking water legislation, increasing climate change impacts, and a lack of management tools. The completion of the DWSP demonstrates a proactive risk management process that facilitates provision of safe, secure, and resilient drinking water supply to prisons. The DWSP has been prepared in accordance with the WSA requirements, current Taumata Arowai guidance for drinking water safety planning, and generally follows the Ministry of Health, May 2019, handbook for preparing a DWSP.

Corrections owns three registered water supplies: Christchurch, Waikeria, and Whanganui's Prison Water Supply. These supplies are operated by third parties (Downer and Cushman & Wakefield under facilities management contracts and a Public-Private Partnership (PPP) contract).

Stantec NZ has been engaged to undertake drinking water safety planning to assess and manage risk across the water supplies at these custodial sites. Stantec NZ has been supported by Tonkin and Taylor in preparing the DWSP site specific appendices for Waikeria and Whanganui Prisons.

2.3.2 Options Consideration

Five separate components were used as 'building blocks' to form four unique T2A Programme Options. These considerations were:

Urgency

A key consideration in the SAR and DWSP (refer to Appendix B) is the 'urgency' rating that is applied to each asset. Urgency ratings span from 'high', to 'medium', to 'low', and have generally been determined by multiplying the likelihood against the consequence of a service failing, as well as overlaying a 'criticality' consideration. This figure ranged from 1 – 25 with descriptions provided in Appendix B, and categorised against the 'risk scoring' table in Appendix G.

Although the SAR and DWSP refer to urgency, their definitions vary.

- **SAR –** Urgency has been categorised to represent how the Likelihood and Consequence determine the priority of what issue or risk requires resolution. The definition of urgency has been set at 'high', 'medium', or 'low'.

The 'high' urgency category reduces three waters infrastructure and compliance risks to no more than 'high' risk across the selected sites and three waters types by FY 2025/26. The medium urgency category will reduce three waters infrastructure and compliance risks to no more than 'moderate' across the selected sites and three water types by FY 2029/30. The 'low' urgency category has been deemed as out of scope, and any asset with a 'low' urgency has not been considered as part of this delivery programme.

- **DWSP –** urgency has been categorised to represent how the Likelihood and Consequence determine when an issue or risk requires resolution. 'High' is within 12 months, 'medium' within 24 months, and 'low' within 48 months.

Specific interventions and activities have then been recommended by Stantec NZ to mitigate risk across all relevant asset types. The extent to which an option mitigates risk, as stratified by urgency rating, is the dominant consideration for each option build up as it most closely aligns to the intent of the 2021 PBC.

Potential Consequence

The SAR and DWSP have also assessed each intervention by the potential consequence of an issue not being resolved or a risk materialising. Two 'Tiers' have been used to determine the Consequence type. The table below provides an indication of these consequences.

Tier 1 issues will result in regulatory non-compliance and therefore have been separated enabling prioritisation over Tier 2 activities, which aligns with the original 2021 PBC.

Table 12 Potential consequence of inaction examples

Potential Consequence		Example intervention	Consequence of inaction
Tier 1	Non-compliance	Install stormwater treatment device	Risk of non-compliance if modifications are not adhered to
	Water Safety	Install backflow protection	Risk of contamination and non-compliance. Direct impact on water supply, health, and service. Statutory requirement under legislation.
Tier 2	Infrastructure	Replace Potable/firefighting Water Main	Risk of failure persisting, unplanned disruption to water supply possible
	Levels of service	Install Potable/firefighting Water Main	Water supply not sufficient for site. Lack of redundancy, lowered efficiency of flows
	Resilience	Install timber tank reservoir	Disruption to prison operations if Timber tank goes offline and will require a crane to bring in a new one that will block delivery access

DWSP Interventions

The activities contemplated in the DWSP (for the two facilities contemplated in Appendix B) span three dimensions. These were:

- **Water Safety Interventions** – Interventions or activities that repair, replace, or remediate assets to enable compliance with DWSP.

- **Facilities Management** – Implementation plans and strategies for in scope sites e.g. sampling and testing, and quality policies.

- **Asset Management** - This relates to areas such as information management, code of practice, and reporting practices.

Programme Management

Planned interventions are only costed at a project level. As there are c. 250 total in scope assets, programme management costs are required to oversee the programme of works. Some of these costs are fixed, while others are scalable depending on the number of interventions and activities required across the programme. There is a base cost associated with all Options, that is then scaled up by resources required to oversee the programme of works. This is depicted in Figure 10– Figure 13, where programme management resourcing cost is scaled up with the programme option counts.

Strategic Resilience

Stantec NZ has identified a provisional sum for this category as further work will be done on how Corrections will meet the standards set out in the Resilience Framework. This provisional sum will be used to develop a long-term response to the resilience framework to adapt assets to resist, absorb, recover from, and adapt to shocks and stresses to a set level of service. This cost only applies Option 4, Strategic Resilience.

2.3.3 T2A Programme Options

Two workshops were held with Corrections and Stantec NZ representatives in October 2022 to construct and confirm the proposed Programme Options. The general theme is that T2A Programme Options span from a 'Do Minimum' approach where only critical issues are addressed, through to a Do Maximum where High and Medium Urgency issues, plus a range of other investments are made, to minimise risk across the estate to 'low'. 'Do Nothing' is not a viable option as this approach was assessed and discounted by the original 2021 PBC. As the scope only spans 'high' and 'medium' urgency assets, 'low' urgency assets were not considered as part of any of the delivery options.

Figure 10– Figure 13, and Table 13 below, provide a visual and written representation of the options. The 'counts' in the Figures represent the number of interventions contemplated under each option. The 'total cost' identified in the Figures is an economic cost inclusive of contingencies but excludes escalation, depreciation, and capital charge. The Financial Case provides the expected financial cost of the preferred option.

There are several important additional notes that should be considered when interpreting these matrices:

- Separate DWSP and SAR were not completed for CMP – this information was contained within the same SAR. Therefore, this data has been grouped under the 'SAR Output' category.

- Resilience only reflects items that are of immediate urgency where Strategic Resilience reflects longer term resilience investments required as outlined in Appendix I.

- Programme Management has different intervention counts by option, given the way the underlying spreadsheet is structured. A base level of Programme Management cost is defined in Option One and is treated as a 'single' intervention count. Additional programme management costs for Option Two, and Option Three and Four, are counted as 'additional' interventions.

- All figures are rounded to 2 decimal places. The data has been populated from the underlying programme spreadsheet to confirm each value ties directly back to the spreadsheet output values.
- As part of the completion of each SAR, Stantec NZ, undertook a detailed assessment of each individual initiative within T2A, testing Do Nothing, Maintenance and Repair, or Replacement responses for each. This included high level assessments of cost and efficacy. Therefore, the preferred initiatives identified in each Programme Option has already gone through a separate filtering process before being considered here.

Appendix N includes a breakdown of the assets included within each Programme Delivery Option. Note for the tables below, Rimutaka Waste and Stormwater is displayed in a separate section due to the source of information that it is pulling from. Rimutaka Potable is accounted for under the Drinking Water Safety Plan Category.

Figure 10 High urgency issues only

High Urgency Issues Only 9(2)(b)(ii) 95	Site Assessment Report Output				Drinking Water Safety Plan Output						Other				Rimutaka	
	Non Compliance & Drinking Water Safety (CMP)		Infrastructure, Level of Service, and Resilience		Drinking Water Safety Plan Interventions and Facilities (in scope sites)		Drinking Water Safety Asset Management		Distribution Network Upgrades (all remaining sites)		Programme Management		Strategic Resilience		Storm and Wastewater	
Urgency	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost
High	47	9(2)(b)(ii)	0	9(2)(b)(ii)	45	9(2)(b)(ii)	0	9(2)(b)(ii)	0	9(2)(b)(ii)	1	9(2)(b)(ii)			2	9(2)(b)(ii)
Medium	0		0		0		0		0		0		0	0		
Low	0		0		0		0		0		0					
Total	**47**		**0**		**45**		**0**		**0**		**1**		**0**	**0**	**2**	
Contingency		9(2)(b)(ii)				9(2)(b)(ii)					9(2)(b)(ii)				9(2)(b)(ii)	
Grand Total	**47**				**45**						**1**	9(2)(b)(ii)			**2**	

Figure 11 Minimum compliance

Minimum Compliance 9(2)(b)(ii) 202	Site Assessment Report Output				Drinking Water Safety Plan Output						Other				Rimutaka	
	Non Compliance & Drinking Water Safety (CMP)		Infrastructure, Level of Service, and Resilience		Drinking Water Safety Plan Interventions and Facilities (in scope sites)		Drinking Water Safety Asset Management		Distribution Network Upgrades (all remaining sites)		Programme Management		Strategic Resilience		Storm and Wastewater	
Urgency	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost
High	47	9(2)(b)(ii)	68	9(2)(b)(ii)	46	9(2)(b)(ii)	0	9(2)(b)(ii)	0	9(2)(b)(ii)	1	9(2)(b)(ii)			2	9(2)(b)(ii)
Medium	12		0		23		2		0		1		0	0		
Low	0		0		0		0		0		0					
Total	**59**		**68**		**69**		**2**		**0**		**2**		**0**	**0**	**2**	
Contingency		9(2)(b)(ii)				9(2)(b)(ii)					9(2)(b)(ii)				9(2)(b)(ii)	
Grand Total	**127**				**71**						**2**	9(2)(b)(ii)			**2**	

Figure 12 Proactive stewardship

Proactive Stewardship 9(2)(b)(ii) 240	Site Assessment Report Output				Drinking Water Safety Plan Output						Other				Rimutaka	
	Non Compliance & Drinking Water Safety (CMP)		Infrastructure, Level of Service, and Resilience		Drinking Water Safety Plan Interventions and Facilities (in scope sites)		Drinking Water Safety Asset Management		Distribution Network Upgrades (all remaining sites)		Programme Management		Strategic Resilience		Storm and Wastewater	
Urgency	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost
High	47	9(2)(b)(ii)	68	9(2)(b)(ii)	46	9(2)(b)(ii)	0	9(2)(b)(ii)	0	9(2)(b)(ii)	1	9(2)(b)(ii)			2	9(2)(b)(ii)
Medium	12		36		24		2		0		2		0	0		
Low	0		0		0		0		0		0					
Total	**59**		**104**		**70**		**2**		**0**		**3**		**0**	**0**	**2**	
Contingency		9(2)(b)(ii)				9(2)(b)(ii)					9(2)(b)(ii)				9(2)(b)(ii)	
Grand Total	**163**				**72**						**3**	9(2)(b)(ii)			**2**	

Figure 13 Strategic resilience

9(2)(b)(ii) 248	Site Assessment Report Output				Drinking Water Safety Plan Output						Other				Rimutaka	
	Non Compliance & Drinking Water Safety (CMP)		Infrastructure, Level of Service, and Resilience		Drinking Water Safety Plan Interventions and Facilities (in scope sites)		Drinking Water Safety Asset Management		Distribution Network Upgrades (all remaining sites)		Programme Management		Strategic Resilience		Storm and Wastewater	
Urgency	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost	Count	Cost
High	47	9(2)(b)(ii)	68	9(2)(b)(ii)	46	9(2)(b)(ii)	0	9(2)(b)(ii)	0	9(2)(b)(ii)	1	9(2)(b)(ii)	8	9(2)(b)(ii)	2	9(2)(b)(ii)
Medium	12		36		24		2		0		2					
Low	0		0		0		0		0		0					
Total	**59**		**104**		**70**		**2**		**0**		**3**		**8**		**2**	
Contingency		9(2)(b)(ii)									9(2)(b)(ii)				9(2)(b)(ii)	
Grand Total	**163**				**72**						**11**	9(2)(b)(ii)			**2**	

Table 13 Programme options

Programme Delivery Options		
Option	**Summary**	**Practical Description**
High urgency issues only	Investment in assets and interventions to address 'high' urgency issues across the selected sites in line with current policy, and available funding to address the most critical assets. As 'high' urgency does not cover all compliance issues, Appendix E provides a detailed breakdown of which items remain uncompliant.	• Address all 'high' urgency Non-Compliance and Drinking Water Safety Issues • Address all 'high' urgency DWSP Output issues – i.e. those that must be mitigated within the next 12 months. • Includes Programme Management Costs that account for the base of Asset Management capabilities represented as 9(2)(b)(ii) [redacted] costs in the underlying data.
Minimum compliance	A targeted approach that focuses on achieving minimum compliance across all of the in-scope sites. This addresses both SAR and DWSP. This approach will expand its investigation of potential consequences to include associated infrastructure, level of services, and resilience across the SAR. It will further add to address all DWSP requirements within the selected sites.	Includes the same investments as 'High urgency issues only' plus: • 'Medium' Non-Compliance & Drinking Water Safety CMP investments that must be managed over the next 4 years. • 'High' urgency Infrastructure, Level of Service, and Resilience investments. • All 'medium' DWSP Outputs. • Additional Programme Management costs are also included to reflect the larger number of interventions and activities that require additional management scaled by additional recruitment required on top of the base Programme Management cost.
Proactive stewardship	A proactive approach to managing three waters infrastructure assets to increase resilience at an asset level. This approach will include all SAR Outputs and DWSP Outputs across 'high' and 'medium' urgencies.	Includes the same investments as 'Minimum compliance' plus: • 'Medium' urgency Infrastructure, Level of Service, and Resilience investments • Additional Programme Management costs are also included to reflect the larger number of interventions and activities that require additional management scaled by additional recruitment on top of the base Programme Management cost.
Strategic resilience	A further proactive approach to managing three waters infrastructure assets to manage risk across 'high' and 'medium' urgency levels across all sets, and improve strategic resilience. This approach will look to deliver a full suite of assets that will look to mitigate risk to the lowest possible level with a lens to include future resilience.	Includes the same investments as 'Proactive stewardship' plus: • 'Strategic Resilience' costs used to develop and drive resilience across the network, based on the delivery of the Resilience Framework

2.4 Programme Delivery Options

2.4.1 Critical Success Factors

Investment Objectives and CSFs were set out in the 2021 PBC to establish the elements that are essential for the successful delivery of the Programme.

Investment Objectives describe what the project sets out to achieve, whereas CSFs describe how best to achieve it. Given all T2A Programme Options have been designed to fully meet, or partially meet, the Investment Objectives, the CSFs assessment is seen as a key differentiator for the preferred Programme Option.

The CSFs for the 2021 PBC, and weightings, were identified by internal stakeholders at a workshop held on 29 July 2020. They are the attributes considered essential by Corrections for the successful delivery of any proposal.

These CSFs have been used as the basis for the T2A Options Assessment but have been updated to reflect the strong 'delivery' nature of the T2A DBC. Specific amendments include:

- The 'Strategic Alignment' weighting has increased from the 2021 PBC, as shown below, given the importance of mitigating risk across the estate to achieve the Investment Objectives.
- The Value for Money weighting has decreased, as shown in below, given the value for money of the entire WIP has been proven in the 2021 PBC.

Table 14 *2021 PBC and DBC CSF weighting comparison*

CSF	2021 PBC Weight	DBC Weight (in use)	Difference
Strategic Alignment	**30%**	**40%**	**+10%**
Value for Money (expected benefits)	**30%**	**10%**	**-20%**

Additionally,

- Supplier Capacity and Achievability has been combined into one CSF given that achievability of T2A activities is significantly dependent on the appetite of the market.
- An Affordability CSF has also been included given that the 2021 PBC identified an indicative cost profile for T2A.

A summary of the CSF rationale is provided below.

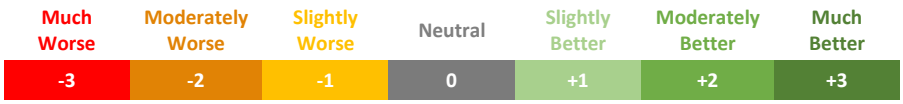
Table 15 Reasoning for changing the CSFs

CSF	Description	Weighting Reasoning	Weight
Strategic Alignment	How well does the Option reduce the risk profile of a site and how does it	This is of high importance as it covers the primary investment objectives - to improve the provision of three waters services, and meet regulatory requirements for human health, and environmental standards.	**40%**

CSF	Description	Weighting Reasoning	Weight
	align to the strategic drivers of the 2021 PBC?		
Market Attractiveness	How attractive is the package of work for the market and is it achievable in the timeframe required?	It is important that this package can be delivered within an appropriate timeframe, by a credible party, at an acceptable cost. Considering the extent to which the Programme will be attractive to the market takes on greater significance in a Detailed Business Case.	**40%**
Affordability	Is the Option within reasonable boundaries of funding apportioned across the remaining tranches of the Programme?	Affordability is important, as an expectation was set in the early stages of the Budget 2023 process, about the estimated cost of this Tranche. However, it is not a hard affordability limit, given that c. $500M has been noted in the GOV-21-Sub-0026 for the WIP, allowing investments that are not completed this Tranche to be picked up in future tranches and/or activities may be picked up in this Tranche that may have been contemplated in future Tranches.	**10%**
Value for Money (expected benefits)	Does the Option represent good economic value?	The primary focus is on reducing resultant risk in the context of achieving value for money –An assessment of value for money remains important, but is comparatively less important than the 2021 PBC.	**10%**

CSF Scoring

Each Programme Delivery Option has been assessed against the CSF's. The scores range from 'Much Worse' to 'Much Better' and individual scores also have a numeric value attached (as seen in the scale below) to enable scores to be weighted. For example, if an Option was positioned at 'Slightly Worse' it will receive a score of -1.



A detailed CSF scoring framework is provided in Appendix H, but a high-level summary is provided below.

Table 16 CSFs for programme options – evidence basis

CSF	Evidence basis
Strategic Alignment	Alignment to the intent of the 2021 PBC that exists at a site level where levels of residual risk are data driven and supported by qualitative judgements where relevant. Input and evidence from a site level have been provided from Stantec NZ/Downer/C&W, while network level required a collaborative approach with network risk assessment and configuration teams from Corrections.

CSF	Evidence basis
Market Attractiveness	An estimate of the potential market capacity to deliver a Programme Option, particularly given capacity risks at a regional level and expectations about the skills and resources to deliver the proposed Option. This assessment is based on desktop research, informal market sounding as described in the Commercial Case, and the size and nature of the programme of work.
Affordability	Assessment between the Programme Options total cost and the budget determined for this specific tranche of work by CAPEX and OPEX. Note that this will be subjective judgement based on the level of risk that is reduced now vs the residual risk/expected cost to complete remaining works.
Value for Money	Analysis will be based off the quantitative relationship between total cost: risk, expected benefits, and other non-monetised benefits in the form of Use Studies that correlate specific assets back to the qualitative benefits.

2.4.2 Strategic Alignment

Residual Risk Reduction

The residual risk reduction assessment has been completed based on the extent to which an intervention is able to reduce the current risk profile on a site-by-site basis. This is the primary assessment and directly responds to the two Investment Objectives.

- All our prison facilities have a reliable provision of three waters services by FY 2035/36
- All our prison facilities meet regulatory requirements for human health and environmental standards by FY 2025/26

The evidential basis for this assessment is the risk ratings (current and resultant) provided in the SAR and the DWSP. Stantec NZ used a risk framework in line with Corrections' Enterprise Risk Framework that ranked the consequence and likelihood of an event occurring on a scale from 1-5. These scores were then multiplied and used to create on overall risk score that ranked from 1-25 and corresponded to a rating of 'low', 'medium', 'high', or 'very high' for each individual project. More specific and quantitative details on risk scoring are included in Appendix G.

To develop a metric that can be used for Multi Criteria Analysis (MCA) scoring for each option, an average of all risk scores was taken under the current state, for each asset class. There are limitations to this approach (for example a risk score for a valve is 'weighted' the same as a pipe) but this approach is fit for purpose for this DBC as it gives an aggregate level view of the extent to which risk is reduced. A summary of these initial quantitative scores is provided in the table below.

Table 17 Initial quantitative strategic alignment MCA score

	High urgency issues only	Minimum compliance	Proactive stewardship	Strategic resilience
Initial Risk	12.81			
Resultant Risk	9.44	7.03	6.49	6.49
Percentage Change	26.32%	45.09%	49.29%	49.29%
Option Score	1	2	3	3

Qualitative Confirmation

To ensure robustness of findings, an additional qualitative check was then applied to ensure that the comparative scoring is logical and accurately represents the performance of options. Key qualitative considerations were complexity, compliance requirements, cost, and enablement of linked operations.

The qualitive consideration of options scoring resulted in the following changes from the scoring indicated by the quantitative calculations alone:

- Proactive Stewardship and Strategic Resilience adjusted from +2 to +3, demonstrating greater strategic alignment than Minimum Compliance despite being within the same quantitative range.
- High Urgency Issues Only adjust from +2 to +1, demonstrating lower strategic alignment than Minimum Compliance despite being within the same quantitative range.

Increased scoring of Minimum Compliance and Proactive Stewardship Options: The Proactive Stewardship and Strategic Resilience options are expected to have increased strategic alignment given the scale of the proposed investments and the presence of interventions, not included in the Minimum Compliance option. These variations have not been reflected through the qualitative scoring results, with all falling within the same overall band. However, their risk 'scores' of 6.49 are very close to the 6.25 threshold required for options to score 'low urgency', compared to the Minimum Compliance option score of 7.03.

Three of the largest interventions, unique to these options, have been included below to illustrate the additional contribution these options make.

- ID 552 - refers to Emergency Storage Tanks that will supply an additional 3 days of average daily flow of Potable Water and 8 days of emergency Potable water storage. It has a total cost of 9(2)(b)(ii) with a complexity rating of 'medium'. It is the only backup source of Potable Water if supply is cut off from the steel tanks and will improve resiliency across the facility.
- ID 141 - refers to a Stormwater Pipeline that has a major tree root intrusion and infiltration that is critical to the infrastructure and network. It has a total cost of 9(2)(b) with a complexity rating of 'high'.
- ID 104 – aligns with ID 552 in where it aids the replacement of the Potable Water storage emergency tanks and will provide additional booster pumps that will provide additional 3 days of average daily flow of Potable Water and 8 days of emergency Potable water storage. It has a total cost of 9(2)(b)(ii) with a complexity rating of 'medium'. It will further provide resilience to the water tanks and will feed into the Stormwater network.

Decreased scoring of the High Urgency Only Option: While this option technically scores a '2' – there are a meaningful number of assets that retain non-compliance issues. Therefore, it is proposed to score the option lower to account for these issues.

Scoring Adjustment

The table below demonstrates the changes between the original and adjusted strategic assessment scoring.

Table 18 Strategic alignment adjusted MCA score

	High urgency issues only	Minimum compliance	Proactive stewardship	Strategic resilience
Original option score	+2	+2	+2	+2
Adjusted option Score	+1	+2	+3	+3

The tables below illustrate the extent to which each option reduces the risk profile. The 'counts' in the bubbles represent the number of assets investigated that correspond to that risk rating. These tables also include investigated assets that are low risk and often result in no intervention.

It is also worth noting that the sum of the bubbles do not match the intervention counts in the option matrix. This is because some options include decommissioning of assets (which removes a resultant risk)

Figure 14 Resultant risk

2.4.3 Market Attractiveness

A market sounding exercise was completed in September 2022 by external consultancy firm The Building Information Group (TBIG) on behalf of Corrections for WIP, with a selection of NZ Tier 1 and Tier 2 Main Contractors (three waters service providers) and design consultancies interviewed. The objective of the market sounding was to understand early market feedback of the capability, capacity, and appetite for the scope of work contemplated in T2A. Key themes explored in this market sounding were:

- **Theme 1** – Market appetite for a project-by-project versus a programme approach to procurement and the related practicalities and benefits.

- **Theme 2** – Capacity in the market to deliver the works over the forecasted programme timelines.
- **Theme 3** – Different approaches to procurement and contracting of the works.
- **Theme 4** – Feedback regarding contractor site access requirements.

This market sounding complemented a desktop review conducted by Ernst & Young in August 2022 of key NZ water service providers, commercial delivery models, and issues and risks in the sector including pertinent case studies.

9(2)(b)(ii), 9(2)(ba)(i)

Analysis

The table below displays a breakdown of the size and value of the programme outlined by the various delivery options. As 'Proactive Stewardship and 'Future Resilience' have the largest programmes, with a good spread of low complexity – high complexity jobs, they have been given a score of +3.

Table 19 Package of work by size and value [16]

Option Summary		High Urgency Issues Only	Minimum Compliance	Proactive Stewardship	Strategic Resilience
Size of Programme		**95**	**202**	**240**	**248**
Complexity	**High**	11	17	18	18
	Medium	32	86	97	105
	Low	52	99	125	125
Value of Programme		9(2)(b)(ii)			
Contingency					
Total					
Complexity	**High**				
	Medium				
	Low				
Option score		**1**	**2**	**3**	**3**

*Programme costs have been included but are not relevant for 9(2)(b)(ii)

2.4.4 Affordability

Budget 23 set out a tagged contingency of $74.72M ($56.00M CAPEX, and $18.72M OPEX) for WIP.

This DBC therefore uses the tagged contingency signalled by Treasury as a guide to understand affordability. The extent to which an option is above or below the tagged contingency is set out in the tables below. It is noted that if a 'relative' affordability approach was taken to this MCA (i.e. where each option was measured against each other) the scoring would remain the same. 'High urgency issues only' has been scored the highest, as it has the largest funding headroom percentage compared to the rest of the options. 'Proactive stewardship' and 'Strategic resilience' has been scored negatively, as they go over the tagged contingency.

Table 20 Indicative options assessment cost summary

Option Summary	High urgency issues only	Minimum compliance	Proactive stewardship	Strategic resilience
Option cost	9(2)(b)(ii)			
Option net present cost *(5% discount rate)*				
MCA Score	+3	+1	-1	-2

[16] *Not based on the procurement strategy which is* 9(2)(b)(ii) *and was based on the preliminary estimates for the SAR/DWSP. Table 7: All figures are rounded to 2dp, The data has been populated from the model and each value ties directly back to the model output value*

Table 21 Indicative options assessment cost summary

Group	Source	High Urgency Issues Only	Minimum Compliance	Proactive Stewardship	Strategic Resilience
1	**Infrastructure Replacement**				
	SAR	9(2)(b)(ii)			
	Sub Total				
2	**System and Regulatory Interventions**				
	AM/FM				
	APA Water Safety				
	Water Safety				
	Water Safety Plan Interventions and Facilities				
	Drinking Water Safety Asset Management				
	Sub Total				
3	**Other**				
	Strategic Resilience				
	Sub Total				
	Programme Management				
	Sub Total				
Total					
	Contingency				
	CAPEX Total				
	OPEX Total				
	Grand Total				
	Funding envelope				
	Variance				
	Variance %				

For 'Proactive Stewardship, the CAPEX/OPEX breakdown is as follows and a detailed breakdown, including assumptions, is shown in Appendix M.

- **CAPEX –** Total CAPEX spend is $72.81M which is 85.33% of total cost. SAR Output makes up more than 9(2)(b)(ii) of this, with system and regulatory interventions only accounting for 9(2)(b)(ii)
- **OPEX –** Total OPEX spend is $12.51M which is 14.67% of total cost. SAR Output makes up more than 9(2)(b)(ii) of this, with system and regulatory interventions accounting for 9(2)(b)(ii)

2.4.5 Value for Money

Value for Money in this context is considered based on the extent to which risk can be decreased with respect to the cost of the option. The greater risk reduction determines the level of impact on Strategic and wider benefits. The Options have been assessed against a range of criteria to demonstrate quantitative and qualitative impacts – these include:

- Numeric relationship between cost and risk
- Expected water demand savings
- Qualitative assessment of an option against use cases.

Residual Risk Reduction

It is noted that there is a diminishing return to investments that minimise risk. However, the relationship between risk reduction and option cost can be used as a primary driver for the 'value for money' of each option.

A comparative trendline, plotting the relationship between cost and risk reduction, has been used for this analysis. The trend line essentially represents the 'average' relationship and therefore anything above the line shows a result that is worse than average and anything below shows a result better than average. Based off this analysis, 'Minimum compliance provides the best value for money. Proactive Stewardship sits marginally below the comparative trendline and represents value for money. This is summarised below.

Figure 15 Quantitative Relationship Between Funding and Risk

Table 22 Quantitative relationship between funding and risk

Option Summary	High urgency issues only	Minimum compliance	Proactive stewardship	Strategic resilience
Option cost	9(2)(b)(ii)			
Resultant risk	9.44	7.03	6.49	6.49
Comparative Trendline	9.21	7.74	6.78	6.42
Variance	-2.48%	9.13%	4.20%	-1.22%

Water demand savings

It is noted that many of the interventions will have a positive impact in terms of water demand savings. At a WIP level, some of these are intentional (implementation of water demand saving education) while others have co-benefits (replacing a broken pipe will reduce water leakage but also improve the ability to reliably provide water). It is likely that this positive impact will increase over time as the value of water increases (issues due to drought, climate change and more stringent requirements under the Water Services Act.

To measure the economic benefits that accrue from an intervention, the expected water demand savings by option has been multiplied by a proxy 'value of water' price, and then discounted, to provide a 'net present benefit' calculation. These results are provided below. These results include water savings that might accrue from the following:

1. **Increased leak detection** comes as a result of increased monitoring allowing leaks to be identified through changing patterns of water use.
2. **Asset renewals** ensures that there are fewer faulty assets which will result in further risk reduction.
3. **Water efficient devices** can perform all necessary tasks needed for Corrections' sites but will do so with less water used/ wasted.

It is noted that 'Proactive Stewardship' and 'Strategic Resilience' provide the greatest savings.

Table 23 Net present benefits from water savings by options

	High urgency issues only	Minimum compliance	Proactive stewardship	Strategic resilience
Net present benefits from water savings	$2.14M	$3.20M	$4.18M	$4.18M

A full breakdown of the methodology to calculate these savings has been provided in Appendix M.

Use Studies

As there are a significant number of assets considered in the SAR and DWSP, it is difficult to align all benefits to each investment. However, investigating the four largest investments required in T2A can provide a proxy for this value. These serve as 'use cases' for the expected non-quantified benefits of T2A investments.

Table 24 below provides a high-level indication of these benefits and demonstrates that 'Proactive Stewardship' and 'Strategic Resilience' incorporate all of the 'Use studies' within their delivery plan, demonstrating the highest expected positive benefits. A detailed description of these use cases is provided in Appendix K. The Use Cases were selected by taking the top 4 most expensive interventions as a proxy for all interventions. The table then indicates which Option includes these interventions as their part of their delivery plan to represent the benefit being captured. Interventions in red are regarded as not being delivered and therefore having no impact with the corresponding option.

Table 24 Use case option matrix

Use Study	Asset Description	High urgency issues only	Minimum compliance	Proactive stewardship	Strategic resilience
Water Treatment Plant located in Christchurch Men's Prison	To provide compliant treated water the Water Treatment Plant requires three main recommended actions. These include an upgrade to the Water Treatment Plant to include UV treatment, and an upgrade to the source bore.				
Water Reticulation Asset located in	Water Reticulation Assets requires installation of new flowmeters on the falling main at the entry to site. Water				

Use Study	Asset Description	High urgency issues only	Minimum compliance	Proactive stewardship	Strategic resilience
Rimutaka Prison	consumption monitoring equipment should also be installed.				
Wastewater Pump Station located in Arohata Prison	The Pump Station is in poor condition due to deformation of plastic wet well walls, in addition to minimal security to access points. Failure of the infrastructure will subsequently lead to non-compliance. The recommended action is to upgrade the asset with complete fire reinforced polyester chambers for wet wells and valve chambers. 6(c) [redacted]				
Wastewater Pump Station located in Rimutaka Prison	The Wastewater Pump Station at Te Korowai is classified as high risk due to multiple reports of faults and blockages at the pumps. Failure of the infrastructure will subsequently lead to non-compliance. The recommended action is to replace the pump station with a new package type wastewater pump station complete with fire reinforced polyester wet walls.				

Table 25 Value for money summary

Option Summary	High urgency issues only	Minimum compliance	Proactive stewardship	Strategic resilience
Option cost	9(2)(b)(ii) [redacted]			
Resultant risk	9.44	7.03	6.49	6.49
Comparative trendline	9.21	7.74	6.78	6.42
Water demand savings (NPV)	$2.14M	$3.20M	$4.18M	$4.18M
Number of case studies addressed	2	3	4	4
Option Score	+1	+2	+3	+2

2.5 Identifying and Testing the Preferred Option

2.5.1 Identifying the Preferred Option

The table below outlines the results of the assessment. This confirms that the preferred T2A Programme Option is **Option 3: 'Proactive stewardship'.**

Table 26 Programme options assessment

		Programme Options			
Critical Success Factors	**Weight**	**High urgency issues only**	**Minimum compliance**	**Proactive stewardship**	**Strategic resilience**
Strategic Alignment	**40%**	+1	+2	+3	+3
Market Attractiveness	**40%**	+1	+2	+2	+2
Affordability	**10%**	+3	+1	-1	-2
Value for Money	**10%**	+1	+2	+3	+2
Total (Weighted)		**1.2**	**1.9**	**2.2**	**2**
Rank (Weighted)		**4**	**3**	**1**	**2**

'Proactive stewardship' is comprised of 240 interventions, with a total economic cost of 9(2)(b)(ii) (including contingencies), and a net present cost of 9(2)(b)(ii) This option is considered preferred because:

- **It best achieves the Strategic Objectives of the WIP**. Primarily, it reduces the likelihood that exists across all in scope sites from 'high' to a 'medium-low'. This means that Corrections is giving effect to the expectations under CO(19)6 for good asset stewardship; is looking to improve health, safety, and wellbeing of people in prison, staff, and the public; meet regulatory compliance expectations, and should result in improved reputation, relationships, and partnerships.
- **It is likely to be attractive to the market.** Given that it is the equal 'largest' option, it has a range of jobs (of varying complexity), and contributes to an expected larger pipeline of works, this option is expected to be attractive to 9(2)(b)(ii) . This means that opportunities for delivery optimisation and increased value for money in supporting better planning, prioritisation of work, and standardised approaches, with some flexibility to respond to changing priorities and operational constraints.
- **It represents good value for money.** The option has a positive cost-risk reduction ratio, is expected to generate c. $4M NPV in economic water demand saving benefits, and incorporates all four of the selected 'Use Studies' from Appendix K. In practice, some of this may be cash savings for sites that pay volumetric charges which will have reduced payments given reduced leakage.
- **It sits near the cost outlined in the 2021 PBC and the budget indicated from Treasury.** The economic cost of this option is within 9(2 of the communicated funding expectation outlined in the 2021 PBC.

Table 27 CSF score summary

CSF Score Summary			
Strategic Alignment	**Market Attractiveness**	**Affordability**	**Value for Money**
+3	+2	-1	+3

Table 28 Programme of work summary

Programme of Work								
Complexity	**Count**	**% of Total**	**Cost**	**Contingency**	**Total**	**% of Total**	**Current Risk**	**Resultant Risk**
High	18	7.50%	9(2)(b)(ii)			20.28%	20.43	5.82
Medium	97	40.42%				29.62%	16.67	9.36
Low	125	52.08%				50.11%	16.46	6.77
Total	**240**	**100.00%**				**100.00%**	-	-

2.5.2 Contribution to the Living Standards Framework

The benefits of investment in the WIP have been explored in the ILM, 2021 PBC, and more specifically in the Strategic Case. An additional exercise has been undertaken to summarise the benefits delivered by the preferred option, and their alignment to the Living Standards Framework (which represent an assessment of benefits to all society). A summary of this exercise is provided in the Figure 16 overleaf.

2.5.3 Sensitivity Testing the Preferred Option

The 2021 PBC included sensitivity testing and risk analysis behind the selection of a Proactive Stewardship programme option which has set the direction for the options within this Economic Case. As a result, the options in this Economic Case exist on a spectrum from “do nothing” to “do everything”. Therefore, these options, and the analysis undertaken for the options builds in sufficient testing of the sensitivity of the preferred option, if it were to be scaled upon or down to the next option along this spectrum.

The Management Case, and Financial Case also build in mechanisms which help to minimise the sensitivity of the preferred option through scalable approaches.

Figure 16 Benefits of the preferred option

Summary of Proactive Stewardship

240
Interventions

18	95	125
Low Complexity	Med Complexity	High Complexity

9(2)(b)(ii)
Capital Cost

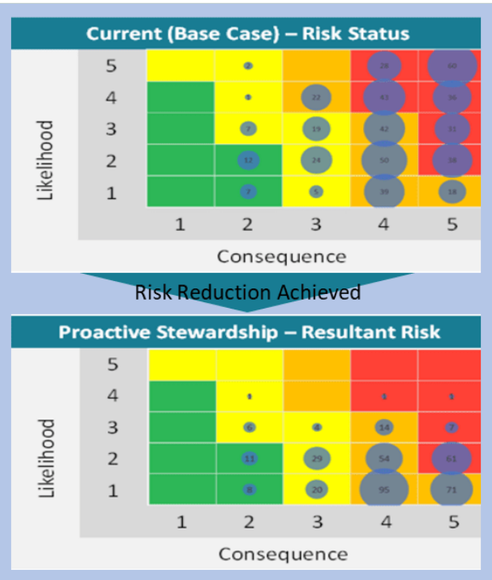
9(2)(b)(ii)
Net Present Cost

Primary Benefits of Proactive Stewardship

- Improved provision of three waters services.
- Ensuring facilities support sustainability and meet the requirements for human health and environmental standards.
- Reduced stormwater and wastewater discharge into waterways & environments.
- Improved reputation and trust through better asset management.
- Improved safety outcomes through reduced maintenance and improved levels of service.
- Increased provision of employment opportunities for businesses in the regions.

Strategic Alignment

Risk Reduction:
The investment significantly reduces the current risk profile across Corrections three waters infrastructure. It reduces the likelihood that exists across all in scope sites from 'high' to a 'medium-low'. This means that Corrections is giving effect to the expectations under CO(19)6 for good asset stewardship; is looking to improve health, safety, and wellbeing of people in our care, staff, and the public; meet regulatory compliance expectations, and should result in improved reputation, relationships, and partnerships.



Value for Money:
The option has a positive cost-risk reduction ratio when considering the cost of investment, risk reduction and diminishing returns. It is also expected to generate c. $4m NPV in economic water demand saving benefits.

9(2)(b)(ii)

Living Standards Framework Domain Alignment

Safety
The investment improves resilience to disruption and improves safe drinking water supply. This ensure a safe water supply, and that water supply pipes can be isolated and continue to operate if an incident occurs elsewhere in the system.
In addition, reduced reactive maintenance and risk of disruption generates less decanting of facilities which put staff and prisoners in unsafe positions.

Subjective Wellbeing
Improved drinking water and wastewater provisions for staff and prisoners will support health and wellbeing outcomes. In addition to the physical wellbeing benefits, the visibility of investment to support physical wellbeing will also improve mental wellbeing through a further demonstration of care for staff and prisoners.
The reduction in reactive maintenance overtime improves wellbeing for staff and prisoners by minimising disruption to living and operation.

Natural Environment
The improvements undertaken to assets across Corrections will aid in reductions to consumption contributing to environmental sustainability and alignment with consents and delegations. The water savings achieved by Proactive Stewardship equates to $4.18m in net present benefits.
Improvements will reduce the frequency and severity of stormwater and wastewater discharge into neighbouring water ways and environments, reducing adverse environmental impacts.

Income, Consumption and Wealth
The investment provides a pipeline of capital works in regions across New Zealand. This will provide employment opportunities and economic stimulus to these regions supporting uplift. This will also contribute to **subjective wellbeing** for these regions where additional employment opportunities are provided.

Central and Local Government
The investment improves the institutional capacity and capability of Corrections to deliver an effective asset management plan. This will enable Corrections to deliver specific interventions and tools to their ways of operating. Improved asset management and mitigation of environmental effects will improve Corrections reputation supporting greater trust in public institutions.

3. Commercial Case –The Proposed Procurement Approach

Commercial Case Summary

This Commercial Case presents the preferred procurement approach for T2A of the Corrections' WIP, and how the procurement process has identified and mitigated the risks associated with this approach. A key factor identified for the successful delivery of T2A lies in attracting market participants with sufficient capability, capacity, and level of experience to deliver public value across the programme, while also meeting the time, cost, and outcome expectations of Corrections and its interested parties.

9(2)(b)(ii) [redacted]

3.1 Introduction

3.1.1 Procurement Strategy

The proposed procurement approach to market, outlined below, has been detailed in the WIP T2A Construction Procurement Strategy, which is included as Appendix P.

3.1.1.1 Strategic Procurement Context

The New Zealand Government's ongoing Affordable Waters Reform Programme seeks to mitigate the current and future impacts of historical underinvestment in waters infrastructure, increased population growth, and the ongoing impacts of climate change, to ensure the safe and reliable operation of three waters networks across the motu. Part of this reform programme is the consolidation of the management of these services from 67 individual council bodies in to ten new regionally led public Water Service Entities (WSEs) (prior to April 2023 it was four new regional Water Service Entities) under the Water Services Entities Act 2022. The ultimate deadline for getting the ten new WSEs up and running has been pushed out by 2 years and is now July 2026 (previously July 2024 for the 4 WSEs) with regions able to set up WSE's sooner if ready.

The cost of meeting the upgrades needed to the NZ water systems is estimated to be between $120 billion – $185 billion over the next 30 years. Prior to April 2023 it was expected that the 4 WSEs would have an initial budget of $1.6 billion in the first year to address this historic underinvestment in assets, however at the time of writing this commercial case it is unclear whether the budget remains the same across the ten new water entities or whether it has changed. Notwithstanding this, the delivery of this programme of work is expected to place pressure in the short to medium term on a market already experiencing capacity shortfalls, workforce constraints, and supply chain issues.

Work required to comply with newly enacted legislative and regulatory requirements, such as the Water Services Act 2021, and the large programmes of work offered by WSEs will take priority in the market, due to these providing certainty of work to service providers within the industry. In terms of scale, WIP is not a large programme when compared to these other expected programmes.

Programme Procurement Strategy Considerations

The following key considerations were compiled in determining the most appropriate and beneficial procurement strategy for T2A:

Table 29 Programme procurement strategy considerations

Topic	Consideration point
Existing AM/FM Provider	The procurement approach must recognise the existing contract arrangements with Downer and, should a new contract for water infrastructure be established, then both contracts must complement each other where possible.
Government Procurement Rules	The procurement approach must be compliant with the GPR, consistent with the principles of good procurement and aligns to Corrections' Supplier Relationship Management Framework for all Key and Critical suppliers.
Secure environments	To support a high level of confidence in a main contractor's ability to safely undertake the works in an extremely secure environment.
Current market dynamics and costs	To establish a design and construction delivery approach that achieves a balance between cost surety and risk pricing, that is fair to all parties.
WIP market placement	To position the procurement in a manner that is attractive to the market.
Programme planning	To engage consultants and contractors who understand constraints and will work collaboratively and flexibly to minimise design re-work, operational disruption, and programme impact.

Strategic Procurement Objectives

WIP has determined six strategic procurement objectives that must be achieved to successfully deliver the outcomes of T2A, and which each procurement option has been considered and assessed against, reflecting what is important to Corrections and what it would signal to the market:

Table 30 Strategic procurement objectives

Procurement Objective	Description
Quality	To attract delivery partners that can effectively and efficiently deliver T2A within an operating Corrections site. Attracting high-caliber participation from the market securing competent, safe, and capable partner(s) (e.g., no interruption to prison operations and security is maintained at all times).
Time	To provide for efficient delivery through design, constructability, coordination, and sequencing, as well as works packaging and bundling (i.e., efficient on-site work/efficient utilization of time inside the wire and ensuring the primacy of risk reduction).

Broader Outcomes	To provide opportunities to reduce the cycle of reoffending (i.e., Broader Outcomes through opportunities for prisoner education and employment, woman in business and Māori businesses, workforce skills and development).
Risk mitigation	To allocate risk fairly and transparently to the party best able to manage it – including considering data/data management gaps and operational risks which fall to Corrections.
Reputation	To develop and maintain trusting relationships with stakeholders, regulators, councils, and others for the duration of the programme, by keeping stakeholders (such as suppliers, contractors and consultants) informed prior to and throughout the duration of the programme, and through attending WIP and Departmental led meetings with councils and regulators etc.
Wider engagement	Ensuring effective and collaborative relationships with mana whenua and iwi partners, and maintaining or improving these relationships as part of the WIP

These strategic procurement objectives were compiled and refined as part of the first of the three WIP procurement workshops which were held on 22 September 2022, and 5 October 2022. All key procurement stakeholders were invited to participate in all workshops, which included TSA Advisory as the key external consultants who led and facilitated the workshops, EY representatives, WIP representatives including the Programme Manager and WIP Project/Workstream leads, and procurement representatives (specialists/managers) from Corrections' Asset Management (AM) team and National Procurement team (NPT), and also included WIP's Probity Assurance representative (Audit NZ).

While the 2021 PBC commercial case set out several procurement assumptions it did not establish the strategic procurement objectives, which have now been finalised within the context of this commercial case. These objectives are important as the procurement approach for T2A, and WIP in general, will link these objectives to the selection of an appropriate delivery model and the procurement planning, through to the implementation and use of contractual mechanisms and incentives for delivery. The strategic procurement objectives were initially proposed within the WIP procurement workshops and were refined and finalised through the group discussion. The strategic procurement objectives were considered against, and aligned, with both WIP strategic objectives as set out in the 2021 PBC and WIP plans, as well as the wider Corrections strategy and objectives.

3.1.1.2 Scope of Procurement

This DBC addresses works to be delivered under T2A of the WIP. The complexity of works required vary by site, with investigations undertaken at sites throughout T1 assessing some sites as requiring new, or extensive interventions to, waters infrastructure assets. At other sites, where assets have been assessed as of better condition, the works required will be to maintain asset condition and achieve regulatory compliance. Further detail on the works to be delivered during T2A can be found in the Economic Case of this DBC.

Site investigations completed under T1 (by Downer NZ) in relation to these sites encompassed leak detection, CCTV, potholing, inflow & infiltration, topographical surveys and above ground system condition assessments, and the results from the SAR (completed by Stantec NZ as the lead engineering consultants)

have largely validated the scope of construction procurement for T2A (which is consistent with the 2021 PBC). This scope is:

- Construction requirements in relation to three waters infrastructure, for five priority prison sites:
  - MECF,
  - Rimutaka Prison,
  - Arohata Prison ,
  - CMP , and
  - Rolleston Prison .

These 5 sites were prioritised and investigated as these sites were assessed (by Stantec NZ being the lead engineering consultants on the 2021 PBC) as having the highest risk profile.

- Construction activity related to achieving compliance with new drinking water safety regulations, including the creation of DWSP at four sites for which Corrections is responsible for potable water supply and not only potable water distribution:
  - Waikeria Prison,
  - Whanganui Prison,
  - CMP, and
  - CWP.
- Transfer of new assets to Corrections' asset management and facilities maintenance (AM/FM) providers (including warranties and defect notification periods, if applicable), terms and conditions of which will be negotiated with the incumbent provider by the main contractor (if different to the incumbent provider) and/or Corrections.
- The other ancillary procurement activities which will be a part of T2A which include Design Assurance services, Quantity Surveyor services, Legal services, Consenting Advisory Services, and other Professional Services. These activities are detailed out further in section 3.1.1.11 'Ancillary Procurement Activity.'

The following elements are out of scope (which is consistent with the 2021 PBC):

- Building mechanical or electrical installed inside a building, or on a building as part of a system, such as plumbing pipes, fixtures, fittings, and equipment.
- Other waters infrastructure that is not used for three waters purposes, such as standalone irrigation infrastructure.
- Three waters infrastructure that services property or land assets owned or operated by Corrections that are not related to prison facilities, such as Community Corrections Facilities.
- Any construction related requirement or activity considered to be operating expenditure (OPEX), such as repair (fail/fix), or operational and maintenance activities.

It is assumed that the ongoing maintenance and operation of any physical assets delivered under the scope of the programme will be the responsibility of Corrections' incumbent AM/FM service providers. It is therefore critical that the successful tenderers for T2A, and WIP in general, develop as-builts, digital records of construction, and maintenance recommendations that meet the requirements of Corrections and its incumbent AM/FM providers, which are compatible with both parties' asset management databases.

As detailed in the Financial Case, the total financial cost of the preferred Option 3 'Proactive Stewardship' is expected to be 9(2)(b)(ii) . Of this, 9(2)(b)(ii) is attributed to capital costs (which includes investigations, construction, design, resource consent, management, surveillance, and quality assurance (MSQA)). A breakdown by site of the estimated capital costs (and therefore the value of the procurement) is detailed in the table below.

Table 31 Estimated capital cost by site

Site / Project	Estimated Costs (incl. contingency)
Mount Eden Corrections Facility	9(2)(b)(ii)
Rimutaka Prison	
Arohata Prison	
Rolleston Prison	
Christchurch Men's Prison (DWSP interventions only)	
Waikeria Prison (DWSP interventions only)	
Christchurch Women's Prison (DWSP interventions only)	
SUBTOTAL CAPITAL COST (CONSTRUCTION PROCUREMENT VALUE)	
Whanganui (DWSP interventions only)	
Programme Management (All Sites)	
TOTAL CAPITAL COST (CONSTRUCTION PROCUREMENT VALUE)	

Note: a 30% contingency has been built into the capital costs for each site

Ongoing maintenance and operation of the physical assets delivered under the scope of the programme will be the responsibility of Corrections incumbent AM/FM service providers (Downer, and Cushman and Wakefield, respectively).

3.1.1.3 Market Analysis

WIP engaged Ernst & Young (EY) in August 2022 to undertake a desktop market scan of three waters service providers in New Zealand. This included the identification of market participants, commercial models that are being employed in the market, and observations about the three waters sector that are relevant for Corrections in the development of a three waters procurement strategy.

The EY market analysis applied the following classification system to potential providers of physical works. See Appendix S for a full list of Tier 1 contractors identified.

Tier 1: Three waters infrastructure providers with a national or international presence who offer comprehensive services in the construction, operation and maintenance of three waters. These providers have the capability to deliver large packages of work for three waters construction works throughout New Zealand, either directly from their own organisations or through established subcontractor relationships. These providers typically also couple design capability with their service offering and can also deliver a management value add. They typically have over 100 employees. Locally owned Tier 1 providers include Fulton Hogan, City Care Water, and Fletcher Building. Internationally owned companies (or their subsidiaries) include Downer Group, HEB Construction, McConnell Dowell, Veolia and Ventia.

Tier 2: These providers do not have a full service offering across New Zealand, nor do they appear to have the same level of workforce capacity as the larger service providers. These are providers who are either regionally based or operate across several geographically close regions. They are experienced in the delivery of three waters infrastructure and have established supply chains. They typically do not have design capability in house but are able to partner with design service providers if required, e.g., if they operate as the main contractor in a design and build construction/commercial model. These providers also often sub-contract to Tier 1 providers for the delivery of works. They typically have 10 – 100 employees. Tier 2 providers include Auckland and Hamilton based Pipeline and Civil, Spartan Construction, and March Cato. E Carson and Son are Wellington based, with Trility based in the Bay of Plenty, and Corde in Canterbury.

An infographic showing a summary of the three waters service providers by region, as identified in the EY desktop market scan, is shown in Figure 17 below.

Figure 17 Infographic of Three Waters Service Providers from the EY Three Waters Service Provider Market Scan Report for Corrections

The EY market scan report also identified design and engineering service providers. A full list of the providers identified are in Appendix T.

Market and supplier related risks to be addressed through the procurement process were also identified, including:

- an unprecedented level of infrastructure investment over the next decade,
- market capacity constraints for suppliers,
- labour shortages and market constraints due to the ongoing impacts of COVID-19,
- a shift from a 'buyer's' to a 'seller's' market,
- the location of Corrections sites in constrained regional markets,
- supply chain tightness and price escalation, and
- any potential impacts of ongoing Affordable Waters Reform Programme on the sector, which may need to be considered within the context of T2A construction delivery.

3.1.1.4 Market Engagement

Market sounding approach and provider selection

In early September 2022, Corrections engaged The Building Intelligence Group (TBIG) to conduct a targeted market sounding exercise on behalf of WIP. The full TBIG Market Sounding report is attached in Appendix R.

A selection of Tier 1 and Tier 2 service providers and design consultancies identified in the EY desktop market scan report were engaged, with the objective of seeking feedback on market capability, capacity, and appetite for the scope of work of T2A. Interviews with each entity were structured around four key themes:

- **Theme 1 -** Market appetite for a project-by-project versus a programme approach to procurement, and the practicalities and benefits of each.
- **Theme 2** - the market's capacity to deliver the works over the forecasted programme timelines,
- **Theme 3** - different approaches to procurement and contracting of the works, and
- **Theme 4** - feedback regarding operating within Corrections' security and site access requirements.

Table 32 Participants/suppliers selected for TBIG market sounding

Tier 1 Construction Service Providers	Tier 2 Construction Service Providers	Tier 1 Design and Engineering Service Providers
9(2)(b)(ii), 9(2)(ba)(i)		

Tier 1 and 2 contractor Feedback

It was noted between both Tier 1 and 2 contractors that the WIP scope and type is standard water services work which they have the plant and skillsets required to undertake. Most have specialist 'water' divisions offering technical expertise as well as typical civil works, such as specialist pipe layers and trenchers.

9(2)(b)(ii), 9(2)(ba)(i) [redacted]

Design and Engineering Consultants feedback

9(2)(b)(ii), 9(2)(ba)(i) [redacted]

Implications of market feedback for WIP

Market feedback suggests that WIP will be competing with councils (in the short term as part of their annual waters related operating and maintenance plans and as assets are transferred to WSE's) and WSEs for capacity and capability in the market, and that Tier 1 providers may prioritise higher value or more strategically important opportunities. This is partly due to ongoing and potential future impacts of changes to three waters legislative and regulatory requirements, and partly due to legacy issues resulting from historical underinvestment in water assets. It is likely that there is a considerable amount of future three waters investment that has not yet been quantified, and, when tendered, would have a material impact on existing capacity constraints within the market.

The market sounding also indicates that 9(2)(b)(ii), 9(2)(ba)(i) [redacted]. Market sounding also suggests 9 [redacted] providers attracted to the opportunity provided by T2A would provide additional value to Corrections by supporting enhanced planning and prioritisation of work, as well as standardising delivery approaches. This would provide additional flexibility to respond to any unforeseen changes to priorities or operational constraints during delivery of T2A and would support an uplift in asset management capability for Corrections more generally. The larger capacity and capability of Tier 1 providers would also provide the ability to support the attainment of the broader outcomes that WIP and Corrections seek to achieve through this programme. This is because Tier 1 suppliers would likely have more experience 9(2)(b)(ii) [redacted] for incorporating Māori and Pasifika businesses into their overall delivery.

The backdrop against which this market feedback must be considered is the evident pressure building within the market as major infrastructure projects across New Zealand continue to face increasing cost pressures and supply chain disruption as demand on the construction industry outstrips supply. External factors have driven these pressures, including the residual global impacts of the COVID-19 pandemic. Furthermore, industry market studies, including recent Department of Statistics releases on national inflation figures, indicate that price escalation in the market is currently between 8% - 15% per annum. The key supply chain and material constraints for T2A of WIP have been evaluated, with consideration given to

how these may be mitigated or exploited. Possible mitigations include the selection of a provider who can demonstrate effective management of any supply chain disruptions, or uncertainty in programming and pricing, while exploring potential opportunities provided by advance payments for materials is another possibility to providing certainty of supply to WIP.

3.1.1.5 T2A Procurement Packaging Analysis and options

The WIP T2A Construction Procurement Strategy provides two possible options to package the preferred option for T2A, namely 9(2)(b)(ii) and 9(2)(b)(ii) which were arrived at on a qualitative basis. The preferred option is to package the procurement for 9(2)(b)(ii)

TBIG was engaged by WIP in September 2022 to analyse and advise on suitable T2A procurement packaging and options following the market sounding. After considering the market feedback, several discussions were then held between WIP and TBIG (and analysis done by TBIG) during Sept – Oct 2022 to determine the most suitable procurement approach and packaging options. TBIG also worked closely with TSA to inform the three WIP procurement TSA-led workshops held during September – November 2022 so that thinking and analysis were aligned, and all relevant information shared.

Analysis and thinking by WIP and TBIG considered options such as 9(2)(b)(ii) see TBIG analysis in Appendix R – TBIG Market Sounding report). Furthermore, as all sites included in T2A have varying scales of value, complexity and urgency, this required interrogation to adequately consider and identify the preferred approach to delivery. Using the Stantec NZ SAR based on Downer site investigations, further analysis was then conducted by TBIG across the T2A sites in scope to understand:

- cost estimates per site,
- site complexities, which were classified as either Low (maintenance), Medium (renewals), or High (major projects)
- urgency (of works)
- timing and sequencing of T2A works delivery (simultaneous vs scheduled vs consecutive) against programme, cost, funding, Corrections' capacity and market capacity considerations.

This analysis is contained in the T2A Construction Procurement strategy in Appendix P. This qualitative analysis showed that the 9(2)(b)(ii) It was considered that due to the resourcing and logistical challenges with sites spread across NZ, there were reasonable benefits to both 9(2)(b)(ii) delivery models, with key points to consider for each. These are outlined below:

Table 33 Project packaging options

Project Packaging Options	Benefits	Risks
9(2)(b)(ii)		

Project Packaging Options	Benefits	Risks
9(2)(b)(ii)		

Project Packaging Options	Benefits	Risks
9(2)(b)(ii) [redacted]		

Balancing the benefits and risks of 9(2)(b)(ii) [redacted] options, the 9(2)(b)(ii) [redacted] delivery model provided the most appeal for T2A to the contractor market. As 9(2)(b)(ii) [redacted] was one of the key considerations to come out of the market sounding, it was decided that this along with the 9(2)(b)(ii) [redacted] aspects of this 9(2)(b)(ii) [redacted] would provide the best packing option for T2A.

3.1.1.6 Consideration of Delivery Models

There are a variety of commercial models available within the market that allocate roles, responsibilities, and risk to different parties. The suitability of these commercial models is closely linked to the individual project or programme attributes, as well as the client/market capability. The risk allocation of any given model has a significant bearing on how attractive each model is within the market.

The government construction procurement guidelines outline the types of delivery models available. The following diagram illustrates how each of these models influences the procurement approach, as well as opportunities for collaboration and innovation given the complexity, risk, and scale of the project.

Figure 18 Commercial delivery models

9(2)(b)(ii) [redacted]

* **Note:** *The* 9(2)(b)(ii) *depicted above in the figure is synonymous with the* 9(2)(b)(ii) 9(2)(b)(ii) *commercial delivery model referred to in*

Table 36.

****Note:** *The* 9(2)(b)(ii) *based delivery Model depicted above includes the* 9(2)(b)(ii) *delivery model (referred to in* Table 36.*) which is a subset of it.*

TSA Management Ltd were engaged by WIP to facilitate workshops in September and October 2022 to evaluate potential delivery and procurement models for T2A. The 2021 PBC had previously also assessed a range of potential delivery and procurement (commercial) models for capital interventions for the Programme as a whole and grouped these into three broad categories: traditional models, collaborative models, and bundled models. The different categories represented different outcomes in respect of risk transfer, contract duration and public sector participation. The 2021 PBC used ten weighted evaluation criteria, which were weighted and scored as part of the procurement model selection process. These same criteria were updated and reduced in number to fit current context of WIP T2A as an outcome of Workshop One.

The primary aim of these engagements (Workshops 1 & 2) was to consider, informed by the market feedback received, whether the evaluation criteria and commercial delivery models specified in the Commercial Case of the 2021 PBC were still fit-for purpose in the current context of WIP. These workshops also provided the opportunity to ensure that all relevant stakeholders were involved in this process, and that relevant subject matter expertise was properly considered in a collaborative forum. The workshops held were:

- **Workshop 1 (Sept 2022):** Revision of Evaluation Criteria.
- **Workshop 2 (Oct 2022):** Application of Evaluation Criteria.

WIP Procurement Workshop 1 Outcomes

The outcome of workshop 1 was an updated and ranked evaluation criteria, to be used to facilitate the assessment of procurement models in Workshop 2. The evaluation criteria were ranked to reflect their relative importance to the programme by applying the following scoring methodology detailed in the table below:

Table 34 Ranked evaluation criteria

Updated WIP DBC Criteria	Weighting
Flexibility	**25%**
Market Attractiveness	**20%**
Time confidence	**15%**

Corrections capability and capacity (Cost) ***(The more risk retained by Corrections the higher the internal capability required – therefore the higher the cost)***	**15%**
Risk allocation	**10%**
Cost Confidence	**10%**
Broader outcomes aligned to reducing reoffending	**5%**

Table 35 Criteria weightings key (consistent with 2021 PBC)

Weightings	Relative importance	Description
>15%	**High**	Criterion reflects a high relative importance
10%	**Medium**	Criterion reflects a medium relative importance
5%	**Low**	Criterion reflects a low relative importance

Evaluation Criteria

The evaluation criteria were carefully considered and discussed during Workshop 1 and defined as follows:

- **Flexibility:** Corrections adopts a procurement approach that is agile to provide enough flexibility to address unanticipated changes in scope, sequencing, timing, priority, or other requirements, but still maintains continuity of correctional facilities operations. For example:
    - If a facility is temporarily closed, then there is the ability to bring forward WIP work
    - If a facility's (three) waters infrastructure has a status change this can be easily reprioritised.

- **Market attractiveness:** The extent to which the procurement approach is attractive to the market given its feedback, including Contractor involvement in understanding assets, design, planning and prioritisation, management of risks and resource constraints, overlay of systems & processes and standardised approaches.

- **Time confidence:** The extent to which the procurement approach provides confidence regarding time to completion at the point of commitment. For example:
    - High-risk facilities (T2A) are completed on time.
    - Correctional facilities are given timeframes for construction that are met (strict duration for inside the wire – both contractor and operations).

- **Corrections capability and capacity:** Capability and capacity of Corrections to effectively deliver the procurement method including contract management and interface risk. This is linked to risk allocation; the more risk Corrections accepts the higher the internal capability required, and this has an associated cost.

- **Risk allocation:** The extent to which the procurement approach efficiently allocates and manages risk i.e., responsibility with those best placed to manage the risk. This criterion is linked to:
    - Corrections' capability: The more risk you retain the more internal capability is required, which results in higher costs.
    - Corrections' asset information: The quality of Corrections' asset information and the outcome of site investigations.

- **Cost Confidence:** The extent to which the procurement approach provides confidence regarding costs against budget at the point of commitment. Value-for-money assessments will look beyond price to incorporate asset performance (quality) and public value, including environmental and social factors, into decision-making.

- **Broader Outcomes:** The Government Procurement Rules mandate agencies to consider broader social, cultural, economic, and environmental outcomes within the procurement strategy of major projects, including contribution toward regional economic growth. Consider procurement that supports a Broader Outcomes approach such as reducing reoffending – prisoner education and employment, skills development and health, safety and wellbeing promotion and 'by-design' initiatives.

Several key commercial models identified in the 2021 PBC were discounted during Workshop 1 based on these updated criteria, including:

WIP Procurement Workshop 2 Outcomes

At Workshop 2 potential commercial models, including some discounted at the 2021 PBC stage (but now potentially relevant in the context of WIP T2A), were scored (separately by two teams) against the updated criteria shown in Table 34, using the same scoring method used in the 2021 PBC. Potential commercial models were scored for T2A alone, as well as for the entire programme. Refer to Appendix U for the full Commercial Model Assessments.

Whilst generic definitions for the different models were provided to assist evaluation, there was some debate at the workshop as to how the models would apply in the context of WIP i.e. as applied to just T2A or the entire programme (or residual being after T2A completes).

Nine models were ranked (with the final rankings shown in the table below) by the two groups considering both scope of T2A only and also the entire WIP programme. In summary, 9(2)(b)(ii) approach ranked first by both teams when considering just T2A, however, there was not a clear first-ranked option when considering the entire programme.

Table 36 Delivery model ranking

	DBC Team 1: T2A	DBC Team 2: T2A	DBC Team 1: WIP Programme	DBC Team 2: WIP Programme
9(2)(b)(ii)	5	2	7	5
	3	4	5	6
	Discounted	3	Discounted	Discounted
	1	1	1	3
	Discounted	Discounted	Discounted	Discounted
	Discounted	Discounted	2	2
	2	Discounted	3	1
	4	5	6	7
	Discounted	Discounted	4	4

-2	-1	0	1	2
Performs very weakly against criterion	*Performs weakly against criterion*	*Performs moderately against criterion*	*Performs strongly against criterion*	*Performs very strongly against criterion*

Key:

A full assessment of each model is documented in the T2A Construction procurement strategy provided as Appendix P, however, in summary, as noted above, the 9(2)(b)(ii) model is the preferred procurement option for T2A.

9(2)(b)(ii)

9(2)(b)(ii)

In addition to the models already discounted at the first stage, two additional models considered for T2A were also discounted as follows:

9(2)(b)(ii)

3.1.1.7 Existing Asset Management and Facilities Maintenance (AM/FM) Arrangements

Business as usual (BAU) asset management/facilities maintenance (AM/FM) activities of Corrections' three waters infrastructure is managed via the AM/FM providers Downer and Cushman & Wakefield NZ (CW). Most of the prison estate (15 facilities) fall under the 10-year Downer contract (signed November 2018). All prison sites considered under T2A (except for Waikeria Prison) are currently under AM/FM service arrangements filled by Downer. The new facilities at Waikeria Prison are being built under a Public Private

Partnership arrangement with Cornerstone Infrastructure Partners (CIP)[17] being responsible for designing, building and financing the new facilities. CIP is also responsible for the asset management and facilities maintenance of the new facilities and has subcontracted the AM/FM to CW for new facilities on a 25-year contractual basis. CW is also responsible under a sperate contract with Corrections for the AM/FM of the rest of Waikeria Prison, i.e. the older section of the prison.

The scope of the Downer and CW contracts include planned and reactive maintenance, asset management including planned asset replacement (PAR) and associated minor capital works, and ongoing asset management compliance. The full scope of the contract can be understood from the diagram below which is taken from the current Downer AM/FM contract (and is very similar to the AM/FM CW contract which is based on the Downer contract).

Figure 19 Downer AM/FM contract scope

3.1.2 Recommended Procurement Approach

The 2021 PBC identified that the location of sites, scope and size of the programme, and timing of key services required to deliver WIP are fundamental determinants of the procurement approach. It also highlighted the requirement for a rigorous process to identify the best procurement approach and commercial delivery models for each of the core aspects of WIP.

Since T2A is 9(2)(b)(ii) several providers in the market will have the capacity and capability to deliver the works. However, when

[17] Cornerstone Infrastructure Partners (CIP) is a consortium made up of construction partners, design teams, investors, and specialist asset management, facilities maintenance and security service providers

considered alongside the geographic divergence of the project and other competing market opportunities, feedback from the market suggests 9(2)(b)(ii), 9(2)(ba)(i) [redacted]

As outlined in sections 1.1.4 and 1.1.5 of this Commercial Case, a series of procurement workshops were held across Sept-Nov 2022 to evaluate commercial delivery models and packaging approaches, review potential procurement approaches against a range of evaluation criteria and programme considerations, and consider the market context. 9(2)(b)(ii) [redacted].

The recommended approach is to 9(2)(b)(ii) [redacted] based on the:

- value of the procurement,
- diverse geographic location of sites for works delivery,
- market sounding conducted by TBIG on behalf of Corrections during September and October 2022 (as detailed in section 1.1.3 of this commercial case),
- SAR prepared by Stantec NZ based on site investigations conducted by Downer, and
- outputs of the TSA led procurement commercial delivery model evaluation workshops.

Under the 9(2)(b)(ii) [redacted] approach, there are two options to achieve this arrangement:

- **Option 1** – 9(2)(b)(ii) [redacted]
- **Option 2** – [redacted]

When considering Option 9(2)(b)(ii) [redacted] feedback from the market sounding conducted by TBIG suggests that the scope of works is 9(2)(b)(ii) [redacted]

Recommended Procurement option – 9(2)(b)(ii) [redacted]

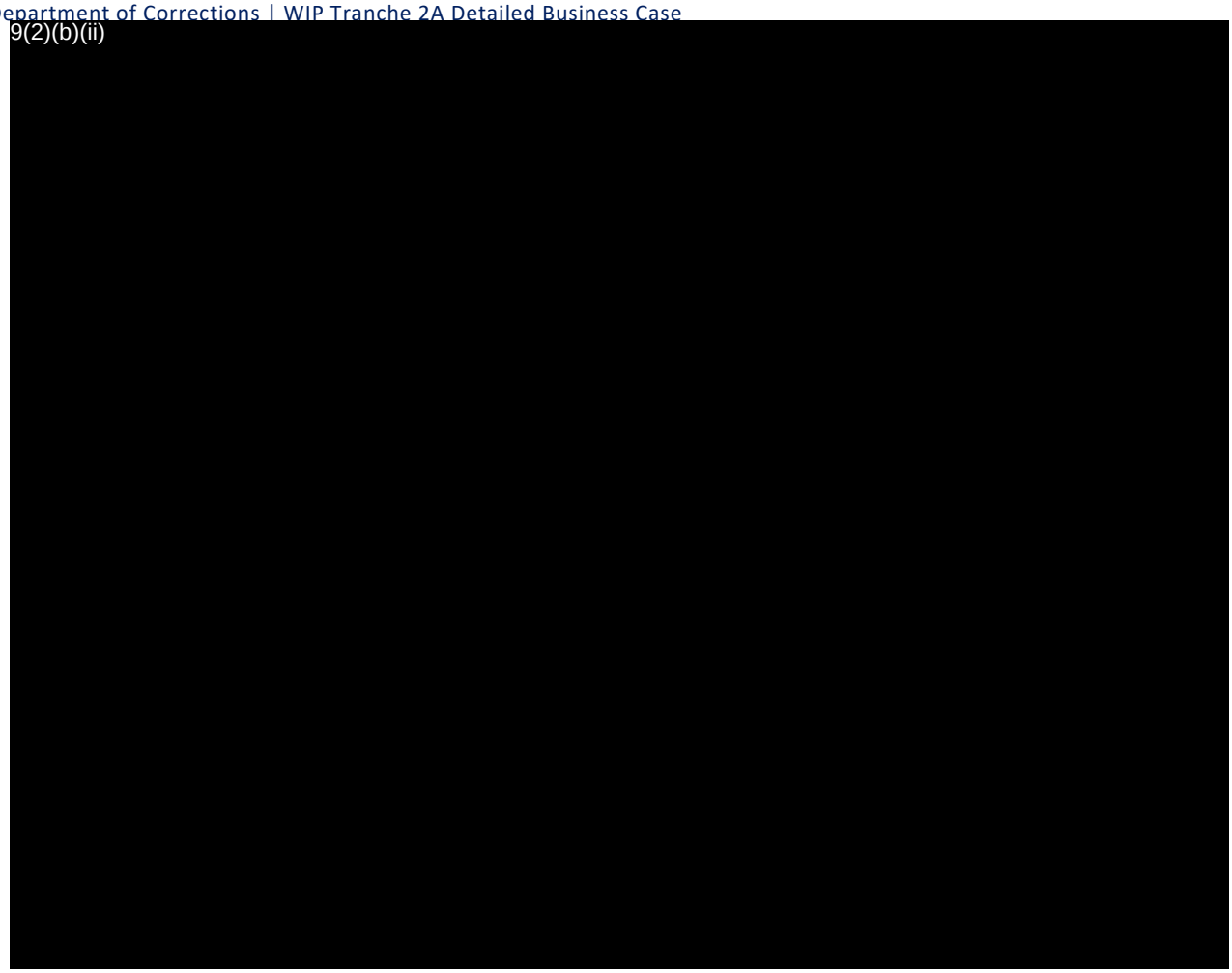
Corrections' recommended approach is Option 2, i.e. to 9(2)(b)(ii) [redacted] for T2A.

This recommended approach has been considered under the Government procurement rules. In particular, Corrections has considered 9(2)(b)(ii) [redacted]

This approach has significant benefits:

- 9(2)(b)(ii) [redacted]

9(2)(b)(ii)



3.1.3 Demonstrating value-for-money under the recommended 9(2)(b)(ii) option

Corrections' recommendation to progress with **Option 1** (i.e. 9(2)(b)(ii) limits its ability to 9(2)(b)(ii) To give decision makers confidence it is securing the best possible deal from 9(2)(b)(ii) Corrections intends to use the following mechanisms to demonstrate value for money from 9(2)(b)(ii)

- **Price**. Corrections is currently finalising an open-market tender (RFP) for the Whanganui Waters upgrade project, due to be contracted by July 2023 prior to the completion of 9(2)(b)(ii) This gives Corrections the opportunity to use tenders received for the Whanganui RFP as a benchmark for current market costs, product margins and 9(2)(b)(ii) when 9(2)(b)(ii) under the recommended 9(2)(b)(ii)
- **Margin (Whanganui and industry)**. Further to the above, Corrections intends to use proposed contractor margins received as part of the Whanganui Waters RFP as benchmark for current market profitability and risk pricing when 9(2)(b)(ii) Further, Corrections will utilise the services of external construction

consultancies and independent quantity surveyors to gain a deeper understanding of wider market margin rates applied by contractors to cost-plus scenarios.

- **Transparency**. Corrections intends to develop commercial and contractual documentation for T2A that stipulates greater transparency o 9(2)(b)(ii) [redacted] Pursuing this 9(2)(b)(ii) [redacted] is intended to maximise transparency for Corrections around value-for-money, rather than creating an opportunity for Corrections to act in a veto capacity.
- 9(2)(b)(ii) [redacted]
- **Public value test**. To support the quantitative aspects of value-for-money outlined above, when 9(2)(b)(ii) [redacted] Corrections will also consider qualitative features of the 9(2)(b)(ii) [redacted] contract for T2A. These may include:
  - 9(2)(b)(ii) [redacted]

3.1.4 Risks of the Preferred Procurement Approach

The risks noted in the table below were considered by the 2021 PBC and tested and validated through the WIP procurement evaluation workshops held by Corrections. These encompass conventional infrastructure procurement risks (such as ground conditions), the technical complexity of the works, invalid assumptions made during the design process, unforeseen physical conditions, and difficulties associated with the supply chain. The table below notes these risks, as well as those to be addressed due to the recommended 9(2)(b) [redacted] of the delivery of the programme:

Table 37 Recommended procurement approach risks

Procurement Risk	Impact	Mitigation
9(2)(b)(ii) [redacted]		
Constrained Corrections contract management	Constraints on Corrections' capacity and capability to manage delivery means procured contractors are not well managed. A lack of organisational capacity or capability could impact the ability of Corrections to deliver the programme, resulting in inadequate and ineffective engagement and strategic risk i.e., misaligned procurement and programme delivery strategies	Resourcing is a key consideration for the WIP T2A phase. The Management Case of the DBC outlines the WIP resourcing strategy and plan against the T2A delivery objectives, which will be WIP's approach to manage and mitigate this risk.
Inflated Target Cost	9(2)(b)(ii) inflate the target cost to attempt to 'game the system' and increase their margin.	Transparency on the target and independent review of pricing to confirm within industry benchmarks. Challenge and seek quotes from suppliers if these are outside the industry norms.
Interface frictions	Downer's contract ends in Nov 2028 (with a 2-year further rights of renewal provision), which falls during the T2A construction period. Interface risks exist if a new contractor is engaged, with new assets being handed over to Downer for ongoing maintenance. There resides a question on who holds responsibility for maintaining replaced/renewed assets post-implementation (e.g. warranty periods and ongoing maintenance).	A mechanism for handover to minimise interface frictions if a new AM/FM contractor is selected will be detailed during any contract negotiations and incorporated into any new contract. Another possible mitigation would be 9(2)(b)(ii) [redacted]. A separate WIP construction contract will be put in place.
Poor quality/insufficient design documentation	Material changes to the scope, scale, cost, or timing of T2A due to incomplete or inaccurate information and assumptions underlying the procurement process. Client instigated change in design during procurement or construction stages, resulting in programme delays, cost uncertainty, and additional risk taken by Corrections.	The construction workstream within WIP has a robust governance structure in place, which is expected to continue in to T2A of the programme and will seek to ensure independent peer reviews of design are incorporated within defined thresholds for critical (higher value or complex) works and projects.

Procurement Risk	Impact	Mitigation
Incomplete asset information	Incomplete and inaccurate three waters asset information does not allow for complete pricing and methodologies to be developed prior to construction, leading to onsite variations. This impacts delivery planning (including costing) and contractor implementation. Poor information impacts design timeframe and risk transference.	Site investigations undertaken during T1 include asset data mapping and transfer of asset data into Corrections' asset management databases as key objectives. Work is ongoing in this area, led by the WIP, with support from the Strategic Asset Management (SAM) and FM team to ensure high quality asset information is available to support decision making. Target outturn cost approach allows for risk pricing and pain/gain of risk realisation to be shared. These will be based upon investigations undertaken by Downer.
Risk sharing	The passing on of risk by stealth to 9(2)(b)(ii) leads to poor performance and poor outcomes. Special conditions that form part of the contracts are fair and standard 9(2) conditions are agreed early in the project, to prevent 9(2)(b)(ii)	A key objective identified by Corrections (and as outlined in the 9(2)(b)(ii) is to ensure greater 9(2)(b)(ii) transparency, with appropriate clauses negotiated and built into the contract with the 9(2)(b)(ii) that ensures appropriate risk sharing. Additional contractual measures such as appropriate KPI's, specific reporting requirements linked to contractor performance, and regular performance reviews by project managers and WIP of the contract programme and milestone achievement will also be implemented.
Cost escalations	Cost escalation occurs, which means the management of contractors by Corrections is especially important. 9(2)	(Refer to section 1.5.1) Corrections will seek to ensure key cost controls are put in place through pre-agreed terms, agreed rates, and margins, as schedules to the master contract. This will also include ensuring other project cost controls are implemented, such as independent QS, and estimations are provided with percentage confidence parameters so that any price escalations and resultant costs remain within expectations.

3.1.4.1 Ancillary Procurement Activity

To support the recommended approach, several ancillary procurements will need to be undertaken.

While Corrections' recommended approach is to 9(2)(b)(ii) for the main procurement, there are several additional procurements that will be undertaken to ensure public value and to provide confidence in the 9(2)(b)(ii) delivery process. These are costed within the Capex and Management costs, and include:

- **Design Assurance Services:** While construction and design will be undertaken under the 9(2)(b)(ii) model, Corrections needs to remain an informed customer to be able to challenge the assumptions and designs delivered by 9(2)(b) and ensure an efficient approach to delivery. While Corrections has some three waters SME capability, it is expected this will be best delivered through the appointment of a design firm to provide a peer review of the design solutions proposed by 9(2)(b)(ii) Design assurance services will be procured from the AoG Panel under the Construction Consultancy Services (CCS) Panel. A secondary procurement process will be conducted under this panel.

- **Quantity Surveyor (QS) services**: To ensure that costs proposed by 9(2)(b) are appropriate, these will be peer reviewed by an independent QS. These services will be procured as a secondary procurement under the CCS panel.

- **Legal services**: Chapman Tripp was engaged to provide legal services for T1 of WIP and to the Whanganui Wastewater project. As WIP progresses, there will be an ongoing requirement for commercial legal input into matters such as contract drafting, and legal support for any issues that may arise during the delivery process. 9(2)(b)(ii)

- **Consenting Advisory Services**: This may be delivered by 9(2)(b)(ii) or internally by Corrections.

- **Other Professional Services**: These are largely in relation to WIP programme management: Engineer-to-Contract, infrastructure and construction subject matter experts, management surveillance quality assurance services, internal construction project managers and project management specialists within WIP.

Procurement plans will be drafted for all ancillary procurements to be conducted under the programme and submitted to Corrections' National Procurement Team for approval.

As per Corrections' procurement policy, and government procurement rules, all ancillary procurement will be undertaken (wherever possible) using the AoG contracts or panels, through a secondary procurement process.

3.1.4.2 Ongoing Probity Management

Corrections has engaged the services of Audit NZ to provide probity assurance and to ensure on-going probity assurance advice and checks are provided on a continual basis. This will allow WIP to address any concerns as they arise, ensuring the integrity of the process. As part of the probity assurance process, the WIP T2A Construction Procurement Strategy and the associated 9(2)(b)(ii) have been reviewed, with no material issues being raised. It is expected that the risks of any probity issues arising are minimal due to the proposed 9(2)(b)(ii) .

9(2)(b)(ii)

9(2)(b)(ii) [redacted]

3.1.4.4 9(2)(b)(ii) Negotiation Strategy

9(2)(b)(ii) is 9(2)(b)(ii) used to ensure delivery of public value through driving price competitiveness and robust solutions. Despite the value adds outlined in the procurement approach section, there is a need to ensure that 9(2)(b)(ii) achieve public value. A carefully researched 9(2)(b)(ii) negotiation strategy can deliver 9(2)(b) ensuring that the supplier continues to drive innovation and maintains a fair market price, without jeopardising supplier relationships.

WIP represents a 9(2)(b)(ii), and along with the 9(2)(b)(ii) presents a 9(2)(b)(ii). Given the importance of this work, and its 9(2)(b)(ii) it is essential that the contract is based on a 9(2)(b)(ii)

A core tenet of the negotiation strategy is configuring the negotiation team with the mana, authority, and experience to effectively negotiate with the supplier. This team will seek a mandate to negotiate prior to entering discussions 9(2)(b)(ii), to ensure that they have the contractual and financial authority to make decisions in good faith on behalf of Corrections. To ensure the mana and experience is appropriate, the membership of the negotiation team (including advisory and support) will include the:

- WIP Programme Manager,
- WIP Procurement Lead,
- Corrections National Procurement Team (NPT) representative,
- Chapman Tripp (Commercial/Contract Legal Advisors), and
- Construction (three waters) Subject Matter Expert,
- Corrections AM/FM Contract Manager,
- Corrections National Manager Facilities Delivery.

A key principle of a strategic approach when negotiating 9(2)(b)(ii) is to have a credible alternative (Plan B) that can be implemented if satisfactory negotiations cannot be concluded, or in the case that 9(2)(b)(ii) Currently Plan B is to:

9(2)(b)(ii) [redacted]

9(2)(b)(ii) [redacted]

Whanganui Prison Waters Infrastructure Upgrade project

The Whanganui Prison Waters Infrastructure Upgrade Project[18] is an important precursor for the WIP T2A negotiations and is a part of the overall WIP T2A negotiation strategy. 9(2)(b)(ii) [redacted]

Taking the Whanganui project through a competitive open market tender (RFP) as a discreet package will be a key method to mitigate value for money and other risks and test the market in the same timeframe as WIP T2A. Information from the market responses and the 9(2)(b)(ii) [redacted] 9(2)(b)(ii) [redacted] will inform the negotiation strategy with 9(2)(b)(ii) [redacted] for T2A design and construction works. It will provide an early and equivalent alternative opportunity for WIP to test price and value for money considerations. It is also expected that 9(2)(b)(ii) [redacted], providing Corrections a competitive baseline from which it can commence negotiations for the procurement of T2A works.

3.2 Broader Outcomes

Government procurement can, and should, be used to support wider social, economic, cultural, and environmental outcomes that go beyond the immediate purchase of goods and services. Consistent with Rule 16 of the Government Procurement Rules, Corrections will incorporate the procurement of broader outcomes (including pursuing progressive procurement objectives as currently set by MBIE for agencies) into this procurement.

A range of broader outcomes exist for consideration, including workplace health, safety, and wellbeing, working conditions, vocational training, and increasing opportunities for Māori, Pasifika, and women in business. Corrections has an expectation that as part of the direct source of Downer the requirements for broader outcomes will be enhanced.

Downer has broader outcome initiatives included as part of their existing contract with Corrections, and Corrections has sought early engagement with Downer (and C&W), to leverage off these existing strategic

[18] The Whanganui Prison Waters Infrastructure Upgrade Project totals 9(2)(b)(ii) [redacted] and was released to market as an RFP in March 2022. This Project has all three waters in scope including DWSP for potable water. The RFP is currently being finalised with a contract to be in place by July 2023 with the selected 9(2)(b)(ii) [redacted]. Note that this RFP is a separate approach (and excluded from scope) from T2A as the wastewater and stormwater components are subject to their own previously approved investment cases and sit outside of the budget and funding for T2A, and because these projects were initiated prior to WIP and also went through a partially completed 2 stage ROI/RFP procurement process during 2022 (where only the ROI stage was completed) which was subsequently withdrawn and cancelled due to scope changes to the projects.

relationships and contractual arrangements, to receive substantial uplift in the achievement of Broader Outcomes and Te Kupenga Hao Pauaua – Progressive Procurement delivery. Leveraging these opportunities will allow Corrections to better drive and strengthen these benefits.

Through the negotiation process, and as mentioned above, WIP will seek to identify further opportunities for embedding broader outcomes into the delivery of the programme. This will include, as a minimum, seeking:

- opportunities to provide local employment through use of local supply chains and contractor resources,
- partnership 9(2)(b)(ii) to support new opportunities 9(2)(b)(ii) that support prisoner education and employment, through skills training and educational development,
- opportunities for Māori and Pasifika businesses to supply materials and services to the project (using portals such as Amōtai to identify such businesses),
- waste minimisation and landfill diversion, and
- carbon emissions reductions.

3.3 Partners and Stakeholders

Corrections must always ensure the appropriate treatment of the people in prison, including through the provision of environments that are humanising and healing. Access to a safe potable and wastewater system is a direct contributor to this outcome. Failure to deliver this is at any time is unacceptable to Corrections, and to parties such as the Chief Ombudsman. As such, there are multiple invested and engaged partners and stakeholders with interests in the programme.

A key factor in successful procurement is the management and engagement of relevant stakeholders and partners. The delivery environment is complex, with the diverse geographic nature of the programme resulting in a significant number of parties engaged with the project, with differing needs, expectations, and levels of engagement.

The management of these partners and stakeholders will be a significant activity during the delivery of the programme, some of which will be a requirement of the engaged construction contractor, and some of which will be relationships that will remain retained by Corrections. Corrections will require the 9(2)(b)(ii) partner to collaboratively identify the stakeholders across the programme and agree to a stakeholder management and engagement approach. This is likely to vary from region to region, prison to prison, by water type, and potentially by project.

While no direct engagement with iwi was undertaken in the development of this Commercial Case, Corrections consolidates and manages iwi engagement through its Māori Partnerships business unit, who have been engaged by WIP. Owing to the geographic spread of the sites where work is to be undertaken, and the intention to 9(2)(b)(ii), partnership with Iwi and our Treaty Partners that have a relationship to each site will be paramount - both in identifying opportunities for partnership in design and in achieving the broader outcomes of T2A.

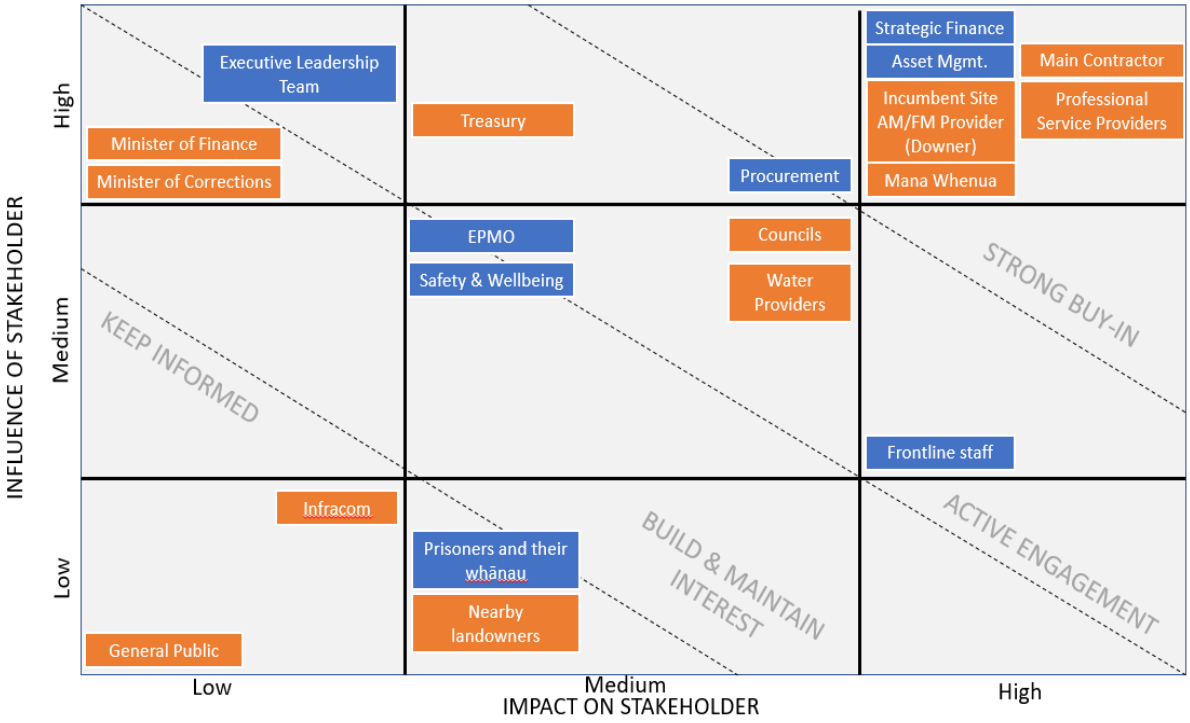
The stakeholders consulted during the development of this Commercial Case are set out in the table below:

Table 38 Key stakeholders

Role	Description	Stakeholder(s)
Responsible	The person/people responsible for undertaking the procurement	WIP Programme Manager WIP Procurement Lead
Accountable	The person who has authority to make decisions and is accountable for the outcomes.	WIP Senior Responsible Owner (SRO) Director Asset Management (Chair of WIP Steering Group committee) Asset Management Leadership Team DCE Infrastructure & Digital Assets
Supportive	The person/people that do the real work.	Downer (Incumbent site AM/FM provider) Main Contractor (Design & Site Construction) Professional Services Providers
Consulted	The person/people who must be consulted to add value or get 'buy-in.	Corrections National Procurement National Commissioner and Commissioner Team NZ Infrastructure Commission Prison Leadership Teams, including Prison Directors Water Providers to T2A sites Internal Department Functions *(EPMO, Strategic Finance, DCE Māori, Legal, Commercial and Contracts*)
Informed	The person/people and group/groups that must be kept informed of key actions and results but are not involved in decision-making or delivery.	Minister of Corrections Minister of Finance NZ Infrastructure Commission Taumata Arowai

The management approach considered for each identified stakeholder is informed by an assessment of the influence of the stakeholder to the delivery and management of the programme, as well and on the impact of activities undertaken by the programme on stakeholders. Understanding the needs and key considerations of the programme's partners and stakeholders provides WIP with the foundation from which to effectively build collaboration amongst stakeholders. The stakeholder engagement approach outlined in the 2021 PBC has been validated through engagements and workshops during T1. The complete approach to stakeholder management during T2A is detailed in the Management Case of this DBC, with Diagram 4 below providing a summary of the management approaches considered for procurement specific stakeholders:

Figure 20 Stakeholder identification and management approach



3.4 Procurement Schedule

3.4.1 Proposed Procurement Timeline

9(2)(b)(ii) [redacted] is expected to be in place in 9(2)(b)(ii) [redacted] The proposed timeline of procurement activities is detailed below.

Table 39 Proposed timeline of procurement activities

WIP 2A Procurement	Timeline
Procurement Planning and test 9(2)(b)(ii) [redacted] under preferred option	9(2)(b)(ii) [redacted]
Procurement Planning (and approvals) including for ancillary services	
Negotiation planning 9(2)(b)(ii) [redacted]	
Commence Contract negotiations 9(2)(b)(ii) [redacted]	
Finalise Contract negotiations following Cabinet approval (overall scope, detailed planning for first tranche of packages/sites)	
Award contract	
finalise 9(2)(b) [redacted] initial works packages and mobilisation	
Commence works	

3.5 Contractual Arrangements

3.5.1 Contract Types

Legal advice has been obtained as to and whether th 9(2)(b)(ii) [redacted] This review concluded that 9(2)(b)(ii) [redacted]

Given the requirements of the programme to contractually accommodate for varying degrees of scope, complexity, timing, and scale of work across sites, legal advice received by Corrections indicates that 9(2) [redacted]

Key aspects and attributes of 9(2)(b)(ii) [redacted]

9(2)(b)(ii) [redacted]

3.5.2 Risk Allocation Table

A risk allocation table that identifies the risks that each party 9(2)(b)(ii) [redacted]) should consider for allocation (i.e. who retains or owns the risk) under 9(2)(b)(ii) [redacted] model has been included as

Appendix O. Risk allocation will be determined through 9(2)(b)(ii) [redacted] on the allocation or ownership of each risk (after due consideration by both parties). The risks encompass general, financial, site, design, construction, and other risks, such as site access and security, and health and safety risks. A version of this will be prepared specific to each site as part of the instruction of each works package to reflect the different risks, aspects, and nature of works for each site.

3.5.3 Contract Management

The responsibility for managing delivery under the contract, as well as for supplier relationship management, will lie with WIP. Depending on any future decisions Corrections may make (such as any organisational changes), it is possible that this may pass to, and reside with, the wider Asset Management team or equivalent within Corrections. As part of T2A delivery, WIP will seek to develop contract and relationship management plans in line with Corrections' policies and requirements, and in consultation with the successful supplier, as part of contract negotiations.

The proposed contract will include a market standard process for instructing, approving, and valuing variations that may arise during the project. Any variations to the proposed contract itself (as opposed to variations to the scope of works) will be in writing and signed by the parties. Variations to the proposed contract will be based on detailed analysis, including any impact to benefits and timeframes. Variations involving an increase in price will only be made within the limit of delegated financial authority and approval of the Senior Responsible Owner.

The proposed contract will also include standard reporting requirements and may also include specific reporting requirements linked to Corrections' broader outcomes contractor performance and milestone achievement, including regular reviews of the contract programme and regular reports on health and safety matters.

The special conditions in the Contract will seek to protect Corrections' interests. However, they will be written in such a way to foster a collaborative working environment between Corrections and 9(2 [redacted] to achieve the best result for both parties, it is proposed that the contract will cover all special conditions to manage specific risks around:

- Risk on time for completion with special emphasis on programme reporting requirements and claim format and resolution.
- Robust conditions around processing and assessment of contract variations and extensions of time to ensure a robust change control process.
- Appropriate conditions around retention of contractor bond and parent company guarantee to allow recovery of monies if required.
- Risk on final quality and fit for purpose state of the Contract Works.
- Appropriate conditions to cover form of warranties and guarantees for the main contractor and its supply chain. Appropriate quality plan will be required.

Additional special clauses are also proposed for the following:

- Site and facility ownership – the Site(s) will be owned by the Crown at all times. The Contractor will be granted a non-exclusive license to enter, occupy and remain on the Site during the construction phase. Additional specific parts of Site(s) may be released to the Contractor later in the contract term to allow it for perform ancillary works. Drawings issued to the Contractor will make clear which parts of the Site(s) form the Contractor's Site (from time to time).

- Regulatory and Statutory Approvals - The onus is on 9(2)(b)(ii) to ensure they comply with relevant statutory and regulatory approval regimes. However, Corrections is to obtain all building consents.
- RMA – 9(2)(b)(ii) must comply with the conditions specified in the Designation for MECF.
- The strategy for exiting the contract at the end of its term is the Practical Completion of the Contract Works, followed by 12 months for the Period of Defects Liability.

3.6 Payment Mechanism and Accountancy Treatment

9(2)(b)(ii) all assets within the programme of work will be accounted for on Corrections' balance sheet, and existing Corrections accounting policies will apply to this programme.

Payment Mechanism

Payment claims shall be submitted by 9(2)(b)(ii) at the completion of each milestone (which are to be determined during the contract negotiation phase), based on actual progress against the project Programme estimates. The payment claim is required to contain supporting evidence to allow Corrections to ascertain the correctness of the claimed amount, and Corrections may also have these additionally independently verified or peer reviewed by through Quantity Surveyor (QS) advisors. Where (if) a Target Outturn Cost (TOC) approach is used (outlined below), then the Special Conditions of the Contract will consider the 'Pain Share / Gain Share' element of the cost against estimates received and to determine the final payment to the contractor.

9(2)(b)(ii)

As part of implementing the 9(2)(b)(ii) model, a 9(2)(b)(ii) approach is likely to be contractually implemented by Corrections/WIP with 9(2)(b)(ii) and utilised for pricing each of the packages. In this scenario, the 9(2)(b)(ii)) will be required to 9(2)(b)(ii)

9(2)(b)(ii)

9(2)(b)(ii)

3.7 Conclusions of Commercial Case

The WIP Programme Team are ready to execute the commercial arrangements laid out in this case. The preferred model is 9(2)(b)(ii)

9(2)(b)(ii) There have been additional steps implemented to ensure value for money across the procurement and there is no commitment 9(2)(b)(ii) beyond the T2A scope.

All procurement activities undertaken for T2A will adhere to government principles of procurement, government procurement rules (including the consideration of broader procurement outcomes), construction procurement guidelines, and Corrections' procurement policies.

4. Finance Case - Affordability

4.1 Financial Case Summary

This Financial Case covers the financial implications of the preferred option identified in the Economic Case, as delivered through the procurement method in the Commercial Case, and the management method in the Management Case.

The purpose of this Financial Case is to:

- set out the costs and funding requirements of the proposed investment, including impacts on capital and operating expenditure;
- outline the level of cost confidence, potential risks, and contingencies;
- outline the funding sources for the recommended option; and
- outline the affordability of the preferred option.

4.2 Context

The 2021 PBC identified that much of the previous investment in waters infrastructure and significant proportions of other critical infrastructure investment to increase prisoner places within the estate, has been funded through baseline capital funding. This baseline funding has included funding the upgrade of Whanganui Stormwater. This approach has led to an under investment in waters infrastructure to the point that current baseline funding is no longer sufficient to cover the further investment required. Apart from depreciation and capital charge, there is minimal baseline operating funding currently on the water infrastructure.

The 2021 PBC outlined that if the investment proposed in waters infrastructure were to be addressed and funded from current baselines, there is not sufficient funding available. Instead, the funding dedicated to maintaining current waters infrastructure would be diverted away from other critical infrastructure investments, which would pose equally unacceptable risks to Corrections.

Corrections recognises that the current state of our waters infrastructure poses a range of unacceptable risks and that in order to fulfil the directive embodied in CO (19) 6 to achieve good asset stewardship of our infrastructure, and to manage the future cost pressures associated with our waters infrastructure, continuing with the status quo is not an option.

4.3 Assumptions

Unless stated otherwise, the assumptions used in the Economic Case and Finance Case within this DBC are largely consistent between the cases and with the assumptions that Corrections apply in annual planning and budgeting processes. The assumptions for the Financial and Economic Cases are described in Appendix W – Finance and Economic Assumptions. Key differences in approaches between the two cases are shown in Table 40 below.

Table 40 Key differences between Economic Case and Financial Case assumptions

Assumption	Economic Case	Financial Case	Source
Appraisal period	30 years	4-year model	Treasury discussions/ Project Team
Real discount rate	5.00%	n/a	Default Government infrastructure discount rate
Inflation	Exclude as real costs based on FY2022/23	Inflation assumed to be in line with CPI for all OPEX and CAPEX. This is applied to everything except depreciation & capital charge.	Treasury HYEFU 22
GST and Tax	Excluded	Excluded	Treasury BBC guidance
Depreciation	Excluded	Useful life is assumed to be between 10 and 100 years depending on the type of asset (with an average life of 50 years), based on guidance from three waters Technical Experts. Depreciation is recognised on a straight line over the useful life.	Corrections Strategic Asset Management Team
Capital charge	Excluded	5.00%	Treasury

4.4 Costs

The financial costs detailed in the table below, represents the forecast cost of the preferred option of works that has been described in the Economic Case. Cost estimates have been developed with the key assumptions underpinning the components in the table below for both operating and capital costs:

- the estimates for the interventions identified in the SAR and Water Safety Plans have been prepared by a Quantity Surveyor appointed by Stantec NZ
  - each intervention is based on a defined scope of works as the interventions identified in the SAR and Water Safety Plans[19];
  - each capital intervention is assumed to be delivered by 9(2)(b)(ii) [redacted]
  - it assumed that there is a premium for working in a prison environment, i.e., the duration of a productive workday is impacted by prison security and regime requirements.
- the estimates for the Water Safety Policies, Procedures and Processes and the ongoing maintenance associated with the interventions defined in the SAR and Water Safety Plans are based the indicative pricing information provided by the existing AM/FM providers.
- the cost estimates for Asset Management and Programme Management are based on estimates by Corrections

[19] The exact scope of works will be defined as the Programme moves from the initiation phase into the planning phase.

- the contingencies of either 0%, 30%, or 50% are then added at a category level, with the levels of contingency aligning with industry standards for types of intervention.

Table 41 Forecast funding requirements and uses of funds

Category name	FY23/24	FY24/25	FY25/26	FY26/27	Total
Capital cost					
Programme Management	9(2)(b)(ii)				
Potable Water Infrastructure					
Stormwater Infrastructure					
Wastewater Infrastructure					
Water Safety Infrastructure					
Total					
Operating cost					
Maintenance and operational costs	9(2)(b)(ii)				
Water Safety Personnel					
Water Safety Policies, Procedures & Processes					
Water Safety Support Costs					
Total operating costs (excluding depreciation and capital charge)					
Depreciation					
Capital charge					
Total operating costs					
Total financial cost	9(2)(b)(ii)				

4.4.1 Capital Costs

The projected capital cost of the recommended option is 9(2)(b)(ii) on a non-discounted nominal basis. This excludes Whanganui Stormwater. Whanganui Stormwater has been funded internally and commenced prior to the establishment of the Waters Infrastructure Programme, but will be incorporated into and managed as part of T2A.

Key assumptions underlying these cost estimates are summarised in the Table 42 below and provided in detail in Appendix W – Finance and Economic Assumptions.

Table 42 Estimated capital costs for T2A

Category name	FY23/24	FY24/25	FY25/26	FY26/27	Total
Construction	9(2)(b)(ii)				
Design, Consents and MSQA					
Programme Management					
Contingency					
Inflation					
Total Capital Cost					

4.4.2 Operating Costs

The total expected operating costs associated with delivering this Tranche of the recommended option over the delivery period (totalling 4 years) are 9(2)(b)(ii) on a non-discounted nominal basis and are detailed in the table below.

These costs include all related employment costs, lifecycle costs, depreciation, and capital charge. The key categories for each have been provided in the table below. With key assumptions included in the Notes section below the table. Further details of the financial modelling assumptions can be found in Appendix W – Finance and Economic Assumptions.

Table 43 Forecast operating costs for T2A

Category name	FY23/24	FY24/25	FY25/26	FY26/27	Total
Maintenance and operational costs	9(2)(b)(ii)				
Water Safety Personnel					
Water Safety Policies, Procedures & Processes					
Water Safety Support Costs					
Total operating costs (excluding depreciation and capital charge)					
Depreciation					
Capital charge					
Total operating costs					

Notes to the Forecasting Operating Costs table above:

- **Maintenance and operational costs**: the upgrade and replacement of waters infrastructure will result in an increase in ongoing asset management and facilities maintenance fees with our AM/FM providers, which are currently not included in the AM/FM fees. This increase in ongoing fees is contributed to by the introduction of new items identified through the investigation undertaken in the development of the WIP.
- **Water Safety Personnel:** represent an increase in capacity and capability within Corrections and will create functions that have been missing or under resourced within Corrections. It is expected this will amount to three FTEs.

- **Water Safety Policies, Procedures & Processes:** the costs associated with developing a range of strategies, policies, procedures and processes identified by the Water Safety Improvement Plan.
- **Water Safety Support Costs:** the costs associated with support for the implementation of the Water Safety Improvement Plan, as outlined in the Management Case.
- Please note that the Base Case or Business as Usual (BAU) operating expenditure on three waters assets has not been included in the table above. The table only includes costs associated with T2A.

4.5 Risks and Contingency

4.5.1 Cost Certainty

The planned cost estimates have been derived from several sources with differing levels of confidence. It is therefore not appropriate to add a single percentage of contingency across every intervention as this will overestimate the cost uncertainty of some interventions and underestimate the cost uncertainty of other interventions.

The contingency fees by intervention type are outlined in the table below.

Table 44 Contingency by intervention type

Intervention type	Intervention Level Contingency
Programme Management	0%
SAR Infrastructure	30%
Water Safety Infrastructure	30%
Network Water Safety	30%
Water Safety Policies, Procedures & Processes	30%
Water Safety Personnel	0%

The contingency has been applied to each intervention, with personnel attracting no contingency compared to interventions that include some form of design and construction, such as the upgrade and replacement of assets or construction of new assets.

An assumption has been made that all projects involving construction will incur a 30% ‘uncertainty premium’ given the lack of design. This has been reflected in the table above under the ‘Intervention Level Contingency’ column. This is a reduction from the Programme Business Cas, based on Published guidance from Wellington Water and NZTA estimate that this uncertainty premium can be reduced to 30% following the completion of robust investigative works. Following the completion of design works, this uncertainty premium can be reduced to 15%.

An assumption has also been made that personnel costs should not have contingency as the cost has a high degree of certainty based on other roles in the organisation. It has also been assumed that all projects that involve policies, procedures and processes or other improvements will incur a 30% - 50% ‘uncertainty premium’ dependent on whether scoping/requirements gathering has been undertaken, e.g. Asset Management Improvements. The 50% contingency only impacts two minor line items within the Programme.

4.5.2 Sensitivity Analysis

There are a range of factors that lead to uncertainties about the cost of the programme, with some factors likely to have a greater impact on the cost of the programme than others. As this programme has been assessed by the Treasury's Investment Management and Asset Performance team as a 'medium' risk project, a Quantitative Risk Assessment (QRA) was not required to be undertaken, however the risks and probabilities have been quantified.

The key risks and the favourable and unfavourable scenarios under which these risks would arise are detailed in the table below.

Table 45 Sources of risk factors that could result in cost variations

Sources of Risk	Favourable Scenario	Unfavourable Scenario
Design	Design could be accelerated if: • the design for some interventions is less complex than expected; • availability of design resources enables the design completed earlier than expected	There could be delays in the design process, if: • the design is more complex than expected • design resources are not available when required.
Construction	Construction could be accelerated if: • materials and or 9(2)(b)(ii) are available earlier than expected • approvals of resource consents take less time than expected • weather conditions are favourable	Construction could be delayed if: • materials or 9(2)(b)(ii) are not available when required • approvals of resource consents take longer than expected • weather conditions are adverse • the design needs to change
Cost Estimates	Cost estimates could be lower if • materials or labour prices are lower than expected	Cost estimates could be higher if • materials or labour prices are higher than expected
Cost Escalation	Cost escalation could be lower if: • there is a reduction in demand in the sector for similar resources	Cost escalation could be higher if: • the demand in the sector for similar resources local authorities and key government agencies could lead to higher market prices

The potential impact that each of these risk factors could have on the Programme Cost (excluding depreciation, capital charge and ongoing operating costs) have been tested through scenario analysis. This scenario analysis has been developed by the Project Team including representatives from Construction Project Manager, three waters Technical advisory, and Asset Management. Table 46 below details the parameters applied to each of the risk factors.

Table 46 Sources of risk factors scenario

Sources of Risk	Favourable Scenario	Unfavourable Scenario
Design	• -1 month shorter timeframe for Complex Design	• 1 month longer timeframe for Simple Design • 3 Months longer timeframe for Complex Design

Sources of Risk	Favourable Scenario	Unfavourable Scenario
Construction[20]	• 10% shorter timeframe	• 20% longer timeframe
Cost Estimates	• 30% variation in estimates from the QS and other suppliers	• 30% variation in estimates from the QS and other suppliers
Cost Escalation	• 20% lower than current forecast	• +20% higher than current forecast

The impact that each of these risk factors is likely to have on the total programme cost is identified in Table 47 below.

Table 47 Sources of risk factors cost impacts

Sources of Risk	Favourable Scenario	Unfavourable Scenario
Design	9(2)(b)(ii)	
Construction		
Design and Construction		
Cost Estimates		
Design, Construction and Cost Estimates		
Cost Escalation		
Design, Construction, Cost Estimates and Cost Escalation		
Total		

There is a multiplicity of different scenarios that could arise, with the likelihood of each risk or combinations of risk arising having a different probability. The probabilities of some of these risks are detailed in Table 48 below.

Table 48 Probability sources of risk factors result in cost variations

Sources of Risk	Favourable Scenario	Base Scenario	Unfavourable Scenario
Design	5.0%	40.0%	55.0%
Construction	5.0%	30.0%	65.0%
Design and Construction	2.5%	12.0%	35.8%
Cost Estimates	25.0%	50.0%	25.0%
Design, Construction and Cost Estimates	0.1%	6.0%	8.9%
Cost Escalation	20.0%	60.0%	20.0%
Design, Construction, Cost Estimates and Cost Escalation	0.0%	6.0%	1.8%

The most likely scenarios, as assessed by the Project Team and relevant advisors referenced above, and their cost impacts are detailed in Table 49 below.

[20] These scenarios would result in changes to the overall programme, not every project.

Table 49 Probabilities and cost impacts of the most likely scenarios

Sources of Risk	Probability of Scenario	Cost Impact
Delay in design only	4.95%	$4.47M
Delay in construction only	7.80%	$6.46M
Delay in design and construction	10.73%	$7.95M
Delay in design and construction and a favourable variation in cost estimates	5.36%	-$13.77M
Delay in design and construction and an unfavourable variation in cost estimates	5.36%	$24.88M

Based on this analysis, it is expected that costs will fall within a +33%/-25% sensitivity range, the total programme expenditure (excluding depreciation, capital charge and ongoing operating costs) ranges from 9(2)(b)(ii) (more favourable scenario) to 9(2)(b)(ii) (least favourable scenario) with the projected expected forecast cost at 0% sensitivity in this DBC being 9(2)(b)(ii).

Table 50 Recommended option expenditure sensitivities

$000 nominal	-25%	-10%	-5%	0%	5%	10%	25%	33%
Capital expenditure	9(2)(b)(ii)							
Operating expenditure								
Total programme cost*								

* Excludes depreciation, capital charge and ongoing operating costs

4.6 Accounting Treatment

All assets will be accounted for on Corrections' Statement of Financial Position, and all operating expenses accounted for in Corrections' Statement of Comprehensive Revenue and Expense in accordance with existing Corrections' accounting policies.

4.7 Funding Sources and Overall Affordability

The total forecast financial cost, including inflationary pressures, of our preferred option is 9(2)(b)(ii) over the expected delivery period of 4 years. There are four potential funding sources for the programme. These are described below

Table 51 Sources of potential funds

Sources of Funds	Description
Departmental Operating Baseline Funding	This could be used to fund the operating costs (including depreciation and capital charge) identified in section 4.7, however with the current pressure on operating baseline funding this may restrict the funds available to be re-prioritised for the Programme.

Sources of Funds	Description
Departmental Capital Plan	This could be used to fund the capital costs identified in section 4.6, however with the current demand internally for capital funds, this may restrict the funds available to be prioritised for the Programme.
WIP T1	The uncommitted funds not utilised during T1 could be used to fund some of the capital costs identified in section 4.6. This is limited to $4.0M
Capital Injection	The capital injection approved as part of Tagged Contingency in Budget 23 could be used to fund some of the capital costs identified in section 4.6. This is limited to $56.0M approved in Budget 23
Additional Baseline Funds	The additional baseline funding approved as part of Tagged Contingency could be used to fund some of the operating costs identified in section 4.7. This is limited to $18.72M approved in Budget 23.

With most of the previous investment in waters infrastructure and significant proportions of other critical infrastructure investment being funded through baseline capital funding, this has resulted in significant constraints on the availability of baseline capital funding and choices needing to be made internally.

The only identified funding source for Tranche 2A of the Waters Infrastructure Programme is the $56.00M capital and $18.72M operating to be funded through the tagged contingency signalled in Budget 2023, with the elements signalled for internal funding requirements currently unfunded.

This amount will be sought 9(2)(b)(ii) [redacted]

Table 52 Capital costs

	FY23/24	FY24/25	FY25/26	FY26/27	Total
Total Capital Cost	9(2)(b)(ii) [redacted]				9(2)(b)(ii) [redacted]
Waters Infrastructure Transfer from T1					$4.00M
To be funded through a Capital Injection in Budget 23					$56.00M
9(2)(b)(ii) [redacted]					9(2)(b)(ii) [redacted]

Table 53 Operating costs

	FY23/24	FY24/25	FY25/26	FY26/27	Total
Total Operating Cost	9(2)(b)(ii) [redacted]				
To be funded through a Baseline increase in Budget 23	$4.48M	$4.88M	$4.64M	$4.72M	$18.72M
9(2)(b)(ii) [redacted]					

Corrections is therefore seeking approval from Cabinet to release the Tagged Contingency identified in Budget 23 to enable the implementation of the preferred option. The release of this contingency is sought prior to 9(2)(b)(ii) [redacted]

The Deputy Chief Executive and Senior Responsible Owner (SRO) of this DBC has signified his agreement to this DBC and the required level of funding required, through the signing of the foreword to this DBC.

5. Management Case

5.1 Management Case Summary

This section of the DBC confirms that implementation of the preferred investment as detailed in the Economic Case above – Option 3 'Proactive Stewardship' – is achievable. The purpose is to:

- Confirm the scope of delivery – i.e., what will be implemented if funding is approved.
- Present a high-level schedule for this implementation during the T2A period – that is for the four financial years starting FY23/24.
- Set out arrangements for programme governance.
- Describe the programme organisation more generally, to provide assurance that sufficient capacity and capability will exist to deliver the preferred option.
- Detail the proposed approach to management of delivery, including processes for risk and benefits management.
- Outline plans for communications, engagement, and change management.

5.2 Implementation Scope

From an implementation perspective, delivery of Option 3 Proactive Stewardship will have two main components:

- Construction activity, and its prerequisites, focused at eight prison sites over the four years of T2A. This activity will be overseen by WIP's Construction Workstream and it will be executed in the main through 9(2)(b)(ii) [redacted] per the Commercial Case set out above.
- Non-construction activity that will complete the foundations for WIP overall; support construction planning and delivery at the eight sites; and assist with planning for subsequent Tranches, including for construction activity at additional sites. This non-construction activity will be delivered outside of WIP's Construction Workstream. A key focus will be building Corrections' capacity and capability to manage its waters assets on a long-term basis.

These two components are considered in turn below.

5.1.1 WIP 2A Construction Workstream

Implementation of Option 3 'Proactive Stewardship' will see construction activity at eight prison sites. There are 240 proposed interventions, 81% of which are construction activity interventions that will impact on water infrastructure assets across these sites.

As set out in the Economic Case, construction will target interventions that will address risks relating to drinking water safety, wastewater and stormwater compliance risks, infrastructure failure and more generally risks to service delivery and work-related safety. The table below summarises the distribution of proposed interventions across the eight prison sites.

Table 54 Distribution of Option 3 'Proactive Stewardship' interventions across the eight prison sites

Prison	Interventions	%/interventions	CAPEX**	%/$ value
Arohata Prison	23	10%	9(2)(b)(ii)	9(2)(b)(ii)
Christchurch Men's Prison	64	27%		
Christchurch Women's Prison	9	4%		
Mount Eden Corrections Facility	27	11%		
Rimutaka Prison	22	9%		
Rolleston Prison	31	13%		
Waikeria Prison	10	4%		
Whanganui Prison	8	3%		
Other*	46	19%		
Total	**240**	**100%**		**100%**

*Other includes non-construction system and regulatory interventions relating to AM/FM, APA Water Safety, Drinking Water Safety Asset Management and Programme Management.

**Includes contingency.

Construction will range from full asset replacement (e.g., installation of a new pump station) to minor modifications (e.g., monitoring enhancements). The table below indicates the expected complexity involved in delivering the proposed interventions across all sites during the four-year period of T2A. For example, for 125 of the 240 interventions– or 9(2)(b) of the capital value – expected complexity will be low.

Table 55 Expected complexity of Option 3 'Proactive Stewardship' interventions

Expected complexity	Interventions	%/ interventions	CAPEX*	%/cost
Low complexity	125	52%	9(2)(b)(ii)	9(2)(b)(ii)
Medium complexity	97	40%		
High complexity	18	8%		
Total	**240**	**100%**		**100%**

*Includes contingency.

During the T2A period a second DBC will be submitted – through Budget 2024 ("DBC-24"). Depending on urgency and capacity, approval of DBC-24 might fund additional construction activity during years 2-4 of the T2A period – i.e., in addition to that arising from implementation of Option 3 'Proactive Stewardship'.

5.1.2 Other WIP workstreams

On-site construction will be the primary focus of the four years of T2A. However, in addition, implementation of Option 3 'Proactive Stewardship' will:

- WIP SAM workstream: complete final deliverables of WIP's Strategic Assessment Management (SAM) workstream – e.g., operational policy regarding Corrections' management of its water assets; and site-level asset management plans for water infrastructure. The deliverables in question are listed in Appendix X. Also establish and handover the contractual and other mechanisms by which Corrections will oversee AM/FM provider execution of DWSP requirements and ongoing asset management activities. Note some of these requirements depend on construction activity

that will be delivered over the T2A period, but some do not – e.g., some depend on process change to be implemented by Corrections' AM/FM providers.

- Programme: Plan and manage WIP's delivery on a programme-wide basis.
- Finance: complete forward planning for prisons outside the scope for Option 3 'Proactive Stewardship'. Specifically, planning outputs completed during T1 – e.g., SAR generated through on-site and other investigations – will be used during the first 12 months of the T2A period to prepare investment options for a subsequent Detailed Business Case. It is expected that this DBC in question would be available for submission through Budget 2024 as appropriate.
- Procurement: Plan and manage WIP's procurement activity, including in respect of discrete construction projects. In addition, implement amendments to existing AMFM contracts.
- Communications/Engagement: continue communications, stakeholder engagement, and change management in support of WIP's Investment Objectives. Many of the underpinning activities will be targeted at planning for and execution of site-level construction for the eight prisons within scope for Option 3 'Proactive Stewardship'. However, as set out below, there is broader need for internal and external engagement – e.g., with tāngata whenua and mana whenua capitalisation – and in support of forward planning for other prisons.

For context, note that this non-construction activity will build on T1 delivery, where the focus has been on various foundational matters that will:

- Increase available information about Corrections' waters infrastructure, e.g., by completing on-site investigations (Investigations Workstream), and by maximising use of existing asset databases (Data Workstream).
- Increase Corrections' capability to manage its waters assets, e.g., by establishing three waters plans and frameworks, including in the context of new legislative requirements (Strategic Asset Management (SAM) Workstream).
- Establish firm foundations for ongoing internal and external stakeholder engagement (Communications).
- Present investment options for the next Tranche, and plan the implementation of the preferred option, including in terms of procurement (Procurement Workstream) and construction including design management (Construction Workstream).

5.3 Implementation Schedule

Appendix Y presents a high-level schedule for the implementation of Option 3 'Proactive Stewardship' during the four-year period of T2A. Appendix Z provides a high-level summary of the implementation schedule for each the eight prison sites. Details of assumptions and overall approach is summarised below, but in summary the high-level milestones are as follows:

Table 56 Summary of high-level milestones

Milestone	Timeframe
Adopt filtering approach for Option 3 – Proactive Stewardship (sequenced) based on discussions with Managing Contractor	By December 2023
Award contract	By December 2023
Complete delivery programme planning w/Management Contractor	By December 2023

Milestone	Timeframe
Finalise Tranche 2B DBC (Budget 24)	By December 2023
Pre-construction phases (by prison)	September 2023 – July 2024
Construction and commissioning phases (by prison)	July 2024 – July 2027

5.3.1 SAM and other non-construction WIP workstreams

As seen in Appendix X key deliverables of the SAM and other non-construction workstreams will be completed within the first 12 months of the T2A period. These deliverables can be seen as an extension of foundational activity that commenced during T1.

However, although WIP's role in these matters will end within the first 12 months of T2A, attention to them will continue outside the programme – specifically, within Corrections' AM Directorate. Therefore, an early focus of WIP during T2A will be confirming that relevant SAM and other WIP deliverables have firm "business-as-usual" ownership.

5.3.2 Construction Workstream

The high-level schedule presented in Appendix Y summarises the expected overall scheduling of construction activity during the four financial years of T2A. More detail – per prison site – is given in Appendix Z. Key planning assumptions are as follows. First, all or most of the construction activity implied by Option 3 'Proactive Stewardship' could be completed and not only started with the T2A period, even accepting:

- A minority of items will require detailed or other design activity.
- There are long-lead items in a minority of cases (e.g., macerator pumps).
- Operational impacts will be minimised – e.g., for each of the eight in-scope prisons, strict parameters for construction working hours may apply.
- Coordination will be required with other site-based projects – e.g., other projects coordinated by Corrections' AM Directorate.
- Limitations on general sub-contractor availability – to be offset by forward planning.
- A minority of items will require specialist sub-contractors.

Second, construction and preceding design activity will not need to be staged site-by-site – that is, aspects can proceed concurrently – if the 9(2)(b)(ii) capacity, including use of regionally-based sub-contractors, allows for this.

This second assumption follows in part from the portfolio-like character of the planned investment. Note that, in part, implementation of Option 3 'Proactive Stewardship' will consist of a multitude of semi-distinct capital items and where a proportion are of limited financial value or complexity. The expectation is that drivers for local, prison-level timing will be local in the main – e.g., relating to the need for avoiding operational impacts in the local context; and coordination with other projects planned for the site.

5.3.3 Engagement with 9(2)(b)(ii)

Both assumptions will need to be tested with 9(2)(b)(ii). More generally, detailed scheduling for T2A – e.g., preparation of site-based plans – cannot occur independently of input from 9(2)(b). Engagement with 9(2)(b)(ii) will generate a Programme

Management Plan for T2A, including a sufficiently detailed programme-level schedule that has been informed by site-based planning. The Programme Management Plan for T2A will follow from the one already established and implemented for T1.

Preparation of a detailed schedule for T2A will be informed by negotiations with 9(2)(b)(ii) 9(2)(b)(ii) regarding both timelines (e.g., the sequencing of design and construction activity) and management planning (e.g., for quality). In other words, 9(2)(b)(ii) scheduling, and management planning – overall, and on a site-by-site basis – will precede finalisation of plans for T2A.

Through WIP, Corrections will set the context and expected parameters for 9(2)(b)(ii) programming and management planning. However, 9(2)(b)(ii) will build out the detail from this context and these parameters, which the T2A Programme Management Plan will codify once agreed with Corrections.

5.3.4 Site-level Scheduling and Planning

For each of the eight sites in scope for Option 3 'Proactive Stewardship', 9(2)(b)(ii) will be invited to prepare a schedule taking account of:

- Variable urgency of individual items – e.g., the priority to be given to certain Drinking Water Safety actions, which will be specified in advance.
- Efficiency/cost-effectiveness – e.g., how best to sequence the construction, holding all other factors constant. Factors will include efficient use of different plant and trades, and physical access requirements.
- Minimising operational impacts – e.g., hours of operation; limitations on interruption of service; physical access limitations; requirements for contingency planning (for instance, explicit absence of decant options at all/most sites).
- Requirements if any for coordination with other projects/initiatives underway or planned.

In addition, for each site, 9(2)(b)(ii) will be invited to prepare management plans showing how Corrections' expectations for the following will be met:

- Design management – e.g., use of design standards; allowing for independent design QA or scope management stages.
- Construction management – e.g., access requirements.
- Quality management.
- Environmental management.
- Health & Safety management.
- Sustainability.
- Broader Outcomes including employment.

Expectations for these elements will be detailed in a comprehensive "Client/Principal's Requirements" document that will be a key input to the process to 9(2)(b)(ii).

Through WIP, Corrections will be actively involved in reviewing and approving – with amendments as necessary, through negotiation – such site-level scheduling and planning by 9(2)(b)(ii). As noted below, WIP's engagement with individual prisons will include a clear focus on confirming

operational and other parameters for each site, so that the approved schedule and wider plan for each site meets local as well as national requirements.

5.4 Programme Governance

5.4.1 Overall Structure

Delivery of T2A will continue to be supported by the current robust governance arrangements that are fully integrated into investment planning and delivery oversight within Corrections more generally.

Appendix AA provides a schematic overview of the current governance and delivery structure, and Appendix BB sets out key accountabilities for individual roles and boards. In summary:

- A dedicated programme board – the WIP Steering Group (WIPSG) – will continue to direct the programme, reporting to Corrections' Infrastructure Programme Governance Committee (IFPGC) and in turn the enterprise-wide Investment Committee.
- WIPSG will be chaired by WIP's Benefits Realisation Owner (BRO), who will be accountable for WIP's delivery realising the benefits set out in the DBC. WIP's Benefits Realisation Owner will be the Director of Asset Management.
- WIP's Senior Responsible Owner (SRO) – National Manager Project Delivery – will be accountable for month-to-month delivery of WIP with agreed tolerances for cost, quality, schedule, and other matters. The SRO will have full DFA on the existing WIP model.
- Two review groups have been established to support decision-making by the SRO, BRO and wider WIPSG. The WIP Construction Review Group (WIPCRG) will be focused on construction delivery, and the WIP Asset Management Review Group (WIPAMRC) will be focused on building the Department's knowledge, capacity, and capability to manage its 3W assets.
- Reporting to the WIPCRG, eight site-level Project Control Groups – one per prison, covering all WIP activity at that site – will oversee site-level construction planning and delivery, allowing direct input from representatives of the Prison Director, as well as external stakeholders where appropriate.

5.4.2 Amendments Relative to T1

The current governance arrangements were established during T1 and have been exercised to good effect – as evidenced by the accelerated delivery achieved relative to plans set out in the 2021 PBC. However, amendments have been made given the planned scope of T2A. In particular:

- Other revisions will be made to the membership of the WIPSG, to reflect the scale and construction-delivery focus of T2A.
- The membership and role of the WIPCRG will be augmented for the same reason. 9(2)(b)(ii) [redacted] will be represented on the WIPCRG.

Senior leadership for, and promotion of the programme will be provided by WIP's BRO and SRO.

Once the full scope programme has been established i.e. the required interventions for the balance of the portfolio (the remaining 10 sites) is fully understood, further enhancements and changes will be made to WIP's Governance, delivery and management structures. These changes will be captured in WIP's next Detailed Business Case (DBC 24).

5.4.3 Broader Governance Arrangements

Note that the governance structure for T2A will use current governance within Corrections. This will ensure consistency with oversight and minimise risks associated with setting up and operating a new governance pathway within Corrections.

Specifically, and in line with the practice during T1, WIP's authority will derive from: the Infrastructure & Facilities Portfolio Governance Committee (IFPCG), which must endorse funding drawdowns for WIP; and, in turn, the Investment Committee (which must approve funding drawdowns for WIP – e.g., in the context of outcomes from the DBC).

In further detail:

- The Investment Committee role's is to consider investment planning and execution given Corrections' strategic objectives and Government policy. Given this role, and given WIP's significance, the Investment Committee will monitor benefits realisation by WIP and, as necessary, it will provide guidance to the relevant portfolio committee – IFPCG in the case of WIP.
- During T2A, WIP's monthly reporting – e.g., in terms of schedule, and cost control – will monitored by IFPCG (the immediate portfolio board in this context) and in turn the Investment Committee (Corrections-wide portfolio board).
- In addition, during T2A the IFPCG and Investment Committee will oversee preparation of the follow-on Detailed Business Case relating to prison sites not in scope for Option 3 'Proactive Stewardship'.

5.5 Programme Organisation

5.5.1 Overall Structure

As seen in Appendix AA, WIP's programme organisation structure for T2A is divided into two main parts, as follows:

- Programme governance: responsibility for ensuring alignment with Corrections' broader strategy and objectives; accountability for ensuring the success of – including expected benefits realisation by – the programme.
- Programme management: accountability to programme governance for delivery of the programme – e.g., the products and projects that lead to the realisation of expected benefits.

Arrangements for programme governance are outlined above, with supporting detail presented at Appendix BB. Regarding programme organisation more generally, the key points are as follows. First, as in T1, T2A will be delivered at a management level through dedicated workstreams/supporting functions, with WIP's Programme Manager responsible for overall integration.

Second, the Construction Workstream will be organised around site-level planning and delivery, to support input from eight site-level Project Control Groups. Programme-wide integration for the Construction Workstream will occur through oversight of WIPCRG on behalf of WIPSG.

5.5.2 Programme Workstreams

T2A will deliver a defined set of projects (Construction Workstream) and products (SAM and other workstreams/supporting functions). Responsibility for delivery of the projects/products will be assigned to one of two workstreams (SAM, Construction) or one of the supporting functions (Programme, Finance, Communications/Engagement, Procurement). WIP's Programme Manager will manage dependencies between the workstreams/supporting functions.

The table below summarises the broad purpose of each workstream/supporting function during T2A.

Table 57 Purpose of programme workstreams

Workstream/function	Purpose
Programme	Plan and manage WIP's delivery on a programme-wide basis.
SAM (Strategic Asset Management)	Develop Corrections capacity and capability to manage its three waters assets, e.g., by establishing three waters plans, policies, and frameworks, including in the context of new legislation. In addition, oversee actions to optimise use of new and existing assets. (WIP-led delivery through Tranches 1 and 2A only)
Construction	Plan and deliver construction projects (e.g., asset replacements) through all Initiative Lifecyle phases, including in respect of procurement and close-out components – with input/direction from the wider Department (e.g., National Procurement for procurement).
Procurement	Lead all WIP-related procurement activity, including 9(2)(b)(ii) [redacted]
Finance	Plan and manage WIP expenditure. Prepare business cases for subsequent tranches.
Communications/ Engagement	Manage internal and external communications, and change/engagement activity more generally.

5.5.3 Resourcing

Corrections is fully committed to adequately resourcing the implementation of Option 3 'Proactive Stewardship'. Resourcing will be as per the WIP Resource Plan which will be updated prior to commencement of T2A, linked to broader updated to the WIP Programme Management Plan.

In addition, as necessary, WIP will make use of external professional services firms – e.g., commercial legal specialists; quantity surveyors for cost control; water infrastructure design specialist for design quality assurance where appropriate; and external "client-side" construction project management – where the scale or complexity of implementing the Construction Workstream requires it.

As noted above, Appendix AA and BB summarise the T2A governance and management structure overall. All resources written in bold in Appendix AA are yet to be assigned/confirmed. Key examples are as follows.

- Quantity surveying
- Design quality assurance.
- External project management (except Whanganui Prison until February 2024).

5.6 Programme Management Approach

Implementation of Option 3 'Proactive Stewardship' during T2A will be managed using Corrections' Version 2.0 Initiative Lifecycle and Investment Management Framework.

Given the scale, complexity, and extended duration of WIP, aspects of the Managing Successful Programmes (MSP) approach – including in terms of the application of MSP principles, themes, and processes – will be applied to the management of WIP at a programme level. Detailed planning for the implementation of this approach – consistent with the Initiative Lifecyle and adoption of the Sentient tool – will be completed before the commencement of T2A construction, in consultation with Corrections' Enterprise Portfolio Management Office (EPMO), Asset Management Portfolio Management Office (AMPMO) and other stakeholders. Associated detail regarding management controls will be documented in an updated version of WIP's Programme Management Plan.

In terms of broad architecture for WIP as a whole:

- WIP will be delivered through two Tranches, and three Stages within T2A.
- Each Tranche/Stage will have a defined purpose that follow from WIP's overall investment objectives.
- Each Tranche/Stage will deliver a defined set of products (deliverables). Construction projects will be delivered as well, each delivering a set of defined products. The projects will be managed according to the Version 2.0 Initiative Lifecycle.
- High-level quality criteria will be specified regarding the products and projects for each Tranche/Stage. The Tranche/Stage will complete when its products/projects are delivered, and the specified criteria are satisfied for them.
- Responsibility for overseeing delivery of each product and project will be assigned to a Workstream or supporting function. Where appropriate, each product will also be assigned a specified producer, reviewer, approver, and post-programme owner.
- Tasks to produce the products (including products within a project) will be presented in a Schedule (Gantt chart). The schedule will record that some products and projects range over more than one Tranche or Stage.

5.7 Programme Processes and Controls

Corrections has a standardised set of processes and controls for managing complex programmes like the WIP. How these processes and controls will be implemented in the WIP context is set out in the T1 Project Management Plan (T1 PMP). The PMP for T2A is yet to be developed but will be established in part through engagement with 9(2)(b)(ii) [redacted], building on the existing T1 PMP. Appendix CC is an excerpt of the T1 PMP key programme processes and controls including:

- Change control.
- Cost control.
- Contractor management.
- Implementation and handover.
- Quality management.
- Programme reporting.
- Information management.

The T1 PMP is currently being updated as part of broader planning for T2A, taking account of the scope of the Option 3 'Proactive Stewardship' preferred investment option and the 9(2)(b)(ii) commercial model.

Corrections recognises that rigorous implementation of appropriate programme management processes and controls will assist with reinforcing the following principles.

- Clarity of responsibility and accountability, noting the T2A period will involve attention to tactical as well as more far-reaching matters, and that appropriate levels of financial and other delegation will be necessary for the latter.
- Timely and effective decision-making, noting complexities will arise from the multi-site character of WIP.
- Separation of decision-making from stakeholder engagement, even accepting that internal and external engagement will be critical to the programme including T2A, as set out below.

5.8 Risk Management Planning

5.8.1 Risk Management Framework

Corrections recognises that successful implementation of Option 3 will require a proactive approach to risk management – including in terms of construction delivery, and integration with RMA and other compliance requirements.

To support focused attention to risk management, programme risks will be managed in compliance with Corrections' Risk Management Policy for Projects and Programmes. For example, WIP will follow the Corrections' risk management cycle as described in the table below.

Table 58 Risk management cycle steps

Step	Summary
Identify	Programme risks will be identified and captured as they arise during the Programme lifecycle. In addition, targeted risk identification workshops will be run by the Projects at each stage boundary - more frequently if the circumstances require - which will feed Programme risks and issues.
Assess	All Programme risks will be assessed by the Programme Manager within a week of the risks being identified and sooner if possible. Individual risk assessment will translate into the Programme heat map, providing an overview of the Programme's current risk profile.
Plan	All Programme risks will have risk responses planned. If a response is required, it will be described within the Programme Risk Register. Identified and agreed responses will be incorporated into the Programme schedule and resources necessary for the action execution assigned. Accountability for individual risk responses will be specified.
Implement	Planned risk responses will be carried out as per the prescribed completion dates captured within the Risk Register. The Programme Manager will be responsible for monitoring the effectiveness of risk responses and will carry out subsequent risk re-assessment in response.
Communicate	Communicate. Programme risk communication will take place in both a formal and informal manner. Anyone may raise a risk associated with the Programme with the Programme Manager. The Programme Manager will communicate with risk owners on the status of the risks assigned to them. The Programme Manager will be

Step	Summary
	responsible for keeping the WIP SG and other key stakeholders up to date with the current risk profile of the Programme and the major risks that the Programme is facing.

5.8.2 Risk Management Processes

WIP will follow the Corrections-wide process for programme/project risk management. Note requirements are set out in WIP's T1 PMP, including in respect of the following subjects:

- Roles and responsibilities.
- Reporting – key risks, including any high-rated programme-level risks, are included in monthly reporting to the WIPSG. Risk reporting will occur through Sentient for individual projects and through the monthly WIP Dashboard for programme-level risks.
- Risk reviews – formal risk reviews will inform the planning for, and closure of, component projects. These reviews will incorporate requirements of the Corrections' Initiative Lifecycle, **e.g., in terms of Exception Reports. Programme-level risk workshops will be held quarterly during T2A.**

5.8.3 Risk Register

A detailed Risk Register has been developed and has been updated in the context of planning for delivery of T2A, refer Table 59 below for a summary of key current risks.

Table 59 Summary of key risks to delivering T2A

Risk	Risk Description	Mitigation
Supply chains	Significant quantities of water infrastructure materials are produced outside of New Zealand and are imported. This could also impact the ability to source materials for construction, when competing with other agencies for resource or due to supply chain delays.	Early engagement with existing providers to leverage existing contractual arrangements and relationships and understand constraints to delivering the programme. Longer lead times have been built into the programme to accommodate anticipated market constraints.
Cost escalation	Programme cost escalation due to one or multiple causes including: inflation; unsuitable material found on site; materials shortages; delays in internal approval processes.	Planned mitigation will include scope/cost trade-offs, value engineering exercises, and further investigations on key risks/contingencies. In addition, ongoing engagement with consultants and the 9(2)(b)(ii) [redacted] to better understand risks and opportunities.
Schedule delay	Delays to the overall schedule due to one or multiple causes including: constraints on site access for operational or other reasons; lengthy approval processes, e.g., for statutory authorisations; poor consultant or contractor performance; lack of sufficient resources given market constraints.	Comprehensive controls in place/required specific to the cause including implement communications and engagement plans; definition of roles and responsibilities; and implement consultant/contractor management processes.
Operational impact	Prison sites are at risk of service disruption through the implementation of the programme, which may drive	Tailored and early communications and planning with Corrections Services, contractors, operational staff, and other key

Risk	Risk Description	Mitigation
	unwelcome surprises for sites, and hasty, sub-optimal workarounds to reduce operating risks. For example, if potable water or wastewater services need to be shut off for extended periods of time this could require partial decants depending on prison capacity levels. This disruption can have an impact on the safety and wellbeing of people in prison and our staff.	stakeholders will help to mitigate the risk of disruption to services and improve operational staff have time to respond with solutions suitable to each Site. Identification and alignment of all planned changes across the Prison Network, in conjunction with the Deputy National Commissioner will ensure planning takes account of all projects/programmes that are underway or planned for each site (including identification of where Asset Management master-planning will be advanced).
Environmental impacts	Environmental effects are adverse at one or more sites leading to mitigation increases / reduction in flexibility for construction and design, for example: Ecological effects require increased and complex mitigation and constrain construction.	Undertake robust assessments in close collaboration with Councils, Department of Conservation, and other stakeholders. Collaborative and transparent approach to developing response to ecological effects with relevant stakeholders. Develop clear conditions that relate precisely to effects and how they are proposed to be managed.
Specialist skills	Risk to cost, quality, schedule and/or scope because of limited supplier capacity, driven by the highly specialised skillset required for aspects of programme delivery, such as water supply treatment. For context, there is a small contractor pool for three waters services in New Zealand.	Leverage existing contractual arrangements with our Technical Specialists, Stantec NZ. -- Early contractor involvement in the design of interventions. -- Two levels of contingency have been built into the costs, one contingency at intervention level as per industry standard construction risks and one contingency at programme level to account for lack of data and to provide some leeway for increases to cost due to the constraints and risks.

5.8.4 Assumptions

Planning for T2A makes the following key assumptions:

- Relevant legislation will be implemented within previously communicated parameters. SAM-delivered plans and frameworks will be consistent with implemented legislation.
- There are no changes to the planned scope of WIP in terms of in-scope prisons, three waters asset types, or responsibilities for construction planning or delivery.
- AM/FM provider arrangements – e.g., broad contractual terms, and the identity of the providers – will remain largely unchanged in the near term, except as required by WIP delivery, e.g., as a consequence of [redacted]

5.8.5 Constraints and Dependencies

The key constraints and dependencies for delivery of T2A is summarised in the table below.

Table 60 Constraints and dependencies for delivery of T2A

ID	Category	Description
ID	**Constraints**	**Description and assumptions**
C1	**Prison environment**	Construction and commissioning of future investments or interventions will likely mostly take place 'within the wire' and therefore the Contractor's delivery approach needs to consider managing security. **Assumptions:** Some key prison environment constraints that the Contractor needs to consider include workers to navigate security on/off site, escort requirements for movement within the prison, noise restrictions and lock down times of prisoners
C2	**In-house three waters expertise**	Corrections has historically had limited three waters expertise to assist with delivery of water infrastructure projects. Corrections is building capability both in-house, with the recent establishment of two dedicated three waters roles, the ongoing engagement of our three waters technical specialist consultants and with our AM/FM Providers. **Assumption:** The current level of capability and capacity will continue to increase, with any gaps in capability to be supported by our three waters technical specialist consultants and support provided to our AM/FM providers to increase their expertise.
ID	**Dependencies**	**Description and management strategies**
D1	**Input, review or approval from other Corrections internal stakeholders**	Corrections is dependent on other internal Corrections parties to produce, review or approve T2A deliverables. In terms of pre-approval review, for instance, there are critical roles for Corrections Procurement, Corrections Legal, Corrections Strategic Finance, Prison Directors, AM RMLM team, Corrections Safety & Wellbeing and AM Contract Management Team. **Management strategies:** As noted in Section 5.10.2 Stakeholder analysis, Corrections will need to collaborate, involve or consult with the relevant internal Corrections teams early in the process to where delivery, construction or commissioning is dependent on their input, review or approval.
D2	**Supplier agreements**	In many instances, Corrections is reliant on supplier agreements with local authorities to access sufficient potable water and dispose of wastewater. If any of the local authority suppliers are undertaking other construction work upstream/downstream of Corrections, this may impact on the Contractor's construction or commissioning. **Management strategies:** As noted in Section 5.10.2 Stakeholder analysis, Corrections and the Contractor will need to involve local authorities early in the process where construction or commissioning is dependent on local authorities supply.
D3	**Corrections relies on Downer and Cushman &**	Corrections has access to information through the Downer applications and databases; DvDTM and SPM, however these systems are not easily analysed by

ID	Category	Description
	Wakefield to manage asset information across both our Corrections managed and PPP managed Prisons	Corrections staff. Corrections is reliant on Downer and Cushman Wakefield to provide asset data that may be required by the Contractor. **Management strategies:** As noted above, throughout T1 work has focused on improving the evidence base of three waters asset information and issues and Corrections accessibility to three waters asset information.

5.9 Benefits Management Planning

5.9.1 Investment Objectives and Benefits

Corrections is responsible for a significant network of waters infrastructure – that is, infrastructure for potable (drinking and firefighting) water, stormwater, and wastewater. Regrettably – as set out in the Strategic Case – the quality of this infrastructure is uneven across many prison sites – currently, parts present sizable operational and compliance risks. WIP is Corrections' response to this situation. As set out in the Strategic Case, WIP's overall investment objectives are to ensure that:

- All our prison facilities have a reliable provision of three waters services by 2035 (Investment Objectives 1); and
- All our prison facilities meet regulatory requirements for human health and environmental standards by FY 2025/26 (Investment Objective 2).

Benefits to be realised in this context as outlined in Section 1.9.1 Main Benefits are:

- Improved health, safety and wellbeing of people in prison, staff and the public
- Improved service reliability
- Improve reputation, relationships and partnerships

Section 1.4 Strategic Context sets out the broader strategic context that links to these benefits – including Government legislation that sets the strategic and policy direction, drinking water regulation, organisational purpose as defined by the Corrections Act 2004, organisational strategy (Hōkai Rangi), existing contractual arrangements and partnership with Māori.

Benefits management – ensuring that implementation of Option 3 'Proactive Stewardship' realised anticipated benefits; and that WIP's two Investment Objectives are achieved – will be integral to delivery of T2A. As set out below, WIP will:

- Implement a structured framework for benefits management – including for benefits mapping, identification, analysis, and delivery.
- Specify accountabilities for benefits management, including for benefits realisation, as part of this implementation.
- Align benefits management to Corrections' requirements for investment management more generally.

5.9.2 Benefits Management Framework

WIP implement Corrections' Benefits Management Framework, as set out in the Benefits Management Handbook (version 2.1). This Framework entails a structured approach to benefits management that is linked to Corrections' Investment Management Lifecycle, which WIP is also implementing.

The Benefits Management Framework specifies seven steps across the following three stages: specification, delivery, and realisation. The table below outlines when these stages and steps will occur in the context of WIP's Tranches.

Table 61 Key stages and steps for benefits management

Stage	Step	Timing	Comments
Specification	Benefits mapping	Completed (pre- 2021 PBC)	Re-confirmation during T1
Specification	Benefits identification	Completed (pre- 2021 PBC)	Re-confirmation during T1
Specification	Benefits analysis	Completed (pre- 2021 PBC)	Re-confirmation during T1
Specification	Planning for benefits realisation	T1	Linked to DBC-23 and DBC-24.
Delivery	Delivering agreed benefits	Tranches 2A, 2B, 2C	
Realisation	Transitioning Benefits to the Organisation	Tranches 2A, 2B, 2C	
Realisation	Sustaining Benefits Over Time	Tranches 2B, 2C	

5.9.3 Benefits Mapping, Identification, and Analysis

Benefits to be realised by WIP were mapped, analysed, and identified prior to completion of the PBC (August 2021). A profile for each benefit was developed in this context, with a summary presented in the PBC itself.

During T1, this benefits mapping, identification, and analysis has been reviewed, updated, and re-confirmed. The updated benefits profiles have been used to populate the Sentient Benefits Register for WIP. The profiles specify the following:

- The measurable improvement anticipated.
- Applicable baselines.
- Accountabilities for measurement and realisation.

Note the updated profiles reflect the recommended option – Option 3 'Proactive Stewardship' – presented in the Economic Case set out above. Appendix DD summarises the updated benefits profiles. There is close alignment to the benefits specification for WIP presented as part of the PBC.

5.9.4 Planning for Benefits Realisation

Planning for benefits realisation is advanced, including in terms of the practicalities of benefits measurement. If the DBC is approved, then, prior to the commencement of T2A – and linked to completion of procurement of 9(2)(b)(ii) [redacted] – the programme-level Benefits Realisation Plan (Appendix DD), with linked Sentient records, will be updated and subject to EPMO and wider review processes.

The Benefits Realisation Plan sets out the agreed process for ongoing management and monitoring of benefits over the short, medium, and longer term – including baseline targets and plans for the timing of achievement of those targets, as well as the frequency of and responsibilities for monitoring. Corrections will ensure that the level of monitoring effort, frequency and audience for regular reporting is appropriate for the scale of WIP.

5.9.5 Delivering Agreed Benefits

Agreed benefits will start to be realised during T2A – for example as smaller-scale construction projects complete. In addition, toward the end of the T2A period, some benefits will start to be transitioned to non-programme ownership during this period as well – for instance, as new three waters assets commence operational use, and as WIP-delivered frameworks, plans, and policies are adopted within Corrections' wider asset management practices.

From T2A onwards, Sentient will be used to track realisation of agreed benefits, as well as to record newly identified benefits/disbenefits. The Sentient Benefits Register will be updated on a quarterly basis, including in terms of measurement of realised benefits. There will be quarterly reporting on benefits, including to WIP's Benefits Realisation Owner and wider WIPSG.

5.9.6 Accountabilities for Benefits Management

Accountabilities for benefits management will follow requirements of Corrections' Benefits Management Framework. Detail is set out in the Benefits Realisation Plan will be further updated before the commencement of T2A, but examples of key accountabilities are as follows.

Table 62 Accountabilities for benefits management

Governance group/ role	Examples of key accountabilities for benefits management
Investment Committee	Approves the specification of benefits set out in the DBC, with prior endorsement by the relevant portfolio governance board in this context (IFPGC).
IFPGC	Endorses the specification of benefits set out in the DBC. Monitors WIP's performance from the perspective of benefits realisation – relative to targets confirmed in WIP's Benefits Realisation Plan.
EPMO	Supporting the Investment Committee, signs off benefits profiles prior to finalisation of the Benefits Realisation Plan.
Benefits Realisation Owner (BRO)	Responsible for realisation of WIP's benefits, accountable to the IFPGC and in turn the Investment Committee for this subject.
Senior Responsible Owner (SRO)	Endorses WIP's Benefits Realisation Plan – including specification of individual benefits – prior to BRO approval. Accountable to WIP's BRO for delivery of the programme scope that is agreed will realise relevant benefits.
Programme Manager	Accountable to WIP's SRO for implementation of Benefits Realisation Plan, including quarterly measurement of benefits realisation, commencing FY23/24. Accountable to WIP's SRO for month-to-month delivery of the programme scope that is agreed will realise relevant benefits.

5.9.7 Alignment with Investment Management

WIP's benefits management will continue to be aligned to Corrections' requirements for investment management more generally. Specifically:

- The Benefits Realisation Plan will plan the realisation of benefits specified for the preferred investment option – Option 3 'Proactive Stewardship' – per the Economic Case for the DBC.
- The follow-on Detailed Business Case – currently planned to be submitted as part of the Budget 2024 – will update the specification of benefits, as required.
- The T2A End Report and Final Programme End Report will confirm realisation (or otherwise) of expected benefits and note any benefits that will remain open after the completion of T2A and WIP respectively.

5.10 Communications, Engagement and Change Management

Delivery of T2A will be supported by strong communications, engagement, and change management. Details are set out in the WIP Communications & Engagement Plan, which was established during T1 and is being updated as part of planning for T2A. Key elements relate to the following:

- Engagement values and principles.
- Stakeholder analysis.
- Immediate priorities for stakeholder engagement, including for mana whenua; Corrections Services, including Prison Leadership Teams and Prison staff; Corrections' AM Directorate; people in prison and their whānau.
- Engagement roles and responsibilities.
- Change Management Planning.

5.10.1 Engagement Values and Principles

T2A will be delivered recognising that ongoing support from internal and external stakeholders is critical. As during T1, engagement will be built upon the tenets of open and clear communications, and early and ongoing collaboration and partnership with key stakeholders. All stakeholders will receive timely and useful updates on the programme's progress and forward planning, receiving tailored communications as necessary. Stakeholders will be prepared for upcoming construction and other works, and as appropriate, will be involved in decision making.

The table below outlines the values and principles guiding communications and engagement during T2A:

Table 63 Principles of T2A communications and engagement

Value	Principle	Description, and examples of practical application
Manaaki	We foster trust & transparency	Building and maintaining strong relationships with internal and external stakeholders will be instrumental to the programme's success. The programme team will work constructively with leaders and their staff and listen to any concerns. Individual project teams will ensure open and collaborative communications with staff at sites on the potential impacts of proposed work, timeframes, and associated risks to their core operational functions. These stakeholders will participate in decision making regarding the implementation of required works

Value	Principle	Description, and examples of practical application
		Unions and mana whenua should be engaged by appropriate relationship owners at the right time.
Whānau	We put safety first	We will put the safety of staff and people in prison first. The programme team will collaborate with key stakeholders to identify any risks to the safety and wellbeing of staff or people in prison during site investigation work and delivery stages We will ensure these are recorded and communicated to Corrections Services leadership.
Rangatira	We will engage proactively and in a timely manner	Communications to sites will be proactively managed to ensure that all sites have confidence in the programme's approach. Keeping stakeholders informed with consistent and consolidated messaging from the programme will prevent any conflicting information or knowledge gaps that could lead to assumptions or misunderstandings by stakeholders of programme activities forming. It will also be vital that key and concise information is distributed to all parties in a way that does not unnecessarily privilege some sites or stakeholders over others. Key messages will be developed to convey the rationale for the programme and its expected benefits for affected sites. We will ensure a co-ordinated approach is taken to other projects taking place at affected sites and will engage with relevant FM providers and contractors to ensure proper alignment in messaging and delivery. When individual projects, or tranches of projects, are established, project teams will work with site leadership to identify and mitigate operational impacts where possible.
Wairua	We will be flexible in our approach	We must be responsive to how sites wish to be communicated with at the project level. What works for one site may not work for another. Planning for communications and engagement activities must be flexible to suit site-specific needs.
Kaitiaki	We recognise iwi Māori as kaitiaki o ngā wai	We recognise that Māori continue to have a close relationship with water in all its forms, both spiritually and physically. Water is a taonga of huge importance to iwi and enhancing the health and wellbeing of waterways is a priority for many iwi. Our communications will acknowledge and uphold the kaitiakitanga iwi Māori have over water. We acknowledge and respect our mandated role (CO19, 6) as kaitiakitanga of our three waters infrastructure assets.

5.10.2 Stakeholder Analysis

WIP will continue to define, confirm, and manage the expectations of internal and external stakeholders, assigning sufficient capacity and capability to this task.

Communications and engagement will be informed by stakeholder analysis. Through the Communications & Engagement Workstream, attention will be given to confirming – and reconfirming at least quarterly – the expectations of different internal and external stakeholders. Regular reconfirmation of stakeholders will enable WIP to accommodate the shifts in stakeholder expectations or requirements that are likely to change through the four years of T2A – including as construction follows planning for the same.

Stakeholder analysis, and the ongoing reconfirmation of this throughout the entirety of T2A, will allow consideration of the relative priority of different stakeholders within the WIP context throughout the life

cycle of the tranche. Appendix EE outlines the level of engagement planned for each stakeholder during T2A and provides information on the engagement approach and communications channels planned for each.

Broadly speaking, the priority for engagement with each stakeholder will fit into one of the categories summarised in the table below. This categorisation (adapted from the International Association of Public Participation's Spectrum of Public Participation) considers two key factors: the ability of stakeholders to influence the delivery WIP; and WIP's impact on the stakeholder.

The assessed priority and category of engagement for each stakeholder is, in part, informed by the stakeholder's relative position for either factor considered (influence or impacted), and does not require both to be of the same level (i.e., a stakeholder with a high level of influence over the programme that has a low level of impact from programme activities would still fall within the "Collaborate" category of engagement).

While considered and represented as a single entry in the categorisation detailed below, WIP recognises the importance of both the varying interests and considerations of individual iwi Māori and mana whenua groups, and the rights provided to iwi Māori in Te Tiriti o Waitangi. The consideration of the programme's approach to engagement with Treaty Partners is further explored in the Strategic Case.

Table 64 Categories of engagement

Priority	Name	Summary	Influence on	Impacted by
First	Collaborate	Build and maintain strong buy-in	High	High
Second	Involve	Active engagement	Medium - High	Medium - High
Third	Consult	Build and maintain interest	Low – Medium	Low – Medium
Fourth	Inform	Keep informed	Low	Low

Table 65 Assessment of required levels of engagement for each stakeholder

Collaborate	Involve	Consult	Inform
WIP SRO	Director Asset Management	Strategic Finance	Minister of Corrections
Prison Management	Asset Management SLT	DCE Maori	Minister of Finance
AM/FM service providers	Deputy National Commissioner and Commissioner Team	DCE Infrastructure and Digital Assets	Infrastructure Commission
Iwi māori, mana whenua & Treaty Partners	Regional/local authorities	Prison Industries	Corrections CE
AM RMLM team	Water providers	Treasury	Office of the Inspectorate
AM SAM team	AM PAR Team	Legal – Commercial and Contracts	EPMO
AM Asset Data Team		Corrections Procurement	Unions: CANZ, PSA, NZNO
Managing Contractor(s)		Corrections Safety & Wellbeing	Ministry of Justice
Professional Services Providers		Corrections Strategic Finance	Taumata Arowai
		AM Project Delivery Team	Three Waters Services Government Reference Group

Collaborate	Involve	Consult	Inform
		AM Business Management Team	Adjacent Landowners
		AM Contract Management Team	Frontline Staff
			Prisoners and their whānau
			General public

5.10.3 Immediate Priorities for Stakeholder Engagement

Engagement with stakeholders during T2A will build on foundations established in the 2021 PBC, and in delivery of the programme during T1.

The level of engagement with some stakeholders will increase by a material degree over the first 12 months of T2A. This includes the following stakeholders in the highest – "build and maintain strong buy-in" – category.

- Treaty Partners, including tāngata whenua and mana whenua.
- Corrections Services, including Prison Directors, Prison Leadership Teams, and Prison staff.
- Corrections' AM Directorate.
- Prisoners and their whānau.

A summary of the immediate engagement priorities with these stakeholders for the WIP is included in Appendix FF.

5.10.4 Change Management Planning

These immediate priorities for stakeholder engagement involve change management – that is, a structured approach to moving Corrections and its people through change. In terms of processes, WIP will implement tools of Corrections' Change Management Framework, per the agency's Change Management Handbook (version 2.1). For example, it will adopt Corrections' approach to identifying the elements of change management, per the figure below.

Engaged Stakeholders	People Readiness
WHY: Identifying and engaging with stakeholders is the foundation to change management	WHY: People are at the heart of change, and supporting and preparing them is crucial to success
PURPOSE: Identify all stakeholders and understand the impact the change will have on them and their ability to influence it. Plan the activities needed to engage, inform, and connect stakeholders. *Tools available* • *Stakeholder Mapping* • *Communications Plan* • *Change Network Tool*	PURPOSE: Build a detailed understanding of the change people will experience, and the knowledge and behaviours they will need. Develop training plans, and check on peoples' readiness for change. *Tools available* • *People Impact Assessment* • *Training Approach* • *People Readiness Checkpoint*
Engaged Leaders	**Prepared Organisation**
WHY: Having leaders who champion the change is one of the most important factors in successfully achieving it	WHY: Organisational culture impacts change, and changing it can require special effort
PURPOSE: Build sustained engagement and sponsorship for the change with key leaders. Identify specific opportunities for leaders to be at the front of change, and for the leader to receive any required coaching or support. *Tools available* • *Leadership Alignment Tool*	PURPOSE: Assess the current state of organisational culture, and define the future state. Plan specific actions to move organisational culture forward. *Tools available* • *Culture Change Tool*
Initiative Planning Outputs	
Key outputs to plan and manage change	
Assess the scale of change, and devise a strategy and a plan to successfully manage it. Reflect on change, and record lessons for the next initiative. *Outputs required*	
• *Scale of Change Tool (in the Idea Brief)* • *Change Management Strategy (in the Investment Case)*	• *Change Management Plan (in the Project Management Plan)* • *Lessons Learned (in the Project End Report)*

Figure 21 Change management elements

5.10.5 Communication and Engagement Roles and Responsibilities

The Communications and Engagement Lead will continue to provide support to programme leadership and Project Managers, to ensure sufficient and effective communications and engagement across the programme with internal and external Treaty Partners and stakeholders.

Engagement and communication with Treaty Partners will follow the tenets of Corrections' holistic approach to engagement with tāngata whenua and mana whenua. The Communications and Engagement lead will work closely with the DCE Māori team, following the principles and methodology developed, and building upon existing relationships created through extensive departmental engagement with iwi partners.

Workstream Leads and project managers within the Construction Workstream will continue to undertake the direct engagement required with the key stakeholders within their area of delivery. Consistent support across the programme will be crucial to ensure stakeholders receive timely and relevant information about how the programme will impact them and what the programme will deliver in terms of outputs, benefits, and change. This role will also provide key support to connect the delivery teams with the Operational Readiness Team and Corrections Services teams running the Prison Estate. This will be a key component of the change management approach to transition the outputs and benefits of the Programme into the BAU operations of Corrections and the prison estate.

5.11 Programme Assurance Arrangements

5.11.1 Programme Assurance Plan

Following acceptance of the DBC, a Programme Assurance Plan (PAP) for WIP will be finalised. The PAP will specify requirements for specific assurance activities, including Independent Quality Assurance (IQA) as

appropriate. The PAP will comply with Corrections' Quality Assurance Framework, and it will be endorsed by Corrections' EPMO prior to approval by the WIPSG. WIP's SRO will be accountable for implementation of the PAP.

5.11.2 Gateway Review process

WIP is not subject to the Gateway Review process.

5.11.3 Quality Management

WIP will continue to follow the principle that a product – including output of a construction project – cannot be considered as completed until it has been reviewed and approved by relevant authority.

Note reviewers and approvers for each T2A deliverable will be confirmed through sign off of PMP for T2A. In addition, this PMP will specify macro-level quality criteria for T2A products within each WIP Workstream.

More detailed planning for WIP's quality management will occur prior to the commencement of T2A with input from 9(2)(b)(ii) [redacted]. This quality planning will give attention to:

- Acceptance processes, including for construction deliverables.
- Quality activities, for both technical and management products.
- Quality controls, e.g., in terms of use of design authorities and Tranche/Stage-gate checks.
- Process for technical and other quality assurance, both at a programme and individual project level.

5.11.4 Quality Criteria

T2A will complete when its defined products and projects are delivered. In addition, the following high-level quality criteria will apply.

Table 66 Acceptance criteria for each T2A workstream

Workstream/function	Acceptance criteria
SAM	Delivered three waters plans, frameworks, etc. reflect existing and new legislative – and broader compliance – requirements; as well as good practice for three waters strategic asset management more generally, tailored to Corrections' context. Corrections' asset management practices are starting to adopt these SAM-delivered products and they have informed investment planning for T2A.
Data	Relevant asset databases including FM Portal, SPM and GIS provide complete, up to date, and readily accessible information about Corrections' three waters infrastructure at in-scope prison sites. three waters internal and external stakeholders' express confidence in the accuracy and utility of the databases. Corrections has started to make regular use of these databases to manage its three waters assets and this use is aligned to non-EW processes.
Construction	T1 projects have or are on track to achieve stated objectives and have been managed in accordance with Corrections' (e.g., EPMO) requirements.

Workstream/function	Acceptance criteria
	Appropriate levels of construction management planning have informed DBC-23; and the follow-on PIBC (if required). The T2A Construction Management Plan has been duly consulted, and stated processes are ready for adoption within Corrections.
Procurement	Delivered products (e.g., T2A Procurement Plans, T2A RFx) comply with the Government Procurement Rules and Corrections-specific policies. Appropriate levels of procurement planning, and implementation have informed the: T2A Programme Plan; DBC-23; PIBC-23 (if required); and T2A Construction Plan.
Finance	The DBC submitted through Budget 23 (DBC-23), and follow-on Project Implementation Business Case (PIBC (if required), comply with Treasury requirements, and have been duly consulted with internal and external stakeholders.
Communications	Internal and external stakeholder engagement has made use of Corrections' wider resources for this (e.g., in terms of engagement with iwi).

5.11.5 Post-Tranche Evaluation Planning

A Post-Tranche Review will occur within six months of T2A's completion. It will:

- Evaluate the programme's delivery and processes.
- Confirm that expected deliverables are operating as intended.
- Identify lessons learned to improve delivery in subsequent Tranches.
- Confirm timelines for benefit realisation reviews.

Appendices

Refer to separate document