

Te Kowhai East Limited Partnership

Te Kowhai East Industrial Development

Substantive Application for Approvals

**Volume B – Resource Management Act
Approvals**

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Client	Te Kowhai East Limited Partnership
BBO details	Bloxam Burnett & Olliver Ltd (BBO) Level 5, Building E, Union Square, 192 Anglesea St, Hamilton
BBO representative	Emily Patterson, Senior Planner
BBO rep. contact details	[REDACTED] [REDACTED]
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Acronyms and abbreviations

The glossary of acronyms and abbreviations table in Volume A of the Substantive Application applies to this Volume and should be referred to in addition to the acronyms and abbreviations below.

Acronym/Abbreviation	Term
CNVMP	Construction Noise and Vibration Management Plan
CSMP	Contaminated Site Management Plan
CTMP	Construction Traffic Management Plan
ESCP	Erosion and Sediment Control Plan
GIR	Geotechnical Investigation Report
JMA	Joint Management Agreement
HNZPT	Heritage New Zealand Pouhere Taonga
LUC	Land Use Capability
LVIA	Landscape and Visual Impact Assessment
NPS-FM	National Policy Statement for Freshwater Management 2020
NPS-HPL	National Policy Statement for Highly Productive Land 2022
NPS-IB	National Policy Statement for Indigenous Biodiversity 2023
NPS-NH	National Policy Statement for Natural Hazards 2025
RLTP	Waikato Regional Land Transport Plan 2024-2054
RPS	Waikato Regional Policy Statement
SNA	Significant Natural Area
SUB-R#	Subdivision Rule # (Waikato District Plan)
SWMP	Stormwater Management Plan
TR2009/02	Waikato Regional Council Technical Report: Erosion and Sediment Control Guidelines for Soil Disturbing Activities, January 2009
TWMP	Tangata Whenua Management Plan



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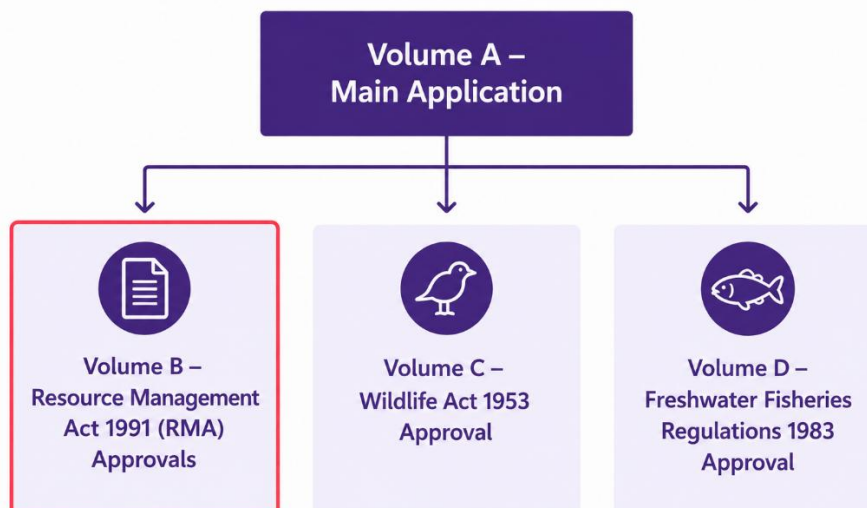
1. RESOURCE MANAGEMENT ACT APPROVALS

1.1 Overview

This Volume B of the Substantive Application supports the approvals sought under the Resource Management Act 1991 (RMA) for the Te Kowhai East Industrial Development (“TKE” or “the Project”). It should be read in conjunction with Volume A – Main Application, which provides the overarching description of the Applicant, the Project, the existing environment, the approvals sought and the consultation undertaken for the Substantive Application.

The purpose of this Volume is to identify and assess the RMA approvals required for the Project and to provide the statutory assessment supporting those approvals. This includes the relevant district land use and subdivision consents, regional resource consents, approvals required under applicable National Environmental Standards, and assessment of the relevant national, regional and district planning and policy framework, Treaty settlement legislation and iwi management plans. It also assesses the Project against the applicable statutory tests under the RMA and Fast-track Approvals Act 2024 (FTAA).

This Volume also provides the assessment of actual and potential effects on the environment associated with the activities for which RMA approvals are sought, together with the measures proposed to avoid, remedy, mitigate, offset or otherwise manage those effects. It should be read alongside the supporting technical reports and proposed consent conditions attached as appendices to this report.



1.2 Resource Consents

The resource consent requirements identified in this section have been determined based on the Applicant’s assessment of the relevant statutory and planning framework, informed by the supporting technical assessments and engagement with the relevant territorial and regional authorities.

In the event that the Panel or a relevant administering agency adopts a different interpretation of a rule or identifies an additional consent requirement for an activity forming part of the Project, that additional resource consent is also sought as part of this substantive application.



1.2.1 Waikato District Council – Land Use Consent

The Site is zoned General Rural Zone under the WDP-OiP. The Project proposes industrial development that is not anticipated by the underlying General Rural zoning framework. It includes a range of activities that are identified as Non-complying Activities within the General Rural Zone¹, together with built development that will not comply with all applicable zone performance standards. A number of additional infringements also give rise to Restricted Discretionary and Discretionary Activity consent requirements, including in relation to building height, setbacks, site coverage, earthworks, transport and infrastructure.

The Project is not intended to comply with the underlying General Rural Zone activity and development standards. Instead, the proposed Development Framework establishes the site-specific land use and development controls that will apply to future activities within Te Kowhai East. Accordingly, a number of General Rural Zone rules are not directly relevant to the form of development proposed. The Development Framework instead establishes the activities, building form, site layout and other development standards considered appropriate for the intended industrial precinct.

The Project also does not comply with a number of relevant district-wide provisions, including requirements relating to earthworks, transportation and three waters servicing. These non-compliances similarly reflect the scale and nature of the proposed comprehensive development and the fact that the existing District Plan provisions were developed principally to manage development within the underlying rural environment. The detailed rule assessment identifies Restricted Discretionary and Discretionary Activity requirements associated with matters including infrastructure earthworks, temporary infrastructure, vehicle access and traffic generation, new roads, stormwater infrastructure, wastewater pump-station infrastructure and the proposed above-ground reservoir.

Applying the bundling principle, the various land use consent requirements are assessed together, and the overall land use consent is therefore considered to be a Non-complying Activity under the WDP-OiP. A detailed assessment of the applicable WDP OiP provisions and individual rule infringements is provided in **Volume B – Appendix A**.

1.2.2 Waikato District Council – Subdivision Consent

The Project includes the staged subdivision of the Site to create industrial development lots, together with roads, stormwater reserves, infrastructure lots and other land required to support the development. The Site is zoned General Rural Zone under the WDP-OiP, and the proposed subdivision is not anticipated by the underlying rural subdivision framework.

In particular, the Site comprises a mix of Records of Title issued before and after 6 December 1997 and includes areas of high class soil. As such, the proposed subdivision will create additional allotments on areas of high class soil and therefore triggers Rules SUB-R40 and SUB-R41. These rules classify the relevant subdivision as a Prohibited Activity. Under the ordinary RMA consenting framework, a resource consent application could not be made for a prohibited activity. Section 42(5)(a) of the FTAA expressly enables a substantive application to seek resource consent for an activity that is a prohibited activity under the RMA.

The subdivision is also unable to comply with a number of other General Rural Zone subdivision standards. These include provisions relating to the number and size of additional allotments, road frontage, building platform requirements and other standards designed principally for rural subdivision outcomes. The Project is not intended to comply with all of the underlying General Rural Zone subdivision standards, as those provisions are not directly relevant to the comprehensive industrial subdivision proposed. Instead, the subdivision layout has been designed to create development-ready industrial lots within the wider transport,

¹ including industrial activities under Rule GRUZ-R59, commercial activities under Rule GRUZ-R60 and, where relevant, other activities captured by Rule GRUZ-R61



servicing, stormwater and infrastructure framework established for the Project, with the proposed consent conditions providing appropriate flexibility to refine individual lot boundaries and sizes as development proceeds.

Overall, the proposed subdivision is a Prohibited Activity, pursuant to Rules SUB-R40 and SUB-R41. The other non-compliances identified give rise to Restricted Discretionary, Discretionary and Non-Complying Activity statuses. Those additional activity statuses do not alter the overall Prohibited Activity status of the subdivision under the WDP-OiP. A detailed assessment of the applicable subdivision provisions, including the individual rule infringements and activity statuses, is provided in **Volume B – Appendix A**.

1.2.3 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011

A combined Preliminary and Detailed Site Investigation (PSI–DSI) has been prepared for the Project and is included in **Volume B - Appendix N**. The investigation identifies discrete areas of the Site where current or historical Hazardous Activities and Industries List (HAIL) activities have occurred and which are therefore considered to be “pieces of land” for the purposes of Regulation 5(7) of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES-CS).

The PSI–DSI confirms that contaminant concentrations within the investigated areas are below the applicable soil contaminant standards for the proposed commercial/industrial land use. However, soil disturbance and off-site soil removal associated with the Project will occur within identified pieces of land and are expected to exceed the permitted activity thresholds in Regulation 8(3), including the applicable disturbance volumes, off-site soil removal limits, duration and reinstatement requirements. The proposed subdivision and change of land use meet the permitted activity requirements of Regulation 8(4) and do not themselves require consent under the NES-CS.

Accordingly, resource consent is sought as a Controlled Activity under Regulation 9 (1) of the NES-CS to authorise soil disturbance and associated off-site soil removal and disposal within the identified pieces of land. A Contaminated Site Management Plan (CSMP) has been prepared to support the application and sets out appropriate measures for soil handling, segregation, storage, disposal and unexpected discoveries during construction.

1.2.4 Regional Consents

The Waikato Regional Plan (WRP) contains rules to address issues of resource use and development and protection of land and water. The proposal has been assessed against the relevant Regional Plan rules in **Volume B – Appendix A**. In summary, resource consent is required under the following rules:

- **Rule 3.3.4.24 – Discretionary Activity:** for temporary groundwater takes associated with construction dewatering, as the proposed takes do not comply with the permitted activity limits in Rules 3.3.4.12 and 3.3.4.14;
- **Rule 3.5.11.8 – Discretionary Activity:** operational stormwater discharges to surface water that do not comply with Rule 3.5.11.4, including because the contributing urban stormwater catchments exceed the 1 ha permitted activity threshold;
- **Rule 3.6.4.13 – Discretionary Activity:** Temporary damming and diversion of the Mangaheka Stream, Te Otamanui Stream, and diversion of flows within the existing artificial drainage network on the site during construction, alongside permanent groundwater diversion as a result of interception by the constructed stormwater wetlands, vegetated swales and deepened Mangaheka Stream;



- **Rule 3.8.4.7 – Controlled Activity:** drilling below the water table to establish temporary dewatering wells or wellpoints where the holes will remain in place for longer than the two-day period provided for by Rule 3.8.4.6;
- **Rule 4.2.4.4 – Discretionary Activity:** stormwater discharge structures within the Mangaheka Stream that exceed the dimensional limits of the permitted activity provisions;
- **Rule 4.2.8.2 – Controlled Activity:** two bridges across the Mangaheka Stream that exceed 10 m in length but do not include piers within the stream bed;
- **Rule 4.2.9.3 – Controlled Activity:** the two proposed culverts within the Mangaheka Stream, which have upstream catchments between 100 ha and 500 ha. The proposed Te Otamanui Stream culvert has an upstream catchment of approximately 6.5 ha and is a Permitted Activity under Rule 4.2.9.2;
- **Rule 4.2.15.2 – Controlled Activity:** for the erosion-control structures/rip-rap associated with the stormwater wetland outlets and Mangaheka culverts.
- **Rule 4.2.18.1 – Discretionary Activity:** planting and structures within 10 m of the WRC-managed Mangaheka Stream / McBeth Drain corridor as part of the proposed stream enhancement and stormwater works;
- **Rule 5.1.4.13 – Discretionary Activity:** soil disturbance, roading, tracking and vegetation clearance that does not comply with the permitted activity requirements of Rule 5.1.4.11, including the applicable suspended-solids standards;
- **Rule 5.1.4.15 – Discretionary Activity:** soil disturbance and associated works within high-risk erosion areas where the applicable area and/or volume thresholds are exceeded;
- **Rule 5.2.5.5 – Controlled Activity:** large-scale cleanfill disposal exceeding 2,500 m³ per annum where undertaken outside identified high-risk locations; and
- **Rule 5.2.5.6 – Discretionary Activity:** cleanfill disposal within identified high-risk locations, including where applicable within high-risk erosion areas associated with the Mangaheka Stream corridor.

A number of other activities associated with the Project are provided for as permitted activities under the WRP, subject to compliance with the relevant conditions. These include stormwater discharges to land where the requirements of Rule 3.5.11.5 are met, discharge of drilling water, removal of existing structures from river beds, riparian planting and vegetation clearance within river beds.

Applying the bundling principle, the regional consent package has an overall Discretionary Activity status under the WRP. A detailed assessment of the applicable rules, including the individual activity statuses and permitted activity requirements relied upon, is provided in **Volume B – Appendix A**.

1.2.5 National Environmental Standards for Freshwater 2020

The Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-F) regulate activities that may affect freshwater and freshwater ecosystems. While the NES-F does not directly regulate the diversion or realignment of rivers, it is relevant to the Project through the provisions relating to the reclamation of river beds and fish passage associated with structures within rivers.

Reclamation of rivers

Subpart 2 of Part 3 of the NES-F applies to the reclamation of rivers. Regulation 57 provides that reclamation of the bed of any river is a Discretionary Activity. A consent for reclamation may only be granted where the consent authority is satisfied that there is a functional need for the reclamation in that location and the effects management hierarchy has been applied in accordance with Regulation 56A.

The Project will result in the permanent reclamation of approximately 212 m of Watercourse M13². M13 is a short, highly modified watercourse within the Site that forms part of the existing drainage network and has

² Watercourse M13 is a short, highly modified watercourse within the Site that forms part of the existing rural drainage network and has been identified as a river for the purposes of the RMA and NES-F.



been identified as a river for the purposes of the RMA and NES-F. Resource consent is therefore sought under Regulation 57 for reclamation of its bed.

There is a functional need for the reclamation of M13 in its present location. The watercourse is situated within the area required to establish the industrial development, including the development platforms, road and infrastructure network and associated stormwater system. The Masterplan and supporting infrastructure have been developed on a site-wide basis, and retention of M13 in its existing form and location would materially constrain the efficient development and servicing of this part of the Site. The Project design has sought to retain and enhance the principal freshwater feature within the Site, being the Mangaheka Stream, while the reclamation of the comparatively short and modified M13 reach is required to enable the planned development outcome.

The effects management hierarchy has also been applied. Reclamation and modification of river extent has been avoided where practicable through the Project design, including retention and reconstruction of the Mangaheka Stream as the principal freshwater corridor through the Site. The loss of M13 cannot practicably be avoided without materially constraining the development area and the Project's ability to deliver serviced industrial land. The effects of its removal are addressed through the wider freshwater restoration and enhancement package. In particular, the reconstruction of the Mangaheka Stream will create additional stream length and streambed area through a more naturalised, sinuous channel alignment, together with substantial improvements to instream habitat and riparian vegetation.

The Ecological Impact Assessment (EclA)³ has specifically assessed the loss of M13 using an aquatic offset approach that addresses both river extent and ecological values. The proposed Mangaheka Stream works will create approximately 409 m of additional stream length through the introduction of meanders, together with increased streambed area and substantial ecological enhancement. The EclA concludes that these measures are sufficient to address the loss of M13 and achieve an overall net gain in river extent and freshwater ecological values.

Accordingly, while Regulation 57 is triggered by the physical reclamation of the existing M13 river bed, the Project does not result in an overall loss of river extent as a consequence of the Project. The effects of the reclamation are assessed further in Section 1.6.10 of this Volume and the EclA in **Volume B – Appendix M**.

Passage of fish affected by structures

Subpart 3 of Part 3 of the NES-F regulates the effects on fish passage arising from the placement, use, alteration, extension or reconstruction of specified structures in, on, over or under the bed of a river or connected area. The structures regulated by Subpart 3 are culverts, weirs, flap gates, dams and fords.

The permanent structures proposed by the Project that are relevant to Subpart 3 are the culverts within the Mangaheka Stream and Te Otamanui Stream. The Project includes two new box culvert crossings within the reconstructed Mangaheka Stream and one box culvert within the Te Otamanui Stream. The EclA confirms that these culverts will be designed and installed in accordance with the applicable NES-F requirements to provide for fish passage. Existing culverts within the Mangaheka Stream include a perched culvert that currently acts as a fish barrier, and its removal and replacement with compliant structures is expected to improve fish passage through the Site.

Regulation 70 provides that the placement, use, alteration, extension or reconstruction of a culvert is a permitted activity where the specified conditions are met. Those conditions require, amongst other matters, that the culvert provide for the same passage of fish upstream and downstream as would exist without the culvert, be aligned with the river bed, maintain appropriate water velocities, satisfy minimum width

³ Vol B. Appendix M



requirements, be appropriately embedded or open-bottomed, retain bed substrate through the culvert and provide for continuity of geomorphic processes.

The proposed Mangaheka Stream and Te Otamanui Stream culverts have been designed on that basis. The indicative design incorporates appropriate culvert width and embedment, continuity of stream-bed substrate and hydraulic conditions that provide for upstream and downstream fish passage. Final dimensions and associated bed protection will be confirmed through detailed design process. The Project documentation therefore establishes a design framework that requires compliance with Regulation 70 rather than reliance on a departure from its permitted activity standards.

Accordingly, Regulation 71 is not triggered and no resource consent is required under Subpart 3 of Part 3 of the NES-F for the proposed culverts. The information requirements in Regulations 62 and 63 will nevertheless apply and require specified information regarding the structures and fish passage to be provided to WRC following construction.

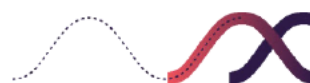
To the extent that the placement or use of those structures requires resource consent under another applicable regional rule, Regulation 69 also applies and requires the relevant resource consent to include monitoring and maintenance conditions sufficient to ensure that the provision for fish passage does not reduce over the lifetime of the structure. Those requirements are reflected in the proposed regional resource consent conditions.

1.3 Relevant Policy and Planning Documents

This section identifies Te Ture Whaimana o Te Awa o Waikato and the national, regional, local and strategic policy and planning documents relevant to the assessment of the Project. These documents provide the statutory and strategic framework for assessing the Project, including its consistency with national direction, regional policy outcomes, regional resource management requirements, district plan provisions and the wider strategic planning framework applying to the Hamilton-Waikato metropolitan area.

Table No. 1.1 Relevant national, regional and local planning documents

Category	Relevant planning document
Waikato River framework	Te Ture Whaimana o Te Awa o Waikato – Vision and Strategy for the Waikato River
National	- National Policy Statement on Urban Development (NPS-UD) - National Policy Statement for Freshwater Management 2020 (NPS-FM) - National Policy Statement for Highly Productive Land 2022 (NPS-HPL) - National Policy Statement for Indigenous Biodiversity 2023 (NPS-IB) - National Policy Statement for Natural Hazards 2025 (NPS-NH) - Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-F) - Resource Management (National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES-CS)
Regional	- Waikato Regional Policy Statement (RPS) - Waikato Regional Plan (WRP) - Waikato Conservation Management Strategy 1996
Local	Waikato District Plan – Operative in Part (WDP OiP)
Strategic and spatial	- Future Proof Strategy - Waikato Regional Land Transport Plan 2024–2054 (RLTP) - Hamilton-Waikato Metropolitan Spatial Plan - Waikato 2070



A detailed assessment of the Project against the relevant objectives and policies of these documents is provided in **Volume B – Appendix B**. The following sections summarise the principal policy considerations and conclusions arising from that assessment.

1.3.1 Te Ture Whaimana o Te Awa o Waikato – Vision and Strategy for the Waikato River

Te Ture Whaimana is the primary direction-setting document for the Waikato and Waipā Rivers and activities within their catchments. Under the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, Te Ture Whaimana is deemed to form part of the Waikato Regional Policy Statement (RPS). It also has a particular statutory status within the RMA planning hierarchy: Te Ture Whaimana prevails over any inconsistent provision in a national policy statement or the New Zealand Coastal Policy Statement. In addition, a rule in a regional or district plan included for the purpose of giving effect to Te Ture Whaimana prevails over a national environmental standard where that rule is more stringent than the national environmental standard.

Te Ture Whaimana therefore forms an integral part of the regional policy framework applying to the Project, rather than being a separate or supplementary consideration. It has particular relevance to the Project because the Site is located within the wider Waikato/Waipā catchment and the Project affects tributary freshwater environments and downstream receiving waters. The detailed objectives and policy assessment in **Volume B – Appendix B** accordingly assesses Te Ture Whaimana as the overarching direction for freshwater management alongside the wider RPS and regional planning framework.

The Project has been developed in response to the restoration and protection direction of Te Ture Whaimana. The Mangaheka Stream corridor is retained as a central element of the Development Framework and will be reconstructed and enhanced through channel restoration, riparian planting, habitat enhancement and improved fish passage. The Project also incorporates an integrated stormwater management framework including source controls, raingardens, vegetated conveyance systems, constructed wetlands, attenuation and erosion management.

The Project will modify parts of the existing freshwater environment, including watercourses and artificial drains supporting black mudfish. Those effects are proposed to be managed through the effects management hierarchy, including stream creation and enhancement, fish salvage and relocation, dedicated black mudfish habitat, riparian restoration and improved ecological connectivity.

Te Ture Whaimana also emphasises integrated and holistic management, recognition of cumulative effects, avoidance of further degradation, and the use of both mātauranga Māori and the latest available scientific methods. The Project responds to that direction through integrated land use, freshwater, groundwater, stormwater, flood management and ecological assessment, informed by engagement with mana whenua through the Tangata Whenua Working Group (TWWG), hui and Cultural Impact Assessment (CIA). The proposed Tangata Whenua Management Plan (TWMP) will provide for ongoing mana whenua involvement during implementation.

The Project does not rely on the degraded condition of the existing Mangaheka Stream and drainage network as justification for further degradation. Rather, the proposed freshwater and stormwater framework seeks to improve the health, ecological function and resilience of those environments over time.

That approach is consistent with the Environment Court's interpretation of Te Ture Whaimana in *Puke Coal Ltd v Waikato Regional Council*⁴, where the Court recognised that restoration and protection involves some element of environmental betterment. The Project responds through identifiable freshwater improvements, including enhancement of the Mangaheka Stream, improved fish passage, riparian restoration, habitat creation and an integrated stormwater treatment framework. The permanent retirement of the existing dairy

⁴ *Puke Coal Ltd v Waikato Regional Council* [2014] NZEnvC 223



farming activity also removes an existing source of diffuse contaminant loss within the catchment. Collectively, these measures will contribute incrementally to improved freshwater and ecological outcomes within the wider Waipā and Waikato River systems.

Overall, while the Project will result in some modification of freshwater environments, it is considered generally consistent with Te Ture Whaimana through its integrated approach to freshwater management, including ecological restoration and enhancement, water-quality treatment, habitat creation, fish-passage improvement and ongoing mana whenua involvement. Importantly, the Project is not limited to avoiding further degradation, but incorporates measures intended to deliver positive freshwater and ecological outcomes that contribute to the wider restoration and protection of the Waikato and Waipā River catchments.

1.3.2 National Policy Statement on Urban Development 2020

The NPS-UD provides national direction for urban environments, including the need to enable well-functioning urban environments, provide sufficient development capacity for housing and business land, and support planning decisions that are integrated with infrastructure and responsive to significant development opportunities.

The NPS-UD is relevant because the Project is located within the Hamilton Tier 1 urban environment (from Table 1 of the Appendix to the NPS-UD) and will provide significant additional industrial development capacity within the wider Hamilton-Waikato metropolitan area. While the NPS-UD is primarily directed at regional policy statements, district plans and local authority planning decisions, its objectives and policies are relevant because of the role the Project plays in supporting a well-functioning urban environment and providing additional business land capacity.

Although the Site is within Waikato District, it immediately adjoins Hamilton City and the established Te Rapa industrial area. The Economic Assessment (**Volume B – Appendix H**) considers Hamilton City to be the appropriate study area for industrial land supply and demand because the Project is functionally integrated with Hamilton's industrial market and represents a logical extension of Te Rapa.

The Project is strongly aligned with the NPS-UD direction for well-functioning urban environments. Policy 1 seeks, amongst other matters, a variety of sites suitable for different business sectors in terms of location and site size, good accessibility between housing and jobs, and the competitive operation of land and development markets. TKE will provide approximately 123 ha of net developable industrial land, with a range of lot sizes and flexibility to accommodate larger industrial occupiers, immediately adjoining Hamilton's largest industrial employment node.

The Economic Assessment identifies industrial land demand in Hamilton at approximately 17–25 ha per annum, broadly consistent with the Future Proof Business Development Capacity Assessment 2024⁵ and the HCC Industrial Land Projections 2025⁶. On that basis, TKE represents approximately 7–11 years of future industrial land demand. It also identifies a spatial imbalance in remaining industrial land supply, with a substantial proportion of vacant land located at Ruakura while north-west Hamilton is more reliant on the more constrained Te Rapa industrial node. TKE will therefore make a material contribution towards the NPS-UD direction in Policy 2 that sufficient business development capacity be provided over the short, medium and long term.

The Project will also improve the relationship between employment land and planned population growth. It is located close to significant projected residential growth at Rotokauri/Te Kowhai and other northern growth

⁵ <https://www.futureproof.org.nz/assets/Future-Proof/Resources/BusinessDevelopmentCapacityReportApril24.pdf>

⁶ <https://hamilton.govt.nz/assets/Uploads/Documents/Content-Documents/Your-City/Formative-report-on-Hamilton-Industrial-Land-Projections.pdf>



areas, while maintaining direct access to the strategic transport network. This supports accessibility between housing and employment and a more balanced distribution of employment capacity within the urban environment.

Objective 6 is also particularly relevant. It seeks urban-development decisions that are integrated with infrastructure planning and funding, strategic over the medium and long term and responsive to proposals that would supply significant development capacity. The Project has been comprehensively masterplanned and incorporates a staged transport, stormwater, water supply and wastewater servicing framework. At approximately 123 ha of net industrial land, it also represents a significant addition to long-term business development capacity.

The NPS-UD further recognises that urban environments and their amenity values develop and change over time. Objective 4 and Policy 6 are relevant in this respect because the Project will result in a substantial change from the existing rural environment to an urban industrial environment. Policy 6 recognises that changes in amenity associated with planned urban development are not, of themselves, adverse effects and requires particular regard to the benefits of urban development that contributes to a well-functioning urban environment and to the provision of development capacity.

Policy 8 also provides relevant context because it reflects the broader NPS-UD direction that local authorities should be responsive to significant development opportunities that contribute to well-functioning urban environments, even where that capacity is unanticipated or out of sequence. However, Policy 8 and clause 3.8 are specifically directed at plan changes and are therefore not relied upon as the principal policy basis for the Project.

Overall, the Project is assessed as being consistent with the relevant objectives and policies of the NPS-UD because it provides significant additional industrial land in response to identified demand, improves the location and competitiveness of business land supply, and integrates employment growth with infrastructure and the wider metropolitan growth pattern. It therefore strongly supports the NPS-UD direction for well-functioning urban environments, sufficient development capacity and integrated infrastructure planning.

1.3.3 National Policy Statement for Freshwater Management 2020

The NPS-FM provides national direction for the management of freshwater, including rivers, streams, groundwater and associated receiving environments. It is underpinned by Te Mana o te Wai, which establishes a hierarchy of obligations that prioritises first the health and wellbeing of water bodies and freshwater ecosystems, second the health needs of people, and third the ability of people and communities to provide for their social, economic and cultural wellbeing. That hierarchy has informed the Project approach.

The NPS-FM is directly relevant because the Project involves substantial land-use change, stormwater discharges, earthworks, stream modification, culverts, groundwater management and associated effects on freshwater environments within the Mangaheka, Te Rapa and Te Otamanui catchments.

Freshwater values have been a significant influence on the Project design. The Mangaheka Stream corridor has been retained as a central element of the Masterplan and will be reconstructed and enhanced through a widened flood corridor, a meandering baseflow channel, riparian planting and habitat enhancement. The existing function of the Te Otamanui Stream will also be retained, and effects associated with works in its vicinity will be appropriately managed.

The Project adopts an integrated catchment-based approach to freshwater and stormwater management. Stormwater will be managed through a treatment train incorporating source controls, raingardens, vegetated conveyance systems, constructed wetlands, attenuation and stream enhancement. The stormwater strategy has been developed having regard to the Mangaheka, Te Rapa and Te Otamanui



catchments and their downstream receiving environments. This is consistent with Policy 3, which requires freshwater to be managed on a whole-of-catchment basis, including effects on receiving environments.

The Project will modify existing freshwater environments. In particular, 212 m of the M13 Watercourse will be reclaimed. Policy 7 seeks to avoid the loss of river extent and values to the extent practicable, with clause 3.24 setting out the corresponding framework for managing river loss, including functional need and application of the effects management hierarchy. That framework has informed the EclA assessment of the proposed loss of the watercourse and the proposed stream creation, restoration and other measures forming part of the effects-management response.

The Project will also affect freshwater habitat through modification of the Mangaheka Stream and parts of the wider drainage network. Those effects are proposed to be managed through stream restoration, riparian planting, fish salvage and relocation, black mudfish habitat creation and fish-passage measures. Existing culverts within the Site are generally of poor condition and some restrict fish passage. Replacement culverts will be designed to provide for fish passage in accordance with the NES-F and relevant fish-passage guidance.

No natural inland wetlands have been identified within the Site for the purposes of the NPS-FM. The EclA records that the small areas of damp pasture and pooled water do not meet the RMA definition of wetland and therefore the natural inland wetland provisions in clause 3.22 are not directly engaged.

The Project also incorporates climate-change allowances into its stormwater and flood-management framework and provides for ongoing mana whenua involvement in freshwater management through the TWWG, CIA and proposed TWMP.

Overall, while the Project will modify parts of the existing freshwater environment, it is assessed as being generally consistent with the relevant objective and policies of the NPS-FM. The Project responds to the Te Mana o te Wai hierarchy through integrated catchment management, stream restoration, water-quality treatment, habitat enhancement and fish passage, while managing unavoidable river effects through the effects management hierarchy.

1.3.4 National Policy Statement for Highly Productive Land 2022

The NPS-HPL provides national direction for the management of highly productive land. Its objective is to protect highly productive land for use in land-based primary production, both now and for future generations. The relevant policies recognise highly productive land as a finite resource, prioritise its use for land-based primary production, seek to avoid its subdivision except in specified circumstances, protect it from inappropriate use and development, and manage reverse sensitivity effects on land-based primary production.

The NPS-HPL is relevant because the Site is zoned General Rural and comprises land identified within the New Zealand Land Resource Inventory as predominantly LUC Class 2. Until highly productive land is mapped through an operative regional policy statement, clause 3.5(7) provides the interim basis for determining which land is treated as highly productive land. Under that clause, General Rural or Rural Production zoned LUC Class 1, 2 or 3 land is generally treated as highly productive land, subject to the exclusions specified in clause 3.5(7)(b).

The NPS-HPL was amended in December 2025, with the amendments taking effect on 15 January 2026. Of particular relevance, LUC Class 3 land that is subject to a resource consent application for subdivision, use or development for an activity other than rural lifestyle, lodged at or after commencement, is excluded from the interim definition. The principal NPS-HPL issue for the Project therefore relates to land within the Site that comprises LUC Class 1 or 2 land and continues to fall within the interim definition of highly productive land.



An earlier agricultural assessment undertaken by AgFirst⁷ identified the Site as being mostly LUC Class 2, with approximately 179.1 ha classified as LUC Class 2w2 and only very small areas of LUC Class 1 and other LUC classes. AgFirst also identified that much of the Site comprises very poorly drained organic soils with significant wetness limitations and a reliance on artificial drainage. While those soils are classified predominantly as LUC Class 2, their wetness and drainage characteristics limit the versatility of much of the land and its suitability for higher-value horticultural and arable production. AgFirst considered pastoral farming to represent the principal practicable productive use across much of the Site, with only limited areas suited to arable production.

The Project will nevertheless permanently convert highly productive land from land-based primary production to industrial development. It therefore gives rise to a clear tension with the objective and Policies 1 and 4 of the NPS-HPL, and with the direction in Policies 7 and 8 concerning subdivision and inappropriate use and development of highly productive land. That tension is acknowledged.

The significance of that policy tension needs to be considered in the context of the productive characteristics of the land, the strategic location of the Site and the identified demand for additional industrial development capacity. The Economic Assessment identifies industrial land demand within Hamilton at approximately 17–25 ha per annum and concludes that TKE will provide approximately 7–11 years of future industrial land demand. It also identifies a long-term supply shortfall and a spatial imbalance in industrial land availability, with supply in north-west Hamilton comparatively constrained and concentrated in a limited number of owners.

The Site immediately adjoins the established Te Rapa industrial area and strategic transport infrastructure and is functionally part of the north-west Hamilton industrial market. The Economic Assessment concludes that the Project represents a logical and efficient extension of Hamilton's principal industrial node rather than dispersed industrial development within the rural environment. The locational relationship between the identified industrial land demand and the Site is important. The benefits associated with the Project arise not simply from conversion of rural land to a higher-value use, but from providing additional industrial capacity in a location that is functionally integrated with the established Te Rapa industrial area and strategic transport network.

The broader spatial context is also relevant. Much of the rural land surrounding northern Hamilton is itself LUC Class 2 land and, under the interim application of the NPS-HPL, is therefore treated as highly productive land. There are consequently limited opportunities to provide additional industrial development capacity within the north-west Hamilton locality and market without affecting highly productive land. The relevant question is therefore not simply whether highly productive land can be avoided altogether, but whether the required development capacity could reasonably and feasibly be provided elsewhere within the same locality and market, including on land that is not highly productive land or on highly productive land with relatively lower productive capacity.

That approach is consistent with clause 3.6 of the NPS-HPL, which expressly recognises that urban rezoning of highly productive land may be appropriate where it is required to provide sufficient development capacity to give effect to the NPS-UD, there are no other reasonably practicable and feasible options within the same locality and market, and the benefits of rezoning outweigh the long-term costs associated with the loss of highly productive land. In considering alternative options, clause 3.6 specifically requires consideration of greater intensification, rezoning land that is not highly productive land, and rezoning different highly productive land with relatively lower productive capacity.

⁷ AgFirst Waikato (2016) Ltd, *Te Kowhai East LP (Private Plan Change) NPS-HPL Assessment*, March 2024, originally prepared in support of the earlier private plan change pathway and subsequently provided as part of the Project's referral material. https://www.fasttrack.govt.nz/data/assets/pdf_file/0018/14670/Appendix-20-Rural-Production-HPL-Assessment-Redacted.pdf



While the Project is being progressed through a resource consent application rather than a plan change, its substantive land-use outcome is comparable to the urban rezoning contemplated by clause 3.6. The Project will establish a comprehensively planned industrial area immediately adjoining the existing Te Rapa industrial node and will provide development capacity of the type contemplated by the NPS-UD. If the land-use change were being advanced through a conventional plan change process, clause 3.6 would provide the relevant NPS-HPL pathway for determining whether the Site could appropriately be rezoned for urban development. The Project therefore seeks approval through the resource consent framework for a comprehensively planned urban industrial development of the type that would ordinarily be enabled through rezoning, while the underlying General Rural zoning remains unchanged.

In that context, the matters identified in clause 3.6 remain relevant to the overall policy assessment. The Economic Assessment identifies a demonstrated requirement for additional industrial development capacity within the Hamilton market, while the Site's location directly adjoining Te Rapa responds to the locational and market considerations identified in clause 3.6.

Consistent with that context, earlier comparative agricultural work undertaken by AgFirst also considered alternative areas for urban expansion west of Burbush and southwest of Horotiu. That assessment identified those areas as generally containing land with greater productive capacity, including better-drained soils, LUC Class 1 land, established commercial vegetable production and larger viable dairy operations. By comparison, the TKE Site was identified as having significant drainage limitations and being more constrained in terms of productive versatility. While that assessment was prepared for an earlier private plan change and is not relied upon as demonstrating compliance with the current NPS-HPL, it provides relevant context regarding the relative productive characteristics of the Site and surrounding land.

The economic implications of the loss of rural production have also been assessed. The Economic Assessment estimates the existing dairy farming use of the Site to contribute approximately \$1.0 million to GDP and support approximately six FTE jobs per annum. This is materially less than the economic contribution associated with the proposed industrial development. That assessment provides context as to the existing productive use of the Site and the economic consequences of its loss. The substantially greater economic contribution associated with the proposed industrial development is relevant to the wider assessment of Project benefits, but does not of itself overcome the protective direction of the NPS-HPL.

The Project has also been comprehensively masterplanned so that the affected land is used efficiently for industrial development while accommodating the roads, three-waters infrastructure, ecological restoration and open-space areas required to support the Development. The Project establishes a consolidated urban edge adjoining Te Rapa and avoids introducing significant new sensitive activities that could constrain continued primary production on surrounding rural land.

The productive constraints identified by AgFirst are relevant to understanding the significance of the loss of highly productive land. However, those constraints do not of themselves establish the exemption in clause 3.10. That clause requires a specific demonstration that permanent or long-term constraints mean land-based primary production is not able to be economically viable for at least 30 years, that those constraints cannot be addressed through reasonably practicable options that would retain productive capacity, and that the other requirements of clause 3.10 are satisfied. The Project does not rely on that exemption.

Overall, the Project has an acknowledged and material tension with the protective direction of the NPS-HPL because it will permanently remove land treated as highly productive land from land-based primary production. As a resource consent application under the existing General Rural zoning, the Project does not directly engage the urban rezoning pathway in clause 3.6 and is therefore not fully consistent with the protective direction applying to the use and subdivision of highly productive land.

That conclusion must, however, be considered in the context of the NPS-HPL as a whole. Clause 3.6 expressly recognises that highly productive land may be rezoned for urban development where additional development capacity is required to give effect to the NPS-UD, there are no other reasonably practicable and



feasible options within the same locality and market, and the benefits of rezoning outweigh the long-term costs associated with the loss of highly productive land. Although clause 3.6 is not directly available to the Project because the Application does not rezone the Site, the Project gives rise to the type of comprehensively planned urban development outcome contemplated by that provision.

In that context, the demonstrated need for additional industrial development capacity, the limited availability of non-HPL alternatives within the relevant north-west Hamilton locality and market, the comparatively constrained productive characteristics of the Site, its direct relationship with the established Te Rapa industrial area and strategic transport network, and the significant economic and urban-development benefits of the Project are important considerations in the overall statutory assessment.

1.3.5 National Policy Statement for Indigenous Biodiversity 2023

The NPS-IB provides national direction for the protection, maintenance and restoration of indigenous biodiversity. Its objective is to maintain indigenous biodiversity across Aotearoa New Zealand so that there is at least no overall loss in indigenous biodiversity, while recognising the mana of tangata whenua as kaitiaki, the role of people and communities as stewards of indigenous biodiversity, and the social, economic and cultural wellbeing of people and communities.

The NPS-IB applies to indigenous biodiversity in the terrestrial environment. It also applies to specified highly mobile fauna whether or not they use areas outside the terrestrial environment for part of their life cycle, and its restoration and indigenous vegetation provisions extend to natural inland wetlands. Where there is a conflict between the NPS-IB and the NPS-FM or NES-F, the freshwater instruments prevail.

The Site is a highly modified rural environment dominated by pasture, cropping, exotic shelterbelts and other exotic vegetation. No Significant Natural Area (SNA) has been identified within the Site, and indigenous biodiversity values within the wider land environment have been substantially reduced and fragmented.

The Project will nevertheless affect areas of vegetation and potential habitat for indigenous fauna. Those effects have been assessed through the EclA (**Volume B – Appendix M**) and have informed the Project design and proposed ecological management measures. Because no SNA has been identified within the Site, the specific adverse-effects regime applying to new subdivision, use and development within SNAs is not directly engaged. The relevant focus is therefore on maintaining indigenous biodiversity outside SNAs, together with the specific provisions relating to restoration, indigenous vegetation cover and specified highly mobile fauna.

The Project incorporates ecological management measures including vegetation-clearance protocols, fauna management, indigenous planting, riparian restoration and habitat enhancement. It also includes substantial restoration of the Mangaheka Stream corridor and associated open-space network, which will increase indigenous vegetation cover and improve ecological connectivity and habitat values over time. This restoration is also consistent with the NPS-IB direction to promote the increase of indigenous vegetation cover in urban and non-urban environments, particularly in areas where indigenous vegetation cover has been substantially depleted.

The NPS-IB also provides specific direction for specified highly mobile fauna, seeking to maintain viable populations of those species across their natural range. Long-tailed bats (*Chalinolobus tuberculatus*) are classified as Threatened – Nationally Critical and are known from the wider Hamilton landscape. Project-specific surveys involved the deployment of 21 automatic bat monitors across the Project Area for 28 nights between December 2025 and January 2026. No long-tailed bats were detected. The EclA also notes that predictive modelling indicates a low probability of bat activity within the Project Area, reflecting the fragmented vegetation pattern and dominance of high-producing exotic grassland.

Notwithstanding the absence of recorded bat activity, the Site contains some trees with potential roost features and linear vegetation features that may provide potential foraging and commuting habitat. Given



the conservation status of long-tailed bats, the EclA assigns bats and bat habitat an overall Moderate ecological value. Potential effects associated with removal of suitable roost trees will be managed through a Bat Management Plan (BMP) and application of the Department of Conservation (DOC) Bat Roost Tree Protocols, including further survey and suitably qualified ecologist input where required. The proposed indigenous planting, Mangaheka Stream restoration and constructed stormwater wetland network may also increase potential bat foraging and movement habitat over time.

Tangata whenua have been involved in development of the Project through the TWWG, CIA and wider engagement process. The Project also provides for ongoing mana whenua involvement in ecological restoration and environmental management, recognising the role of tangata whenua as kaitiaki.

The NPS-IB also recognises activities that contribute to social, economic, cultural and environmental wellbeing, provided indigenous biodiversity is managed in accordance with the NPS-IB. The Project will provide significant economic and employment benefits while also delivering a substantial ecological restoration and enhancement programme.

Overall, the Project is considered to be generally consistent with the objective and relevant policies of the NPS-IB. The Site contains no identified SNA and is highly modified. While the Project will affect some vegetation and potential habitat for indigenous fauna, including potential long-tailed bat roosting, foraging and commuting habitat, those effects are proposed to be managed through Project design, ecological management measures, fauna-specific protocols and conditions. The Project will also materially increase indigenous vegetation cover, ecological connectivity and habitat values through the proposed restoration and enhancement programme.

1.3.6 National Policy Statement for Natural Hazards 2025

The NPS-NH provides national direction for managing natural hazard risk associated with subdivision, use and development. Its objective is that natural hazard risk to people, property and the environment is managed using a risk-based and proportionate approach. The NPS-NH applies to specified natural hazards including flooding, landslip and liquefaction, which are the principal hazards relevant to the Project.

Natural hazard risk has been assessed through the Geotechnical Investigation Report (GIR) (**Volume B – Appendix R**), hydraulic modelling, Stormwater Management Plan, Hydrogeological Effects Assessment and supporting infrastructure assessments. These investigations have informed the Masterplan, earthworks strategy, finished ground levels, stormwater and flood management system and geotechnical design requirements.

The GIR includes a specific natural hazard risk assessment undertaken using the likelihood, consequence and risk matrix in Appendix 1 of the NPS-NH. The assessment considers both the latent risk associated with the proposed developed condition and the residual risk following implementation of the proposed geotechnical controls. It identifies liquefaction and lateral spread as Medium latent risks reducing to Low residual risk, while cut and fill batter instability and bearing-capacity failure reduce from High latent risk to Low residual risk. Landslip/global slope instability remains a Medium residual risk following the proposed controls, with other related geotechnical risks, including dewatering effects, also addressed through the proposed design and management measures.

The GIR concludes that the geotechnical hazards identified do not preclude development of the Site and can be appropriately managed through established engineering measures. These include slope and retaining-wall design, liquefaction and lateral-spread mitigation, foundation design, settlement monitoring, engineered fill, groundwater management and further site-specific detailed design where required.

Flood risk has also been a key consideration in the design of the Project. Under existing conditions, the low-lying Site is traversed by the Mangaheka Stream and rural drainage network, with flood flows extending



beyond the existing stream channel during larger events. The proposed stormwater system includes eight attenuation wetlands, conveyance channels, overland flow paths and reconstruction of the Mangaheka Stream corridor to safely manage and convey flood flows.

Hydraulic modelling has assessed the 2-, 10- and 100-year ARI events and demonstrates that post-development peak flows from the Site can be attenuated to or below pre-development rates. The catchment-wide modelling also demonstrates that post-development peak flows and water levels at relevant downstream locations are generally reduced relative to the pre-development condition and that the Project does not increase off-site flood risk.

The proposed industrial lots are located outside the principal flood conveyance areas, with overland flows directed through the public road and stormwater network. The design therefore responds proportionately to the level of flood risk while avoiding the creation or increase of significant natural hazard risk on adjoining and downstream land.

The assessment has been undertaken using detailed site investigation, hydraulic modelling, groundwater monitoring and other best available information. Where uncertainty remains, particularly in relation to detailed geotechnical design, groundwater response and individual development platforms, further investigation, monitoring and detailed design are required through the relevant management plans, engineering approval and building consent processes. These matters represent normal design development rather than unresolved questions as to the suitability of the Site for development.

Climate change has also been expressly incorporated into the assessment. The stormwater and hydraulic modelling adopt NIWA HIRDS rainfall adjusted using the SSP5-8.5 climate scenario, including an assumed 4°C increase in temperature by the end of the 21st century. Climate-adjusted rainfall has been used for post-development stormwater design and flood hazard assessment, providing for the long-term effects of increased rainfall intensity and flood risk.

Overall, the Project is considered consistent with the objective and relevant policies of the NPS-NH. Natural hazard risks have been assessed using the NPS-NH risk framework and are managed through a combination of Project design, engineering controls and future detailed design requirements proportionate to the assessed level of risk. No very high residual natural hazard risk has been identified, and the Project is designed so that significant natural hazard risk is not created or increased on adjoining or downstream land.

1.3.7 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011

The NES-CS regulates activities on land where hazardous activities or industries have occurred, or are more likely than not to have occurred, to ensure that risks to human health are appropriately managed.

Resource consent is sought under the NES-CS for soil disturbance and related works required to construct the Project on land that is subject to, or potentially subject to, HAIL activities. The PSI/DSI concludes that a Controlled Activity consent is required under regulation 9 and that, subject to implementation of the proposed contaminated-land management measures, the identified contamination does not prevent the proposed industrial development. The relevant consent requirements and activity status are set out in the rule assessment in **Volume B – Appendix A**.

1.3.8 National Environmental Standards for Freshwater 2020

The NES-F is relevant because the Project includes reclamation of approximately 212 m of Watercourse M13 and the installation or replacement of culverts within watercourses. Resource consent is sought under regulation 57 for reclamation of the bed of a river. That reclamation requires consideration of the functional



need for the reclamation in that location and application of the effects management hierarchy, matters addressed through the EclA and Project design. The proposed culverts will be designed to meet the applicable NES-F fish-passage requirements. No natural inland wetlands have been identified within the Site and the NES-F wetland provisions are therefore not triggered.

The relevant NES-F consent requirements, permitted activity standards and activity status are set out in the rule assessment in **Volume B - Appendix A**.

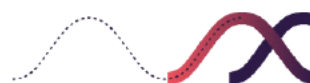
1.3.9 Regional and district planning framework

The Project has been assessed against the objectives and policies of the Waikato Regional Policy Statement (RPS), Waikato Regional Plan (WRP) and Waikato District Plan – Operative in Part (WDP-OiP). These documents generally give effect to, or complement, the national direction addressed above.

The regional and district planning documents contain a number of overlapping and complementary provisions. To avoid repeating substantially the same assessment for each document, the principal regional and local planning issues are addressed thematically in Table 1.2. A detailed provision-by-provision assessment is contained in **Volume B – Appendix B**.

Table 1.2: Summary of the Project’s consistency with the regional and district planning framework

Policy theme	Project response and assessment
Urban growth, industrial development and integrated infrastructure	The RPS and WDP-OiP seek integrated and coordinated development of the built environment, including alignment between land use, transport and infrastructure and the provision of sufficient development capacity for identified growth needs. The Project will provide approximately 123 ha of net developable industrial land immediately adjoining Hamilton’s established Te Rapa industrial area and strategic transport network. It responds to identified industrial land demand and has been comprehensively masterplanned with an integrated and staged framework for transport, stormwater, wastewater, water supply, utilities, open space and ecological restoration. The Project is not identified within the Future Proof urban land-use pattern and therefore represents an unanticipated industrial development in terms of the RPS. That tension is expressly recognised. However, the RPS also provides a framework for considering significant out-of-sequence or unanticipated development through Policy UFD-P11 and the responsive planning criteria in APP13. The detailed assessment in Volume B – Appendix B concludes that TKE makes a significant contribution to identified industrial land demand, contributes to a well-functioning urban environment, is well connected to existing and planned infrastructure and employment areas, and can be efficiently serviced and staged. While it does not directly implement the mapped Future Proof land-use pattern, it responds positively to the broader Future Proof growth-management direction. The Project has also been assessed against the general development principles in APP11. It responds positively to the majority of those principles through its location adjoining the existing Te Rapa industrial area, integration with transport and three-waters infrastructure, provision for walking, cycling and future public transport, efficient use of land and infrastructure, catchment-based stormwater management, ecological restoration and climate-resilient design. The principal tension is the permanent conversion of highly productive land, which is addressed separately under the NPS-HPL. Overall, the Project is considered to provide a logical, integrated and infrastructure-supported extension of Hamilton’s principal industrial area



	notwithstanding that it is not presently identified within the mapped Future Proof settlement pattern.
Location, transport integration and network efficiency	The regional and district framework seeks the integration of land use and transport, efficient use of existing networks and protection of the safe and efficient operation of significant transport infrastructure. TKE is located adjacent to SH1C, SH39 and the established Te Rapa/Horotiu industrial areas. The transport strategy provides a connected internal road hierarchy, primary access from SH39, secondary access from Onion Road, walking and cycling facilities and provision for future public transport. Transport modelling assesses the Project within the wider Hamilton and Waikato network and identifies the infrastructure and staging requirements needed to accommodate development. The Project is therefore considered consistent with the relevant transport and network-integration provisions.
Tangata whenua, cultural values and Te Ture Whaimana	The RPS and WRP recognise tangata whenua relationships with land and water, kaitiakitanga and the particular significance of the Waikato River and its catchment. Mana whenua have been involved through the TWWG, CIA and wider engagement process, with freshwater, ecological restoration, stormwater and cultural design matters forming an important part of that engagement. The proposed TWMP will provide for ongoing involvement during implementation, including cultural protocols, monitoring and input into restoration and environmental management. The Project is also assessed separately against Te Ture Whaimana (Volume B – Appendix B) and relevant iwi planning documents (Volume B – Appendix C).
Freshwater, stormwater and receiving environments	The RPS and WRP promote integrated management of land and water, maintenance and enhancement of water quality and ecosystem health, management of discharges and protection of freshwater values. The Project adopts an integrated catchment approach across the Mangaheka, Te Rapa and Te Otamanui catchments. Stormwater will be managed through source controls, raingardens, vegetated conveyance systems, constructed wetlands, attenuation and restoration of the Mangaheka Stream corridor. The Project will modify parts of the existing freshwater environment, including reclamation of a watercourse, but those effects are proposed to be managed through avoidance and minimisation where practicable, stream creation and restoration, riparian planting, fish passage, black mudfish habitat creation and monitoring.
Indigenous biodiversity and ecological enhancement	The regional and district framework seeks to maintain indigenous biodiversity and manage adverse effects on indigenous vegetation and habitats. The Site is a highly modified rural environment and contains no identified SNA, although it supports or may support indigenous fauna including freshwater species, lizards and long-tailed bats. Effects will be managed through ecological management plans, fauna-specific protocols, restoration planting, riparian enhancement and habitat creation. The Project will also materially increase indigenous vegetation cover and ecological connectivity through the Mangaheka Stream and open-space network.
Earthworks, discharges and groundwater	Large-scale earthworks, construction dewatering, groundwater interception and associated sediment and discharge effects are addressed through the GIR, Hydrogeological Effects Assessment, EWMP, ESCP, STMP and proposed consent conditions. The Project includes staged erosion and sediment controls, groundwater monitoring and management, stabilisation and construction methodologies designed to avoid or minimise effects on receiving environments and adjoining land. The proposed framework responds appropriately to the relevant RPS and WRP land-disturbance and discharge provisions.



Natural hazards, flooding and climate resilience	The regional and district framework seeks to avoid or appropriately manage natural hazard risk and to ensure new development does not increase risk on other land. Flood, liquefaction, lateral-spread and slope-related risks have informed the Masterplan and engineering design. The stormwater system provides attenuation, flood conveyance and overland-flow management, with hydraulic modelling demonstrating that development-related peak flows and off-site flood effects can be appropriately managed. Geotechnical risks are similarly addressed through engineering controls and detailed design. Climate-change-adjusted rainfall has been incorporated into the stormwater and flood assessment.
Rural land, highly productive soils and urban transition	The Site is currently zoned General Rural and the Project will result in the permanent conversion of rural land to industrial use. This creates clear policy tension with provisions seeking to maintain productive rural land and direct urban and industrial development to appropriately planned locations. However, the Site lies directly beside Hamilton's established and expanding urban-industrial edge and the Project responds to a demonstrated need for additional industrial land in north-west Hamilton. The development is proposed as a comprehensive urban outcome rather than dispersed rural subdivision and includes coordinated infrastructure, environmental restoration and clear treatment of its rural interfaces. The specific tension with highly productive land is addressed separately under the NPS-HPL.
Landscape, character, amenity, noise and reverse sensitivity	The Project will materially change the existing rural character of the Site and will introduce industrial buildings, roads, lighting, traffic and associated activity. Those effects have informed the Masterplan and development controls, including perimeter landscape and stormwater buffers, setbacks, streetscape treatment, limits and controls on non-industrial activities, acoustic measures and management of sensitive interfaces. The Site also occupies a transitional location between the rural Waikato District and the expanding urban and industrial environment of Hamilton. The proposed measures are considered to appropriately manage landscape, amenity, noise and reverse-sensitivity effects in that context.
Subdivision and coordinated development	The WDP-OiP subdivision provisions seek subdivision layouts that support the intended land-use outcome and integrate access, servicing and environmental considerations. The proposed subdivision provides a comprehensive framework for future industrial development and integrates the public road network, three-waters infrastructure, stormwater reserves, ecological corridors and the Mangaheka Stream. Flexibility is retained for final lot configuration, while the principal infrastructure and environmental outcomes are fixed through the scheme plans and consent conditions. The Project is therefore consistent with the relevant subdivision direction.

The regional and district planning framework provides substantial support for the Project's integrated urban-development, infrastructure, transport, freshwater-restoration and economic outcomes. In particular, the Project responds to the RPS direction for integrated development of the built environment and provides a comprehensive framework for the coordinated delivery of significant additional industrial capacity. The assessment against APP11 and APP13 also demonstrates that, while the Project is unanticipated by the mapped Future Proof settlement pattern, it exhibits the characteristics sought for significant responsive urban development, including a material contribution to identified development capacity, integration with existing urban areas and infrastructure, good accessibility and a comprehensively planned development form.

The principal areas of policy tension arise from the conversion of General Rural land to industrial use, the Project's location outside the mapped Future Proof urban enablement areas, the loss and modification of



some freshwater environments, and the change to the existing rural character and amenity of the Site. Those matters have been specifically assessed and have influenced the Project design. Effects have been avoided or minimised where practicable and remaining effects are proposed to be managed through the Project's infrastructure, landscape, ecological, freshwater and management-plan framework.

Overall, the Project is considered generally consistent with the relevant objectives and policies of the RPS, WRP and WDP-OiP. Although the Project does not accord with the mapped Future Proof settlement pattern, the detailed assessment against Policy UFD-P11, APP11 and APP13 demonstrates that it represents a significant, well-integrated and infrastructure-supported development opportunity that responds to identified industrial demand and contributes to a well-functioning urban environment. Where tension exists with provisions directed at retaining rural land, freshwater values or existing rural amenity, that tension needs to be considered alongside the Project's location on Hamilton's urban edge, the identified need for additional industrial development capacity, the comprehensive nature of the proposed development and the mitigation and enhancement measures incorporated into the Project.

1.3.10 Strategic and spatial documents

A number of strategic and spatial planning documents are relevant to the Project, including the Future Proof Strategy, Waikato Regional Land Transport Plan, Hamilton-Waikato Metropolitan Spatial Plan and Waikato 2070. These documents provide broader strategic direction for growth, economic development, transport, infrastructure, environmental enhancement and the spatial development of the Hamilton-Waikato metropolitan area.

The Site is not expressly identified as a planned urban or industrial growth area in these documents. However, the strategic framework recognises continued growth and economic development along the Hamilton–Te Rapa–Horotiu corridor, the importance of integrating land use and infrastructure, and the need to support strong and productive economic corridors. It also recognises the importance of environmental restoration, climate resilience, improved access to employment and coordinated growth across territorial boundaries.

Future Proof identifies the importance of the economic corridor extending north from Hamilton through Te Rapa and Horotiu, together with integrated infrastructure, water-sensitive urban development and environmental restoration. It also promotes iwi aspirations and enhancement of the environmental health and wellbeing of the Waikato River and its wider catchments. TKE responds to that direction by providing substantial additional industrial capacity immediately adjoining Te Rapa, with direct access to the strategic transport network and an integrated framework for transport, three-waters infrastructure, stormwater management and ecological enhancement. The restoration and enhancement of the Mangaheka Stream corridor, wetland creation and riparian planting also respond to the environmental and cultural outcomes sought through Future Proof.

The Hamilton-Waikato Metropolitan Spatial Plan similarly promotes improved access to employment, coordinated growth across territorial boundaries, climate resilience and the creation of employment opportunities within the metropolitan area. The Project supports those outcomes through its location on Hamilton's north-western edge, adjoining an established employment area and close to significant planned residential growth. Its integrated planning across land use, transport, infrastructure and environmental management is also consistent with the Spatial Plan's direction to plan according to communities of interest rather than existing territorial boundaries.

Waikato 2070 supports sustainable and integrated growth, use of existing transport connections and infrastructure, development of strategically located industrial clusters and expansion of existing business clusters. It also seeks environmental protection and restoration and recognises the importance of productive rural land. While the Project will result in the permanent conversion of productive rural land to industrial use, and is not specifically identified in Waikato 2070 as a growth location, it will consolidate industrial development adjacent to the existing Te Rapa and Horotiu employment corridor rather than establish an



isolated industrial node, and incorporates substantial environmental restoration and infrastructure investment.

The Waikato Regional Land Transport Plan (RLTP) also supports an efficient, resilient and safe transport network that enables planned growth and economic development. The Project's location adjoining SH1C, SH39 and the Waikato Expressway, together with its proposed internal and external transport connections, supports efficient freight movement and access to employment while providing for walking, cycling and future public transport integration. The proposed road hierarchy and multiple external connections also support network resilience and route choice, while the development does not preclude future public transport connections as the surrounding network develops.

Overall, the Project is considered to be generally consistent with the broader strategic and spatial direction of these documents. While TKE is not specifically identified as a planned growth location within the relevant spatial strategies, its location adjoining the established Te Rapa industrial area, between Te Rapa and Horotiu, and its integrated approach to land use, infrastructure and environmental management are consistent with the wider direction for coordinated metropolitan growth, improved access to employment, infrastructure integration and development of the Hamilton–Te Rapa–Horotiu economic corridor. The Project also responds positively to the strategic direction for environmental restoration, climate resilience and integrated planning across territorial boundaries. The principal areas of tension relate to the unanticipated nature of the Development and the permanent conversion of productive rural land, which are addressed more specifically through the statutory planning assessment above.

1.4 Relevant Treaty Settlements, Iwi Management Plans & Joint Management Agreements

1.4.1 Treaty Settlements

The Treaty settlements identified in the Section 18 report⁸ as relating to the Project area have been reviewed as part of the statutory assessment in **Volume B – Appendix C**. These are:

- The Waikato Raupatu Claims Settlement Act 1995;
- The Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010; and
- The Ngāti Haua Claims Settlement Act 2014.

The Ngāti Tūwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 and Ngā Wai o Maniapoto (Waipā River) Act 2012 have also been considered as part of the wider Waikato and Waipā River settlement framework, having regard to the matters identified through DOC's pre-lodgement consultation.

These settlements recognise the cultural, historical, spiritual and traditional associations of relevant iwi and hapū with ancestral lands, waterways and other natural and cultural resources. They therefore provide important context for the assessment of the Project and for engagement with iwi and hapū whose recognised areas of interest include the Project area or the Waikato and lower Waipā receiving environments to which the Project ultimately drains.

The Project is not located on any identified cultural redress property or settlement land, and no statutory acknowledgement area has been identified as directly affecting the Project area. No settlement-specific approval arises from the Project directly affecting settlement land or cultural redress property. The Project is, however, subject to relevant statutory and procedural requirements arising from the Waikato River settlement framework.

⁸ https://www.fasttrack.govt.nz/data/assets/pdf_file/0020/14645/FTAA-2508-1092-Te-Kowhai-East-section-18-report_Redacted.pdf



The relevant Treaty settlements and their relationship to the Project are summarised in Table 1.3 below.

Table 1.3: Iwi Treaty Settlement Overview

Treaty Settlement	Relevance to the Project
The Waikato Raupatu Claims Settlement Act 1995	The Project is within the wider Waikato-Tainui rohe. The settlement is relevant to understanding the historical and contemporary relationship of Waikato-Tainui with the whenua and provides important context for the engagement undertaken in relation to the Project. The Project does not directly affect identified settlement land or cultural redress property.
The Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010	The Project spans catchments draining to both the Waikato and lower Waipā Rivers, and the Waikato River settlement framework is therefore directly relevant. The Act establishes <i>Te Ture Whaimana</i> as the primary direction-setting document for the Waikato and Waipā Rivers and activities within their catchments. The statutory assessment of the Project must therefore give appropriate recognition to the statutory status of <i>Te Ture Whaimana</i> and have regard to the Waikato-Tainui Environmental Plan. The section 18 report also identifies relevant procedural requirements relating to the Waikato River Authority and applicable joint management arrangements.
The Ngāti Haua Claims Settlement Act 2014	The Act recognises Ngāti Hauā's cultural and historical associations within its area of interest. Those recognised relationships are relevant to the assessment of effects on freshwater, ecological and cultural values and provide context for the engagement undertaken with Ngāti Hauā. The associated Conservation Relationship Agreement with DOC is also relevant to the Wildlife Approval sought for the Project.

The section 18 report also records that the Ngāti Tūwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 and Ngā Wai o Maniapoto (Waipā River) Act 2012 provide River redress in other parts of the Waikato and Waipā River systems. DOC identified these arrangements as potentially relevant to the Project because of its location within the wider Waikato and Waipā co-governance area and its potential freshwater and fisheries effects. These matters are addressed further in **Volume B – Appendix C**.

TKELP has recognised those relationships through its engagement with mana whenua and wider iwi authorities, and through the incorporation of cultural values into the Project design and proposed management framework. The proposed measures relating to freshwater management, stream and habitat restoration and enhancement, cultural monitoring, archaeological processes and ongoing mana whenua participation respond to the broader cultural and environmental interests recognised through the settlements. As addressed in the *Te Ture Whaimana* assessment above, the Project also incorporates measures intended to deliver positive freshwater and ecological outcomes within the Mangaheka Stream and wider receiving catchments, contributing incrementally to the restoration and protection of the Waikato and Waipā River systems.

1.4.2 Iwi Management Plans

The Project has been assessed against the relevant iwi and hapū management planning documents which include:

- Waikato-Tainui Environmental Plan, *Tai Tumu, Tai Pari, Tai Ao*;
- Ngāti Haua Environmental Management Plan; and
- *Te Mata Herenga Ngāti Tamainupō Mātauranga and Taonga Management Plan 2021*.



These documents reflect distinct rohe, relationships and aspirations, but share a number of recurring resource management outcomes. These include recognition of mana whenua and mana whakahaere, integrated management of whenua and wai, freshwater restoration, protection and enhancement of indigenous biodiversity and fisheries, protection of cultural heritage, incorporation of mātauranga Māori, and ongoing mana whenua participation in environmental management and monitoring.

Given the significant overlap between the relevant management documents, the assessment in Table 1.4 below considers these matters thematically rather than undertaking a separate assessment of each document. A detailed assessment is provided in Volume B – Appendix C.

Table 1.4: Iwi Management Plan Thematic Assessment

Theme	Project Response
Mana whakahaere, Partnership and participation	The relevant plans emphasise early and meaningful mana whenua participation in decisions affecting land, water, biodiversity and cultural values. The Project has been informed by tangata whenua engagement and a CIA. A Tangata Whenua Management Plan (TWMP) is to be prepared for the Project and will establish the framework for ongoing mana whenua involvement during implementation, including engagement during construction, cultural monitoring, input into ecological restoration and enhancement areas, and input into landscape treatment of key public-facing areas. Broader governance and relationship arrangements will be addressed separately through the proposed MOU with mana whenua.
Whenua, sustainable land use and integrated management	The relevant plans promote an integrated catchment-based approach to development that recognises the relationship between land, water, ecosystems and people. The Project responds through an integrated development framework incorporating earthworks and sediment controls, stormwater and flood management, stream restoration, riparian planting and ecological management.
Freshwater, mauri and Te Ture Whaimana	The relevant plans seek to protect and restore the mauri of freshwater, recognise Te Mana o Te Wai and, where relevant, <i>Te Ture Whaimana</i> , and minimise contaminant discharges to freshwater. These matters are directly relevant to the Project's stormwater discharges, earthworks, stream works, groundwater management, culverts and outfalls. The Project spans catchments draining to both the Waikato and lower Waipā Rivers. The Project responds through a treatment-train approach incorporating source controls, raingardens, swales, filters, wetlands and attenuation, together with stream restoration, riparian planting and erosion and sediment controls.
Indigenous biodiversity, fisheries and taonga species	The relevant plans seek to protect and restore indigenous biodiversity, aquatic habitat, fisheries and taonga species. The Project responds through stream restoration, fish-passage measures, fish salvage and relocation, black mudfish habitat creation, riparian planting, habitat enhancement and long-term ecological management. The Project also includes measures to manage effects on indigenous terrestrial fauna through the proposed Wildlife Approval and associated species management plans.
Cultural heritage and sites of significance	The plans seek to identify and protect wāhi tapu, wāhi taonga, archaeological sites and other places of cultural significance, while recognising the role of mana whenua in determining cultural values. The Project has been informed by a CIA and archaeological assessment and includes proposed accidental discovery procedures. The TWMP,



	once prepared, will provide a framework for cultural monitoring and mana whenua involvement where sites or features of cultural significance are identified during implementation.
Mātauranga Māori and cultural monitoring	The plans support the application of mātauranga Māori alongside scientific assessment and seek mana whenua involvement in environmental monitoring and decision-making. The TWMP will provide the principal mechanism for establishing how mana whenua involvement, mātauranga Māori and cultural monitoring are carried through into implementation, including cultural monitoring during construction and involvement in ecological restoration and enhancement. Opportunities for the broader incorporation of mātauranga Māori, cultural narratives and cultural design into the completed development will be addressed through the ongoing relationship arrangements proposed through the MOU.
Management plans, implementation and accountability	The relevant plans emphasise that cultural and environmental outcomes should be carried through from assessment into implementation. The TWMP will establish the framework for ongoing mana whenua engagement during construction and implementation of the Project, including cultural monitoring, management of cultural values, involvement in ecological restoration and enhancement, and input into landscape treatment across the development. The wider management-plan framework will also provide appropriate opportunities for mana whenua to contribute to relevant Project management plans.
Restoration, enhancements and resilience	The Project responds through stream restoration, riparian planting, ecological enhancement, stormwater treatment and climate-responsive flood-management measures, with the TWMP, once prepared, providing for mana whenua involvement and feedback on the detailed design and implementation of relevant ecological restoration and enhancement areas.

The Project will result in substantial land-use change and effects on whenua, freshwater environments and habitats. It also incorporates a comprehensive framework of stormwater treatment, stream restoration, fish passage and habitat measures, riparian planting, ecological management and long-term monitoring. The proposed TWMP will provide the consent-based framework for ongoing mana whenua engagement, cultural monitoring and input into relevant ecological restoration and landscape outcomes during implementation. Broader relationship, cultural expression and economic participation opportunities identified through the CIA will be progressed separately through the proposed MOU with mana whenua.

Overall, the Project is considered generally consistent with the common resource management outcomes sought by the relevant iwi and hapū management plans. The Project responds particularly to their shared direction concerning mana whakahaere, integrated management of whenua and wai, freshwater restoration, indigenous biodiversity, cultural heritage, mātauranga Māori and ongoing mana whenua participation. Further detail on the assessment, including the relationship between the Project response and the outcomes and implementation expectations of those plans, is provided in **Volume B – Appendix C**.

1.4.3 Joint Management Agreements

The Project area is within the scope of Joint Management Agreements (JMA) between the Waikato Raupatu River Trust and each of WRC and WDC. The JMAs provide for information sharing, engagement and Waikato-Tainui participation in resource consent processes affecting the Waikato River and activities within its catchment. The WRC JMA is particularly relevant to regional consent matters affecting freshwater and



discharges, while the WDC JMA also provides for engagement on resource consent matters in which the Waikato Raupatu River Trust may have an interest.

The Project has been developed through ongoing engagement with Waikato-Tainui and mana whenua, including through the TWWG, technical engagement, provision of Project information and preparation of the CIA. The section 18 report also identifies that certain procedural requirements under the JMAs remain relevant to the substantive application process, including continued information sharing and consideration of Waikato-Tainui input.

No Mana Whakahono ā Rohe has been identified as applying to the Project area.

1.5 RMA Framework

The resource consent applications are to be determined under the FTAA. Schedule 5 of the FTAA requires the Panel, when considering the resource consent applications, to take into account the relevant provisions of the RMA that direct decision-making on an application for resource consent, subject to the modified decision-making framework established by the FTAA and the requirement to give greatest weight to the purpose of the FTAA.

The following sections address the principal RMA provisions relevant to the resource consent applications within that statutory framework.

1.5.1 Section 104

Section 104 of the RMA sets out the principal matters relevant to consideration of an application for resource consent and is applicable to the Project through the decision-making framework in Schedule 5 of the FTAA. Under section 104(1)(a), regard must be had to the actual and potential effects on the environment of allowing the activity. The actual and potential effects of the Project are assessed in **Section 1.6** and are addressed in further detail within the technical assessments supporting the Application. Those assessments conclude that the relevant effects can be appropriately managed through the Project design, mitigation and enhancement measures, management plans and proposed consent conditions. Where residual effects remain, the proposed response is identified in the relevant effects assessment and, where appropriate, secured through the proposed consent conditions.

Under section 104(1)(ab), regard must be had to any measure proposed or agreed by the Applicant for the purpose of ensuring positive effects on the environment to offset or compensate for adverse effects. The Project includes a substantial programme of environmental restoration and enhancement, including stream restoration, riparian planting, habitat creation and ecological enhancement. The characterisation of those measures, including whether they constitute mitigation, offsetting or compensation, is addressed in the relevant technical assessments. The measures relied upon in the assessment are secured through the proposed consent conditions where appropriate.

Under section 104(1)(b), regard must be had to the relevant provisions of national environmental standards, national policy statements, regional policy statements and plans and the applicable district plan. The Project has been assessed against the relevant statutory planning instruments in **Section 1.3** and **Volume B – Appendix B**. That assessment should be read as part of the overall section 104 assessment.

Under section 104(1)(c), regard may also be had to any other matter considered relevant and reasonably necessary to determine the applications. Relevant other matters include the wider strategic and spatial planning context for growth and industrial development within the Hamilton–Waikato metropolitan area, as addressed in the preceding sections. The Project area is also within the scope of Joint Management Agreements between the Waikato Raupatu River Trust and each of Waikato Regional Council and Waikato



District Council. Those agreements are relevant to the resource consent approvals sought for the Project and provide for information sharing, engagement and Waikato-Tainui participation in resource consent processes. The relevant JMA arrangements are addressed in **Section 1.4.3** above. No Mana Whakahono ā Rohe has been identified as applying to the Project. The Project's status as a referred project and the purpose and decision-making framework of the FTAA are addressed separately through the statutory requirements of the FTAA.

Overall, having regard to the matters in section 104 within the modified decision-making framework established by the FTAA, the resource consent applications are considered appropriate. But for the prohibited activity status arising from the subdivision provisions of the WDP-OiP, the Project would otherwise have an overall Non-Complying Activity status under the RMA. The threshold tests in section 104D of the RMA do not, however, apply to the determination of a substantive application under the FTAA. The effects of the Project have been comprehensively assessed and can be appropriately managed through the Project design, proposed mitigation and enhancement measures, management plans and consent conditions.

1.5.2 Section 105

Section 105 of the RMA requires that, for an application for a discharge permit, regard be had to the nature of the discharge and the sensitivity of the receiving environment to adverse effects, the Applicant's reasons for the proposed choice, and any possible alternative methods of discharge, including discharge into another receiving environment.

The Site is predominantly located within the upper Mangaheka Stream catchment, with a smaller eastern portion draining to the Te Rapa Stream catchment. The Mangaheka Stream forms part of a low-gradient modified rural drainage network and is subject to existing drainage, channel-capacity and flood constraints. The downstream WRC-managed drainage network is also sensitive to increased runoff volumes and velocities. The Te Rapa catchment drains to the Waikato River and is managed in accordance with the Te Rapa North Integrated Catchment Management Plan. The catchment is sensitive to increased runoff, erosion and contaminant loads associated with urban and industrial development, which has informed the Project's stormwater treatment and attenuation approach.

The Te Otamanui Stream catchment adjoins the southern part of the Site and ultimately drains to the Waipā River. The Project does not propose to discharge Site stormwater to the Te Otamanui Stream, and the existing catchment boundary and drainage function are to be maintained.

The discharge strategy has been developed having regard to the existing catchment boundaries, receiving environments, shallow groundwater conditions and variable soakage characteristics across the Site. Alternatives considered through the stormwater design process include greater reliance on discharge to land through soakage, stormwater retention and reuse, and discharge to alternative receiving catchments. Complete reliance on soakage is not practicable across the Site because groundwater is shallow and soil permeability varies materially, while transferring runoff between catchments would alter existing drainage patterns and potentially transfer effects to different receiving environments.

The proposed approach therefore retains runoff within its existing catchments while maximising retention, soakage and reuse where practicable.

Construction-related discharges

Construction-related discharges will principally comprise treated sediment-laden runoff and water generated through temporary dewatering. These discharges will be treated through the Project's erosion and sediment control measures before discharge to the relevant receiving environment, consistent with existing catchment drainage pathways and avoiding unnecessary transfer of water between catchments.



The erosion and sediment control framework provides for progressive stabilisation, sediment treatment and management of construction-phase discharges in accordance with the proposed regional consent conditions and supporting management plans. Temporary dewatering will similarly be managed so that water is appropriately treated before discharge and effects on receiving environments are minimised.

On this basis, the proposed construction discharge methods are considered appropriate having regard to the nature of the discharges, the sensitivity of the receiving environments, the reasons for the proposed discharge methods and the alternatives available.

Operational stormwater discharges

Operational stormwater will comprise runoff from the developed Site and associated roads and infrastructure. The Project adopts an integrated stormwater treatment and attenuation system, with discharges maintained within the existing Mangaheka and Te Rapa catchments. The proposed approach provides for water-quality treatment, peak-flow attenuation and erosion management while avoiding unnecessary transfer of runoff between receiving environments.

Stormwater treatment will be provided through an integrated treatment train incorporating source controls, raingardens, vegetated conveyance systems, constructed wetlands and other treatment measures appropriate to the future industrial land uses.

While post-development peak flows are attenuated to at or below the relevant pre-development rates, an increase in total runoff volume will remain. This residual effect will be managed through the Project's adaptive residual volume management approach, including on-site retention, soakage and reuse, with further measures applied where required to manage any remaining downstream erosion effects.

The proposed discharge locations and methods are preferred because they retain existing catchment relationships, provide treatment before discharge, manage peak flows and erosion risk, and allow retention, soakage and reuse to be progressively maximised without transferring effects between receiving environments.

On this basis, the proposed operational stormwater discharge approach is considered appropriate having regard to the nature of the discharge, the sensitivity of the receiving environments, the Applicant's reasons for the proposed approach and the alternative discharge methods available.

1.5.3 Sections 106 and 106A

Section 106 of the RMA applies to subdivision consent applications. It enables subdivision consent to be refused or conditions imposed where:

- The land or any structure on it is or is likely to be subject to material damage from erosion, falling debris, subsidence, slippage or inundation;
- A subsequent use of the land is likely to accelerate, worsen or result in such material damage; or
- Sufficient provision has not been made for legal and physical access to each allotment.

Section 106A applies separately to land use consent applications and provides for consideration of whether there is a significant risk from natural hazards. The assessment under section 106A includes consideration, in combination, of the likelihood of natural hazards occurring, the material damage that could result, whether the proposed land use would accelerate or worsen that damage, and potential adverse effects on the health or safety of people.

The natural hazard risks associated with the Project have been assessed through the GIR, Hydrogeological Effects Assessment, stormwater assessment and hydraulic modelling prepared for the Application. These assessments consider settlement, liquefaction and associated ground deformation, lateral spreading, slope



stability, groundwater and flooding/inundation, together with the engineering measures required to manage those risks.

The GIR includes a specific natural hazard risk assessment for the proposed subdivision and development. That assessment has been undertaken using the likelihood, consequence and risk matrix derived from Appendix 1 of the NPS-NH and expressly considers the matters relevant to section 106. Based on that analysis, the GIR concludes that the Site is suitable for the proposed development, subject to implementation of the recommended earthworks, ground improvement, foundation and detailed design measures. The identified geotechnical risks can be appropriately managed using established engineering measures, with further site-specific design undertaken through the normal detailed design, engineering approval and building consent processes.

The stormwater and flooding assessment similarly demonstrates that the proposed development can be undertaken without materially increasing off-site flood risk. Development platforms are located outside the principal flood conveyance areas, and the proposed road, stormwater and overland-flow network is designed to safely manage flood flows through the Site.

Accordingly, the proposed subdivision is not considered to give rise to circumstances warranting refusal under section 106, and the proposed land use is not considered to be subject to a significant natural hazard risk warranting refusal under section 106A. The identified risks can be appropriately managed through the proposed earthworks, infrastructure and geotechnical measures and subsequent detailed design.

For the subdivision consent, sufficient legal and physical access will be provided to each allotment through the proposed internal road network, with connections to the wider road network via Te Kowhai Road / SH39 and Onion Road.

1.5.4 Section 107

Section 107 of the RMA restricts the granting of discharge permits where, after reasonable mixing, the discharge is likely to give rise to any of the following effects in the receiving waters:

- The production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
- Any conspicuous change in colour or visual clarity;
- Any emission of objectionable odour;
- The rendering of freshwater unsuitable for consumption by farm animals; or
- Any significant adverse effects on aquatic life.

As set out in the section 105 assessment above, construction-related discharges will be managed through erosion and sediment controls, including implementation of the relevant erosion and sediment control plans and progressive stabilisation of disturbed areas.

Operational stormwater will be managed through the proposed treatment train, source controls, attenuation and erosion-management measures. The proposed regional consent conditions also establish receiving-water and discharge-performance requirements directed at ensuring that the effects specified in section 107 do not occur after reasonable mixing.

On this basis, the proposed discharges are not expected to give rise to any of the effects listed in section 107, and the restriction on the granting of discharge permits under that section is therefore not engaged.



1.5.5 Sections 108, 108AA and 220

Sections 108, 108AA and 220 of the RMA govern the imposition of resource consent conditions. Section 108 enables conditions to be imposed on resource consents, while section 108AA establishes requirements concerning the scope and connection of conditions imposed on a resource consent. Section 220 of the RMA contains additional provisions regarding conditions for subdivision consents.

A comprehensive suite of proposed consent conditions has been prepared for the Project⁹, informed by the technical assessments and management measures identified throughout the Application. The conditions address the matters necessary to manage construction, implementation and ongoing operation of the Project, including detailed design, management plans, monitoring, environmental performance standards, staging and ongoing operational controls.

The proposed conditions include both standard and Project-specific requirements and are intended to secure the mitigation and management measures relied upon in the assessment of effects. They also provide for appropriate detailed design and contractor input where required, while ensuring that further design development occurs within the environmental limits and outcomes established through the Application rather than reopening matters of fundamental feasibility or effects.

The proposed condition framework is therefore considered appropriate under sections 108, 108AA and 220 of the RMA and provides a suitable mechanism for ensuring that the Project is implemented and operated consistently with the environmental outcomes assessed in the Application.

1.5.6 Assessment against Part 2

Part 2 of the RMA sets out the purpose and principles of the Act and provides the overarching framework for resource management decision-making. The relevant provisions of Part 2 are assessed below, having regard to the nature, scale and effects of the Project and the matters addressed elsewhere in this Application.

Section 5 – Purpose

The purpose of the RMA is to promote the sustainable management of natural and physical resources, as set out in section 5.

The Project will enable the use and development of a strategically located land resource to provide substantial industrial development capacity, employment and economic benefits, while supporting the continued growth of Hamilton and the wider Hamilton–Waikato metropolitan area.

The Project has the potential to give rise to a range of adverse environmental effects associated with its construction and operation. These effects have been assessed in the technical reports supporting the Application and in **Section 1.6**. The Project has been designed to avoid adverse effects where practicable and otherwise to remedy, mitigate or appropriately manage those effects through the Project design, enhancement measures, management plans and proposed consent conditions.

The Project also incorporates a substantial programme of freshwater and ecological restoration, stormwater treatment, habitat enhancement, riparian planting and infrastructure investment. These measures form an integral part of the proposed development rather than being separate from the land-use outcome.

Overall, the Project will enable people and communities to provide for their social and economic wellbeing while sustaining the potential of relevant natural and physical resources to meet the reasonably foreseeable

⁹ See Vol B. Appendix D to G.



needs of future generations, safeguarding the life-supporting capacity of air, water, soil and ecosystems, and avoiding, remedying or mitigating adverse effects on the environment. The Project is therefore considered consistent with section 5 of the RMA.

Section 6 – Matters of National Importance

Section 6 identifies matters of national importance that must be recognised and provided for. The matters most relevant to the Project are:

- Section 6(a) the preservation of the natural character of wetlands, lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development;
- Section 6(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;
- Section 6(d) the maintenance and enhancement of public access to and along lakes and rivers;
- Section 6(e) the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga;
- Section 6(f) the protection of historic heritage from inappropriate subdivision, use and development; and
- Section 6(h) the management of significant risks from natural hazards.

The Project will affect the Mangaheka Stream, Te Otamanui Stream and associated freshwater environments. These environments are highly modified, with the Mangaheka Stream currently comprising a channelised watercourse with limited natural form and riparian vegetation. While the proposed works will result in disturbance and modification during construction, the reconstruction and enhancement of the Mangaheka Stream will establish a more naturalised stream form, together with extensive riparian planting, habitat enhancement and ecological restoration. Once established, these works are expected to result in an improved natural-character outcome for the Mangaheka Stream corridor.

Effects on indigenous biodiversity and freshwater habitats have been assessed in the ecological effects assessment and supporting technical reports. No SNA has been identified within the Site. The proposed design and management framework provides for management of affected ecological values, together with substantial habitat creation, restoration and enhancement measures, including stream restoration, indigenous planting and dedicated black mudfish habitat.

The Project will also provide pedestrian and cycle connections through the Site, including within the Mangaheka Stream corridor, improving access to and appreciation of the freshwater environment within the development.

The relationship of Māori with ancestral lands, water, sites, wāhi tapu and other taonga has been recognised through engagement with mana whenua, preparation of the CIA and the proposed ongoing cultural management framework. Mana whenua values have informed the Project design, and the proposed TWMP will provide for ongoing involvement during Project implementation.

No recorded archaeological sites have been identified within the Site. Archaeological effects will be managed through accidental discovery procedures.

Natural hazard risks, including flooding, liquefaction, settlement, lateral spreading and slope instability, have been assessed through the supporting geotechnical, hydrogeological, stormwater and hydraulic assessments. The Project incorporates the engineering, earthworks and stormwater measures required to manage those risks, with the assessments concluding that the Site is suitable for the proposed development and that significant natural hazard risk can be appropriately managed.



Overall, it is considered that the Project has appropriately recognised and provided for the relevant matters of national importance in section 6.

Section 7 – Other matters

Section 7 of the RMA identifies other matters to which particular regard must be had. The matters most relevant to the Project are:

- Section 7(a) kaitiakitanga;
- Section 7(aa) the ethic of stewardship;
- Section 7(b) the efficient use and development of natural and physical resources;
- Section 7(c) the maintenance and enhancement of amenity values;
- Section 7(d) intrinsic values of ecosystems;
- Section 7(f) maintenance and enhancement of the quality of the environment;
- Section 7(g) any finite characteristics of natural and physical resources; and
- Section 7(i) the effects of climate change.

The Project represents an efficient use and development of a strategically located Site adjoining the established Te Rapa industrial area and major transport infrastructure. It will provide substantial additional industrial development capacity together with the transport, three-waters and other infrastructure required to support that development.

Amenity values and the quality of the environment have been considered through the Project design and the supporting assessments of landscape and visual effects, noise, transport, stormwater and flooding, ecology, cultural values and other environmental effects. The Project will result in a substantial change from the existing rural environment to an industrial environment, with localised adverse landscape, visual and amenity effects. Those effects are addressed through the proposed development form, setbacks, landscape buffers, planting and other mitigation measures. The proposed landscape, ecological and stormwater framework will also provide opportunities to enhance environmental quality as the development establishes.

Kaitiakitanga and the ethic of stewardship have been recognised through mana whenua engagement and through the incorporation of cultural, freshwater and ecological outcomes into the Project design and proposed conditions, consistent with the mana whenua responses received during engagement. That engagement will also be ongoing during the course of the Project. The intrinsic values of ecosystems have similarly been considered through the ecological assessments and the proposed management and enhancement of freshwater and terrestrial habitats.

The finite characteristics of highly productive land have also been expressly recognised. The Project will permanently convert highly productive land from land-based primary production to industrial use. That loss is an acknowledged adverse consideration and area of policy tension and is addressed specifically in the NPS-HPL assessment above. The significance of that loss must be considered alongside the competing policy directives of the NPS-UD, the Site's strategic location, the identified demand for industrial development capacity and the wider benefits of the Project.

The effects of climate change have been expressly taken into account in the design and assessment of the Project, particularly in relation to stormwater management, flooding and the resilience of the proposed infrastructure. Climate-adjusted rainfall has been incorporated into the stormwater and hydraulic assessments and informs the long-term design of the development.

Overall, it is considered that the Project has had appropriate regard to the relevant section 7 matters.



Section 8 – Treaty of Waitangi

Section 8 of the RMA requires the principles of Te Tiriti o Waitangi / the Treaty of Waitangi to be taken into account in achieving the purpose of the Act. The Project's Treaty settlement context and Māori interests are also addressed directly through the separate requirements of the FTAA, the relevant Treaty settlement legislation, Te Ture Whaimana, iwi management plans and the CIA.

The Project has been developed through an ongoing engagement process with mana whenua, principally through the Tangata Whenua Working Group (TWWG). This engagement has occurred over an extended period and has provided for ongoing information sharing and mana whenua involvement in matters including land use, three waters, freshwater ecology, archaeology, landscape design and preparation of the CIA.

The CIA identifies the enduring cultural, historical and ancestral relationships of mana whenua with the TKE Site and surrounding area and emphasises the importance of kaitiakitanga, mana whakahaere and meaningful involvement in the planning, design and environmental management of the Project.

Those values have informed the Project design and proposed management framework. The proposed TWMP will provide the consent-based framework for ongoing mana whenua engagement, cultural monitoring and involvement in relevant ecological restoration, landscape and environmental management matters during implementation. Broader relationship, cultural expression and economic participation opportunities identified through the CIA are intended to be progressed separately through the proposed MOU with mana whenua.

Overall, the Project has taken the principles of Te Tiriti o Waitangi / the Treaty of Waitangi into account through meaningful engagement with mana whenua, recognition of their relationship with the Site and its natural resources, incorporation of relevant cultural values into the Project, and provision for ongoing engagement/involvement in implementation.

1.6 Assessment of effects on the environment

1.6.1 Overview

This section assesses the actual and potential effects on the environment associated with the construction, development and operation of the Project. It draws on the description of the existing environment and Project contained in **Volume A** and summarises the findings of the technical assessments prepared in support of the Application.

The assessment addresses the effects of the Project as proposed, including its staged implementation and the future land use outcomes provided for through the Development Framework. The Project design has been informed by the technical assessments undertaken across the Site, including through refinement of the subdivision layout, infrastructure, stormwater and flood management systems, transport network, stream works, ecological response, landscape treatment and construction methodology.

For each topic, the assessment identifies the nature and scale of the relevant effects, including temporary construction effects, permanent effects and operational effects where applicable, and records the overall or residual level of effect, where one has been identified by the relevant technical assessment.

The measures proposed to avoid, remedy, mitigate, offset or otherwise manage potential adverse effects are addressed separately in **Section 1.7**. That section explains how the Project design, proposed consent conditions and associated management plans respond to the effects identified in this assessment and secure the environmental outcomes relied upon in the technical assessments.



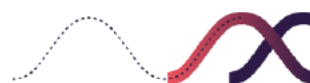
1.6.2 Summary of Effects

A high-level summary of the actual and potential effects identified in the assessments below is provided in Table 1.5. The table identifies the nature of each effect and the overall or residual level of effect where one has been identified by the relevant technical assessment.

The detailed assessment of each effect topic follows in the sections below.

1.5: Summary of Effects

Effect topic	Nature of effect	Overall/residual effect
Site suitability/geotechnical	Permanent development of the Site; natural hazard and ground-performance considerations.	Site suitable for development. Residual geotechnical hazard risk Low to Medium .
Economic	Permanent loss of existing rural production; substantial construction and operational economic benefits.	Strongly positive overall.
Archaeological	Potential construction disturbance of unknown archaeological material.	Negligible subject to discovery procedures.
Cultural	Permanent change to whenua, freshwater environment and cultural landscape.	Adverse effects able to be appropriately managed; CIA records mana whenua support subject to identified measures.
Landscape and visual	Permanent change from rural to industrial landscape.	High adverse at Site scale, Moderate adverse locally, Low adverse at broader landscape scale; visual effects Moderate-High to High for closest exposed properties.
Natural character	Stream and stormwater corridor enhancement.	Low positive.
Construction noise and vibration	Temporary construction effects.	Noise temporary and localised; vibration Low and temporary.
Operational noise	Permanent operational noise from future activities.	Appropriately managed through noise limits and site-specific design.
Traffic and transportation	Increased traffic demand; network and safety changes.	Residual network effects limited.
Ecology	Temporary disturbance and permanent habitat loss/modification.	Overall residual adverse effect expected to be Low , with net-gain outcomes for a number of ecological values.
Contaminated land	Construction disturbance of localised contaminated soils.	No significant residual risk to human health or the environment.
Earthworks and construction	Temporary erosion, sediment, dust and other construction effects.	Temporary and localised; not expected to result in significant adverse residual effects.
Groundwater	Temporary dewatering and permanent localised drawdown/diversion.	Settlement minor ; cross-boundary settlement negligible .
Water supply and wastewater	Demand on public networks.	No significant adverse servicing effects subject to staging and infrastructure triggers.
Stormwater and flooding	Permanent changes to runoff quantity, timing and quality.	No material adverse peak-flow or flooding effects; residual runoff-volume/duration effects appropriately managed.



1.6.3 Site Suitability

The suitability of the Site for the proposed industrial development has been considered from two principal perspectives. The first is the suitability of the Site in its wider land-use and development context, having regard to the zoning of the Site and surrounding area and the existing and anticipated land uses in the locality. The second is the physical and geotechnical suitability of the land to accommodate the proposed development, including the underlying soil conditions, settlement, liquefaction, slope stability, groundwater and natural hazard risk, together with the ground improvement and engineering measures required to establish suitable development platforms and infrastructure.

Zoning and Surrounding Land Use

While the Site is currently zoned General Rural under the WDP-OiP, it is located immediately adjoining the Hamilton City boundary within an established and increasingly urbanised part of the Hamilton–Waikato metropolitan area. The surrounding environment comprises a mix of rural, industrial, residential and planned urban land uses. Established Te Rapa industrial development lies to the east and south-east, Te Rapa North is identified for further industrial development, and the Horotiu industrial area is located to the north. Immediately south of the Site, across SH39, the Rotokauri and Rotokauri North Structure Plans area provides for predominantly residential urban growth with associated employment activities. Land to the immediate north and west remains predominantly rural.

Accordingly, the Site sits at the interface between Hamilton’s existing and emerging urban area and the surrounding rural environment, rather than within an isolated rural setting. The Urban Design Statement¹⁰ considers the proposed industrial use to be consistent with this emerging context, complementing the existing and planned employment areas at Te Rapa, Te Rapa North and Horotiu. It also identifies SH39 as providing physical separation from the planned residential development at Rotokauri North, while the Site’s relationship with the existing strategic road network supports its integration with the wider urban area.

This conclusion is consistent with the Landscape and Visual Impact Assessment¹¹ (LVIA), which describes the Site as being located within Hamilton’s northern peri-urban fringe, where the existing rural landscape is transitioning toward more intensive urban and industrial land uses. The LVIA identifies that the wider landscape is already influenced by Te Rapa and anticipated development at Te Rapa North and Rotokauri North, such that the Project will be experienced as part of an evolving urban edge. The LVIA nevertheless identifies that the Project will result in a substantial and permanent change in landscape character at the Site and localised adverse visual effects for some immediately adjoining properties. Those effects are addressed further in the landscape and visual effects assessment below.

The masterplan has also been designed to respond to the remaining rural interfaces to the north and west. A landscape and stormwater buffer is proposed around much of the Site perimeter, together with retention of existing vegetation where practicable and integrated planting throughout the development. These measures provide a transition between future industrial development and adjoining rural and rural-residential land and assist in managing landscape, visual and amenity effects at those interfaces.

Overall, notwithstanding the Site’s existing General Rural zoning, the surrounding pattern of existing and planned development means the Site is physically and contextually well located for industrial development. The Project will extend an existing and emerging employment corridor on the northern edge of Hamilton rather than establish an isolated industrial node. The acknowledged tension between the General Rural zoning, the unanticipated nature of the Development and the relevant statutory and strategic planning framework is addressed separately in the policy assessment above (Section 1.3).

¹⁰ Volume B – Appendix I

¹¹ Volume B – Appendix J



Geotechnical Suitability

The geotechnical suitability of the Site for the proposed development has been assessed in the GIR prepared by CMW Geosciences (**Volume B – Appendix R**). The GIR considers the underlying ground conditions and relevant geohazards, together with the earthworks, ground improvement and foundation measures required to establish suitable industrial building platforms and supporting infrastructure. It also includes a specific geohazard and natural hazard risk assessment for the proposed development.

The key findings and recommendations of the GIR are summarised as follows:

- The low-lying parts of the Site are predominantly underlain by Hinuera Formation sands and silts, while the elevated northern area is underlain by Walton Subgroup soils. The proposed earthworks will involve cutting the northern landform and placing engineered fill across the lower-lying areas to establish generally level development platforms and roads.
- Liquefaction is expected within parts of the Hinuera Formation during a design-level seismic event, with moderate to severe ground deformation anticipated under ULS conditions. These effects can be managed through appropriate structural and foundation design and, where required, ground improvement.
- Liquefaction-induced lateral spreading has been identified as a potential issue adjacent to proposed wetlands, swales and parts of the Mangaheka Stream corridor. Preliminary mitigation analyses demonstrate that predicted displacements can be reduced to negligible levels through appropriate engineering measures, with the preferred approach to be confirmed through detailed design.
- Settlement will occur beneath areas of new fill, with monitoring during earthworks required to confirm when primary settlement has substantially completed. Preload/surcharging, ground improvement or specific foundation design can be used where required to manage residual and differential settlement.
- Much of the material excavated from the northern hills is expected to be suitable for reuse as engineered fill, although more sensitive Hinuera and Puketoka Formation soils will require appropriate handling, moisture conditioning and compaction.
- Shallow groundwater is expected across the lower-lying parts of the Site and localised temporary dewatering may be required during construction. The GIR also concludes that predicted groundwater drawdown-induced settlement is minor and that cross-boundary effects are negligible.
- The proposed reservoir location is considered generally suitable from a geotechnical perspective. Although substantial engineered fill and associated settlement, slope-stability and liquefaction considerations will require detailed design and mitigation, these matters can be appropriately managed using established engineering solutions.
- The proposed wastewater pump station will require specific geotechnical design to address liquefaction-induced settlement and buoyancy effects, but these matters can similarly be managed through appropriate structural and geotechnical design.

The GIR concludes that, with the proposed controls implemented, residual geotechnical hazard risk is Low to Medium for the hazards considered.

Overall, the Site is considered to be suitable for the proposed development provided the recommendations of the GIR are followed. Further investigation, analysis and design will be required for individual development platforms, structures and infrastructure as the Project progresses, but these are normal detailed-design and construction-stage requirements and do not represent unresolved constraints to the feasibility or suitability of the Project.



1.6.4 Economic Effects

The economic effects of the Project have been assessed by Urban Economics in the Economic Assessment (**Volume B – Appendix H**). The assessment considers the economic effects arising during construction and ongoing operation, together with the adverse economic effects associated with the permanent loss of the existing rural use of the Site.

The principal adverse economic effect identified is the loss of the Site from its existing dairy farming use. That use is estimated to generate approximately \$2.2 million in farm revenue per annum, contribute approximately \$1.0 million to GDP and support approximately 6 FTE jobs. When projected over a 30-year period, the present value of the economic contribution associated with the existing rural use is estimated at approximately \$12 million.

The Project will also generate substantial positive economic effects during construction and ongoing operation.

During construction, the Project is estimated to contribute approximately \$580.9 million to GDP and support approximately 4,800 FTE jobs in the regional economy. This includes direct construction activity, indirect effects through associated supply chains and services, and induced effects arising from increased expenditure within the wider economy.

Once fully developed, the ongoing industrial and neighbourhood centre activities are estimated to contribute approximately \$557 million to GDP per annum and support approximately 3,740 FTE jobs per annum in total. Relative to the existing rural use, this represents a net addition of approximately \$556 million to GDP and approximately 3,734 FTE jobs per annum.

The Project will also provide a substantial addition to industrial land supply. The Economic Assessment identifies industrial land demand within Hamilton at approximately 17–25 ha per annum and concludes that the approximately 123 ha of net developable industrial land proposed at TKE represents approximately 7–11 years of future industrial land demand. It also identifies a long-term supply constraint and a spatial imbalance in remaining industrial land, particularly within the north-west Hamilton / Te Rapa market.

The location of the Project immediately adjoining the established Te Rapa industrial area also provides locational and agglomeration benefits, including proximity to existing labour pools, suppliers, services, freight networks and strategic transport infrastructure. The Economic Assessment considers the Site to represent a logical and consolidated extension of the north-west Hamilton industrial area, rather than dispersed industrial development within the rural environment.

Overall, the adverse economic effect associated with the permanent loss of the existing rural use is small relative to the economic benefits generated by the Project. The overall economic effect of the Project is therefore considered strongly positive, resulting in a substantial net increase in economic activity and employment together with a material contribution to long-term industrial development capacity within Hamilton.

1.6.5 Archaeological Effects

Archaeological investigations were undertaken across the Site in August 2025 by RedOx Cultural Heritage Services, with an Archaeological Assessment of Effects subsequently prepared to present the findings. The investigations included desktop review of archaeological records, historic plans and aerial imagery, LiDAR data, and a two-day field survey comprising pedestrian inspection and auger soil testing across the Site.

No recorded or unrecorded archaeological sites, archaeological soils, features or deposits were identified. The assessment concluded that the Site has a very low to nil potential for unrecorded archaeology and that



no adverse effects on archaeological values are anticipated. An archaeological authority under the Heritage New Zealand Pouhere Taonga Act 2014 was therefore not recommended.

Heritage New Zealand Pouhere Taonga (HNZPT) was also consulted in relation to the Project. HNZPT confirmed that there are no recorded archaeological sites within the Project area and advised that an archaeological authority is not required prior to works commencing. HNZPT recommended that an Archaeological Site Discovery Protocol be implemented during all ground disturbance activities.

Notwithstanding the low archaeological potential identified, there remains a possibility that previously unidentified archaeological or cultural material could be encountered during construction. That residual risk will be managed through an Archaeological Site Discovery Protocol secured through the proposed consent conditions.

Overall, adverse archaeological effects are expected to be negligible, subject to implementation of the proposed archaeological discovery procedures.

1.6.6 Cultural Effects

The Te Kowhai East Site and the wider Te Kowhai, Mangaheka and Kirikiriroa landscape are culturally significant to a number of mana whenua groups. The CIA (**Volume A – Appendix G**) recognises the customary rights, mana whenua interests and enduring cultural, historical and ancestral relationships of Ngāti Reko, Ngāti Māhanga, Ngāti Wairere, Ngāti Hauā, Ngāti Tamainupō and Ngāti Korokī Kahukura with the Site and wider landscape. These relationships are associated with whakapapa, occupation, waterways, wetlands, mahinga kai, cultural landscapes and ongoing kaitiakitanga responsibilities.

The CIA identifies that development of the scale proposed has the potential to affect cultural values through earthworks, changes to waterways and wetlands, stormwater and wastewater discharges, water supply, loss or modification of habitat, and changes to the cultural landscape arising from urbanisation. It also identifies potential effects associated with traffic, noise, lighting and cumulative development pressure on natural resources that are important to mana whenua.

These matters are addressed through the Project design, supporting technical assessments and the management measures described elsewhere in this report, including:

- **Heritage and earthworks:** No recorded archaeological sites are identified within the Site, but the CIA recognises the potential for previously unknown archaeological material, cultural material or kōiwi to be encountered. Earthworks will therefore be subject to cultural management measures, including the Archaeological Site Discovery Protocol and ongoing mana whenua involvement through the proposed TWMP.
- **Stormwater and freshwater:** Stormwater management incorporates source controls, raingardens, swales, constructed wetlands, attenuation and stream restoration measures. These measures are intended to protect water quality, manage flooding and erosion, and contribute to the long-term health and mauri of the Mangaheka Stream and downstream receiving environments.
- **Wastewater:** Wastewater servicing will be provided through a reticulated system designed to avoid adverse effects on groundwater and receiving environments. This responds to the CIA expectation that wastewater is managed in a way that protects the health and mauri of the Waikato River and surrounding environment.
- **Water supply:** The CIA identifies the importance of reducing or limiting pressure on freshwater resources and recognises opportunities to reduce water demand through water-efficient design, rainwater harvesting and other demand-management measures. These matters form part of the wider water-supply and servicing strategy for the Project.
- **Streamworks, biodiversity and ecological restoration:** Although the Mangaheka Stream and wider drainage network are already highly modified, the CIA identifies their ongoing cultural importance.



The Project includes stream restoration, riparian planting, wetland and habitat enhancement, improved fish passage and other ecological measures intended to improve water quality, biodiversity and overall stream health.

- **Cultural landscape:** The change from rural land to industrial development will materially alter the existing landscape. The CIA therefore recommends ongoing mana whenua involvement in landscape treatment, cultural design and naming, together with opportunities to reflect mana whenua values, stories, history, mātauranga Māori and whakapapa within the development. The TWMP will provide the consent-based framework for mana whenua involvement in relevant landscape and restoration outcomes during implementation, while broader cultural expression, naming and relationship matters will be progressed through the proposed MOU/Kawenata.

The CIA recognises that the Project, including large-scale earthworks, land raising and urbanisation, represents a significant transformation of the existing environment. It nevertheless records that mana whenua supports the TKE development and the activities required to enable it, subject to establishment of the MOU/Kawenata, appropriate consent conditions and implementation of the recommendations contained in the CIA.

Accordingly, while the Project will result in substantial and permanent change to the whenua, freshwater environment and cultural landscape, the identified adverse cultural effects are considered able to be appropriately managed through the Project design, proposed consent conditions, TWMP and implementation of the CIA recommendations. The CIA records mana whenua support for the Project subject to those measures and establishment of the MOU/Kawenata. Broader relationship, cultural expression and social and economic partnership matters will be progressed separately through the MOU/Kawenata.

1.6.7 Landscape and Visual Effects

A Landscape and Visual Impact Assessment (LVIA) has been prepared by Adrian Morton Landscape Architects (**Volume B – Appendix J**) to assess the landscape and visual effects of the Project. The Project will result in a significant and permanent change in land use, transitioning the Site from an open rural pastoral landscape to a large-scale industrial environment. The LVIA assesses this change in the context of the Site's existing modified pastoral character and its location within an evolving peri-urban environment influenced by major transport infrastructure, established industrial development at Te Rapa and anticipated urban growth.

Landscape Character Effects

The Project will result in a substantial and permanent change in landscape character through the transition of the Site from open rural land to industrial development. The LVIA assesses this effect as **High** adverse at the Site level, **Moderate** adverse within the immediate locality and **Low** adverse at the broader landscape scale.

The Site-level change reflects the permanent loss of rural character and openness and introduction of industrial built form. At the wider scale, effects reduce because of the containment provided by surrounding landform and vegetation, the influence of major transport infrastructure and the existing and anticipated urban and industrial development within the wider receiving environment. The LVIA assesses the receiving environment as having moderate to good visual absorption capability for the proposed development.

The proposed landscape framework, including boundary planting, retention of existing vegetation where practicable, street trees and planting associated with the Mangaheka Stream and stormwater areas, will progressively soften the industrial edge and assist in integrating the development within the surrounding landscape.



Natural Character Effects

The natural character of the Site is currently limited, including the Mangaheka Stream, which is highly modified and channelised and generally lacks riparian vegetation. The Project incorporates reconstruction and enhancement of the stream corridor, indigenous planting, ecological rehabilitation and planted stormwater wetlands.

The LVIA identifies these measures as providing a **Low positive effect** through the introduction of more naturalised landscape elements within the developed Site and improvement of the landscape and natural character of the Mangaheka Stream and stormwater corridors. These improvements will be localised and will not materially alter the character of the wider drainage network.

Visual Amenity Effects

Visual amenity effects relate to changes in the views and visual experience of people as a consequence of the Project. The extent of effect varies depending on matters such as proximity, orientation, elevation, screening and the duration of views.

The greatest visual effects will occur for residential properties immediately adjoining or overlooking the Site, particularly properties to the north along the Onion Road ridgeline and to the south around SH39 / Te Kowhai Road, where existing open rural outlooks will be permanently altered. The LVIA assesses effects for these properties as generally ranging from **Moderate-High to High**, with the highest residual effects occurring where properties retain direct and relatively open views of the Project.

For road users on SH1C, Koura Drive, SH39, Te Kowhai Road and Onion Road, views will generally be transient and influenced by existing vegetation and the proposed boundary treatment, resulting in **Low to Low-Moderate** effects. More distant residential properties, including those along Te Kowhai Road, Hartstone Road and Horotiu Road, are generally subject to **Low-Moderate** effects due to distance and intervening vegetation.

The Project incorporates a number of measures to mitigate landscape and visual effects, including a 16 m landscape/stormwater buffer around much of the Site boundary, retention of existing shelterbelts where practicable, extensive native planting and street-tree planting, planting associated with the stormwater wetlands and Mangaheka Stream corridor, and detailed landscape treatment of streets, open spaces and principal entrances. The LVIA also recommends lighting designed to minimise spill onto the surrounding rural environment and a two-year establishment and maintenance period for landscape planting.

The landscape mitigation is not expected to fully screen all industrial built form, particularly from close and elevated viewpoints. It will, however, progressively reduce the visual prominence of the development and provide a planted interface between the industrial activities and the surrounding rural landscape as vegetation establishes.

Conclusion

The Project will result in adverse landscape and visual effects because it represents a substantial and permanent change from an open rural landscape to an industrial environment. Those effects are most pronounced at the Site and for a limited number of immediately adjoining or elevated residential properties, where localised adverse effects will remain despite mitigation.

At the broader landscape scale, however, effects reduce because of the surrounding landform and vegetation, major infrastructure and the established and anticipated urban and industrial context. The LVIA concludes that the Project can be successfully integrated into the broader receiving environment, with landscape and visual effects largely confined to a localised extent.



The proposed landscape/stormwater buffer, retention and establishment of vegetation, and enhancement of the Mangaheka Stream and stormwater corridors will progressively soften the industrial edge and improve landscape coherence. Residual landscape effects will remain **High adverse** at the Site level, **Moderate adverse** within the immediate locality and **Low adverse** at the broader landscape scale. Residual visual effects will be greatest for the closest and most exposed residential properties, where **Moderate-High** to **High** effects remain, reducing to **Low-Moderate** or **Low** for more distant receptors and Low to Low-Moderate for road users. The Project will also result in a **Low** positive natural character effect associated with the Mangaheka Stream and stormwater corridors.

1.6.8 Noise and Vibration Effects

An Acoustic Assessment has been prepared by SLR (**Volume B – Appendix K**) to assess the potential acoustic effects of the Project, including construction noise and vibration and operational noise associated with future activities within the Site. As the detailed nature, scale, location and operational characteristics of future occupiers are not yet known, operational noise has been assessed using a framework approach that establishes noise limits for activities within the development and at surrounding noise-sensitive receivers.

Construction Noise and Vibration

Construction activities will include bulk earthworks, site preparation, infrastructure installation, road construction, stormwater works, piling and compaction, which have the potential to generate temporary noise and vibration effects at surrounding dwellings. The greatest potential for effects will occur where higher-noise or vibration-generating activities are undertaken close to occupied dwellings adjoining the Site.

Construction noise will be assessed against NZS 6803:1999 and construction vibration against DIN 4150-3:2016. The assessment indicates that construction noise effects will be temporary and localised, while vibration effects are expected to be low and confined to relatively short distances from the works.

A draft Construction Noise and Vibration Management Plan (CNVMP)¹² has been prepared to provide the framework for managing these effects using the Best Practicable Option. It provides for appropriate plant selection and operation, separation from receivers where practicable, temporary screening, alternative methodologies, monitoring, neighbour communication and complaints management where required.

Subject to implementation of the proposed conditions and CNVMP, residual construction noise effects are expected to be temporary and localised, while construction vibration effects are expected to be low and temporary. Overall, construction noise and vibration effects are considered reasonable.

Operational Noise

Future industrial and supporting activities will introduce a different acoustic environment to the existing rural Site. The principal potential effect is noise received at nearby noise-sensitive receivers that have not provided written approval, particularly along Te Kowhai Road and Onion Road, together with the need to maintain appropriate compatibility between industrial and non-industrial activities within TKE.

The Acoustic Assessment recommends operational noise limits applying both at surrounding noise-sensitive receivers that have not provided their written approval¹³ and between activities within TKE. These limits are consistent with, or more stringent than, the relevant Waikato District and Hamilton City provisions and are considered to provide a reasonable level of amenity for surrounding receivers while enabling the intended industrial and supporting activities.

¹² Volume B – Appendix U

¹³ The properties for which written approval has been provided in relation to this matter are identified in Volume A – Appendix F, Table 3 (p. 10).



Compliance with these limits does not require the precise acoustic design of each future development to be determined at this stage. A range of standard mitigation measures can be incorporated as individual buildings and activities are designed, including building orientation and placement, locating loading areas and other higher-noise activities away from sensitive boundaries, using buildings as acoustic screening, acoustic treatment or enclosure of fixed plant, earth bunds or solid acoustic barriers, separation distances, and controls on the timing and location of particular activities. The appropriate combination of measures can therefore be determined at the detailed development stage having regard to the particular activity and its relationship with neighbouring receivers.

Within the development, ancillary residential units may be exposed to noise from surrounding industrial and commercial activities, as well as road traffic noise where located near the state highway network. To manage these internal noise effects and reduce the potential for reverse sensitivity, ancillary residential units will be required to achieve the specified internal acoustic standard. This standard is specified in the Development Framework.

Overall, operational noise effects are considered able to be appropriately managed through the proposed noise limits, and site-specific acoustic design of future activities. On this basis, operational noise from the Project is expected to remain reasonable at surrounding noise-sensitive receivers and within the development.

1.6.9 Traffic and Transportation

An Integrated Transportation Assessment (ITA) has been prepared by CKL (**Volume B – Appendix L**) to assess the traffic and transportation effects of the Project, including effects on network operation, intersection performance, road safety, walking and cycling, and construction traffic.

The Project will generate additional vehicle movements on the surrounding transport network as development progresses. The principal operational effects relate to increased traffic demand at the proposed Site accesses and on SH39, additional traffic through the wider strategic network, and potential effects on intersection capacity and road safety.

The ITA concludes that the majority of Project-generated traffic can be accommodated within the existing and planned transport network. The proposed SH39 access, Onion Road connection and SH39 / Burbush Road roundabout are forecast to operate efficiently, and sensitivity testing confirms that four-laning of SH39 is not required to accommodate Project traffic.

Future capacity constraints are identified at the Gateway Drive / Great South Road / Horotiu Bridge Road intersection and the Koura Drive Interchange. These constraints are primarily attributable to wider background traffic growth and are forecast to arise irrespective of the Project. The Project contributes a relatively small proportion of the traffic demand at these locations, and proportionate financial contributions are proposed towards the future network upgrades.

Traffic effects will also change as the Project is progressively developed. Initial access will be provided from SH39, with the Onion Road connection and associated corridor improvements delivered once the specified traffic threshold is reached. This staged approach ensures that transport infrastructure is provided in response to development-generated demand and that network effects are managed as the Site develops.

The Project will increase traffic volumes, including heavy commercial vehicle movements, but the internal road network and external access arrangements have been designed in accordance with Safe System principles. The ITA concludes that the proposed road hierarchy, lower operating speeds, intersection treatments and walking and cycling facilities will reduce the likelihood and severity of crashes compared with the existing rural road environment and are expected to result in an overall improvement in safety.



Overall, the operational traffic and transportation effects of the Project are considered able to be appropriately managed through the proposed access arrangements, staged transport infrastructure and proportionate contributions towards identified wider network upgrades. The residual effects on the operation of the surrounding transport network are expected to be limited, while the proposed transport network is expected to result in an overall improvement in road safety.

Construction Traffic

Construction of the Project will generate temporary increases in traffic, including heavy vehicle movements associated with earthworks and infrastructure construction. The principal effects will be temporary increases in heavy vehicle movements on SH39 and the surrounding network, together with additional Site access activity and potential interaction with other road users.

The scale of these effects will be reduced by the proposed cut-to-fill methodology, which will retain and redistribute the majority of excavated material within the Site and thereby reduce the number of heavy vehicle movements that would otherwise be required on the external road network.

Construction traffic will be managed through a Construction Traffic Management Plan (CTMP) required by the proposed consent conditions, including management of haul routes, temporary traffic management, pedestrian and vehicle safety, and Site access and egress.

Construction traffic effects will be temporary and, with implementation of the CTMP and the proposed cut-to-fill methodology, are considered able to be managed to an appropriate level.

1.6.10 Ecological Effects

An Ecological Impact Assessment (EclA) has been prepared by Ecological Solutions Limited (**Volume B – Appendix M**) to assess the terrestrial, wetland and freshwater ecological values of the Site and the effects associated with the Project. The Site is a highly modified agricultural environment dominated by pasture and cropping, with scattered exotic shelterbelts, hedgerows and trees. Terrestrial vegetation and habitat values are therefore generally low. The principal ecological values are associated with freshwater habitat, including artificial drains supporting black mudfish, which the EclA identifies as significant habitat under the RPS. No areas within the Site were identified as wetlands under the RMA definition or as natural inland wetlands under the NPS-FM.

The Project will result in substantial modification of the existing environment, including vegetation clearance, modification and removal of the existing farm drainage network, works within the Mangaheka Stream and Te Otamanui Stream, and the introduction of stormwater discharges. These effects have been considered through the effects management hierarchy and are addressed through the Project design, construction controls, species-specific management measures and a substantial programme of freshwater and terrestrial restoration. The resulting adverse and positive ecological effects are summarised below.

Terrestrial Ecology

The vegetation to be removed comprises predominantly pasture, cropping, exotic shelterbelts, hedgerows, paddock trees and scrub, together with small areas of native fernland. These habitats have generally been assessed as having negligible to low botanical value, and the EclA does not identify any significant terrestrial indigenous vegetation within the Site. The EclA assesses the pre-effects management effect of vegetation removal as **Very Low to Low**. Extensive native riparian and ecological restoration planting associated with the Mangaheka Stream corridor, stormwater areas and black mudfish habitat will substantially increase indigenous vegetation cover and habitat diversity over time, with the EclA identifying a **net gain** in vegetation values following establishment.



The Site also provides habitat, to varying degrees, for indigenous birds, lizards and potentially long-tailed bats. Bird habitat is of low value and supports predominantly common species. Potential effects associated with vegetation clearance include disturbance of nesting birds and the loss of low-quality habitat. The EclA assesses the pre-effects management effect on birds as **Low**, reducing to **Very Low** during vegetation clearance following implementation of the proposed management measures, with a longer-term **net gain** in bird habitat anticipated as restoration planting establishes.

Indigenous lizards were not confirmed during surveys, although copper skink may be present at low densities within suitable habitat. Vegetation clearance therefore has the potential to cause injury or mortality to lizards where present and remove areas of low-quality habitat. A draft Lizard Management Plan (LMP)¹⁴ has been prepared to provide for pre-clearance surveys, capture and relocation where required, supported by the Wildlife Act Authority sought as part of this Application¹⁵. The EclA assesses the pre-effects management effect on lizards as **Moderate**, reducing to **Low** following implementation of the Lizard Management Plan.

No long-tailed bats were detected during the Project-specific acoustic surveys and the EclA does not consider the Site to comprise important bat habitat. Some trees nevertheless contain potential roost features and could be used by bats in the future. Potential effects associated with tree removal will therefore be managed through the Bat Management Plan, including implementation of the Department of Conservation Bat Roost Protocols and bat-sensitive lighting where appropriate. The EclA assesses the residual effects on bats as **Low**.

Freshwater Ecology

The freshwater environment comprises the Mangaheka Stream, the Te Otamanui Stream, Watercourse M13 and an extensive network of artificial farm drains. The Mangaheka Stream and Te Otamanui Stream are highly modified but have been assessed as having **Moderate ecological value**, while Watercourse M13 has **Low ecological value**. Artificial drains that support black mudfish are assessed as having **Moderate ecological value**, despite their otherwise highly modified condition.

Construction earthworks and streamworks have the potential to temporarily affect freshwater habitat and water quality through sediment mobilisation, disturbance of aquatic habitat, dewatering and temporary interruption of fish passage. These effects will be managed through the erosion and sediment control framework, the Stream Works Management Plan and the Fish Management Plan. Stream works will be staged so that flow and fish passage are maintained where practicable, with fish capture and relocation undertaken before affected reaches or drains are dewatered, diverted, excavated or infilled. The EclA assesses the residual effects associated with sediment and water quality as **Low** following implementation of these controls.

The Project will progressively remove, pipe or divert approximately 16.2 km of artificial farm drains. This represents a permanent loss of existing artificial aquatic habitat. Within that network, approximately 3,580 m² is conservatively estimated to provide black mudfish habitat. As black mudfish are an At Risk – Declining species, the EclA assesses the pre-effects management effect of this habitat loss as **High**.

That residual habitat loss is proposed to be addressed through a biodiversity offset comprising the establishment of purpose-designed black mudfish habitat within the Site, as set out in the Black Mudfish Habitat Creation Plan (BMHCP)¹⁶. The offset habitat will be established before existing black mudfish habitat is removed and will be designed to provide suitable hydrology, refuge habitat, vegetation and long-term habitat security. Black mudfish will be captured and translocated in accordance with the Fish Management Plan once the new habitat has been demonstrated to be suitable.

¹⁴ Vol C. Appendix A

¹⁵ Described in Volume C

¹⁶ Vol B. Appendix W



The Mangaheka Stream itself will be reconstructed and enhanced as a central component of both the stormwater system and the ecological response for the Project. While these works will result in temporary disturbance and modification of the existing stream, the completed channel will incorporate a more naturalised alignment, increased channel length, greater habitat diversity, woody debris and other instream features, together with extensive native riparian planting. The Mangaheka Stream Enhancement Plan provides for restoration of approximately 1,900 m of stream within the Site and approximately 450 m immediately downstream, together with approximately 84,430 m² of riparian restoration. The EclA identifies the completed Mangaheka Stream restoration as resulting in an overall positive ecological effect and net gain in stream extent and values.

The Project will also result in the unavoidable reclamation of approximately 212 m of Watercourse M13. Watercourse M13 is a highly modified watercourse of Low ecological value. As this loss cannot be remedied or mitigated at the point of impact, it will be addressed through a biodiversity offset delivered through the Mangaheka Stream enhancement works. The EclA identifies the overall effect of the proposed stream works, including the M13 offset, as a **net gain** in stream extent and ecological values.

Existing culverts within the Site are generally in poor condition and in some locations may restrict fish passage. New and replacement culverts associated with the Project will be designed to provide for fish passage in accordance with the applicable freshwater requirements and New Zealand Fish Passage Guidelines. The EclA considers that replacement of the existing structures will improve aquatic connectivity and result in a positive fish-passage outcome.

Conclusion

Overall, the Project will result in temporary construction effects and permanent loss or modification of some existing terrestrial and freshwater habitat, most notably the artificial drainage network supporting black mudfish and Watercourse M13.

Terrestrial ecological effects are generally assessed as **Very Low to Low** following effects management, with net-gain outcomes anticipated for vegetation and habitat values as restoration planting establishes. Freshwater construction and water-quality effects are expected to be Low, while the permanent residual loss of Watercourse M13 and black mudfish habitat will be addressed through biodiversity offsets.

Subject to successful implementation of the proposed effects-management and offsetting measures, the overall residual adverse ecological effect of the Project is expected to be **Low**, with **net-gain** outcomes anticipated for a number of ecological values through restoration of the Mangaheka Stream corridor, indigenous planting and habitat enhancement.

1.6.11 Contaminated Land Effects

A Preliminary and Detailed Site Investigation (PSI/DSI) and draft Contaminated Site Management Plan (CSMP) have been prepared by SLR and are attached as **Volume B – Appendix N** and **Volume B – Appendix T** respectively. The investigations identified a number of historical and current rural land uses associated with HAIL activities and confirmed isolated areas containing elevated concentrations of heavy metals, hydrocarbons and asbestos. However, contaminant concentrations do not exceed the relevant human health criteria for the proposed industrial land use, and the PSI/DSI concludes that soils across the majority of the Site are highly unlikely to present a risk to human health or the environment. The Site also does not meet the definition of contaminated land under the WRP.

The principal potential effects arise during earthworks, when disturbance of these localised areas could result in exposure of workers or other receptors to contaminated soil, mobilisation of contaminants through dust or sediment, or inappropriate reuse or disposal of affected material. Most soils are suitable to remain on the



Site, although material from some localised areas will require management and, if removed from the Site, disposal to an appropriately authorised facility.

As soil disturbance within identified HAIL areas is expected to exceed the permitted activity thresholds of the NES-CS, a controlled activity consent is sought as part of this Application. These construction effects will be managed through implementation of the CSMP and proposed consent conditions, including procedures for soil disturbance, segregation and stockpiling, dust and sediment control, unexpected contamination, asbestos-containing material and off-site disposal.

Overall, the identified contamination is localised and does not present an unacceptable risk for the proposed industrial land use. Subject to implementation of the CSMP and proposed consent conditions, adverse contaminated land effects during construction are expected to be appropriately managed, with no significant residual risk to human health or the environment.

1.6.12 Earthworks and Construction Effects

The Project will involve substantial earthworks and associated construction activities across the Site, including bulk cut and fill, formation of development platforms and roads, construction of stormwater infrastructure, installation of water, wastewater and utility services, and works associated with the Mangaheka and Te Otamanui Streams. Given the scale and staged nature of these works, the principal construction effects will be temporary and will include erosion and sediment generation, dust, noise and vibration, construction traffic, groundwater and dewatering effects, disturbance of contaminated soils, and disturbance of freshwater and terrestrial ecological values.

The permanent effects associated with the resulting landform, stream modifications and development of the Site are addressed in the relevant effects assessments elsewhere in this report. This section therefore focuses on the temporary effects arising during construction.

A draft construction methodology has been developed to demonstrate how the works can be practically undertaken while managing these effects. In particular, the earthworks have been planned as a predominantly balanced cut-to-fill operation across four earthworks phases aligned with logical delivery of the subdivision staging and associated infrastructure. Material excavated from cut areas will, where practicable, be hauled directly to fill areas within the Site, reducing off-site heavy vehicle movements and the need for large structural stockpiles. Earthworks volumes and sequencing will be progressively reviewed as each stage proceeds to respond to actual ground conditions, detailed engineering design and contractor requirements.

A suite of draft management plans has also been prepared to establish the construction-phase environmental management framework. These include the Construction Management Plan (CMP)¹⁷, Earthworks Management Plan (EWMP)¹⁸, Stream Works Management Plan (STMP)¹⁹, Construction Noise and Vibration Management Plan (CNVMP)²⁰, Contaminated Site Management Plan (CSMP)²¹ and the various relevant ecological management plans. The CMP provides the overarching framework, with the specialist plans addressing the particular effects associated with each workstream. The plans will be secured through the proposed consent conditions.

¹⁷ Vol B. Appendix S

¹⁸ Vol B. Appendix O (Appendix D)

¹⁹ Vol B. Appendix O (Appendix F)

²⁰ Vol B. Appendix U

²¹ Vol B. Appendix T



Earthworks

The scale of the proposed earthworks will result in substantial areas of disturbed ground and therefore has the potential to generate temporary erosion, sediment discharge and dust effects, particularly during periods of rainfall and dry or windy conditions.

The draft EWMP establishes the proposed erosion and sediment control approach, supported by the draft erosion and sediment control drawings²². The framework includes use of best practice erosion and sediment controls consistent with Waikato Regional Council guidance, including TR2009/02 and relevant current WRC erosion and sediment control guidance, including:

- Clean and dirty water diversions;
- Sediment retention ponds;
- Decanting earth bunds;
- Silt fences;
- Stabilised entrances;
- Progressive stabilisation as earthworks are completed; and
- Regular and ongoing inspection and maintenance of controls, including standard reporting requirements.

A final ESCP will be prepared to reflect the detailed construction methodology and staging and submitted to WRC for certification prior to commencement of the relevant earthworks.

These measures are intended to minimise the mobilisation and discharge of sediment from disturbed areas during construction. Controls will remain in place until the relevant catchments are suitably stabilised and will be monitored and adapted where necessary as works progress.

The potential for acid sulphate soils to be encountered during earthworks has also been considered in the GIR. While regional-scale mapping identifies parts of the low-lying area as potentially susceptible to acid sulphate soils, Site investigations confirmed that the underlying soils are predominantly Hinuera Formation sands and silts, which have a low probability of acid sulphate soil occurrence. CMW therefore considers the overall risk of encountering acid sulphate soils within the development area to be **very low** and does not identify them as a significant geotechnical or environmental constraint. Limited localised organic deposits occur within the southern paleochannel, and soils encountered in this area will be subject to on-site pH testing and isolated where required.

Dust effects will be temporary and primarily associated with exposed earthworks surfaces and construction vehicle movements during dry and windy conditions. The principal potential effect is nuisance dust at neighbouring properties and along construction access routes. Dust will be managed by limiting exposed areas where practicable, progressive stabilisation and watering of haul roads and exposed surfaces, together with additional controls where required.

Subject to implementation of the proposed erosion, sediment and dust controls, residual earthworks-related effects are expected to be temporary and localised and are not expected to be significant.

Stream works and Ecological Management

Works within the Mangaheka Stream, Te Otamanui Stream and associated drainage network will result in temporary disturbance of stream beds and banks, increased potential for sediment and turbidity, dewatering of active work areas and temporary effects on aquatic habitat and fish passage.

²² Vol B. Appendix O (Appendix B) Drawings C230-C235



The works will be undertaken generally in accordance with the draft STMP, which establishes the construction framework for isolation and diversion of active work areas, dewatering and treatment of water, sediment and turbidity control, and progressive stabilisation and reinstatement of disturbed stream beds and banks. The draft erosion and sediment control drawing package also includes the proposed stream diversion extents and methodology²³.

The ecological effects associated with fish salvage and relocation, fish passage and freshwater habitat are addressed separately in the Ecological Effects section and the relevant ecological management plans. As recorded in that assessment, residual construction effects on freshwater habitat and water quality are expected to be Low following implementation of the proposed controls.

The STMP will be finalised following detailed design and contractor input and submitted to WRC for certification prior to commencement of the relevant stream works.

Other construction related effects

Other construction-related effects include noise and vibration, construction traffic, groundwater and dewatering, disturbance of contaminated soils, terrestrial ecological effects associated with vegetation clearance and fauna management, and potential cultural or archaeological effects.

Those effects are assessed in the corresponding specialist sections of this report. In summary, construction noise and vibration effects are expected to be temporary and appropriately managed; construction traffic effects can be managed to an appropriately low level; contaminated-land effects are localised and are not expected to result in significant residual risk to human health or the environment; and archaeological effects are expected to be negligible subject to the proposed discovery procedures.

The relevant management plans will be finalised where required to reflect detailed design, construction staging and contractor methodologies prior to commencement of the applicable works. The CMP will provide the overarching framework for coordination of these measures across the construction programme.

Following completion of the subdivision and enabling works, construction effects associated with the subsequent establishment of buildings and activities on individual development lots will also be managed through the applicable land use consent conditions.

Conclusion

Overall, construction of the Project will give rise to a range of temporary and, in some locations, locally intensive effects because of the scale and duration of the earthworks and infrastructure programme. The principal effects relate to erosion and sediment, dust, construction traffic, noise and vibration, stream disturbance, groundwater management and disturbance of contaminated soils and ecological habitat.

The proposed staging, construction methodology, draft erosion and sediment control drawings, management plans and consent conditions provide an integrated framework for managing these effects. Where specific residual effect levels have been identified by the relevant technical assessments, these are generally Low, appropriately low, negligible, or temporary and localised. On this basis, construction-related effects are considered able to be appropriately managed and are not expected to result in significant adverse residual effects.

²³ Vol B. Appendix O (Appendix B) Drawings C231 and C232



1.6.13 Groundwater Effects

Groundwater across the Site is generally shallow and will be intercepted by a number of the proposed infrastructure and earthworks activities. The potential groundwater effects of the Project have been assessed in the Hydrogeological Effects Assessment prepared by WGA (**Volume B – Appendix Q**), including temporary construction dewatering, groundwater reuse for dust suppression and the longer-term interception and drawdown associated with the completed stormwater and stream infrastructure. The potential for groundwater drawdown to result in ground settlement has also been assessed in the GIR (**Volume B – Appendix R**).

The principal groundwater effects comprise temporary and localised drawdown during construction, together with permanent localised changes to groundwater levels and discharge pathways around the proposed wetlands, swales and reconstructed Mangaheka Stream.

Temporary Groundwater Effects

Temporary dewatering will be required where construction excavations extend below the prevailing groundwater level, principally for the wastewater pipelines and pump station, stormwater wetlands, raingardens and other below-ground infrastructure. The extent and duration of dewatering will vary depending on the works and prevailing groundwater conditions.

WGA has assessed a conservative concurrent construction scenario and recommends provision for a maximum temporary dewatering rate of approximately 7,564 m³/day. The largest individual dewatering requirement is associated with Stormwater Wetland 1, while construction of the wastewater pump station wet well requires the greatest temporary drawdown. The resulting drawdown is expected to be localised and temporary, with groundwater levels recovering following completion of the relevant works.

Groundwater abstracted during construction will generally be returned to the local drainage network through the proposed erosion and sediment control system and is therefore largely non-consumptive. Up to approximately 1,000 m³/day may be reused for dust suppression during active earthworks, representing the principal consumptive component of the temporary groundwater take.

The potential effects of temporary drawdown have been assessed in relation to surrounding groundwater users, connected surface water environments, ecological features and ground settlement. The modelling indicates that drawdown will not extend to surrounding consented groundwater takes and no material effects are anticipated on identified sensitive ecological features.

The GIR has also assessed the potential for groundwater drawdown to induce settlement. Adopting a conservative groundwater drawdown of 1.0 m, CMW estimates settlement of approximately 5–10 mm. Settlement of this magnitude is considered **minor** and is not anticipated to adversely affect existing infrastructure or neighbouring land. Cross-boundary settlement effects are therefore assessed as **negligible**, with no specific mitigation required.

Overall, temporary groundwater effects are expected to be **localised and short-term** and are not expected to result in significant adverse effects on groundwater users, connected surface waters, ecological features or neighbouring land.

Permanent Groundwater Drawdown and Diversion

The completed stormwater wetlands, sections of the proposed swales and the deepened Mangaheka Stream will intersect the shallow groundwater table and become permanent hydraulic features within the Site. Groundwater will therefore be locally intercepted and diverted into the surface-water drainage network, resulting in a permanent change to groundwater levels and discharge pathways around those features.



The long-term effect is principally a redistribution of groundwater discharge within the Site rather than a consumptive groundwater take. Groundwater currently contributes to the Mangaheka Stream and existing drainage network and, following development, intercepted groundwater will continue to discharge to the same broader receiving catchments.

WGA's modelling identifies the greatest long-term drawdown effects around the deepened Mangaheka Stream and southern swales. Drawdown from the southern swales may extend onto neighbouring properties south of the Site, with a maximum modelled magnitude of approximately 0.8 m. The east swale is predicted to lower groundwater levels by approximately 0.35 m near the existing black mudfish drain. However, existing summer groundwater levels in that area already fall below the drain invert, and WGA therefore considers that the proposed drawdown will not materially alter its existing seasonal groundwater connection.

The deepened Mangaheka Stream will also create a persistent local hydraulic control. WGA predicts localised long-term drawdown around the stream, including effects extending toward Koura Drive, but the modelled drawdown does not extend to existing consented groundwater takes within the surrounding area.

The proposed black mudfish habitat has been designed with regard to the long-term groundwater regime. It will intersect shallow groundwater but will not have a dedicated drainage outlet and is therefore not expected to cause an additional permanent groundwater diversion effect. Its deeper areas are intended to remain groundwater-connected through the year, with shallower areas subject to seasonal inundation and drying.

No long-term drawdown effect is predicted at the Kahikatea stand south of the Site. WGA's modelling indicates that the drawdown associated with the southern swales does not extend to that feature.

The GIR confirms that the potential settlement associated with permanent groundwater lowering remains approximately 5–10 mm under a conservative 1.0 m drawdown scenario. This is assessed as **minor**, with cross-boundary settlement effects **negligible**.

Groundwater monitoring will continue through the existing piezometer network to confirm groundwater behaviour as the Project progresses and inform detailed design and construction where required.

Overall, the Project will result in permanent but localised changes to groundwater levels and discharge pathways around the proposed stormwater and stream infrastructure. The intercepted groundwater will continue to discharge within the same broader catchments, no adverse effects are expected on surrounding consented groundwater users or the Kahikatea stand, and groundwater-related settlement effects are assessed as minor, with negligible cross-boundary effects.

1.6.14 Water Supply and Wastewater Effects

The Project will generate substantial additional demand for water supply and wastewater servicing as the Site is progressively developed. The principal potential effects arise if development proceeds ahead of available network capacity or the infrastructure required to service it, including reduced water supply levels of service or firefighting capability, and additional wastewater flows exceeding available conveyance or treatment capacity. These matters have been assessed in the Civil Infrastructure Report prepared by Maven Associates (**Volume B – Appendix O**).

The servicing strategy has therefore been developed on a staged basis, with interim and ultimate water supply and wastewater solutions linked to development staging and confirmed network capacity. Proposed consent conditions require the necessary servicing capacity and infrastructure to be available before each relevant stage proceeds.



The detailed delivery, funding, ownership and decommissioning arrangements for the interim and strategic water and wastewater infrastructure will also be addressed through the proposed Private Developer Agreement (PDA) between the relevant parties. The PDA will sit separately from the consent conditions, which establish the servicing capacity and infrastructure requirements that must be satisfied as development proceeds.

Water Supply

The Project will be serviced by a new internal public water supply network designed to provide potable supply and firefighting capability across the development. Maven's hydraulic modelling confirms that the internal network is capable of meeting the anticipated ultimate development demand, including FW3 firefighting requirements, provided the planned external infrastructure is delivered.

Initial stages will be serviced through an interim connection to the existing water network at Ruffell Road / Arthur Porter Drive, including any associated external upgrades required to provide the confirmed interim capacity. The ultimate servicing solution comprises a strategic reservoir and feed line connecting to the existing bulk watermain on Rotokauri Road via Arthur Porter Drive. The strategic infrastructure is required before the issue of the first section 224(c) certificate following 1 November 2033.

The principal potential effect is therefore development demand exceeding available public network capacity or compromising the required level of service. This is addressed through the staged servicing framework, which requires sufficient water supply capacity, including firefighting capability, to be confirmed before each development stage proceeds. Future activities with water demands materially exceeding the industrial assumptions adopted in the servicing assessment will require separate site-specific assessment and any necessary network upgrades.

Accordingly, the Project can be appropriately serviced for water supply without development proceeding ahead of available network capacity. No significant adverse water-supply servicing effects are anticipated, subject to delivery of the identified interim and ultimate infrastructure in accordance with the proposed triggers.

Wastewater

Wastewater generated by the Project will be collected through a new internal gravity network and conveyed to a central wastewater pump station, which will be established in Stage 1 and progressively connected to the internal reticulation as development proceeds. The preliminary servicing assessment provides for approximately 1,125 m³/day average daily flow and a peak wet weather flow of approximately 87 L/s for the ultimate development.

Wastewater servicing will initially be provided through a controlled connection to the Far Western Interceptor / existing downstream wastewater network. The interim capacity has been agreed with IAWAI and provides for early stages of development while the ultimate strategic solution is delivered. The long-term solution is connection to the planned Northern Interceptor once that infrastructure is constructed and commissioned.

The principal potential effect is additional wastewater flow exceeding available network or treatment capacity, with associated risks to network performance and the receiving environment. The proposed conditions therefore require confirmation before each stage that sufficient wastewater conveyance and treatment capacity is available, together with completion of any necessary infrastructure or upgrades before that stage proceeds. Activities generating trade waste, non-domestic wastewater or flows materially exceeding those assumed in the servicing assessment will also require separate approval from the relevant network operator.



On this basis, wastewater generation will remain aligned with available network and treatment capacity as the Project develops. No significant adverse wastewater servicing effects are anticipated, subject to implementation of the staged servicing strategy and infrastructure trigger conditions.

Conclusion

Overall, the principal water supply and wastewater effects relate to the potential for development demand to exceed available servicing capacity. The Civil Infrastructure Report confirms that viable interim and ultimate servicing solutions are available for both networks, with development staging linked to confirmed capacity and delivery of the required infrastructure.

Subject to the proposed infrastructure triggers and confirmation of sufficient capacity before each stage proceeds, the Project is not expected to result in significant adverse effects on the operation or capacity of the public water supply or wastewater networks.

1.6.15 Stormwater and Flooding Effects

The Project will result in a substantial increase in impervious surfaces and therefore increased stormwater runoff compared with the existing rural environment. The principal potential effects are increased peak flows and flood levels, reduced downstream drainage performance, increased runoff volume and erosion risk, and degradation of water quality within the receiving environment.

The Site drains predominantly to the Mangaheka Stream catchment, with a smaller area draining to the Te Rapa catchment. The receiving environment is relatively sensitive to changes in runoff because of its low-gradient drainage characteristics, shallow groundwater, limited soakage potential and existing downstream drainage and erosion constraints.

A Stormwater Management Plan (SWMP)²⁴ and detailed hydraulic modelling²⁵ by Te Miro Water have been prepared to assess these effects and inform the proposed stormwater management system. The hydraulic modelling assesses the 2-year, 10-year and 100-year ARI events and considers peak flows, water levels, velocities, runoff volumes and drain-down times under pre- and post-development conditions, including climate change.

The stormwater system comprises source controls, raingardens, vegetated conveyance channels and swales, eight centralised stormwater wetlands, the reconstructed Mangaheka Stream corridor and associated culverts, outfalls and erosion-protection works. Together these measures provide treatment, attenuation, retention where practicable and safe conveyance of stormwater through and from the Site.

Stormwater Quality Effects

Future industrial development has the potential to generate contaminants in stormwater, including sediment, metals, hydrocarbons and other contaminants associated with individual industrial activities. Without treatment, these contaminants could adversely affect water quality and freshwater ecological values within the Mangaheka and Te Rapa receiving environments.

The stormwater strategy therefore adopts a treatment-train approach incorporating source controls, on-lot treatment appropriate to the future activity, raingardens, vegetated conveyance systems and constructed wetlands. Future industrial lots will be required to provide treatment appropriate to their particular contaminants of concern and to prepare a Pollution Control Plan where required.

²⁴ Vol B. Appendix O (Appendix E)

²⁵ Vol B. Appendix P



The EclA assesses the pre-effects management magnitude of stormwater effects as **Moderate** and concludes that, following implementation of the stormwater management framework, sediment and erosion effects are expected to be **Low**, with an improvement in water quality anticipated through the catchment-wide treatment approach.

Flooding and Peak Flow Effects

The increase in impervious area has the potential to increase peak runoff rates and downstream flood levels. The proposed wetlands and reconstructed drainage network have therefore been designed to attenuate post-development peak flows and safely convey flood flows through the Site.

The hydraulic modelling demonstrates that post-development peak flows are generally at or below the relevant pre-development baseline for the 2-year, 10-year and 100-year ARI events. Peak downstream water levels are also generally reduced following development, including at key hydraulic restrictions such as Horotiu Road and Crawford Road Bridge. The modelling identifies no adverse afflux or reduction in the existing flood level of service as a result of the Project.

At Crawford Road Bridge, elevated velocities and overtopping already occur under existing conditions as a consequence of the existing hydraulic restriction. Post-development peak water levels and velocities are not increased by the Project, although the duration of elevated water levels increases slightly during larger events. The hydraulic assessment considers that this does not materially worsen the existing flood hazard or level of service.

Within the WRC-managed drain (Mangaheka Stream), post-development runoff results in increased drain-down times. For the 10-year ARI event, the modelling identifies increases of approximately 9.5 hours and 2.7 hours at the assessed downstream locations. Despite these increases, the drain remains within its required 72-hour level of service.

Within the Site, the proposed landform, roads, conveyance corridors and stormwater system provide for safe conveyance of flood flows away from development platforms, with no material increase in off-site flood risk arising from the Project.

Residual Runoff Volume and Duration Effects

While the proposed attenuation measures successfully manage peak flow rates and downstream flood levels, the Project will increase the total volume of runoff generated from the Site. Full volume neutrality for the 2-year ARI event is not achieved. Approximately 44,000 m³ of additional runoff is modelled to discharge to the Mangaheka catchment and approximately 4,000 m³ to the Te Rapa catchment.

The increased runoff volume results in elevated water levels persisting for longer within the receiving drainage network. In smaller events, this manifests principally as a longer duration of relatively low-velocity flows. The hydraulic modelling indicates that these velocities generally remain below the adopted erosion threshold, but identifies the increased duration and volume of runoff as the principal residual stormwater effect of the Project.

The Project therefore adopts an adaptive residual-management approach. On-lot rainwater reuse, soakage where demonstrated to be practicable and other retention measures will be implemented as individual lots are developed, with the resulting reduction in runoff volume progressively tracked. Where a residual effect remains, further on-lot and Site-wide measures will be considered first. Any residual effect remaining at catchment closure will then be addressed through downstream mitigation in accordance with the proposed consent conditions, which may include a financial contribution toward downstream erosion-prevention works proportionate to the remaining effect.



Conclusion

Overall, the Project will permanently alter the quantity, timing and quality of stormwater runoff generated from the Site. The proposed stormwater system is expected to maintain or reduce downstream peak flows and flood levels, maintain the level of service of the WRC-managed drainage network, and provide a substantial improvement in stormwater treatment compared with the existing rural drainage system.

The principal residual hydraulic effect is an increase in runoff volume and the associated longer duration of elevated water levels and low-velocity flows. The hydraulic assessment confirms that these flows are generally below the relevant erosion threshold and are not expected to materially increase erosion risk. Additional retention and reuse will nevertheless be pursued where practicable as the development proceeds, with the consent framework providing for further measures where required.

On this basis, the Project is not expected to result in material adverse effects on downstream peak flows, flood levels, velocities or drainage performance. Stormwater quality effects are expected to be appropriately managed through the proposed treatment-train approach, while the residual runoff-volume and duration effects can be appropriately managed through the proposed stormwater and consent framework.

1.7 Management of potential adverse impacts through proposed conditions

Draft conditions have been developed for the subdivision, land use, NES-CS and regional resource consents based on the mitigation, management and monitoring measures identified through the technical assessments. The conditions have been designed to ensure that the actual and potential adverse effects arising from the construction, development and ongoing operation of the Project are appropriately managed.

Key measures include:

- a) Managing geotechnical and land-suitability effects through detailed engineering design, geotechnical supervision of bulk earthworks, settlement monitoring and preparation of a Geotechnical Completion Report for each subdivision stage. The conditions require confirmation that the resulting lots, roads and reserves are suitable for their intended purposes and identify any site-specific limitations or requirements that must be addressed through subsequent development.
- b) Recognising and providing for cultural values through preparation and implementation of a Tangata Whenua Management Plan, including ongoing engagement with Tangata Whenua, karakia whakawaatea, cultural monitoring, procedures for managing sites or features of cultural significance, involvement in ecological restoration and landscape design, and opportunities for Te Reo Māori naming. Archaeological effects will also be managed through accidental discovery protocols applying to earthworks and other ground disturbance.
- c) Managing landscape and visual effects by requiring development to occur in accordance with the Development Framework and its site-specific built-form and landscape requirements, together with detailed street and stormwater landscape plans as subdivision proceeds. On-lot landscaping required by the Development Framework must be established and maintained, with any alternative treatment required to demonstrate equivalent or better landscape outcomes.
- d) Managing construction and operational noise and vibration effects through specified construction noise and vibration standards, a Construction Noise and Vibration Management Plan applying the Best Practicable Option, and operational noise limits applying both at surrounding noise-sensitive receivers and between activities within TKE. The conditions also establish internal acoustic requirements for ancillary residential units, including acoustic design and mechanical ventilation where required.
- e) Managing transport effects through a staged infrastructure framework, including delivery of the SH39 access and associated active-mode improvements for the initial development, the Onion Road



connection and corridor improvements as development-generated traffic increases, and proportionate mitigation of identified effects on the wider transport network. A Vehicle Movement Tracking Register and ongoing traffic monitoring will identify when the relevant development triggers are approached or reached, while Safe System Audits and a Construction Traffic Management Plan will address road-safety and construction-traffic effects.

- f) Managing freshwater and ecological effects through the Fish Management Plan, Stream Works Management Plan, Mangaheka Stream Enhancement Plan and Black Mudfish Habitat Creation Plan. These measures provide for fish salvage and relocation, fish passage, stream and riparian restoration, ecological offset outcomes and the creation of at least 3,601 m² of replacement black mudfish habitat before affected habitat is lost, together with ongoing monitoring, maintenance and adaptive management.
- g) Managing earthworks and general construction effects through the Construction Management Plan, Earthworks Management Plan and stage-specific Erosion and Sediment Control Plans. These establish requirements for construction staging and methodology, erosion and sediment controls, progressive stabilisation, dust management, spill prevention, monitoring and maintenance, winter earthworks and protection of downstream receiving environments.
- h) Managing contaminated-land effects through implementation of a final Contaminated Site Management Plan, including controls for soil disturbance, stockpiling, contaminant dispersal, potentially contaminated groundwater, unexpected contamination and off-site disposal. A Site Validation Report will confirm the works undertaken and that contaminated-soil risks have been appropriately managed following completion of the relevant works.
- i) Managing temporary dewatering and permanent groundwater effects through conditions requiring groundwater diversion to occur in general accordance with the Hydrogeological Effects Assessment, continued groundwater-level monitoring during detailed design and construction, and use of monitoring results to inform the design of stormwater infrastructure and black mudfish habitat and any further settlement monitoring. Review provisions provide a mechanism to address any unanticipated adverse groundwater effects.
- j) Managing water-supply and wastewater servicing effects through infrastructure triggers that prevent development from proceeding beyond the capacity of available infrastructure. These require the interim water and wastewater connections to be operational before the initial stages are certified, delivery of the strategic water-supply infrastructure in accordance with the specified trigger, and connection to the Northern Interceptor following its commissioning, including decommissioning of redundant interim wastewater infrastructure. On-lot development is also required to demonstrate adequate water and wastewater servicing before activities establish.
- k) Managing operational stormwater and flooding effects through a staged and adaptive stormwater-management framework. A Site Suitability Report for each subdivision stage will refine the stormwater solution having regard to site-specific ground and groundwater conditions, identify practicable retention, reuse and infiltration measures, quantify residual runoff-volume effects and establish on-lot stormwater requirements secured through consent notices. Detailed design must provide the required treatment, attenuation, conveyance and overland-flow management, with stormwater infrastructure delivered as each stage proceeds.
- l) Providing for ongoing management of residual stormwater effects through operational water-quality standards, inspection, monitoring and maintenance of the stormwater network and downstream receiving environment, and a Stormwater Operations, Monitoring and Maintenance Plan. Once the Site is substantially developed, a Final Stormwater Effects Assessment will assess the actual development, stormwater measures implemented and observed downstream effects, with any remaining residual effect to be addressed through further reasonably practicable mitigation or proportionate compensation where required.



1.8 Conclusion

The Project has been assessed against the relevant requirements for the resource consents sought under the RMA, as applied through the FTAA. The assessment demonstrates that the actual and potential effects of the Project have been comprehensively assessed through the supporting technical reports and can be appropriately managed through the Project design, Development Framework, proposed consent conditions and associated management plans.

The Project will result in a range of temporary construction effects and permanent changes associated with the development of the Site. The most significant adverse effects relate to landscape and visual change, ecological habitat loss and modification, and the permanent change in the character and use of the Site. Other effects, including noise, traffic, contaminated land, groundwater, servicing, stormwater, flooding and construction effects, are generally expected to be low, negligible, localised or otherwise appropriately managed.

The Project will also result in significant positive effects, including substantial economic and employment benefits, increased industrial development capacity, ecological restoration and enhancement, improved stream and stormwater outcomes, and improved transport safety and connectivity. While there are some acknowledged areas of policy tension, particularly in relation to highly productive land, the unanticipated nature of the development and the change from rural to industrial use, the Project is generally consistent with the relevant statutory planning framework.

Overall, having regard to the relevant RMA matters as they apply under the FTAA, the adverse effects of the Project are considered to be appropriately managed through the proposed mitigation, offsetting and management measures, while the Project will deliver substantial positive effects. But for the prohibited activity status arising from the subdivision provisions of the WDP-OiP, the Project would otherwise have an overall Non-Complying Activity status. The section 104D threshold tests do not apply under the FTAA. On that basis, the resource consents sought are considered appropriate to grant subject to the proposed conditions.

