# Appendix C

## Masterplan

Boffa Miskell

# WAIRAKEI SOUTH
## MASTERPLAN

PREPARED FOR FAST TRACK APPROVAL
MAY 2026

## PROJECT PARTNERS + TEAM

Bell Road Partnership (Bluehaven Group + Zariba)

- Boffa Miskell
- Maven
- Collier Consultants
- Engeo
- EcoLogical Solutions
- Urban Economics
- Origin Archaeology

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Cover photograph: Looking over Wairakei South site towards Mauao, © Bluehaven Group, 2021

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# EXECUTIVE SUMMARY

Wairakei South was referred as a Fast Track Project and confirmed in December 2024.

The Wairakei South Development is a transformative, privately funded urban development project poised to play a critical role in addressing the Western Bay of Plenty sub-region's growing housing and business land shortfalls. Encompassing approximately 350 hectares within the high-growth Eastern Corridor between Pāpāmoa, Te Tumu, and Te Puke, Wairakei South will deliver approximately 2,750 new homes within 128 hectares, alongside 50 hectares of industrial, 4 hectares of commercial centres, and a 4 hectare primary school over the next 10-20 years, creating a vibrant, integrated, and connected mixed-use community.

As Tauranga City and the Western Bay of Plenty District experience rapid and sustained population growth projected to reach between 246,100 and 317,500 over the next 30 years. The region is under increasing pressure to meet its obligations under the National Policy Statement on Urban Development (NPS-UD), including a minimum 10-year supply of housing. Wairakei South represents a critical near-term solution to ease urban pressure and support sustainable sub-regional growth.

Strategically located adjacent to the Tauranga Eastern Link (TEL), Wairakei South offers unparalleled connectivity to Tauranga, Mount Maunganui, Te Puke, the Port of Tauranga, and major employment hubs like the Rangiuru Business Park. This connectivity, combined with a balanced land-use approach, positions Wairakei South as a self-sustaining, future-ready community that supports the sub-region's live, work, and play aspirations.

## STRATEGIC IMPORTANCE

The Wairakei South Development represents a timely and strategic response to the acute housing and business land shortages facing the Tauranga City and Western Bay of Plenty Districts. As illustrated in the below tables from SmartGrowth Strategy 2024, both Districts are projected to face significant cumulative housing shortfalls over the next three decades:

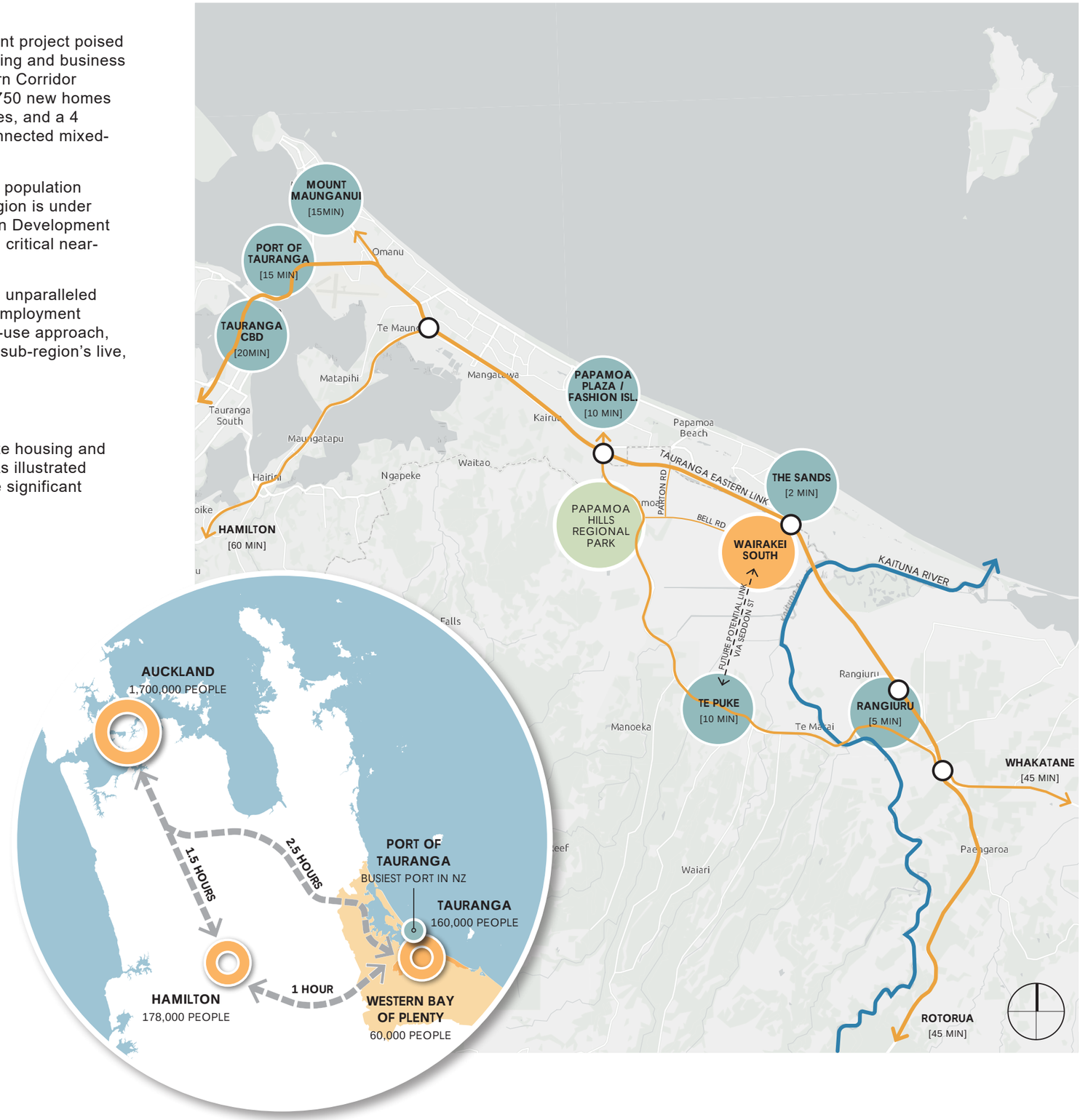
| EXISTING HOUSING SHORTFALL - TAURANGA CITY | HOUSING SHORTAGE / SURPLUS WITHIN EACH PERIOD | CUMULATIVE HOUSING SHORTAGE |
|---|---|---|
| Existing | -4,950 to -5,950 | -4,950 to -5,950 |
| Dwellings Short Term (2024-2027) | -1,150 | -6,100 to -7,100 |
| Dwellings Medium Term (2027-2034) | -1,800 | -7,900 to -8,900 |
| Dwellings Long Term (2034-2054) | 1,300 | -6,600 to -7,600 |
| **Total (2024-2054)** | **-6,600 to -7,600** | |

| EXISTING HOUSING SHORTFALL - WESTERN BAY OF PLENTY DISTRICT | HOUSING SHORTAGE / SURPLUS WITHIN EACH PERIOD | CUMULATIVE HOUSING SHORTAGE |
|---|---|---|
| Existing | -2,590 | -2,590 |
| Dwellings Short Term (2024-2027) | 40 | -2,550 |
| Dwellings Medium Term (2027-2034) | 240 | -2,310 |
| Dwellings Long Term (2034-2054) | -390 | -2,700 |
| **Total (2024-2054)** | **-2,700** | |

Updated Statistics NZ population projections from September 2025 show that growth in the Western Bay of Plenty sub - region will be significantly higher than assumed in the SmartGrowth Strategy 2024. This equates to demand for approximately 62,600 to 78,200 additional dwellings over the next 30 years (inclusive of the NPS - UD demand margin), representing an additional 19,630 to 35,250 dwellings when compared to the estimates in the above table.

Wairakei South is not only a solution to the sub-region's immediate housing and business land needs, but also a long-term enabler of smart, sustainable urban growth. Wairakei South aligns with the SmartGrowth Strategy 2024 outcomes for urban growth, responds directly to national urban policy requirements, and represents a proactive response to critical supply shortfalls.

The development strengthens the resilience, livability, and economic potential of the Eastern Corridor and the wider Bay of Plenty.



# KEY FEATURES AND BENEFITS

There are numerous benefits as to why Wairakei South is strategically important to meeting the housing and business/industrial land shortfalls within the Western Bay of Plenty District and wider sub-region:

**HOUSING SUPPLY RELIEF**
With a significant regional housing shortfall, Wairakei South will be delivered at scale and at pace, contributing approximately 2,750 new homes and significantly alleviating short term pressure in one of New Zealand's fastest-growing regions.

**BUSINESS & INDUSTRIAL LAND PROVISION**
The SmartGrowth Strategy confirms the need for 300–400 hectares of additional greenfield industrial land over the next 30 years. Wairakei South delivers 54 hectares industrial and commercial land, supporting projected employment growth, and the 32% increase needed for the Eastern Corridor.

**STRATEGIC LOCATION AND CONNECTIVITY**
Direct access to the already operational SH2 Tauranga Eastern Link ensures fast, efficient multi-modal transport connections to Tauranga, Mount Maunganui, Te Puke, and the Port of Tauranga, enhancing accessibility, availability and close access to services and infrastructure.

**INTEGRATED, MIXED-USE ZONING**
A well-balanced mix of residential, commercial, and industrial land ensures that Wairakei South functions as a complete, connected community. Local job opportunities, recreational amenities, and public services will be integrated into a compact urban form, reducing reliance on external commuting and strengthening social cohesion.

**STORMWATER SOLUTION**
Wairakei South incorporates a modern and fully integrated stormwater solution, addressing best practice treatment, conveyance and storm resilience.

**CULTURAL RECONNECTION**
Working collaboratively with Mana Whenua to foster a strong relationship, reinforce their connection to their whenua and wai, and provide opportunities for wider involvement with the project and elements within it.

**ECOLOGICAL ENHANCEMENT**
Creation of positive on-site ecological benefits with the development of substantial stormwater treatment wetlands and corridors to manage flood water and improve water quality, natural habitat and ecosystems, and significantly improving on the current dairy farming land use practices.

**PRIVATELY FUNDED DELIVERY**
As a privately led initiative, with a single ownership model of very experienced developers, Wairakei South offers the potential for faster mobilisation and reduced pressure on public funding, with infrastructure delivery aligned to long-term strategic goals.

**ECONOMIC GROWTH**
The Wairakei South development has been assessed to provide a substantial regional GDP contribution of $1.121 billion and job creation of 8,430 FTEs on completion, ensuring sustained economic growth to the Western Bay District.

# 1.1 DEVELOPMENT SITE



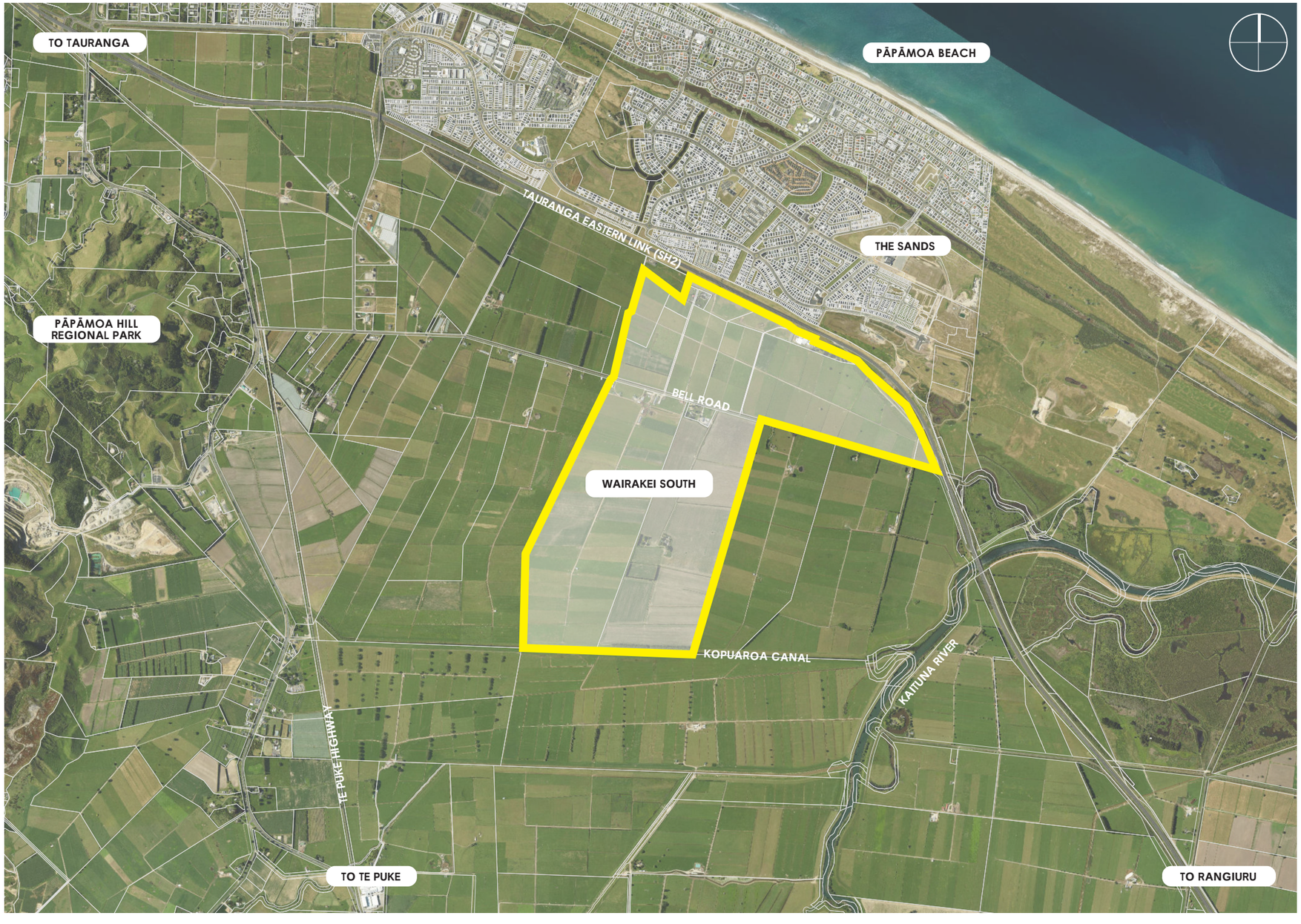
## SITE DESCRIPTION

The Wairakei South site encompasses approximately 350 hectares of rural pastoral land located directly south of the Tauranga Eastern Link (TEL) State Highway 2 corridor. The site stretches in an east–west orientation, bounded by the TEL to the north and Bell Road to the south, with its western extent reaching further south to the Kopuaroa Canal. To the east, the Kaituna River forms a natural boundary, fed by both the Kopuaroa Canal and the Bell Road Drain.

Strategically positioned, the site offers central access to several key urban centres and employment zones: Pāpāmoa to the north, Te Puke to the south, Tauranga to the west, and Rangiuru, Paengaroa, and Rotorua to the east. These destinations are all easily accessible via existing transport networks.

The Sands Town Centre Employment Zone and Pāpāmoa Beach are conveniently located directly north of the site, accessible via the newly constructed Pāpāmoa Eastern Interchange. Te Puke is reached by travelling west along Bell Road and then south via the Te Puke Highway. A future transport link is proposed to connect Te Puke directly to the Pāpāmoa Eastern Interchange via a north–south corridor along Seddon Street, as identified in the UFTI programme.

The site benefits from its proximity to natural and cultural landmarks, with Pāpāmoa Hills Regional Park located less than five minutes away. The Pāpāmoa Ranges provide a striking visual backdrop, offering clear sightlines to culturally significant maunga including Otawa and Otanewainuku.




WAIRAKEI SOUTH DEVELOPMENT AREA (350HA)

# 1.2 ECONOMIC SIGNIFICANCE



*(Refer to Appendix Z - Economic Assessment, Urban Economics)*

## TAURANGA HOUSING MARKET:

The Western Bay of Plenty sub-region has experienced house price growth well above the national rate, highlighting a structural shortage of housing. Over the last 5 years (since 2020), the annual average house price in the Western Bay of Plenty District increased from $720,000 to $985,000, or by 37%. This is significantly greater than the rate of price growth seen at the national level, of 23% (increase from $612,000 to $765,000). In Tauranga City, the annual average house price has increased from $803,000 to $1,021,000, or by 27%.

This highlights how unaffordable the Bay of Plenty regions housing market has become and the urgent need to supply more housing stock at a more affordable price.

Wairakei South would provide approximately 2,750 dwellings with average sale prices ranging from $730,000 - $2,050,00 incl. supplying approximately 960 dwellings (36% of total) for less than $1 million, supporting a currently underrepresented segment of the market (low-middle income households) and would make a significant contribution towards increasing the affordability of new housing in the local market.

## ACCESS TO EMPLOYMENT NODES:

There are several employment nodes in close proximity to Wairakei South, with future residents having access to approximately 59,000 jobs across these nodes within a 30-minute drive time.

Additionally, the proposed industrial and employment land within the Wairakei South development would provide for approximately 2,200 jobs giving future residents immediate access to considerable employment opportunities.

In addition, the Rangiuru Business Park, located 5 minutes east is expected to provide approximately 4,000 jobs with Papamoa currently accommodating 6,100 jobs and 'The Sands' town centre currently being developed expected to provide a further 7,500 jobs at completion.

**Employment within 20 Minutes of Wairakei South Site:**


## ECONOMIC CONTRIBUTION:

Urban Economics has assessed that the development of Wairakei South would contribute an estimated $1,121 million to construction sector GDP and support an additional 8,430 FTE jobs.

**Contribution to GDP & FTE (Value Added Methodology) Table:**

| Activity | Lot Type | Count/ Total GFA | Avg Lot Size ($m^2$) | Avg GFA ($m^2$) | Value ($M)** | Value Added GDP ($M) | FTE Employees |
|---|---|---|---|---|---|---|---|
| Residential | A | 934 | 225 | 155 | $724.8 | $222.8 | 1,680 |
| | B | 1,175 | 300 | 200 | $1,146.8 | $352.6 | 2,650 |
| | C | 538 | 375 | 250 | $645.6 | $198.5 | 1,490 |
| | D | 92 | 450 | 290 | $126.6 | $38.9 | 290 |
| | **Sub-total** | **2,739** | **295** | **195** | **$2,643.8** | **$812.8** | **6,110** |
| Industrial | - | 224,000m² | 5,000 | 1,750 | $896.0 | $275.5 | 2,070 |
| Other Business | - | 14,700m² | - | - | $58.8 | $18.1 | 140 |
| Primary School | - | 4,800m² | - | - | $19.9 | $14.7 | 110 |
| Total* | - | - | - | - | $3,618.5 | $1,121.0 | 8,430 |

*This excludes related quarrying activity to the development, which would generate additional economic GDP and FTE employment.

**Calculated as 80% of total value to exclude profit.

Source: UE, Statistics NZ

**Flow-on Effect of the Development on the Primary Industries**

The development's direct impact on the construction sector is estimated to be $526.7 million in GDP and will support approximately 3,960 FTE jobs. This includes building construction and related services.

The indirect (flow-on) impact of the construction of the development on primary industries is estimated to be $249 million in GDP and will support approximately 1,875 FTE jobs. This includes, for example, jobs in the 'Agriculture, forestry and logging' sector resulting from the purchasing of raw materials to construct the proposed buildings.

**Direct & Indirect Economic Impact Summary Table:**

| Impact | Sector | Multiplier | Project Value ($M) | GDP ($M) | FTE |
|---|---|---|---|---|---|
| Direct | Construction | 1.00 | $1,700.1 | $526.7 | 3,960 |
| Indirect | Primary | 0.47 | $803.8 | $249.0 | 1,875 |
| | Secondary + Tertiary | 0.66 | $1,114.6 | $345.3 | 2,595 |
| | Sub-total | 1.13 | $1,918.4 | $594.3 | 4,470 |
| **Total Impact** | - | **2.13** | **$3,618.5** | **$1,121.0** | **8,430** |

Source: Statistics NZ, UE

## CONCLUSION

The Wairakei South Development has been identified through the Regional Deals process involving Central Government, Tauranga City Council, Western Bay of Plenty District Council, and Priority One, as a key location for future urban growth within the Western Bay of Plenty sub-region.

The Development would result in significant economic benefits to the Western Bay of Plenty sub-region and the wider Bay of Plenty region. In particular it would:

- Provide substantial supply at pace and scale, providing 2,750 additional dwellings to a supply constrained market,
- Improve housing affordability outcomes over time by providing a range of relatively affordable dwellings and put downward pressure on new housing prices,
- Provide approximately 54 hectares of business land which would support additional permanent employment opportunities for future residents, particularly in the localised market.
- Support net additional construction sector GDP and employment, of $1,121.0 million and 8,430 FTE jobs, and
- Enable ongoing population growth, leading to significant net additional GDP and employment, of $66.3 million and 585 FTE jobs.
- Support retail sector GDP contribution of $29.0 million and 298 FTE jobs annually,
- Generate ongoing quarrying activity during construction, equating to a direct GDP contribution of $26.0 million and approximately 140 FTE jobs
- Overall, the Development would generate a total GDP contribution during construction of $1,147.0 million and 8,570 FTEs, and ongoing GDP contribution of $95.3 million and 883 FTE jobs every year.
- The Development would displace land currently suitable for use as a dairy run-off block, with an estimated economic value of approximately $17.3 million. This, however, is not considered to be out of proportion with the economic benefits resulting from the construction of the Development.

# 1.3 REGIONAL URBAN CENTRES

### URBAN FORM & TRANSPORT CONNECTIONS

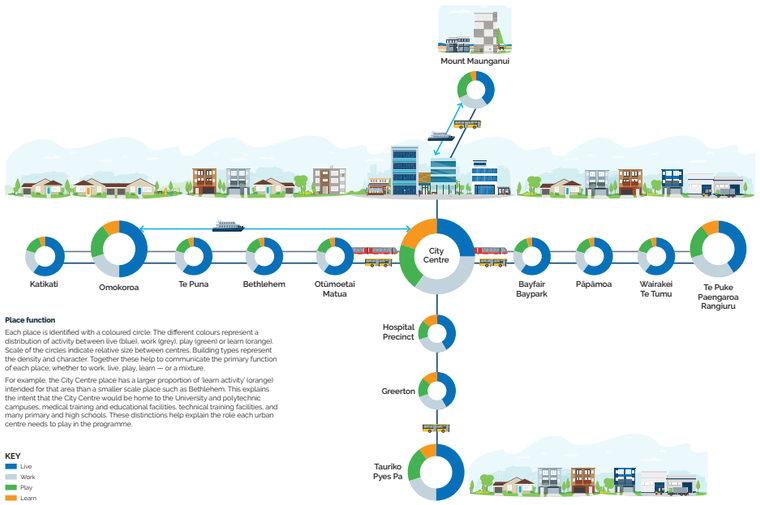
The SmartGrowth Partners have prepared the Urban Form and Transport Initiative (UFTI) programme business case to set out an integrated land use and transport programme, and delivery plan for the western Bay of Plenty. It caters for the approximate 200,000 additional people, 95,000 new homes, and two million additional transport movements per day expected within the next 30 to 70 plus years. This programme is called ‘Connected Centres’.

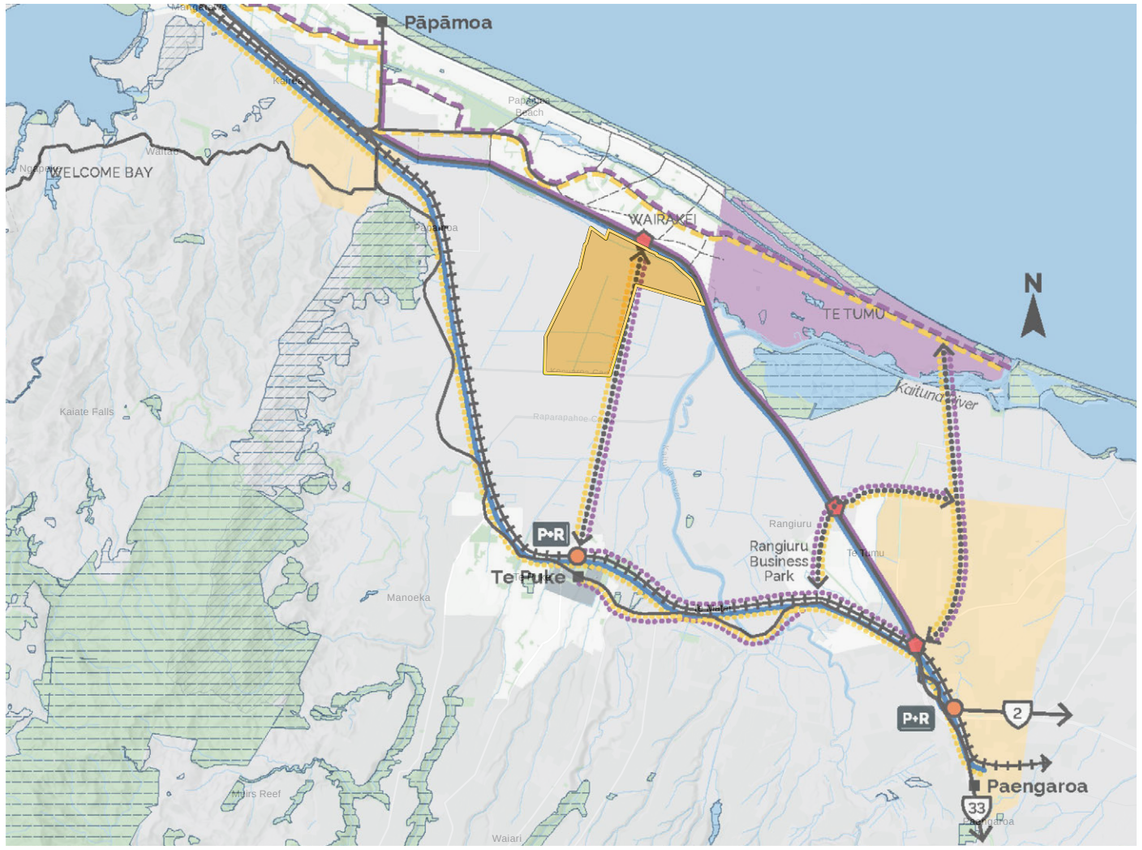
## CONNECTED CENTRES PROGRAMME

The Urban Form and Transport Initiative (UFTI), developed by the SmartGrowth partnership, provides a 50+ year integrated land use and transport strategy for the western Bay of Plenty. Central to the initiative is the Connected Centres programme, a spatial planning framework designed to accommodate substantial population and housing growth through a compact, multimodal urban form.

The programme promotes intensification of existing urban areas and targeted greenfield development, supported by four high-frequency public transport corridors and active transport infrastructure. Its core objectives include increasing housing supply and diversity, improving transport choices, supporting economic development, enhancing environmental outcomes, and recognising tangata whenua aspirations through partnership and spatial planning integration.

The Connected Centres approach supports 15-minute local access and 30–45-minute regional access to social and economic opportunities. It aligns closely with government policy on urban growth, climate resilience, and mode shift, providing a foundation for future investment, housing delivery, and infrastructure planning across the sub-region.

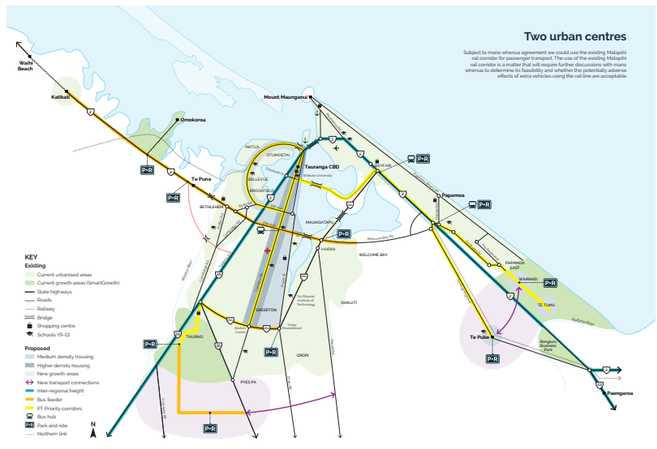



## UFTI TWO URBAN CENTRES PROGRAMME

The Two Urban Centres programme (Figure 17 - shown adjacent) is based on all new residential growth being located in the Eastern and Western Corridors, with some intensification in the Te Papa and Otūmoetai areas around key transport corridors. To enable the City/East movement, a new harbour crossing is included primarily for public transport and rail services (not passenger rail). The additional crossing (shown within the current Matapihicrossing) helps relieve pressure on SH2/Hewletts Road and in doing so, frees up some freight movements to the Port of Tauranga.

Within the Two Urban centres programme, priority corridors for public transport are enabled to help move people to jobs, education, and other destinations. The expected additional traffic volumes because of growth is likely to increase congestion to the point where access and productivity could be impacted particularly for sectors that rely on the movement of people and goods.



# 2.1 CULTURAL CONTEXT - WAITAHA

*Waitaha Iwi Management Plan, 2014*

TE KAPU Ō WAITAHA
He Ao Hou

The Waitaha Iwi Management Plan (IMP) 2014 provides a foundational framework for engaging with Waitaha iwi on matters related to housing and land development. It outlines the cultural values, environmental responsibilities, and social aspirations of Waitaha, ensuring that any development within their rohe (tribal area) aligns with their role as kaitiaki (guardians) and their vision for sustainable, inclusive growth.

## KEY PRINCIPLES FOR DEVELOPMENT:

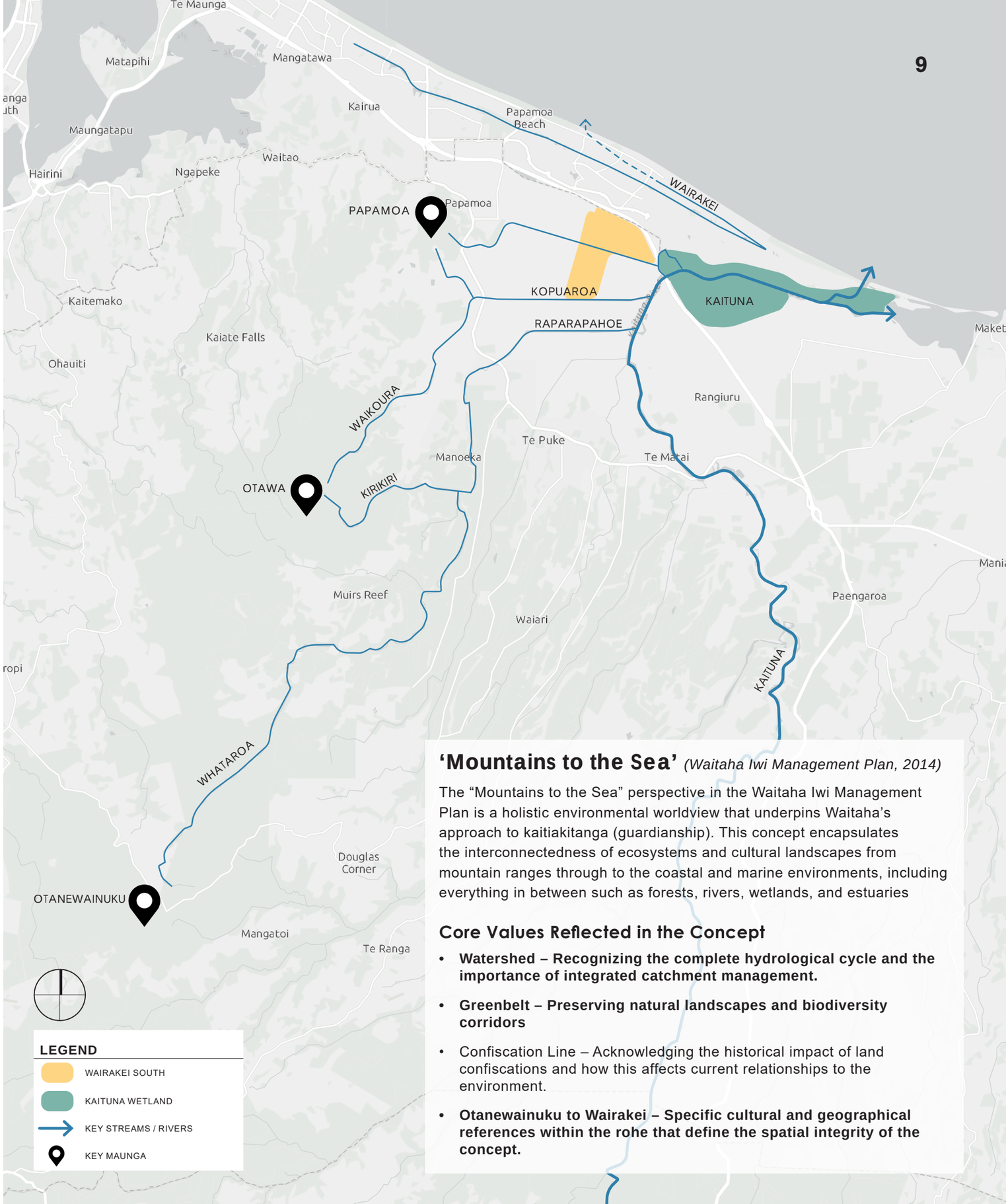
- **Partnership and Engagement:** All housing and development projects within the Waitaha rohe must involve early, meaningful consultation with Te Kapu o Waitaha, the iwi's Post-Settlement Governance Entity. This ensures that developments reflect iwi perspectives and meet both statutory and cultural obligations.
- **Cultural Integration:** Development must respect and incorporate Waitaha tikanga (customs), wāhi tapu (sacred sites), and heritage values. Whakapapa, te reo Māori, and traditional knowledge should be acknowledged in place naming, design elements, and community planning.
- **Environmental Sustainability:** Waitaha upholds the protection of natural resources including waterways, wetlands, and indigenous ecosystems. All developments should use sustainable practices that preserve the mauri (life force) of the environment and promote long-term ecological health.
- **Whānau-Centred Housing:** The plan supports the development of papakāinga (communal Māori housing) and affordable housing options that allow whānau to return, live, and thrive on ancestral land. Housing projects should promote intergenerational living, cultural connection, and social cohesion.
- **Infrastructure and Services:** Waitaha supports investment in infrastructure that benefits the wider community—particularly in health, education, transport, and recreation—ensuring equitable access for iwi members and residents alike.
- **Economic Empowerment:** Housing and development projects should also support economic advancement for iwi members through employment, training, and procurement opportunities. Waitaha is actively building an economic base and welcomes partnerships that align with their strategic direction.

## SIGNIFICANT MAUNGA

- Otanewainuku
- Otawa
- Puwhenua

## SIGNIFICANT AWA

- Kaiate
- Ohinenganga
- Kaituna
- Te Kopuaroa
- Te Raparapahoe
- Te Rerenga
- Waiari
- Waimapu
- Wairakei




## ‘Mountains to the Sea’ *(Waitaha Iwi Management Plan, 2014)*

The “Mountains to the Sea” perspective in the Waitaha Iwi Management Plan is a holistic environmental worldview that underpins Waitaha’s approach to kaitiakitanga (guardianship). This concept encapsulates the interconnectedness of ecosystems and cultural landscapes from mountain ranges through to the coastal and marine environments, including everything in between such as forests, rivers, wetlands, and estuaries

### Core Values Reflected in the Concept

- **Watershed – Recognizing the complete hydrological cycle and the importance of integrated catchment management.**
- **Greenbelt – Preserving natural landscapes and biodiversity corridors**
- Confiscation Line – Acknowledging the historical impact of land confiscations and how this affects current relationships to the environment.
- **Otanewainuku to Wairakei – Specific cultural and geographical references within the rohe that define the spatial integrity of the concept.**

# 2.2 CULTURAL CONTEXT - TAPUIKA



*Tapuika Environmental Management Plan, 2014 - 2024*

The Tapuika Environmental Management Plan (EMP) 2014–2024 is a strategic document developed by the Tapuika Iwi Authority to express the iwi's values, aspirations, and expectations for the natural environment within Te Takapū o Tapuika—their ancestral tribal estate. The plan outlines cultural and environmental priorities and serves as a framework for sustainable resource management, kaitiakitanga (guardianship), and iwi participation in local and central government planning.

## PURPOSE AND SCOPE:

- Articulates Tapuika's environmental concerns and aspirations.
- Guides iwi-led environmental initiatives and enhances participation in Resource Management Act (RMA) processes.
- Ensures proactive engagement with external stakeholders including councils, central government, and developers.

## KEY ENVIRONMENTAL VALUES:

Tapuika's world view sees the environment as interconnected and sacred. Natural resources—land (whenua), water (wai ora), air (Tawhirimatea), and coast (taiao moana)—are taonga (treasures) to be protected and enhanced for future generations.

### SIGNIFICANT MAUNGA

- Rangiuru
- Otanewainuku
- Mangorewa

### SIGNIFICANT AWA

- Kaituna
- Mangorewa
- Waimapu

### 

- Paraiti
- Popaki
- Te Rerenga

## SPECIFICS ON FUTURE DEVELOPMENT:

The Tapuika Environmental Management Plan (EMP) 2014–2024 outlines several specific provisions and expectations for future development within Te Takapū o Tapuika. These focus on protecting cultural values, enabling iwi-led development, and ensuring environmental sustainability.

The following is a structured summary of the key points regarding future development:

**1. Enabling Tapuika-Led Development**

Papakāinga and Māori Land Development:

- The plan supports the development of papakāinga (communal housing) and utilisation of underused Māori land for the social and economic wellbeing of Tapuika whānau and hapū.
- It encourages understanding of funding mechanisms (e.g., Kāinga Whenua loans) and promotes feasibility studies on using geothermal energy to support marae and housing.

Treaty Settlement Land Use:

- Commercial redress lands (1,868 hectares) and cultural redress lands (over 200 hectares) are viewed as opportunities to develop sustainable enterprises and projects aligned with Tapuika values.

**2. Environmental and Cultural Protections**

Cultural Heritage Safeguards:

- All development, particularly at historically significant sites like Te Tumu, must involve early consultation and integration of the Tapuika Accidental Discovery Protocol (for handling cultural finds).
- Archaeological reports are not considered sufficient on their own—Tapuika must be consulted to determine cultural value.

Resource Consent Involvement:

- Tapuika expects to be engaged early in resource consent processes affecting land, water, air, and coastal areas.
- Priority catchments (e.g., Kaituna River, Waiari Stream) are identified for focused restoration and protection, which should be considered during development planning.

**3. Specific Development Areas of Interest**

Te Tumu Urban Growth Area:

- Tapuika has significant cultural ties to Te Tumu, a site of historic settlement and conflict.
- The plan states an explicit expectation that Tapuika will be involved in long-term planning processes for Te Tumu, particularly in relation to residential and infrastructure development.

**4. Sustainability Expectations for Developers**

Land Use Practices:

- Development should avoid erosion-prone areas, minimise agrichemical use, and incorporate riparian restoration and wetland protection.

Customary Resource Access:

- Opportunities should be created within developments to access and harvest traditional resources such as harakeke for weaving and rongoā (medicinal plants).

Infrastructure Siting:

- Developments should avoid culturally sensitive sites, including wāhi tapu, and be mindful of spray drift zones near marae, kura kaupapa, and kohanga reo.

- **Strategic Partnerships**

Tapuika seeks to work collaboratively with councils, Crown agencies, developers, and landowners to:

- Integrate mātauranga Māori into design and impact assessment
- Create co-management opportunities.
- Develop environmental restoration projects alongside development.

# 2.3 CULTURAL CONTEXT - NGĀ PŌTIKI



*Ngā Pōtiki Environmental Plan, 2019 - 2029*

The Ngā Pōtiki Environmental Plan 2019 - 2029 is a strategic, values-led planning framework that seeks to actively shape land use, development, and environmental management within the Ngā Pōtiki takiwā.

The Plan is explicitly intended to:

- Influence council planning, infrastructure, and development decisions
- Guide developers and consent applicants
- Deliver tangible, long-term outcomes through implementation and priority projects

## VISION:

The Ngā Pōtiki Environmental Plan's overarching vision is to:

- Restore and enhance the mauri (life force) of the environment, recognising the intrinsic link between environmental health and community wellbeing
- Protect and strengthen cultural identity, heritage, and mātauranga Māori in the face of ongoing urban growth
- Ensure Ngā Pōtiki are active partners, decision-makers, and kaitiaki (guardians) in all land use and development processes

## STRATEGIC DIRECTION FOR DEVELOPMENT:

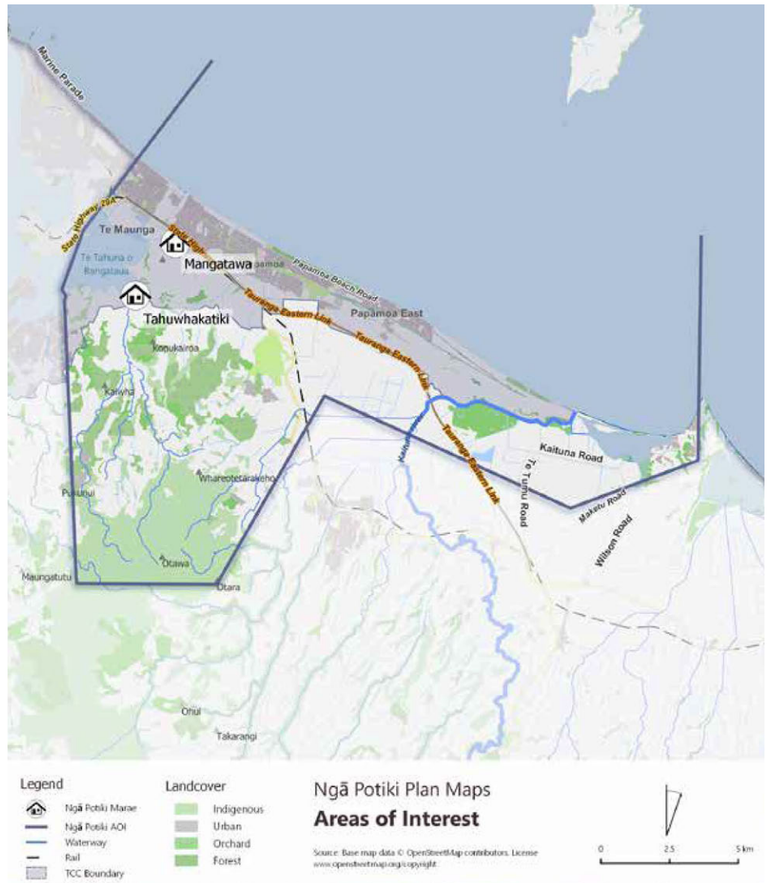
Ngā Pōtiki Environmental Plan 2019 - 2029 signals a clear expectation that development will:

- Be values-led, not just compliance-led
- Deliver integrated environmental and cultural outcomes
- Embed identity, sustainability, and resilience from the outset
- Function as a collaborative partnership with mana whenua
- Achieve long-term intergenerational benefits, not just short-term gains

## KEY PRINCIPLES FOR DEVELOPMENT:

The Ngā Pōtiki Environmental Plan 2019 - 2029 outlines several specific provisions and expectations for future development within the Ngā Pōtiki takiwā. These focus on protecting cultural values, enabling iwi-led development, and ensuring environmental sustainability with the following key principles:

1. **Integrated & Holistic Planning**
   - Land use must consider cumulative effects across catchments and ecosystems
   - Development should integrate environmental, cultural, social, and economic outcomes
   - Recognises that all systems (water, land, biodiversity) are interconnected
2. **Water-Sensitive & Low Impact Design**
   - Incorporate rainwater harvesting and greywater reuse, on-site water storage and stormwater treatment and reduction measures
   - Reduce pressure on infrastructure and natural waterways
3. **Environmental Performance**
   - Promote energy efficiency and sustainable building standards (e.g. Homestar/Green Star)
   - Minimise pollution, waste, and resource consumption
4. **Landscape & Urban Design Integration**
   - Use native planting and large-scale landscaping
   - Ensure buildings respond to natural landforms and visual context
   - Maintain amenity values and landscape character
5. **Cultural Design & Place-Making**
   - Integrate Māori design elements and narratives, cultural landmarks and interpretation, and Indigenous planting and food systems
   - Reinforce identity and sense of place
6. **Protection of Cultural & Environmental Assets**
   - Avoid or mitigate impacts on wāhi tapu and heritage sites, water bodies and wetlands and indigenous ecosystems
   - Require early engagement for sensitive sites and activities
7. **Community-Centric Development**
   - Provide green spaces and communal areas, ommunity gardens and cultural planting
   - Design for inclusivity, accessibility, and wellbeing
8. **Partnership & Engagement**
   - Early and meaningful engagement with Ngā Pōtiki is expected for earthworks, infrastructure and resource consents
   - Development should move toward co-design and co-governance approaches



# 2.4 CULTURAL CONTEXT - TE MARU O KAITUNA

*Kaituna River Document, June 2018*



Te Maru o Kaituna

## TE MARU O KAITUNA RIVER AUTHORITY

The Kaituna River Document is a statutory planning document developed by Te Maru o Kaituna River Authority, a co-governance body comprising iwi and local government representatives. This document outlines a collective vision and strategic direction for the restoration, protection, and enhancement of the Kaituna River and its tributaries over the next decade.

## VISION:

The Kaituna River Document is guided by the vision:

***"The Kaituna River is in a healthy state and protected for current and future generations."***

## PURPOSE:

The purpose of Te Maru o Kaituna is the restoration, protection, and enhancement of the environmental, cultural and spiritual health and well-being of the Kaituna River.

## KEY OBJECTIVES:

The document outlines eight primary objectives:

1. Recognize iwi and hapū relationships with the river.
2. Support iwi-led restoration projects.
3. Restore water quality and mauri (life force) to a healthy state.
4. Ensure adequate water quantity to protect ecological, cultural, and recreational values.
5. Sustainably allocate water for social, cultural, and economic well-being.
6. Improve land management to protect environmental health.
7. Restore ecosystem health and enhance indigenous habitats and wetlands.
8. Collaborate with iwi and the community to support environmental, cultural, and socio-economic goals.

## CO-GOVERNANCE PARTNERSHIP GROUP:


Te Maru o Kaituna River Authority is a co-governance partnership made up of iwi representatives from Tapuika Iwi Authority Trust, Te Kapu Ō Waitaha, Te Pumautanga o Te Arawa Trust, Te Tāhuhu o Tawakeheimoa Trust, Ngāti Whakaue, and council representatives from the Bay of Plenty Regional Council Toi Moana, Rotorua Lakes Council, Western Bay of Plenty District Council and Tauranga City Council. It is a permanent joint committee of the four councils.

## CULTURAL & HISTORICAL SIGNIFICANCE

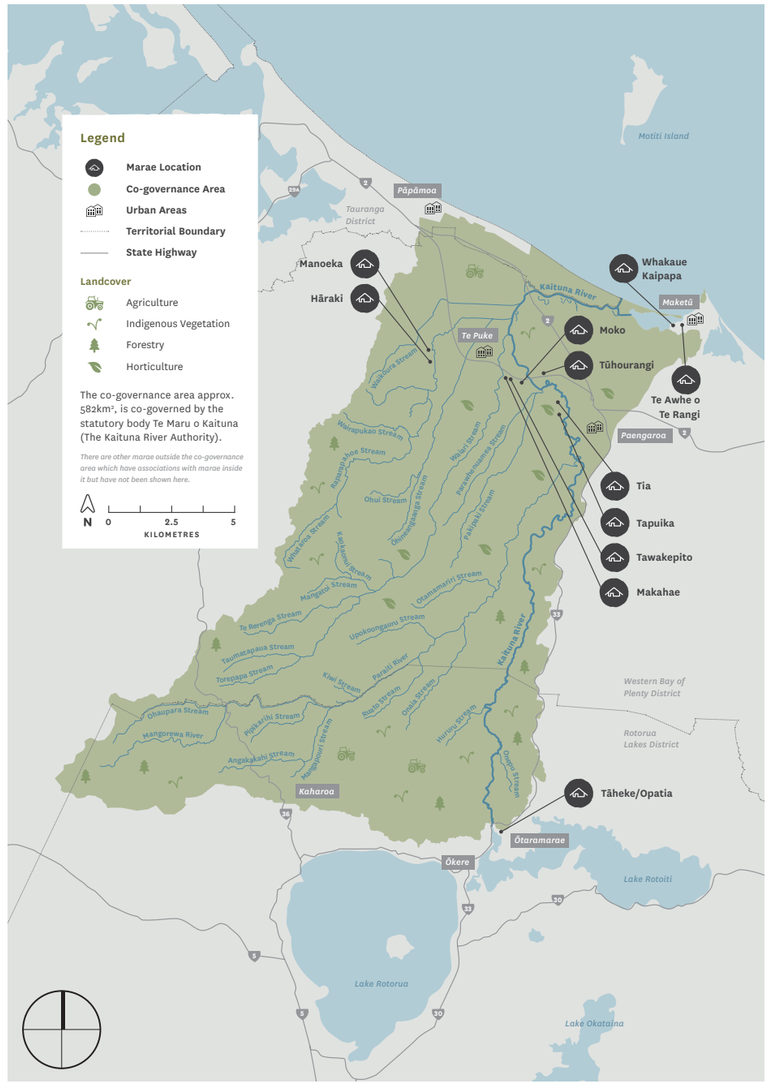
The document captures the deep spiritual and historical relationships between local iwi (including Tapuika, Waitaha, Ngāti Rangiwewehi, Ngāti Pikiao, and Ngāti Whakaue) and the river. It also details the impacts of colonization, land development, and modern infrastructure on the river's natural state.

## IMPLEMENTATION

- Local authorities are responsible for integrating the document's objectives into planning and resource management.
- Iwi and hapū are central to governance and project leadership.
- The document serves as a guide for sustainable development that honors cultural heritage and environmental integrity.

## CO-GOVERNANCE FRAMEWORK AREA

The Act defines the Kaituna River as meaning the Kaituna River and all its tributaries within the Kaituna co-governance framework area. The area starts at the top of the Kaituna River and is the area shown on the below



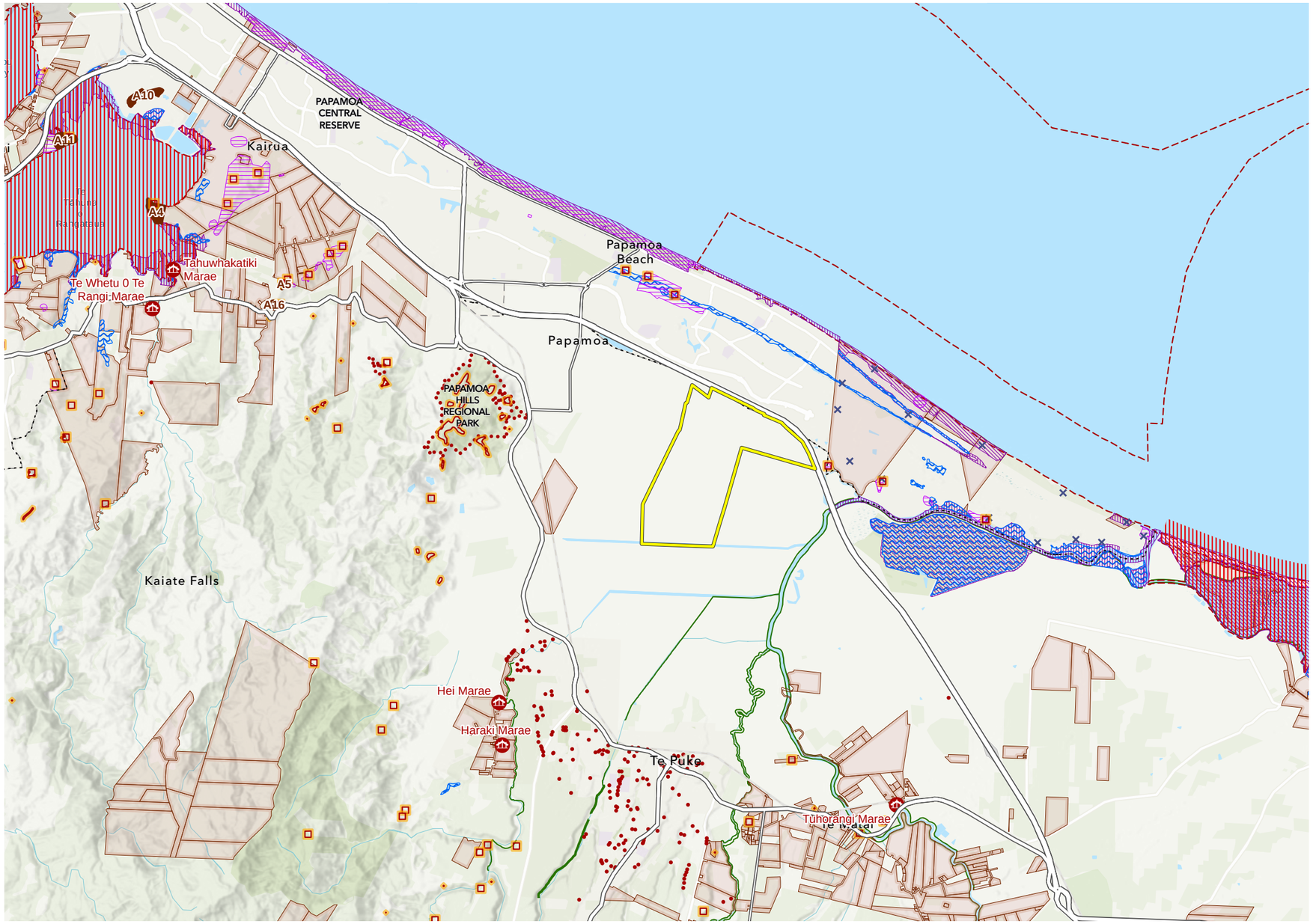
Boffa Miskell

# SITE ANALYSIS

# 3.1 WĀHI TOITŪ - SITES OF SIGNIFICANCE



- Site Area
- Marae
- Te Tumu Archaelological Management Areas
- Pa Site (NZAA)
- Māori Land Blocks 2017 (MLC)
- Wetland (BOPRC)
- Esplanade Strip
- Indigenous Biological Diversity Area B (BOPRC)
- Indigenous Biological Diversity Area A (BOPRC)
- Outstanding Natural Features Landscapes (BOPRC)
- Area Significant Cultural Value (BOPRC)
- Significant Maori Sites (TCC)
- Significant Archaelogical Areas (TCC)
- Cultural Heritage Feature / Boundary




**DATA SOURCES:** Tauranga City Council, Western Bay of Plenty District Council, Ministry of Justice, Ministry of Primary Industries, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Eagle Technology, LINZ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, tee, Environment Bay of Plenty Regional Council, Bay of Plenty Regional Council

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# 3.2 WĀHI WHENUA - LAND CLASSIFICATION



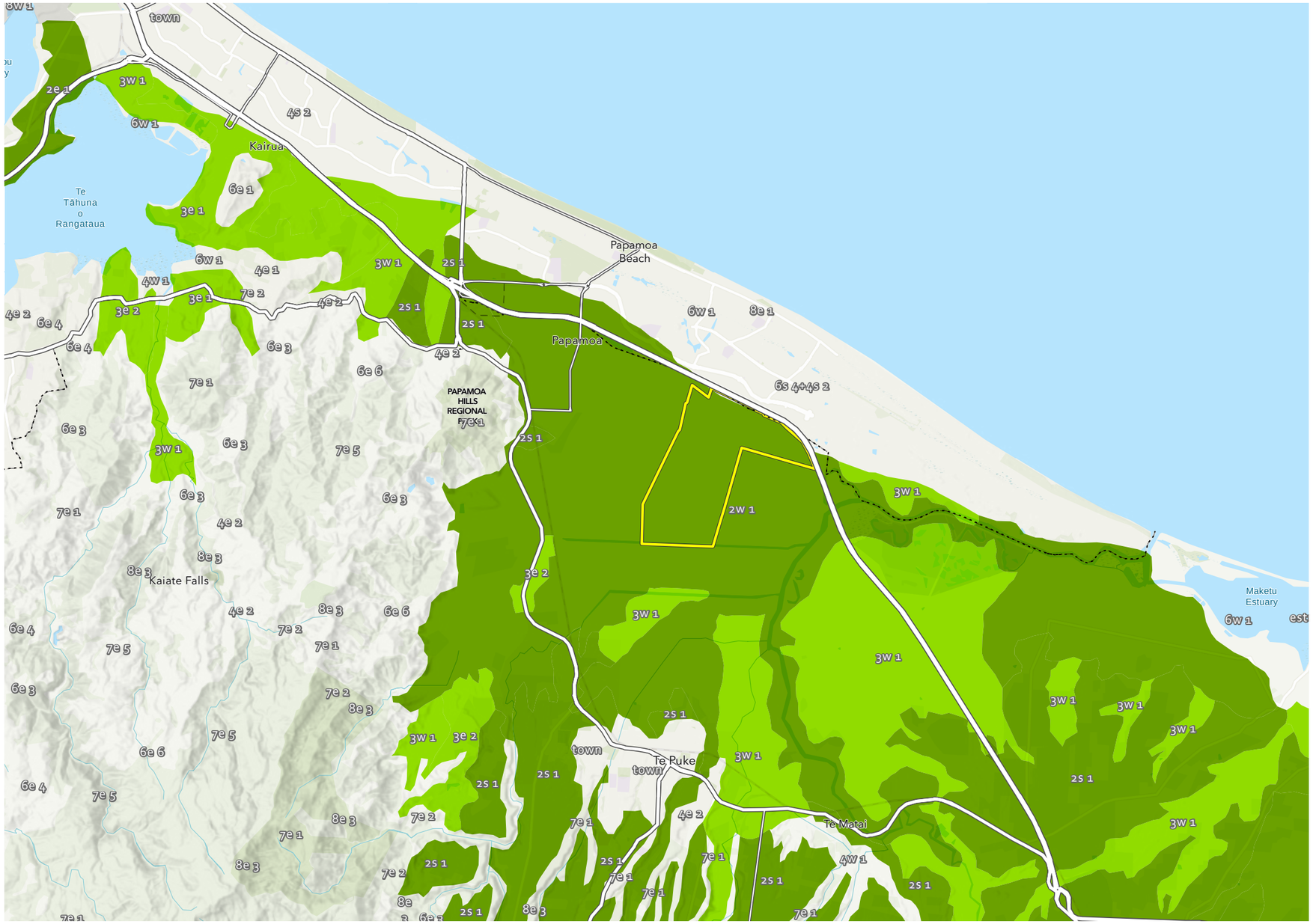
## HIGHLY PRODUCTIVE LAND

Site Area

Baseline Highly Productive Land

HPL - LUC Class 2

HPL - LUC Class 3




**DATA SOURCES:** Tauranga City Council, Western Bay of Plenty District Council, Ministry of Justice, Ministry of Primary Industries, Landcare Research, Eagle Technology, LINZ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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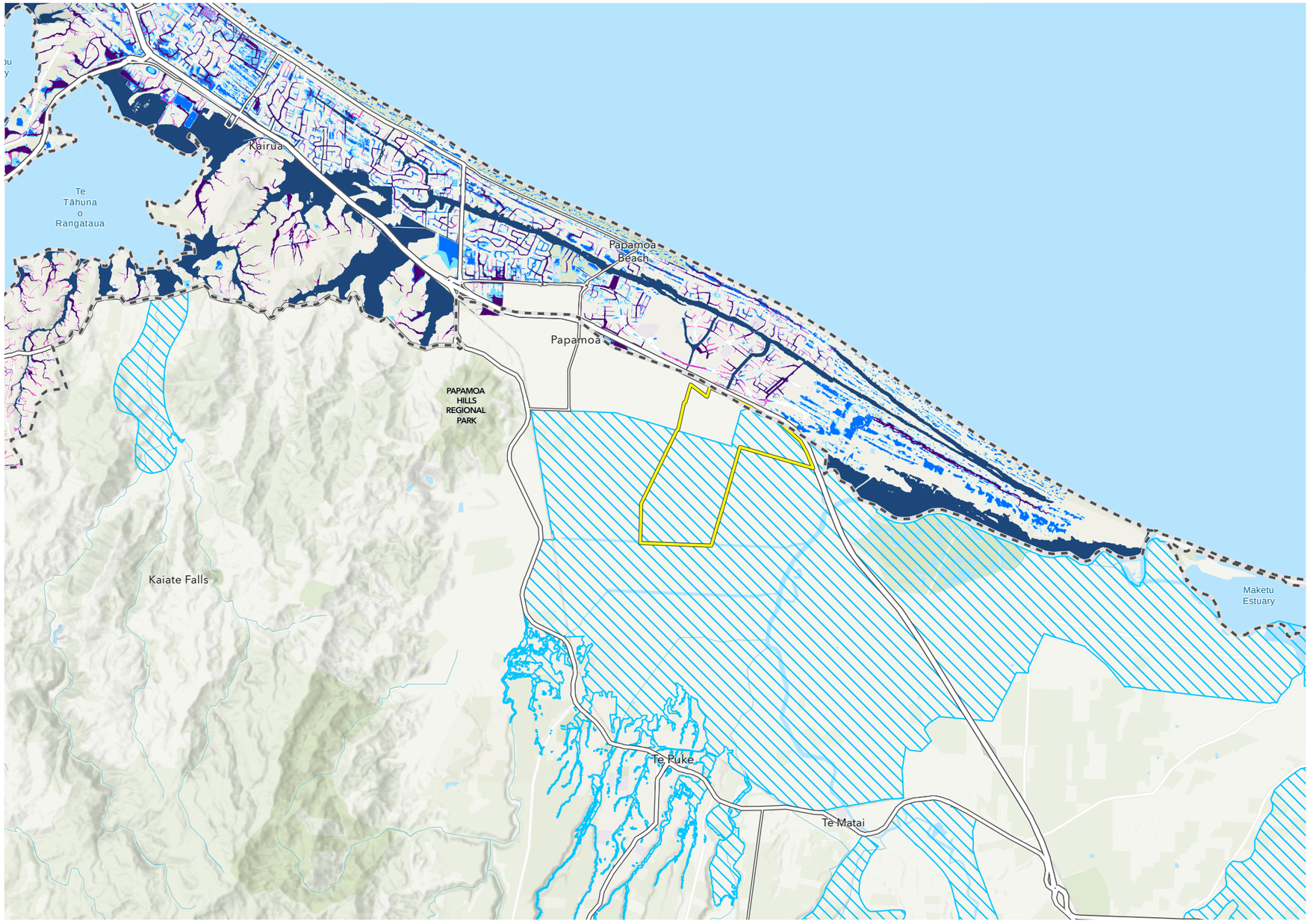
# 3.3 WĀHI WHENUA - FLOODING



## CURRENT COUNCIL FLOOD MAPPING

Site Area
TA Boundary
Floodable Area (WBOPDC)
Flood Risk (TCC)
Flood plain
Flooding depth 100-300mm
Flooding depth over 300mm
Minor overland flow
Major overland flow




### MAP DATA SET STATEMENT:

**Floodable Area WBOPDC:**

"WBOPDC District Plan Natural Hazards, Floodable Area. Flood event not specified. Historical maps. For the District Plan Maps for Rural Areas, Te Puna Business Park and Rangiuru Business Park, the mapping was historically done based on the best estimate of the engineers at the time (without flood modelling).

Date: WBOPDC District Plan as at 10 July 2025

**Flood Risk TCC:**

"Flood plain based on a 1% AEP (100 year ARI) event and 2130 climate (RCP 8.5). TCC GIS team and water engineers created flood plains from flood prone and overland flow path polygons.

.Flood prone based on a 1% AEP (100 year ARI) event and 2130 climate (RCP 8.5). Split into 2 categories: 100mm to 300mm flood depth, and greater than 300mm flood depth. TCC GIS team under supervision from water engineers converted raster areas to polygons, then smoothed. Data used in Plan Change 27

Overland flow path based on a 1% AEP (100 year ARI) event and 2130 climate (RCP 8.5). Split into 2 categories: major, and minor. TCC GIS team under supervision from water engineers converted raster area to polygons, smoothed, and connected disjointed overland flow paths together. Data used in Plan Change 27" Flood depth modelling done by Awa on behalf of TCC. 2020.

"Some natural hazard information assessments were undertaken at a city-wide scale and not intended to be used at an individual property scale."



**DATA SOURCES:** Tauranga City Council, Western Bay of Plenty District Council, Ministry of Justice, Ministry of Primary Industries, Tom Pyatt (GIS), Tracey Myers (senior water modeller), Raul Castaneda Galimidi (senior water planning engineer), Manasi Vaidya (planner), Eagle Technology, LINZ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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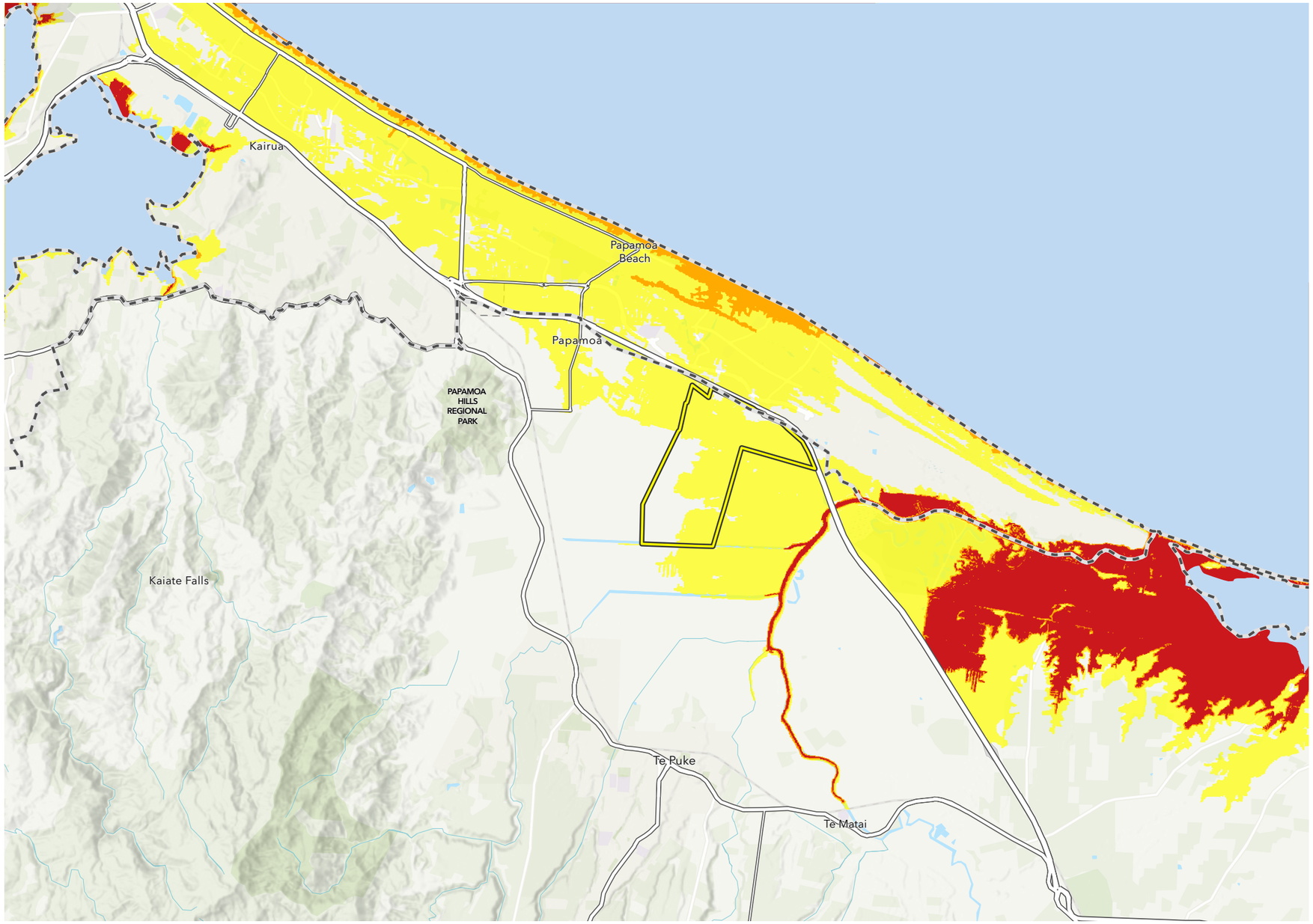
# 3.4 WĀHI WHENUA - COASTAL RISK



## TSUNAMI INUNDATION

- Site Area
- TA Boundary
- Tsunami Inundation - Red Zone Extent 2025
- Tsunami Inundation - Orange Zone Extent 2025
- Tsunami Inundation - Yellow Zone Extent 2025




### MAP DATA SET STATEMENT:

This dataset is an output of the Comprehensive Tsunami Inundation Modelling and Evacuation Zone Mapping project, undertaken by GNS Science on request from Bay of Plenty Regional Council (BOPRC) and Emergency Management Bay of Plenty (EMBOP).

For more details see Roger JHM, Gusman AR, Hughes L, Wang X, Lukovic B, Power W, Mueller C, Burbidge D 2024. Comprehensive Tsunami Inundation Modelling and Evacuation Zone Mapping - GNS Science: Final Report. Lower Hutt (NZ): GNS Science. Consultancy Report 2024/139.

This dataset has been prepared by the Institute of Geological and Nuclear Sciences Limited (GNS Science) exclusively for and under contract to Emergency Management Bay of Plenty (EMBOP). Unless otherwise agreed in writing by GNS Science, GNS Science accepts no responsibility for any use of or reliance on any contents of this report by any person other than Emergency Management Bay of Plenty (EMBOP) and shall not be liable to any person other than Emergency Management Bay of Plenty (EMBOP), on any ground, for any loss, damage or expense arising from such use or reliance.

The instructions outlined in the publication “Tsunami Evacuation Zones: Director’s Guidelines for Civil Defence Emergency Management Groups” (MCDEM, 2016) are assumed to be followed by this map. The Red, Orange, and Yellow tsunami evacuation zones are delineated in this paper. The area nearest to the coast that would typically be evacuated in the event of a tsunami warning is known as the Red Zone. The Orange Zone is an intermediate zone that takes into account the risk of tsunamis from either moderately close (but more than an hour’s travel time away) or huge (but far away) tsunami sources. The area that should be evacuated in the most dire circumstances of a very large near-source earthquake is represented by the Yellow Zone.



**DATA SOURCES:** Tauranga City Council, Western Bay of Plenty District Council, Ministry of Justice, Ministry of Primary Industries, Eagle Technology, LINZ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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# 3.5 WĀHI WHENUA - LAND STABILITY



## LIQUIFACTION & ACTIVE FAULTS

Site Area
TA Boundary
Active Faults (BOPRC - none within map extent)
Liquefaction - Level A (Basic Desktop Assessment) (BOPRC)
Possible
Undetermined
Liquefaction Vulnerability (TCC)
Undetermined
Unlikely
Possible
High
Low
Very low

### MAP DATA SET STATEMENT:

**BOPRC layer:**

Liquefaction assessment has been undertaken in general accordance with the guidance document 'Assessment of Liquefaction-induced Ground Damage to Inform Planning Processes' published by the Ministry for the Environment and the Ministry of Business, Innovation and Employment in 2017.

Assessment undertaken by Tonkin and Taylor Ltd

Study Area aligns with the Bay of Plenty Regional Council boundary excluding the Tauranga City Council territory.

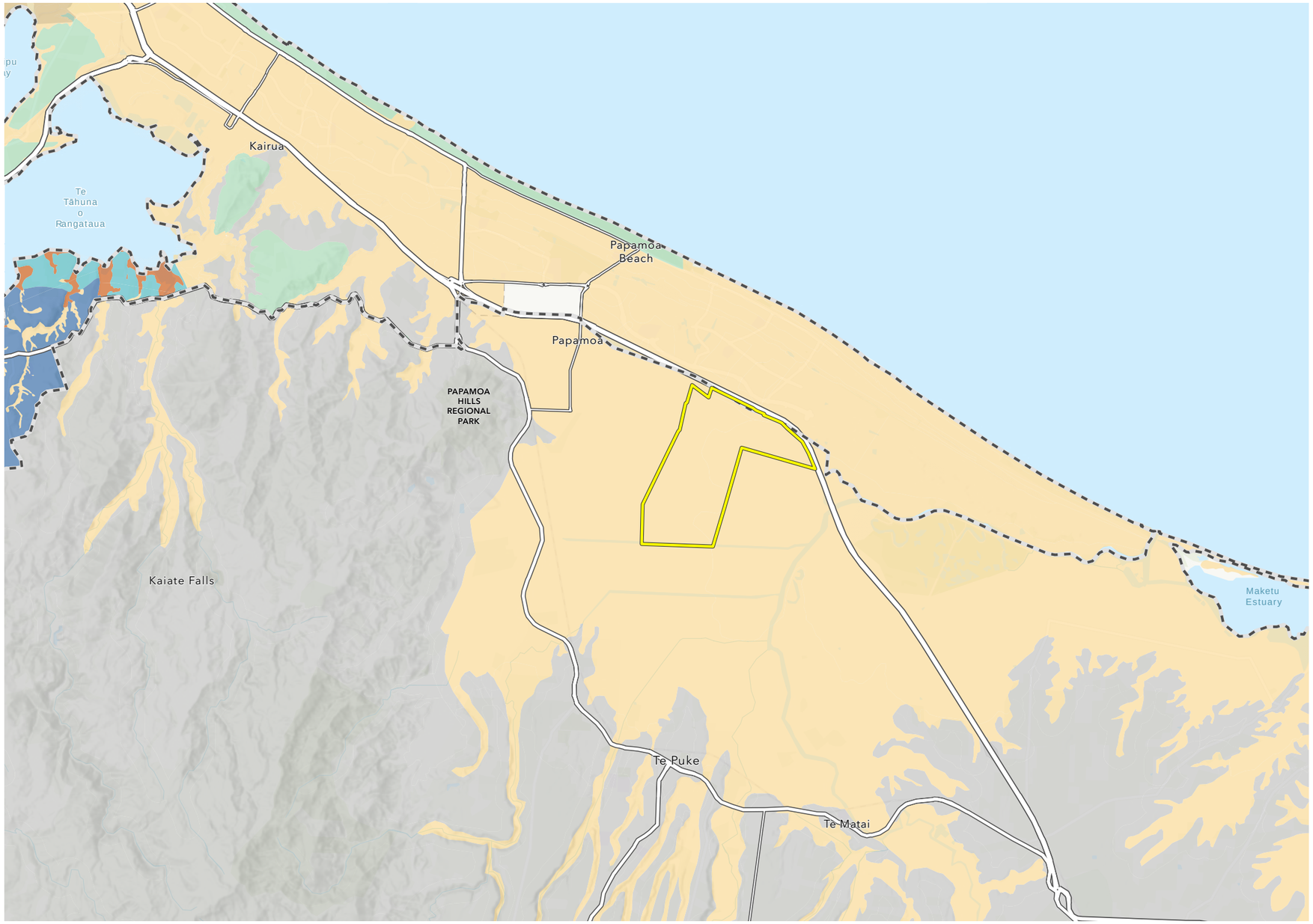
The available base information provides enough information for a Level A (basic desktop assessment) level of detail across the Study Area. The main factor controlling this level of detail is the spatial extent of the available geotechnical investigations and groundwater information across the Study Area. There are some small areas (e.g. parts of Whakatāne and Rotorua) where higher levels of detail could be supported by the available base information.

**TCC Layer – Liquefaction Vulnerability:**

This represents the potential for liquefaction damage to an area when an earthquake strikes based on physical parameters such as soil type, particle size, density, and depth to ground water. This assessment has been made at a broad scale across the entire city and is intended to approximately describe the typical range of liquefaction across neighbourhood-sized areas

The reports and modelling results may be superseded by site specific, detailed assessments undertaken by qualified and experienced practitioners using improved or higher resolution data than presented in this study. The maps are prepared based on an assessment of natural ground conditions and therefore do not consider the influence of recent human activities such as earthworks. As such, the degree of land damage may be less than predicted for a given property where liquefaction risk was addressed during landform or building foundation design.






**DATA SOURCES:** Tauranga City Council, Western Bay of Plenty District Council, Ministry of Justice, Ministry of Primary Industries, Tonkin & Taylor, Eagle Technology, LINZ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, GNS Science, Lower Hutt, New Zealand.

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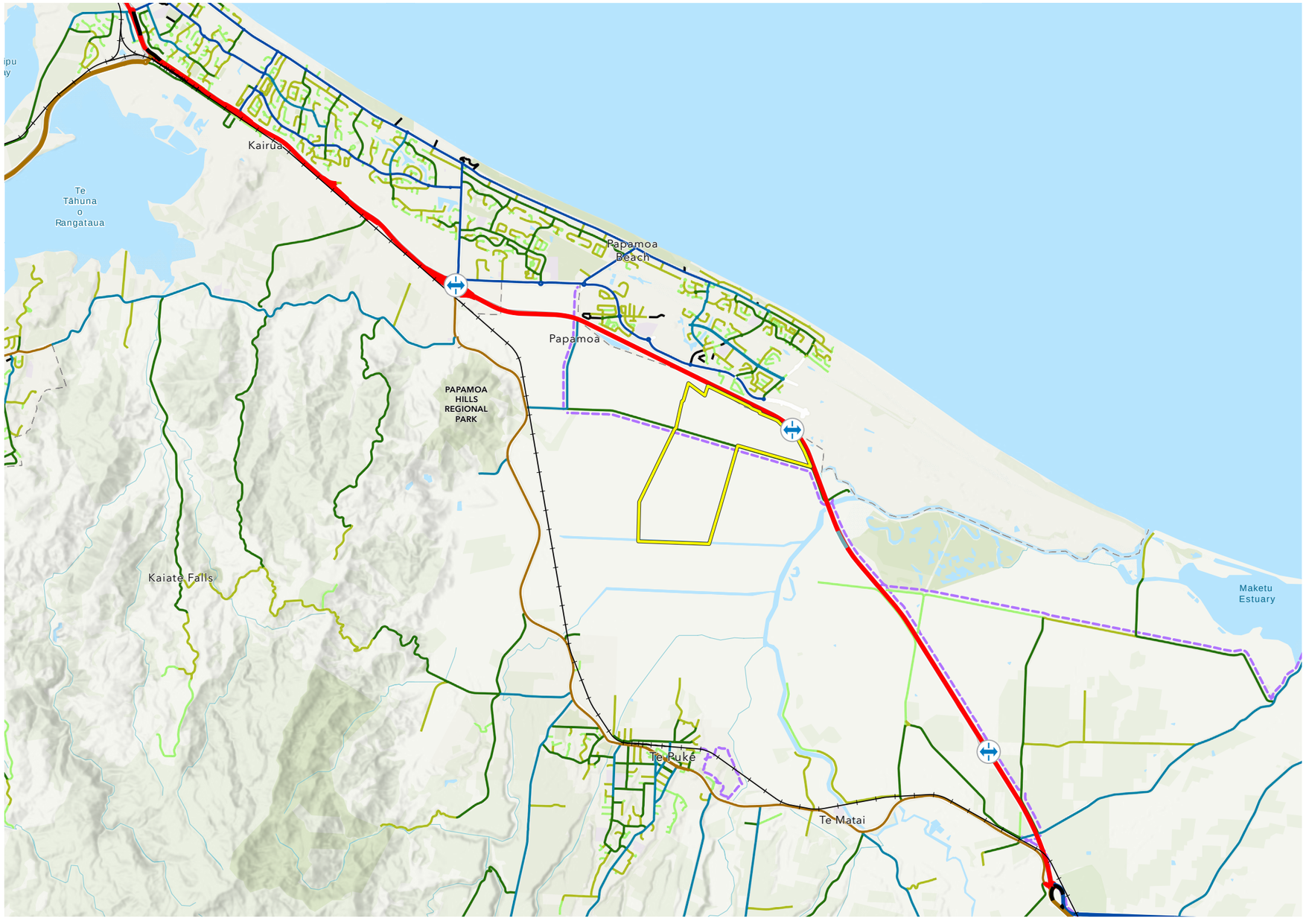
# 3.6 ARARAU - TRANSPORT

## ROAD, RAIL AND CYCLEWAY NETWORKS



Site Area
Cycleway
Rail Network
Interchange

State Highway ONRC
- High Volume
- National
- Regional
- Arterial
- Primary Collector
- Secondary Collector
- Access
- Low Volume
- Unknown




### MAP DATA SET STATEMENT:

Current road network data sourced from the NZTA via the One Network Road Classification online GIS database at nzta.maps.arcgis.com



**DATA SOURCES:** Tauranga City Council, Western Bay of Plenty District Council, Ministry of Justice, Ministry of Primary Industries, Eagle Technology, LINZ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community.

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# 3.7 WĀHI MAHI - EMPLOYMENT AREAS

## COMMERCIAL, INDUSTRIAL AND MIXED USE ZONES



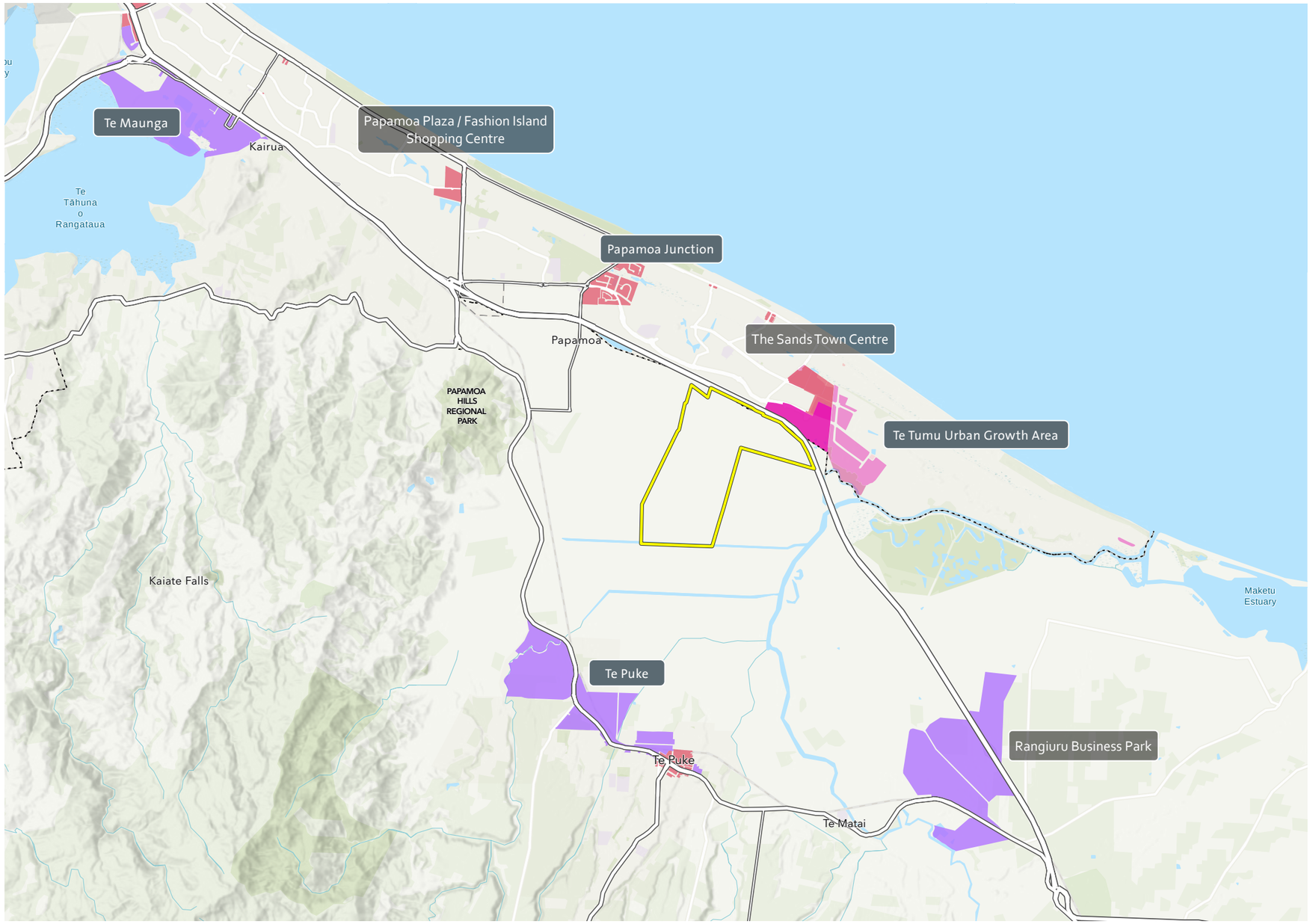
Site Area

Zones (Sands, Te Tumu)

- Town Centre Core (Wairakei)
- Local Centre
- Neighbourhood center
- Mixed Industry Business Area

Planning Zones Operative (TCC)

- Commercial Business
- Mixed Use
- Industry




**MAP DATA SET STATEMENT:**

Current zoning data sourced from Tauranga City Council and Western Bay of Plenty District Council via online GIS databases at gis.tauranga.govt.nz and map.westernbay.govt.nz

Indicative zoning for The Sands and Te Tumu sourced from RPS, TCC, SmartGrowth and Boffa Miskell planning studies



**DATA SOURCES:** Tauranga City Council, Western Bay of Plenty District Council, Ministry of Justice, Ministry of Primary Industries, Eagle Technology, LINZ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, GEOSPATIAL TEAM LEADER, TAURANGA CITY COUNCIL (GIS CUSTODIAN) AND SENIOR POLICY PLANNER, CITY PLANNING AND GROWTH, TAURANGACITY COUNCIL (TECHNICAL CUSTODIAN)

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# 3.8 WĀHI NOHO - RECREATION & RESIDENTIAL

## OPEN SPACE, RESERVE AND HOUSING ZONES

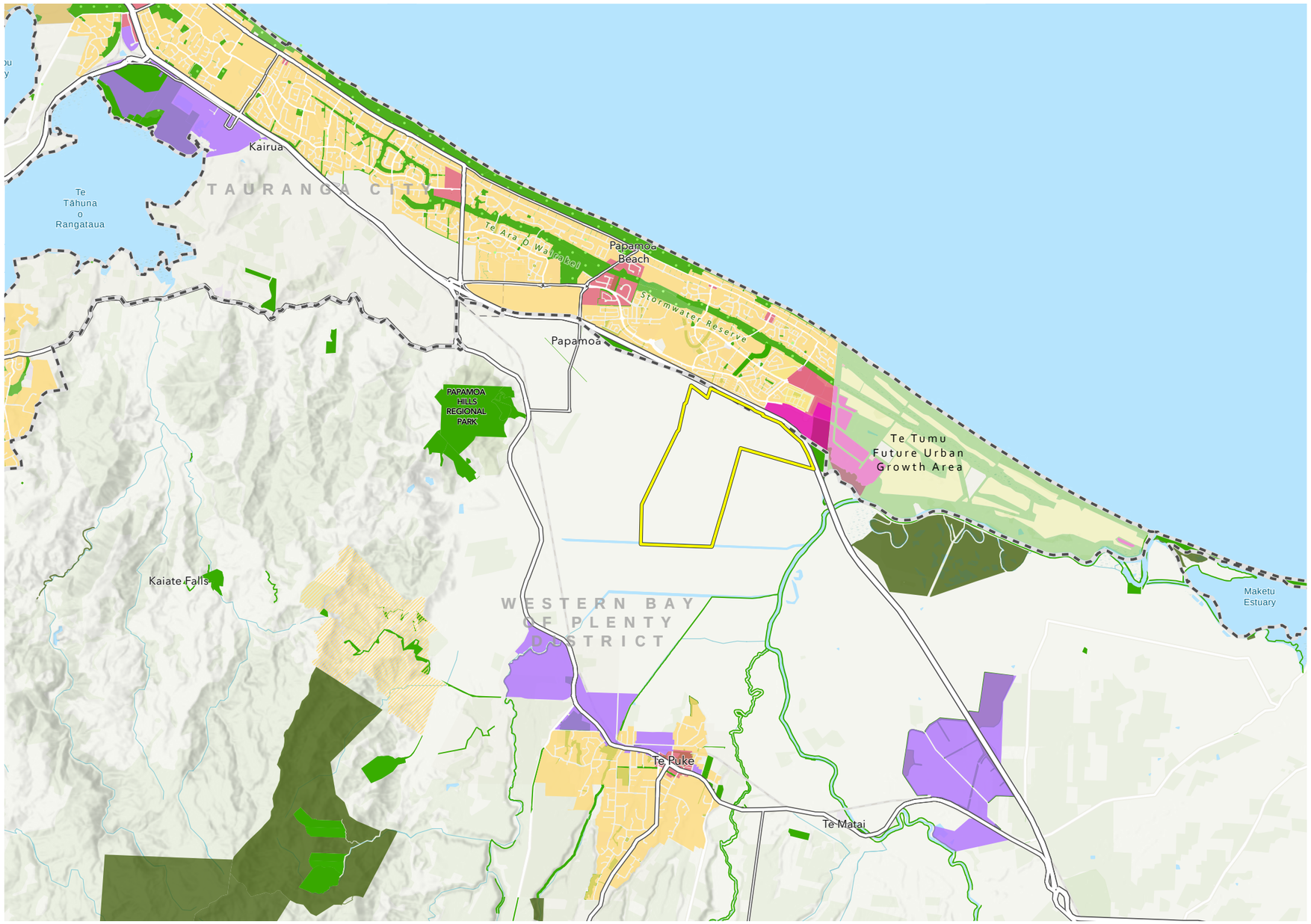


- Residential
- Rural / Lifestyle
- Reserve Area
- Public Conservation Areas
- Site Area

Description
- Commercial Business
- Mixed Use
- Industry

CS_PAR_ZON
- Commercial
- Industrial

Description
- Town Centre Core (Wairakei)
- Local Centre
- Neighbourhood center




**MAP DATA SET STATEMENT:**

Current zoning data sourced from Tauranga City Council and Western Bay of Plenty District Council via online GIS databases at gis.tauranga.govt.nz and map.westernbay.govt.nz

Indicative zoning for The Sands and Te Tumu sourced from RPS, TCC, SmartGrowth and Boffa Miskell planning studies



**DATA SOURCES:** Tauranga City Council, Western Bay of Plenty District Council, Ministry of Justice, Ministry of Primary Industries, Eagle Technology, LINZ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, GEOSPATIAL TEAM LEADER, TAURANGA CITY COUNCIL (GIS CUSTODIAN) AND SENIOR POLICY PLANNER, CITY PLANNING AND GROWTH, TAURANGACITY COUNCIL (TECHNICAL CUSTODIAN)

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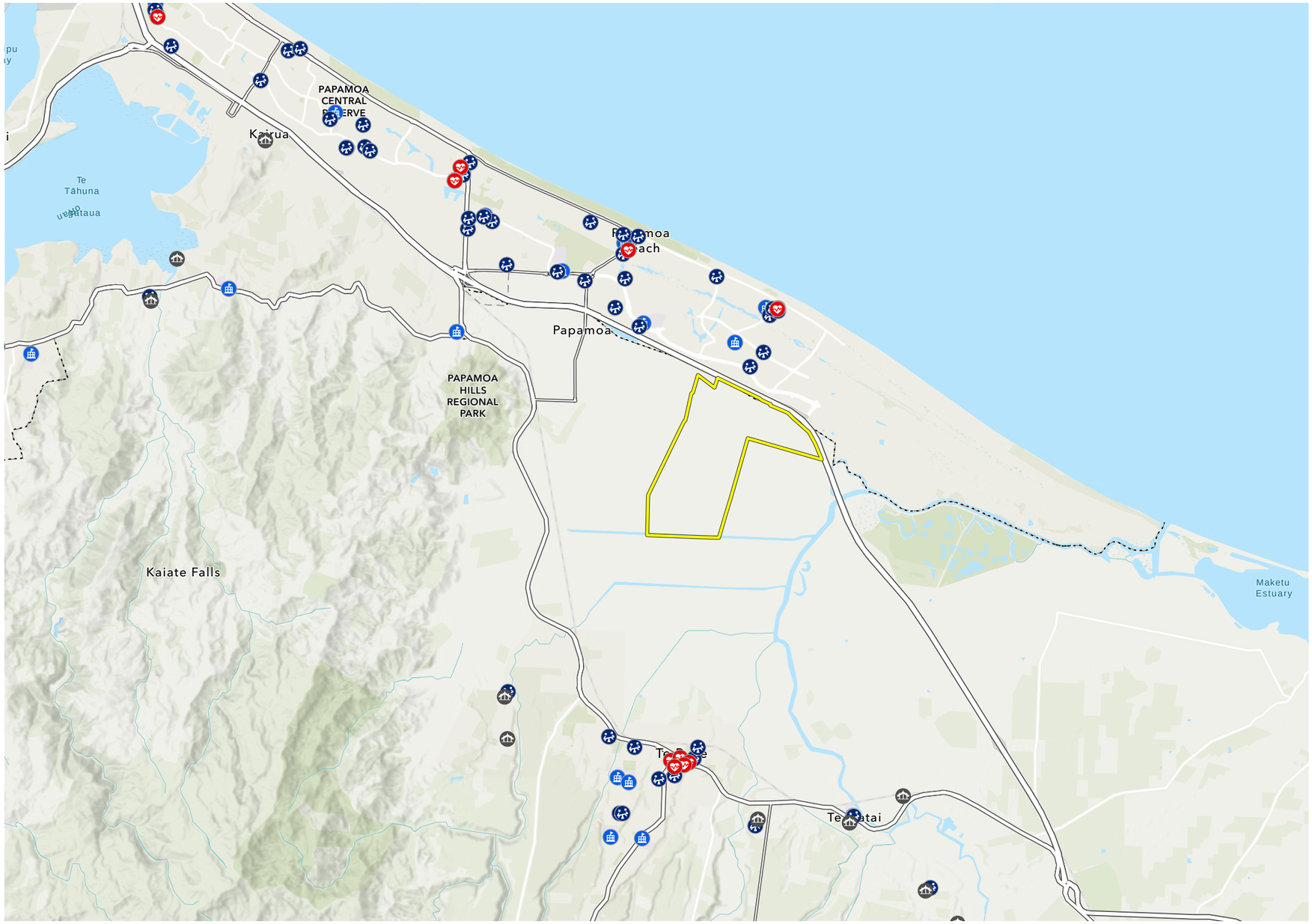
# 3.9 WHAKAORA - COMMUNITY INFRASTRUCTURE



## SOCIAL AND COMMUNITY INFRASTRUCTURE

- Site Area
- School
- Early Childhood
- Marae
- Medical




**MAP DATA SET STATEMENT:**

Hospital locations sourced from the Land Information New Zealand (LINZ) NZ Facilities spatial database

Medical facility locations sourced from Open Street Maps (OSM) online spatial database

Marae locations sourced the Bay of Plenty Regional Council online spatial database

Early Childhood and School locations sourced from Eagle Technology and Ministry of Education online spatial database



**DATA SOURCES:** Tauranga City Council, Western Bay of Plenty District Council, Ministry of Justice, Ministry of Primary Industries, © OpenStreetMap contributors, Eagle Technology, LINZ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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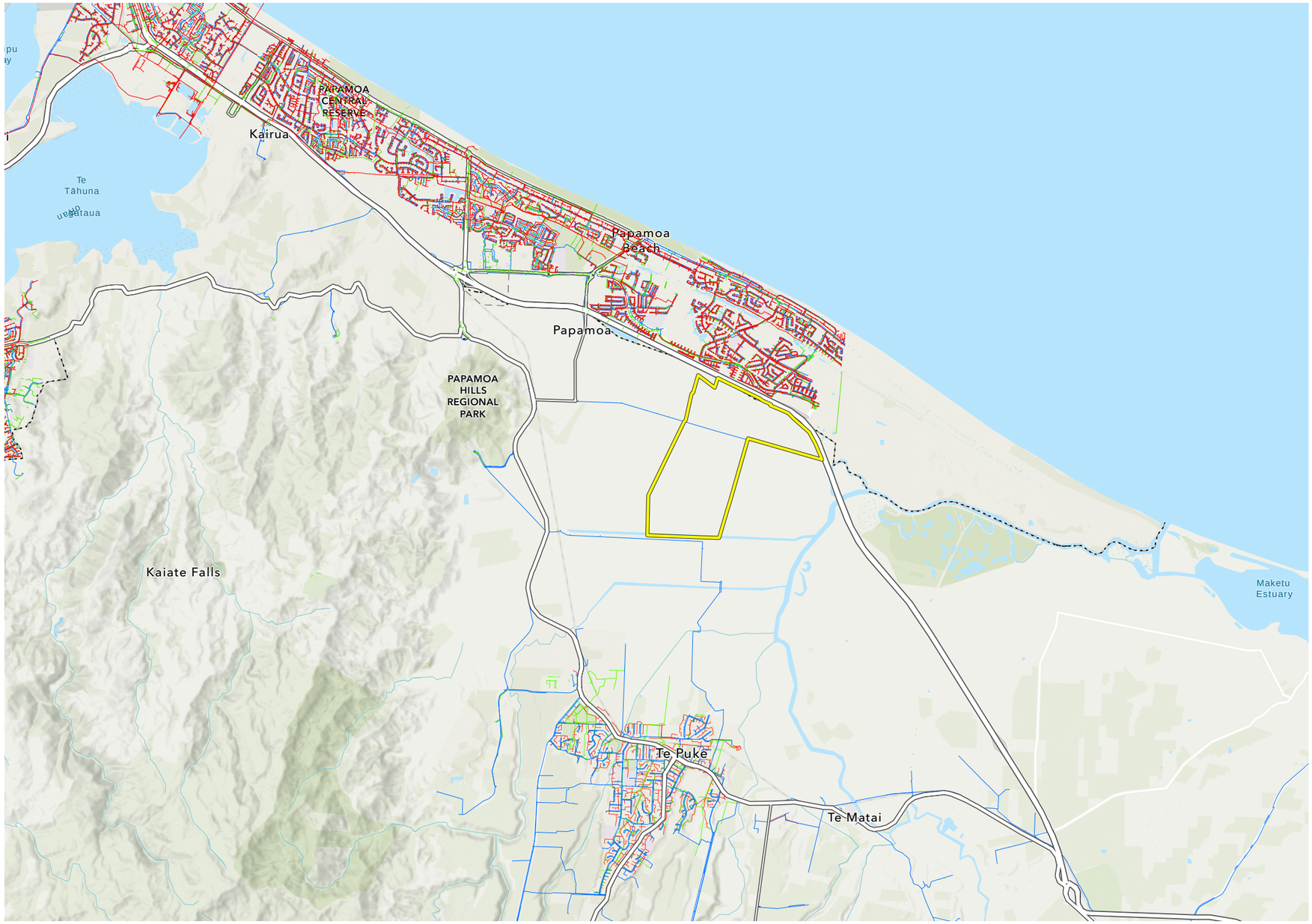
# 3.10 WAIORA - THREE WATERS



## THREE WATERS INFRASTRUCTURE

Site Area
Stormwater Pipe
Wastewater Pipe
Water Pipe




**MAP DATA SET STATEMENT:**

TCC three-waters data sourced from Watercare and the Tauranga City Council online spatial database

WBOPDC three-waters data sourced from the Western Bay of Pleny District Council.



**DATA SOURCES:** Tauranga City Council, Western Bay of Plenty District Council, Ministry of Justice, Ministry of Primary Industries, © OpenStreetMap contributors, Eagle Technology, LINZ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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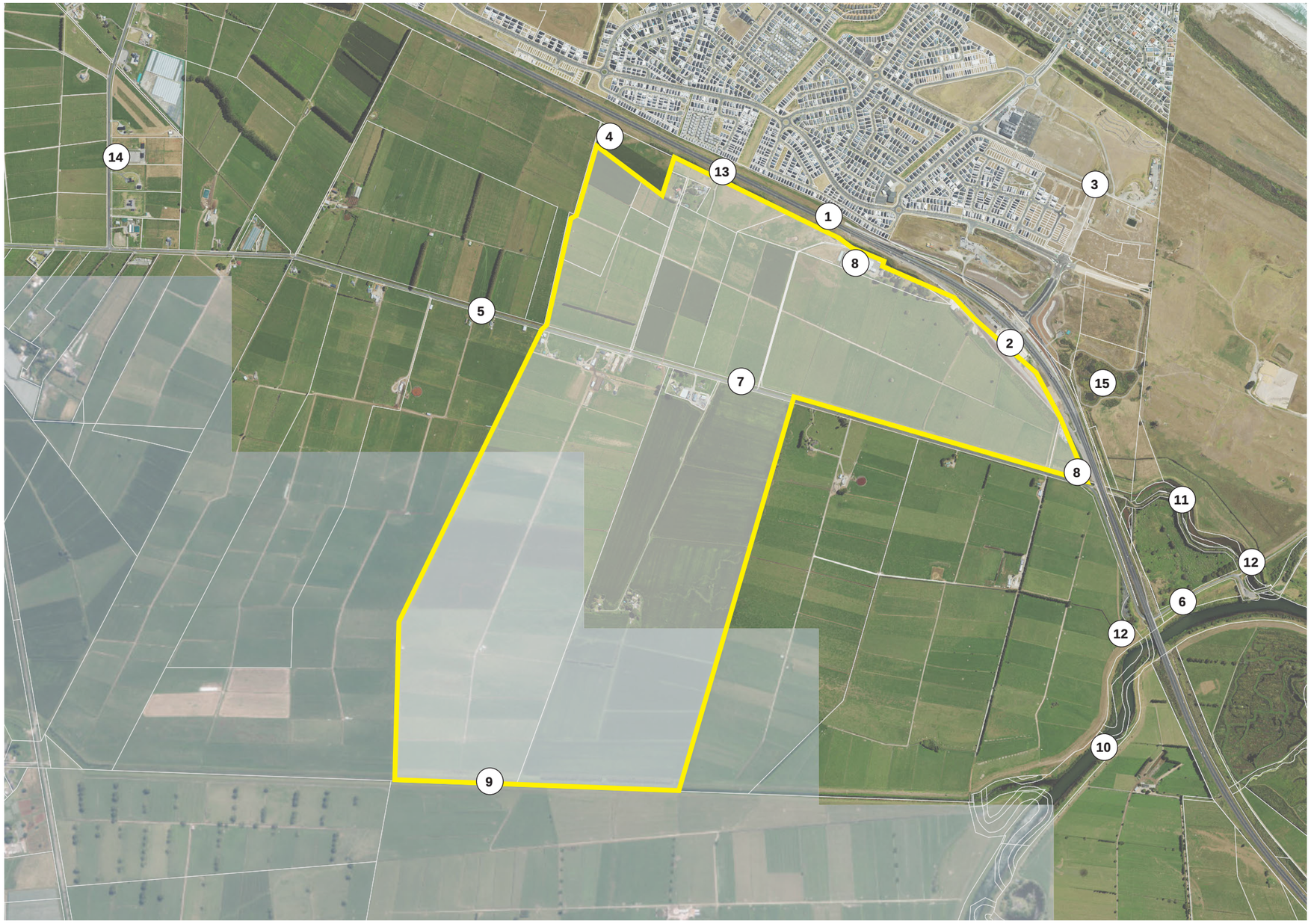
# 3.11 SITE CONTEXT - CURRENT



**KEY**

1. TAURANGA EASTERN LINK - Runs along northern boundary of Wairakei South site.
2. PAPAMOA EASTERN INTERCHANGE - Primary access to the Wairakei South Development Area.
3. THE SANDS TOWN CENTRE - Provides for employment commercial and recreation opportunities.
4. POWER SUB-STATION - Infrastructure outside of the Wairakei South Development Area to remain.
5. BELL ROAD WEST - Provides western access to Wairakei South Development Area, current main connection to Te Puke (via Te Puke Highway) and Papamoa (via Parton Road).
6. BELL ROAD EAST - Anticipated Future access to Te Tumu Urban Growth Area.
7. BELL ROAD DRAIN - Primary conveyor of upstream stormwater (west to east) along plains and will need to retain this function in some form.
8. BELL ROAD DRAIN CULVERT - Runs under the Tauranga Eastern Link
9. KOPUAROA CANAL - Primary conveyor of upstream stormwater (west to east) along plains and will need to retain this function in some form. Canal acts as southern extent of Wairakei South Development Area.
10. KAITUNA RIVER - Both Bell Road Drain & Kopuaroa Canal discharge to this.
11. OLD RIVER ALIGNMENT - Remnant section of the original Kaituna River alignment.
12. PUMP STATIONS - One pump station next to Bell Road on western side of TEL and two pump stations at Bell Road drain on eastern side.
13. CYCLEWAY ACCESS / UNDERPASS - Existing underpass under the Tauranga Eastern Link connecting north and south, providing for multi-modal transport opportunities
14. PARTON ROAD - Has overbridge to Tauranga Eastern Link which provides quick access to Papamoa Beach, Gordon Spratt Reserve, Papamoa College and other amenities / community facilities.
15. TEL CYCLEWAY / POND G - Currently accessed off Te Okuroa Drive through Pond G (Stormwater Treatment Wetland) and runs to Paengaroa and beyond. Soon to be accessed directly off Papamoa Eastern Interchange.



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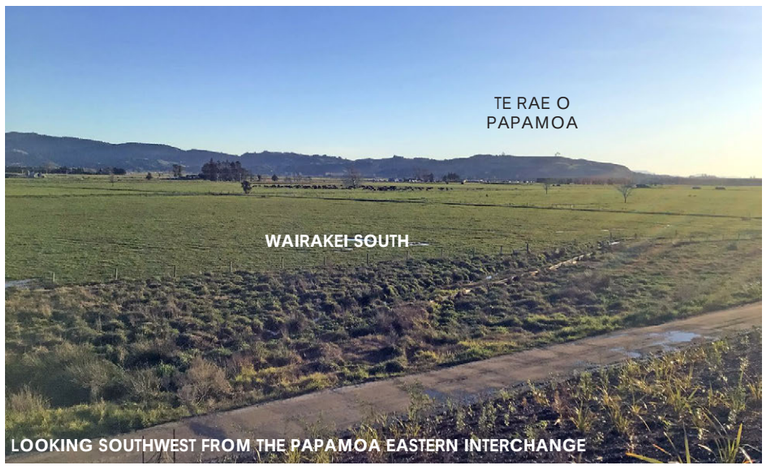
# 3.12 SITE CONTEXT - SITE PHOTOS



LOOKING NORTH FROM SITE TOWARDS COAST

LOOKING SOUTHWEST FROM THE PAPAMOA EASTERN INTERCHANGE


LOOKING SOUTH FROM BELL ROAD

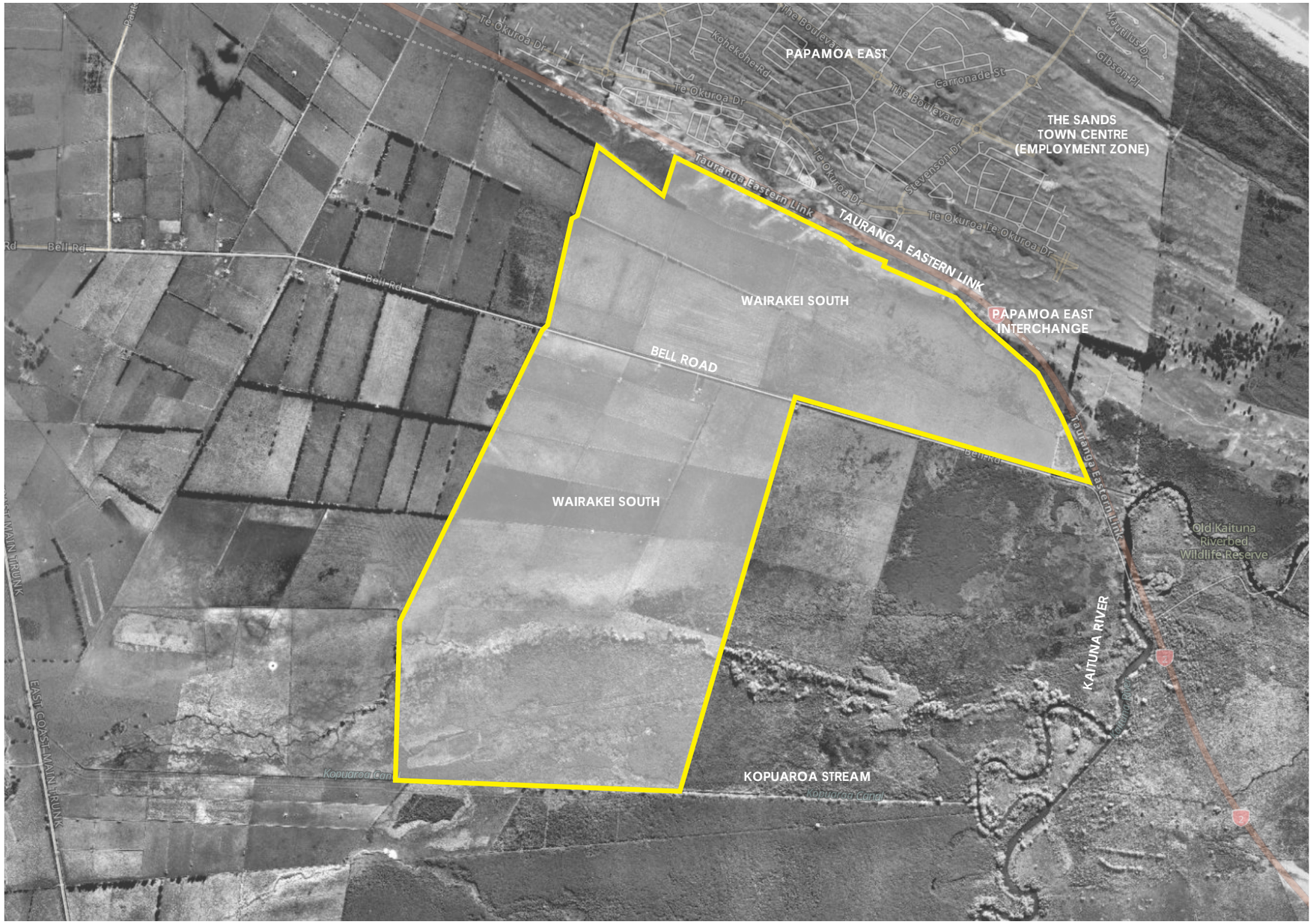
LOOKING WEST ALONG BELL ROAD

# 3.13 HISTORICAL AERIAL

**IMAGE CAPTURE DATE - CIRCA 1948**

**NOTES:**

- Clear evidence of modification of landform to the plains between Kopuaroa Stream and the coastal dunes formations.
- The historic aerial photo clearly shows the original alignment of the Kopuaroa Stream before it was fully channelised for farming practices to commence adjacent.
- The northern portion of the site is situated on the very back of the rear dunes natural formation.




**DATA SOURCES:** Eagle Technology, LINZ, StatsNZ, NIWA, Natural Earth, © OpenStreetMap contributors. Bay of Plenty Regional Council

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# 3.14 ELEVATION CONTEXT

**DATA CAPTURE DATE - CIRCA 2022**



Site Area

Elevation (m nzvd2016)

14.478

-0.89




**DATA SOURCES:** Eagle Technology, LINZ, StatsNZ, NIWA, Natural Earth, © OpenStreetMap contributors. Bay of Plenty Regional Council

0 600m

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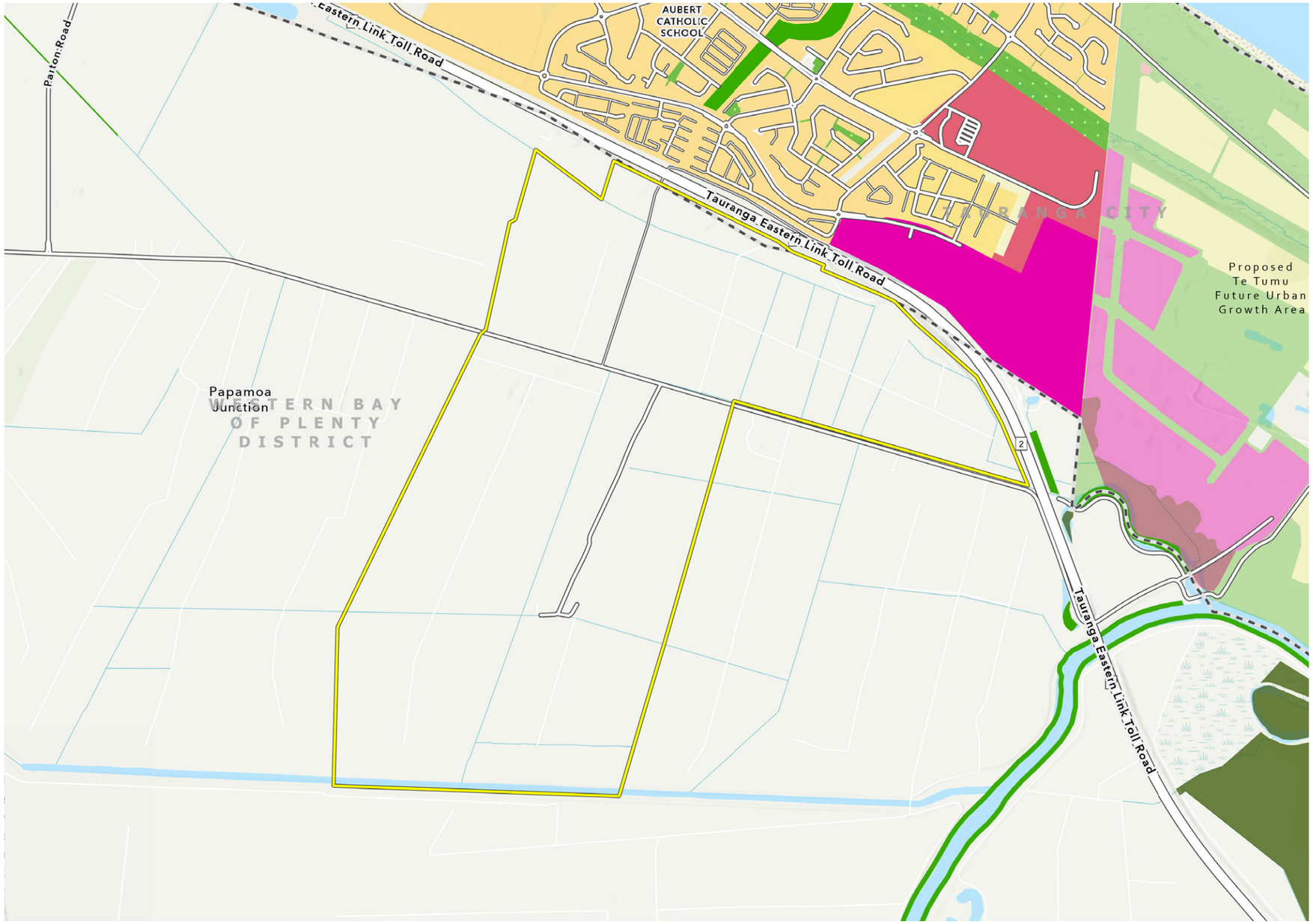
# 3.15 LANDUSE ZONING - CURRENT



- Site Area

Planning Zones Operative (TCC)

- Town Centre Core (Wairakei)
- Mixed Industry Business Area
- Rural
- Residential
- Rural / Lifestyle
- Reserve Area
- Public Conservation Areas






**DATA SOURCES:** Tauranga City Council, Western Bay of Plenty District Council, Ministry of Justice, Ministry of Primary Industries, Eagle Technology, LINZ, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, GEOSPATIAL TEAM LEADER, TAURANGA CITY COUNCIL (GIS CUSTODIAN) AND SENIOR POLICY PLANNER, CITY PLANNING AND GROWTH, TAURANGACITY COUNCIL (TECHNICAL CUSTODIAN)

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# 3.16 SITE CONTEXT - LANDSCAPE VALUES



*(Refer to Appendix K - Assessment of Landscape Effects, Boffa Miskell)*

## LANDSCAPE CHARACTER

The Site forms part of a landscape characterised as being part of the Kaituna Coastal Plains Landscape Unit No.1 in the Western Bay of Plenty Landscape Assessment "The Visual Landscape" (Boffa Miskell, 1993). The assessment notes:

*"Flat extensively drained wetland with grid pattern of canals. Generally, is dairy farming with some cropping and roadside stalls along State Highway. Contains Kaituna River and Maketu Estuary. Little mature vegetation apart from some shelter belts, remnant native trees and wetland willows and shrubland."*

*The visual quality rating is low due to the lack of coherence and intactness. The coastal edge area has a higher visual quality. Enhancers include the river mouth, estuary, remnant vegetation and visual openness. Detractors include the pattern and drainage and scrubby vegetation.*

*The unit has a moderate to high visibility due to the State Highway, openness and views from Maketu. Its ability to absorb change is low to moderate. Its overall visual sensitivity is moderate."*

The rural patterns of this landscape a striking contrast to that of the urban land use to the north of the TEL. Largely void of dwellings the Site and its surround drive a strong productive rural landscape.

The below image depicts a loose sketch of areas of the site that in my view can integrate a land use change whilst retaining the rural character. This focuses to:

- Red outlined area of the site – integrated as urban land use with strong treatments of the boundary margin interface with the current rural landuse.
- Retention of a natural or rural land use to the south of the green line area. The wider green line forms a larger rural pastoral plains landscape that forms distinctive character of the Te Puke and Papamoa Plains landscape.

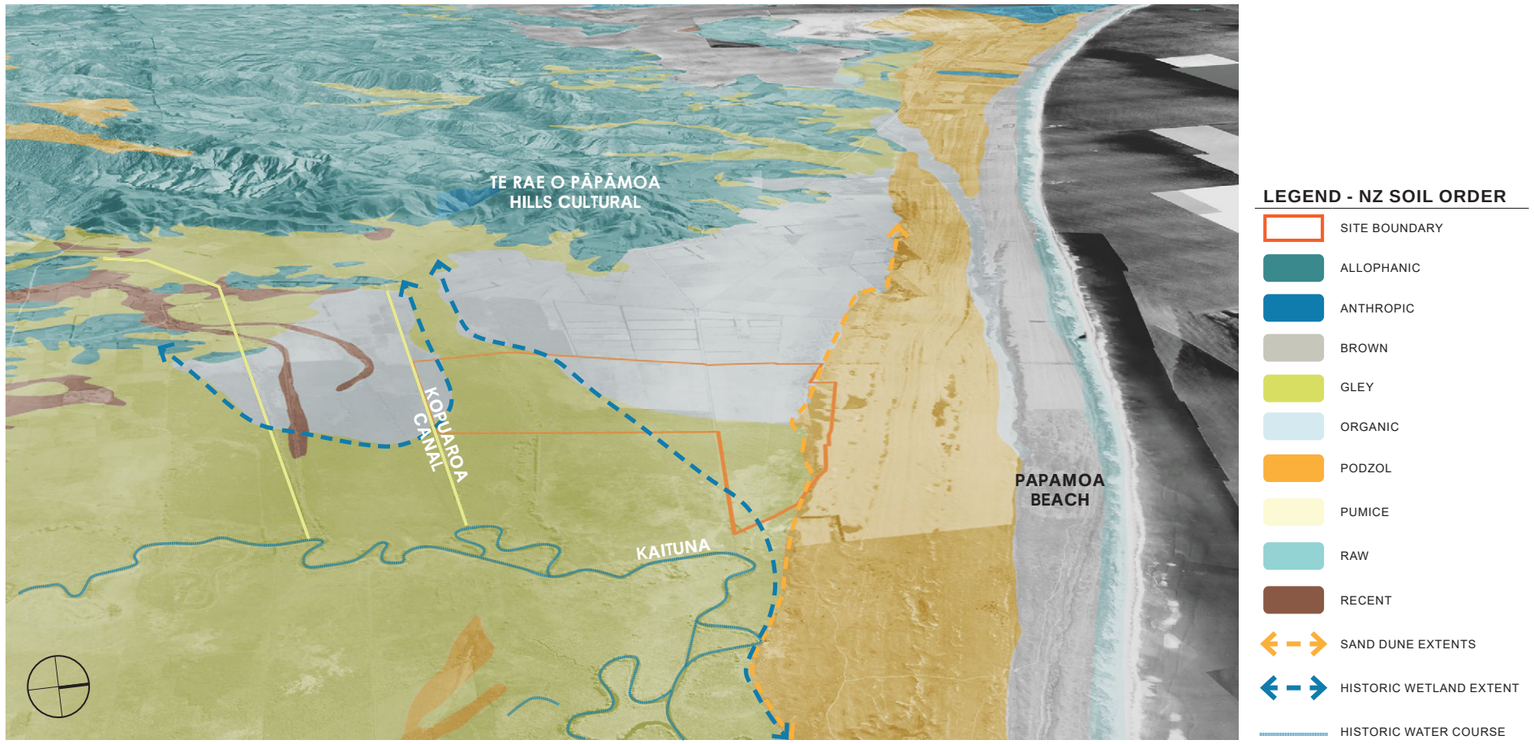



**Figure 1:** Landscape Character Indicators (Historic Aerial: 1942-12950 with soil classifications and historic landscape character features overlaid)

## RECOMMENDATIONS

They key landscape effects challenge resides in the ability to integrate the proposal into its surrounding rural landscape, assuming all land surrounding the site (at the time of consent) remains rural. Without a wider land use change, the effects on the rural landscape character, in my opinion, will be a critical factor in the matters of the landscape effects.

With this in mind the outcomes sought to address landscape character effects of the development comprise:

- Achievement of large rural canopy trees, a mixture of fast-growing exotic and native species to provide scale and character to the development that visually integrates it into the surrounding rural landscape.
- Vegetation cover in the southern stormwater treatment wetland that provides large groupings of canopy native lowland forest, remnant of the wetland and podocarp forest that dominated this landscape.
- Built form that avoids visual dominance in the landscape by way of colour, building branding methods, signage and spot lighting (illuminated signage) at the boundary interfaces.
- Building setbacks and height controls at boundary interface.
- The use of stormwater reserves for the provision of large canopy vegetation and building distancing from the boundary
- A subdivision form that provides a large stormwater and wetland area at the southern end reflecting the historical stream alignment and wetland patterning of this landscapes historical indigenous condition.
- Provide for building set backs along the western boundary of 20m for Part A and 70-100m for Part B to ensure residential subdivision lot boundaries and resulting built form is set back and sufficient area is provided for.
- Architectural design controls shall be applied to the industrial and commercial buildings.
- Preparation of a Landscape Mitigation Plan that directly identifies landscape measures relied upon for mitigation.
- Preparation of a Landscape and Ecological Management Plan which is in general accordance with the Landscape Mitigation Plan.
- Staging of landscape mitigation planting to occur at the time of establishment of each stormwater reserve, particularly those in the southern block that are completed several years prior to development occurring.
- Provision of a landscape planting programme which provides for successional planting to achieve landscape mitigation in 0-10years and long-term mitigation.
- Integration of cultural taonga species in collaboration with mana whenua.

# 3.17 SITE CONTEXT - ECOLOGICAL VALUES



*(Refer to Appendix L - Ecological Impact Assessment & Appendix M - Wetland Assessment, Ecological Solutions)*

## ECOLOGICAL CHARACTER - HISTORIC

Given the low-lying, flat topography of the area it was historically covered in swamp/fen according to the Manaaki Whenua Landcare Research database, OurEnvironment (Figure 2).

Vegetation coverage in these areas would have been native lowland forest canopy and tree groupings predominantly dominated with kahikatea, and extensive flax, sedges and grasses intermingled with meandering water courses leading from the hills to the south and west to the Kaitunar River to the east.

A contiguous system of sand dunes sits along the northern border of the site which acts as the natural boundary between coastal margin and inland lowlands.

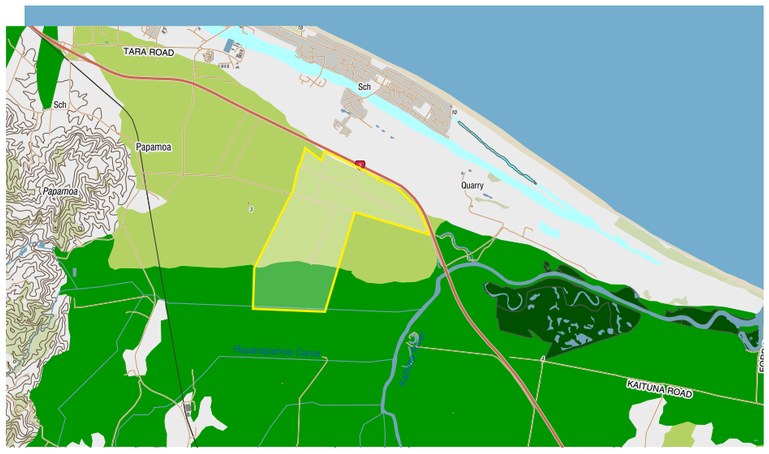



**Figure 2:** Map showing historic wetland type and extent within and surrounding the project site.
Dark Green = Swamp; Light Green = Fen; Yellow Polygon = Site Extent
*(Map sourced from OurEnvironment online database)*

## ECOLOGICAL CHARACTER - CURRENT

The site is located within the Tauranga Ecological District (McEwen 1987), which is situated in the Western Bay of Plenty Ecological Region. The ecological district is largely within the coastal bioclimatic zone, as only small portions of the district extend beyond c. 1 km from the coastal environment. Beyond the coastal zone, the rest of the ecological district (including the site) is in the semi-coastal bioclimatic zone.

The Site has been primarily used for intensive agriculture, specifically dairy stock grazing and maize crops both presently and historically.

The site contained largely low-lying flat topography within the historic Kaituna River floodplain bounded by rear dune sequence on the northern boundary. Vegetation was almost entirely exotic and comprised pasture, shelterbelts and paddock trees. The only indigenous vegetation was occasional cabbage trees (Cordyline australis) along the margins of farm drains and as paddock trees and sparse riparian planting of manuka (Leptospermum scoparium) and giant umbrella sedge (Cyperus ustulatus) along one drain.

The maize block (314 Bell Road) was largely devoid of vegetation due to recent harvesting and no sowing having yet occurred. This block had areas of rank grass along drains and shelterbelts along with occasional cabbage trees.


**Figure 3:** Map showing locations of vegetation types within the site - *Bell Road (Wairakei South) Ecological Impact Assessment, ecoLogical Solutions, December 2025*

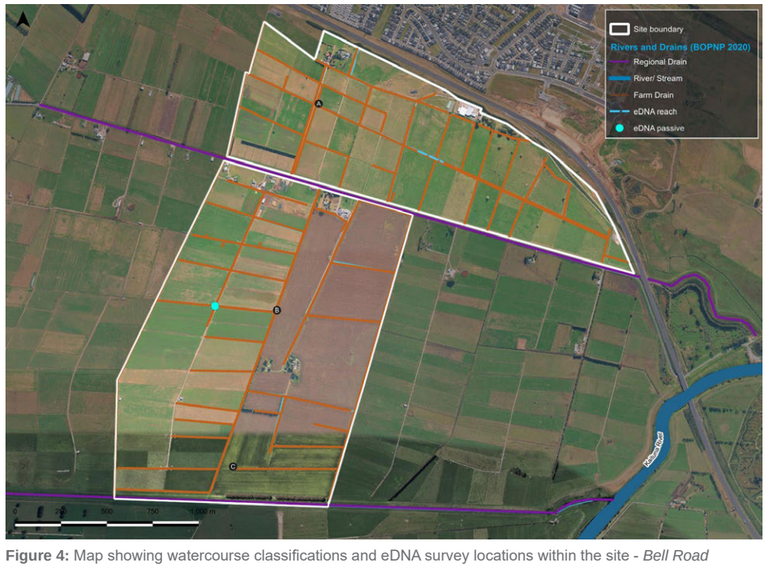



**Figure 4:** Map showing watercourse classifications and eDNA survey locations within the site - *Bell Road (Wairakei South) Ecological Impact Assessment, ecoLogical Solutions, December 2025*

## ECOLOGICAL VALUES

Overall, the ecological value of terrestrial ecological features on the Site range from 'negligible' to 'moderate', with freshwater ecological values within the Site and the receiving environment ranging from 'very low' to 'high'.

There were no wetlands identified within the Site; however, several BOPRC mapped wetlands are located outside the Site which have 'very high' ecological value. According to the BOPRC RPS criteria for indigenous vegetation and habitat of indigenous fauna of national importance the Site is not considered significant with regard to Section 6c of the Resource Management Act 1991 (RMA).

The ecological impacts attributable to the proposed development after the application of the effects management hierarchy, including specific ecological management measures outlined in ecological management plans for lizards, birds and bats are considered to be 'very low' to 'low' on terrestrial, freshwater and wetland ecological values, in accordance with the EIANZ impact assessment methodology.

The positive effects include the removal of intensive stock grazing and associated effluent from the landscape and the introduction of an effective stormwater management system ensuring improved water quality entering the lower Kaituna catchment. In addition, the proposed development includes c. 70 ha of wetland creation adding to the functional wetland inventory of the lower Kaituna, improving ecological connectivity and biodiversity at both the local and district scales and enhancing the overall capability of the site to deliver ecological services such as increased nutrient cycling, surface water filtration, and flood attenuation.

Consequently, no significant residual adverse effects are anticipated with a positive residual effect expected to be realised in terms of water quality and new wetland area as a result of the Wairākei South development.


**Figure 5:** Map showing BoPRC mapped wetlands outside the site - *Bell Road (Wairakei South) Ecological Impact Assessment, ecoLogical Solutions, December 2025*

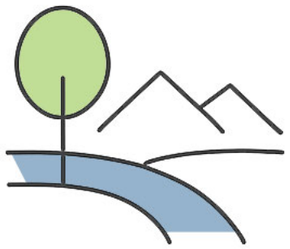
Boffa Miskell

# DESIGN FRAMEWORK

# 4.1 PROJECT DESIGN PRINCIPLES

We have developed project specific design principles fo Wairakei South that enable a site appropriate, healthy, resiliant and adaptable community, which also generally align with the the design principles outlined in the ***Ngā tohutohu hoahoa ā-motu mō te wharenoho mātoru-waenga: National Medium Density Design Guide.***

This approach ensures that the masterplan developed for Wairakei South aligns with the latest Central Government guidance, New Zealand urban design best practice and have strong local context.



### RESPECT THE WIDER LANDSCAPE

Design with empathy by recognising the social, cultural, and environmental context of each place.

Honour the whakapapa (genealogy, connections) of the land and community.

Ensure new development enhances, rather than disrupts, the wairua (spirit) and identity of its surroundings.

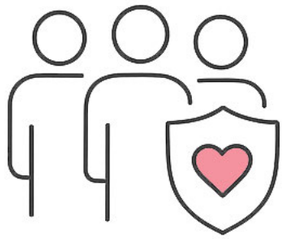
Improve the environment through considered development practices, such as water quality and biodiversity enhancements.

### IMPROVE HOUSING CHOICE & AVAILABILITY

Provide diverse housing options that reflect different life stages, whānau (family) structures, and income levels.

Balance affordability with quality, ensuring homes remain accessible over time.

Deliver housing at scale and at speed in locations that meet genuine community needs, strengthening inclusivity and resilience.



### BUILD HEALTHY, SAFE COMMUNITIES

Prioritise public spaces that foster social interaction, belonging, and community vitality.

Design environments that promote safety, comfort, and wellbeing for all residents.

Encourage active lifestyles and responsible social engagement through thoughtful planning.

### DESIGN SUSTAINABLE, INTEGRATED COMMUNITIES

Acknowledge and respond to the challenges of climate change.

Support resilient infrastructure that advances environmental sustainability and reduces long-term risks.

Strengthen connections between people, places, and services to improve social and economic outcomes.

### ENSURE ECONOMIC SUSTAINABILITY

Invest in housing and infrastructure that contribute to long-term economic stability.

Create interconnected communities that support local businesses, innovation, and employment opportunities.

Promote balanced regional growth so prosperity is shared equitably across communities.

# 4.2 URBAN DESIGN STRATEGY



The Wairakei South Development in the Bay of Plenty is envisioned as a well-connected, mixed-use urban area that integrates residential neighbourhoods, employment hubs, and light industrial activities into a cohesive and resilient community.

The strategy seeks to ensure that the development reflects and enhances its natural setting, contributing positively to local ecosystems and waterways while creating a distinctive sense of place.

## NZ URBAN DESIGN PROTOCOL (MFE 2005)

Identifies seven essential design qualities that help create a quality urban design outcome, which have informed the design of the Wairakei South Development. These urban design qualities are called the **Seven C's** and are listed below:

- Context
- Character
- Choice
- Connections
- Creativity
- Custodianship
- Collaboration

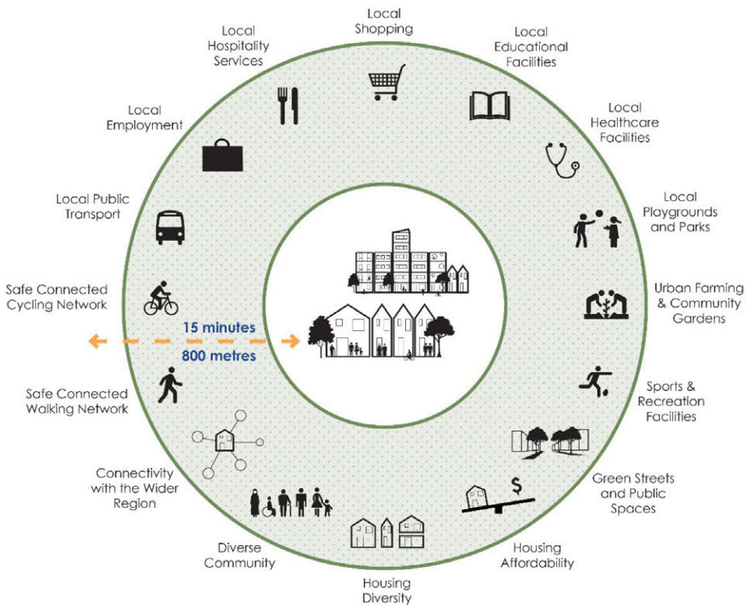
## VISION AND OBJECTIVES

Wairakei South aims to deliver a well-functioning urban environment that addresses the sub-region's critical housing and business land shortages while fostering economic growth and employment. The project's objectives centre on:

- Providing new housing and business land to meet regional demand
- Establishing a connected, high-quality urban environment with diverse land uses.
- Strengthening the local economy and employment opportunities
- Minimising natural hazard risk through innovative and sustainable design.
- Partnering collaboratively with Councils, NZTA, and Tāngata / Mana Whenua to achieve shared outcomes.
- Delivering cost-effective, developer-led infrastructure aligned with existing and planned networks.
- Creating ecological, cultural, and recreational benefits that leave a positive legacy for future generations.

## COMPLETE NEIGHBOURHOODS

The design of Wairakei South promotes the concept of Complete Neighbourhoods—compact, connected communities where residents can live, work, and play locally. The urban form prioritises walkability, cycling, and access to public transport, ensuring that daily needs are met within short distances and reducing reliance on private vehicles.




## RESIDENTIAL DESIGN OUTCOMES

Drawing on Western Bay of Plenty District Council's Residential Design Outcomes, the strategy supports:

- Respect for the natural landform and character of the site.
- Integrated mixed used development and land-use planning, ensuring effective use of land.
- High levels of private and public amenity with well-designed streets and open spaces.
- A people-centred approach to design, fostering liveability and social connection.
- Quality housing at appropriate densities (20+ dwellings per hectare) and diverse housing types.
- Enhanced liveability through optimal site layout, sunlight access, and privacy.
- Minimized environmental impacts and improved visual amenity.

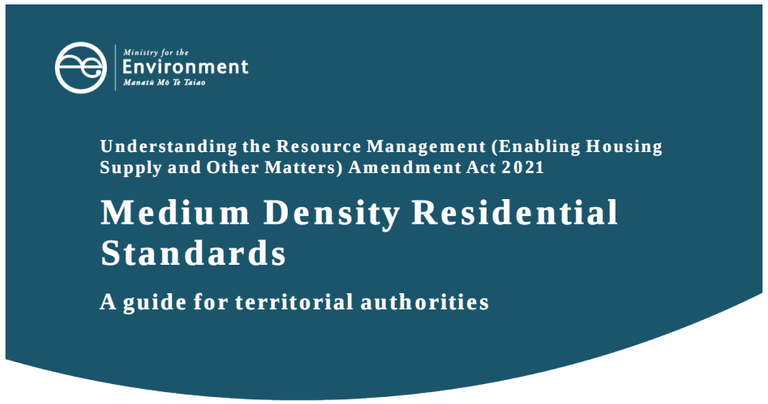
## ALIGNMENT AND LEGACY

By aligning with Council policy, regional direction, and national best practice in urban design, Wairakei South will deliver a sustainable, inclusive, and future-focused community.

The project balances environmental guardianship, cultural partnership, and economic opportunity—creating a model development that strengthens the Bay of Plenty's urban fabric, provides a solution for the immediate housing shortfall, creates significant regional employment opportunities and supports future generations.

# 4.3 DESIGN PROVISIONS - HOUSING






The Medium Density Residential Standards (MDRS), introduced under the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021, are mandatory for all Tier 1 territorial authorities and some Tier 2 authorities.

## PLAN CHANGE 33

Tauranga City was mandated to implement the MDRS and the NPS-UD through a plan change.

This plan change, “Enabling Housing Supply”, was notified in August 2022 and became operative on March 17, 2025 after Council decisions on recommendations from the Independent Hearing Panel.

## PLAN CHANGE 92 – TE PUKE & ŌMOKOROA

Within the Western Bay the MDRS have only been applied in Te Puke and Ōmokoroa as they are the only towns that fit the brief for central government’s new law, as towns with an existing population of 5,000 or more (at the 2018 census) and/or a population that is planned to be 10,000 or more people.

Notified 20 Aug 2022; MDRS took immediate legal effect for residential zones in Te Puke and Ōmokoroa

Subdivision rules under the MDRS became operative on 21 Mar 2024


## HOW THIS APPLIES TO WAIRAKEI SOUTH

The site is located within Western Bay of Plenty District, just north of Te Puke (Identified by council as a town where MDRS are to apply) and sits directly adjacent the current Tauranga City Limits (where MDRS applies across the whole city), therefore we are applying the MDRS to the Wairakei South development.

Lot / housing typoloigies have been developed for Wairakei South that align with the nine rules set out in the MDRS. The development is proposing a range of housing options to provide choice and flexibility to meet changing needs of the community now and in the future as illustrated in the below table:

| LOT TYPOLOGY | LOT SIZE | LOT AREA | DWELLING SIZE |
|---|---|---|---|
| **Typology A - Duplexes** | 9x25m | 225m2 | 110 - 200m2 (over two floors) |
| **Typology B - Standalone** | 12x25m | 300m2 | 150 - 250m2 (over two floors) |
| **Typology C - Standalone** | 15x25m | 375m2 | 200 - 300m2 (over two floors) |
| **Typology D - Standalone** | 18x25m | 450m2 | 225 - 350m2 (over two floors) |

More detail on these Lot typologies and associated MDRS housing extents shown indicitavely within these are illustrated on the following pages.

# 4.4 LOT TYPOLOGY A - DUPLEXES

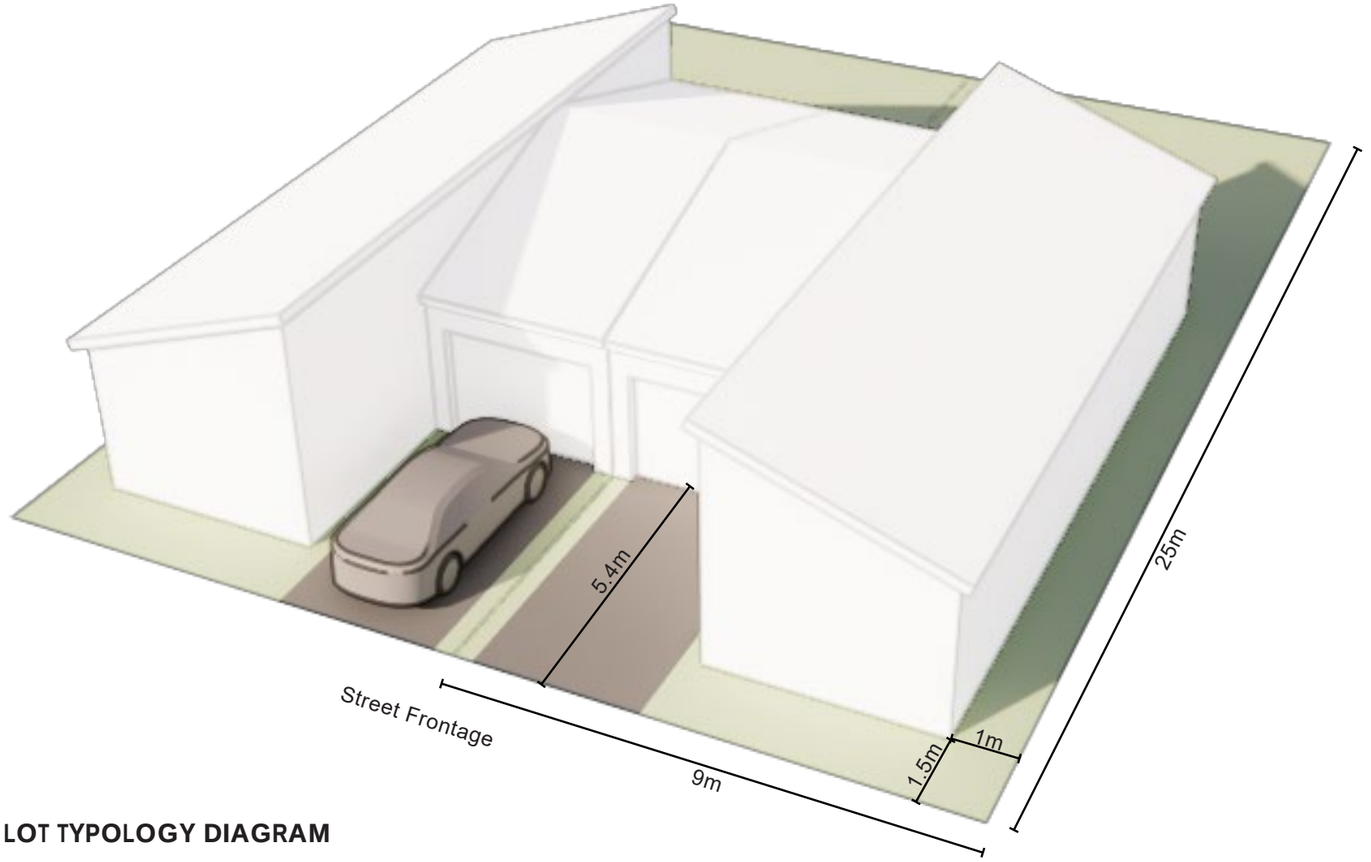
| LOT DIMENSIONS | LOT AREA | DWELLING SIZE (MAX) |
|---|---|---|
| 9x25m | 225m2 | 110-200m2<br>(over 2 floors) |

**MDRZ RULES:**

- Building Height - Maximum 11 meters + 1 meter for a pitched roof
- Building height in relation to boundary - Maximum 4 meters + 60° recession plane
- Side Yard - 1m minimum
- Rear Yard - 1m minimum
- Outdoor living space per unit - Ground floor: minimum 20m² with 3-meter minimum dimension
- Outdoor living space per unit - Above ground: minimum 8m² with 1.8-meter minimum dimension
- Building Coverage - Max 50% of site

**ARCHITECTURAL DESCRIPTION:**

- 2-4 bedrooms
- Single or double story
- Single garage (optional)




**LOT TYPOLOGY DIAGRAM**

Indicative lot / house layout with nominal boundary sizes and boundary offset dimensions shown.

# 4.5 LOT TYPOLOGY B - STAND ALONE HOUSE

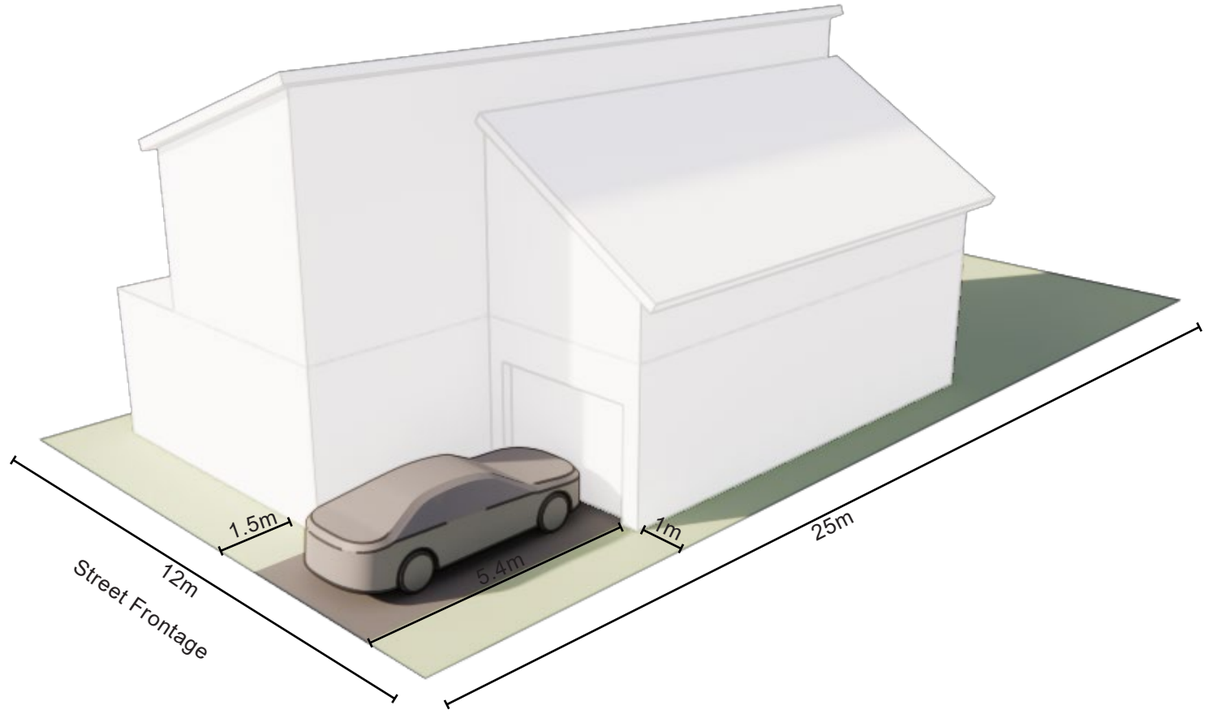
| LOT DIMENSIONS | LOT AREA | DWELLING SIZE (MAX) |
|---|---|---|
| 12x25m | 300m2 | 150-250m2<br>(over 2 floors) |

**MDRZ RULES:**

- Building Height - Maximum 11 meters + 1 meter for a pitched roof
- Building height in relation to boundary - Maximum 4 meters + 60° recession plane
- Side Yard - 1m minimum
- Rear Yard - 1m minimum
- Outdoor living space per unit - Ground floor: minimum 20m² with 3-meter minimum dimension
- Building Coverage - Max 50% of site

**ARCHITECTURAL DESCRIPTION:**

- 2-4 bedrooms
- Single or double story
- Single garage




**LOT TYPOLOGY DIAGRAM**

Indicative lot / house layout with nominal boundary sizes and boundary offset dimensions shown.

# 4.6 LOT TYPOLOGY C - STAND ALONE HOUSE

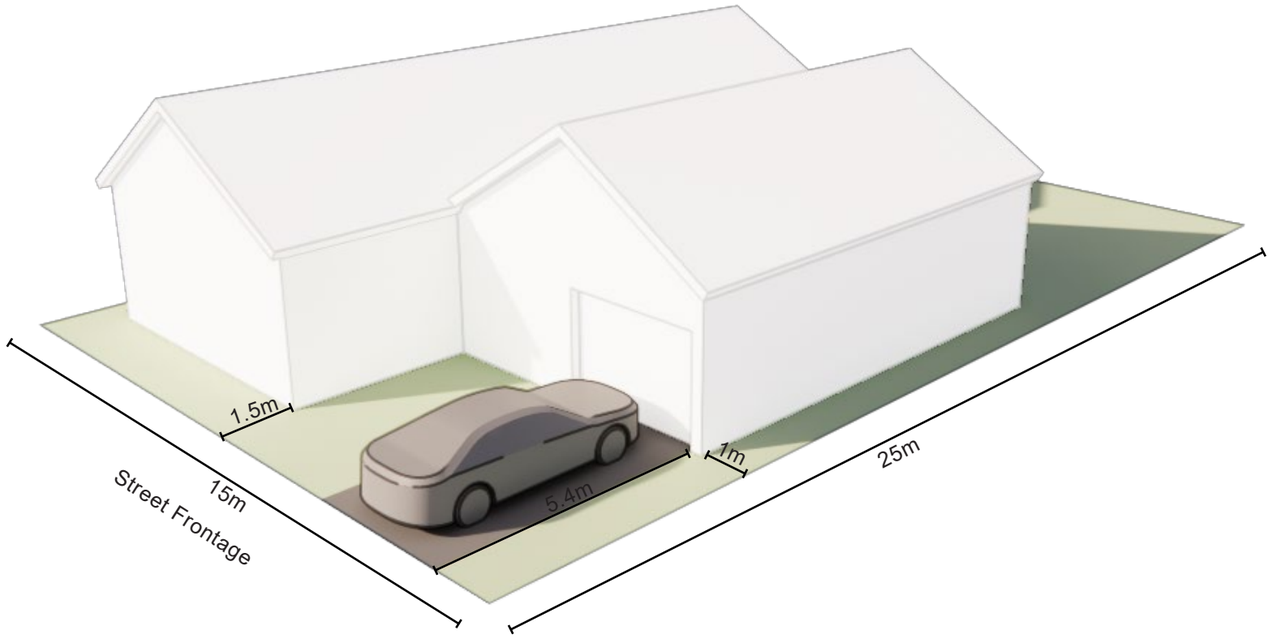
| LOT DIMENSIONS | LOT AREA | DWELLING SIZE (MAX) |
|---|---|---|
| 15x25m | 375m2 | 200-300m2<br>(over 2 floors) |

**MDRZ RULES:**

- Building Height - Maximum 11 meters + 1 meter for a pitched roof
- Building height in relation to boundary - Maximum 4 meters + 60° recession plane
- Side Yard - 1m minimum
- Rear Yard - 1m minimum
- Outdoor living space per unit - Ground floor: minimum 20m² with 3-meter minimum dimension
- Building Coverage - Max 50% of site

**ARCHITECTURAL DESCRIPTION:**

- 2-4 bedrooms
- Single or double story
- Single garage




**LOT TYPOLOGY DIAGRAM**

Indicative lot / house layout with nominal boundary sizes and boundary offset dimensions shown.

# 4.7 LOT TYPOLOGY D - STAND ALONE HOUSE



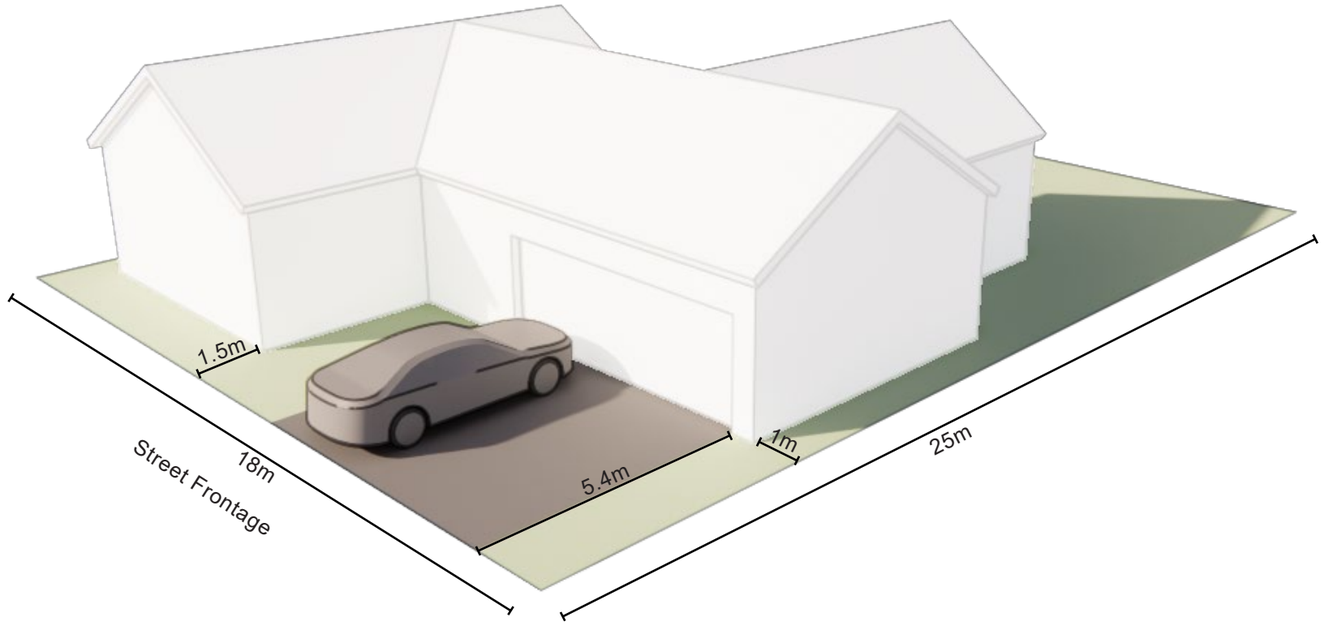
| LOT DIMENSIONS | LOT AREA | DWELLING SIZE (MAX) |
|---|---|---|
| 18x25m | 450m2 | 225-350m2<br>(over 2 floors) |

**MDRZ RULES:**

- Building Height - Maximum 11 meters + 1 meter for a pitched roof
- Building height in relation to boundary - Maximum 4 meters + 60° recession plane
- Side Yard - 1m minimum
- Rear Yard - 1m minimum
- Outdoor living space per unit - Ground floor: minimum 20m² with 3-meter minimum dimension
- Building Coverage - Max 50% of site

**ARCHITECTURAL DESCRIPTION:**

- 2-4 bedrooms
- Single or double story
- Single or double garage
- Intergenerational homes




**LOT TYPOLOGY DIAGRAM**

Indicative lot / house layout with nominal boundary sizes and boundary offset dimensions shown.

# 4.8 DESIGN PROVISIONS - STORMWATER NETWORK

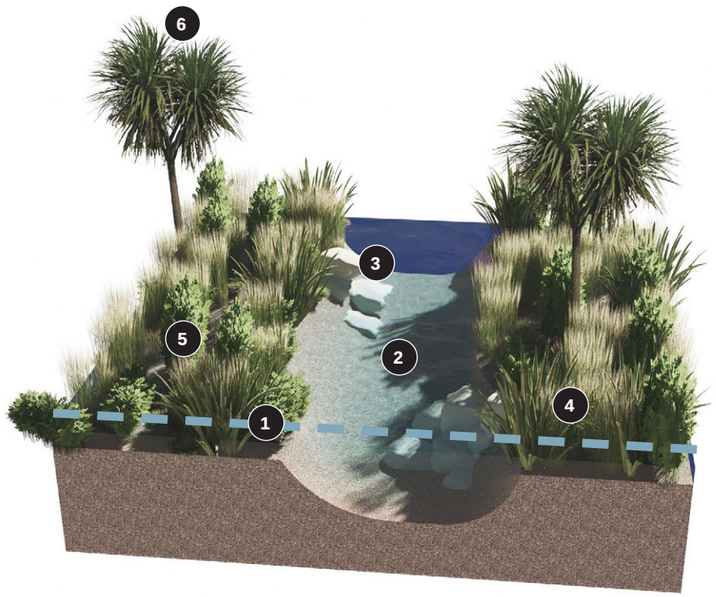


## STORMWATER CONVEYANCE NETWORK

The extensive stormwater conveyance network throughout the development are to act as movement corridors for freshwater, ecology, habitat and residents alike and to follow the following design criteria to inform the design in latter stages of the project and ensure key performance outcomes are met:

- Low flow channels to run along the base of each swale corridor, with meandering alignment and varied form and size to channel profiles.
- Low flow channels and other water bodies will have their edges planted as a minimum requirement, with extensive planting to other areas where able to do so. If suitable, the channels themselves will have wetland plants within the water bodies to provide treatment for improved water quality and habitat for aquatic wildlife.
- Where the RL of the swale floor is <300mm above the RL of the water table, they will be fully planted with suitable wetland species that allow for stormwater to still flow through but minimises maintenance due to impracticalities of mowing these areas with having elevated water saturation levels within the soil structure.
- Slopes steeper than 1:3 will be fully planted as they are not suitable for mowing.
- Trees with large scale canopy structure will be planted in clusters throughout the stormwater network to provide shading of water bodies, habitat for birdlife, structure to the vegetation framework and general shade, scale and amenity for residents moving through and recreating within the corridors.
- There will be a shared pathway network throughout the stormwater corridors that serve dual purpose as community movement infrastructure and maintenance access for council staff.
- The pathway network will sit above the 50-year event stormwater flood level to ensure they are usable most of the time as legitimate multi-modal movement corridors.
- Where suitable to do so there will be areas for general open space for residents to recreate and socialise in placed throughout the network.
- Cultural expression and opportunities for mana whenua to influence cultural storytelling and placement will be included throughout the stormwater network.


**Indicative low flow channel diagram**




**KEY**

1. Indicative surface water level
2. Meandering channels with varied profiles to create variety of habitat for native aquifauna
3. Shallow marsh planting with larger species planted along the edge to create overhang / shading
4. Large rocks and logs placed within areas of the lowflow channel (at edges) to create variety in habitat and resting spaces for native fish and insects
5. Reed species selected to support native fish spawning habitat
6. Clusters of trees placed to create shading and provide bird habitat


## STORMWATER WETLANDS

- The stormwater wetlands located to the east and south of the development areas have a primary function of attenuating and treating stormwater, but they are also designed to provide wider, ecological, biodiversity and recreation opportunities. The following design criteria are to inform the design in latter stages of the project and ensure key performance outcomes are met:
- Low flow channels will run throughout each wetland, with meandering alignment and varied form and size to channel profiles, plus deep pools providing areas of open water for managing sediment settlement and enabling waterfowl to better interact with the wetland.
- The wetland will consist of areas of shallow and deep marsh with suitable wetland species (rushes and sedges) installed to treat the water and provide habitat for invertebrates, aquatic wildlife and birds.
- Trees with large scale canopy structure and riparian shrub species will be planted in clusters throughout the wetland by way of islands within and surrounding the treatment wetland / pond area to provide shading of water bodies, habitat for birdlife, vertical scale and form and increase the biodiversity of the wetland.
- Old logs and tree stumps discovered in the site excavation works will be repurposed into the wetland area to act as natural fish and lizard habitat, and bird perching structures. Any logs that are suitable for carving should be offered to local iwi to utilise.
- Vegetate all areas where there is heavily waterlogged soils and grass isn't likely to perform.
- There will be a shared pathway network throughout the stormwater wetlands that serve dual purpose as community movement corridors and maintenance access for council staff.
- Where suitable to do so there will be areas for general open space for residents to recreate and socialise in placed throughout the network.
- Cultural expression and opportunities for mana whenua to influence cultural storytelling and placement will be included throughout the stormwater network.

# 4.9 DESIGN PROVISIONS - TRANSPORT

*(Refer to Appendix I - Integrated Transport Assessment, Boffa Miskell)*

## TRANSPORT NETWORK APPROACH

Traffic and transportation considerations are central to this project. Wairakei South is strategically located immediately adjacent to the Papamoa East Interchange (PEI) on State Highway 2 (Tauranga Eastern Link). This provides a direct multi-modal gateway to both the Tauranga and Western Bay of Plenty (via Bell Road) urban areas, the Port of Tauranga, and the wider Bay of Plenty sub-region.

Transport infrastructure is planned in a way that makes effective use of road corridor space to optimise efficient land development and regional economic contributions. Planning for the transport network intends to create a high degree of accessibility and liveability through a well-functioning, connected, multi-modal system, consistent with the mode shift and carbon reduction outcomes sought for the eastern corridor.

## LAND USE AND TRANSPORT INTEGRATION

A comprehensive approach has been taken through application of the Regional Transport Model to provide for a well-integrated land use and transport planned environment.

Within the site, local neighbourhood centres are strategically located to support local servicing, shorter trip making and an increased proportion of non-vehicular mode travel.

A multi-modal transport approach, supporting the regional mode shift and accessibility outcomes has strongly influenced the connections and movement networks planned for the Wairakei South. The whole of the planned area will be within the Regionally Accessible Catchment range for optimised public transport outcomes, which sets out a target of 70% of dwellings in Tauranga and Rotorua urban areas are within 500m of frequent public transport services by 2030.

Strong integration has been built into the arterial road corridor including separated bi-directional cycleways providing continuity with the Wairakei and future planned Te Tumu neighbourhoods. The arterial corridor incorporates bus-priority measures within the signalised intersections providing for mode priority outcomes. Cross corridor connectivity is enabled by way of signal-controlled pedestrian and cycle crossing places.

The collector road corridors will be established with safely staged pedestrian/cycle crossing places located to support safe and efficient off-road network movement for pedestrian and cycle movements. The local road environments incorporate localised speed traffic management with safe crossing places to further extend first and last-mile movement and service integration into the communities. A wide multi-modal movement network of off-road, shared, and prioritised paths and roads are to be established to align with regional and reduced emissions outcomes.

## ROAD HIERARCHY

The development area has been designed to integrate with the strategic road network hierarchy defined by both the Western Bay of Plenty and Tauranga City Council District Plans. The internal roading hierarchy extends the Secondary Arterial corridor of The Sands Avenue across the PEI and through into Wairakei South providing safe and efficient distribution within the living and working employment areas of the site. It is also provisioned to link with a future Te Puke spatial planned environment where that opportunity is intended to be taken advantage of.

The collector road network is established to support a range of potential future public transport servicing options and further provides for safe multi-modal transport accessibility within both the employment and living environments.

Lower-order, and local living and working environment corridors appropriately connect with the collector corridors and provide for safe and locally accessible environments.

A complete list of all roads proposed within the Wairakei South transport hierarchy are outlined in the below table, and cross section illustrations on the following pages.


**Road Hierarchy Classification Table:**

| CLASSIFICATION | ROAD RESERVE WIDTH (M) | CARRIAGEWAY WIDTH INCLUDING PARKING (M) | PUBLIC / PRIVATE | MAX GRADE (%) | UNITS SERVICED (INCLUSIVE) | INDICATIVE SPEED LIMIT (KM/H) | PRINCIPAL FUNCTION |
|---|---|---|---|---|---|---|---|
| **Secondary Arterial** | 36 | 23.4 | Public | 10 | Any | Up to 60 | Through movement, limited access |
| **Collector Road (Industrial)** | 25 | 16 | Public | 10 | Any | Up to 50 | |
| **Collector Road (Residential)** | 25 | 14.5 | Public | 10 | Any | Up to 50 | Connectivity between local and secondary arterial and property access |
| **Collector Road - Bell Road West (Mid-block)** | 25 | 10 | Public | 10 | Any | Up to 60 | Rural cross section transport network distribution, no direct access |
| **Collector Road - Bell Road Central (Mid-block)** | 25 | 11.5 | Public | 10 | Any | Up to 60 | Rural cross section transport network distribution, no direct access |
| **Collector Road - Bell Road East (Mid-block)** | 25 | 12 | Public | 10 | Any | Up to 60 | Rural cross section transport network distribution, no direct access |
| **Industrial Reserve Edge** | 20 | 15.5 | Public | 10 | Any | 40 | Local transport network distribution and accessibility |
| **Primary Residential** | 20 | 12 | Public | 10 | Any | 40 | Local access, some minor through function |
| **Secondary Residential** | 18 | 10.1 | Public | 10 | <300 | 40 | Primary residential access |
| **Minor Residential** | 12 | 7.7 | Public | 12 | <50 | 40 | Local access |
| **Access Lane** | 9 | 5.5 | Private | 20 | <20 | 10 | Shared street, multi-modal |

# 4.10 DESIGN PROVISIONS - RECREATION & OPEN SPACE

## RESERVE MANAGEMENT PLAN - DISTRICT-WIDE RESERVE MANAGEMENT INFORMATION

*Reserve design provisions, level of service and performance outcomes have been workshopped with and supported by Western Bay of Plenty District Council as part of engagement process*

The network of open space, recreation and community facilities is a network that integrates public and private spaces and places. Successful networks integrate public, semi private and private open space alongside public and private places, including commercial activity. Creation of a symbiotic relationship between all of these spaces increases well being for communities and businesses alike.

Planning a network for public open space must take into account the necessary provisions for successful open space networks whilst also leveraging and integrating private and semi-private open space and facilities. Co-location of facilities and a boundaryless approach to supporting the network is essential for thriving communities.

Diversifying the types of open space and their functions is important to the increase in population density anticipated under medium density housing provisions.

The current policy and national direction anticipates that reserves should be multi functional spaces that provide for and include design for connectivity, access, visibility in the community, identity, wellbeing, public use and participation, ecology, vegetation, and be adaptable spaces.

The function of open space in medium density developments needs to assist in replacing the loss of the private back yards as a result of the increased density. Places for groups to gather, garden, exercise, relax, play informally, picnic / BBQ form key functions for open space and the supporting of a well functioning and healthy urban environment.

Similarly the placement of community facilities also need to be accessible and multifunctional. Gathering hubs for the community need to integrate with other amenities, including commercial activities.

The loss of the back yard places equal pressure on the streets and reserves to provide and support biodiversity for flora and fauna. This requires suitable space that can support large canopy cover, sufficient space for native fauna habitat and provide corridors.


## DISTRICT-WIDE RESERVE MANAGEMENT OBJECTIVES AND POLICIES

Western Bay of Plenty District Council has a District-wide reserve managment information document that sets out the different categories of reserve and the overall direction for daily management and potential development of new reserves across the District.

Set out below are the high level strategic documents that guide the recreation and open space provision and management across the Western Bay of Plenty District that are relevant to the Wairakei South development.

### LTP - SECTION 3: ACTIVITIES - RECREATION & OPEN SPACE

The benefits of an active, healthy community, particularly as the population ages, are well known. Council's network of public open space and facilities provides opportunities for people to interact socially and improve their health as well as contributing to the protection of cultural, landscape and ecological values.

The benefits of an active, healthy community, particularly as the population ages, are well known. Council's network of public open space and facilities provides opportunities for people to interact socially and improve their health as well as contributing to the protection of cultural, landscape and ecological values.

As the population increases, additional demand is placed on our recreation and open space network. There is a need to ensure Council keep pace with this demand so that it continues to meet the needs of the distinct communities located across the District.

**Council's Goals for Achieving Community Outcomes:**

- Provide appropriate opportunities to access the recreation and open space network.
- Connect our spaces and places to each other and to destinations such as schools and community gathering places.
- Protect and enhance important environmental, cultural and heritage values.
- Provides spaces and places that our community are proud of, that are safe and that encourage participation.
- Collaborate and partner with tangata whenua and the community to provide recreation and open space experiences.
- Proactively plan for future recreation and open space needs taking into consideration the range of factors that influence this including growth, current provision, changing trends, access and environmental factors.


### RECREATION AND OPEN SPACE ACTIVITY PLAN

Council's Recreation and Open Space Activity Plan sets out the approach to the provision of Recreation and Open space in the District and the outcomes Council wants to achieve. We know that our recreation and open space network play an important role in contributing to the social, environmental, cultural and economic wellbeing of our community and Council wants to achieve the following outcomes:

- People are connected and feel they belong
- People can be active and healthy
- People enjoy the outdoors
- Connecting people with the natural environment and having a lighter footprint
- Protecting important natural and cultural areas.

**Significant effects of providing this activity**

| Wellbeing | Positive | Negative | How are we addressing these effects |
|---|---|---|---|
| Social | • Provides space for physical activity, recreation and play; helps to provide for a healthy and interactive community.<br>• A higher level of facilities and managed open space creates an attractive place to visit/live and a higher level of social/cultural wellbeing.<br>• Fosters a sense of civic pride.<br>• The open space network provides a smoke-free environment. | • Potential for negative impact on privacy, noise and loss of views.<br>• Some uses affect neighbouring properties.<br>• May attract anti-social behaviour (graffiti, drinking alcohol, bullying).<br>• Managing community expectations for local recreation opportunities. | • Providing a process of public consultation through reviews of Reserve Management Plans on a regular basis.<br>• Design active reserve space to meet anticipated uses and minimise impact on surrounding area.<br>• Apply best practice urban design principles to minimise impacts of new development.<br>• Apply Crime Prevention Through Environmental Design (CPTED) principles in planning for reserve space. |
| Cultural | • Provides a location for community events. | • Congestion and over-use of destination parks and facilities.<br>• Increased traffic congestion around peak activity periods. | • Providing a process of public consultation through reviews of Reserve Management Plans on a regular basis.<br>• Design active reserve space to meet anticipated uses and minimise impact on surrounding area. |
| Environmental | • Provides places of respite, retreat and connection to the natural environment.<br>• Encourages community groups to work collectively on environment restoration projects (eg Coast care).<br>• Protects areas of cultural, historic and environmental value. | • Littering and discarded rubbish.<br>• Chemical use on parks (e.g. spraying weed killers).<br>• Increased traffic congestion around peak activity periods. | • Signage is used to inform users of the chemical use regime.<br>• Manage accessibility to protect areas of significance.<br>• Providing a process of public consultation through reviews of Reserve Management Plans on a regular basis.<br>• Design active reserve space to meet anticipated uses and minimise impact on surrounding area. |
| Economic | • Attracts tourism to our District. | • Congestion and over-use of destination parks and facilities.<br>• Increased traffic congestion around peak activity periods. | • Providing a process of public consultation through reviews of Reserve Management Plans on a regular basis.<br>• Design active reserve space to meet anticipated uses and minimise impact on surrounding area. |

# 4.11 DESIGN PROVISIONS - RECREATION & OPEN SPACE



**DEVELOPMENT CODE AND COUNCIL RESERVE CLASSIFICATION**

*Reserve design provisions, level of service and performance outcomes have been workshopped with and supported by Western Bay of Plenty District Council as part of engagement process*

## COUNCIL INFRASTRUCTURE DEVELOPMENT CODE - DESIGN

### 1.4.7 NEIGHBOURHOOD DESIGN - II. OPEN SPACES

Parks and open spaces are important elements of a neighbourhood. They provide opportunities for recreation and social contact, and their spaciousness can contrast with the built form of urban areas.

They also critically offer a protected view for surrounding sites that if marketed well frequently add value through their guarantee of never being built-out.

The manner in which a subdivision relates to public spaces such as roads, parks, and streams is very important for visual amenity and safety. Too often parks are inconveniently located, inappropriately sized or poorly overlooked, being comprised of left-over land from the lot design process.

For the purposes of this project the list of Open Space Design Elements noted below will be used as reference trigger points that the concept will be tested against. This will provide Council with a designed high level conceptual 'baseline' of service for integration in to the wider Concept Structure Plan.

### OPEN SPACE DESIGN ELEMENTS:

- Locate open spaces where they are highly prominent and accessible within the local area.
- Open spaces should be located within walking distance of all allotments, positively contributing to residential amenity. Typically aim for no more than 400m of actual walking route distance, but 200m wherever possible.
- Provide open spaces based on what type of space would add the greatest value to the neighbourhood. In some instances, high quality ecological corridors or pedestrian linkages are more desirable than neighbourhood reserves if there are existing ones (or similar spaces that can offer the same services) close by.
- The number of parks and open spaces in a neighbourhood and their amenities need to be based on:
    - The needs of the community reflected by population density and demographics
    - The types of users and their requirements
    - The participation rates for selected activities
    - Use and access to facilities, and gaps in amenity provision
    - Opportunities for dual purpose functions (active and passive recreation)

KULIM PARK, TAURANGA

- Parks should not be made of 'left-over' land. The location and design should be informed by the neighbourhood context and site analysis.
- Use open spaces as a design feature, adding value to the lots.
- Parks should be highly visible and be bounded by as many roads as possible – with dwellings fronting them – providing informal surveillance, making them safer.
- Locate and design parks to take advantage of existing trees and features of interest (natural and cultural), adding identity to the neighbourhood.
- Investigate opportunities to connect with other open spaces to form a network.
- Provide walking and cycle paths through an open space network, connecting with adjacent streets.
- Provide amenities within parks, including children's play equipment, landscape areas for passive recreation, public art and flat land for active recreation.
- Ensure the design of parks takes into account future maintenance requirements and costs.
- On-road car parking should be provided adjacent to all parks.
- Avoid creating spaces, pedestrian linkages, or cycleways that are located between the backs' of adjacent sites. These will invariably be less safe. If this is the only option, include mechanisms to ensure there are no high fences.

## RELEVANT RESERVE CLASSIFICATIONS (CURRENT)

According to Council's District-wide Reserve Management Plan the following reserve classifications are those relevant to the reserves proposed within the Wairakei South Development:

### LOCAL PURPOSES RESERVES:

- To provide and retain areas for such educational, community, social or other local purpose as specified in the Gazette notice classifying the reserve.
- Having regard to the general purpose of the reserve, to administer and maintain the reserve so that:
    - Those scenic, historic, archaeological, biological, or natural features present on the reserve are managed and protected to the extent compatible with the principal purpose of the reserve.
    - The reserve's value as a soil, water, and forest conservation area is maintained to the extent compatible with the principal purpose of the reserve.
- To maintain the public's freedom of entry and access to the reserve (subject to the specific powers conferred on the administering body by Section 23 and 61 of the Reserves Act, 1977 and any bylaws applying to the reserve, and to any conditions and restrictions that the administering body considers necessary for the protection and general well-being of the reserve and for the protection and control of the public using it).
- To maintain appropriate public access to the reserve. Council may, from time to time, by public notice prohibit access to the whole or any specified part of the reserve. In that case no person shall enter the reserve, except under the authority of a permit issued by the Council.

### STORMWATER NETWORK AND DRAINAGE RESERVES

Council maintains and modifies its stormwater network to manage surface water run-off from urban areas to minimise flood damage. While the predominant use of some of these sites is stormwater management, a lot of them provide recreational value and form part of Council's wider recreation and open space network.

Improving connections throughout our open spaces including those predominantly used for stormwater management is a priority and while these sites are not captured under the Reserves Management Plan, they play a critical role. Maintaining access to these sites for recreation purposes needs to be reflected in any planning undertaken and considered as part of any stormwater assets stocktake.

# 4.12 DESIGN PROVISIONS - RESERVE CLASSIFICATION

## NZRA PARKS CATEGORIES FRAMEWORK (2017) - COUNCIL NOW APPLYING TO THEIR RESERVES

*Reserve design provisions, level of service and performance outcomes have been workshopped with and supported by Western Bay of Plenty District Council as part of engagement process*

Recreation Aotearoa (formerly New Zealand Recreation Association NZRA) developed the park categories framework to provide New Zealand relevant industry guidelines for consistent application across the parks and open spaces sector.

**Western Bay of Plenty District Council has begun applying these categories to its reserves to indicate each site's primary purpose,** therefore we will align with these classifications and apply them to the Wairakei South development area.

These categories are set out below and fall under the legal classifications given under the Reserves Act 1977. The ones relevant to the reserves proposed within the Wairakei South development area are highlighted.

| CATEGORY | DESCRIPTION/PRIMARY PURPOSE | ALTERNATIVE NAMES |
|---|---|---|
| **Sports and recreation** | *Parks (often quite large areas) set aside and developed for organised sport and recreation activities, recreation facilities and buildings, often multiple use.* | Active<br>Sports |
| **Neighbourhood** | *Parks developed and used for informal recreation and sporting activities, play and family based activities, and social and community activities.* | Local<br>Social recreation<br>Community |
| **Public gardens** | *Parks and gardens developed to a very high horticultural standard with collections of plants and landscaping for relaxation, contemplation, appreciation, education, events, functions and amenity/intrinsic value.* | Botanic gardens<br>Horticulture<br>Premier |
| **Nature** | *Parks that offer the experience and/or protection of the natural environment, containing native bush, coastal margins, forestry, farms parks, wetlands, riparian areas and water bodies.* | Conservation<br>Bushland<br>Forest<br>Protected<br>Environmental |
| **Cultural heritage** | *Parks that protect the built cultural and historical environment, and/or provide for heritage conservation, education, commemoration, mourning and remembrance.* | Cemeteries<br>Cultural<br>Heritage |
| **Outdoor adventure** | *Parks developed and used for recreation and sporting activities and associated built facilities that require a large scale, forested, rural or peri-urban environment.* | Regional<br>Forest<br>Farm<br>All terrain |
| **Civic** | *Areas of open space often provided within or adjacent to central business districts, and developed to provide a space for social gatherings, meeting places, relaxation and enjoyment.* | Plaza<br>Community hub<br>Town squares<br>Streetscape |
| **Recreation and ecological linkages** | *Areas of open space that are often linear in nature that provide pedestrian and cycle linkages, wildlife corridors and access to water margins. May provide for environmental protection, and access to waterways.* | Linear<br>Walkways<br>Corridor<br>Green corridors<br>Environmental corridors<br>Esplanade<br>Linkage |

## NZRA PARKS CATEGORIES FRAMEWORK (2017)

According to the NZRA Parks Categories Framework the reserve network identified in the Wairakei South Development Masterplan can be classified into two reserve categories:

**NEIGHOURHOOD:** Parks developed and used for informal recreation and sporting activities, play and family based activities, and social and coomunity activities.

**RECREATION & ECOLOGICAL LINKAGES:** Areas of open space that are often linear in nature that provide pedestrian and cycle linkages, wildlife corridors and access to water margins. May provide for environmental protection, and access to waterways.

NZRA NEW ZEALAND recreation ASSOCIATION

Parks Categories Framework

## NEIGHBOURHOOD RESERVES LEVEL OF SERVICE:

Assessment Criteria for the development of Neighbourhood Reserves as outlined in the Recreation & Open Space Activity Plan:

| STANDARDS | WHAT DO WE WANT TO ACHIEVE | WHAT STANDARDS ARE REQUIRED |
|---|---|---|
| Accessibility | Ensure most people are within walking distance to a neighbourhood reserve. | Neighbourhood reserves are within 400m or 5-10 minute walk of 95% of urban/ town residential properties.<br>Note this will be mapped once reserve categorisation is complete. |
| Quality | Ensure we provide good quality reserves that people are aware of, want to use and feel safe using. | Reserves should be:<br>• Located in a central and prominent area.<br>• Located to maximise street frontage.<br>• Connect to other reserves where possible.<br>• Flat or undulating.<br>• Of a shape that maximises visibility throughout the reserve.<br>• In accordance with CPTED principles. |
| Size | Ensure reserves can be developed for their intended purpose. | The average useful size to achieve a basic reserve layout of green space, pathway, vegetation, seating and play features is between 2000m2 to 5000m2. |
| Connections | Ensure our open space network is connected where possible using reserves or streetscapes. | Where possible, neighbourhood reserves are located in places that easily connect or link to other reserves and have the opportunity to create ecological corridors. |

**LEGEND**

RELEVANT RESERVE CLASSIFICATIONS WITHIN WAIRAKEI SOUTH DEVELOPMENT

# 4.13 DESIGN PROVISIONS - RESERVES, OPEN SPACE & COMMUNITY FACILITIES



Referenced from *Council's objectives and policies and Recreation Aotearoa Parks Categories Framework,* other industry best practice guidance, wider spatial planning context and the anticipated population of Wairakei South the below table outlines the required open spaces and community facilities to be provided within the development (excluding stormwater management reserves).

*Reserve design provisions, level of service and performance outcomes have been workshopped with and supported by Western Bay of Plenty District Council as part of engagement process.*

| TYPE | INDICATIVE SIZE | QUANTITY | LOCATION | ASSESSED REQUIREMENTS |
|---|---|---|---|---|
| **Active Reserve** | <8ha | N/A | N/A | Not required as existing provisions present at Gordon Spratt Reserve in Papamoa, those in Te Puke and the future provision for new Active Reserves proposed in Te Tumu |
| **Neighbourhood Reserves**<br>**(Local Reserve)** | 3.3ha *(cumulative total)* | Approx. 8x reserves (total)<br>1x reserve to be approx. 1-1.5ha in size and act as Major Neighbourhood Reserve<br>Remaining reserves to be approx. nominal size of 2,500m2 per reserve | Spread throughout development area (Max 400m walking radius accessible to most residents)<br>Major Neighbourhood Reserve to be located centrally within development to allow for the best accessibility to majority of residents within a 1.5km walking radius | Include Local Reserve LOS<br>Major Neighbourhood reserve to have high quality playground & public toilets – should be co-located adjacent neighbourhood centre<br>Remaining reserves to have varied LOS with different play spaces, open space, shade trees, pathways, etc.<br>Consideration of physical barriers to the 400m accessibility to be taken into account when planning number and location of neighbourhood reserves e.g. roads, stormwater reserves, etc. |
| **Local Area Open Space** | 12ha *(cumulative total - incl. Neighbourhood Reserves)* | Spread throughout the development area<br>Includes neighbourhood reserves | Spread throughout development (within 2km walking radius accessible to most residents) | Network of different reserve types including: stormwater conveyance, treatment wetlands, walkway Strips, etc. spread across the development.<br>Total based on LOS requiring 1.7ha/1,000 people with anticipated population of 7,200 (2.4 people per household x 3,000 homes) |
| **Major Neighbourhood Playspace** | Footprint approx. 500m2 | 1 | Located within the Major Neighbourhood Reserve | Careful consideration to providing play opportunities and equipment for a range of ages and abilities |
| **Walkways and Cycleways** | N/A | N/A | Located throughout the development area, within road and stream reserve corridors, reserves, etc.<br>Include connections to wider networks outside the development area, i.e. Papamoa, Te Ara o Wairakei, Tauranga Eastern Link, etc. | Consideration of shared path design criteria depending on anticipated volume of use for specific road corridors.<br>Shared pathway network to be spread throughout stormwater reserve network and link into neighbourhood reserves, school and other key community facilities. |
| **Public Toilets** | N/A | 1 | Located within the Major Neighbourhood Reserve | Size and level of service to meet the requirements for anticipated usage and population |
| **Event Infrastructure** | N/A | N/A | All Neighbourhood Reserves | Power and water connections to all Neighbourhood Reserves. |
| **Basketball 3x3 Court** | N/A | 1 | To be provided for somewhere in the reserve network within development. Ideally would be located within the Major Neighbourhood Reserve | Court to meet FIBA standards, court size to be 13x17m (11x13m playing area with runout zones) Consideration of location with regards to accessibility, CPTED/visibility, etc. |
| **Signage, Wayfinding, Cultural Recognition & Interpretation** | N/A | N/A | Opportunities to be located throughout the entire reserve network within development | To align with Council'sWayfinding and Signage Strategy and working closely with mana whenua |

## OTHER COMMUNITY FACILITIES:

| | | | | |
|---|---|---|---|---|
| **Primary School** | 3.5 - 4ha (*preferred approx. size*) | 1 | Located on the PT loop and collector road, relatively flat land given design requirements of school | Whilst under the responsibility and ownership of MOE, school's are important community facilities so are included in the consideration as part of the wider reserve network within the development |
| **Secondary School** | N/A | N/A | N/A | Not required as existing provisions present in Papamoa, Te Puke and the future provision for new secondary school proposed in Te Tumu |
| **Neighbourhood Centre** | 1.4ha | 1 | Located on the primary roading network, PT loop, and multi modal network and accessible to a majority of residents. | Direct connection to the wider reserve network is recommended. |

Boffa Miskell

# MASTERPLAN

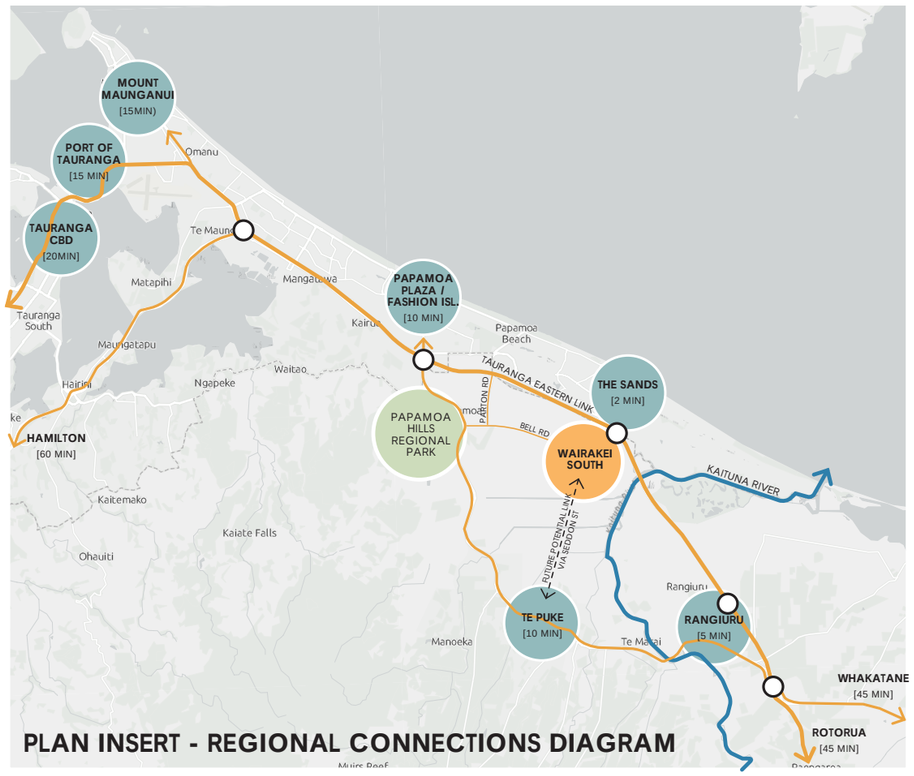
# 5.1 WIDER CONNECTIONS

High level diagram of the Kaituna / Te Puke catchment illustrating the interconnectedness and central location of Wairakei South, and noting logical future potential growth opportunities.

**LEGEND**

- WAIRAKEI SOUTH SITE
- EXISTING URBAN LIMITS
- URBAN GROWTH AREA (FUTURE URBAN LIMITS)
- FUTURE POTENTIAL URBAN LIMITS
- PRIMARY / ARTERIAL ROAD NETWORK
- PRIMARY STREAM / RIVER NETWORK
- COASTAL DUNELAND MARGIN
- REGIONAL PARK

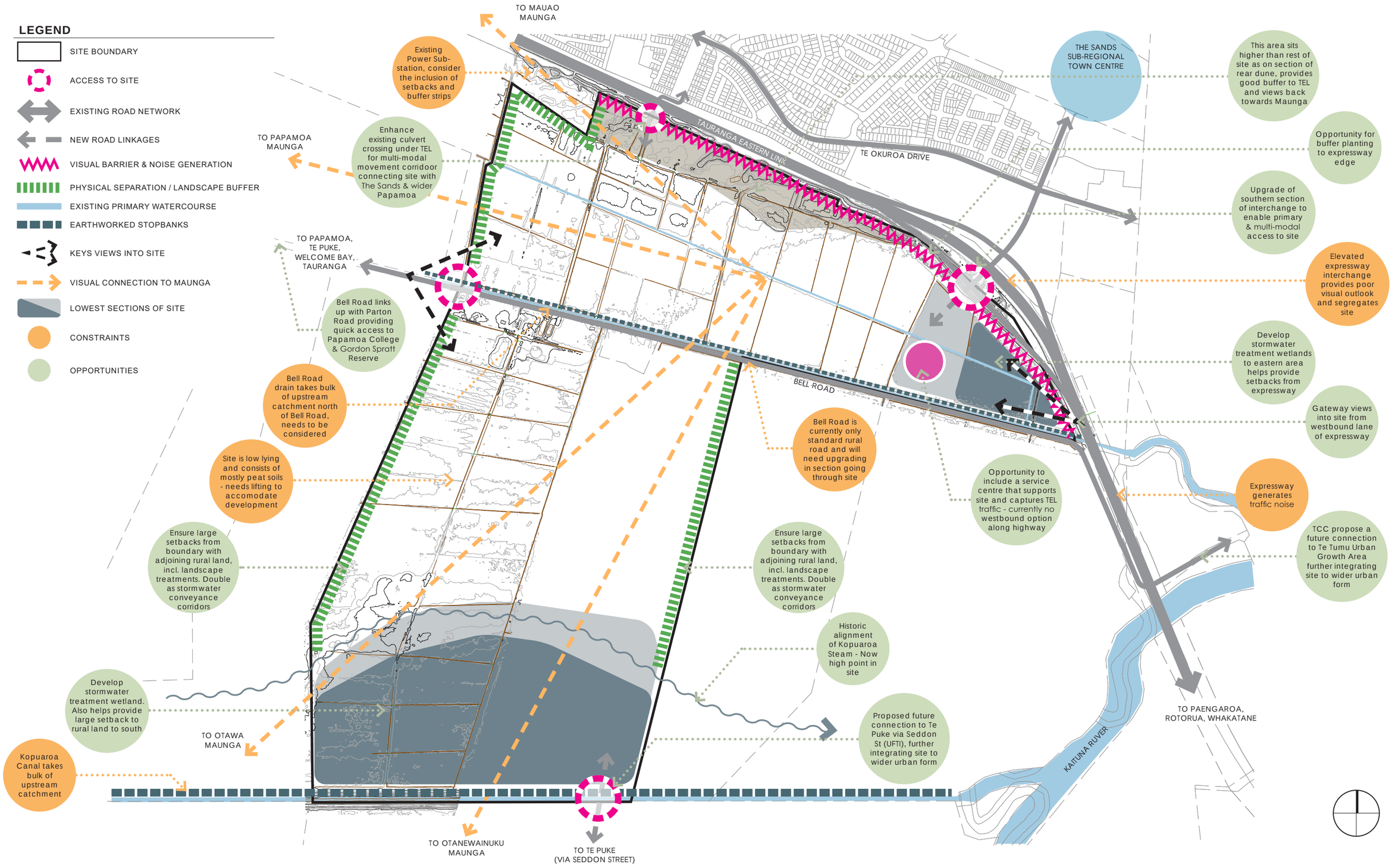
PAPAMOA SHOPPING CENTRE
SIGHTLINE TO MAUAO
PAPAMOA COLLEGE
GORDON SPRATT RESERVE
PAPAMOA
COASTAL MARGIN
PARTON RD
TAURANGA EASTERN LINK
WAIRAKEI
THE SANDS TOWN CENTRE
PAPAMOA HILLS REGIONAL PARK
POTENTIAL FUTURE GROWTH BACK TOWARDS PARTON ROAD
WAIRAKEI SOUTH
SIGHTLINE TO PAPAMOA
BELL RD
TE TUMU (FUTURE GROWTH AREA)
POTENTIAL FUTURE GROWTH BACK TOWARDS TE PUKE HIGHWAY
TE PUKE HIGHWAY
KAITUNA WETLAND
KOPUAROA CANAL
FUTURE TRANSPORT NETWORK CONNECTION VIA SEDDON ST (UFTI)
SIGHTLINE TO OTAWA
RAPARAPAHOE CANAL
KAITUNA RIVER
POTENTIAL OPPORTUNITY FOR FUTURE URBAN GROWTH NORTH ALONG SEDDON STREET
SIGHTLINE TO OTANEWAINUKU
CENTENNIAL PARK
TE PUKE
TE PUKE HIGH SCHOOL
SIGHTLINE TO RANGIURU
TE PUKE HIGHWAY
RANGIURU BUSINESS PARK
Rangiuru
Tumu
Manoeka



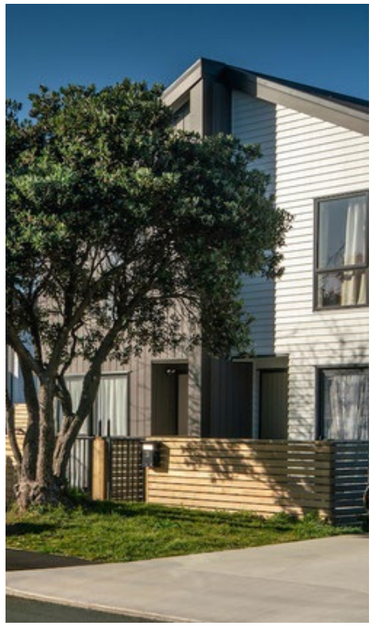

**PLAN INSERT - REGIONAL CONNECTIONS DIAGRAM**

# 5.2 OPPORTUNITIES & CONSTRAINTS





# 5.3 LAND USES & ACTIVITIES

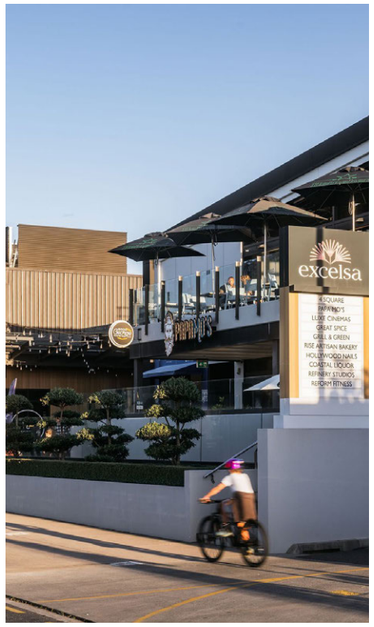


RESIDENTIAL ZONE

Residential lots aligning with MDRS that provide housing choice for the community


EMPLOYMENT ZONE

Mixed Industrial & Commercial Activities that support the Bay of Plenty Sub-Region and provide employment opportunities for Wairakei South Residents




COMMERCIAL CENTRES

Local and Neighbourhood Centres provide small commercial hubs which are strategically located throughout the site to provide convenient retail, cafes, daycare centres, etc. offerings for Wairakei South Residents

EDUCATION

Primary School to support new community and surrounding area

NEIGHBOURHOOD RESERVES

Netowork of well integrated reserves providing choice for open space, recreation and play opportunities throughout the development

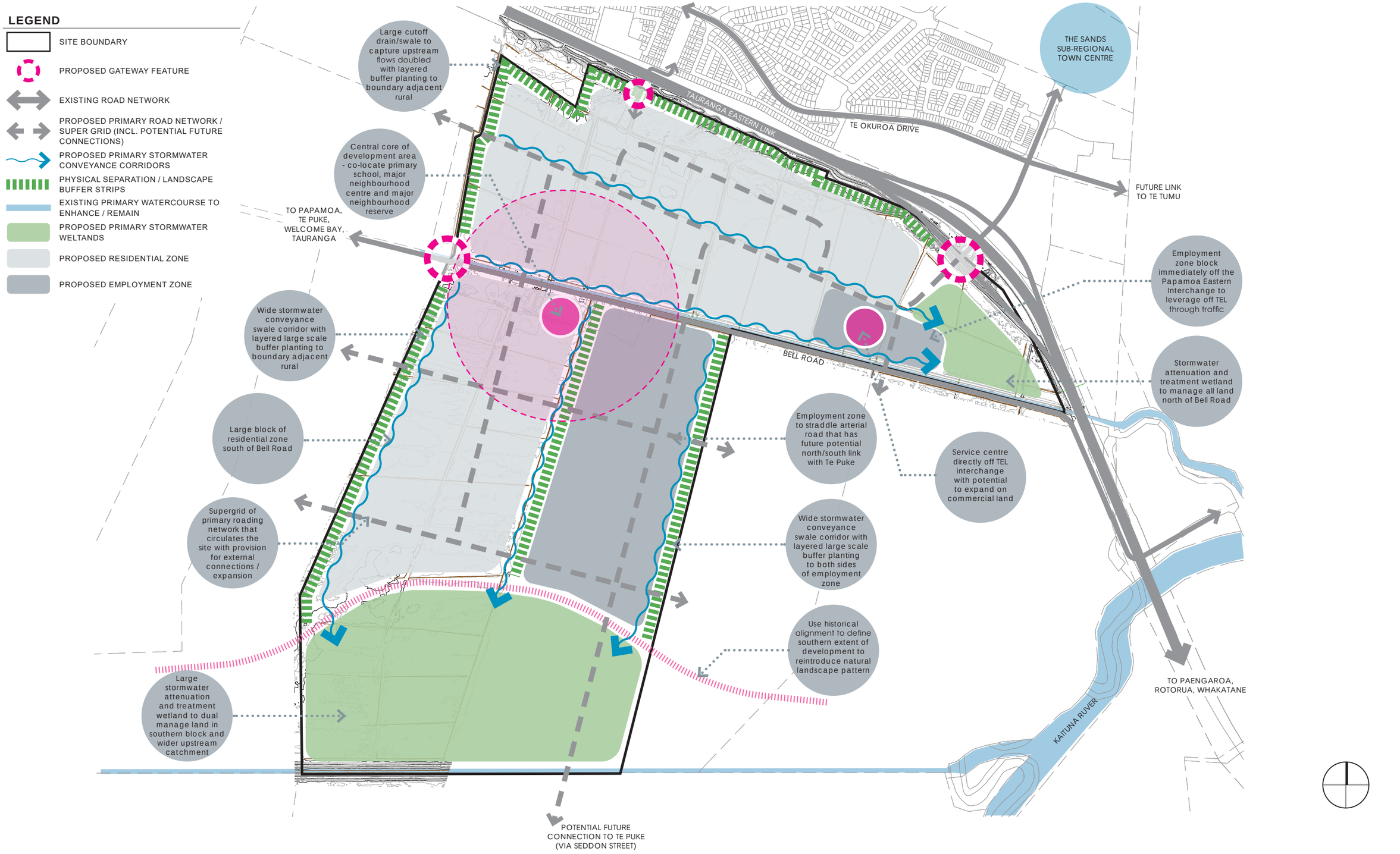
STORMWATER RESERVES

Comprehensive stormwater conveyance, attenuation and treatment networks that manages stormwater, provide additional open space, multi-modal transport networks and greatly enhance the ecological biodiversity in the catchment

# 5.4 SITE STRUCTURE



High level diagram of site to illustrate proposed site structure, key design moves and other considerations

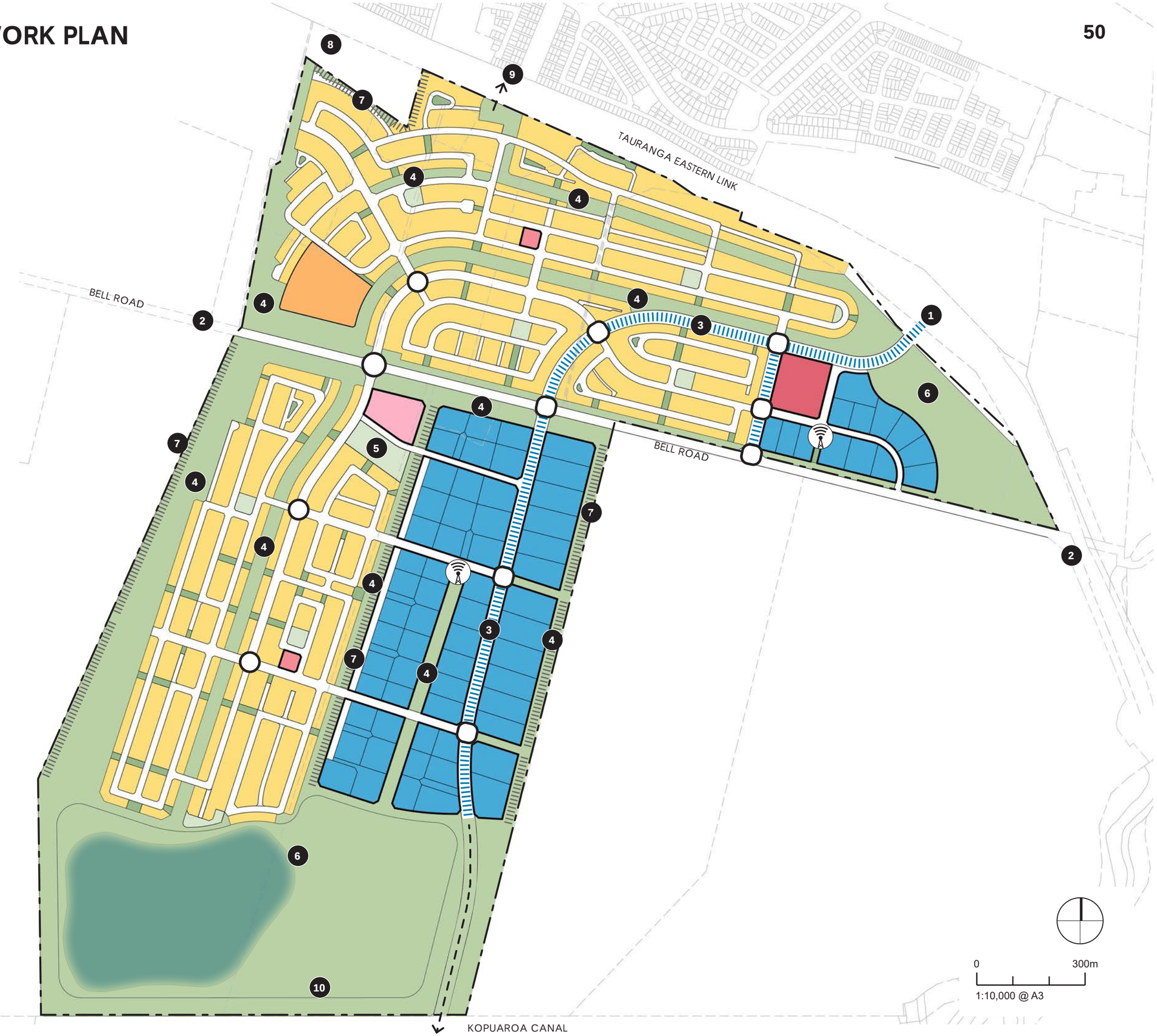


# 5.5 CONCEPT FRAMEWORK PLAN



**KEY**

1. New Connection to Papamoa East 2 Interchange
2. Bell Road (Existing)
3. Main Central Boulevard
4. Stormwater Reserve / Conveyance Swale
5. Major Neighbourhood Reserve
6. Stormwater Treatment Wetland Area
7. Landscape Buffer Strip / Development Extent
8. Existing Power Sub-Station
9. Existing Pathway Access Under TEL (via Large Box Culvert)
10. Stormwater Wetland Outlet to Kopuaroa Canal




**LEGEND**

- SITE BOUNDARY
- RESIDENTIAL (MDRZ) ZONE
- EMPLOYMENT (INDUSTRIAL / COMMERCIAL)
- SERVICE CENTRE
- NEIGHBOURHOOD CENTRE
- LOCAL CENTRE
- PRIMARY SCHOOL
- STORMWATER RESERVE
- NEIGHBOURHOOD RESERVE
- GREEN LINKS / POCKET PARKS / SERVICES CORRIDORS / STORMWATER CONNECTIONS
- BUFFER RESERVE STRIP
- SECONDARY ARTERIAL ROAD
- POTENTIAL FUTURE ROAD CONNECTION TO TE PUKE (VIA SEDDON STREET)
- KEY NETWORK SIGNALISED INTERSECTION
- KEY NETWORK ROUNDABOUT
- INDICATIVE CELL TOWER LOCATIONS

# 5.6 DEVELOPMENT LANDUSE ALLOCATION SUMMARY



Illustrating the percentage breakdown of the main landuse areas within the Wairakei South Development


**LEGEND**

- SITE BOUNDARY
- RESIDENTIAL (MDRZ) ZONE
- EMPLOYMENT (INDUSTRIAL / COMMERCIAL)
- SERVICE CENTRE
- NEIGHBOURHOOD CENTRE
- LOCAL CENTRE
- PRIMARY SCHOOL
- STORMWATER RESERVE
- NEIGHBOURHOOD RESERVE
- GREEN LINKS / POCKET PARKS / SERVICES CORRIDORS / STORMWATER CONNECTIONS

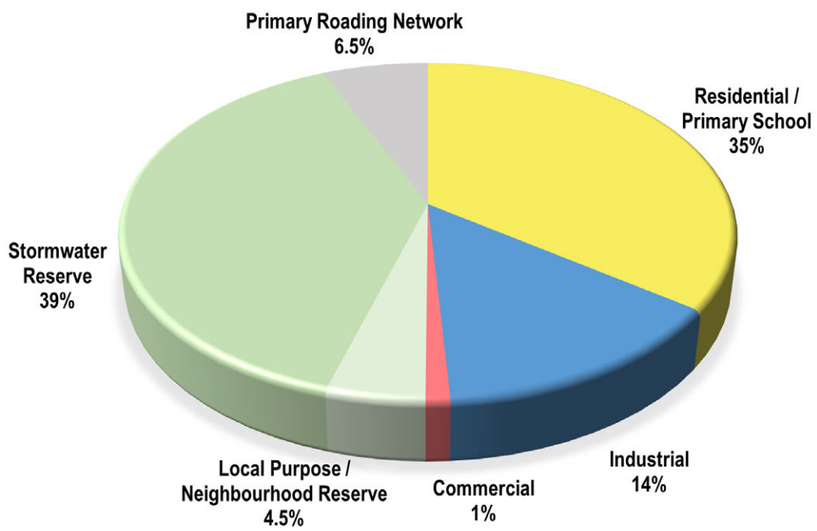
0 300m

1:10,000 @ A3

**NOTES:**

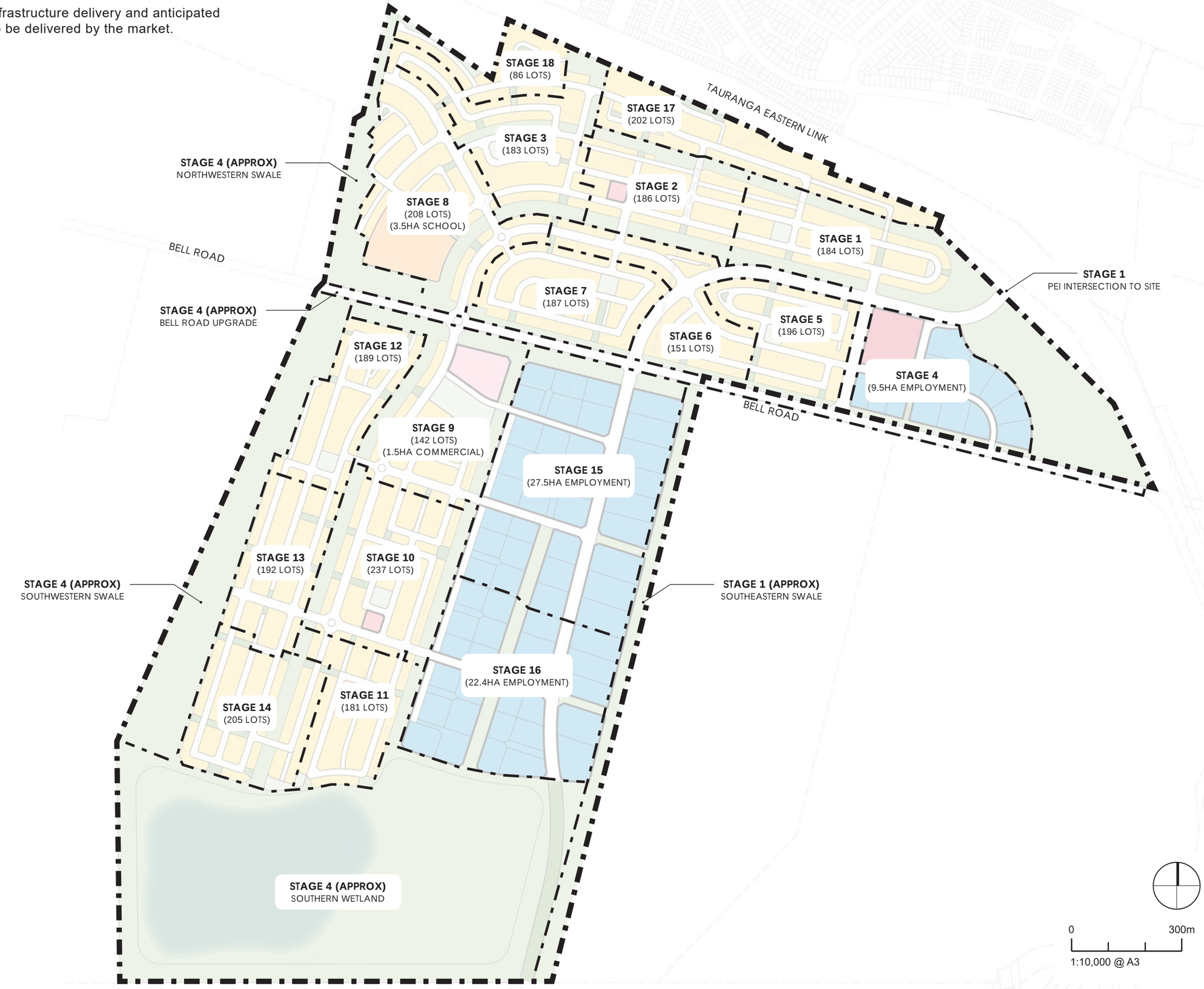
- Residential, Industrial and Commercial make up a combined 50% of the total development.
- Stormwater reserves make up 39% of the total land use within the development. When combined with local purpose (green links) and neighbourhood reserves they make up close to 44% of the total land area. This highlights the strong open space and ecological outcomes proposed with the design.
- Primary roading network includes all secondary arterial, collector and primary residential roads and makes up 6.5% of total area.

**PERCENTAGE OF TOTAL AREA ALLOCATED TO EACH LANDUSE**



# 5.7 PRELIMINARY STAGING PLAN

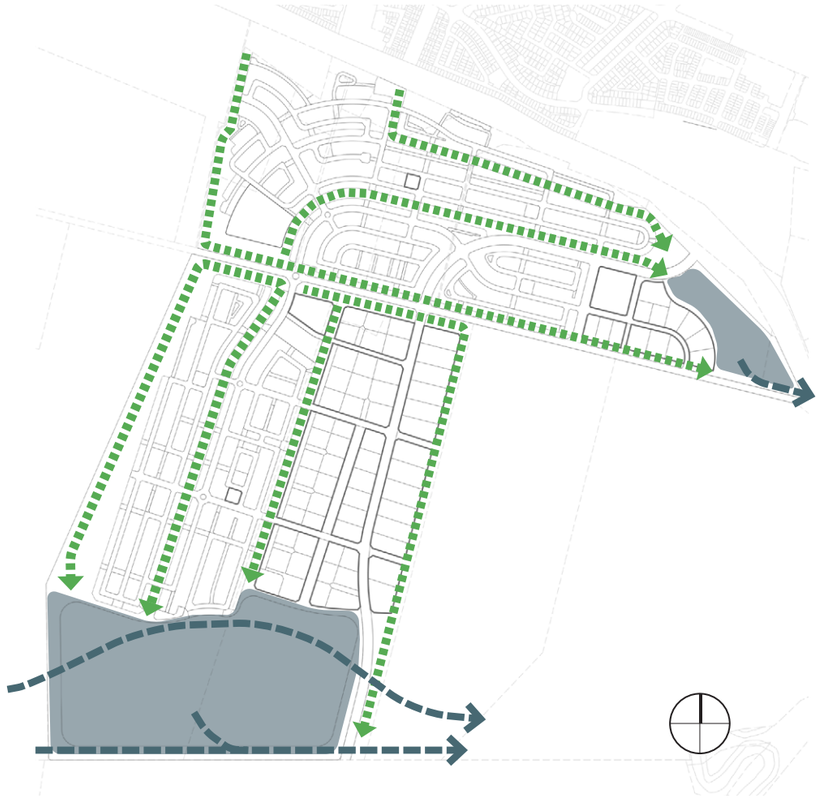
Plan based on projected annual infrastructure delivery and anticipated annual build rate of houses able to be delivered by the market.



# 5.8 INTEGRATED CONNECTIONS & OPPORTUNITIES

Illustrative diagrams overlaid on site layout to illustrate key design structure, connections and opportunities for enhancing ecological and cultural outcomes within the primary site design.

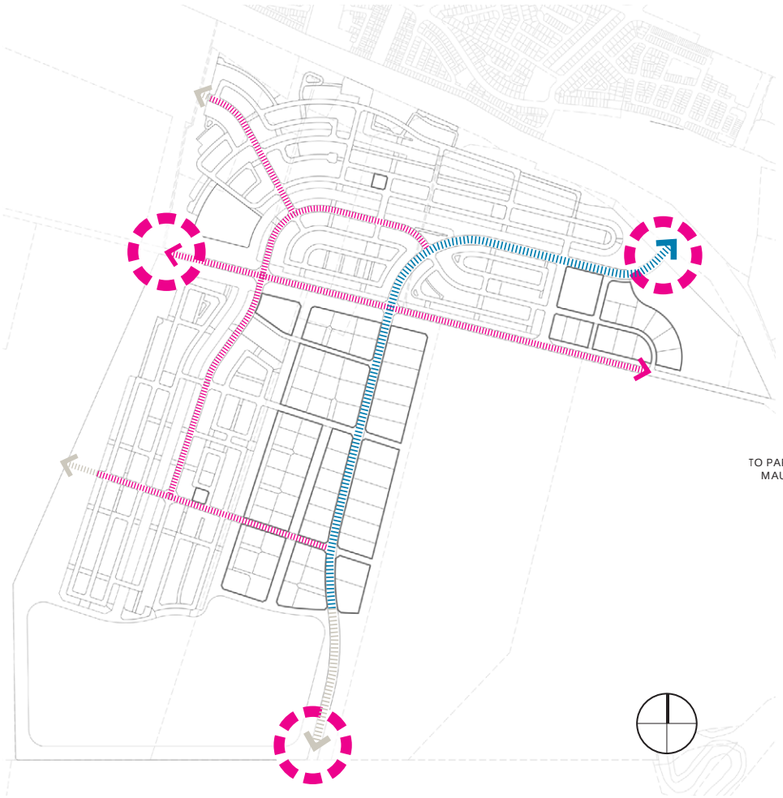
## ECOLOGICAL ENHANCEMENT



### LEGEND

- Enhanced ecological corridors along stormwater conveyance swales better connecting flora, fauna and aquatic wildlife that greatly improve the biophysical values
- New ecological habitat and enhanced stormwater treatment areas combining stormwater function and resilience with ecological and cultural outcomes.
- Reintegration with existing and historic stream network providing improved water quality and habitat outcomes.

## PLACEMAKING



### LEGEND

- Strong placemaking and wayfinding opportunity along secondary arterial route to anchor the connection between Papamoa and Te Puke
- Primary roading network to provide a unique hierarchy of landscape treatments to help with internal wayfinding and create a strong sense of place
- Creation of unique gateway features to primary points of access to the development. Draw upon cultural narrative and connection for inspiration.
- Future proof connections

## WIDER CONNECTIONS


### LEGEND

- Primary roads aligned with visual sightlines to various maunga that are significant to mana whenua where it is possible and practical to do so.

# 5.9 STORMWATER NETWORK

## HIGH LEVEL ILLUSTRATION OF SOLUTION

**LEGEND**

- STORMWATER ATTENUATION / TREAMENT AREA
- STORMWATER ATTENUATION TREAMENT WETLAND
- MAJOR STORMWATER CONVEYANCE CORRIDOR (50-100M WIDE)
- SECONDARY STORMWATER CONVEYANCE CORRIDOR (12-25M WIDE)
- INDICATIVE DIRECTION OF RUNOFF FROM DEVELOPMENT BLOCKS
- STORMWATER DISCHARGE POINT TO WIDER NETWORK
- NEW PUMP STATION
- A — EXISTING BELL ROAD A PUMP STATION
- B — EXISTING BELL ROAD B PUMP STATION
- 1 — EXISTING BELL ROAD NO 1 PUMP STATION


**NOTES:**

- Stormwater solution is shown at high level to illustrate in simple terms how the site will function. Refer to *Appendix G: Stormwater Management Plan & Appendix H: Flood Modelling Report* prepared by Maven for more detail.
- Conveyance drain shown running north/south along western boundary is designed to capture upstream flow and divert through treatment wetland prior to going into Kopuaroa Canal.
- Existing Bell Road drain to be widened and enhanced.
- Both stormwater treatment wetlands shown are designed to provide attenuation during times of peak flows / high rainfall events.
- Proposed wetland and riparian vegetation along swales and attenuation areas create enhanced ecological corridors along stormwater conveyance system that treats stormwater, better connects flora, fauna and aquatic wildlife, and greatly improves the biophysical values.

# 5.10 RESERVE + OPEN SPACE NETWORK



**LEGEND**

- STORMWATER RESERVE
- NEIGHBOURHOOD RESERVE (APPROX 2,500m2)
- M — MAJOR NEIGHBOURHOOD RESERVE (APPROX 1HA)
- LOCAL AREA OPEN SPACE / GREEN CONNECTOR
- PRIMARY SCHOOL
- 5 MINUTE (400M WALKING RADIUS)
- 10 MINUTE (800M WALKING RADIUS)


**NOTES:**

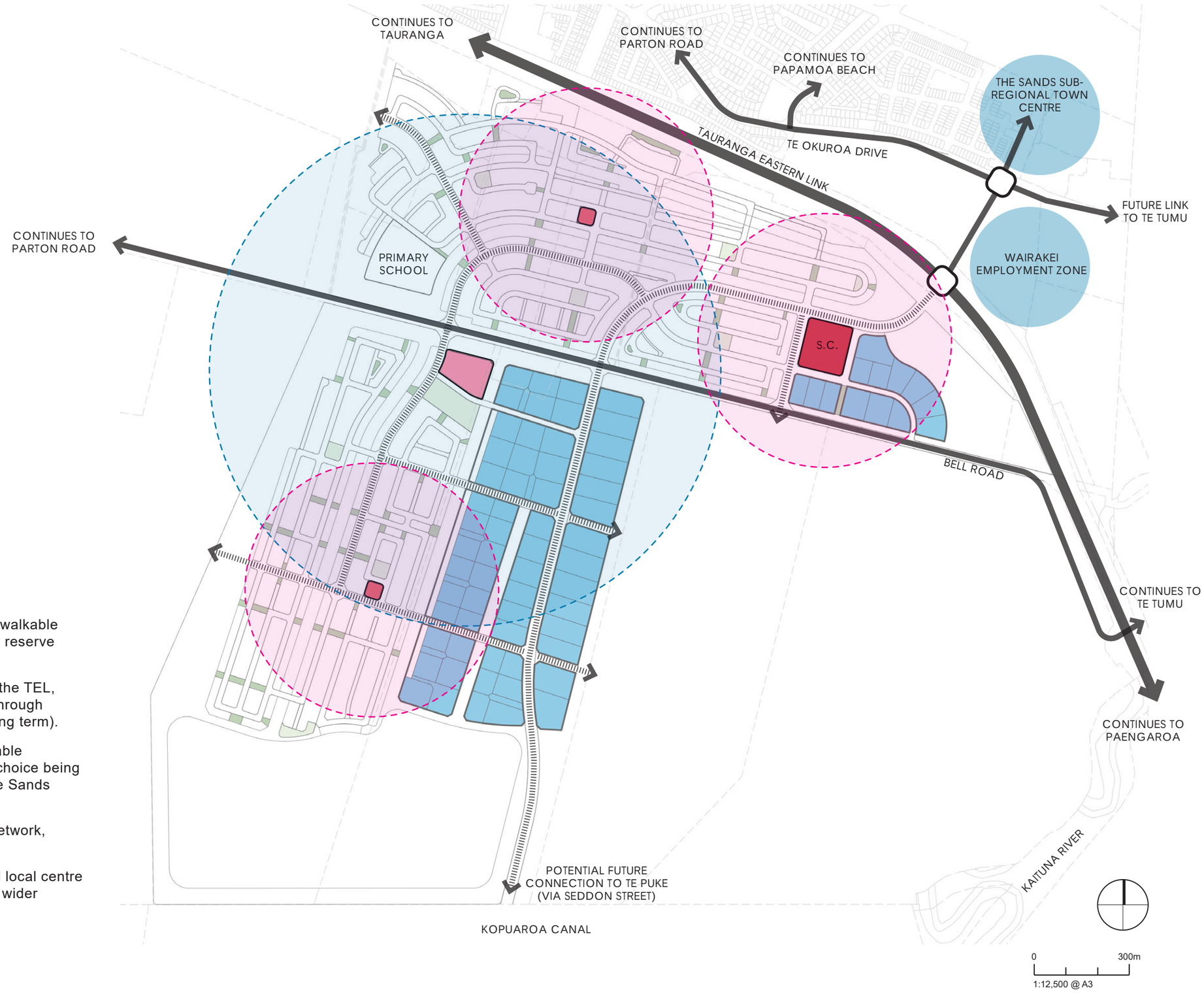
- Open space and reserve level of service and provisions are based on the following:
  - WBoPDC District-Wide Reserve Management Plan
  - WBoPDC Recreation and Open Space Activity Plan
  - WBoPDC Infrastructure Development Code
  - Recreation Aotearoa Parks Category Framework (2017) which WBoPDC are moving towards adopting
  - Best practice urban design for a well connected and serviced community
- Major neighbourhood reserve located centrally to maximize walkable catchment and adjacent primary roading network and reserve network for full multimodal access to centre.
- Neighbourhood reserves are located to be fully accessible to the communities throughout Wairakei South, including co-locating adjacent local centres where practicable and connected with green links.
- Stormwater reserves to provide additional passive open space and access corridors for the community and include a fully connected shared pathway network.
- Refer to *Appendix E: Subdivision Consent Landscape Package, Boffa Miskell* for more detail on reserves.

# 5.11 URBAN CENTRES FRAMEWORK



**LEGEND**

- PRIMARY ROADING (EXISTING)
- PRIMARY INTERNAL ROADING NETWORK
- EMPLOYMENT LAND
- S.C. — SERVICE CENTRE (2.2ha)
- NEIGHBOURHOOD CENTRE (1.5 - 2ha)
- LOCAL CENTRE (2,500 - 3,000m2)
- 5 MINUTE (400M WALKING RADIUS)
- 10 MINUTE (800M WALKING RADIUS)




**NOTES:**

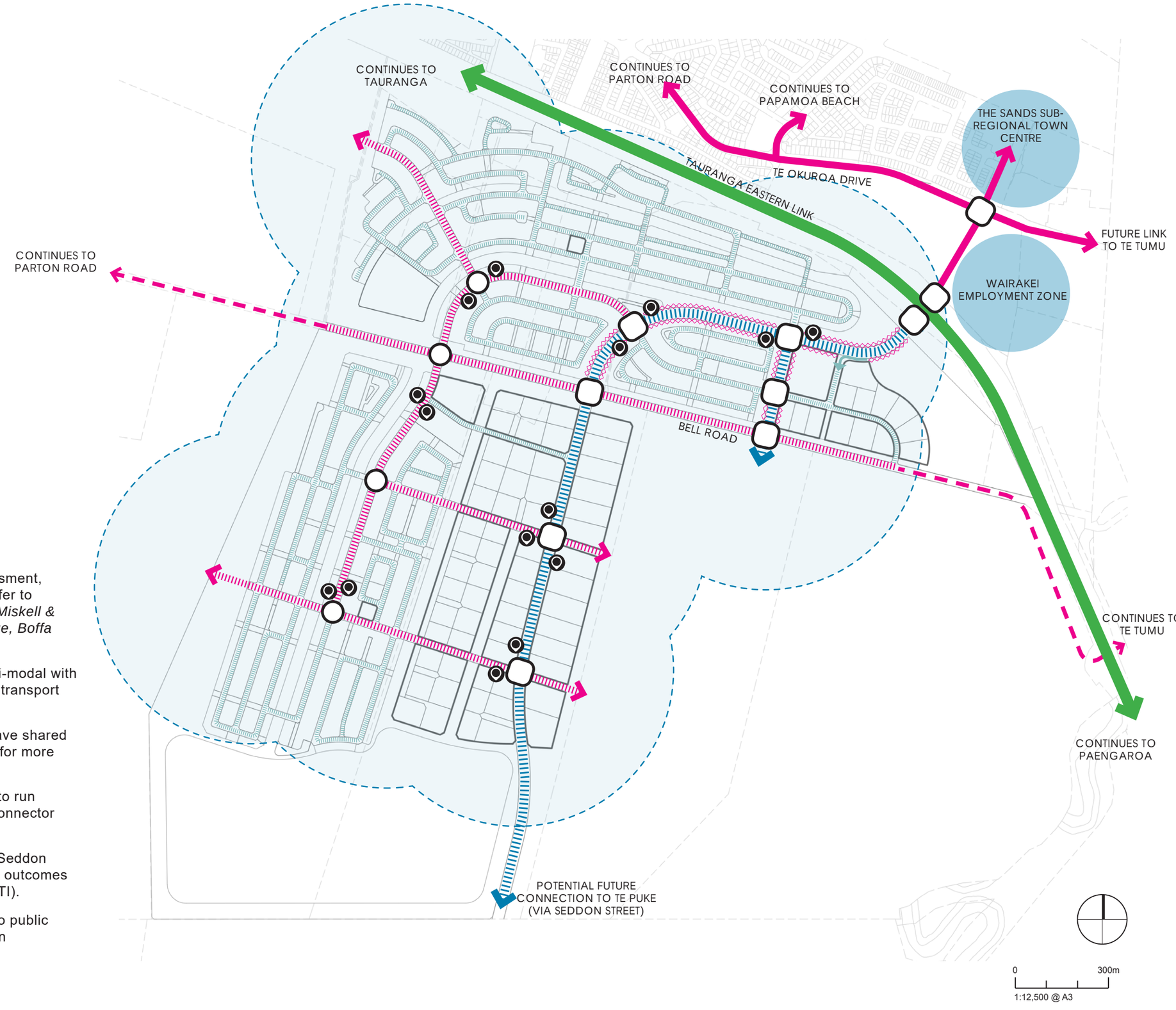
- Neighbourhood Centre located centrally to maximize walkable catchment and adjacent primary roading network and reserve network for full multimodal access to centre.
- Service Centre located to collect traffic driving along the TEL, residents entering and exiting the development and through traffic (once wider connections are linked up in the long term).
- Employment land located centrally to maximize walkable catchment for Wairakei South residents and provide choice being an alternative to the existing employment zone at The Sands town centre.
- Employment land located adjacent primary roading network, specifically the secondary arterial road corridor.
- Employment land anticipated to have additional small local centre offerings to service workers and through traffic (once wider connections are linked up in the long term)

# 5.12 ROADING NETWORK



**LEGEND**

- EXPRESSWAY (T.E.L)
- SECONDARY ARTERIAL (36M) PUBLIC TRANSPORT ENABLED
- COLLECTOR (25M) PUBLIC TRANSPORT ENABLED
- EXISTING COLLECTOR
- EXISTING RURAL ROAD
- LOCAL INTERNAL ROADS (12-20M)
- FUTURE POTENTIAL ROAD CONNECTIONS
- KEY NETWORK SIGNALISED INTERSECTION
- KEY NETWORK ROUNDABOUT
- VEHICULAR ACCESS RESTRICTION FRONTAGE
- LEFT TURN ONLY POINT OF ACCESS
- INDICATIVE BUS STOP DISTRIBUTION
- 500M WALKABLE PUBLIC TRANSPORT ACCESSIBILITY CATCHMENT (REGIONAL PUBLIC TRANSPORT PLAN)




**NOTES:**

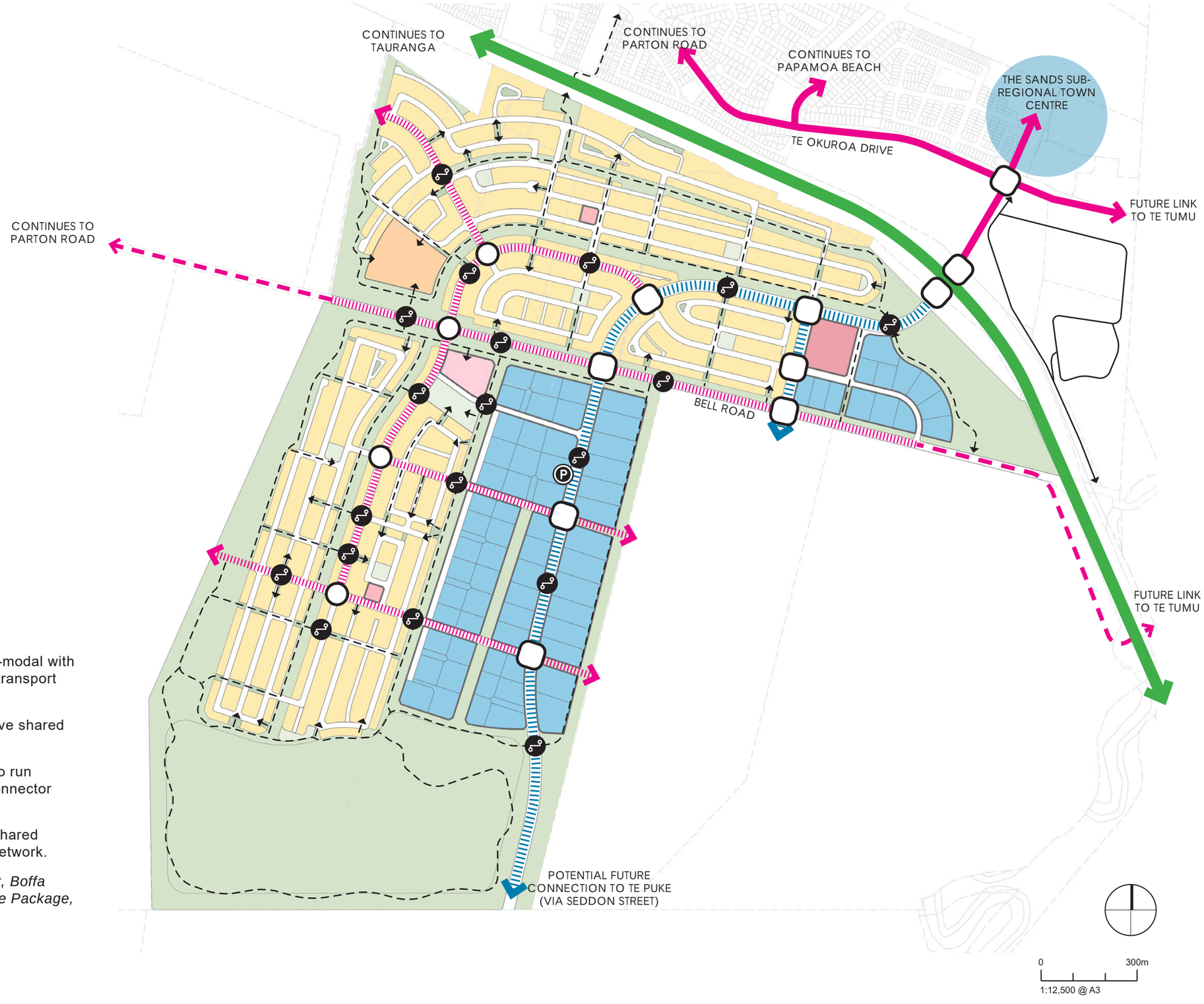
- Roading design solution informed by transport assessment, transport modelling and confirmed street profiles. Refer to *Appendix I: Integrated Transport Assessment, Boffa Miskell & Appendix E: Subdivision Consent Landscape Package, Boffa Miskell* for more detail.
- Secondary arterial and collector roads are to be multi-modal with shared pathways to one or both sides and are public transport enable (refer to street profiles for more detail).
- Primary, secondary and minor residential roads all have shared pathways to at least one side (refer to street profiles for more detail).
- Alternative transport corridors such as shared paths to run throughout stormwater conveyance network, green connector links as shown indicatively on diagram.
- Proposed future network connection to Te Puke (via Seddon Street), aligning with Connected Centres Programme outcomes outlined in the Urban Form & Transport Initiative (UFTI).
- Specific school bus network not shown as separate to public transport network and subject to Ministry of Education consultation and direction.

# 5.13 MULTI-MODAL NETWORK



**LEGEND**

- EXISTING EXPRESSWAY (T.E.L) WITH CYCLEWAY ALONG NORTHERN SIDE
- EXISTING COLLECTOR WITH DUAL CYCLE LANES
- EXISTING RURAL ROAD
- PROPOSED SECONDARY ARTERIAL (36M) WITH DUAL SHARED PATHWAYS & PUBLIC TRANSPORT ENABLED
- PROPOSED COLLECTOR (25M) WITH DUAL SHARED PATHWAYS & PUBLIC TRANSPORT ENABLED
- PRIMARY SHARED PATHWAY NETWORK
- EXISTING SHARED PATHWAYS / CYCLEWAYS
- PROPOSED PUBLIC TRANSPORT / PARK & RIDE HUB
- KEY NETWORK SIGNALISED INTERSECTION
- KEY NETWORK ROUNDABOUT
- MID-BLOCK CROSSING POINT




**NOTES:**

- Secondary arterial and collector roads are to be multi-modal with shared pathways to one or both sides and are public transport enabled.
- Primary, secondary and minor residential roads all have shared pathways to at least one side.
- Alternative transport corridors such as shared paths to run throughout stormwater conveyance network, green connector links as shown indicatively on diagram.
- Primary school site accessible from road network or shared pathway network within the stormwater conveyance network.
- Refer to *Appendix I: Integrated Transport Assessment, Boffa Miskell & Appendix E: Subdivision Consent Landscape Package, Boffa Miskell* for more detail.

# 5.14 HOUSING TYPOLOGY PLAN




**LEGEND**

- SITE BOUNDARY
- LOT TYPOLOGY A
- LOT TYPOLOGY B
- LOT TYPOLOGY C
- LOT TYPOLOGY D
- EMPLOYMENT - INDUSTRIAL
- EMPLOYMENT - COMMERCIAL CENTRES
- NEIGHBOURHOOD RESERVE

**TYPOLOGY SCHEDULE**

| LOT TYPE | DESCRIPTION | COUNT | % OF TOTAL |
|---|---|---|---|
| LOT TYPOLOGY A (LEFT SIDE GARAGE) | DUPLEX (Typ. Lot Area: 225m2 \|Typ. House Size 110 - 200m2) | **468** | **17%** |
| LOT TYPOLOGY A (RIGHT SIDE GARAGE) | DUPLEX (Typ. Lot Area: 225m2 \|Typ. House Size 110 - 200m2) | **467** | **17%** |
| LOT TYPOLOGY B | STANDALONE (Typ. Lot Area: 300m2 \|Typ. House Size 150 - 250m2) | **1,180** | **43%** |
| LOT TYPOLOGY C | STANDALONE (Typ. Lot Area: 375m2 \|Typ. House Size 200 - 300m2) | **523** | **19%** |
| LOT TYPOLOGY D | STANDALONE (Typ. Lot Area: 450m2 \|Typ. House Size 225 - 350m2) | **91** | **3%** |

**TOTAL LOTS: 2,729**

0 300m

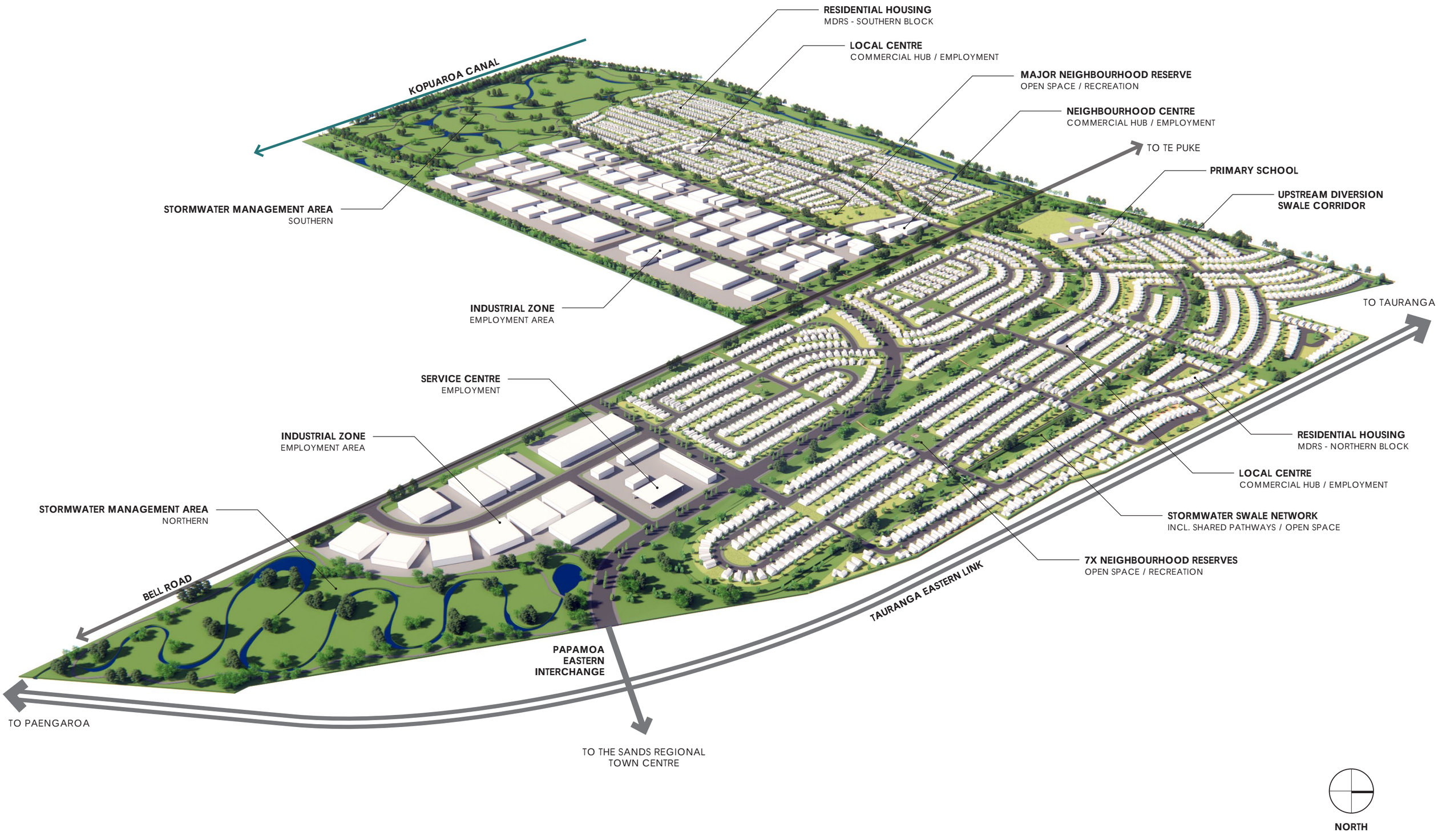
1:10,000 @ A3

# 5.15 CONCEPT MASTERPLAN [ 3D VIEW LOOKING NORTH ]

3D masterplan model of Wairakei South illustrating the different land use areas, reserves and roading networks, showing a well considered, functional and well integrated mixed use develelopment.

# 5.15 CONCEPT MASTERPLAN [ 3D VIEW LOOKING WEST ]

3D masterplan model of Wairakei South illustrating the different land use areas, reserves and roading networks, showing a well considered, functional and well integrated mixed use develelopment.



# 5.15 CONCEPT MASTERPLAN [ 3D VIEW LOOKING NORTHWEST ]

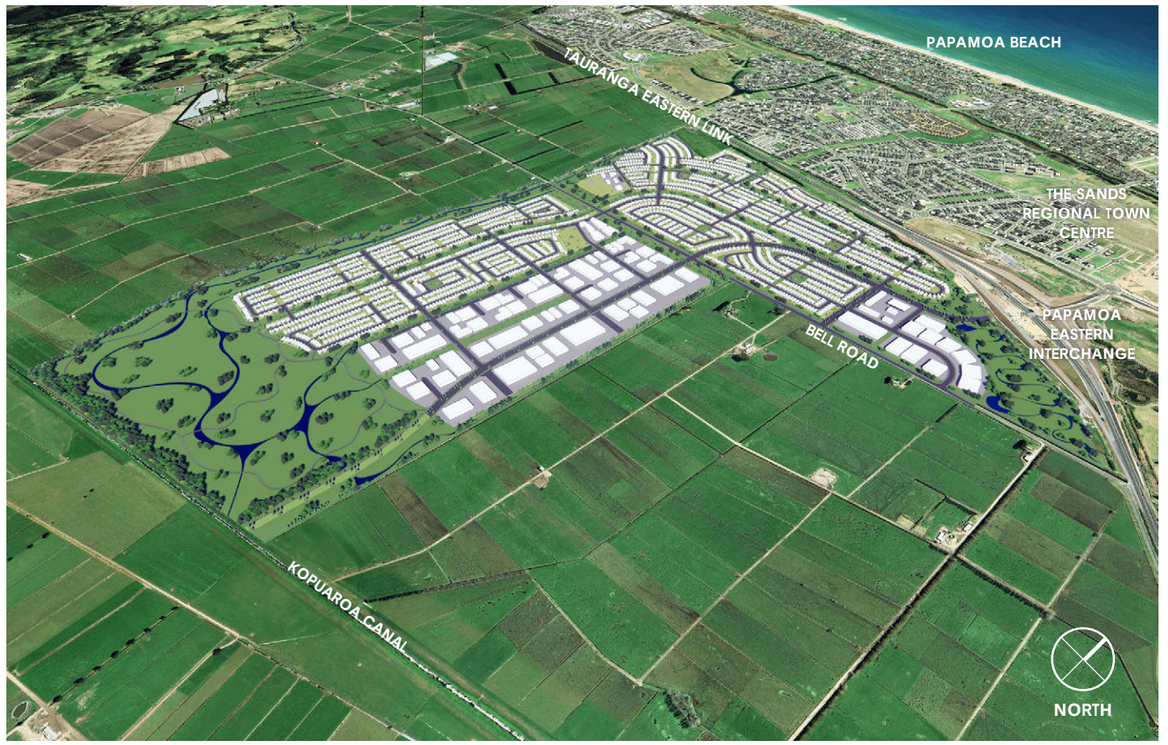
3D masterplan model of Wairakei South illustrating the different land use areas, reserves and roading networks, showing a well considered, functional and well integrated mixed use develelopment.

# 5.15 CONCEPT MASTERPLAN [ 3D VIEW LOOKING SOUTH ]

3D masterplan model of Wairakei South illustrating the different land use areas, reserves and roading networks, showing a well considered, functional and well integrated mixed use develelopment.

# 5.16 CONCEPT MASTERPLAN [ 3D VIEWS WITH AERIAL BASE ]

3D masterplan model of Wairakei South overlaid onto recent aerial photography.



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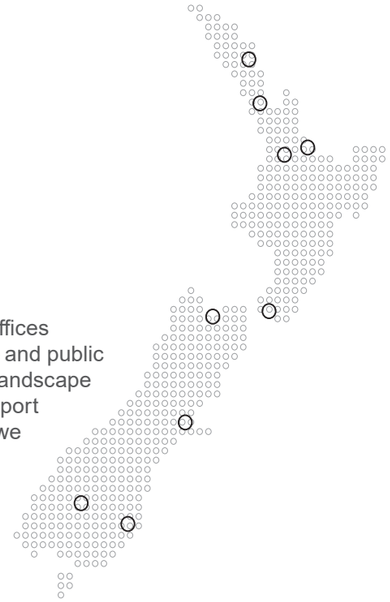
Boffa Miskell is a leading New Zealand environmental consultancy with nine offices throughout Aotearoa. We work with a wide range of local, international private and public sector clients in the areas of planning, urban design, landscape architecture, landscape planning, ecology, biosecurity, Te Hīhiri (cultural advisory), engagement, transport advisory, climate change, graphics and mapping. Over the past five decades we have built a reputation for creativity, professionalism, innovation and excellence by understanding each project's interconnections with the wider environmental, social, cultural and economic context.

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