2.7 Open Spaces

Hamilton City Council holds about 1160 ha of green spaces which equals approximately 10% of the city's area. Figure 8 shows some parts of the site is within 400m catchment (approx. 5 minutes walking distance) to 800m catchment (approx. 10 minutes walking distance) of a park. The key parks that within the proximity to the sites include:

- Resthills Park
- Deanwell Park
- Mahoe Park
- Kahikatea Park
- Pygmalion Park
- Rhode St Park
- Bremworth Park

The Mangakotukutuku Stream, other watercourse and wetland areas provide blue spaces for the site.

This analysis demonstrates that the Site is generally well located in terms of proximity to several key open spaces, in particular within its north-west part and mid-north part of the site.

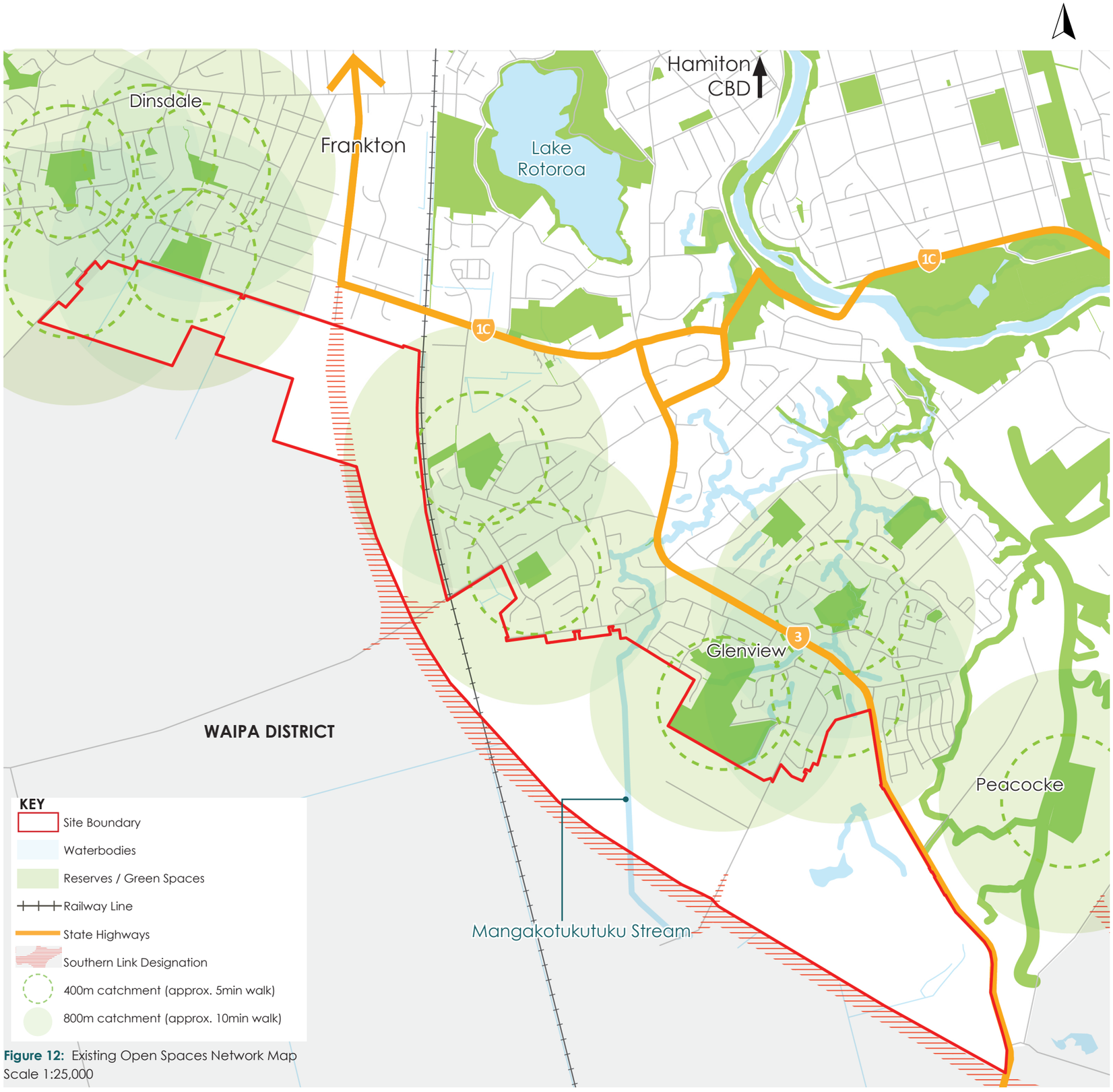


Figure 12: Existing Open Spaces Network Map
Scale 1:25,000

2.8 Accessibility Analysis - Access to Employment

Further to an assessment of the site's proximity to social amenities, of particular relevance to strategic assessment of potential growth areas is proximity to employment opportunities.

This links back to Objective 3 which of the NPS-UD **enables more people to live in, and more businesses and community services to be located in,** areas are in or near a centre zone or other area with many employment opportunities.

The Figure 9 identifies the site in relation to estimated 2020 job numbers per the 2018 Census SA2 unit boundaries.

The site sits immediately adjacent to the existing Frankton industrial area and further connect to Te Rapa industrial area. This Frankton - Te Rapa area comprises the largest area of employment in the region.

The Waikato Hospital and Hamilton Airport are also a major employment generators located in close proximity to the SL1 area.

In addition, the site is in proximity to the Hamilton city centre and several suburban centres, including Glenview suburban centre and Dinsdale suburban centre.

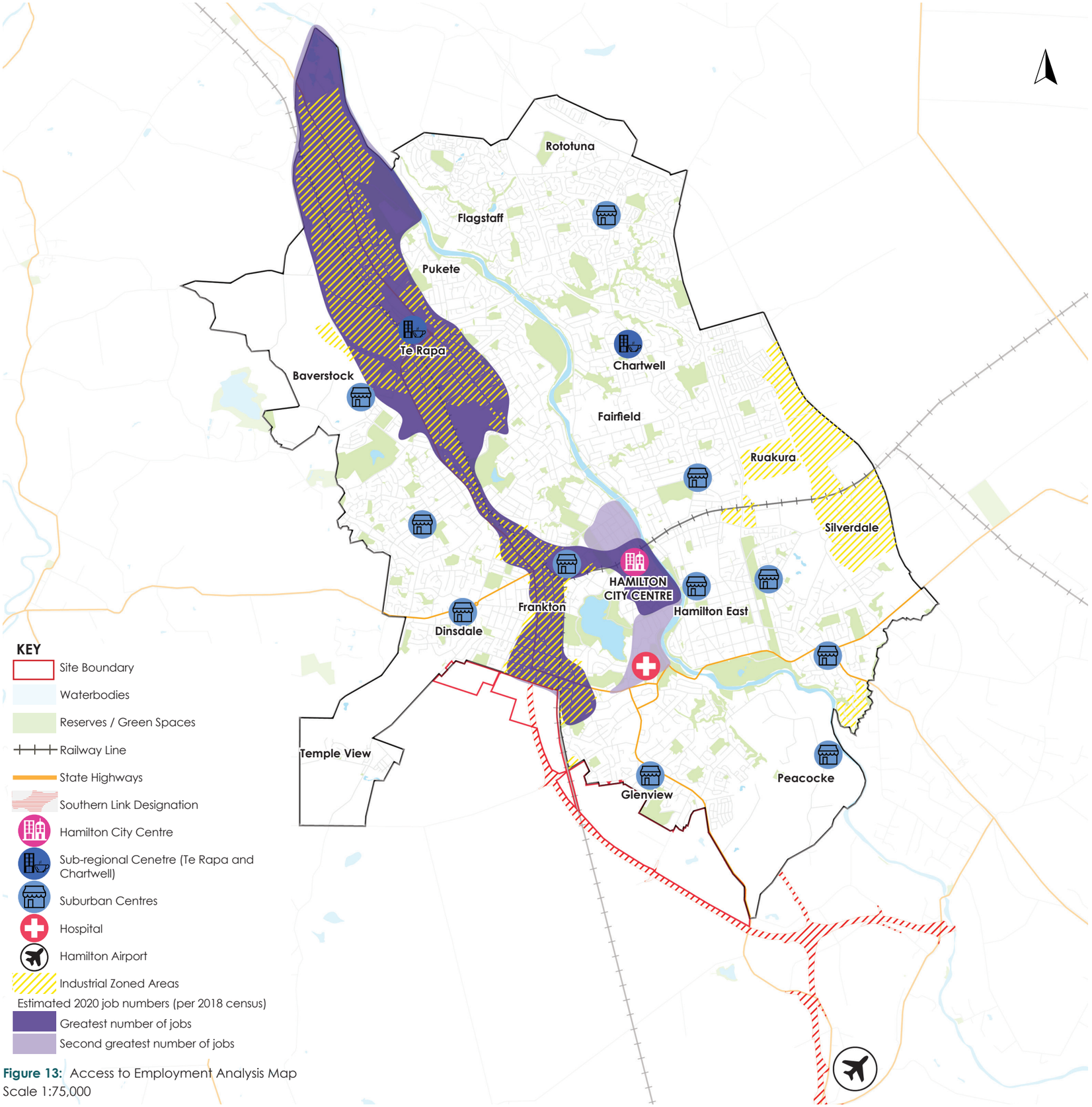


Figure 13: Access to Employment Analysis Map
Scale 1:75,000

2.9 Overall Accessibility Analysis

A high-level desktop study looking at overall accessibility across Hamilton has been undertaken.

This study has taken into consideration access to job numbers via walking, cycling and public transport, as well as walking catchments for key social amenities including primary, intermediate and secondary schools, supermarkets, general practices, town centres, and Waikato Hospital. These layers were then layered on top of each other, and those areas that have the most layers that reach / cover over them are then defined as high accessibility and those areas that have the least are defined as low accessibility.

This coarse analysis unsurprisingly indicates that Hamilton City Centre and its fringe are the most accessible areas within Hamilton. In addition, this analysis also indicates that areas to the southeast through to south-west of the City Centre could generally be considered more accessible than Hamilton's northern suburbs.

The result of the analysis is shown in Figure 10 and it indicates an opportunity for the SL1 area to leverage off this improved accessibility and this should be reflected in residential densities enabled across the site.

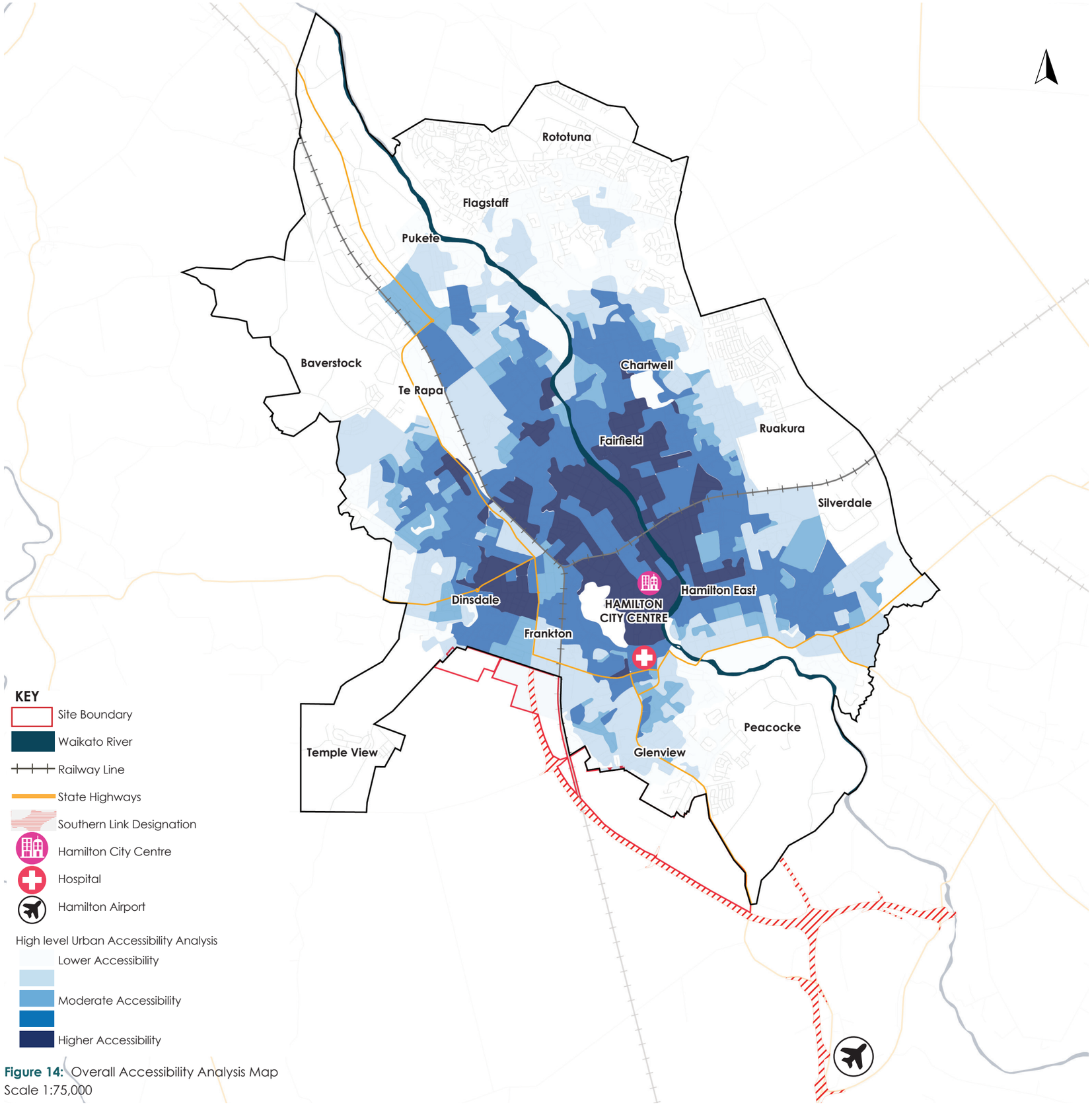


Figure 14: Overall Accessibility Analysis Map
Scale 1:75,000

2.10 Soils - Highly Productive Land

The National Policy Statement on Highly Productive Land (NPS - HPL) is relevant to the site as the majority of the site is classified LUC 2, as shown in Figure 11 on the left.

There is no LUC 1 land identified within the site.

It is our view that there is a policy pathway for Tier 1 and 2 territorial authorities to rezone of highly productive land for urban purposes, as stated in Section 3.6 of the NPS-HPL. This includes looking at the existing capacity and demonstrating that it is required to provide sufficient development capacity to meet expected demand for housing and business land.

We believe there is a robust case to align with Section 3.6 and the proformas of the HPL to allow development within HPL.

Figure 15: Highly Productive Land Map
Scale 1:25,000

2.11 Soils - Peat

As shown in Figure 12 on the left, soil within the brown dash line shown the existing extent of peat soil under the Waipa District Plan Soil Classification map. Areas outside of the dash line is classified as 'other soil', which is non-peat soil.

In addition, work done to date in the area shows that there is large areas of peat soil with less than 2m depth, which will be suitable for early stages of the development. Areas of peat may limit the construction of tall buildings, however is still widely and readily used as residential land around New Zealand.

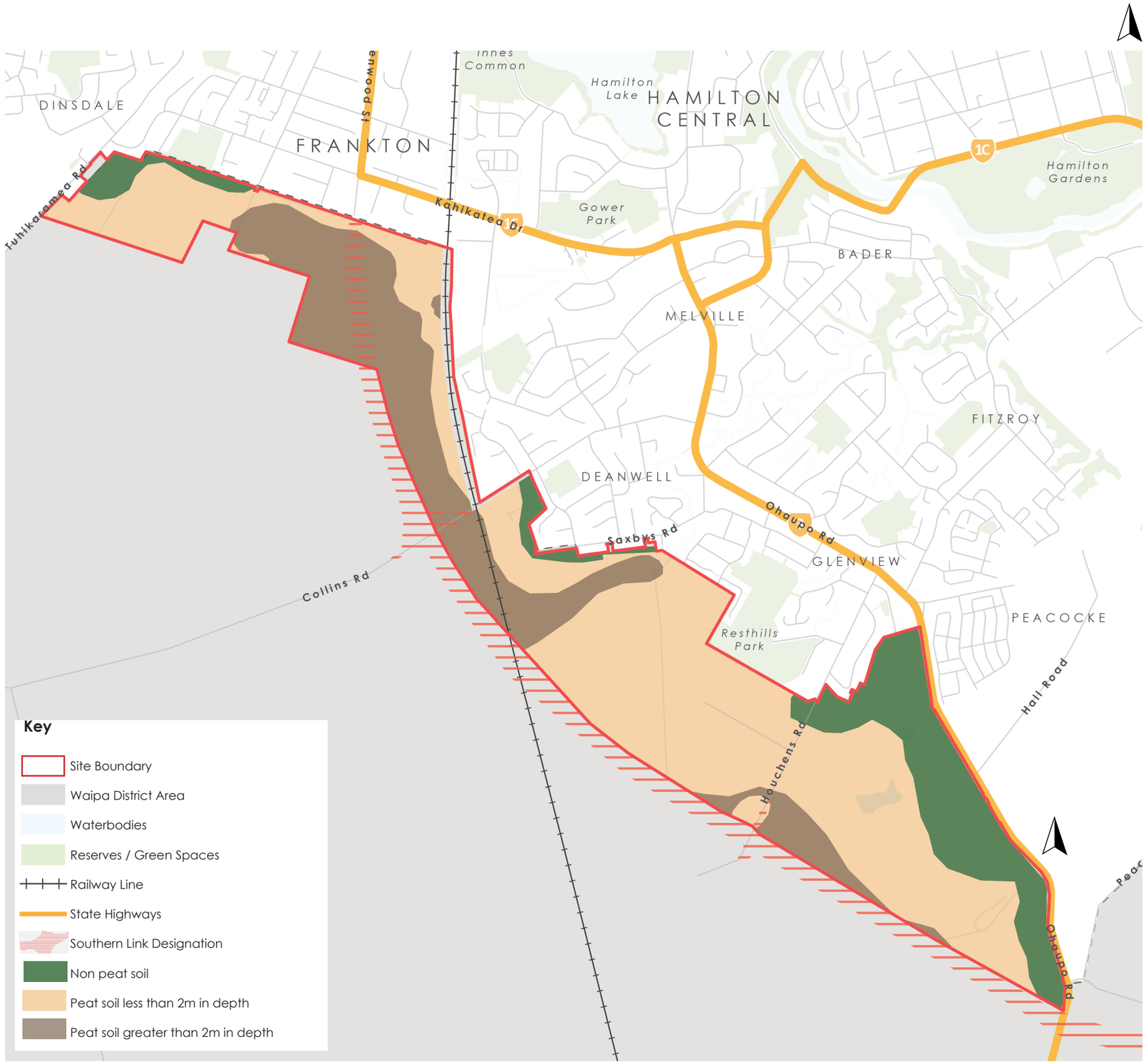


Figure 16: Peat Soil Map
Scale 1:25,000

2.12 Typography - Slope and Aspect Studies

One of the defining characteristics of the most eastern part of the site is the steep topography. The slope gradients and aspects vary along its length but get as steep as over 25% in some places and there are some slopes with southeast, southwest and/or south aspects.

Significant earthworks would likely be required to accomodate building platforms and to traverse this terrain in order to meet relevant subdivision and transport requirements of the District Plan.

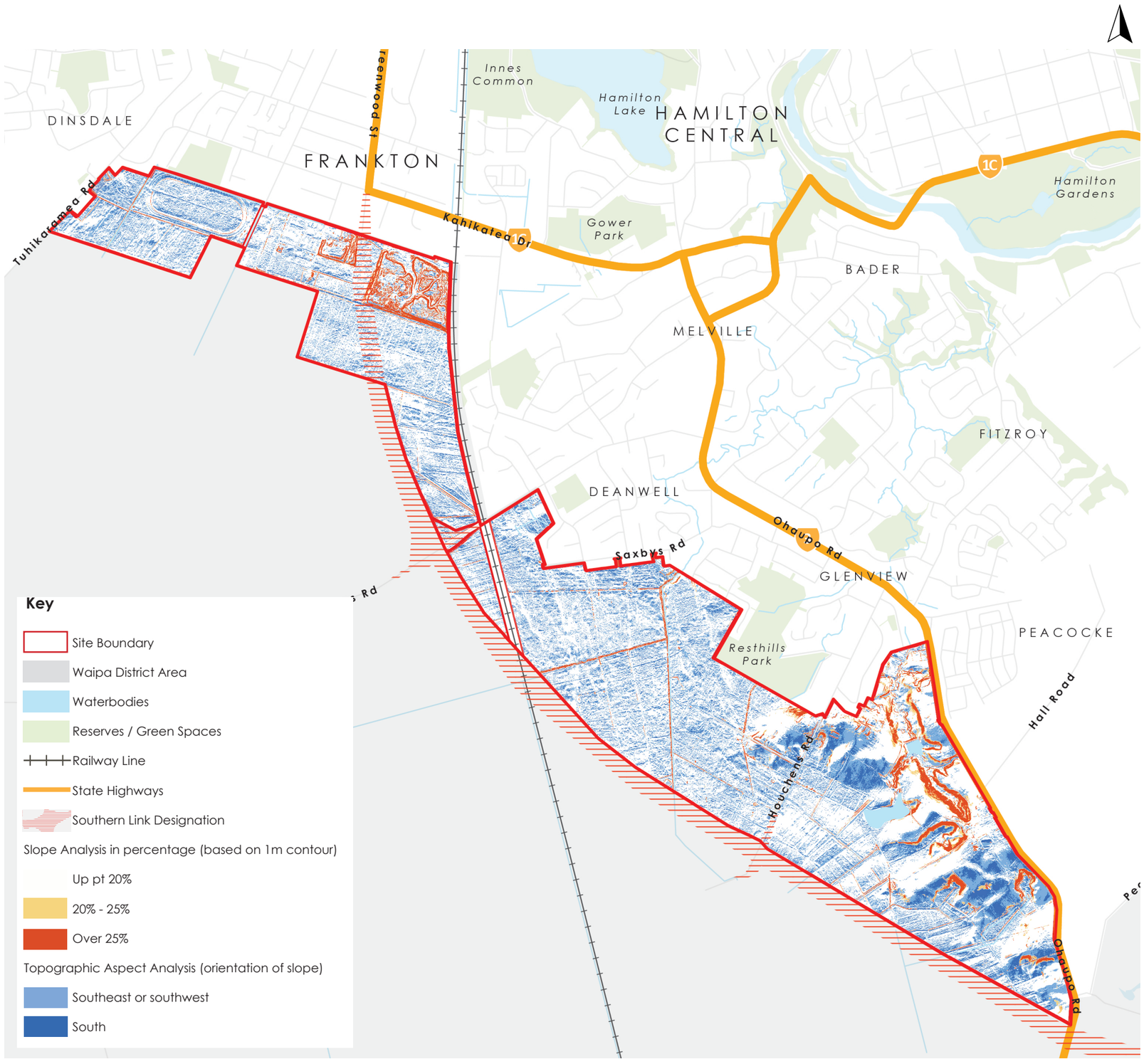


Figure 17: Topography - Slope and Aspect Studies
Scale 1:25,000

2.13 Natural Hazards

Indicative Flood
Figure 14 on the left identifies the areas of indicative pre-development flooding, with minimum 100mm depth and 300mm depth showing in light blue and darker blue respectively.

Flood management and mitigations will be through a network of naturalised streams and stormwater ponds.

Liquefaction
In addition, Figure 18 also identifies part of the site is subject to potential liquefaction in accordance with the Waikato Regional Council Liquefaction Assessment.

The identified potential liquefaction is unlikely to prevent future urbanisation or intensification of the site. Further risk assessment will be undertaken at the time the impacted areas are developed and to manage liquefaction-related risk.

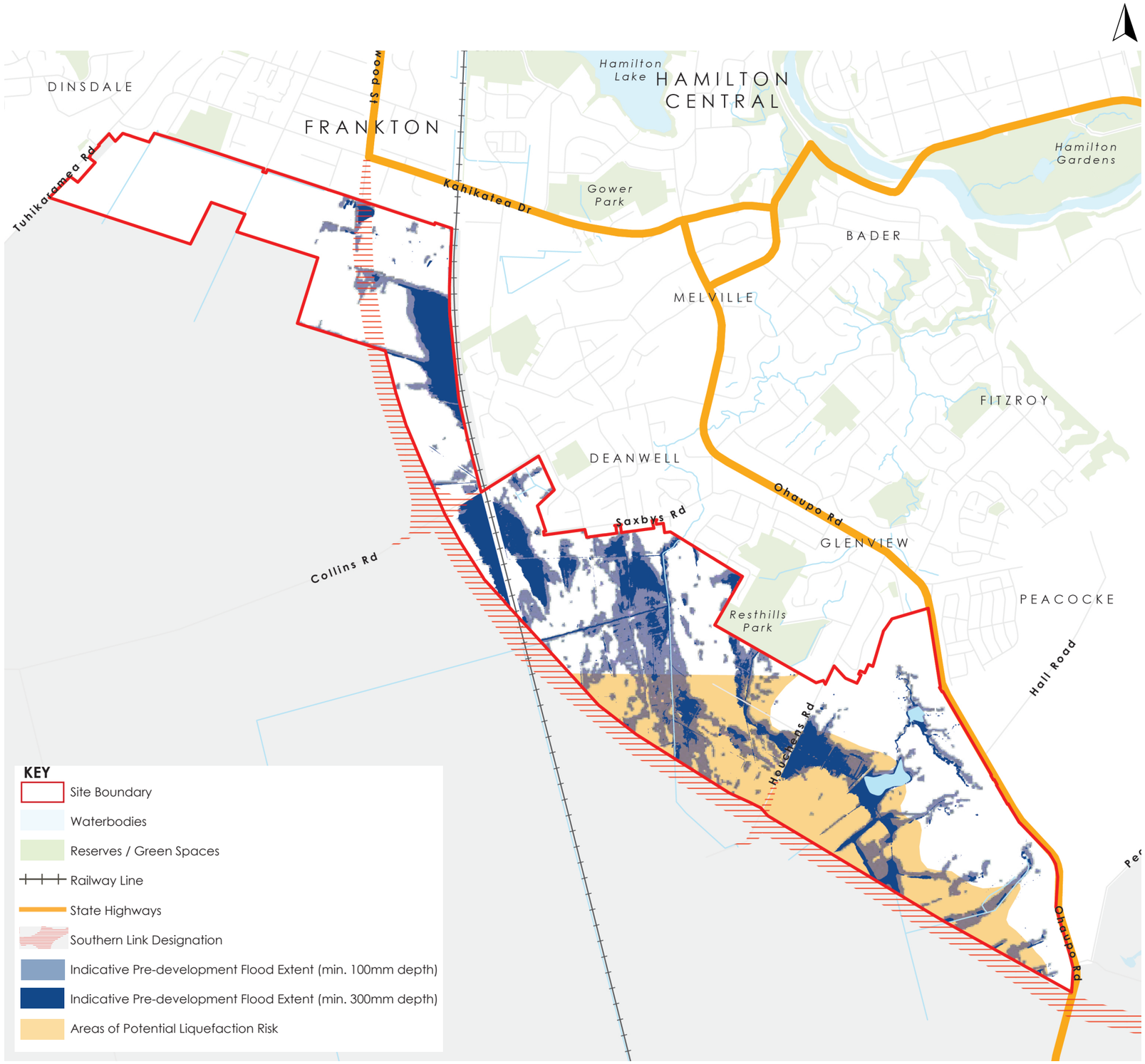


Figure 18: Natural Hazards Map
Scale 1:25,000

2.14 Ecology and Biodiversity

Hamilton city is one of the only cities in New Zealand to still support a resident population of long-tailed bats (Chalinolobus tuberculatus) and the long-tailed bat is unique to New Zealand, and is one of our only two remaining species of native terrestrial mammals.

Long-tailed bats are capable of long distance flight. These bats may have large home ranges and regularly move between forest fragments to feed and roost.

Figure 15 shows the existing gullies, green spaces and blue spaces network across the city, which most of them have detected long tailed bats. There are several confirmed bat roosting sites in the southern part of the city.

The spatial distribution of long tailed bats, gullies and blue-green networks indicates an opportunity for the SL1 area to leverage off this unique biodiversity and ecological values, and this should be reflected in residential densities enabled across the site.

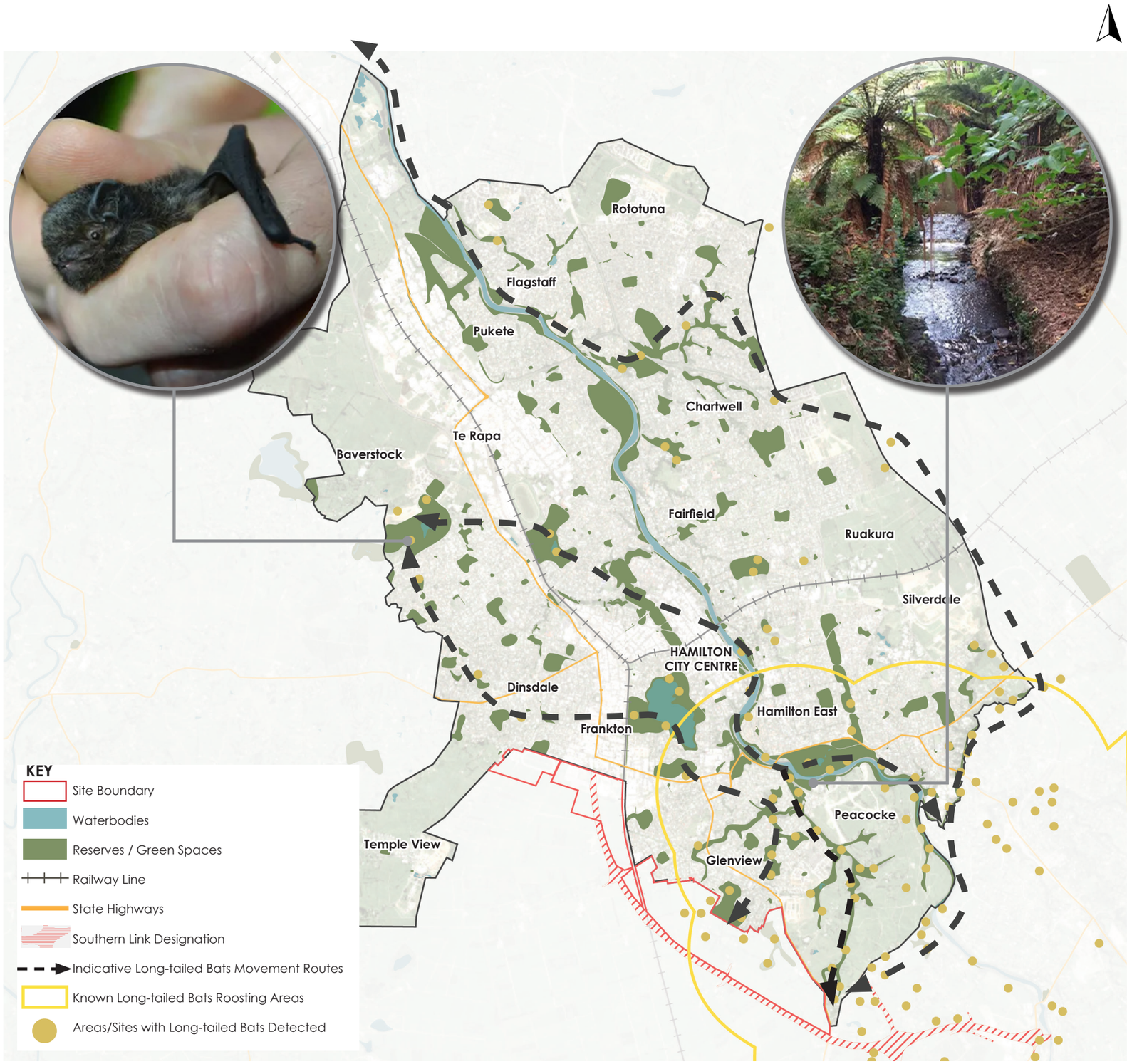


Figure 19: Biodiversity and Ecological Map
Scale 1:75,000

3.0 OPPORTUNITIES AND CONSTRIANTS

3.1 Constraints

Figure 16 identifies the key physical and spatial constraints in relation to SL1. The concept plan design of the area will respond to these constraints.

Of note that constraints are not bad in and of themselves but they create boundaries and require us to think up creative ways of working with them.

Potential interface and noise issues from train and Southern Links.

Existing railway causes severance and creates issues and barriers for connectivity, accesses to nearby services, community facilities and amenities.

Large areas of LUC 2 soil and peat soil are anticipated to be found on site which may limit residential densities attainable.

Areas with steep topography presents a challenge in providing connectivity through the site as well as supporting more intesnse forms of housing.

Potential flood risk, waterways and wetlands may limit the extent of development in some areas.

Existing infrastructure capacity constraints in existing urban areas adjacent to SL1 area.

Intersection capacity constraints along Ohaupoo Road, requiring additional north south routes through SL1.

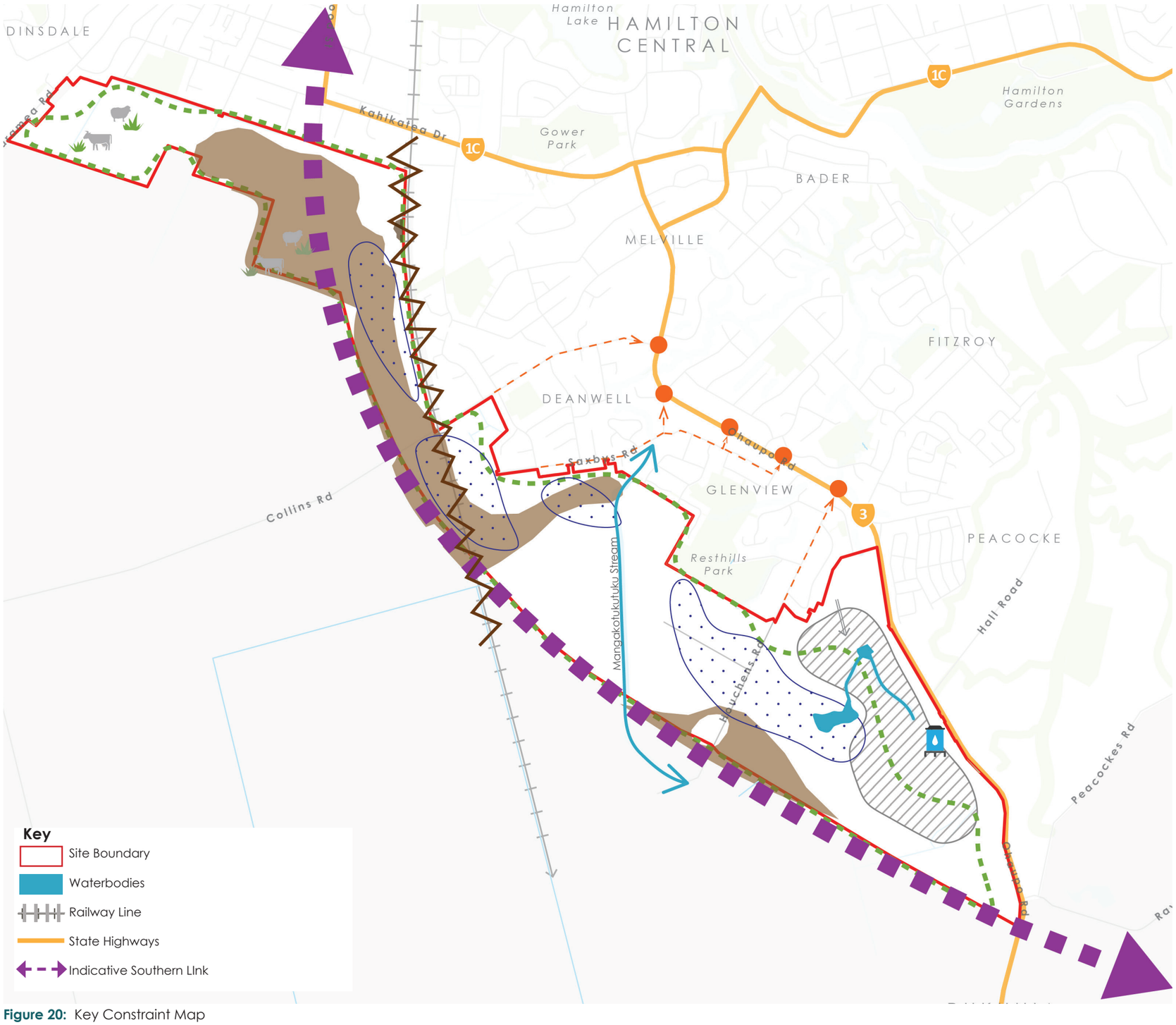


Figure 20: Key Constraint Map
Scale 1:25,000

3.2 Opportunities

Figure 17 identifies the key physical and spatial opportunities in relation to SL1. The concept plan design of the area will leverage and enhance these opportunities.

Southern Links forms the a defensible boundary to the south of Hamilton City.

Existing and potential connection to some existing key roading networks, as well as to encourage and improve active mode transports.

Opportunity to provide additional residential developments and provide housing choices and diversity.

Opportunity to provide additional industrial land and form part of the existing Te Rapa - Frankton industrial corrdior.

Several large existing parks are located immediately adjacent to the SL1 area which provide the opportunity for a high level of amenity and outlook.

A spine road can be formed between Collins Road and SH3.

The area is able to be stitched into the existing urban fabric which includes schools, supermarkets and community facilities. This will be able to be leveraged for early stages of development.

Opportunity to leverage infrastructure proposed to serve Peacockes.

Opportunity to naturalise farm drains and streams, as well as to improve and enhance ecological values.

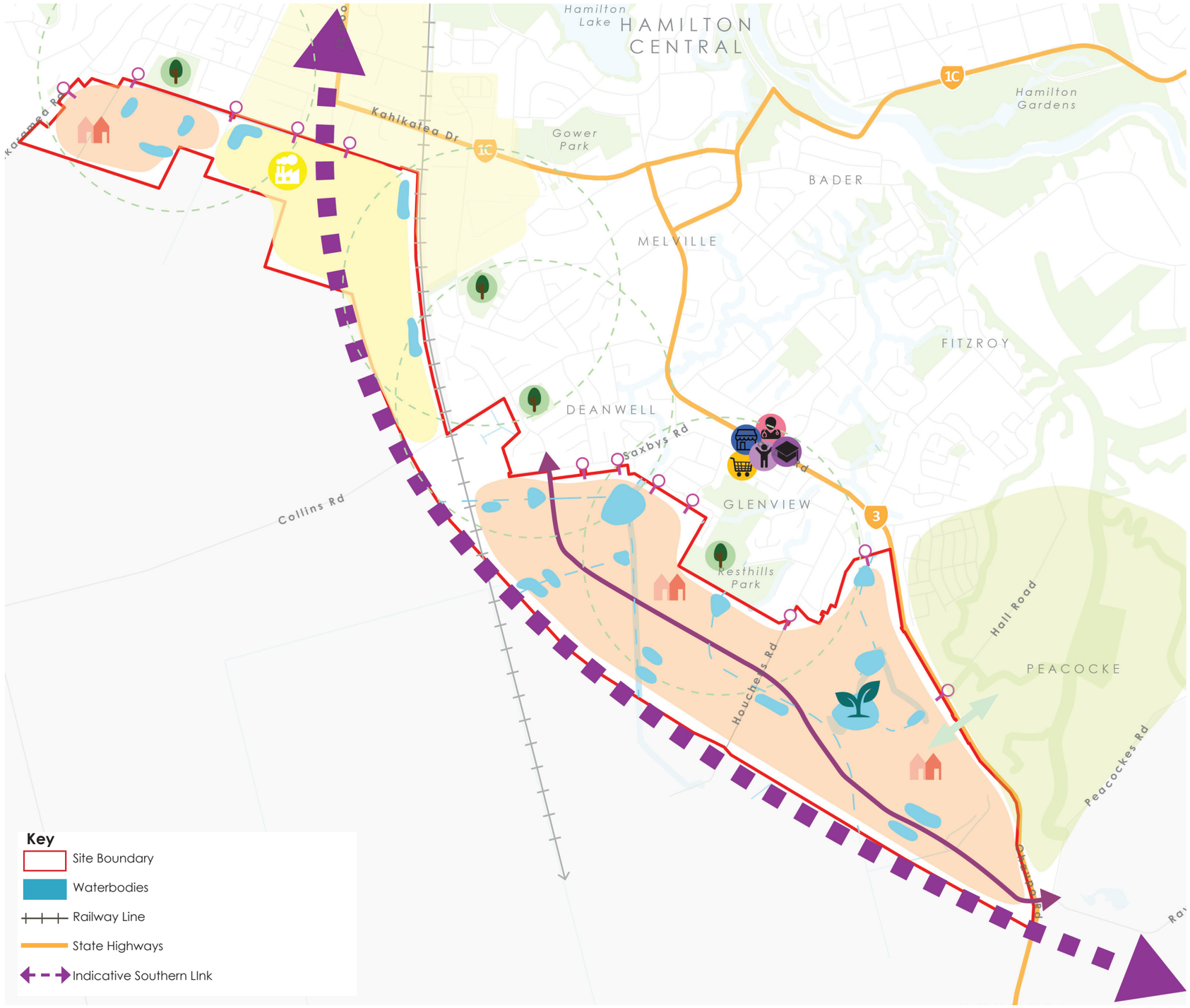
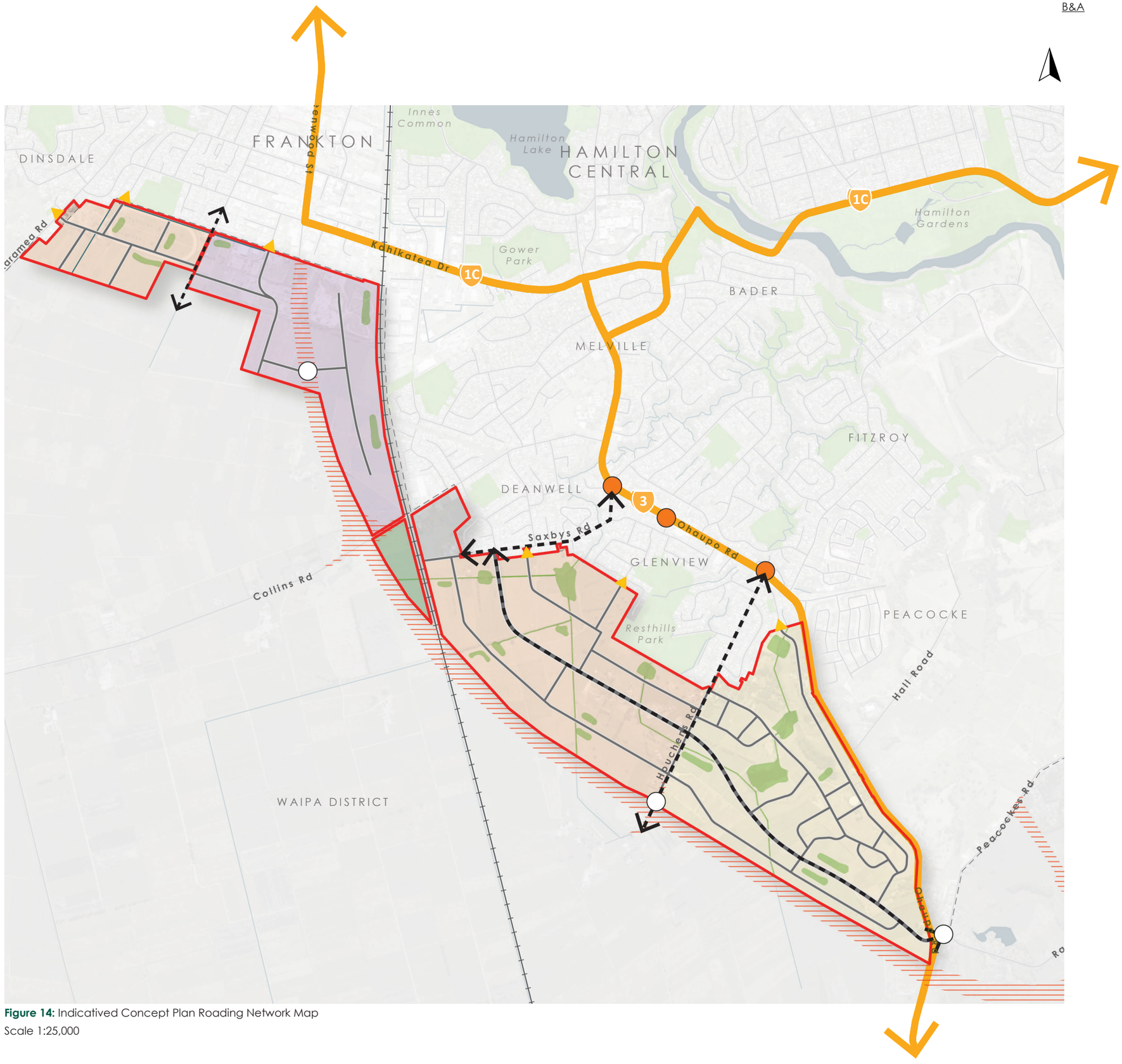


Figure21: Opportunities Map
Scale 1:25,000

4.0 SL1 CONCEPT PLAN LAYERS

4.1 Indicative Concept Plan - Roading Network



Key

- Site Boundary
- Medium Density Residential
- Medium Density Residential (topographical)
- Industrial Development
- Indicative Green Space
- Existing Social Amenities (schools and sport grounds)
- Indicative Stormwater Treatment and Ecological Enhancement Opportunities
- Indicative Collector Spine Road
- Indicative Key Collector Connection and Movement Road
- Indicative Key Local Connections/Road Network
- Existing Roading Network
- State Highway
- Railway
- Southern Links Designation
- Indicative Future Connections to Existing Roading Networks
- Indicative Intersection Signals
- Indicative Roundabouts

Figure 14: Indicatived Concept Plan Roading Network Map
Scale 1:25,000

4.2 Indicative Concept Plan - Public and Active Transport

Key

- Site Boundary
- Indicative on-road cycle connections
- Indicative off-road walking and cycle routes
- Existing walking & cycling route
- Indicative public transport routes
- Existing public transport routes
- Proposed Open Space
- Possible bus stop locations
- Existing bus stop locations
- 400m walkable catchment
- State Highway
- Railway
- Southern Links Designation
- Vegetated buffer along designation and railway line

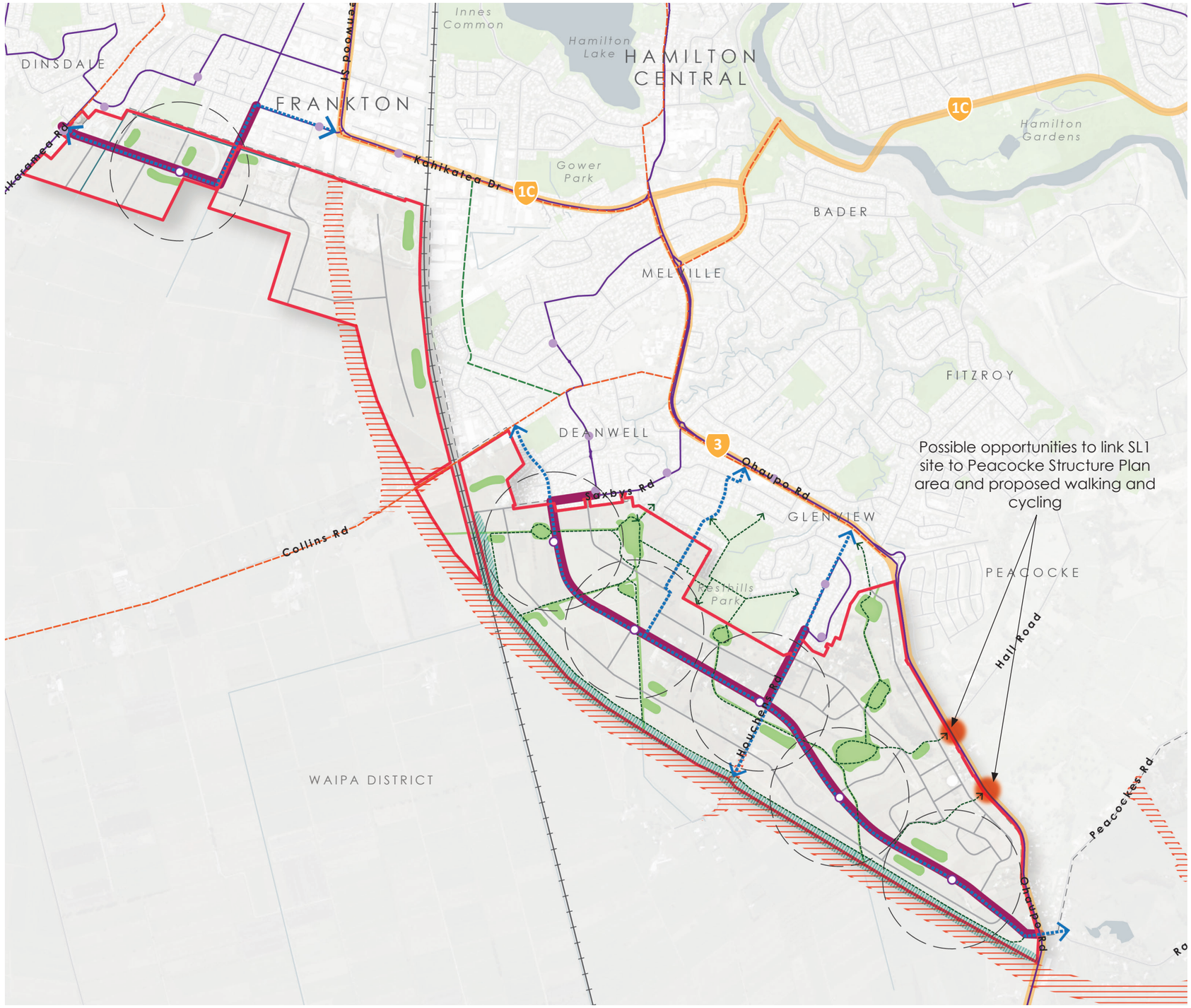


Figure 15: Indicative Public and Active Mode Transport Network Map
Scale 1:25,000

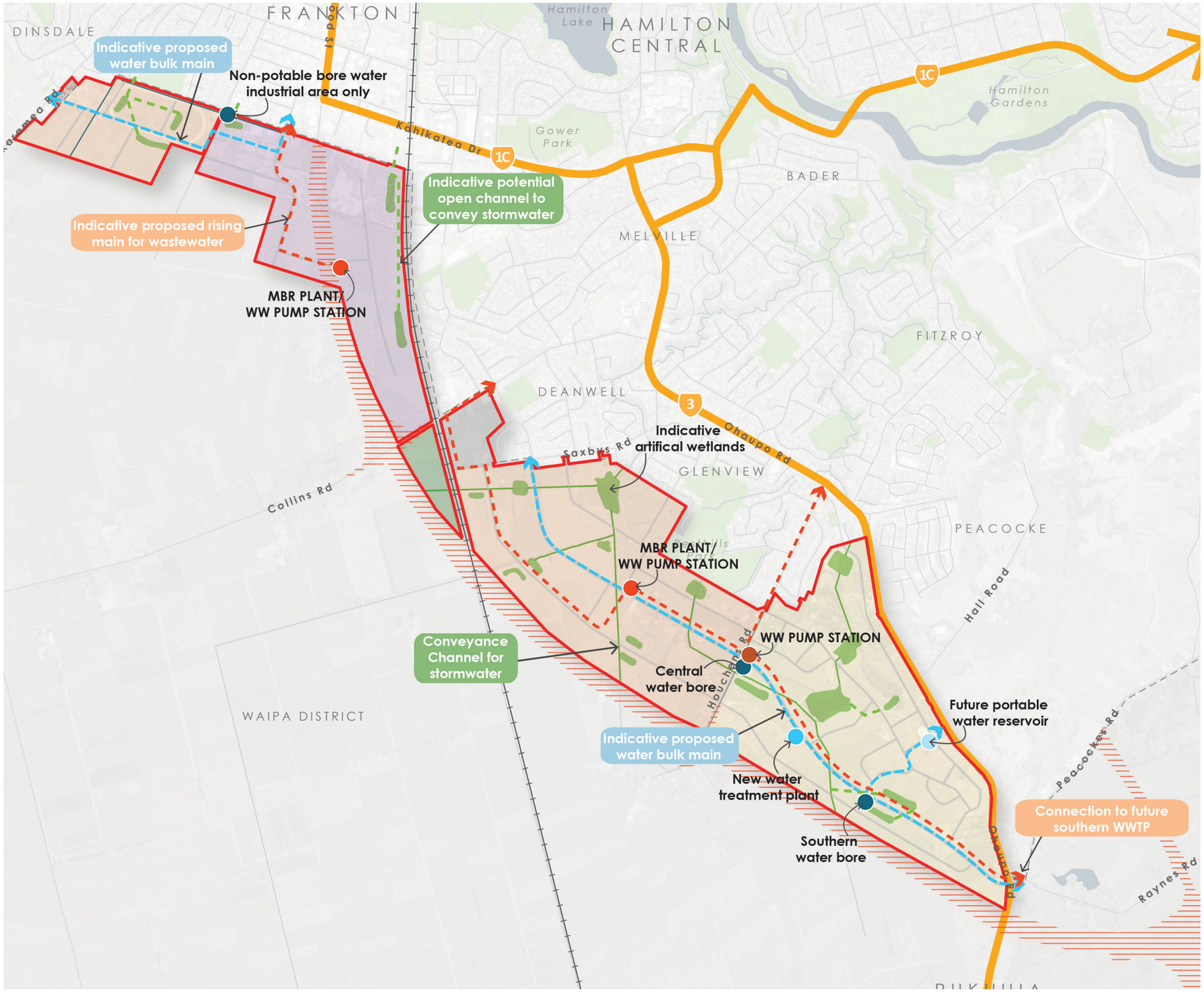
4.3 Indicative Concept Plan - Open Space Network

Key

- Site Boundary
- Reserves / Green Spaces
- Waterbodies
- Railway Line
- State Highway
- Indicative Stormwater Treatment and Ecological Enhancement Opportunities
- Indicative Green Space
- Southern Link Designation
- 400m Catchment (approx. 5min walk)
- 800m Catchment (approx. 10min walk)

Figure 16: Indicative Open Spaces Network Map
Scale 1:25,000

4.4 Indicative Concept Plan - Three Waters Infrastructure



Key

- Site Boundary
- Medium Density Residential
- Medium Density Residential (topographical)
- Industrial Development
- Indicative Green Space
- Existing Social Amenities (schools and sport grounds)
- Indicative Stormwater Treatment and Ecological Enhancement Opportunities
- Indicative Key Collector and Local Roads
- State Highway
- Railway
- Southern Links Designation

Figure 17: Indicative Three Waters Infrastructures Network Map
Scale 1:25,000