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Foreword | Kuku Whakataki

The future looks bright in the Hauraki District. After a period of low growth, the number of people choosing to live, work, visit and do business here is growing every day, and we expect this will continue well into the future. Which is great news.

However, increased growth comes with more demand for housing, business expansion and the establishment of new businesses, so we need to make sure we have enough land, in the right places, with the services we need to cater for everyone. This includes providing things like drinking water, wastewater services, and roads, as well as parks and reserves and other ‘nice to have’ spaces that help keep our communities the vibrant places they are.

This strategy addresses the challenges of managing current growth in a way that’s sustainable, and also provides a roadmap for growth in the future.

Looking forward, I imagine our main towns of Waihi, Ngatea and Paeroa will continue to expand and provide business, community and cultural opportunities for our communities. There will also be development in Turua and Kerepehi as secondary service townships, with Kerepehi playing a key role for attracting and developing industry.

Most importantly, I see the Hauraki District continuing to be a place where people want to live, visit and do business because of our great location, caring and diverse communities, and our special natural and cultural features and attractions.

John Tregidga, JP, MNZM
MAYOR
Hauraki District
Overview

Situated in a prime location between the major cities of Auckland, Tauranga and Hamilton, the Hauraki District is a place where people want to live, visit and do business. There are three towns in the district; Waihi, Paeroa and Ngatea, two smaller townships; Turua and Kerepehi and a number of smaller rural and coastal settlements.

The District is geographically and economically diverse with highly productive dairy farming and horticultural land, the rugged beauty of the Karangahake Gorge, wetlands of international significance and a variety of coastlines and beaches.

After a period of low growth, the district is now growing faster than anticipated. Primarily driven by more people choosing to live in the district, which may be partly due to the flow on effects of growth pressures facing nearby cities, this growth has boosted the local economy, increased demand for housing and infrastructure, and is expected to continue well into the future.

This strategy addresses the opportunities and challenges of managing this growth in a sustainable way that provides a level of certainty to the community and the market. It delivers a framework for guiding future growth decisions by identifying future areas for development within the district and ensuring the provision of sufficient infrastructure to meet the needs of our growing communities.

Our proposed overall strategic direction for growth in the Hauraki District is to provide for the managed expansion of Waihi, Paeroa and Ngatea, to ensure these towns continue to provide commerce, industry, residential, community, cultural and civic activities and opportunities.

The strategy also provides for Turua and Kerepehi as key secondary service townships in the District, with Kerepehi playing a key role as a growing industrial hub, perfectly situated on State Highway 2 between the three major ports of Auckland, Tauranga and Hamilton.

The focus of the remaining rural and coastal settlements will be to accommodate growth within their existing areas, reflecting constraints to development such as lack of servicing, natural hazards, special natural and cultural features worthy of protection, and historically low growth rates.

Implementation of the overall strategic direction for growth will be through statutory means such as the District Plan and Long Term Plan, as well as non-statutory methods such as promoting business and lifestyle opportunities within the district.

This is a living document that will be continually reviewed to ensure we keep up with demand for appropriately zoned land and infrastructure to cater for the continued and sustainable development of diverse and prosperous communities within the Hauraki District.
Demographic Trends

Population
The population of the District at the last census in 2013 was 17,808 people. The estimated population as at 30 June 2018 was 19,950 people.1

Based on a “high” growth scenario, the District’s population is projected to increase by 8% over the ten-year period between 2018 and 2028, from 20,650 to 22,300 people. After 2028, the population is projected to continue increasing but at a lesser rate, reaching 23,695 people by 2048, refer Table 1 below.

Overall, the District is expected to grow by an average of 100 people per year over the next 30 years. This means a total of 3,000 more people.

Of the three towns in the District, Paeroa is forecast to have the most population growth over the next 30 years. However, Waihi is forecast to remain the largest town, with a projected population of 5,840 by 2048.

Table 1: District and Town Population Projections

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2028</th>
<th>2038</th>
<th>2048</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hauraki District</td>
<td>20,650</td>
<td>22,300</td>
<td>23,145</td>
<td>23,695</td>
</tr>
<tr>
<td>Paeroa</td>
<td>4,530</td>
<td>5,010</td>
<td>5,320</td>
<td>5,600</td>
</tr>
<tr>
<td>Ngatea</td>
<td>1,435</td>
<td>1,550</td>
<td>1,635</td>
<td>1,685</td>
</tr>
<tr>
<td>Waihi</td>
<td>5,320</td>
<td>5,660</td>
<td>5,780</td>
<td>5,840</td>
</tr>
</tbody>
</table>

Source: Rationale Ltd 2017, high growth scenario

Ageing population
Following national trends, the District has an aging population; that means the proportion of people aged over 65 is growing. By 2018 it is estimated that 24% of the population of the Hauraki District will be aged 65+ years; this is projected to increase to 30% by 2028 and 38% by 2048. A combination of factors is driving this; including better health care, longer life expectancies, and declining birth rates.

Household size
Also following national trends, the average household size (number of people living in a house) in the District is expected to decrease from 2.50 persons in 2006 to 2.29 persons in 2018. It is considered that this trend will continue and further decrease to 2.24 persons by 2028, and 2.05 persons per household in 2048. The decrease in household size is related to the ageing population, with more one person households, as well as a smaller average family size.

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1 Statistics NZ Census 2013, Subnational population estimates as at 30 June 2018
2 Rationale Ltd 2017 Demographic Projections
3 Ibid
4 Ibid
Dwellings

Population growth and a decrease in household size translates into a projected increase in the number of dwellings in the District, over the next 30 years. Based on a “high” growth scenario, over the ten-year period from 2018-28 it is projected that the number of dwellings in the District will increase to 11,457 dwellings. After 2028, it is projected that the number of dwellings will continue to increase but at a slower rate, refer Table 2 below. This is consistent with the projected population increases.

Overall, there will be an average of 90 extra dwellings in the District per year. This means 2,700 more dwellings over 30 years.

Table 2: District Dwellings Projections

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2028</th>
<th>2038</th>
<th>2048</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hauraki District</td>
<td>10,320</td>
<td>11,457</td>
<td>12,185</td>
<td>13,024</td>
</tr>
</tbody>
</table>

Source: Rationale Ltd 2017, high growth scenario

Rating units

Rating unit growth is driven by the economy, population growth and other changes in demographics and lifestyle patterns. The majority of the projected increase in rating units is in the residential and residential lifestyle rating unit categories. This is because the District’s growth in rating units closely follows the growth trend in the number of dwellings in the District.

However, the flow-on effect from the high population and dwellings growth scenario also results in an increase in commercial and industrial rating units from 626 units in 2018 to 962 units in 2048, refer Table 3 below. This is an increase on average of around 11 units per year, or an average growth rate of 1.8% per year.

Table 3: District Rating Units Projections

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2028</th>
<th>2038</th>
<th>2048</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total rating units</td>
<td>11,452</td>
<td>12,687</td>
<td>13,518</td>
<td>14,492</td>
</tr>
<tr>
<td>Residential</td>
<td>6,559</td>
<td>7,371</td>
<td>7,906</td>
<td>8,541</td>
</tr>
<tr>
<td>Residential Lifestyle</td>
<td>2,348</td>
<td>2,673</td>
<td>2,863</td>
<td>3,070</td>
</tr>
<tr>
<td>Rural Industry</td>
<td>1,196</td>
<td>1,196</td>
<td>1,196</td>
<td>1,196</td>
</tr>
<tr>
<td>Commercial and Industrial</td>
<td>626</td>
<td>724</td>
<td>830</td>
<td>962</td>
</tr>
<tr>
<td>Mineral Related</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Other</td>
<td>691</td>
<td>691</td>
<td>691</td>
<td>691</td>
</tr>
</tbody>
</table>

Source: Rationale Ltd 2017, high growth scenario

Industry

Mining is the largest industry in the District. In 2018, it makes up almost 23% of the Gross Domestic Product (GDP) for the District. The second largest industry is agriculture, forestry and fishing with almost 19% of GDP, refer Diagram 1 below. Primary industries (which are based on obtaining natural resources) provide the largest proportion of GDP (41%) in the District, which is much higher than for NZ (7%).

The biggest contributors to economic growth in the District over the 10-year period between 2008 and 2018, were the mining ($30 million) and agriculture, forestry and fishing industries ($19 million), refer Table 4 below.

Diagram 1: Industry proportion of GDP, 2018

Table 4: Biggest contribution to economic growth 2008 - 2018

<table>
<thead>
<tr>
<th>Industry</th>
<th>2018-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>$30m</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>$19m</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>$18m</td>
</tr>
<tr>
<td>Public administration and safety</td>
<td>$9m</td>
</tr>
<tr>
<td>Retail trade</td>
<td>$7m</td>
</tr>
<tr>
<td>All other industries</td>
<td>$16m</td>
</tr>
<tr>
<td>Total increase in GDP</td>
<td>$97m</td>
</tr>
</tbody>
</table>

Source: Infometrics Hauraki District Economic Profile, 2018
Employment

As would be expected from the dominance of primary industry in the District - Hauraki District has a higher proportion of people employed in the primary sector compared with the rest of NZ as a whole. The industry which employs the largest number of people living in the District in 2018 is agriculture, forestry and fishing (1,340 people), followed by health care and social assistance (866 people) and construction (731 people). Mining employs 280 people.5

A high concentration of certain industries may indicate that an area has a comparative advantage. This may be due to its natural endowments, location, skills of its labour force or other reasons. The industries in the District with the largest comparative advantage are mining, dairy cattle farming and meat and meat product manufacturing.6

The industries which created the most jobs in the District between 2008 and 2018 were the health care and social assistance (293 jobs) and public administration and safety industries (131 jobs), refer Table 5 below.

Table 5: Industries which created most jobs, 2008-2018

<table>
<thead>
<tr>
<th>Industry</th>
<th>2018-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health care and social assistance</td>
<td>293</td>
</tr>
<tr>
<td>Public administration and safety</td>
<td>131</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>90</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>48</td>
</tr>
<tr>
<td>Administrative and support services</td>
<td>38</td>
</tr>
<tr>
<td>All other industries</td>
<td>-407</td>
</tr>
<tr>
<td><strong>Total increase in employment</strong></td>
<td><strong>192</strong></td>
</tr>
</tbody>
</table>

Source: Infometrics Hauraki District Economic Profile, 2018

5 Hauraki District Economic Profile, 2018, Infometrics, pg15
6 Hauraki District Economic Profile, 2018, Infometrics, pg10
Existing Development

Currently Waihi, Paeroa and Ngatea are the three main towns in the District, each providing a centre for commerce, industry, residential, cultural and civic activities. Kerepehi and Turua are secondary centres or townships. Turua has a residential area with a small township that primarily services the surrounding rural population. Kerepehi while also comprising a residential area, is a developing industrial hub.

There are six rural and coastal settlements (Waitakaruru, Waikino/Mackaytown/Karangahake, Whiritoa, Kaiata, Whakatiwai, and Waharau), which are primarily residential areas with limited commercial or community services.

There are also other smaller settlements scattered throughout the District. These settlements are often a legacy of the past and have either declined in population or grown very slowly over time and as such have not been considered for accommodating future growth.

Capacity for Growth

An analysis of the capacity of currently zoned land to accommodate growth was undertaken for the three main towns in the District at the end of 2017. The following table (Table 6) shows the potential residential, low density residential, commercial and industrial development opportunities for Waihi, Paeroa and Ngatea.

Table 6: Potential development of existing zones

<table>
<thead>
<tr>
<th>Zones</th>
<th>Residential</th>
<th>Low density residential</th>
<th>Industrial</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waihi</td>
<td>Greenfield (lots) 150</td>
<td>50</td>
<td>70</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Infil (lots) 546</td>
<td>117</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Paeroa</td>
<td>Greenfield (lots) 302</td>
<td>183</td>
<td>250</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Infil (lots) 349</td>
<td>45</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ngatea</td>
<td>Greenfield (lots) 414</td>
<td>-</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Infil (lots) 43</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Totals (lots)</td>
<td>1,804</td>
<td>395</td>
<td>330</td>
<td>123</td>
</tr>
</tbody>
</table>
Residential, Commercial and Industrial Development

The following diagram compares the expected growth in residential and business development of the three main towns over time, with the availability of land zoned for these types of development. Infill development has not been considered, as the uptake is uncertain.

Residential development shows a shortfall in land available for development by 2028, though this growth can be accommodated in the townships of the district. This shortfall worsens to 2038 and beyond and exceeds land available elsewhere in the district. So further land is required to be zoned within the next 20 years to meet this shortfall and more land will be required over the longer 30 year timeframe. More residential land may be required at Waihi which has the least land available for development.

Business development shows a surplus of land over the 30 year period, suggesting there is sufficient land available but the location of this land is a consideration. Most of the available land is within Paeroa, so more land may be required to be zoned at Waihi and Ngatea.

Diagram 2: Land availability for expected residential and business development growth - 30 years

Diagram 3: Summary of main development contraints and opportunities for the District over the next 30 years

Summary of Development Constraints and Opportunities

The following diagram shows a summary of the main development constraints and opportunities for the District over the next 30 years.

Refer to the following sections for more detail – treaty settlements, infrastructure capacity; including increasing environmental compliance standards, natural features, historic heritage, natural hazards (including effects from climate change), natural hazard risk assessment.
Treaty Settlements

Hauraki Iwi are collectively and individually in the process of negotiating treaty settlements with the Crown; these processes have been underway for some time. The Pare Hauraki Collective is the mandated body formed by 12 Hauraki Iwi to negotiate the Collective Hauraki Treaty of Waitangi claim with the Crown. These negotiations have resulted in a draft Collective Treaty Settlement Deed (Aug 2018). When this Deed has been agreed and signed the next step is for the Crown to draft legislation to give effect to it.

Besides the Hauraki Collective settlement there are separate individual iwi settlements being negotiated with the Crown. Some of these Iwi have rohe within the Hauraki District. While these settlements will be with the Crown we expect there will be a number of cases where reserve lands are subject to treaty settlement arrangements and co-governance arrangements.

This means Iwi will have a greater role in governance and input into conservation matters in their roles as kaitiaki of their rohe. They may also have more opportunity to develop papakāinga.

Councils will also need to understand Iwi relationships with land and to develop an understanding of how Iwi and they can work through their views together. This means that councils and Iwi will be transitioning into new governance spaces.
Infrastructure

Infrastructure is the facilities and services that support communities. Facilities are physical things such as roads and electricity lines, while services are activities such as rubbish collection and education. Infrastructure can be provided by public agencies (central and local government), private companies (e.g. power retailers) and non-government organisations (e.g. community groups).

Non-Council infrastructure

Infrastructure within the District that is provided by organisations other than Council include education, health, electricity and gas, state highways, conservation and recreation. Feedback has been sought from the organisations providing this infrastructure and opportunities taken to discuss the projected growth in the district and likely impacts on infrastructure.

Iwi in particular raised the need to provide for a mixed model of social housing and papakāinga. They also highlighted the importance of education for Māori and noted the current lack of Māori education (including Kōhanga Reo and Kura Kaupapa (schools)) in the district. Discussions on these issues need to be ongoing and include all relevant parties with responsibilities in these areas.

Waikato Regional Council has significant drainage and flood protection infrastructure on the Hauraki Plains. The original drainage infrastructure was established in the early 1900s and opened up land for settlement and farming. Following large floods, the Piako River and Waihou Valley schemes were established. These schemes (which include stopbanks, rivers, natural streams, artificial channels, floodgates and pump stations) provide vital river and coastal flood protection.

Council infrastructure

In 2018 Council owns and manages $504 million of infrastructure facilities (assets), of these roading makes up over half of the total value:

- 633kms of roads (518km sealed, 115km unsealed), 145 bridges and major culverts and 114kms of footpaths.
- four water treatment plants supplying nine urban and 3 rural reticulated schemes with approximately 550km of pipes servicing 7,080 urban and rural properties.
- seven wastewater treatment plants servicing approximately 6,050 properties via 166km of pipes.
- 90km of urban stormwater pipes and 40km of open drains.
- 650km of rural land drains and 91 km of stopbanks.

Council’s community recreation facilities include swimming pools at Paeroa and Ngatea, the Waikato Events Centre, 67 parks and reserves, and associated facilities such as park furniture, playgrounds, and buildings.

Council’s community facilities include: district and rural community halls, pensioner housing, public toilets, cemeteries and non-recreation reserves.
As well as the facilities (and the associated services) mentioned above, Council provides other services such as food safety, environmental health, building and resource consents, support for economic development and tourism, and rubbish and recycling. Looking forward, the main issues and capacity considerations for Council’s infrastructure are outlined in further detail below.

Water supply
The following key issues for water have been identified:
- Drinking water quality standards.
- All our resource consents will need renewing but we are uncertain about what the future conditions will require.
- Capacity for growth in the water supply network.
- Water network losses.
- Effect of climate change on water supply.
- The risk to water supply infrastructure from natural hazards.
- Asset condition and performance.
There is currently sufficient extra capacity in the water treatment plants to accommodate the growth projections, but any significant increase in demand from for example dairy or industry may require significant expenditure for upgrades.

Wastewater
The following key issues for wastewater have been identified:
- Increased environmental compliance standards will need to be met.
- Projected population growth will exceed the capacity of existing wastewater treatment plants, particularly in Kerepehi, Waihi and Paeroa.
- Need to reassess the capacity of wastewater infrastructure to cope with climate change impacts such as more intense and frequent rainfall.
- The impact of sea level rise, rising water tables and coastal erosion on public and private wastewater infrastructure.
- Understanding the District’s leaky network catchments.
- Asset condition and performance.
Over the next 5 years, beginning in 2018, Council will be required to renew all of its discharge consents for the wastewater treatment plants. New environmental standards for discharges will require upgrades to all 7 of the wastewater treatment plants.

Expected growth (residential and commercial/industrial) in the District may also drive the need to upgrade wastewater treatment plants. This is particularly relevant in Paeroa, Waihi and Kerepehi where development is likely to drive the need to upgrade before the discharge consents require Council to do so.

Stormwater
The following key issues for stormwater have been identified:
- Increased environmental compliance standards will likely require the treatment of stormwater.
- The impact of more frequent and intense rainfall events as a result of climate change.
- The Council needs to better understand the condition and performance of its older stormwater assets.
As with wastewater, new environmental standards are likely to mean that Council will have to improve the quality of the stormwater discharges to the rivers. Council has proactively responded to climate change by using the recommended increase in rainfall intensities for determining pipe sizes for stormwater systems.

Roading
The following key issues for land transport have been identified:
- Future level of funding subsidies is uncertain.
- Impacts of aging population and accessibility on levels of service and costs of providing that service.
- Impact of sea level rise and coastal erosion on roading and bridge infrastructure.
- Impacts on roading infrastructure from other climate change effects.
- Our bridges are ageing.
Council is trying to determine the potential impacts of climate change on our roads – particularly the peat soils underlying some areas of the Hauraki Plains. Climate change scientists have indicated that we can expect more droughts and bigger rain events more frequently as the climate changes. The droughts can be particularly damaging to roads built on peat soils. Large rain events cause flooding and slips which may lead to increased maintenance costs for Council.

13
Land drainage and flood protection schemes

The Hauraki Plains is serviced by assets that provide both a land drainage and flood protection function, managed by both Hauraki District Council and Waikato Regional Council. These assets include drains, canals, rivers, stopbanks, spillways, floodgates, pump stations and ponding zones.

The following key issues for land drainage and flood protection have been identified:

- Impacts on land and property from sea level rise and coastal erosion.
- Impact of natural hazards and effects of climate change on the land drainage network.
- Asset condition and performance.
- Peat oxidation causing ground level to lower.

Routine work is required to raise stopbanks back to design crest levels due to consolidation of the soft underlying soils. The raising of the stopbanks to accommodate sea level rise predictions will also be undertaken as part of this routine work.

The anticipated increase in the population of the Hauraki District is not expected to impact demand on the land drainage infrastructure. The primary function of the land drainage activity is to provide and protect arable land, this function is not affected by changes in the urban environment. Moreover, changes in imperviousness on farming and rural properties which would typically affect runoff are considered negligible compared to the capacity of the land drainage infrastructure.

Community infrastructure

Forecast population growth will impact on demand for community facilities and services. Council will look at improving the delivery of existing services and providing new capacity/services as required.

With regards to sport and recreation, Council’s Sports Plan recommends that facilities should be designed to accommodate changing community profiles and associated sporting trends and needs over time. Projected growth, primarily in the older age groups, will require a stronger focus on making facilities and programmes suitable for older users. Partnerships with schools, neighbouring councils, Department of Conservation and local iwi offer opportunities to provide multi-use community spaces and places.

Summary

As well as ongoing maintenance and renewals of Council infrastructure, a common issue is how climate change will impact on Council’s infrastructure in the future. The effects of climate change include sea level rise, leading to increased coastal erosion, coastal flooding and rising water tables, increased frequency and intensity of rainfall from storm events, and increased droughts. The natural hazards of the District are examined in more detail in a later section below, and it is important to remember the risk they pose to Council infrastructural assets as well as to private development such as people’s houses.

Council’s Infrastructure Strategy identifies that the risk from the effects of climate change impacting on Council’s stormwater, water supply and wastewater assets is low, as there is time to identify and respond to the risk. The Infrastructure Strategy notes that there is medium risk to Council’s roading and bridge infrastructure from sea level rise and coastal erosion, though some parts of the network, such as Kaiaua and Pūkorokoro Miranda have a higher risk.

The Infrastructure Strategy also notes with regard to land drainage and flood protection, that stopbank failure would be catastrophic on low lying and coastal settlements. The risk is assessed as high but unlikely to occur. Further work is identified to model stopbank failure and understand what mitigation measures may be required.
Natural Features

The District contains many unique and special natural features. These are summarised below:

The District contains two of six internationally significant wetlands in NZ. The first, is the Kopuatai and Torehape Peat Domes, which together comprise an expansive area of wetland. The Kopuatai Peat Dome has been accorded International status as a Conservation Area by the International Union for Conservation of Nature and Natural Resources (IUCN) based on the Ramsar Convention. The wetlands perform an essential catchment management function. In addition, the wetlands have high cultural value to Ngati Hako. It is essential that these wetlands be retained in their natural or regenerating state.

The second wetland, is the Firth of Thames coastline, from Pūkorokoro Miranda to the Waihou River mouth, which consists of soft mudflats, mangrove forest and some intermingled salt marsh. This coastal wetland is one of New Zealand’s most important coastal stretches for wading birds and has also been recognised as of international significance by Ramsar.

The eastern coastline of the district contains outstanding natural features and landscapes, such as the Whiritoa blow hole. The coastline is dominated by a series of bays and several sandy beaches. For some stretches of the coastline the land drops straight into the sea in the form of distinctive white and pink cliffs.

Features of this coastline include important coastal habitats, natural stream tributaries and estuaries, and vegetated pohutukawa cliffs, rarely found on the Coromandel Peninsula.
The rural land resource is one of the most valued of the natural and physical resources in the District. It includes the fertile Hauraki Plains and Waikato basin areas, the western foothills of the Hapuakohe Range, the eastern hills of the Waikato Basin and the foothills of the Coromandel and Kaimai-Mamaku Ranges. Dairy farming is concentrated on the plains area. Horticulture is predominantly located in the Waikato Basin. Extensive grazing and production forestry occurs in the hill country. Important mineral resources are also located within the District.

The Karangahake Gorge contains outstanding natural features and landscapes such as Ohinemuri River, White Rocks, Owharoa Falls and Mt Karangahake. In addition, the Karangahake Gorge includes steep rock cliffs, vegetation, historic examples of the gold mining era and recreation activities. Although the landscape has been significantly modified over the years, the combination of the dramatic physical geography, regenerating indigenous vegetation, cultural heritage of significance to tāngata whenua and historic heritage makes the area outstanding within Hauraki District.

The Coromandel and Kaimai Ranges are another outstanding landscape. The range forms the distinctive backbone to the Coromandel Peninsula and continues south into Hauraki District. The landform varies from rolling hills to steep and deeply incised hill country. With the exception of some of the lower slopes which are used for sheep and cattle grazing, the majority of the land is in native forest with some areas of pine plantation. The ranges have significant deposits of epithermal gold and silver that have been mined since the 1870s. New Zealand’s richest gold and silver mining area is located in Waikato but historically mining has also occurred in the Coromandel ranges from Waikato north and in the Karangahake Gorge.

The District also contains large areas of indigenous vegetation in public ownership mainly to the east of the district (Coromandel Forest Park, Kaimai-Mamaku Forest Park), with smaller areas in the north west (Hunua Ranges, Wairau Regional Park) and west (Kaihere Patetonga Hills, and Hapuakohe Range).
Historic Heritage

Historic European and Māori heritage
The concept of heritage encompasses natural, built and cultural features including historic buildings, archaeological sites, trees, landforms and ancestral lands. Heritage is what is passed from one generation to another, or what provides links with the past as well as providing current and future generations with spiritual and cultural wellbeing and identity. Council’s District Plan protects identifies heritage features, items and areas; and areas of significance to Māori within the District.

Māori cultural sites
The relationship of Māori, including their culture and traditions, with their ancestral lands, water, waahi tapu and other taonga has the potential to be destroyed or compromised through inappropriate land use and development. Only a fraction of the original Māori land holdings within the Hauraki District now remain in Māori ownership. Land in current Māori ownership is only part of what are termed ‘ancestral lands’ or ‘ancestral landscapes’. Some lands that are no longer in Māori ownership hold importance to particular iwi, hapu or whanau as part of their ancestral heritage.

Heritage sites of cultural and historical significance to Māori can also be damaged or altered in ways that demean their mana and wairua. This may occur during subdivision and land development, the removal of natural resources through mining or quarrying, or the discharge of waste into water or onto land of high spiritual significance.

Council recognises that ongoing consultation with tangata whenua is necessary to ensure that waahi tapu and other sites are recognised in a culturally appropriate manner and that acceptable mechanisms are put in place for their protection. Council accepts that in some circumstances there is an inherent conflict between the identification of waahi tapu and their protection, and in some instances, the Māori Community may not wish to have particular sites identified.

Council will endeavour to identify, in consultation with the iwi who have mana whenua, significant Māori traditional sites and provide for protection and preservation of them. Council, in consultation with tangata whenua, will also work to devise acceptable methods to provide the necessary protection and preservation for unidentified Māori traditional sites.
Natural Hazards

The Hauraki District is subject to a number of natural hazards, such as river and stream flooding, coastal erosion, coastal flooding, earthquake and tsunami.

**River and stream flooding** is the most common natural threat to the Hauraki District, with most rivers and streams posing a potential hazard to existing development which is situated close to the banks of rivers. The Waihou, Piako and Ohinemuri River systems have been identified as being the highest risk of creating a flood hazard.

The majority of the Hauraki Plains is very low lying and subject to high groundwater tables. Flood protection schemes are in place, however flooding can result from flows that exceed the design standards of the schemes (overtopping) and potential breaches of the stopbank.

The areas that are most at risk from **coastal erosion and coastal flooding** hazards are:

- Whiritoa on the east coast of the Coromandel Peninsula.
- The Pūkorokoro Miranda lowlands and Kaiaua Coast, located on the western side of the Firth of Thames.
- The northern part of the Hauraki Plain which is bounded by the Firth of Thames.

The Kaiaua Pūkorokoro Miranda lowlands are particularly vulnerable to serious coastal flooding during extreme storms. Coastal erosion affects the entire length of this coast and there are currently no shoreline protection structures here.

There are also other communities that have not been impacted by coastal flooding in recent history but which could be particularly vulnerable in the event of over-topping or failure of existing stopbanks, especially low lying settlements of the Hauraki Plains (e.g. Waitakaruru, Turua, and Ngatea).

As a result of **climate change**, the Hauraki District is at risk from increasing sea levels, rising water tables and greater climate variability, including changing temperature and rainfall patterns and increasing storm intensities. Climate change presents an immediate threat from higher storm intensities and potential for weather-related natural hazards such as floods, slips and drought. This will increase the requirements for flood protection schemes to maintain the current levels of protection.

Over the longer term, climate change and sea level rise are likely to increase risks to coastal properties due to increased coastal flooding and erosion. There
may also be implications for primary production industries resulting from changes to the region’s suitability for different types of farming, and water storage. Furthermore, there will be implications for Council’s infrastructure in servicing existing and future communities.

The Kerepehi Fault is a group of active fault segments running through the Hauraki Plains between the Firth of Thames and Okoroire. There is a risk of a significant earthquake event in the area if large segments of the fault system rupture. Liquefaction as a result of an earthquake generated by the Kerepehi Fault is also a potential hazard for areas of the District with unconsolidated soils and a high water table.

The Coromandel Peninsula and the Firth of Thames are both at risk from tsunami. The hazard is dependent on whether the tsunami has been generated by a local or a more distant event, both in terms of warning times and size of tsunami event.

Mayor Island, which is situated 25km offshore from Whiritoa, represents the most significant volcanic hazard to the District. Mayor Island has produced many explosive and effusive eruptions during its history. Ash fall from other sources such as the Taupo and Okataina volcanic zones is also possible.

Natural Hazard Risk Assessment

We have a duty of care to support our communities to keep themselves as safe as possible from natural hazards, as well as to prevent new residents from investing in areas where they may be exposed to unacceptable levels of risk from natural hazards, now or in the foreseeable future. However, we also have a role in supporting prosperous communities. So while acknowledging natural hazards are a concern we also want to look at opportunities for the growth and development of our communities.

Analysis by Waikato Regional Council (WRC) on hazards in the Hauraki District reveals that river flooding hazards, particularly at Ngatea and Paeroa, pose the greatest risk to our District. Coastal flooding has the second highest risk, and earthquakes the third highest risk.7

Note that this analysis does not include the Kaiaua Coast as this area was not in the Hauraki District at the time, being added as a result of Auckland Council amalgamation in 2010. WRC are currently undertaking an analysis of natural hazards for this area.

The following table (Table 7) shows the risk level determined by WRC based on likelihood and consequence, note this is a summary of the full table which is reproduced in Attachment Z.

Table 7: Natural Hazard Risk Assessment

<table>
<thead>
<tr>
<th>Natural Hazard</th>
<th>WRC Risk Evaluation</th>
<th>Area affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>River flooding</td>
<td>Extreme</td>
<td>Area bordering Waihou, Piako, Ohinemuri Rivers</td>
</tr>
<tr>
<td>Coastal flooding</td>
<td>High</td>
<td>Coastal areas</td>
</tr>
<tr>
<td>Earthquake</td>
<td>High</td>
<td>District wide</td>
</tr>
<tr>
<td>Severe storm</td>
<td>High</td>
<td>Western side of Kaimai, Coromandel ranges</td>
</tr>
<tr>
<td>Tsunami</td>
<td>High</td>
<td>Coastal areas</td>
</tr>
<tr>
<td>Volcanic</td>
<td>High</td>
<td>District wide, dependant on wind directions</td>
</tr>
<tr>
<td>Debris Flow</td>
<td>Moderate</td>
<td>Unknown, usually on alluvial fans</td>
</tr>
<tr>
<td>Coastal erosion</td>
<td>Low</td>
<td>Coastal area</td>
</tr>
</tbody>
</table>

The risk assessment concludes that river flooding, coastal flooding and earthquakes are the highest priority natural hazards currently facing the Hauraki District.7 The communities most affected by these hazards are Hauraki Plains (Ngatea, Waitakaruru, Turua), Paeroa and coastal communities, these areas will be examined further in the section below.

The Kaiaua Coast, though not part of WRC’s risk assessment, is also considered at risk of river flooding, coastal flooding and coastal erosion. Recent river and coastal flooding events (March 2017, January 2018) have resulted in inundation of homes, businesses and Council infrastructure, highlighting these hazards.

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7 An Overview of Natural Hazards in the Hauraki District. WRC, 2007, pg. v, 29
8 Ibid pg. 28
9 Ibid pg..26
Areas most at risk from natural hazards

HAURAKI PLAINS
The Hauraki Plains is an extremely low-lying area. Originally wetlands, it was unsuitable for farming in its natural state. In the early 20th century an ambitious drainage scheme that included stopbanks, an extensive network of canals and drains, and pumping stations, allowed it to be converted into dairying land, and for the establishment of townships, including Ngatea, Turua, Kerepehi and Waitakaruru.

So, while in its risk assessment, WRC has concluded that the Hauraki Plains is at extreme risk of flooding, it’s important to note that flood protection schemes are considered to have reduced the inherent risk of river flooding. This doesn’t mean that areas are “risk free”, as there is still a residual risk from stopbank over-topping or failure.

PAEROA
Paeroa also experiences flooding due to runoff from the Coromandel ranges, and river flooding which is impacted by tidal levels. However, while WRC has deemed the risk of river flooding in Paeroa as extreme, as with the Hauraki Plains this is significantly reduced by well-established flood protection schemes. Land-use planning restrictions, such as zoning of ponding areas in the Paeroa Main Drain catchment, also currently help to manage the flooding risk. Continued management of these risks will be taken into consideration during future planning and development in Paeroa.

COASTAL AREAS
Coastal areas in the Hauraki District include the Firth of Thames (Kaiapoa Coast, Pūkorokoro Miranda, Waitakaruru, northern Hauraki Plains) and the east coast (Whiritoa). Coastal erosion risk is considered low for most of the coastal areas of the district, however, the Kaiapoa Coast is currently experiencing coastal erosion which is threatening some council infrastructure such as some sections of council roads. Some coastal areas, such as Waitakaruru and the northern Hauraki Plains, are protected by coastal or foreshore stop banks, but other areas, such as the Kaiapoa Coast are currently more exposed. Coastal flooding is not currently a significant issue in Whiritoa.
Addressing river and coastal flooding hazard risks

The council has recently taken a major step forward in finding a long term strategy to managing coastal hazard risks, including sea level rise, in the district.

Environmental management experts have been appointed to work alongside the relevant councils and with affected communities, iwi and other stakeholders to develop a jointly developed and community-led strategy that will describe how we will respond to coastal hazard risks in the future, recognising that what we know about these risks may change 10, 20 and 100 years down the track.

This work will take an adaptive planning approach which includes the following options:

- **Accommodate**: adjusting existing assets by using measures that anticipate hazard risk, such as raising floor levels, providing alternative inundation pathways, requiring relocatable houses.
- **Protect**: use natural buffers like dunes or hard structures like seawalls.
- **Retreat**: move people and assets away from the coast in a managed way over time, or as a consequence of erosion and inundation damage after climate related events.
- **Avoid**: use land-use planning measures that stop putting people and assets in hazard areas.

In practice, a combination or sequence of these types of measures will be needed as coastal communities are increasingly affected by sea level rise. The same adaptive planning process can be used for communities facing river flooding hazards in the District.
SECTION 2: GROWTH STRATEGY | TE RAUTAKI WHAKATIPU
Promote the development of towns and townships that enable people, communities
and future generations to provide for their social, economic, cultural and
environmental wellbeing.

Ensure sufficient land is available for the development of housing and business
activities to provide people with access to a range of lifestyle choices and job
opportunities.

Plan for and integrate infrastructure provision with land zoning and development
to ensure infrastructural services and facilities meet future demand.

Contain development within defined urban areas to avoid rural residential sprawl
onto productive farmland, and ribbon development along coast and transport
corridors.

Avoid new development, and mitigate risks to existing communities, in hazard
prone areas.

Protect special natural and cultural features such as:
- Indigenous wetlands;
- Indigenous vegetation and biodiversity;
- Outstanding landscapes;
- Historic heritage areas;
- Productive soils;
- Sites of significance to Māori;
- Coastal environments.

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10 RPS Objective 3.1 - 3.3, 3.6 - 10, 3.12, Policy 4.1-4.4, 6.1 - 6.6, 6.8 – 6.9, 6
Strategic Direction for Growth

The following strategic direction for growth (shown on Map 1 below) has been determined as the best option for the sustainable development of the district. This determination has taken into account existing settlement patterns, population projections and infrastructure capacity, considered the physical features and constraints of the District and applied the key principles for growth.

Provide for future growth in Waihi, Paeroa and Ngatea to ensure these are the District’s three main towns, providing centres of commerce, industry, residential, community, cultural and civic activities. Maintain Kerepehi and Turua, as the District’s two secondary townships servicing widespread rural populations and providing an industrial hub.

Ensure growth in coastal and rural settlements is accommodated within the limits of the existing settlements, to recognise constraints to development; such as lack of servicing, natural hazard risk, and protection of special natural and cultural features.

Allow infill residential development within the main urban areas to ensure a range of lifestyle options to accommodate changing demographics and market demand.
The purpose of consolidating growth around existing towns and townships, is to take advantage of existing assets, including Council infrastructure, schools, medical facilities, and other services that may make future development more affordable and more sustainable over the longer term.

The purpose of limiting growth to existing areas in the coastal and rural settlements, reflects a preference for avoiding development in areas that have high levels of constraints associated with them, such as hazard risks and future risks from climate change. There is also a priority to avoid scattered rural residential development on productive farm land and ribbon development along the coast and transport corridors.

The purpose of providing infill development within existing main urban areas is to take advantage of existing services and to limit urban sprawl. Infill development is already possible through obtaining subdivision and land use consents under the current District Plan.

Plan Change 1 (Council’s decision on submissions was notified on 12 July 2019) will encourage further infill opportunities. Such as: lowering the minimum lot sizes in some areas (which could allow larger sections to accommodate two houses); and making provision for minor household units (or “granny flats”) as well as the main house on each site, where neighbourhood amenity can be retained. These changes may require design guidelines to encourage well designed developments that provide for residents needs such as privacy and sunlight.

In the next section we look at Waihi, Paeroa, Ngatea, Turua and Kerepehi in more detail, including issues relating to their growth and how the Growth Strategy addresses these issues.
Waihi is located on the eastern side of the Hauraki District and is at the base of the Coromandel Peninsula. As well as a thriving present-day community, Waihi has a rich mining history and was once one of the most prominent gold and silver mines in the world. Today mining remains a key industry for Waihi, with other industries including agriculture and horticulture, including many dairy and livestock farms along with a number of kiwifruit orchards.

The key issues for the future development of Waihi have been identified as follows:

- Defining and managing urban boundaries in the developing north-east and south-west edges of the town and ensuring adequate connections between existing development and new urban areas.
- Providing for future industrial development and providing additional residential capacity while maintaining residential amenity.
- Providing for tourism, and the gateway aspect of Waihi to the Bay of Plenty and vice versa.
- Managing the significant socio-economic effects of the eventual closure of the mine at Waihi.

These issues are addressed in the Growth Strategy by:

- Promoting the existing Structure Plan Area of 17.3 hectares in Waihi East for residential development, proposing infill residential development in suitable existing residential areas of Waihi and identifying future growth areas for residential (Waitete Road, Bradford Street, Wharry Road, A&P Showgrounds), low density residential (Waitete Road) and industrial development (Baxter Road, Ford Road), refer to following map.
- As mentioned earlier in the Growth Strategy, the purpose of providing infill development within existing main urban areas is to take advantage of existing services and to limit urban sprawl, while retaining residential amenity.
- The location of future growth areas defines the urban boundaries of Waihi by utilising the natural features of the Ohinemuri River, the Waitete Stream and the hills to the north and west. The future residential growth areas are located to the north east, north west and south west of Waihi. The areas provide a logical extension to the urban streetscape of Waihi. They adjoin existing residential areas and are relatively hazard free. Further hazard assessment will be undertaken during the District Plan change process and will determine any development constraints and propose methods to manage these.

Council’s District Plan places controls on new development with the aim of enhancing the historic mining character of Waihi and encouraging visual and physical linkages to local features such as the Pumphouse, Waitete Stream, Ohinemuri River and hills of the Coromandel range. District Plan changes to provide future areas for growth will also address concerns relating to providing connections, such as vehicular, pedestrian and open space, between existing and new urban areas, through the use of structure plans with associated requirements.

The future industrial growth area is located to the south of Waihi and is separated from residential development to avoid effects on amenity. The growth area builds on existing industrial development and provides a choice of locations on both sides of the State Highway. It is also a logical infrastructure extension. It is likely one location would be developed at a time as required by demand for industrial land.

The eventual closure of the mine in Waihi will have significant effects on people, the community and businesses in Waihi and the wider area. There are also environmental impacts which will require remediation. It is difficult to plan for this event as the timing of closure is uncertain, as are the development of other mining opportunities in the area.

Council initiatives such as the Economic Development Strategy address issues such as the development of tourism business opportunities which may go some way toward mitigating the effects of mining cessation.

Overall these measures aim to provide for the future growth of Waihi ensuring it continues to be one of the District’s main community and business centres; specialising in mining and tourism and servicing the surrounding rural area.
Map 2: Existing and growth areas of Waihi
Paeroa is located in the centre of the Hauraki District. The town was established in the 1870s and was originally a thriving port. Paeroa is now an attractive rural service centre, which is extremely busy given its central location at the junction of two State Highways.

The key issues for the future development of Paeroa have been identified as follows:

- Potential conflict between an attractive and busy town centre and the safe and efficient management of state highway traffic.
- Ensuring that residential amenity and character is maintained with further development.
- The location of industrial uses and the interface between industrial and commercial activities along the main street (northern end), and the manner in which connections can be made between the two activities across the redundant rail line.
- Managing existing flooding hazard and the potential of climate change to increase this hazard.

These issues are addressed in the Growth Strategy by:

- Promoting the residential and industrial Structure Plan Areas (residential 27.9 hectares, industrial 14.1 hectares), proposing infill residential development in suitable existing residential areas of Paeroa and identifying future growth areas for residential (SH26 west, race course), low density residential (SH26 east) and industrial development (SH2 east). Refer to following map.
- As mentioned earlier in the Growth Strategy, the purpose of providing infill development within existing main urban areas is to take advantage of existing services and to limit urban sprawl, while retaining residential amenity.

The future residential growth area has been located away from flooding hazard areas, on predominantly flat land adjacent to existing residentially zoned land, forming a logical expansion of Paeroa to the north east. Further assessment of the area will be undertaken during the District Plan change process and will determine any development constraints and propose methods to manage these.

The future low density residential area is located on the edge of Paeroa and provides an alternative living choice. An indicative 500 metre buffer area has been provided to prevent new dwellings from locating too close to the existing gun club in Morrison Road.

The future industrial growth area adjoins existing industrial land to the north of Paeroa and is separated from residential areas to prevent adverse effects on amenity for residents.

Council’s District Plan also addresses amenity and character concerns through controls on new development. It restricts development of flood ponding areas thus avoiding the risk of damage to property. District Plan changes to provide new areas of growth will also address concerns relating to providing connections between existing and new areas of development, through the use of structure plans with associated requirements.

Council has been working with the community to upgrade Paeroa’s main street. The area in front of the Paeroa Post Office won the Civic Heart Revitalisation Award in 2010, from the NZ Institute of Landscape Architects. More recent work has included the new library and shared space completed in 2017.

Overall these measures provide future growth for Paeroa, to ensure it remains one of the District’s main centres. Maximising Paeroa’s central location within the District by providing administration and civic activities, substantial industrial, recreational and residential activities and recognising its importance to tangata whenua.
Located in the northwest of the District, Ngatea is the largest settlement on the Hauraki Plains and is a service centre for the surrounding farming area. Located on State Highway 2, it is also a busy town providing services for passing motorists. Ngatea was established in the 1900s as a result of a unique series of canals and stop banks which drained the land and produced rich farmlands for dairy production. Today Ngatea has a strong community with many groups and facilities catering for sporting, cultural and service based activities.

The following key issues for the future development of Ngatea have been identified:

• Defining and managing urban boundaries in the developing southern and north western edges of town.
• Providing for future light industrial/commercial expansion and development, and the implications for nearby residential neighbourhoods.
• Improving the amenity and quality of the township along State Highway 2 without compromising the safety and efficiency of the state highway.
• Managing river and coastal flooding hazards and the potential of climate change to increase these and other hazards.

These issues are addressed in the Growth Strategy by: promoting the development of the residential Structure Plan Areas (North and South – total 41.3 hectares), and identifying a future growth area for light industrial/commercial development to the west adjoining existing industrial development, refer to map below.

The future light industrial/commercial growth area has been located away from the main residential areas, and will be restricted to light industrial uses which have less impact on residential amenity. The growth area will also provide opportunities for large commercial retailers, such as a supermarket, to locate within Ngatea.

Council’s District Plan addresses amenity and connection concerns through controls on new development. The residential Structure Plan areas and the light industrial future growth area provide a long term urban boundary for Ngatea and will contain urban sprawl. The Piako River forms a natural eastern boundary for the town. Further residential growth areas have not been provided, recognising the structure plan areas that are already zoned for residential use and are currently undeveloped, the constraints that natural hazards provide to residential land use, and the need to protect productive land for farming.

Council has provided funding for a streetscape project in the Long Term Plan 2018-2028 as well as a new library/community facility for Ngatea. These projects in tandem with the measures identified above, will guide and enhance the future development of Ngatea, ensuring it remains a thriving local community and service town.
Map 4: Existing and growth areas of Ngatea
Kerepehi
Kerepehi is a small township located between the Piako River and State Highway 2, on the Hauraki Plains. It has some community facilities including a school, Marae, and domain, as well as commercial and light servicing activities. Dairy farming is historically the most important industry in the area. Recently, industrial development has taken place on Hauraki Park; an industrial subdivision developed by the Council.

The key issues for the development of Kerepehi are as follows:

• Improving the amenity and quality of the town’s interface at State Highway 2 from its current industrial character without compromising the safety and efficiency of the state highway.

• Addressing the implications for residential amenity as a result of the growth of industrial uses, and the identity of the town as an industrial precinct.

• Managing the flood risk in low lying areas and the potential of climate change to increase this and other hazards.

These issues are addressed in the Growth Strategy by: promoting the development of the residential (North, South – total 9.2 ha) and industrial (North, South – total 23 ha) Structure Plan Areas, and identifying future growth areas for industrial development to the south and residential development to the north.

The industrial growth area has been located to the south of the existing settlement adjoining existing industrial zoned land, whereas the future residential growth area has been located to the north of Kerepehi. This is to ensure separation of incompatible land uses and to protect residential amenity. Future residential land has been provided to balance the provision of industrial land and to allow for live/work/play opportunities in Kerepehi. The future residential area has also been located away from the areas of lower lying higher flood risk land making use of higher land.

These measures aim to ensure a liveable and attractive residential environment for the community of Kerepehi while supporting the needs of existing and emerging industrial activities, and recognising the role that the Kerepehi Marae plays for tangata whenua.

Turua
Turua is a small community located beside the Waikou River on the Hauraki Plains. It has community facilities, including a school, and a small commercial, service and industrial centre. Turua is located close to Thames and has potential to grow to accommodate spill-over residential development from Thames.

The key issues for Turua have been identified as follows:

• Managing river and coastal flooding hazards and the potential of climate change to increase these and other hazards.

• The speed of traffic and vehicle priority along the main street - Hauraki Road.

These issues are addressed in the Growth Strategy by promoting the development of the residential Structure Plan Areas (A, B, C – total 20.5 ha). These areas seek to consolidate residential land use on the western side of Hauraki Road, allowing for limited expansion due to the low lying nature of surrounding land and the quality of the soils for productive purposes.

Commercial and industrial land use is provided for on the eastern side of Hauraki road. No areas for future growth are provided, though the District plan does show an outlying urban boundary within which further development is possible in the very long term.

These measures aim to recognise and provide for the development of the township of Turua, while managing flood hazards and the mixture of commercial, service and industrial activities in parts of the township.
Future Capacity Analysis

An analysis of likely maximum development within the identified growth areas of the main centres has been undertaken. The following table (Table 8) is a summary of development capacity of existing zoned greenfield land and new growth areas. This analysis is important to ensure that enough capacity is being provided to meet the expected growth of the District, over the next 30 years.

Table 8: Development Capacity

<table>
<thead>
<tr>
<th>Area</th>
<th>Existing potential greenfield (lots)</th>
<th>New growth area (lots)</th>
<th>TOTAL (lots)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAIHI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>150</td>
<td>1,307</td>
<td>1,457</td>
</tr>
<tr>
<td>Low density residential</td>
<td>50</td>
<td>70</td>
<td>120</td>
</tr>
<tr>
<td>Industrial</td>
<td>70</td>
<td>410</td>
<td>480</td>
</tr>
<tr>
<td>Commercial</td>
<td>67</td>
<td>0</td>
<td>67</td>
</tr>
<tr>
<td>PAEROA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>302</td>
<td>1,144</td>
<td>1,446</td>
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<tr>
<td>Low density residential</td>
<td>183</td>
<td>304</td>
<td>487</td>
</tr>
<tr>
<td>Industrial</td>
<td>250</td>
<td>150</td>
<td>400</td>
</tr>
<tr>
<td>Commercial</td>
<td>50</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>NGATEA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>414</td>
<td>0</td>
<td>414</td>
</tr>
<tr>
<td>Industrial</td>
<td>10</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Light industrial/Commercial</td>
<td>6</td>
<td>75</td>
<td>81</td>
</tr>
</tbody>
</table>

Residential

Assuming one dwelling per lot and including the development of existing zoned greenfield land and likely maximum development of proposed growth areas; Waihi will have capacity for 1,457 new residential dwellings and 120 new low density residential dwellings, Paeroa 1,446 new residential dwellings and 487 new low density residential dwellings, and Ngatea 414 new residential dwellings.

In total, this provides capacity for over 3,000 new residential dwellings in the District, over the next 30 years. This capacity therefore meets and exceeds the projected number of new commercial /industrial business units for the District of 330 over the next 30 years, using the high scenario.

Timing

An analysis of the growth areas has been undertaken to allocate priority and timing for scheduling changes to the District Plan. This analysis has shown development in Waihi to be the highest priority and plan changes to rezone more residential and industrial land within the identified growth areas in Waihi should be undertaken in the short term (next 1 - 5 years).

The following areas are considered to necessitate plan changes over the medium term (5 - 15 years):
- Paeroa - industrial, residential, low density residential.
- Ngatea - light industrial/commercial.

The industrial and residential areas at Kerepehi are considered more likely to be developed in the longer term (15 - 30 years).

This timing is subject to change as demand for land for development may fluctuate due to population and economic factors.
SECTION 3: IMPLEMENTATION
| TE WHAKATINANATANGA
Implementation actions and timeframes

The following table (Table 9) sets out the actions to implement the Growth Strategy and the likely timeframes for implementation. It also shows the areas of Council that will be responsible for implementation.

Table 9: Implementation Actions and Timeframes (Short term = 1-5 years, Medium term = 5-15 years, Long term = 15-30 years)

<table>
<thead>
<tr>
<th>ACTION</th>
<th>HOW</th>
<th>WHEN</th>
<th>WHO @ COUNCIL</th>
</tr>
</thead>
</table>
| 1. Promote the development of **existing** greenfield residential structure plan areas at Waihi, Paeroa, Ngatea, Turua, Kerepehi, and Waikino. | • By providing information to developers, current and future residents.  
• Through the Economic Development Strategy – to highlight available land for development.  
• Through economic instruments such as the strategic use of central government infrastructure funds or infrastructure funding agreements between public and private sector.  
• Collaboration with the private development sector.  
• Integrate and co-ordinate consenting processes to facilitate development. | Ongoing | Community Services and Development |
| 2. Promote the development of **existing** greenfield industrial structure plan areas at Paeroa and Kerepehi. | • By undertaking District Plan changes to rezone land as follows:  
• Waihi – Residential, Low density residential and Industrial growth areas.  
• Paeroa - Residential, Low density residential, and Industrial growth areas.  
• Ngatea – Light Industrial/ Commercial growth area.  
• Kerepehi – Residential and Industrial growth areas. | Short term  
Medium term  
Medium term  
Long term | Planning & Environmental Services |
| 3. Provide for development in identified growth areas. | By undertaking District Plan changes to rezone land as follows:  
• Waihi – Residential, Low density residential and Industrial growth areas.  
• Paeroa - Residential, Low density residential, and Industrial growth areas.  
• Ngatea – Light Industrial/ Commercial growth area.  
• Kerepehi – Residential and Industrial growth areas. | Planning & Environmental Services |
| 4. Consider providing further infill residential development opportunities in Waihi and Paeroa. | • By undertaking District Plan Changes such as to reduce minimum lot sizes where suitable, allow minor residential units where suitable, and to introduce design guidelines. | Short term | Planning & Environmental Services |
| 5. Provide for infrastructure upgrades to ensure sufficient service provision for future demand. | • By undertaking investigations and including projects in the 30-year Infrastructure Strategy.  
• By including projects in the Long Term Plan. | Ongoing  
As required | Engineering Services  
Planning & Environmental Services |
<p>| 6. Ensure that infrastructure costs that are attributable to growth are paid for by those generating the demand e.g. developers. | • By preparing a Development Contributions Policy | Short term | Engineering Services, Planning &amp; Environmental Services |</p>
<table>
<thead>
<tr>
<th>ACTION</th>
<th>HOW</th>
<th>WHEN</th>
<th>WHO @ COUNCIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Investigate hazard risk, including the impacts of sea level rise, rising water tables and coastal erosion for coastal settlements.</td>
<td>• Undertake a cross-Council climate change and natural hazards adaptation programme.</td>
<td>• Short term</td>
<td>All departments</td>
</tr>
<tr>
<td></td>
<td>• Update Natural Hazards Policy.</td>
<td>• Short term</td>
<td>Planning &amp; Environmental Services</td>
</tr>
<tr>
<td>8. Mitigate effects of natural hazards on existing at risk communities, in particular the Kaiāua Coast.</td>
<td>• Continue to work with WRC to actively manage the Kaiāua/ Pūkorokoro/Miranda Catchment and address flooding issues.</td>
<td>• Short term</td>
<td>Planning &amp; Environmental Services, Engineering Services</td>
</tr>
<tr>
<td></td>
<td>• Undertake any identified physical works in the Kaiāua/ Pūkorokoro/ Miranda Catchment.</td>
<td>• Short – Medium term</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Prepare a community plan for Kaiāua Coast to guide future development of the area in light of the unique environment and risk of natural hazards.</td>
<td>• Short term</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Prepare a comprehensive erosion management plan for the protection of the Kaiāua coastal roading corridor from the sea</td>
<td>• Short term</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Undertake District Plan changes to implement requirements for risk based assessments for development in identified hazard prone areas.</td>
<td>• Short term</td>
<td></td>
</tr>
<tr>
<td>9. Ensure new development does not adversely affect:</td>
<td>• Prepare an Environmental Strategy.</td>
<td>• Medium term</td>
<td>Planning &amp; Environmental Services</td>
</tr>
<tr>
<td>• Indigenous wetlands;</td>
<td>• Implement Environmental Strategy, including undertaking District Plan changes where necessary to improve protection of special features.</td>
<td>• Ongoing</td>
<td></td>
</tr>
<tr>
<td>• Indigenous vegetation and biodiversity;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Outstanding landscapes;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Historic heritage areas;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Productive soils;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Sites of significance to Māori;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Coastal environments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Urban residential amenity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Develop community plans to build on the comparative advantages of local areas, strengthen local economies, local place uniqueness and branding.</td>
<td>• Prepare community plans for Paeroa, Waihi and Ngatea</td>
<td>• Medium term</td>
<td>Planning &amp; Environmental Services</td>
</tr>
<tr>
<td>11. Plan for changing community needs including the requirements of an ageing population</td>
<td>• Implement Council’s Social Strategy Towards 2048</td>
<td>• Short - Long term</td>
<td>Community Services and Development</td>
</tr>
<tr>
<td>12. Ensure the Hauraki Growth Strategy is regularly reviewed and can be updated as required to respond to changes in demand.</td>
<td>• Undertake a 5 yearly review of the Growth Strategy.</td>
<td>• Medium term</td>
<td>Planning &amp; Environmental Services</td>
</tr>
<tr>
<td></td>
<td>• Undertake a review of the Growth Strategy if demand exceeds that planned for in the Strategy.</td>
<td>• As required</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ATTACHMENTS

A. Bibliography

- 2017 Demographic Projections – Rationale Ltd 2017 (2197292, 2197813, 2198555). Hauraki District Council (HDC)
- An Overview of Natural Hazards in the Hauraki District Including a qualitative risk assessment 2007. WRC
- Census 2013. Statistics NZ
- Draft Hauraki District Sports Plan 2018-2028. HDC & Sport Waikato
- Economic Development Strategy – Toward 2025. HDC
- Franklin District Plan 2000. HDC
- Growth Projections Summary 2018-48 (2217961). HDC
- Hauraki District Annual Economic Profile, 2018. Infometrics
- Hauraki District Plan 2014. HDC
- Hauraki District Sports Plan 2018-2028 (draft). HDC and Sport Waikato
- Ministry for Environment Research to support guidance on Future Development Strategies, June 2017. BECA
- New Zealand Coastal Policy Statement 2010. Ministry for the Environment
- Social Strategy - Toward 2028. HDC
- Waihou Piako Zone Plan 2017. WRC
- Waikato Plan, 2017. Waikato Plan Joint Committee
- Waikato Regional Policy Statement 2016. WRC
### B. Extract from WRC Risk Assessment

**Table 10: “Refined” Hauraki hazards risk evaluation (See Appendix 6 for key)**

<table>
<thead>
<tr>
<th>Hazard scenario</th>
<th>Likelihood</th>
<th>Consequence</th>
<th>Risk level</th>
<th>H</th>
<th>S</th>
<th>E</th>
<th>I</th>
<th>G</th>
<th>Average</th>
<th>M</th>
<th>U</th>
<th>G</th>
<th>Total</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>River flood</td>
<td>A</td>
<td>5</td>
<td>Extreme</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>4.6</td>
<td>5</td>
<td>4</td>
<td>(HM)</td>
<td>17.6</td>
<td>1</td>
</tr>
<tr>
<td>Coastal flood</td>
<td>B</td>
<td>2</td>
<td>High</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3.6</td>
<td>2</td>
<td>4</td>
<td>(HM)</td>
<td>13.6</td>
<td>2</td>
</tr>
<tr>
<td>Earthquake</td>
<td>E</td>
<td>4</td>
<td>High</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>4.4</td>
<td>4</td>
<td>2</td>
<td>(LM)</td>
<td>12.4</td>
<td>3</td>
</tr>
<tr>
<td>Severe storm</td>
<td>B</td>
<td>3</td>
<td>High</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2.2</td>
<td>4</td>
<td>2</td>
<td>(LM)</td>
<td>12.2</td>
<td>4=</td>
</tr>
<tr>
<td>Tsunami</td>
<td>E</td>
<td>5</td>
<td>High</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4.2</td>
<td>5</td>
<td>2</td>
<td>(LM)</td>
<td>12.2</td>
<td>4=</td>
</tr>
<tr>
<td>Debris flow</td>
<td>E</td>
<td>3</td>
<td>Moderate</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3.2</td>
<td>4</td>
<td>4</td>
<td>(MH)</td>
<td>12.2</td>
<td>4=</td>
</tr>
<tr>
<td>Volcanic</td>
<td>E</td>
<td>4</td>
<td>High</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2.4</td>
<td>4</td>
<td>2</td>
<td>(LM)</td>
<td>10.4</td>
<td>5</td>
</tr>
<tr>
<td>Coastal erosion</td>
<td>C</td>
<td>1</td>
<td>Low</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1.6</td>
<td>3</td>
<td>2</td>
<td>(LM)</td>
<td>9.6</td>
<td>6</td>
</tr>
</tbody>
</table>

**KEY**
- **S** = Seriousness rating
- (H): Human costs
- (S): Social impact
- (E): Economic cost
- (I): Infrastructure costs
- (G): Geographic impact
- **M** = Manageable rating
- **U** = Urgency rating
- **G** = Growth rating
Appendix 6 : Key to Table 4 Risk Analysis evaluation key

Measure of likelihood

<table>
<thead>
<tr>
<th>Level</th>
<th>Descriptor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Almost certain</td>
<td>Expected to occur in most circumstances</td>
</tr>
<tr>
<td>B</td>
<td>Likely</td>
<td>Will probably occur in most circumstances</td>
</tr>
<tr>
<td>C</td>
<td>Possible</td>
<td>Might occur at some time</td>
</tr>
<tr>
<td>D</td>
<td>Unlikely</td>
<td>Could occur at some time</td>
</tr>
<tr>
<td>E</td>
<td>Rare</td>
<td>May only occur in exceptional circumstances</td>
</tr>
</tbody>
</table>

Measure of consequence of impact

<table>
<thead>
<tr>
<th>Level</th>
<th>Descriptor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Insignificant</td>
<td>No injuries, little or no damage, low financial loss</td>
</tr>
<tr>
<td>2</td>
<td>Minor</td>
<td>First aid treatment, minor building damage, medium financial loss</td>
</tr>
<tr>
<td>3</td>
<td>Moderate</td>
<td>Medical treatment required, moderate building and infrastructure damage, high financial loss</td>
</tr>
<tr>
<td>4</td>
<td>Major</td>
<td>Extensive injuries, high level of building infrastructure damage, major financial loss</td>
</tr>
<tr>
<td>5</td>
<td>Catastrophic</td>
<td>Deaths, most buildings extensively damaged and major infrastructure failure, huge financial loss</td>
</tr>
</tbody>
</table>

Risk analysis matrix - level of risk

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>CONSEQUENCES</th>
<th>1 Insignificant</th>
<th>2 Minor</th>
<th>3 Moderate</th>
<th>4 Major</th>
<th>5 Catastrophic</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Almost certain</td>
<td>High</td>
<td>High</td>
<td>Extreme</td>
<td>Extreme</td>
<td>Extreme</td>
<td></td>
</tr>
<tr>
<td>B Likely</td>
<td>Moderate</td>
<td>High</td>
<td>High</td>
<td>Extreme</td>
<td>Extreme</td>
<td></td>
</tr>
<tr>
<td>C Possible</td>
<td>Low</td>
<td>Moderate</td>
<td>High</td>
<td>Extreme</td>
<td>Extreme</td>
<td></td>
</tr>
<tr>
<td>D Unlikely</td>
<td>Low</td>
<td>Low</td>
<td>Moderate</td>
<td>High</td>
<td>Extreme</td>
<td></td>
</tr>
<tr>
<td>E Rare</td>
<td>Low</td>
<td>Low</td>
<td>Moderate</td>
<td>High</td>
<td>High</td>
<td></td>
</tr>
</tbody>
</table>

Source: An Overview of Natural Hazards in the Hauraki District, pg. 28, 44 (Doc #1060692, WRC)