

OceanaGold New Zealand Limited

# PROPOSED MARTHA MINERAL ZONE PLAN CHANGE SOCIAL IMPACT ASSESSMENT





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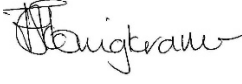


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This report ('Report') has been prepared by WSP exclusively for OceanaGold (New Zealand) Limited ('Client') in relation to the independent assessment of potential social impacts associated with the Proposed Plan Change to the Hauraki District Plan which seeks to expand the Martha Mineral Zone ('Purpose') and in accordance with Purchase Order 70078340, issued under Master Consulting Agreement - 1407 (OGN-1014) by the Client, dated August 2023. The findings in this Report are based on and are subject to the assumptions specified in the Report. WSP accepts no liability whatsoever for any reliance on or use of this Report, in whole or in part, for any use or purpose other than the Purpose or any use or reliance on the Report by any third party.

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# EXECUTIVE SUMMARY

OceanaGold (New Zealand) Limited (OGNZL) have applied to the Hauraki District Council to change the provisions of the Operative Hauraki District Plan to rezone 47 properties to Martha Mineral Zone (MMZ). This plan change, if approved, will expand the MMZ and enable a possible future resource consent application to be made for a further cutback of the Martha Mine.

The purpose of this Social Impact Assessment (SIA) was to identify and fully consider the potential positive and negative social effects of the proposed plan change to the Operative Hauraki District Plan on the local and regional social environment. The intention of the SIA was to ensure that the proposed objectives, policies, assessment criteria and rules enable the sustainable management of the plan change area and ensure that the potential effects are identified, understood, and could be effectively avoided, remedied, or mitigated.

The SIA has been undertaken in the context of an extensive body of social knowledge including past SIA studies, engagement undertaken, and the Social Impact Monitoring Plan (SIMP) and associated monitoring which has been undertaken at the Waihi Mining Operations for over a decade.

The SIA process started with a scoping phase which sought to understand the plan change proposal, the social context in which the project is proposed to take place and identify the potential social impacts. The social assessment has applied the International Association for Impact Assessment (IAIA) framework. The SIA includes the assessment of three scenarios:

- 1 Scenario 1: MMZ Plan Change – potential social impacts of the activities permitted by the rezoning.
- 2 Scenario 2: Future mining of Martha Mine – potential social impacts of future mining within the expanded MMZ, including cumulative effects.
- 3 Scenario 3: Mine Closure in Waihi – social implications of the plan change not being approved i.e., the anticipated closure of the Waihi Mining Operations in 2031.

## Scenario 1: MMZ Plan Change

The following potential negative social impacts of the proposed plan change were assessed to be of low significance:

- Loss of business premises and residential homes
- Reduced quality of the environment
- Reduced wellbeing due to stress and anxiety

## Scenario 2: Future Mining of Martha Mine

The following potential negative social impacts of the future mining of Martha Mine were assessed to be of low significance with the implementation of the proposed plan change provisions, with the exception of the preliminary assessment of cumulative impacts of concurrent mining, which was assessed to be of moderate significance:

- Impact on daily movements and behaviours (low)
- Loss of, and impact on, community facilities and infrastructure (low)
- Reduced quality of the environment (low)

- Reduced wellbeing due to anxiety and / or change in the quality of the environment (low)
- Cumulative impacts of concurrent mining related to housing demand and pressure on social infrastructure should the local mining workforce significantly increase in number (moderate)

For Scenario 2, two positive social impacts, namely (i) job security and sustained livelihoods, and (ii) continued local community stability were rated as extreme and high positive significance respectively.

The adequacy of the objectives, policies, and assessment criteria within the proposed plan change provisions to avoid, remedy or mitigate the potential social impacts associated with the expansion of the MMZ have been evaluated. The provisions largely address the social impacts in all three scenarios, noting that social impacts have been a key consideration for previous Waihi mining applications assessed under the MMZ provisions and relatively fulsome management measures have been included as an outcome of those processes. It is, however, recommended that the following additional assessment criterion be added to ensure that consideration and management of social impacts is an important part of any future proposal for a further cutback of the Martha Mine:

#### 5.17.7.2 Assessment Criteria – Proposed Expansion of the Martha Mine

- Whether adequate measures, controls or strategies are in place with respect to the provision of social infrastructure and services to the community during the operation and future closure of the Martha Mine, including consideration of other permitted or consented mining and mining operations in Waihi.

### **Scenario 3: Mine Closure in Waihi**

If the event that the proposed plan changes is not approved, the OGNZL mining operations are forecasted to cease in 2031. The potential social impacts of closure have been identified and a preliminary assessment undertaken resulting in the following assessment outcomes:

- Loss of direct employment (extreme negative)
- Reduced local community stability (high negative)
- Improved quality of the environment (high positive)
- Reduced wellbeing due to stress and anxiety (moderate negative)

# 1 INTRODUCTION

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OceanaGold (New Zealand) Limited (OGNZL) have applied to the Hauraki District Council to change the provisions of the Hauraki District Plan to rezone 47 properties owned by, or under the control of, OGNZL to Martha Mineral Zone (MMZ). This plan change, if approved, will expand the MMZ and would enable a possible future resource consent applications to be made for a further cutback of the Martha Mine, in Waihi.

The Hauraki District Council have identified the requirement for a Social Impact Assessment (SIA) to inform the plan change application. WSP New Zealand Limited (WSP) has been appointed to undertake an independent SIA for inclusion in the application.

## 1.1 Purpose and Scope of the Study

The purpose of this SIA was to identify and fully consider the potential positive and negative impacts of the proposed plan change to the Operative Hauraki District Plan on the local and regional social environment. The intention of the SIA was to ensure that the proposed objectives, policies, assessment criteria and rules enable the sustainable management of the plan change area and ensure that the effects are identified, understood, and effectively avoided, remedied, or mitigated.

The scope of this assessment included:

- Developing an understanding of the proposed change to the Hauraki District Plan.
- Developing an understanding of the social context associated with the proposed plan change.
- Review of relevant baseline analysis data collected during the Waihi North Project SIA and the latest SIMP monitoring data within the context of the proposed Plan Change.
- Review of the data that was collected during engagement for MMZ Plan Change, and identification of the key social themes, issues and concerns that were raised during consultation.
- Review of relevant previous Waihi mining operations SIAs to consider the impacts identified previously in relation to the mining of Martha Mine.
- Review of relevant specialist and technical studies through a 'social lens'.
- Identification and assessment of social impacts of the proposal.
- Confirmation that the proposed objectives, policies and rules ensure that the adverse effects of the plan change are avoided or mitigated, and the positive social effects are identified.

This SIA has been undertaken in the context of an extensive body of social knowledge including past SIAs, engagement undertaken, and the Social Impact Monitoring Plan (SIMP) and associated monitoring in respect of the Waihi Mining Operations over the period of a decade.

## 1.2 Assumptions, Exclusions and Limitations

The following assumptions, exclusions and limitations apply to this SIA study:

- The assessment is based on the project description and specialist studies available at the time of writing this report - October 2023.
- WSP has relied exclusively on existing information provided by OGNZL and the project team, including engagement data collected during the proposed plan change consultation process. No specific baseline data, nor primary data, has been collected to inform the assessment.
- Cultural impacts and potential effects on culture, land, water, and air are not addressed in this SIA. Cultural matters are addressed in the Planning Assessment prepared in support of the proposed plan change.
- Technical reports have been reviewed from a social perspective only.



## 2 METHODOLOGY

### 2.1 Assessment Framework

The methodology used for this desktop Social Assessment is based on an internationally recognised approach provided for by the International Association for Impact Assessment (IAIA) in the SIA Guidance Note (*Social Impact Assessment: Guidance for Assessment and Managing the Social Impacts of Projects*, April 2015).

The IAIA SIA framework is well recognised in New Zealand and internationally, and it has provided a sound and robust framework for the identification and assessment of social effects.

### 2.2 Methodology Overview

The SIA process comprised 3 key steps that are largely sequential (**Figure 2-1**), however the process was an iterative one of review and revision as preliminary understandings were validated.



Figure 2-1 SIA Methodology

#### 2.2.1 Scoping

The SIA process started with developing an understanding of the proposal, the existing social context in which the proposed plan change is proposed to take place, and the preliminary identification of potential social impacts. The following activities were undertaken during scoping:

- 1 Review of relevant documents and data including:
  - Proposed Plan Change to the Hauraki District Plan, Planning Assessment (Mitchell Daysh, 2023).
  - Baseline Data Analysis Report (WSP, 2022), Appendix B of the Waihi North Project SIA (WSP, 2023).
  - Waihi Social Impact Management Plan, 2021-2022 Monitoring Report (Phoenix Research, 2023).
  - Previous SIA reports including:
    - Proposed Waihi Gold Mine SIA (Fitzgerald, G., 1985)
    - Correnso Underground Mine SIA (Banarra Pty Ltd, 2014)
    - Waihi North Project SIA, Version 2 (WSP, 2023)

- MMZ engagement data collected by OGZNL to ensure issues and concerns raised were considered and key social themes identified.
- 2 Identification of likely activities and associated potential social impacts that may result from these activities.
  - 3 Definition of the study area and confirmation of stakeholders.
  - 4 Meeting with Hauraki District Council on 14 September 2023 to present and discuss the outcomes of the scoping phase.

### 2.2.2 *Impact Identification and Assessment*

#### **Impact Identification**

The SIA Guidance Note (IAIA, 2015) describes social impacts as changes to one or more of the following:

- People's **way of life** - how people live, work, play and interact with one another on a daily basis.
- Their **culture** - shared beliefs, customs, values, and language.
- Their **community** - cohesion, stability, character, services, and facilities.
- Their **political systems** - extent to which people are able to participate in decisions that affect their lives, level of democracy, and resources provided for this purpose.
- Their **environment** - the quality of the air and water people use, the availability and quality of the food they eat, the level of hazard or risk, dust, and noise they are exposed to, the adequacy of sanitation, physical safety, and access to / control over resources.
- Their **health and wellbeing** - physical, mental, social, and spiritual wellbeing.
- Their **personal and property rights** - whether people are economically affected, or personally disadvantaged including violation of civil rights.
- Their **fears and aspirations** - perceptions of safety, fears about the future of their community, aspirations for the future and future of their children.

When considering the applicability of the IAIA framework to the proposed plan change, the following were identified as not relevant to the study for the reasons stated below:

- Political systems: the wider political system and ability to participate democratically in society is not considered a key project related issue.
- Culture: cultural matters are excluded from the scope of this SIA as these have been addressed by OGNZL through ongoing engagement with local iwi.
- Health: health related impacts have been excluded from the assessment, however individual and community wellbeing has been considered.
- Personal and property rights: no property acquisition is proposed, and personal and property rights will not be infringed by the proposed plan change and the implications of this plan change.

## **Engagement**

This SIA has relied on existing recent engagement data to support the assessment, in particular:

- Engagement undertaken by OGNZL to support the plan change application during the period July 2021 to April 2023: Engagement was undertaken with a wide range of stakeholders including residents, businesses, education providers, health care providers, community groups and support services. In addition to meeting with stakeholders, a range of communication activities were used to disseminate information, answer questions, and elicit feedback on the proposed plan change. An Engagement Summary is included in Appendix 14 of the plan change application (Mitchell Daysh, 2023).
- Engagement undertaken by WSP in support of the proposed Waihi North Project SIA study over the period September to December 2021. Of relevance was the data collected from a variety of stakeholders in respect of potential impacts of mine closure.

This approach is considered appropriate for this proposal because of the extent of recent engagement data available to support this assessment. WSP determined at the end of the scoping stage that there was sufficient data available to verify and understand the impacts identified, therefore negating the need for additional data collection.

## **Review of Specialist Studies**

A range of specialist studies were undertaken to inform the Planning Assessment. Those studies of relevance to the SIA and were reviewed with a “social lens” to inform the identification and assessment of the social impacts of the proposed plan change and associated implications.

## **Impact Assessment**

To evaluate the potential social impacts of the proposed plan change, impacts have been described and assessed according to the following:

- 1 The cause of the impact.
- 2 The stakeholder / stakeholder group to be impacted and, any potentially vulnerable groups, directly affected people, or indirectly affected people; and their ability to adapt to change.
- 3 Whether the impact is positive or negative.
- 4 The consequence of the impact, which is determined following consideration of the following aspects:
  - Extent of the impact: whether the impact is limited to the site and surrounds, local area, region, or whether it will be national.
  - Duration of the impact: consideration of whether the impact will be temporary (0-1 year), short term (1-5 years), medium term (5-15 years) or permanent (> 15 years).
  - Magnitude of the impact: this considers whether the impact will be on the wider community (many affected); the local community (moderate number) or directly affected owners, occupiers and users of properties (few affected).
- 5 The likelihood of the impact: an estimation of the probability of the impact occurring, ranging from rare to almost certain.

The IAIA recommended risk assessment methodology, which considers the likelihood and consequence of an impact, was used to determine the overall significance of the impact (Figure 2-2).

Significance Rating (Likelihood / Consequence)

		Consequence Level				
		1	2	3	4	5
Likelihood Level	Descriptor	Insignificant	Minor	Moderate	Major	Catastrophic
A	Almost certain	A1	A2	A3	A4	A5
B	Likely	B1	B2	B3	B4	B5
C	Possible	C1	C2	C3	C4	C5
D	Unlikely	D1	D2	D3	D4	D5
E	Rare	E1	E2	E3	E4	E5

Risk Rating	<span style="display: inline-block; width: 15px; height: 15px; background-color: #90EE90; border: 1px solid black;"></span> Low	<span style="display: inline-block; width: 15px; height: 15px; background-color: #FFFF00; border: 1px solid black;"></span> Moderate	<span style="display: inline-block; width: 15px; height: 15px; background-color: #FFD700; border: 1px solid black;"></span> High	<span style="display: inline-block; width: 15px; height: 15px; background-color: #FF0000; border: 1px solid black;"></span> Extreme
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Figure 2-2 Risk Assessment Framework (SIA Guidance Note, IAIA, 2015)

**Consideration of the Adequacy of the Proposed Provisions**

An evaluation of the adequacy of the proposed objectives, policies, and rules to address the identified social impacts was undertaken. This exercise sought to assess the effectiveness of the proposed plan change provisions to avoid, remedy or mitigate the identified positive and negative social effects. Recommendations have been made to enhance the proposed plan change provisions to ensure the proposed social effects are fully accounted for.

# 3 PROJECT DESCRIPTION

## 3.1 OGNZL Waihi Operations

OGNZL's Waihi operations is an open pit and underground mining operation located within Waihi town, in the Hauraki region of the North Island of New Zealand. The history of mining in Waihi dates to the discovery of gold in 1897. Current mining operations in Waihi include the existing Project Martha and Correnso underground gold mines and associated infrastructure, which are forecast to be completed by 2031 (Waihi North Project SIA, WSP, 2023).

## 3.2 Proposed Plan Change

The proposed change seeks to rezone 47 properties to Martha Mineral Zone (MMZ) in the Hauraki District Plan. All 47 properties are either owned by, or under the control of, OGNZL. The plan change would make any future resource consent application to expand the Martha Mine across all, or part, of these properties a discretionary activity under proposed Rule 5.17.4.4(D2) of the Hauraki District Plan.

The proposed change in zoning is shown in **Figure 3-1** below.



Figure 3-1 Proposed Plan Change Area (Mitchell Daysh, 2023)

Other key elements of the proposed plan change are as follows (Mitchell Daysh, 2023):

- Amending the zone purpose for the MMZ to (i) reflect how the extent of the zone and development within it has occurred over time, (ii) acknowledge the relationship of mana whenua with Pukewa maunga (Martha Hill), and (iii) to explain the distinction between

those provisions that apply across the MMZ and those exclusively associated with any expansion of the Martha Mine.

- Amending the sole objective of the MMZ to also provide for the rehabilitation of natural and physical resources that may be affected by mining activities in the MMZ, in addition to the provision for the utilisation of the mineral resource in a sustainable manner.
- Inclusion of new policies and assessment criteria specific to the potential expansion of the Martha Mine in the MMZ. This includes specific policy recognition of the relationship of mana whenua with Pukewa maunga and the need to ensure measures are implemented as part of any expansion of the Martha Mine that provide for the wairua or mauri of the maunga to be rehabilitated and / or enhanced.
- Inclusion of a new permitted activity rule for demolition or removal of buildings in the MMZ.
- Insertion of new noise performance standards for permitted and restricted discretionary activities in the MMZ (via Chapter 8.3 of the Hauraki District Plan).

### 3.3 SIA Scenarios

This SIA includes the assessment of three scenarios, which are outlined below:

#### 1 Scenario 1: MMZ Plan Change

- Identification and assessment of potential positive and negative social impacts of the activities permitted by the rezoning.

#### 2 Scenario 2: Future Mining of Martha Mine

- Identification and assessment of the potential positive and negative social impacts of future mining within the expanded MMZ, including cumulative effects.

#### 3 Scenario 3: Mine Closure in Waihi

- Identification and assessment of the social implications of the plan change not being approved i.e., anticipated closure of the Waihi Mining Operations in 2031.

# 4 SOCIAL ENVIRONMENT

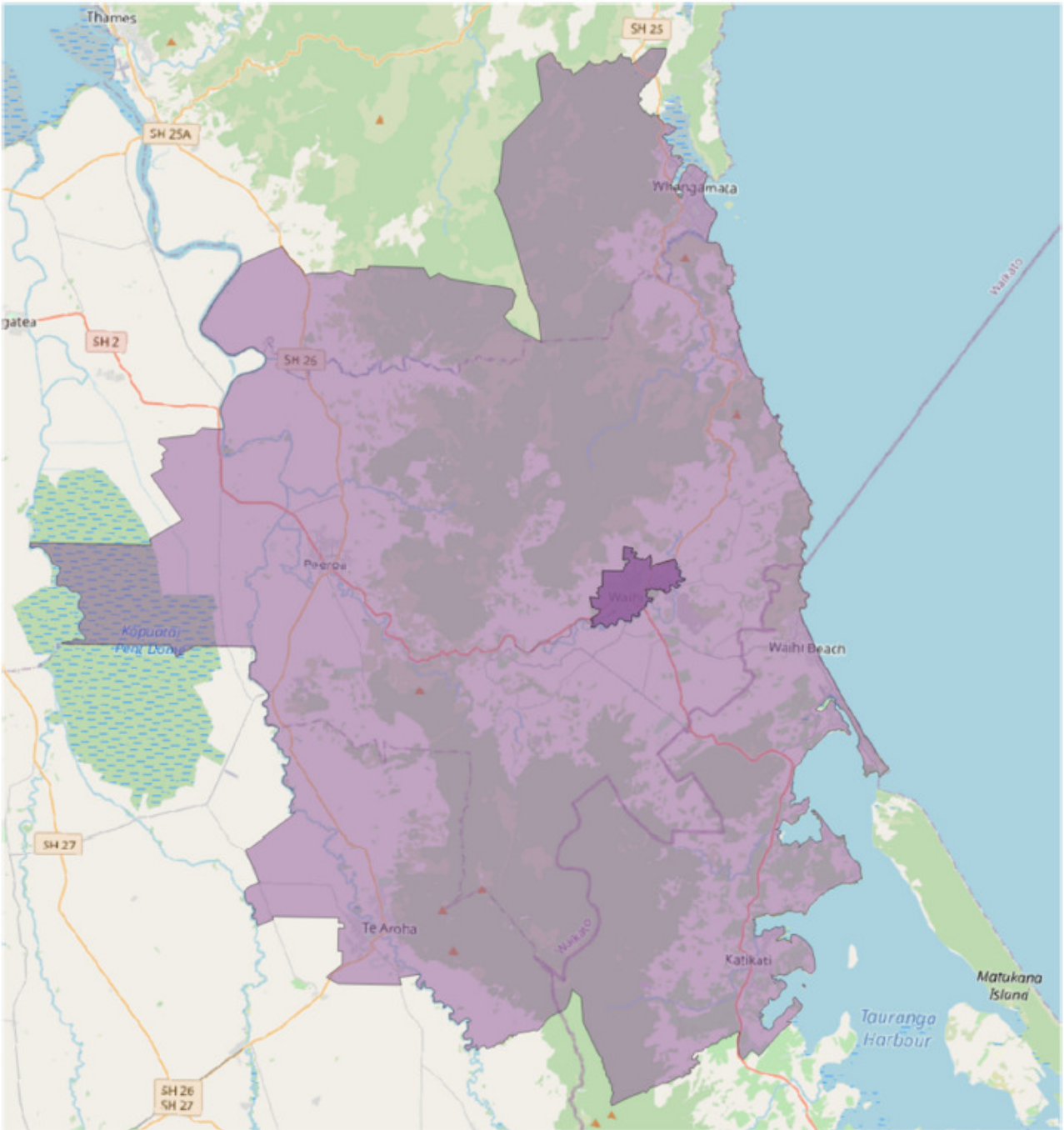
## 4.1 Area of Analysis

The social environment that is applicable the assessment of social impacts associated with the proposed MMZ plan change is defined in **Table 4-1**.

Table 4-1: Social Environment

CONTEXT	DESCRIPTION
Waihi Town	The town of Waihi is defined by the boundaries of the Waihi township ( <b>Figure 4-1</b> ) using statistical area 1 units which Statistics New Zealand use as their smallest geographic reporting level.
Local	The local context is defined by a 30km radius from the Waihi town centre ( <b>Figure 4-1</b> ). The 30km radius, which is the area within 30 minutes' driving time from the centre of Waihi, is the relevant considering the local economic and employment catchment area associated with the Waihi mining operations. The majority of the mine workforce lives within this catchment, and those business activities and services which support the mine operations within this area are considered by OGNZL to be local. The following towns fall within the local area: <ul style="list-style-type: none"> <li>— Waihi and Paeroa (within Hauraki District)</li> <li>— Whangamatā (within Thames-Coromandel District)</li> <li>— Te Aroha (within the Matamata-Piako District)</li> <li>— Waihi Beach and Katikati (within the Western Bay of Plenty District)</li> </ul>
Regional	The regional context is defined by regional council boundaries, with a focus on the Waikato Regional Council and reference to the adjacent Bay of Plenty Region where relevant ( <b>Figure 4-2</b> ). The mine is strategically important in the regional context as it contributes to the economy and wider community.
National	New Zealand

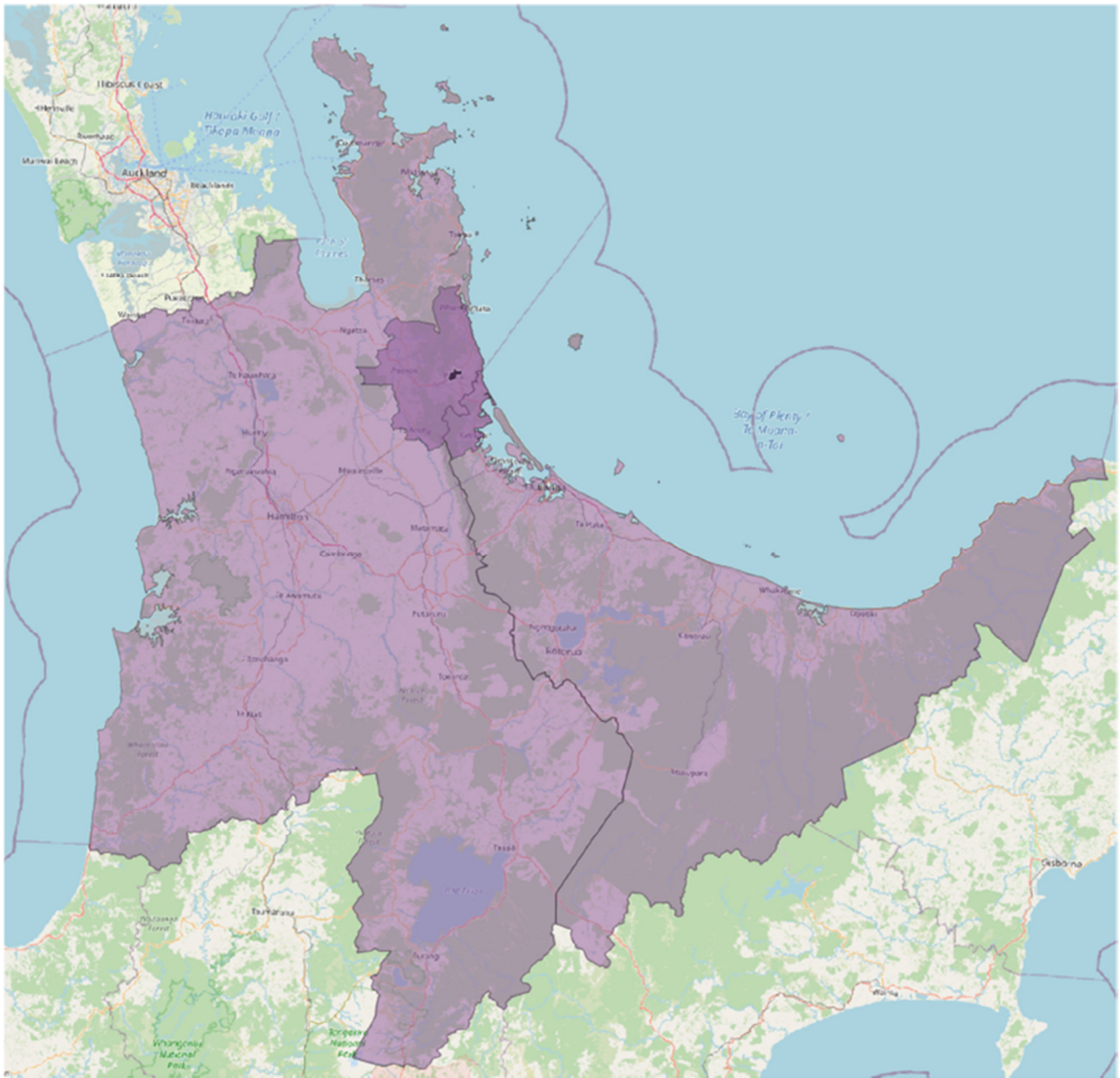
The SIA has focused primarily on the social impacts that are likely to be experienced in Waihi and the local area, with reference to the regional and national context where relevant.



Base map © OpenStreetMap contributors

Figure 4-1 Local area (light purple) and Waihi town area (dark purple)





Base map © OpenStreetMap contributors

Figure 4-2 Regional context (light purple), local context (dark purple) and Waihi town (black)

## 4.2 Community Profile

The community profile presented below is based on an understanding of the social context associated with the Waihi mining operations. Reference is made to the latest SIMP monitoring report (Phoenix Research, 2023) where relevant, and in consideration of the context of the proposed plan change.

Understanding Waihi’s demographics informs the identification and assessment of the potential social impacts of the proposed plan changes, future mining, and consideration of the implications of future mine closure (i.e., potential influx or outflux of people). Of relevance is the impact of

population change on availability and viability of community infrastructure (such as schools, medical providers, recreational facilities), availability of skilled labour, employment, and the socio-economic health of the local area.

## 4.2.1 Demographics

### Age profile

Based on the 2018 census data, total population was captured as 5,403 for Waihi town and 40,074 for the local area. The medium age in Waihi town and the local area was 49.6 years, substantially higher than the regional median age (WSP, 2023). A review of the age structure within Waihi and the local area confirms a larger older population (60-70+ years) and a smaller younger population (<15 years) compared with the regional average.

### Gender and diversity

The gender split in Waihi and the local area is an average of 51% female and 49% male, which aligns to the regional and national data. In 2022, OGNZL's existing workforce was 15% female and 85% male (SIMP, 2023), which is reflective of mining being a largely male dominated industry. Recent data collected showed that 27% of the current workforce identify as Māori (SIMP, 2023). This is higher than the average of 17.9% Māori within the local area, and the national proportion of 16.5%.

### Deprivation index

The New Zealand Deprivation Index (NZDI) is an area-based measure of socio-economic deprivation in New Zealand which uses a scale of 1 (least deprived) to 10 (most deprived). The index combines census data relating to income, home ownership, employment, qualification, family structure, housing, access to transport and communication to generate a score. The NZDI score is used to inform funding and health related social services research, and to provides community groups and service providers to advocate for resources for community services.

The NZDI score for Waihi town was 8.5, which was significantly higher than the local area score of 6.9 and the New Zealand score of 5.7. There may be several factors that result in this lower score, and using the NZDI as an absolute measure of socio-economic health has been cautioned against.

### Qualifications and skills

Based on the 2018 census data, education and qualifications attainment levels in Waihi and the local area were lower than the regional and national averages. In Waihi and the local area there was a significantly higher population with no qualification, and a lower proportion of people had pursued further study after school.

The proposed future mining of the MMZ may require an increased workforce. Given the distribution of qualifications and skills, it is likely that the skilled roles required to support future mining may not be available in the local area. Targeted skills development and training has the potential to increase the availability of the local workforce and will determine the extent of population influx that may occur as a result of the movement of skilled people into the local area.

### 4.2.2 *Economics*

Mining represents the largest individual contributor to economic growth in the Hauraki District. Of OGNZL's total expenditure in 2022, 29% was spent locally at a value of \$53 million. In 2020 44% was spent locally at a value of \$67 million. In 2022 the largest proportion of spend was nationally at 43% (\$77 million). The national spend in 2022 was three times higher than in 2020 due to several factors including purchase of new equipment, refurbishment and expansion of mining plant, and extensive work being done on new projects including the Waihi North and Martha Open Pit projects which required national expertise (SIMP, 2023).

OGNZL has over 170 suppliers providing support services to the Waihi mining operations. Based on the latest SIMP monitoring report (Phoenix Research, 2023), the local supplier sales totalled \$15 million and regional supplier sales totalled \$26 million. The Waihi mining operations result in direct local benefits as a result of overall expenditure and the use of local service providers. This does not appear to translate into widespread direct economic benefit within Waihi and the local area, probably because Waihi and the local area's lower median personal income is likely to be a result of the age profile of the population (higher older population) and higher than average employment and Not in Employment, Education or Training (NEET) rate. On average, mining jobs pay well above the New Zealand norm, as such, if there is an increase in local employment as a result of future mining there is likely to be associated local economic benefits.

### 4.2.3 *Employment*

Based on 2018 census data, the unemployment rate in Waihi was 5%, which is higher than the local, regional, and national rates. Waihi and the Hauraki District have a higher youth (15 to 24 years) NEET rate compared with the regional and national rates. The top 3 most common occupations in Waihi are (i) Labourers, (ii) Technicians and Trades Workers, and (iii) Community and Personal Service Workers. This is in contrast with the local, regional, and national profile where professionals and managers generally make up the top two occupations.

The proposed future mining within the expanded MMZ may require an increased workforce. Given that Waihi has a higher-than-average unemployment and NEET rate, there is an opportunity to increase the local workforce involvement in future mining operations through skills development and training initiatives. This has the potential to reduce population influx due to workforce requirements being met from outside the local area.

### 4.2.4 *Community Infrastructure*

The local community is well serviced with essential and support infrastructure. Within the local area there are 25 schools of various levels and deciles. There are several medical and emergency facilities in the local area, with the two nearest public hospitals with emergency departments located less than 60 km away. The local area is characterized by a wide range of community facilities, including churches, marae, community centres, libraries, and sport and recreation facilities and clubs.

# 5 ASSESSMENT: SCENARIO 1 - MMZ PLAN CHANGE

The proposed plan change seeks to expand the MMZ and requests a change in the permitted and discretionary activities within this zone. A summary of the mining related implications of the proposed plan change are summarised in **Table 5-1**.

Table 5-1: Plan Change – Mining Related Implications

PERMITTED ACTIVITIES	CURRENT RESIDENTIAL, LOW DENSITY RESIDENTIAL AND TOWN CENTRE ZONE	CURRENT MMZ ZONE	EXPANDED MMZ ZONE
Prospecting	Permitted	Permitted	Permitted
Exploration	Permitted	Permitted	Permitted
Temporary uses and buildings	Permitted*	Permitted	Permitted
Demolition and removal of buildings	Permitted	Non-complying	Permitted
Surface mining	Prohibited	Discretionary	Discretionary
Underground mining	Discretionary	Discretionary	Discretionary

\* Permitted = Less than 20m<sup>2</sup>/year; Controlled = 20-50m<sup>2</sup>/year; otherwise Discretionary

Within the area of the proposed new MMZ, several permitted activities will remain the same. The implication of the zone change is that these activities, which may not have been particularly prevalent, may increase in the years leading up to the preparation for expanded mining of Martha Mine (Scenario 2).

In preparation for future mining, it is anticipated that the following permitted activities within the proposed MMZ, are likely to increase in frequency:

- Exploration (no limit but subject to thresholds) including drilling, use of heavy vehicles and equipment; and
- Demolition and removal of buildings, and potential land clearance utilising large vehicles and machinery.

Whilst these activities are currently permitted, the social assessment has assumed that these activities are not currently occurring regularly, and that the frequency of these activities may increase in preparation for future mining, thereby representing a potential change in the social environment.

During the MMZ plan change engagement undertaken by OGNZL, there were no concerns raised regarding the proposed expansion of the MMZ, with stakeholders recognising that there would be little to no change in permitted activities.

With an understanding of the project and social context, the potential social impacts have been identified associated with the plan change scenario are presented in **Table 5-2**.

Table 5-2 : Potential Plan Change Scenario Social Impacts

IAIA CRITERIA	POTENTIAL PLAN CHANGE SOCIAL IMPACTS IDENTIFIED
Way of life	<ul style="list-style-type: none"> <li>– Change in the way people go about their daily activities and move from place to place due to increased exploration and demolition activities.</li> <li>– Loss of business premises and residential homes</li> </ul>
Environment	<ul style="list-style-type: none"> <li>– Reduced quality of the environment from noise, vibration, air emissions (dust), and visual effects.</li> </ul>
Wellbeing	<ul style="list-style-type: none"> <li>– Reduced wellbeing due to stress and anxiety as a result of (i) reduced quality of environment, (ii) potential impacts of future mining, (iii) uncertainty associated with the potential effects of the project.</li> </ul>

## 5.1 Way of Life

### 5.1.1 Potential Impacts on Daily Movements

Exploration and demolition activities have the potential to impact daily movements through increased heavy vehicle traffic used for surface exploration, building demolition and land clearing.

The Transport Assessment (Stantec, 2022) has assessed that the activities which would be permitted on the properties to be rezoned will generate less traffic than could be generated by the activities which are permitted under the current zoning. Stantec (2022) also considers the district wide performance standards in Chapter 8 of the District Plan (which include standards for vehicle parking, loading and access (Chapter 8.4)) to appropriately manage the effects of any new activity on those matters with the rezoned land. In turn, Stantec (2022) has assessed the potential adverse effects on the operation and safety of the wider transport network due to the proposed rezoning of properties and the permitted activities that could be undertaken on those properties as a result to be **negligible**.

From a social perspective, exploration and demolition activities are not anticipated to impact on individuals daily movements as the effects will be limited, temporary and short term.

### 5.1.2 Loss of Business Premises and Residential Homes

Forty-seven properties are proposed be rezoned to MMZ. This includes 15 properties in the Town Centre Zone, 25 properties in the Residential Zone and 7 properties in the Low Density Residential Zone (Mitchell Daysh, 2023). All these properties are owned by, or under the control of, OGNZL and, in preparation for future mining, some of these 47 properties may need to be vacated. This may result in the relocation of several businesses, including the offices of OGNZL, the Health Plus Gym, the Pacific Coast Technical Institute’s training commercial kitchen, the Waihi Toy Library, and a range of smaller tenants; and 24 residential homes.

According to the Planning Assessment (Mitchell Daysh) the Land Supply Assessment (RCG, 2022) identifies that some of the dwellings affected by the proposed plan change are vacant, however as it is not known how many are occupied, thus a conservative approach has been taken for the purposes of this SIA and the assessment is based on all 24 dwellings being occupied.

The Martha Mine Land Supply Assessment (RCG, 2022) included in the Planning Assessment, states that following the proposed rezoning of land parcels as MMZ there would remain sufficient

residential, low density residential and town centre zoned properties in Waihi to meet short term land use demand. The existing predicted long-term shortfalls in residential and industrial land would still be able to be addressed via implementation of the Hauraki Growth Strategy 2050 (Mitchell Daysh, 2023).

Relocation of businesses and homes will directly impact property occupiers and locals who live, work, or use any of the affected properties as they will need to find alternative business or residential tenancies, and this would result in a change in the way they go about their daily lives.

The Land Supply Assessment (RCG, 2022) considers it highly likely that businesses could be accommodated elsewhere, either in the Town Centre Zone or in Industrial Zones, so it is anticipated that those businesses would relocate locally.

The extent of the impact of the loss of business premises and residential homes from the proposed MMZ in preparation for future mining will be on the occupants and users of the affected properties. The duration of the impact is permanent, and the magnitude is limited to those directly affected occupiers (few affected). The consequence is minor; the probability is considered unlikely, therefore overall, the impact of the loss of business premises and residential homes is of **low** significance.

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## 5.2 Environment

### 5.2.1 *Reduced Quality of the Environment*

Residents and businesses in close proximity to the current and rezoned areas may experience a change in the quality of the environment as a result of the commencement of permitted activities. Both exploration and demolition activities will have the potential to generate noise, vibration, light, dust and impact visual amenity.

It is anticipated that any further meaningful exploration would take place from underground via the existing Martha underground mine, which would have no change on the current environment. If surface exploration was required, it would likely be conducted from existing drill pad locations near the Cornish Pumphouse, Waihi Athletic Rugby Club, and Martha pit crusher.

Given that the number of affected parties is few, over a temporary to short period of time, the consequence of the impact is considered insignificant. The probability of the impact taking place is possible, resulting in the overall impact associated with surface exploration and demolition activities is rated as being of **low** significance.

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## 5.3 Wellbeing

### 5.3.1 *Reduced Wellbeing*

Wellbeing includes positive emotions (i.e. contentment and happiness), satisfaction with life and positive functioning, in the absence of negative emotions such as depression and anxiety.

The rezoning of properties does not permit mining activities; however, it can be perceived to bring the potential to mine 'closer' to some people. In addition, residents' wellbeing may be affected by a change in the quality of the environment, given that the potential impacts of exploration and demolition activities will be in contrast to the current lifestyle that they value.

This has the potential to impact wellbeing by causing stress and anxiety due to:

- uncertainty associated with potential / perceived changes to the quality of environment.
- uncertainty associated with the potential effects of exploration activities.
- uncertainty associated with the potential of future mining.

The extent of the impact of reduced wellbeing is likely to be experienced by residents and businesses in close proximity to the current and proposed Martha Mineral Zone boundary (i.e. a few affected). These people are likely to experience this impact for the short term. The consequence of the impact is therefore considered minor. Given the likelihood of the impact is considered unlikely, the overall significance of reduced wellbeing is rated to be of **low** significance.

## 5.4 Assessment Summary

A summary of the assessment of the potential social impacts of the proposed plan change is presented in **Table 5-3**.

Table 5-3 : Summary of MMZ Plan Change Assessment (Scenario 1)

<b>IMPACT</b>	<b>POSITIVE / NEGATIVE</b>	<b>ASSESSMENT OF PLAN CHANGE EFFECTS</b>
Loss of business premises and residential homes	Negative	Low
Reduced quality of the environment	Negative	Low
Reduced wellbeing due to stress and anxiety	Negative	Low

# 6 ASSESSMENT: SCENARIO 2 – FUTURE MINING OF MARTHA MINE

The proposed plan change, if approved, would enable a discretionary resource consent to be applied for further surface mining and underground mining. Any expansion of the Martha Mine would be subject to further studies and investigations, prior to any works taking place.

Based on our current understanding (<http://www.marthaopenpit.info>), the development of further mining of Martha Open Pit would involve cutting back the Martha Pit around its full circumference. Surface mining operations would likely be by conventional drill, blast, load, and haul methods, and rock and ore from the Martha Pit would likely be conveyed using the existing conveyor. Ore would be sent to the existing Processing Plant and rock would likely be sent to construct tailings storage facilities, be stored in surface rock stacks, or used for backfill of underground mining.

Construction and mining operations would be subject to strict consent conditions to cover noise, dust, vibration, blasting times, and hours of operation.

The assessment of potential future mining impacts has been undertaken at a high level, as a detailed assessment of social impacts can only be prepared once the proposed activities are well understood. All the positive and negative social effects would need to be addressed through a resource consent application process.

The potential future mining impacts identified are presented in **Table 6-2**.

**Table 6-1 : Potential Future Mining Impacts (Scenario 2)**

IAIA CRITERIA	POTENTIAL SOCIAL IMPACTS OF THE FUTURE MINING OF MARTHA MINE
Way of life	<ul style="list-style-type: none"> <li>– Job security and sustained livelihoods</li> <li>– Impacts on peoples’ daily movements and behaviours</li> <li>– Loss of, and impact on, community facilities and infrastructure</li> </ul>
Community	<ul style="list-style-type: none"> <li>– Continued local community stability</li> <li>– Change in sense of place</li> </ul>
Environment	<ul style="list-style-type: none"> <li>– Reduced quality of the environment from Impact on quality of the environment from traffic, noise, blasting and vibration, air emissions, lighting and visual amenity</li> </ul>
Wellbeing	<ul style="list-style-type: none"> <li>– Reduced wellbeing due to stress and anxiety as a result of (i) reduced quality of environment, (ii) potential impacts of future mining, (iii) uncertainty associated with the potential effects of the project</li> </ul>
Fears and aspirations	<ul style="list-style-type: none"> <li>– Impact on safety (ground stability)</li> <li>– Impact on land value and financial implications</li> <li>– Future of mining and the alignment with people’s aspirations</li> </ul>

The assessment has been undertaken under the assumption that the current mining workforce would be transferred to mining Martha Open Pit (i.e., limited population influx anticipated as a result of workforce requirements). The potential cumulative impacts associated with mining expanded mining of Martha Mine concurrent with other mining operations is addressed at a high level in **Section 6.6**.



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## 6.1 Way of Life

### 6.1.1 Job Security and Sustained Livelihoods

OGNZL currently employs a total workforce of 458 people, of whom the majority (79%) live locally (SIMP, 2023). The future mining of Martha Mine presents an opportunity for the extension of employment for OGNZL employees over a medium-term period. It is assumed that the future mining of Martha Mine will not occur concurrently with the current underground mining but rather this will occur to ensure a transition of the current workforce to the mining of expanded Martha Mine.

Continued employment represents job security and sustained livelihoods for OGNZL staff, their families and others that they support within Waihi community and the local area. This impact will be experienced within the local area, for a medium-term duration, with a moderate number of people affected. The consequence of the impact is moderate, and the probability of the impact occurring is almost certain, resulting in an overall significance rating of **extreme** (positive).

### 6.1.2 Impact on Daily Movements and Behaviours

Within the local area surrounding the expanded Martha Pit, there may be changes to the way people go about their daily activities, and the way people move from place to place as a result of potential road network changes and mining operational activities. This may result in increased traffic that has the potential to cause delays, congestion, and reduced road access or changes to the local road network.

Stantec (2022) note that it is likely and expected that any future expansion of the Martha Mine would make use of the existing principal access on Kenny Street (as this access is already positioned with respect to the internal mine roads and infrastructure). The access off Kenny Street has been formed with a right turn bay, with adequate sightlines and is understood to have performed adequately in previous periods of mining that utilised this access.

Future mining of Martha Mine may result in increased traffic movements. These impacts will be felt by residents in close proximity to Kenny Road mine entrance and the immediate local road network leading to the Baxter Road ore processing facility. Locals will experience these impacts in varying degrees depending on timing / chosen route / activities.

The Traffic Assessment (Stantec, 2022) has considered the potential closure of roads as part of the potential future expansion of the Martha Mine, notwithstanding that any closures will occur outside of the RMA process. Their preliminary assessment suggests the effect of traffic re-distribution on the roundabout and associated approaches to be minimal. Furthermore, the traffic route involving Moresby Avenue and Seddon Street is the most appropriate route for traffic as this is an arterial route, rather than 'rat-running' through the local road network.

From a social perspective, an increase in traffic and potential changes to the local road network has the potential to impact on individuals' daily movements and behaviours. This impact is likely to be experienced by the local community, but more specifically those living and working in close proximity to the Martha Pit. The duration of the impact is anticipated to be medium term, and the magnitude of the effect being relatively low (few affected). The consequence of the impacts has been assessed as being minor, with a probability of possible, resulting in the overall impact being rated as being of **moderate** significance.

The proposed plan change provisions include assessment criteria that, when a resource consent is lodged, will provide assessment guidance to evaluate social effects related to traffic and potential changes to the road network that have the potential to restrict daily movements. The application of the assessment criteria would result in the overall impact being reduced to low significance.

### *6.1.3 Loss of, and Impact on, Community Facilities and Infrastructure*

The expansion of the Martha Pit will likely require the relocation of several existing town features, for example, the Cornish Pumphouse, Hauraki District Council 'housing for the elderly' flats, the 777C dump truck, 'Stargate' girth gear, the Pit Rim Walkway, Rangatira statue, and the Education Centre. A number of features may need to be removed to accommodate an expanded pit. These include part of the PYE building (OceanaGold Waihi office), a number of trees around the pit perimeter, including 'Judge's Kauri', and the Grand Junction Powerhouse foundations. Historic features are covered by the heritage rules contained in Chapter 6.1 of the District Plan.

The impact of these changes will likely be felt by locals who regularly use or enjoy these facilities. Without any mitigation (i.e. infrastructure or features are not relocated or replaced) would result in a permanent loss or impact of moderate consequence. It is likely that this impact would occur resulting in an assessment of **high** significance. The relocation and replacement of infrastructure and features impacted on by the expansion of Martha Pit, will result in the impact being experienced for a temporary period, and the likelihood of the loss or impact being unlikely.

The objectives, policies and assessment criteria contained with the proposed plan change provisions provide adequately for addressing the potential impacts on community facilities and infrastructure. The application of the proposed plan change provisions would result in the overall impact being reduced to **low** significance.

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## 6.2 Community

### *6.2.1 Continued Local Community Stability*

Mining has been a major part of the development of Waihi and is a significant contributor to the local and regional economy. Over and above the direct employment in the mine, gold mining activity supports a wide range of businesses and jobs in the region (WSP, 2023). It also generates mining related business activity and economic spend that has a positive effect on the local, regional, and national economy.

Future mining of Martha Mine provides an opportunity for continued local and regional business activities and the resultant indirect employment within the wider economy. This in turn will sustain economic and community stability as a result of continued local economic investment. It is not anticipated that the proposed project will deepen reliance on mining as mine related revenue is spread widely over a large number of small companies (SIMP, 2023). Economic diversification is taking place and continuation of this will insulate businesses and the community from the implications of the eventual mine closure.

Future mining of Martha Mine represents the potential for continued local community stability. The social effects of continued mining related business activity, employment and economic spend in the local area will be positive and contribute to sustained quality of life at both an individual, family and community level. The extent of the impact will be local, the duration is likely to be medium term, and the magnitude is anticipated to be moderate. The consequence of continued local

community stability is moderate, and the impact is considered likely, resulting in an overall assessment of **high** significance (positive).

### 6.2.2 *Change in Sense of Place*

Sense of place is a social construct of individuals and communities and their interaction within the landscape in which people live and work, creating a unique identity for a geographic area. Sense of place includes consideration of aspects such as social cohesion and a sense of community.

The character and identify of Waihi have been shaped by historical and current mining activities, with the town branded as “New Zealand’s Heart of Gold”. The expansion of the Martha Mine is unlikely to result in a change in the sense of place as this is the continuation of mining within a town that is synonymous with mining. The continuation of mining in Waihi and the future of mining will not result in a change in the identify of Waihi and is therefore not assessed further.

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## 6.3 Environment

### 6.3.1 *Reduced Quality of the Environment*

Future mining activities have the potential to reduce the quality of the environment for residents and businesses in close proximity to the mining operation. Mining activities that generate noise, vibration, light, dust and impact visual amenity can result in a change to the quality of the environment that surrounding properties currently enjoy.

During the engagement undertaken by OGNZL for the proposed plan change, concerns were raised by close proximity residents and businesses relating to noise, dust and vibration that will result from the future expansion of Martha Mine. The expansion of the MMZ and associated future mining of Martha Mine will bring mining activities closer to Waihi School. During the plan change engagement, the school raised concerns regarding noise, dust and vibration and the potential impact of the school environment.

The potential for a reduction in the quality of the environment is possible and is likely to largely affect those residents, businesses, and community facilities in close proximity to any expanded Martha Open Pit, with the duration of the impact being medium term. The consequence of the impact is considered moderate, the probability unlikely based on the assumption that environmental effects will be within permitted limits. Overall, the potential for quality of the environment assessed to be of **low** significance.

The objectives, policies and assessment criteria contained with the proposed plan change provisions provide adequate guidance for addressing the potential environmental impacts on amenity and their application will ensure quality of the environment impacts are managed to an acceptable level.

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## 6.4 Wellbeing

Wellbeing includes positive emotions (i.e. contentment and happiness), satisfaction with life and positive functioning, in the absence of negative emotions such as depression and anxiety.

The potential impact on wellbeing on individuals from future mining of Martha Mine is anticipated to be as a result of the following:

- Anxiety – due to the uncertainty associated with the potential effects of the project.
- Change in the quality of the environment – change in the amenity associated with the environment that people enjoy and value.

The proposed mining of Martha Mine has the potential to affect the wellbeing of a range of stakeholders regardless of their proximity to mining activities, however, is likely to have a greater impact on those living in close proximity to future mining activities. The impact on wellbeing would be experienced over a medium term, with the magnitude of the impact limited to a few affected people and is considered possible. Overall, an impact on wellbeing has been assessed to be of **moderate** significance.

The policies contained with the proposed plan change provisions include the provision for social, economic and cultural wellbeing of the local community. The application of the proposed plan change provisions criteria would result in the overall impact being reduced to **low** significance.

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## 6.5 Fears and Aspirations

Under the IAIA framework, the consideration of fears includes perceptions of safety, and fears about the future. In the context of future mining of Martha Mine, the fears associated with pit expansion and associated mining are likely to include:

- Aspirations of how mining could enhance Waihi town and support that could be offered to the community to improve community and other facilities.
- Fears around mine activities and how this may impact of the lives and aspirations of the community, including a delay in the rehabilitation of Martha Pit.

Given the subjective nature of personal fears, an assessment of the significant of fears has not been undertaken, but rather a description of the key themes that arose out of the engagement process has been provided with identification of mitigation measures where relevant.

### 6.5.1 Future Aspirations for Waihi

From the consultation with the community and community groups undertaken during the Waihi North Project SIA (WSP, 2023), the ongoing life of the mine was perceived to be positive as the mine has a long history of supporting the community and community activities. However future mining of Martha Pit represents a postponement of the mine rehabilitation and closure.

During the engagement undertaken by OGNZL in support of the plan change application, one resident expressed that they were strongly against any further mining expansion, whilst another resident raised concerns regarding the environmental impacts of mining. The future expansion of the Martha Mine may be in contrast with some residents' aspirations for the future. Some stakeholders may aspire for environmental and landscape improvements post closure, whilst others have expressed fears regarding the dangers of Martha Pit being repurposed as a lake (OGNZL engagement, 2021-2023).

### 6.5.2 Impact on Land Value and Financial Implications

A common fear that emerged through engagement conducted for the Waihi North Project SIA was how mining was perceived to have a negative effect on property values and associated financial implications. Concerns were raised about the effect on land resale value, land development potential (either by proximity to or the effects of mining activity) and mining activities restricting or inhibiting current land use activities (WSP, 2023).

During the engagement undertaken by OGNZL for the proposed plan change, property resale was raised as a concern by one resident in respect of the future expansion of Martha Mine.

In the past, OceanaGold Waihi and its predecessors have successfully implemented a 'Top Up' management measure as a way of mitigating the impacts of mining activity on property values. The Top Up initiative is designed to close the gap between an offer and the market value of a purchased property.

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## 6.6 Cumulative Impacts

The identification and assessment of potential social impacts associated with the future mining of the expanded MMZ has been undertaken at a high level as the timing and activities proposed is uncertain at this stage. The assessment has been based on the assumption that the future mining of the MMZ will not occur concurrently with the current underground mining operations and therefore represents a transition of workforce from current operations to the mining of an expanded Martha Mine. The assessment has also not taken into account the implementation of the proposed Waihi North Project, which is not yet approved.

Should the future expansion of Martha Mine occur concurrently with the current underground mining operations, there would be several significant cumulative social impacts, largely as a result of the population influx that would be likely to occur in response to the workforce requirements to support expanded mining operations. The potential social impacts associated with an influx of future workers and their families into the local area include the following:

- Impact on demand for housing – there is a potential for a shortage of housing as a result of workforce influx into Waihi and the local area.
- Impact on the demand for community facilities and services – a population influx into the local area has the potential to result in an increased demand for school, medical facilities, and social services.

Without further information on the nature and timing of concurrently mining operations, and identification of management and mitigation measures to manage potential impacts, it is not possible to assess the significance of each of the above impacts. At a very high level, the cumulative impacts associated with concurrently mining would be experienced largely at a local area level, for a medium-term duration, with many affected. The consequence is considered major and the likelihood almost certain, resulting in a preliminary assessment rating of **extreme** significant (negative).

The proposed plan change provision includes an assessment criterion that requires the consideration of the implications of concurrent mining operations. The consideration of the cumulative social effects of concurrently mining has the potential to reduce this impact significance.

## 6.7 Assessment Summary and Recommendations

A summary of the assessment of the potential social impacts of the proposed future expansion of the Martha Mine (future mining) is presented in **Table 6-2**.

Table 6-2 : Summary of Future Mining Assessment (Scenario 2)

IMPACT	POSITIVE / NEGATIVE	ASSESSMENT OF PLAN CHANGE EFFECTS	ASSESSMENT POST-IMPLEMENTATION OF THE PROPOSED PLAN CHANGE PROVISIONS
Job security and sustained livelihoods	Positive	Extreme	-
Impact on daily movements and behaviours	Negative	Moderate	Low
Loss of, and impact on, community facilities and infrastructure	Negative	High	Low
Continued local community stability	Positive	High	-
Reduced quality of the environment	Negative	Low	Low
Reduced wellbeing due to anxiety and/ or a change in the quality of the environment	Negative	Moderate	Low
Cumulative impacts of concurrent mining	Negative	Extreme (preliminary rating)	Moderate (preliminary rating)
Fears and aspirations: Future aspirations for Waihi Impact of land values and financial implications	Positive / Negative	Not assessed	

The Planning Assessment prepared to support the proposed plan change includes proposed changes to the provisions within the District Plan.

The proposed objective of the MMZ is:

- To provide for the utilisation of the mineral resource, and the rehabilitation of the natural and physical resources affected by mining activities, in a sustainable manner.

The extent to which the policies and assessment criteria adequately address the social impacts associated with the proposed future mining with the expanded MMZ is presented in **Table 6-3**.

Table 6-3 : Summary of the Adequacy of the Proposed Provisions (Scenario 2)

IMPACT	ADEQUACY OF PROPOSED PLAN CHANGE PROVISIONS
Job security and sustained livelihoods (positive)	<p>Policies:</p> <ul style="list-style-type: none"> <li>— 5.17.2 (1)(a)(ii) provides for the social, economic and cultural wellbeing of the people of the District.</li> </ul> <p>Assessment Criteria:</p> <ul style="list-style-type: none"> <li>— None</li> </ul>

Impact on daily movements and behaviours (negative)	<p>Policies:</p> <ul style="list-style-type: none"> <li>— 5.17.2 (1)(b)(viii): Ensure activities are managed to maintain the safe and efficient operation of the transport network.</li> </ul> <p>Assessment Criteria:</p> <ul style="list-style-type: none"> <li>— 5.17.7.2.(12) requires consideration of the implications of the realignment or closure of any public road.</li> <li>— 5.17.7.2.(15) requires that road safety, access, sightlines and parking standards are ensured.</li> </ul>
Loss of, and impact on, community facilities and infrastructure (negative)	<p>Policies:</p> <ul style="list-style-type: none"> <li>— 5.17.2 (1)(a)(ii) provides for the social, economic and cultural wellbeing of the people of the District.</li> <li>— 5.17.2.(1)(b)(iv) requires that the character and amenity of the urban area of Waihi is maintained or enhanced, including through an appropriate interface of the Martha Mine with adjacent residential, commercial, and open space areas.</li> <li>— 5.17.2 (1)(b)(v): Ensure that pedestrian access around the Martha Mine is maintained.</li> </ul> <p>Assessment Criteria:</p> <ul style="list-style-type: none"> <li>— 5.17.7.2(2) requires that the quality and character of the adjacent residential, commercial, and open space areas of Waihi be maintained, including retention and or adaptive reuse of heritage items and their settings, retaining representative heritage features of the PYE factory and creation of destination experiences.</li> <li>— 5.17.7.2(5) requires the continuity, functioning and quality of the pedestrian access around the perimeter of the pit be maintained, and a range of recreation and destination experiences be provided for.</li> </ul>
Continued local community stability (positive)	<p>Policies:</p> <ul style="list-style-type: none"> <li>— 5.17.2 (1)(a)(ii) provides for the social, economic and cultural wellbeing of the people of the District.</li> </ul> <p>Assessment Criteria:</p> <ul style="list-style-type: none"> <li>— None</li> </ul>
Reduced quality of the environment (negative)	<p>Policies:</p> <ul style="list-style-type: none"> <li>— 5.17.2.(1)(b)(iii): Ensure that the actual and potential adverse visual effects of any expansion of Martha Mine are avoided or mitigated, including through the use of topography, screens, retaining representative features of the PYE Factory and landscaping in key locations.</li> <li>— 5.17.2.(1)(b)(iv): Ensure the character and amenity of the urban area of Waihi is maintained or enhanced during the operation and at completion of mining activities, including through an appropriate interface of the Martha Mine with adjacent residential, commercial, and open space areas.</li> </ul> <p>Assessment Criteria:</p> <ul style="list-style-type: none"> <li>— 5.17.7.2.(4) requires that measures are proposed to avoid or mitigate any adverse landscape, urban design, and visual</li> </ul>

	<p>effects, and whether such measures will suitably protect the amenity of neighbouring land and the streetscapes of Waihi.</p> <ul style="list-style-type: none"> <li>— 5.17.7.2.(9) requires that construction and operational noise and vibration controls are proposed to suitably protect amenity of Waihi and the wider community.</li> </ul>
Reduced wellbeing due to anxiety and/ or a change in the quality of the environment (negative)	<p>Policies:</p> <ul style="list-style-type: none"> <li>— 5.17.2.(1)(a)(ii): Provide for the social, economic, and cultural wellbeing of the people of the district and for their health and safety.</li> </ul> <p>Assessment Criteria:</p> <ul style="list-style-type: none"> <li>— None</li> </ul>
Cumulative impacts of concurrent mining (negative)	<p>Policies:</p> <ul style="list-style-type: none"> <li>— 5.17.2 (1)(a)(ii) provides for the social, economic and cultural wellbeing of the people of the District.</li> </ul> <p>Assessment Criteria:</p> <ul style="list-style-type: none"> <li>— 5.17.7.2.(10) requires that suitable controls are proposed to manage any actual or potential adverse effects occurring concurrently with other permitted or consented mining and mining operations in Waihi.</li> </ul>

### 6.7.1 Recommendations

It is recommended that the following additional assessment criterion be incorporated into the proposed Plan Change Provisions:

#### 5.17.7.2 Assessment Criteria - Proposed Expansion of the Martha Mine

- Whether adequate measures, controls or strategies are in place with respect to the provision of social infrastructure and services to the community during the operation and future closure of the Martha Mine, including consideration of other permitted or consented mining and mining operations in Waihi.



# 7 ASSESSMENT: SCENARIO 3 – MINE CLOSURE

If the proposed plan change is not approved, the expansion of the MMZ and the potential for the future mining of Martha Mine will not be provided for. Based on the current life of mine, the OGNZL mining operations in Waihi are forecasted to cease in 2031.

For the purposes of this SIA, a preliminary assessment of closure impacts has been undertaken, based on the Waihi North Project SIA and our current understanding of the social environment. This assessment is preliminary given that it is anticipated that the social environment may be somewhat different to present day and the information required to support a detailed assessment of the social implications of mine closure will still need to be collected.

This preliminary assessment is based on the closure of the current mining operations in Waihi in 2031. The assessment assumes that the proposed Waihi North Project and the proposed future mining of the Martha Mine do not occur. Potential closure impacts have been identified (**Table 7-1**) and described, and a high-level assessment has been undertaken using the IAIA assessment framework.

**Table 7-1 : Preliminary Identification of Closure Impact (Scenario 3)**

IAIA CRITERIA	POTENTIAL IMPACTS OF MINE CLOSURE
Way of life	– Loss of direct employment
Community	– Reduced community stability – Change in sense of place
Environment	– Improved / reduced quality of the environment
Wellbeing	– Improved / reduced wellbeing due to implications of closure
Fears and aspirations	– Uncertainty regarding the future of Waihi without mining – Aspirations for environmental and landscape improvements

## 7.1 Way of Life

### 7.1.1 Loss of Direct Employment

The closure of Waihi mining operations will directly affect those employed by the mine at the time of closure, resulting in job losses. Loss of employment removes or reduces an individual’s ability to financially support themselves and their dependents. The response to loss of employment is that individuals seek alternative employment, either within the local area or elsewhere. Some employees may reassess their employment options which may vary depending on age; this may include the option of retirement for older employees.

Closure will result in the loss of employment for the current workforce. This assumes that there are no future expansions proposed that will result in the retention of the mine workforce. This represents a negative impact on the OGNZL workforce, that will directly affect individual employees,

their families and those they support, and the loss of employment will be permanent. The likelihood of the impact occurring is almost certain, as there is a defined life of mining which will cease in 2031. The overall significance of the loss of direct employment is assessed to be of **extreme** significance (negative).

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## 7.2 Community

### 7.2.1 *Reduced Local Community Stability*

The closure of the Waihi mining operations has the potential to result in the outflux of mine workers and their families as they relocate for work related opportunities elsewhere. The movement of people out of the area will result in a change in the demographic profile of Waihi and the local area.

During previous engagement undertaken as part of the Waihi North Project SIA (WSP, 2023), the following insights regarding closure and community stability were identified:

- Skills gained in the mining sector would be transferable to other sectors in the event of closure.
- There has been an influx of people into the local area for larger economic centres (Auckland and Tauranga), and with more people working remotely there are opportunities for people to be more selective about where they live. This influx is likely to continue.

The extent to which the OGNZL workforce can find alternative employment in the local area would reduce the extent of outflux from Waihi and the local area.

The closure of the mine is likely to change the demographic profile of Waihi and the local area. There is likely to be an outflux of the younger workforce members and continued influx of the 50+ year age group as the local area continues to be a popular retirement destination.

The outflux of mine workers and their families may have implications on the provision of social and community services and facilities i.e. reduced demand for schools. The movement of mine workers out of the local area may result in the loss of other skills such as teachers and healthcare workers associated with the partners of mine workers. In addition, local sports and recreational clubs may have reduced membership and participation which may affect the continuation of these facilities post mine closure.

There is likely to be an increase in housing supply in the local area as a result of the movement of people.

There are likely to be indirect employment losses in the wider economy. Both direct and indirect job losses will result in an outflux of people from the local area which will have an impact on the stability of the local community, particularly in the short-term period following closure.

Some business may experience an impact in revenue as a result of the closure of the mine. The extent to which businesses are dependent on mining will determine the extent to which community stability is affected. The Waihi North Project SIA (WSP, 2023) determined that there was economic diversification evident, and the majority of the suppliers and local businesses were not significantly dependent on the mine for their business revenue. Whilst there is economic diversification within the local economy, the closure of the mine will represent a loss of local economic investment and will have an impact on the local economy.

The closure of the Waihi mining operations is likely to result in changes to the demographic profile of the local area, movement of people, and changes to the local economy. A decline in community

stability and cohesion is anticipated for a period, until the local economy and community recover and adjust to a new normal in the absence of mining. The extent of the impact and the timeframe it would take for the community to stabilise will be dependent on the level of business and community resilience.

The local community will experience a period of instability following the closure of the Waihi mining operations. The impact is likely to be experienced by the local community for a short term (1-5 year) duration as there is an adjustment in population and local economy. The consequence of reduced community stability is moderate, and it is likely to occur, as such the overall significance of this impact is assessed to be of **high** significance (negative).

### *7.2.2 Change in Sense of Place*

The character and identity of Waihi have been shaped by historical and current mining activities, with the town branded as “New Zealand’s Heart of Gold”. The closure of the Waihi mining operations will result in the cessation of active mining in Waihi; however, this is unlikely to change the character of the town which is steeped in mining history. A significant change in the identity of Waihi is not anticipated to occur as a result of mine closure and is therefore not assessed further.

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## 7.3 Environment

### *7.3.1 Improved Quality of the Environment*

Whilst there will be ongoing rehabilitation throughout mining operations, upon closure of the mine there will be a period of intensive rehabilitation that will result in an improvement in the quality of the environment associated with previously mined areas.

The key features of the consented rehabilitation plan are a pit lake surrounded by a parkland facility for recreational use (Mitchell Daysh, 2023). The closure plan also involves the substantial planting of native plants around the pit lake, and restoration of land formerly occupied for Martha Pit use in a manner that will protect water quality and avoid soil erosion of the pit rim. This will result in substantial benefits for the community post mining.

The local community will experience an improvement in the quality of the environment through the rehabilitation of active mine areas, in particular the Martha Pit, and the overall enhancement of recreational amenity in Waihi. The impact is likely to be experienced by the local community for a permanent duration, with many people affected. The probability of the impact occurring on closure is considered likely, as such the overall significance of this impact is assessed to be of **high** significance (positive).

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## 7.4 Wellbeing

### *7.4.1 Impact of Wellbeing*

The closure of the Waihi mining operations may impact on the wellbeing of some individuals as a result of stress and anxiety due to the uncertainty regarding mine closure and the perceived and actual impacts that closure may have on people’s way of life and community.

During engagement undertaken for the Waihi North Project SIA (WSP, 2023) those that were interviewed raised that the closure of the mine was a ‘running joke’ amongst the local community,

as closure had been spoken about so many times and then a new project identified which would extend the life of the mine. The eventual closure of the mine may be a difficult reality to accept for some community members as they don't consider closure as a likely occurrence.

The wellbeing of a range of stakeholders may be affected as a result of the mine closing. Reduced wellbeing is likely to be experienced for a short-term period leading up to and during the closure phase as people adjust to the changes anticipated. The impact is likely to affect members of the local community and is considered possible. Reduced wellbeing has been rated as being of **moderate** significance (negative).

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## 7.5 Fears and Aspirations

Under the IAIA framework, the consideration of stakeholders' fears and aspirations includes fears about the future of their community, and aspirations for the future and the future of their children. Engagement conducted as part of this plan change application and the Waihi North Project SIA (WSP, 2023) did not specifically result in the identification of fears and aspirations associated with closure.

It is anticipated that the closure of the Waihi mining operations may result in the following fears and aspirations (WSP, 2023):

- Uncertainty for the future of Waihi without mining including:
  - Fears that many people will leave Waihi and the local area, resulting in a loss of community stability and cohesion, and a change in the character of the town.
  - Fears due to the loss of employment and the impact on business revenue.
  - Fears that community facilities and services will not be maintained or be available at the level to which they have been accustomed to.
- Aspirations for environmental and landscape improvements post closure.

Fears and aspirations are closely linked to wellbeing, and are often extremely subjective, and for this reason an assessment of significance has not been undertaken.

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## 7.6 Assessment Summary and Recommendations

If the proposed plan change is not approved, in the absence of an approved future mining activity, the Waihi mining operations is proposed to cease in 2031. A summary of the preliminary assessment of the potential social impacts of the proposed closure off the Waihi mining operations is presented in **Table 7-2**.Table 6-2

Table 7-2 : Summary of the Preliminary Closure Assessment (Scenario 3)

<b>IMPACT</b>	<b>POSITIVE / NEGATIVE</b>	<b>PRELIMINARY ASSESSMENT</b>
Loss of direct employment	Negative	Extreme
Reduced local community stability	Negative	High
Improved quality of the environment	Positive	High
Reduced wellbeing due to stress and anxiety	Negative	Moderate

# 8 CONCLUSION

The potential social impacts of the following three scenarios have been assessed:

- 1 Scenario 1: MMZ Plan Change – activities permitted by the rezoning.
- 2 Scenario 2: Future mining of Martha Mine – future mining within the expanded MMZ, including cumulative effects.
- 3 Scenario 3: Closure of mining operations in Waihi – social implications of the plan change not being approved i.e., the anticipated closure of the Waihi Mining Operations in 2031.

## Scenario 1: MMZ Plan Change

The following potential negative social impacts of the proposed plan change (Scenario 1) were assessed to be of low significance:

- Loss of business premises and residential homes
- Reduced quality of the environment
- Reduced wellbeing due to stress and anxiety

## Scenario 2: Future Mining of Martha Mine

The following potential negative social impacts of the future mining of Martha Mine (Scenario 2) were assessed to be of low significance with the implementation of the proposed plan change provisions, with the exception of the preliminary assessment of cumulative impacts of concurrent mining, which was assessed to be of moderate significance:

- Impact on daily movements and behaviours (low)
- Loss of, and impact on, community facilities and infrastructure (low)
- Reduced quality of the environment (low)
- Reduced wellbeing due to anxiety and / or change in the quality of the environment (low)
- Cumulative impacts of concurrent mining (moderate)

The two positive social impacts, namely (i) job security and sustained livelihoods, and (ii) continued local community stability were rated as extreme and high positive significance respectively.

The adequacy of the objectives, policies, and assessment criteria within the proposed plan change provisions to avoid, remedy or mitigate the potential social impacts associated with the expansion of the MMZ have been evaluated. The provisions largely address the potential social impacts of future mining; however, the following additional assessment criterion is recommended:

### 5.17.7.2 Assessment Criteria – Proposed Expansion of the Martha Mine

- Whether adequate measures, controls or strategies are in place with respect to the provision of social infrastructure and services to the community during the operation and future closure of the Martha Mine, including consideration of other permitted or consented mining and mining operations in Waihi.

### Scenario 3: Mine Closure in Waihi

If the event that the proposed plan changes is not approved, the OGNZL mining operations are currently forecasted to cease in 2031. The potential social impacts of closure have been identified and a preliminary assessment undertaken resulting in the following assessment outcomes:

- Loss of direct employment (extreme negative)
- Reduced local community stability (high negative)
- Improved quality of the environment (high positive)
- Reduced wellbeing due to stress and anxiety (moderate negative)