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Centre for Social Responsibility in Mining

Social Impacts of Closure of Newmont Waihi Gold operations

A Report for Newmont Waihi Gold

October 2009



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CENTRE FOR SOCIAL RESPONSIBILITY IN MINING

The Centre for Social Responsibility in Mining (CSRМ) is a centre within the Sustainable Minerals Institute. CSRМ works with companies, communities and governments to respond to the socio-economic and political challenges brought about by resource extraction.

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List of Abbreviations

HDC	Hauraki District Council
MOU	Memorandum of Understanding
NWG	Newmont Waihi Gold
SIA	Social Impact Assessment
TOR	Terms of Reference
VWT	Vision Waihi Trust
WCV	Waihi Community Vision

Acknowledgements

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Executive Summary

The context for the study (Section 1, pp 1-4)

Newmont Waihi Gold (NWG) operates the Martha open pit and Favona underground mines near the town of Waihi in New Zealand. The existing mine plan indicates the closure of the open pit in August 2010, and the underground operation in August 2011. A possible Eastern Layback could extend the life of the open pit to Sept 2013. Although local and regional exploration programs continue, it is quite possible that all mining operations in Waihi could cease within the next two to four years. Closure is likely to involve a series of step changes, associated with the closure of the open pit and underground mines at (likely) different times, followed later by processing operations and finally the rehabilitation areas. This study focussed on the potential social impacts associated with these changes, which are likely to be spread over a period of several years. It included interviews with a range of local stakeholders, a review of available public domain information and statistics on the community, a survey of all NWG and contractor employees and a separate survey distributed to businesses in the town. The information was combined to provide an assessment of the potential social impacts of closure of NWG operations on the community of Waihi.

The community of Waihi (Section 2 and 3, pp 5-22)

Waihi is a relatively small community of approximately 4500 people, located in a scenically-attractive rural setting at the base of the Coromandel Peninsula. The direct and indirect impacts of NWG operations account for approximately 25% of the town's economy. Other significant employers are the retail and hospitality sectors, and there are also several small, specialised engineering and manufacturing businesses located in the town. Key aspects of the demographics include an ageing population, and a noticeable dip in the proportion of people in the 20-30 year-old bracket. The latter is attributed to many young people seeking employment or further study opportunities elsewhere. The community also features a high proportion of people on invalid or sickness benefits, and scores relatively highly on socio-economic deprivation scales. This suggests a community that could be vulnerable to significant changes in the town's economy. While previous studies have indicated majority support for the mining operation, amenity issues continue to be a concern for some in the community. There is an ongoing scepticism that the mine will actually close in line with the current timeline.

Workforce intentions on closure (Section 4, pp 23-34)

A key issue related to closure is how many of the current workforce are likely to leave the community when NWG operations cease. The survey results suggested that there is a clear tendency towards leaving, although approximately a quarter of respondents gave a neutral response. Younger people who had resided in the area for a shorter time were more likely to leave, as were those with professional and specific skills. Of those more likely to stay, there are a number who indicated interest in retraining and/or developing new business opportunities in the town. The workforce was relatively well-informed of the current closure scenarios and timelines. There was also a clear desire for continued communication in this area, and assistance with preparing for the transition.

Social impacts of closure (Section 5, pp 35-39)

The closure of NWG operations is likely to result in a small drop in the Waihi population. Employee survey results suggest a range of 300-400 including dependents from Waihi, and a further 100-150 from Waihi Beach. This does not include any flow-on effects, but neither does it allow for people moving into the area. Areas likely to be most affected include the education sector, with significant drops in enrolments likely across all levels including the early childhood sector. Volunteer networks focussed on sport and education support are also likely to be affected. The longer term demographic outcome is likely to be further ageing of the Waihi population.

Developing tourism alternatives, and in particular the Gold Discovery Centre, has been the main focus to date for maintaining the Waihi economy post-closure. Population decreases and the loss of well-paid jobs at the mine will impact on the town's retail and service sectors in the short term. A particular concern to people is also the impact on the property market, with the combination of NWG and privately-owned properties of employees possibly resulting in approximately 100 houses becoming available.

Stress associated with closure can affect employees, their families and many in the broader community whose livelihoods are linked to the mine. There is likely to be increased demand for various types of social services, including an increased demand for welfare support. Conversely, closure will eliminate current amenity issues and provide more certainty to property owners and residents in affected areas.

Closure offers an opportunity for a healing process from the Maori and local Iwi perspective, addressing the concerns and impacts associated with the loss of Pukewa to the open pit mine. There are divergent views as to how this should best be managed.

Specific recommendations for NWG (Section 6, pp 40-45)

Communication – once the situation on the next layback is clear, NWG should implement a major communication exercise to update the whole community.

Economic diversity – work with WCV/VWT/HDC to undertake an asset-based review of the Waihi community, with a view to exploring other opportunities for promoting a broader base of economic activity beyond the current tourism focus.

Workforce transition – develop a workforce transition program which includes capacity-building and support elements, where possible integrating this with service providers and existing groups in the Waihi community.

Housing divestment strategy – develop and, importantly, communicate a formal strategy on divestment of the NWG housing portfolio. Opportunities exist to use these assets to address other issues e.g. community housing, business development.

Iwi engagement – engage an organisation with relevant cultural experience to undertake a more detailed assessment of the impacts of mining and mine closure on Iwi groups and the general Maori community in Waihi.

Youth opportunities – engage directly with all agencies working with youth organisations to review and align current initiatives and engagement processes.

1 Introduction

1.1 Context

Newmont Waihi Gold operate the Martha open pit and Favona underground mines near the town of Waihi in New Zealand, having acquired the operation in February 2002 as part of the Normandy Mining acquisition by Newmont Mining Corporation. Mining of the pit was set to end in 2006, but activities were extended through a stabilisation program on the southern pit wall. The existing mine plan¹ indicates the closure of the open pit in August 2010, and the underground operation as occurring in August 2011. A possible Eastern Layback (currently being evaluated) could extend the life of the open pit to Sept 2013. Although local and regional exploration programs continue, it is quite possible that all mining operations in Waihi could cease within the next two to four years. Closure is likely to involve a series of step changes, associated with the closure of the open pit and underground mines at (likely) different times, followed later by processing operations and finally the rehabilitation areas. Therefore the changes and resultant impacts discussed in this report will almost certainly be spread over a period of several years. This is an important factor to consider when planning for closure.

As part of its operating permit, NWG undertakes a Social Impact Assessment (SIA) of the effects of its activities on the Waihi community every two years. In addition, the mine has been the focus of a number of internal reviews including most recently as a case study site for Newmont's global Community Relationships Review. One of the findings of the latter study was that due to the continued discussion of closure in parallel with the approval of successive extensions, there is a sense of disbelief within the community that closure will occur. This phenomenon was referred to by one participant in that research as "*the mirage of closure*". With this in mind, NWG chose to focus this SIA study specifically on the topic of mine closure and its impact on the Waihi community.

1.2 Project scope and objectives

Closure is not a new topic for the community, and in fact was the main driver for the formation of the group that developed into the Waihi Community Vision (WCV). The activities of this group have been focussed squarely on the post-mining future for Waihi, and these are explored in more detail later in the report.

The scope and Terms of Reference for this project were negotiated between NWG and an advisory group formed of members of the WCV. The main objectives were to:

- Capture the views and report on the needs, aspirations and concerns of people, communities, organisations and stakeholders affected by NWG operations in relation to the items that form the critical and additional focus areas.
- Identify the readiness of the community to absorb the effects of closure in both the short term (two years) and medium term (four years) in light of NWG investment into closure planning through the WCV and VWT processes.

¹ Information provided by NWG - current scenarios are available via the NWG website at www.marthamine.co.nz

- Provide the basis for NWG to work with relevant stakeholders to prepare a Social Impact Management Plan which may also lead to the development of a Social Policy in terms of NWG's Social License to operate in Waihi.
- Advise on the potential for a suitable mechanism of ongoing monitoring of social issues and the evaluation of progress using identified baseline measures.

Waihi is located 150 kilometres southeast of Auckland in the Hauraki District on the east coast of the north island of New Zealand (NZ), and hosts the NWG operations. The town of approximately 4,500 people is situated in a scenically attractive rural area at the base of the Coromandel Peninsula, a popular tourist destination. Waihi is one ward of three administered by the Hauraki District Council (HDC), which is based in the nearby town of Paeroa. While some data are included on potential impacts affecting the nearby town of Waihi Beach where some of the NWG workforce live, the main focus of the discussion in this report is on the town of Waihi itself and its immediate surroundings.

1.3 Research methodology

The research program for the project comprised four elements. These were desktop research to provide a socio-economic profile of Waihi from public domain sources against which future changes could be assessed; a written survey of NWG and contractor employees to understand their post-closure intentions, and their current level of connections within the community; a series of semi-structured interviews with key informants; and a written survey of local businesses. The different elements were conducted from late May through to July 2009, with most fieldwork undertaken in late May and early June. The research plan was approved by the University of Queensland's Ethics Committee.

Desktop research

Key sources for data and statistics on the social and economic environment of Waihi included Statistics NZ, and specific reports from HDC and national government agencies. Some follow-up information was provided by those involved in the interview process. As mentioned previously, there have been several previous studies which have explicitly discussed social and economic impacts of closure for the Waihi community. The most recent have been:

- "The economic environment of Waihi - a review", March 2005, prepared by NZIER
- "Social Impact Assessment for Newmont Waihi Gold", July 2006, prepared by Q&A Communications Group
- "Site-based Assessment of Newmont Waihi Gold", March 2009, prepared by Centre for Social Responsibility in Mining, University of Queensland

These reports are accessible via links on the NWG website, and provide useful background context and analysis. The aim of this report is therefore to update and add information, rather than to reproduce the content of previous work. Where information or commentary from these documents is sourced it is referenced in the text. In addition, a full reference list is attached at the end of the report.

Workforce survey

A written survey regarding awareness of closure and post-closure intentions was designed by CSRSM and distributed via NWG workgroups to all available employees during the week commencing 18th May. Responses were returned via NWG in sealed envelopes to CSRSM. A total of 207 responses were received, from an estimated total number of 320 employees available at the time², representing a response rate of 65%. The quantitative and qualitative data were analysed by CSRSM using separate software packages.

Interviews

A series of 46 semi-structured interviews were conducted with representatives of various groups in the community and NWG staff. These focused on participant views of the potential impacts of closure, as well as NWG's current interactions with the community over closure issues. Interviews were conducted at numerous locations around Waihi in two blocks during May 2009 by Robin Evans, Trista Hill and Phil Clark. One was completed via phone, and some follow-up interviews were conducted at later dates. The interviews aimed to cover as wide a range as possible of viewpoints. Of the 49 people involved in the interviews, 14 were women and 6 of Maori descent.

Business survey

In addition to interviews with several key business owners, a brief written survey was prepared for distribution to all local business operators. It was distributed via E-Mail through the Go Waihi business mailing list. Six responses were received from an estimated distribution of 100 – although this represents a low response rate, the responses and comments in these surveys were useful additions to the information from other sources, and served to reinforce some of the issues raised elsewhere.

1.4 The 'Four Well-beings' framework

There are various approaches to organising assessments of social impacts. Within the NZ context, the Local Government Act requires councils to undertake their community planning activities within the framework of four 'well-beings': "*Well-beings can be seen as involving four different aspects; social, environmental, cultural and economic. Each of these well-beings overlap with all of the others, and cannot be considered in isolation*"³. The four well-beings framework has also been included in a section of a key WCV report⁴ to capture community values and progress indicators.

A similar framework upon which to base such an assessment that has shown a high degree of utility over the last five to ten years is the 'Five Capitals' model (Meadows, 1998). Capital refers to "a stock of anything that has the capacity to generate a flow of benefits which are valued by humans" (Porritt, 2005). The five capitals are defined as financial, physical, natural, human and social. The United Kingdom Department

² This number is slightly lower than the current establishment figure of 350, due to issues associated with reductions in activity due to the recent fire at the process plant.

³ HDC Community Plan 2006-2016

⁴ The 2005 Jackman/Thomas report on "A Portfolio of Initiatives"

for International Development (DFID) embodied the five capitals (or livelihood assets) into a sustainable livelihoods framework that also considered the risk or vulnerability context of a community, and the transforming processes and strategies leading to better livelihood outcomes. DFID maintains that *'the approach is founded on a belief that people require a range of assets to achieve positive livelihood outcomes; no single category of assets on its own is sufficient to yield all the many and varied livelihood outcomes that people seek'* (DFID 1999). In effect, the five capitals (or core asset categories) are seen as the building blocks for livelihoods.

Regardless of which set of capitals or well-beings is used, the benefit of using such a framework is that it encourages consideration of impacts beyond the obvious economic changes that the closure of the mine will induce in the community. In this report we have chosen to align the analysis of impacts with the well-beings framework, with a particular focus on the social, economic and cultural aspects. Environmental issues are considered in areas where these were linked to social issues, reflecting the overlaps acknowledged previously.

1.5 Outline of report

The report is broken up into several sections, which draw on the different research elements to different degrees.

- Chapter 2 provides an overview of the Waihi community, drawing both on desktop research and previous studies. It aims to meet the requirement of providing a 'baseline' against which future closure impacts can be evaluated.
- Chapter 3 specifically explores the relationship between NWG and the community of Waihi, including the current range of community investment. In addition, and as required in the TOR, it discusses the 'Mirage of Closure' issue and community perspectives on the recent extension proposals.
- Chapter 4 provides a summary of the basic results of the workforce intentions survey, highlighting the main findings.
- Chapter 5 uses the results from all the research elements to explore the potential social impacts of closure, factoring in the possible range of changes identified in the previous sections.
- The final Chapter provides a review of the main findings from the research, and suggests some recommendations for NWG to consider.

Additional detailed information is provided in Appendices.

2 The Waihi community

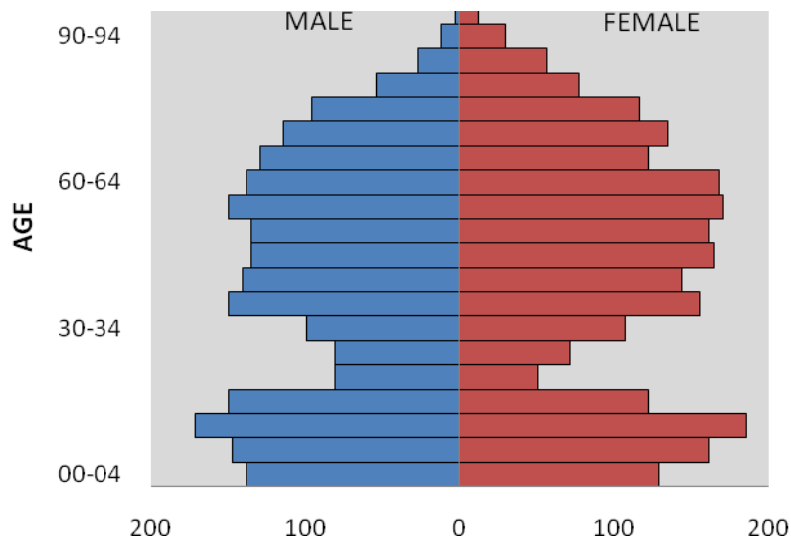
Waihi has seen considerable change over the last twenty years. While some of this can be attributed to the presence of the mine, other changes also reflect broader socio-economic influences in the wider NZ community. The aim of this section is to provide a summary socio-economic profile of the community of Waihi, against which future changes associated with closure can be discussed. It is organised according to the well-beings framework, with a focus in particular on the social, cultural and economic areas. It combines available quantitative data with interviewee comments on specific themes, to provide an overview of Waihi today.

2.1 Demographic information

Population

The population of Waihi was reported as 4503 individuals in the 2006 Census, with the total remaining relatively static over the last two census periods following a small drop from 4755 in the 1996 Census. The population pyramid shows a noticeable dip in the numbers of young people in the range from 20-30, confirming interviewee observations of school leavers needing to leave Waihi in search of employment. This issue is also identified in the Hauraki District Council (HDC) 'Community Report 2006', and is a trend identified in smaller rural towns in both NZ and Australia. HDC also report that Statistics New Zealand project the regional population to continue to fall gradually through to 2026.

Figure 1 - Waihi population pyramid 2006



Source: NZ Statistics Census 2006

Comparison of the population statistics for the last three census periods confirms a marked trend towards decreasing numbers of young people, and an ageing community⁵. Of the total population, 21.8% are aged 65 or over compared with

⁵ Population pyramids for the last three census periods are included in Appendix A

12.4% for the total Waikato region. This relatively high proportion was discussed by several interviewees, who attributed this trend to people displaced by higher house prices and rentals in coastal areas, and those retiring from the Auckland or other urban areas seeking affordable housing in rural locations close to the coast.

However, it also reflects an underlying community ageing phenomenon both within the wider New Zealand community and other developed countries.

Diversity

The census data suggest that Waihi has a marginally less diverse population than the rest of Waikato (80.4% European compared with 70.4% for the wider community), but the differences for other specific groups are relatively minor.

Table 1 - Ethnic diversity of Waihi and Waikato

Ethnic group	Waihi (%)	Waikato region (%)
European	80.4	70.4
Maori	17.4	21.0
Pacific peoples	2.4	3.2
Asian	2.9	5.0
Other	9.6	12.2

Source: NZ Statistics 2006 Census

Household size and composition

Family type statistics indicate a higher than average number of couples without children, probably influenced by the older population, and also a larger proportion of one parent families. The average household size in Waihi is 2.3 compared with 2.7 for Waikato as a whole, with a larger number of one person households (30.7% compared with 22.5%).

Table 2 - Family types in Waihi and Waikato

Family type	Waihi (%)	Waikato region (%)
Couple without child(ren)	45.3	40.9
Couple with child(ren)	30.5	40.8
One parent with child(ren)	24.5	18.3

Source: NZ Statistics 2006 Census

The census data for marital status indicates that 46.2% of people over 15 are married, with 27% never having married and 26.8% separated, divorced or widowed. Many of the differences between Waihi and Waikato statistics in these areas are likely to be influenced by the higher proportion of people over 65 in the community.

2.2 Social well-being

“Social well-being covers ways that make it possible for individuals, families and communities to set goals and achieve them, e.g. :

- *everyone being able to pay for their basic needs such as food and housing, and have enough income to be able to participate in community life*
- *basic levels of physical and mental wellness;*
- *personal safety and freedom from fear;*
- *everyone being able to participate in and use what the district offers.”⁶*

Educational opportunity and attainment

As of July 2008, there were 204 children in early childhood institutions in Waihi, 424 in primary education and 811 in secondary education. There are no post-secondary educational institutions in the town. Interviewees commented that school rolls have stabilised in recent years, following falls 3 to 4 years ago.

Table 3 - Educational institutions in Waihi

Institution	Institution Type	Roll at July 2008
ABC Waihi	Education & Care Service	62
First Steps Waihi	Education & Care Service	55
Waihi Kindergarten	Free Kindergarten	54
Waihi Playcentre	Playcentre	24
Pukewa Te Kohanga Reo	Te Kohanga Reo	9
St Joseph's Catholic School (Waihi)	Full Primary (Year 1-8)	50
Waihi Central School	Contributing (Year 1-6)	232
Waihi East School	Contributing (Year 1-6)	142
Waihi College	Secondary (Year 7-15)	811

Source: Early Childhood Directory and School Directory, the Ministry of Education, New Zealand. Statistics are as at July of each year, for full-time students.

School reports suggest that the two state primary schools and Waihi College have made progress in improving educational outcomes over recent years. Waihi College has increased the number of students leaving school with National Certificate of Educational Achievement (NCEA) qualifications.

“NCEA results for 2007 show that the proportion of students gaining the Level 1 qualification was above the national average. The proportion gaining Level 1 literacy and numeracy requirements was significantly above national averages. At Level 2, while there was an improvement from the previous year, results remained below the national average. Level 3 results were significantly below national averages.”⁷

Several interviewees highlighted the achievement of the final year cohorts from Waihi College, with many going on to University. Several also highlighted the

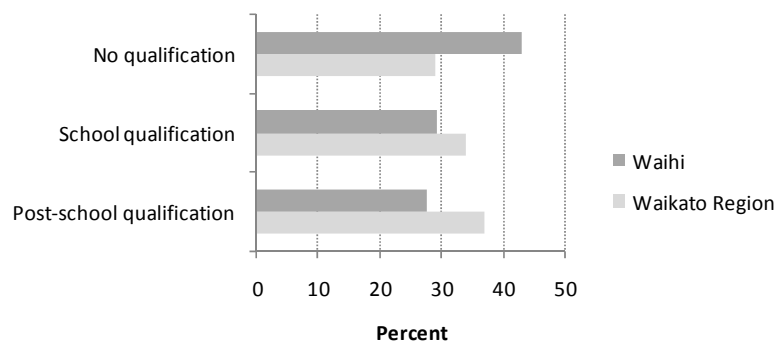
⁶ The explanatory comments for the different well-beings are taken from the Hauraki Community Plan 2006-2016

⁷ Source: Education Review Report, Waihi College, Oct 2008, Education Review Office

excellence of the school facilities, and the involvement of NWG in providing funding for various initiatives. Others referred to the significant number of school leavers who left without qualifications and struggled to find employment in Waihi, often entering the Work and Income⁸ system at an early age. There are vocational training schemes co-ordinated by the Salvation Army and WINTEC, as well as apprenticeships offered directly by NWG, but the number of opportunities is limited.

In the overall population, census data indicates that Waihi has a relatively high proportion of people with no formal school or post-school qualifications (43.1% compared with 29.0% for Waikato region).

Figure 2 - Highest qualification for people aged 15 years and over



Source: NZ Statistics 2006 Census

Lack of educational qualifications and training opportunities is likely to impact on the ability of some in the population to engage in future initiatives within the community. This was referred to explicitly by two of those interviewed, including one person in a younger age bracket: *“The bulk of jobs are through the mine, but you have to be qualified. There is a lot of unemployment in my age group.”*

Health

Health facilities in Waihi include the Waihi Hospital and Lifecare Village, which features a maternity annexe and respite facilities, Hetherington House Aged Care facility, a General Practice Health Centre and the St John’s Ambulance. Interviewees commented that the Health Centre was busy, and often booked out several weeks in advance. There were also references to the difficulties in keeping a full complement of General Practitioners in town.

No direct statistics on population health in Waihi were available for this study. The HDC Community Report 2006 provides an overview of statistics for the region as a whole, with most areas showing only minor differences to national averages. It does highlight a larger proportion of mental health referrals due to alcohol and drug-related causes.

⁸ Work and Income is a government agency within the Ministry of Social Development which provides financial assistance and employment services throughout NZ.

One indirect indicator of population health is the number of Waihi residents of working age who receive invalid or sickness benefit. These numbers indicate a higher than normal rate of benefits in these categories, representing approximately 30% of people between the ages of 18 and 65 (based on 2006 census data).

Table 4 - Number of working-age recipients of sickness or invalid benefits

Location	June 2004	June 2008	June 2009	Population 15-65yrs
Waihi	672	747	788	2530
Paeroa	346	351	360	2319

Source: Key facts, Waikato Region, Ministry of Social Development

These statistics were also reflected in comments from those working in the human services and support area: *“Waihi has a high rate of people with mental health issues”* and *“issues with drugs and alcohol”*. The proportion of the working age population receiving sickness or invalid benefits is more than twice that of Paeroa, and has remained high for a number of years.

Social services

Social service support providers in Waihi include relevant government agencies such as Work and Income and the Ministry of Health, as well as voluntary organisations such as the Citizen’s Advice Bureau, the Salvation Army and the Waihi Community Resource Centre. Most groups working in this area participate in the Social Development Group, which meets on a regular basis and is one of the four key sub-groups active within the WCV process. For the last four years the SDG has been working towards a proposal that would see all providers housed together in a ‘Pukewa Village’ complex, identified as a potential community project in the 20/20 Vision process.

Recent data indicate that 1318 individuals in Waihi (over half of the working age population) were the recipients of a main government benefit. The most common benefits were invalid (566), domestic purpose (376) and sickness (156). Only 93 individuals were registered for unemployment benefit in June 2009.

Table 5 - Number of working-age recipients of main benefits

Location	June 2004	June 2008	June 2009	Population 15-65yrs
Waihi	1474	1177	1318	2530
Paeroa	784	579	665	2319

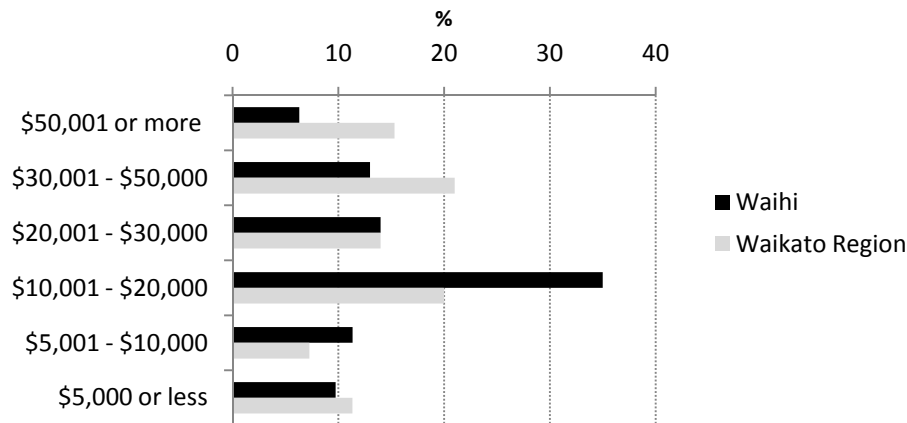
Source: Key facts, Waikato Region, Ministry of Social Development

Interviewees confirmed the impression of a high demand for a full range of services, particularly in the family and mental health areas. One observed that *“There are social issues in Waihi which preclude people from employment.”*

Personal income

Census data indicates that average wages in Waihi are lower than regional averages, and are skewed towards lower income levels.

Figure 3 - Annual income in Waihi and Waikato Region



Source: NZS Census 2006

Crime

Crime in Waihi was not raised as an issue by many of those interviewed, but those that did expressed concerns which included *“a high level of family violence and substance abuse”*. One commented *“there are a number of gangs around town; there’s a thriving addict community mostly associated with poverty.”* Police confirmed a higher proportion of call-outs in these areas.

Statistics for criminal offences in the Waihi Police District itself are not publicly available⁹. The Hauraki Community Report includes a comparison of statistics for the approximate HDC area against national averages. These confirm a higher proportion of ‘drugs and anti-social offences’, including a large number of cannabis-related offences.

Social networks

The WCV process has resulted in a formalised number of network groups which include the four main sub-groups: Creative Waihi, Sport N Action, Waihi Heritage Vision and the Waihi Social Development Group. These have facilitated community participation in a wide range of areas of interest. In addition, there are a large number of smaller community groups, with one interviewee commenting that *“volunteering is huge in Waihi”*. Some attributed this to the older demographic, although one did also comment that *“volunteering is down all over the place anyway due to changes in life style”*. However, important community focal points such as the Information Centre and Museum depend on volunteers, and reported continuing support in this area.

⁹ The smallest area reported is for Waikato East, including Waihi, Paeroa, Thames and the Coromandel peninsula.

Socio-economic summary indicators

There are at least two publicly available indicators used in the New Zealand context to summarise several aspects of social well-being. These are the decile rating system used by the Education Department to assess the socio-economic circumstances of each school's catchment area, and the NZ Deprivation Index (NZDep) available from the University of Otago¹⁰ and referenced by the Ministry of Health. Both place Waihi at the higher end of socio-economic vulnerability, based on analysis of a range of statistics relating to earnings and benefit levels, housing and family circumstances. The table below shows the NZDep data from the last two census periods, indicating that Waihi in fact moved from the second highest to the highest decile grouping between 2001 and 2006 (1 being the lowest band, 10 the highest level of deprivation). The decile ratings for school catchments in the area indicate similar trends, although less extreme.

Table 6 - NZ Deprivation index for Waihi

	NZDep 2001	NZDep 2006
Waihi	9	10
Waihi Beach	8	7
Paeroa	9	9

While the researchers involved with generating these statistics caution against confusing the indicator with underlying symptoms, the data highlight that a significant proportion of Waihi's population is dependent on the social service sector and is likely to be vulnerable to changes associated with the local economy. This includes a higher than average proportion of retirees, single-parent families and working age individuals dependent on benefits.

¹⁰ Accessed at <http://www.uow.otago.ac.nz/academic/dph/research/socialindicators.html#SIstaff>

2.3 Economic well-being

“Economic well-being indicates how well the economy can generate the employment and wealth that people require to support their needs and those of their family e.g.

- *Employment, and the development and use of skills;*
- *Supporting existing and new business ventures;*
- *Providing an appropriate business environment for the district;*
- *Promoting the District as a great place to live and do business.”*

Employment

The total labour force in Waihi at the time of the 2006 census was reported as 1863 persons, representing approximately 40% of the total Waihi urban area population.

Table 7 - Labour force status, people 15 years and over, Waihi 2006

Employment status	Number
Employed full-time	1149
Employed part-time	534
Unemployed	153
Total labour force	1863

Source: SNZ Census 2006

The 2006 census data identify the largest sectors for employment in Waihi as the retail trade, manufacturing, construction and the health care /social service sectors. While mining is only reported to account for 54 jobs, a high proportion of the construction jobs are likely to be associated with mining activities.

Table 8 - Waihi top 5 employment sectors, 2006

Industry	Waihi Urban Area		Waikato Region	New Zealand
	number	%	%	%
Retail Trade	240	14.3	9.8	9.9
Manufacturing	216	12.8	11.0	11.0
Mining and construction	210	12.5	-	-
Health Care and Social Assistance	144	8.6	8.0	8.1
Accommodation and Food Services	117	7.0	5.6	5.6

Source: SNZ Census 2006

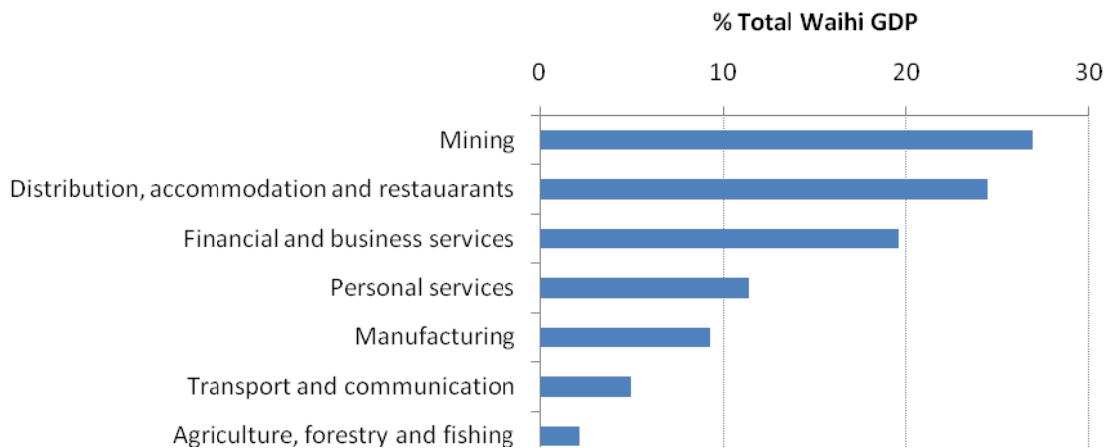
Information from the workforce survey (presented later in this report) suggest that approximately 190 people who work for NWG or its direct contractors live in Waihi or its immediate surrounds¹¹. When mining and construction are combined, the four areas mentioned above account for approximately half of the working population. Comparison of the relative proportion of employment in different sectors with the broader Waikato region and NZ as a whole suggests that the number of people working in the retail sector is relatively high. It is also worth noting that, although several of those interviewed commented that Waihi had a strong agricultural base, less than 5% of the workforce identified themselves as working in that area.

The most common occupation type in Waihi in 2006 was ‘Labourer’, with over 20% of those in employment identifying themselves in this category, followed by ‘Technicians and Trades Workers’ at approximately 15%.

Business

Economic analysis conducted by NZIER in 2005 and additional reports commissioned by NWG in intervening years have consistently identified NWG operations as the largest single contributor to the economy of Waihi, at approximately 25% of GDP.

Figure 4 - Sector contribution to GDP



Source: NZIER 2005

The second largest contributor in this analysis is the combination of the retail and hospitality sectors. The tourism focus of developments in recent years is likely to have seen this sector increase again, with visitor numbers reported to have increased. Again of note is the relatively low contribution of the agricultural sector.

In discussing the local business environment, several of those interviewed referred explicitly to a group of small, manufacturing businesses which had emerged

¹¹ This is consistent with NWG reports that 75% of employees are resident in Waihi, Waihi Beach, Waihi side of Katikati, Whiritoa and this side of Paeroa.

following the closure of the Pye factory¹², and which are not dependent on mining activity. These businesses were referred to more than once as “*quiet achievers*”, achieving significant success in specialised fields linked to specific skillsets, and featuring recent reinvestment in equipment and facilities.

Observations were also made in the interviews (and previous reports) about the degree of investment in new retail facilities in recent years: “*Lots of new franchises in town: BP gas station; New World; Subway - there are also a few business who have changed hands which have really improved as a result*”. These changes were interpreted as reflecting a positioning of Waihi as a retail and service hub for a larger area, with its strategic location being highlighted by several: “*Waihi is a good strategic location on major route, close to good port facilities*”. Interviewees also commented favourably on the upgrading of the main retail area and streetscape.

This research was conducted during the aftermath of a major global economic downturn, and several comments reflected that businesses in Waihi had been affected as a result. Impacts included employment freezes, some redundancies, and reduced spending in the community: “*It is getting harder and harder to make a dollar – we are working much longer hours and not making much money.*” The full effects of this downturn are impossible to predict. However, there were more positive than negative views expressed regarding the existing business environment in Waihi. The one consistent concern that did emerge was the lack of diversity in thinking about new developments, with several observers expressing the view that although there is a logic in pursuing the tourism direction via the “Heart of Gold” campaign, “*at the moment all the eggs are in one basket*”. This view was also articulated in the Jackman Thomas report, which includes the observation that “*the analyst was surprised to find that the tourism sector alone featured in the initiatives*”.

Several groups are active in promoting the development of business in Waihi, including the VWT, the HDC, Go Waihi and the Hauraki Enterprise Agency.

Housing and real estate

In 2006, the majority of housing stock in Waihi comprised of detached housing. In addition, there were 213 unoccupied dwellings¹³ recorded in the census for which no data was available. This suggests a total housing stock of approximately 2100 dwellings. There is a higher than average degree of home ownership in Waihi, with 63.4% of people in private dwellings owning their home (with or without a mortgage), compared with 53.7% for Waikato.

¹² The Pye factory was an electronics manufacturing facility run by Pye/Phillips, which for a number of years was the main employer in Waihi. It closed in the mid 1980's.

¹³ A dwelling is reported as unoccupied if no response is received from anyone resident at the time of the census, or from someone normally resident there but completing the census at an alternative location. The figure for Waihi is relatively high, possibly reflecting the mining workforce and a higher proportion of holiday housing.

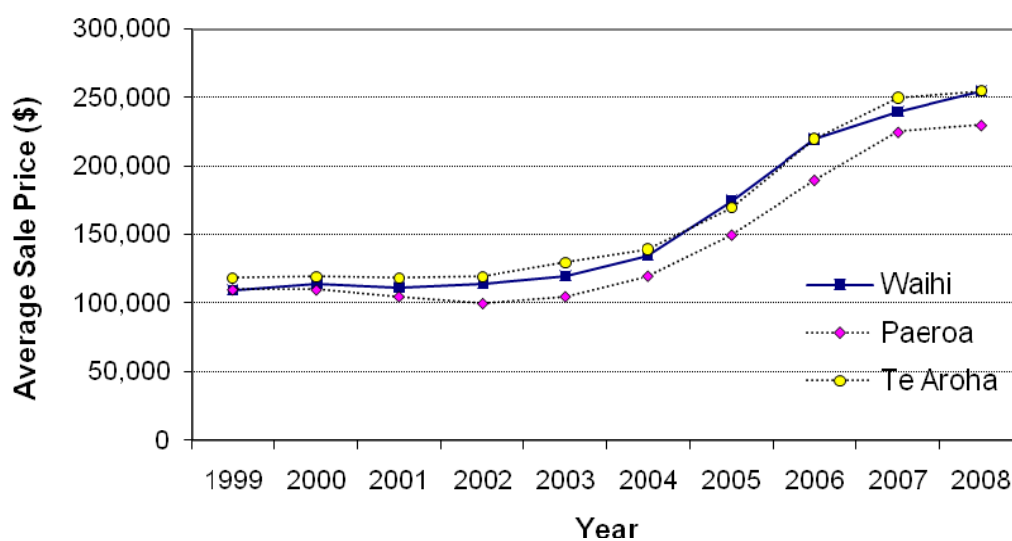
Table 9 - Types of dwelling, Waihi urban area 2006

Dwelling Type:	No.
Separate house	1635
Two or More Flats/ Units/Townhouses/ Apartments	141
Other Occupied Private Dwellings	27
Occupied Private Dwelling Not Further Defined	72
Institutions	3
Total Occupied Non-private Dwellings	6
Total Dwelling Type	1884

Source: SNZ 2006 Census Dwelling Type for Occupied Dwellings

Research commissioned by NWG (updated in 2008) indicated that house prices rose sharply in the 2003-2007 period, in line with the general NZ housing market, but have since leveled off. Real estate agents interviewed during the course of this research confirmed the trend, which aligns with regional data from REINZ. The average sale price for a house in Waihi for 2008 was \$255,000, the same recorded in Te Aroha. Paeroa's average price was slightly lower at \$230,000.

Figure 5 - Average house prices in Waihi, 1999-2008



Concern was expressed by several interviewees about the impact of mining activity and proposals on house prices in specific areas, with observations about difficulties in selling properties.

Median rent figures for Waihi are included with the Hauraki District data. The median weekly rent during December 2008 to May 2009 half-yearly counts for a 3-bedroom house \$230, compared with \$270 for the Thames/Coromandel District and \$310 for NZ as a whole. Commentary from real estate agents and REINZ data suggest that rents have followed a roughly similar trend to house prices over the last decade.

2.4 Cultural well-being

“This reflects shared beliefs, values, customs, behaviours and identities reflected through language, stories, experiences, visual and performing arts, ceremonies and heritage e.g.

- *An understanding and respect for cultural traditions;*
- *Protecting ways that people can demonstrate their spiritual beliefs*
- *Being able to express what we represent as a District and who we are as people;*
- *Having the freedom to retain, interpret and express our arts, history, heritage and traditions.”*

Maori culture

Maori in Waihi are represented through several Iwi groups and the Community Marae. It has been well covered in previous reports that the mining of Pukewa has had a significant negative impact on the spiritual connection of local Maori with the land, and this was again reflected in comments from those interviewed: *“There is an emptiness for Maori here in Waihi”*. Participants also observed that the presence of the mine had resulted in divisions within families, with one Maori interviewee commenting *“It’s up to the Maori community to decide how to go forward. There is a lot of misinformation. No elders to consult with.”*

Various views were put forward on the role of the Community Marae, but many of those interviewed highlighted its importance in sustaining Maori culture in Waihi.¹⁴ Commenting on the decision to allow non-Maori people to be part of the Waihi Marae, one Maori interviewee commented *“In one sense it has been good, as there are many people who have come to the area and it allows people to work together.”*

Heritage

There has been a focus on preserving and celebrating the mining and community heritage of Waihi, through organisations such as the Waihi Heritage Trust and the Waihi Museum. The relocation of the Cornish Pumphouse provided a focal point in recent years, and there are other reminders in the district such as the Waikino Battery. There is a strong overlap between this area and the tourism focus previously discussed under economic well-being.

¹⁴ The Jackman/Thomas report on the WCCC workshop included “Local Marae supported and encouraged” as the second item under Cultural Values

3 NWG and the community

The purpose of this section is to provide commentary on some of the current interactions and social impacts relating to NWG's operations in Waihi. These issues reflect the focus of the project scope and TOR, as well as themes that emerged from the interviews conducted with community members. When considering the impacts of closure, it is important to place these in the current context.

3.1 NWG, the WCV and VWT

The Waihi Community Vision (WCV) emerged from the community consultative process initiated in 2002 to prepare the town of Waihi for the closure of the mining operations. It has developed into a collective community development process, with the Vision Waihi Trust (VWT) given the role of implementing projects which emerge from the group. Newmont has supported the WCV through the funding of independent facilitators¹⁵ and continued and regular involvement in the meetings, and the VWT through underwriting the CEO position and administration costs.

There is no doubt that the WCV process is distinctive and has created a forum where diverse views can be brought forward: *"The WCV is a good forum in that it has built up trust. People know they can say what they want in that forum without risk. And, is a good case study for how it can work."* The 20/20 Vision and progression of key projects have emerged from this process. However, many of those interviewed (including several representatives from the formal WCV group) expressed concerns in several areas:

- A very common observation was the slowness of progress – *"We only seem to review stuff, not really taking any steps forward"* and *"I'm frustrated by the lack of progress, the WCV is stumbling around with a false sense of security."* This was of concern to some who believe that the community is not well prepared for the changes that might come if closure does follow the timelines outlined by NWG.
- As observed during previous studies, concerns remain over the lack of representation of the group. The most common observations were the absence of Iwi and youth groups, with one interviewee suggesting that *"Newmont is far too reliant on the WCV to be representative of the community - it isn't."*

Many see the next period as a key transition for the WCV – *"it is at a turning point"* – and are supportive of the change to self-management. Several suggested that NWG should step back further from the process: *"The best thing they could do to prepare the community for closure is step back from the WCV"*. Some also commented that the VWT and WCV had moved apart: *"The division between the Trust and the WCV is very big now, and really shouldn't be that way."*

¹⁵ The WCV has now appointed a Chairperson and will phase out the use of external facilitators during 2009

3.2 NWG Community Investments

NWG characterise their direct financial contributions to the community in three ways¹⁶:

- *“Projects that NWG is obligated to deliver due to regulation. These are rehabilitation and decommission projects that are planned with community involvement to meet community aspirations for eventual closure.”* It is worth noting that although much of this expenditure is not formally reported as community investment, it does reflect a ‘beyond compliance’ element e.g. the integration of the walkways project around the edge of the open pit.
- *“Projects that are identified via the WCV 20/20 Vision and that meet the aims of NWG for leaving a sustainable legacy. These will focus on projects that will reduce the effect of mine closure and support capacity building and partnership.”* Support for the WCV/VWT process in 2007 totalled \$280k, which included payments for the independent facilitators of the WCV process, annual endowments for the VWT and support for the four sub-groups of the WCV in the development of ongoing projects.
- *“Community donations and sponsorship.”* In 2007 the total contributions which fell into the latter category were reported¹⁷ as approximately NZ\$250k, including \$100k to local schools and approximately \$150k to a range of local non-profit organisations with a social or environmental focus. In 2009 there were over 40 beneficiaries of this type of funding in the area. Most of those interviewed were aware of these contributions and felt that they were highly valued, most often commenting on the school assistance: *“NWG has provided annual funding for the college which has made a huge difference including the computer network. In addition, the scholarships make a big difference to the students.”*

The level of community investment appears to have been relatively stable over the last few years, and in order of magnitude is comparable to similar size mines in Australia. For example, Rio Tinto’s Kestrel Coal near Emerald in Central Queensland employs approximately 320 people. Community investments are principally channelled through the mine’s Community Development Fund, administered by a Board including company and community representatives. Annualised funding for the 2009-2011 period is A\$250k, which is dispersed across a range of projects which provide positive benefits to the local community.

In recent years, the focus of most mining sector community investment programmes has gradually shifted away from a principal focus on infrastructure development to include community capacity-building processes. This is reflected in the approach taken by NWG in supporting the WCV and its subgroups, as well as the VWT. The effectiveness of these investments is therefore principally reflected in the progress of these groups and the projects that they are developing, although there are other factors which will also have a significant bearing on these outcomes.

¹⁶ Source: NWG Update 10/02/09

¹⁷ Source: NWG ‘Beyond the Mine’ 2007 Sustainability Report

The single biggest project under development that has emerged from the WCV/VWT process is the \$21M Gold Discovery Centre project, a public/private partnership involving VWT and the NZ Mint. NWG has also committed \$1M in earthworks and geotechnical services to the construction phase.

One area where NWG has developed a program to directly address an issue in the community is the Amenity Effects Programme. This voluntary initiative was negotiated over some time with representatives of the Distressed Residents Action Team (DRAT), with the aim of providing financial compensation to those experiencing reduced quality of life due to noise, vibration and dust generated by mining activities. Payments made under the scheme commenced in 2008, initially covering approximately 130 residents who live in agreed impact areas¹⁸. Agreeing on eligibility can be difficult, with NWG and at least one resident deadlocked in terms of the basis of qualifying criteria. One interviewee observed *"Some issues will never be resolved. Reaction to amenity issues is very personal."*

3.3 The Western Layback

In September 2007, NWG announced that they were formally evaluating layback proposals at both ends of the open pit. The Western Layback, which would have required the relocation of Waihi Central Primary School and the main road in that area, was particularly controversial for some in the community. In June 2008, NWG announced that the Western layback would not proceed:

*"The modelling results tell us that there is not enough gold present for the western layback to be economically viable. The extensive consultation with residents and community organisations identified several issues about the proposal. Newmont Waihi Gold acknowledges these issues and recognises that there would have been work required to satisfactorily address them had the proposal proceeded. Resource consent applications have not been lodged with the district and regional councils and there will be no moves to make applications to alter the Hauraki District Plan."*¹⁹

Many of those interviewed commented on the interactions and debate around the proposal, with a view expressed by several that strong community opposition was a significant influence on the outcome: *"The Western layback was a debacle, I think we won that one"*. It is significant that this view was not confined to those who were opposed to the layback going ahead, but also reflected in comments from several who are more supportive of mining in Waihi: *"With the W cutback, there was a bit of an undercurrent that we've had enough. I'm a little bit cynical about the decision. They said it wasn't economic, but they realised that they couldn't implement it";* and *"There was a Q&A session run at the WCV re the W Cutback, and the general feeling that I got from that was that they might have overstepped the mark."*

The proposal introduced uncertainty for residents in the area in a number of areas, including real estate values and increased amenity issues. NWG conducted a

¹⁸ Source: NZ Herald 04/03/08 "Mining Compo for Waihi group"

¹⁹ Source: NWG Update 03/06/08

survey²⁰ of residents after the decision was announced which focussed on the communication processes involved. The comments suggest that people appreciated the efforts made by NWG to keep them informed, but also highlighted the dilemma of introducing uncertainty without a definite timeline.

Several of those interviewed for this study observed that the company had not definitively ruled the extension out: *"I am very happy at the moment that the W Cutback is not going ahead, but they won't give an assurance"*.

3.4 The 'Mirage of Closure'

As one interviewee commented, *"The timeline was an original request from the WCV process, driven from the social impact group. It is on the bubble chart²¹ – they said can you give us an indicative timeline of operations."* The communication process regarding the layback proposals has sparked a renewed focus on the question of closure timelines, and in April/May 2009 NWG undertook a number of information sessions for different sectors within the community. These information sessions presented the different scenarios, flagging the fact that the company was still drilling in local and regional locations, and offered attendees the opportunity to ask questions.

The interviews conducted as part of this study confirmed that there remains scepticism amongst many in the community that the mine will close in the near future, both on the part of those who oppose the presence of the mine and also those who would like to see mining continue. There were many comments along the lines of *"I don't think that the mine will close in my lifetime"*, perhaps best summed up by the suggestion that *"They are here temporarily forever"*. One interviewee referred to a discussion at a recent golf game, where *"someone wagered \$5,000 that the mine wouldn't close in the next five years"*.

Public comments from NWG that they are exploring for additional resources and would like to stay as long as possible are supplemented by information which spreads informally from those who work within the company on the progress of drilling programs. Some in the community are prepared to accept the ambiguity of the situation, commenting *"That's mining!"* and *"I understand personally that it is hard to define (when they will close)"*. However, the continued uncertainty is harder for others to accept, and several interviewees commented that it has negative impacts on some residents: *"The uncertainty around the W Cutback and now closure has really impacted on the community. The stress of not knowing what is happening means real stress for people."*

As with the case of communication on the layback proposals, efforts to be more transparent in the absence of certainty attracts very varied reactions: from *"Closure is a joke, and I find it insulting that they are interviewing people about it"* and *"I think (talk of) closure is propaganda"*, to *"I'm very pleased that NWG is starting to talk to a variety of people (about closure)"*. One participant suggested that *"All closure information needs be*

²⁰ Summary available at http://www.marthamine.co.nz/PDF/layback_survey.pdf

²¹ The 'Bubble Chart' is a diagram from the Jackman/Thomas Report which graphically represented the projects being considered by the WCV.

given with a big 'unless' after it. That would make it clear there is always another possible scenario. The 'unless' doesn't get emphasised enough."

In summary, issues associated with the 'mirage of closure' remain obstacles to full engagement with the Waihi community on planning for this eventuality. Given the past series of projected closure scenarios, including the 2006 date which was understood by many to be definitive, it will remain difficult to convince some.

3.5 The Iwi perspective²²

NWG has put in place MOU's with some of the Iwi groups with an interest in Waihi, and this aspect of the history of the region has been well covered in previous reports. Reactions from representatives of some of these groups interviewed for this project revealed differing opinions about their interactions with the company, including the following observations:

- *"Over the years, it has been difficult. We have a good relationship with the staff.... I think there is mutual respect for each other"*
- *"The relationship has never been great. I don't think they always act in good faith."*
- *"Newmont has been good at dealing with the Iwi groups. They don't pick one over the other. They put good effort into hiring locally."*

Previous studies have suggested the need for an additional effort by NWG to engage with Iwi groups and their concerns. There were some indications in comments that this had occurred over the last 18 months.

Several interviewees highlighted the divisions that the mine had caused within the Maori community: *"there are ongoing arguments with families in town about the mine."* There were also comments about the general difficulties that the local Maori community face: *"There is an emptiness for Maori here in Waihi"*.

However, it is apparent that all groups shared a common concern about the damage inflicted on the natural environment by the presence of the mine and the loss of Pukewa. In discussions on closure, it was significant that most Maori people interviewed spoke about the need to restore the balance and undergo a healing process. *"The main concern with closure is ensuring cultural balance. We have a philosophy of replacing what is lost with something of equal value. I don't think that creating a statue or a Pou gives back the value of something that was culturally significant (Pukewa). I don't know what will, but we should be able to discuss it."*

²² The research process for this project was not able to engage sufficiently with Maori and Iwi representatives to fully explore the complexity of the relationships between these groups, the company and the land. This is discussed further in the final section of the report.

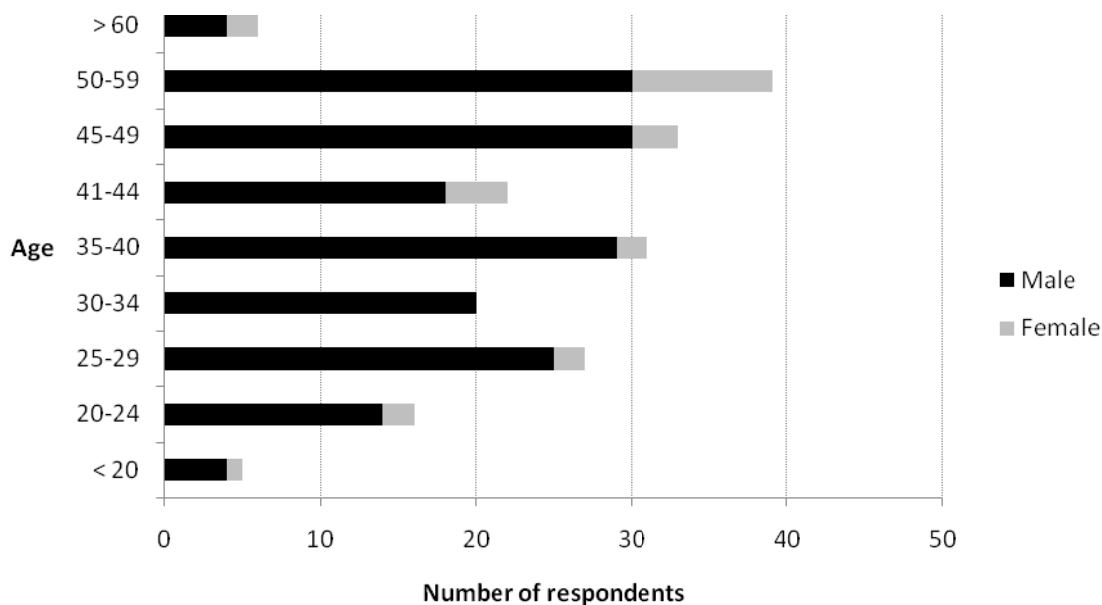
4 Workforce intentions

The purpose of this section is to report directly on the responses to the workforce survey, which explored employees understanding of closure planning, their involvement in the Waihi community and their current thoughts on their own plans after closure. Given the number of questions in the survey, and the various options available for analysis, the following sections present an overview of the responses, highlighting the main areas which are considered significant. The implications of some of the responses in terms of potential closure impacts are explored in the next Chapter.

4.1 Demographic profile of respondents

A total of 207 responses to the survey were received. NWG estimate that the available workforce who could be accessed at the time of the survey was approximately 320 (slightly reduced due to slowdown of activity as a result of the fire in May), resulting in a response rate of 64%. Not all respondents answered all questions, but no surveys were excluded on this basis. The number of responses is indicated in brackets for each question in the information which follows.

Figure 6 - Age and sex distribution of respondents



The age of the respondents was spread quite evenly, with almost 40% over 45. Of those who declared their gender, 13% were female. More than three-quarters (76%) of the respondents indicated that they were living with a spouse or partner.

The largest group of respondents were based in Waihi (44%), followed by Waihi beach (24%). The group who were based in other communities travelled an average of approximately 45 km to Waihi to work (5 of them over 100km).

Table 10 - Respondents current permanent place of residence

Current permanent place of residence	N	%
Waihi town	91	44
Rural area centred on Waihi	22	11
Waihi Beach	50	24
Other community*	43	21
Total	206	100

4.2 Work profile and history

The largest group of the respondents were from NWG (87), followed by HWE (64) and Macmahons (32). Over half were based at Favona or the process plant / waste area, with only 28 individuals working at Martha Mine itself.

Table 11 - Work location

Location	N	%
Office	35	17
Martha Mine	28	14
Favona	74	36
Process plant / waste area	42	21
Other	24	12
Total	203	100

A large majority (89%) indicated that they were employed on a permanent full time basis. The most common job roles were machinery operator or driver and labourer, which when combined represented 46% of all respondents.

A surprisingly high number (47%) of respondents indicated that they had been working at the operation for two years or less. It is possible that this number reflects a higher turnover amongst contractor employees as mining rates particularly in the open pit have ramped up and down with recent laybacks.

Table 12 - Length of employment at NWG

Years	N	%
Less than 1 year	18	10
1-2	68	37
3-4	30	16
5-6	18	10
7-8	9	5
9-10	12	6
More than 10 years	30	16
Total	185	100

Most respondents indicated the intention to continue working at NWG until mine completion, with only 12% indicating that they would probably leave within the next two years.

4.3 Understanding of closure plans

In general, the majority of employees were relatively well-informed of the current closure scenarios as laid out in NWG documents, although there were a significant number of responses in the “Don’t know” category (23%). This could reflect the current uncertainty regarding extension proposals and regional exploration activity, which may have influenced this choice of response.

Table 13 - Likely completion of works vs. location

Year	Office	Martha Mine	Favona	Process plant	Other	Total
2009	1	0	0	0	0	1
2010	5	9	1	1	0	17
2011	11	1	33	12	1	58
2012	4	6	7	7	2	28
2013	0	4	7	1	0	12
2014	4	2	4	2	2	14
After 2014	5	0	9	7	6	27
Don’t know	5	5	11	12	12	46
Total	35	27	72	42	23	204

The majority (73%) believed that they had been given adequate information about the timing of the completion of the operations. Most indicated a desire for continued regular updates on closure plans, either monthly (47%) or quarterly (46%).

In response to the question “*Is there anything else you would like to know about the completion process?*”, there were a range of qualitative answers. The most common themes included requests for regular updates on closure plans and timeframes, information on future work opportunities at other mines, and communication on redundancy plans.

A further open-ended question asked what actions NWG should be taking to assist its employees to prepare for the closure process. This question attracted more responses, and some of the answers re-inforced previous points about communication – there were 55 comments which referring to regular updates, with several highlighting the importance of information in this area: “*Keep everyone fully informed of NWG plans and expectations - information is valuable for everyone to plan for future.*” The other common themes included the following:

- opportunity for retraining and reskilling in new areas of work (33 responses);
- career opportunities elsewhere within Newmont (28 responses);
- assistance with job placements in Waihi or elsewhere (24)
- HR assistance including help with CV’s, career counselling, financial planning etc (15 responses)

There were also a smaller number of comments suggesting that mining should continue, with several suggestions that there was too great a focus on closure.

4.4 Post-closure intentions

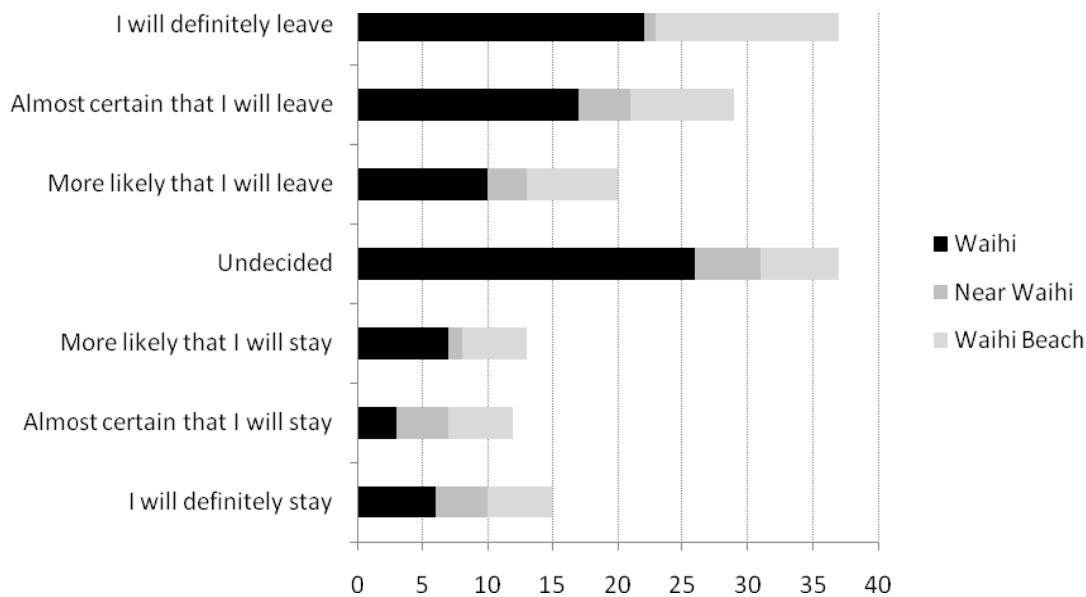
Perhaps not surprisingly, and as indicated in the qualitative responses to earlier questions, 70% of respondents expressed interest in working for Newmont at another operation after closure at Waihi. Only 8% indicated that they were not interested in such an opportunity, with the majority of these responses (12 out of 15) coming from those aged over 50. In a more open question, respondents were also asked what they were most likely to do after the completion of their involvement at NWG. The results confirm a majority preference to continue working in the mining industry, but with other options also attracting some support. A small number did indicate interest in developing business opportunities in the Waihi area.

Table 14 - Post-closure intentions

Plans after NWG	N	%
Retire	7	4
Take a break from working	10	5
Develop business opportunities at Waihi	14	7
Look for work elsewhere in the mining industry	118	59
Look for work in another sector	50	25
Total	199	100

The key question in the survey asked respondents whether it was likely that they would stay in the area on completion of NWG operations. A seven point scale ranging from “Certain to stay” to “Certain to leave” was provided as seen in the table below. It is important to note that this and subsequent questions were directed only at those living in the Waihi and Waihi Beach region, and for this reason the number of responses is less than for the previous questions as this criteria applied to 163 out of the 207 surveys received.

Figure 7 - Likelihood of leaving/staying in the area vs. residence location



These responses indicate a definite tendency towards people leaving, with 53% indicating that as more likely compared with 24% in the likely to stay categories. There is, however, a significant proportion (23%) in the “Undecided” category.

Analyses of these responses with respect to other variables highlighted that younger respondents were more likely to leave, but those in the higher age brackets were evenly spread in their responses. When considering respondents job roles, managers and professionals were much less likely to stay (20% and 18% respectively in those categories) compared with clerical/admin workers and machinery operators/drivers (62% and 59% respectively).

A qualitative follow-up question which asked respondents to list the factors which would most influence their decision identified the following themes:

- the combination of employment and income potential dominated (84 responses);
- a significant number referred to links to family and friends in Waihi as a factor (37 responses);
- opportunities to pursue a career in mining (19 responses).

It was apparent that neither children’s schooling (5 responses) nor age (5 responses) figured prominently.

4.5 Residence history and housing

Of the respondents who stated their permanent place of residence as Waihi town, Waihi beach or the surrounding rural area, just under two-thirds (62%) stated that they were living in the area prior to their employment at the mine. 27% of respondents had lived in the area for over twenty years, with a further 18% resident for between ten and twenty years. The length of residence in the area did influence the likelihood of leaving on completion, but while newer residents were much more likely to leave than to stay, the converse did not apply, with a significant number of long term residents also indicating the likelihood of leaving.

Table 15- Likelihood of leaving or staying Waihi versus length of time in the area

	How long have you lived in the area?			
	< 5 years	6-10 years	11-20 years	> 20 years
I will definitely leave	24	2	3	7
Almost certain that I will leave	19	1	4	5
More likely that I will leave	6	5	5	4
Undecided	13	6	8	10
More likely that I will stay	2	6	0	5
Almost certain that I will stay	0	1	3	8
I will definitely stay	1	4	5	5
Total	65	25	28	44

Respondents were asked to indicate whether they owned their current home or were renting from the private market. The respondents were equally divided, with 43 per cent each stating that they either owned their current home or were renting from the private market. An additional 14 per cent of the respondents stated that they had other housing arrangements at the time the survey was conducted.

Table 16 - Likelihood of leaving or staying Waihi versus current housing situation

	Current housing situation		
	Own home	Rent	Other
I will definitely leave	9	21	7
Almost certain that I will leave	8	17	4
More likely that I will leave	10	9	1
Undecided	17	14	6
More likely that I will stay	9	4	0
Almost certain that I will stay	8	1	3
I will definitely stay	10	5	0
Total	71	71	21

4.6 Partner employment details

Of those living with a spouse or partner, 70% indicated that their spouse worked in some capacity.

Table 17 - Partner's employment status

	N	%
Full-time paid employment	42	35
Part-time paid employment	29	25
Casual or temporary employment	12	10
Not in paid employment	36	30
Total	119	100

The majority of those working (53) had jobs in Waihi, with 11 in Waihi Beach and 20 elsewhere. Respondents were also asked to indicate the type of work their spouse or partners were involved with. The most frequently cited responses were "NWG and its direct contractors" (21% of responses), "Education Services" (20%), and "Retail and Distribution" (17%).

4.7 Children and school details

Over half (58%) of respondents had dependent children living with them, with a total of 194 children identified. Of these, 148 were attending educational institutions ranging from early childhood centres through to high school.

Table 18 - Number of dependent children

Number of dependent children	N
None	67
1	23
2	40
3	22
4 or more	6

Table 19 - Number of children in education or day care

Number of children in education or day care	N	%
Children attend a Day Care Centre	23	16
Children attend Preschool	16	11
Children attend Primary School	45	30
Children attend High School	64	43
Total	148	100

Neither the presence nor number of children appeared to be strong influencing factors on individual's intention to leave/stay. However, those with younger

children in early childhood institutions did appear more definite in their intentions to leave as compared to those with children of high school age.

Table 20 - Number of children in education vs. intention to stay/leave

	Number of children attending		
	Early childhood	Primary School	High School
I will definitely leave	11	6	11
Almost certain that I will leave	12	7	8
More likely that I will leave	6	6	7
Undecided	7	13	16
More likely that I will stay	0	5	4
Almost certain that I will stay	3	4	7
I will definitely stay	0	4	11
Total	39	45	64

4.8 Extent of community involvement

Respondents were asked to indicate separately the extent to which they and their spouses were involved with various voluntary activities in the Waihi area, using a three point scale to indicate the level and frequency of involvement. These responses have been combined to reflect total participant involvement as follows.

Table 47: Respondents community involvement (employee/spouse)

Type of organisation	Active	Regular	Irregular	Total
Community sports organizations	31/21	26/22	43/29	172
Service organizations (e.g. Lions, Rotary)	1/2	4/1	47/32	87
Community volunteer e.g. Meals on Wheels	4/6	4/2	46/31	93
Arts or cultural support group	9/4	3/6	45/33	100
Education support (P&C, classroom aides.)	4/10	6/12	40/32	104
Church groups	8/6	6/4	45/35	104
Other	13/5	5/6	3/1	33

This indicates a widespread involvement in a range of community activities at an irregular level of involvement, with sporting organisations being the clear standout in terms of total numbers across all levels of involvement. The two areas which feature a higher level of regular or active involvement are sport and education support. The latter involvement was most heavily attributed to spouses or partners.

Analysis of these two areas in conjunction with declared intention to leave or stay indicates that, in both cases, a high proportion of those involved are likely to leave. In the case of sporting organisations, this includes a significant number of people who described their level of involvement as 'Active'.

Figure 8 - Involvement with sport groups vs. intention to stay/leave

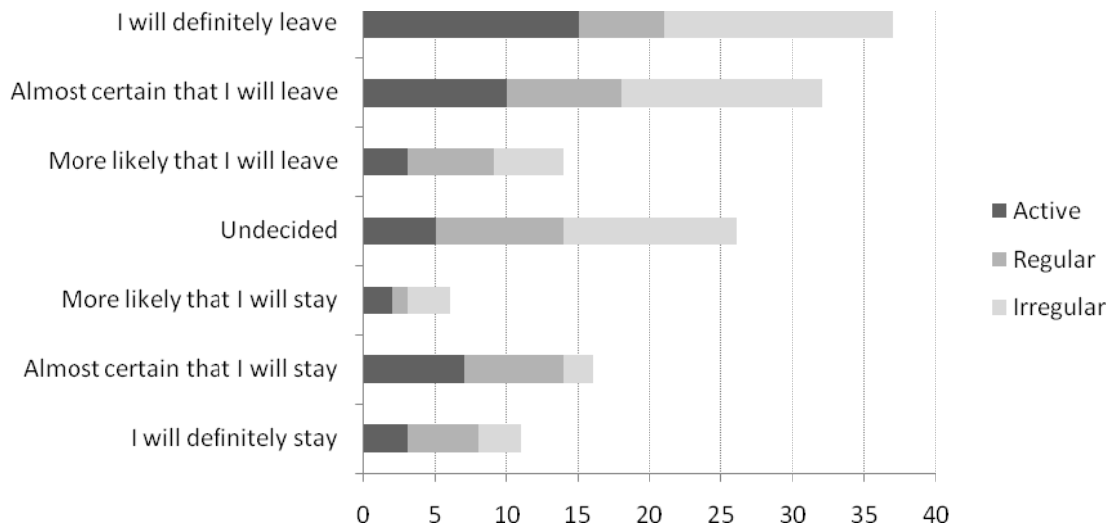
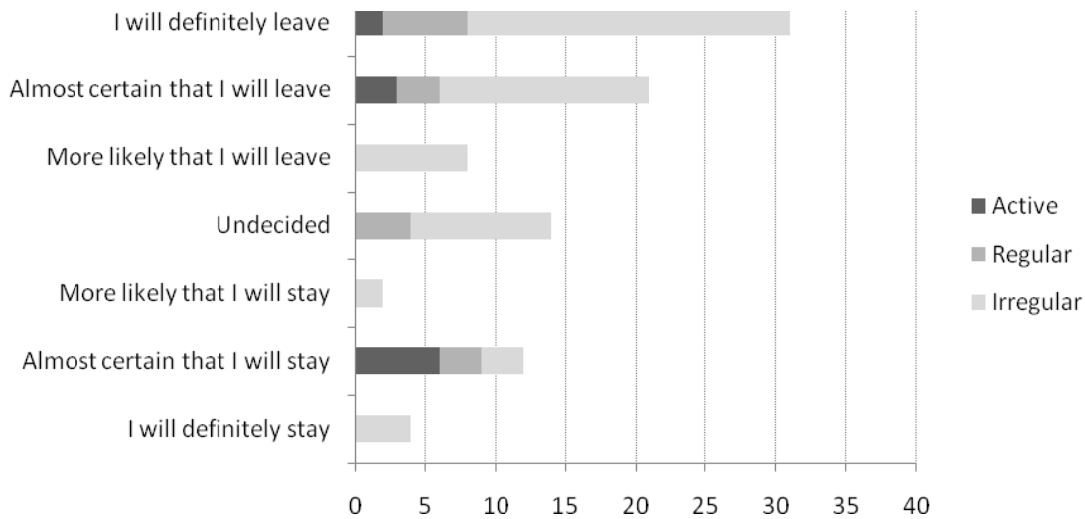


Figure 9 - Involvement with education activities vs. intention to stay



4.9 General feedback

A number of open-ended questions were provided at the end of the survey to allow respondents to comment on closure impacts and the process of preparing for closure. The responses to these questions were varied, and can be summarised as follows.

What do you think will be the main impacts on the community of Waihi associated with the eventual closure of operations?

- Many people identified loss of revenue and closure of local businesses as likely outcomes.
- Increases in unemployment also figured prominently as a concern.
- A number of people suggested that drops in house prices and rents would occur.
- A smaller number identified impacts on sporting groups and voluntary organisations as a likely impact.

What do you think should be done to prepare for the community impacts associated with the closure of operations?

- The dominant theme here echoed previous comments about regular and open communication about mine plans.
- Some suggested a focus on tourism and sport, and other industries.
- Several took the opportunity to reiterate statements in relation to keeping mining as long as possible.

Do you wish to make any additional comments relating to the closure process?

- The most common response again suggested that mining should continue as long as possible.
- The importance of communication was again emphasised.

In general, the responses to these final open-ended questions suggested that many in the workforce are not optimistic about the future of Waihi without the presence of NWG, and would prefer to keep mining either in Waihi or pursue opportunities in the sector elsewhere. The repetition of comments about communication emphasises the importance attached to this activity.

4.10 Summary of potential changes

The information presented in the previous sections can be used to make some estimates about the magnitude of potential impacts on Waihi as a result of the movements of some of the workforce on closure of operations. There are two sources of uncertainty in making predictions based on the survey responses: firstly, the question of how representative the 64% of people who chose to respond are of the overall workforce; and secondly, the proportion of people in each response category of the 'Likely to leave or Stay' question who actually end up staying.

With regard to the first point, instead of making additional assumptions about why particular demographic groups might have been more likely to respond, we have chosen to assume that the sample is representative and therefore simply scaled numbers up to the current total workforce of 350. With regard to the second question, we have constructed two cases as shown in the table below that allocates certain percentages of people into the Stay/Leave categories.

Table 21 - assumptions relating to intention to leave or stay in Waihi

Likelihood of leaving/staying in the area	% that stay in Waihi	
	Lower case	Upper case
I will definitely leave	0	0
Almost certain that I will leave	20	0
More likely that I will leave	40	10
Undecided	70	30
More likely that I will stay	90	60
Almost certain that I will stay	100	80
I will definitely stay	100	100

Note that this does not represent an absolute 'Best case' or 'Worst case' analysis, but rather an attempt to use the results of the survey to produce a reasonable estimate of the likely range of impacts. Using this approach to analyse various combinations of variables in the survey data produces the following projections of key changes associated with closure. The implications of these changes are explored in the following section of the report.

Table 22 - Projections of key impacts on linked to workforce movements

Impact	Lower case	Upper case
Population movement - Waihi and environs (Single/Married/Children)	292 (26/141/125)	417 (33/204/180)
Population movement - Waihi Beach (Single/Married/Children)	111 (14/63/34)	153 (18/85/50)
Movement of children in high school	45	67
Movement of children in primary school	33	51
Movement of children in early childhood centres	44	57
Owned homes vacated in or near Waihi	33	51
Rental homes vacated in Waihi	43	60
Owned homes vacated in or near Waihi Beach	13	22
Rental homes vacated in Waihi Beach	32	38

It is important to note that the above figures relate only to the direct changes associated with the NWG and contractor workforces, and do not include any attempt to predict associated, indirect changes resulting from flow-on effects in the broader community.

5 Social impacts of closure

The purpose of this section is to use the results from all the research elements to explore the potential social impacts of closure, factoring in the possible range of changes identified in the previous sections. Possible changes are discussed in the context of the current baseline and data presented in earlier sections, but it must be recognised that these are likely to have changed by the time that closure does occur. It is also important to reemphasise that closure will occur over a period of time, the length of which will be determined by the evolution of current mining scenarios.

5.1 Demographic changes

The workforce survey data allows a basic extrapolation of possible demographic changes to be made. This suggests a range of direct movement away from Waihi and immediate vicinity of between approximately 300 and 400 people (7-9% of the current population), with a further 100 to 150 potentially leaving Waihi Beach. Although the changes are relatively well-distributed across all age groups, the net effect when superimposed on the current population will be to further accelerate the trend towards an ageing population and to reduce the relative proportion of children and younger people in the community.

No attempt has been made to predict any associated flow of population away from Waihi due to the loss of indirect and induced economic activity. While this is a possibility, much will depend on the availability of other forms of employment. It is also possible that the increased availability of housing as sections of the workforce leave will attract those moving away from the cities. On balance, assuming that the closure does occur over a period of several years and that Waihi continues to be an attractive destination for people to move to, it is unlikely that any drop in the overall population will be significant. The most likely impact will be to further skew the population distribution to older age groups if the trend towards attracting retirees continues.

5.2 Social well-being

Education

All schools in Waihi are likely to face further reductions in school rolls as a result of mine closure. The indicated drop of 45-67 students for Waihi College is reasonably significant for a school of that size, and there will be a longer term effect as the reduction in younger children flows through to subsequent year enrolments. The large proportional reduction in the early childhood area suggests that there could be implications for the viability of some of these centres.

Several interviewees commented that those most likely to leave were “*good kids and good parents*”, with the implication that schools would also feel the loss of higher achieving students as well as involved parents. The latter issue was confirmed in the workforce survey, with a relatively high number of people identifying occasional assistance in educational activities as part of their family’s community involvement. A large proportion of these families fell into the ‘likely to leave’ categories.

Table 23 - Projected changes in school rolls due to workforce movement

Institution type	Range of potential change	Current total enrolments
High School	45-67	811
Primary Schools	33-51	424
Early Childhood	44-57	204

Other school impacts include the eventual loss of direct NWG funding as outlined earlier, the loss of some partners of employees who are involved in the education sector, and the loss of funding linked to enrolment numbers which will flow on to reductions in staff numbers. Previous studies have also referred to increased stress levels within school communities which occur when significant movements of students are triggered by closures of major facilities.

Health

On completion of employment at NWG, people who are unable to find alternative employment are likely to experience increased levels of stress which has the potential to affect the health of both individuals and their families. Several of those interviewed spoke of additional demand in the area of health and social service support. One interviewee suggested that the impacts would flow on to the broader population: *“The closure of NWG will have a significant impact on people living here including psychological affects i.e. demoralising, health issues, greater dependency on welfare.”*

On the other hand, the removal of stress due to ongoing amenity issues or cultural concerns has the potential to result in positive health outcomes for some in the community.

Community groups

The workforce survey results highlighted the fact that, although there was quite a wide involvement of members of the workforce and their spouses in a range of voluntary activities in the Waihi area, the two areas which could be impacted most in terms of absolute numbers were education support (discussed above) and sports groups. Although the total number of individuals involved in sports organisations in the area is not known, the possible departure of approximately 50 active administrator/participants and over 100 others has the potential to weaken this important social network.

The loss of NWG funding could be significant for some of the smaller groups who currently receive sponsorship, with one interviewee forecasting that several of them might not survive.

5.3 Economic wellbeing

Employment

The reduction in GDP in the Waihi economy associated with the loss of NWG activity will also induce the loss of additional jobs in the wider economy. Economic modelling commissioned by HDC and subsequent updates for NWG has suggested an induced employment multiplier of between 1.6 and 2.0 i.e. for every job at the mine, another is created by the economic activity associated with the presence of the mine and the workforce. A number of interviewees from Waihi businesses indicated that they would need to lay off staff, although the numbers indicated were generally not large in the context of their overall staff numbers. Some positions will potentially become available due to the departure of partners of mine staff who do leave the town, estimated to be approximately 40-60 positions.

The closure of NWG operations will obviously reduce the overall employment pool in Waihi. Any increase in unemployment due to employees who choose to stay, coupled with job losses in the broader economy, will therefore result in a spike in the unemployment rate. This has the potential to create additional pressure on employment agencies in town, as well as on other social services including counselling and support services.

The workforce survey results suggest that those more likely to stay in Waihi are those in labourer, clerical or trades roles. Some are likely to require assistance in retraining for alternative employment opportunities.

Housing and real estate

The results of the workforce survey indicate that mine closure could result in significant numbers of properties entering the market for rental or sale²³. In addition, Newmont own a number of properties which have been bought due largely to amenity concerns, which could enter the market at the same time.

Table 24 - Potential numbers of vacated properties

Type of property	Possible range	
	Waihi	Waihi Beach
Vacated rental properties	43-60	32-38
Vacated owned properties	33-51	13-22
Newmont properties²⁴	58	
Total	134-169	45-60

²³ Survey respondents who owned properties were not asked to comment on their plans to sell or rent out their properties if they left, so the balance between rentals and properties for sale could vary.

²⁴ This number has been provided by Newmont, and excludes properties included in the Master Trust arrangement.

These are significant numbers in the context of a total housing stock in Waihi of approximately 1900 occupied dwellings. A real estate agent reported that house sales in Waihi in 2008 totalled 73 properties. Impacts on the housing and rental markets were mentioned by many interviewees, reflecting the significance of this aspect of life to people's sense of economic well-being. *"There are too many people in town with question marks over their heads as to what will happen to their properties."* There is a widely-held concern that a flood of properties entering the market could lead to drops in house prices. On the other hand, the removal of uncertainty over mining operations and boundaries should allay currently held concerns over impacts on prices in specific areas, such as those adjacent to the Western and Eastern ends of the open pit: *"If they were to close, my property would double in value and I would be much happier - at the moment my property is like a millstone around my neck."* One real estate operator suggested that near mine properties could become attractive locations on closure, and that prices in Waihi are likely to increase.

Increased rental affordability and availability would have a positive impact on those on lower wages or benefits. The changes associated with closure do offer the opportunity for a review of community housing, commercial and partnering opportunities via a defined, divestment strategy that aligns to the staged closure of facilities over time.

Business

Given the long history of discussion on closure, several businesses in Waihi have been preparing for some time for the eventual closure of NWG operations, particularly those that depend most on the mine: *"We've looked at life after NWG"*. Several businesses reported that redundancies were likely, but the scale of these was not large. There is currently a higher degree of uncertainty due to the current economic downturn, and an underlying concern about the extent of any decrease in consumer spending that mine closure will bring. As mentioned previously, concern was expressed regarding the general lack of diversity in the Waihi economy once the mining contribution is removed.

Some interviewees highlighted the significance of the timing of the Gold Discovery Centre development: *"Closure will have some impacts, but it could just be a speed bump - if the mine stays for a few more years then we could see some really good growth"*. Current projections for the Gold Discovery Centre include up to 30 full time positions, and almost as many jobs induced through multiplier effects.

The NZIER report contained detailed modelling of the Waihi economy including forecasts of impacts on business. NWG has also commissioned updates of this aspect of closure.

5.4 Cultural wellbeing

Maori and Iwi culture

Most of the Maori interviewees saw closure as an opportunity to progress the healing process, and to recognise and highlight the significance of their culture in the Waihi community and also for visitors to the town. There were several suggestions made, with a focus on the importance of process and natural aspects of environmental rehabilitation work: *“The ground has to heal – it may need to have man-made help in the form of rehabilitation. Dignity has to be restored and it has to happen naturally.”*

5.5 Environmental wellbeing

Environmental issues were not a main focus of this research, but in the interviews several issues were raised regarding the proposed creation of a lake in the open pit. These covered several perspectives including Maori viewpoints, stability concerns and the loss of the pit as a tourism drawcard: *“People are even less likely to come and see a lake”*. Related concerns were raised with regard to the rewatering process once mining operations cease, with several respondents referring to reports of issues when the underground mine was flooded on closure: *“There were lots of springs around town and ground movement - I am concerned about the effects of rewatering when the pit fills with water.”* While others welcome the prospect of a lake and the potential environmental amenity that it will bring, there does appear to be a degree of confusion and concern on this subject.

5.6 Additional views on closure

A full range of views on what could happen to Waihi after the closure of NWG operations were expressed, but a significant majority of comments suggested that the community would survive and quickly adjust to any immediate drop in economic activity. Several pointed to the fact that the town had survived several shocks before, associated with the closure of the original mining operations in 1952 as well as the Pye Factory in the 1980's.

- *“I think there is too much fuss about closure. Most people aren't really concerned.”*
- *“Closure is a bit scary, because things are going to change. Not sure how the cards will fall. Closure is going to make Waihi a different place, but it is exciting.”*
- *“I don't have much hope for Waihi. If no one comes up with a good, sustainable business idea beyond tourism, Waihi will become just a turn off to Tauranga. It will become a typical, quiet farming community.”*
- *“When sentiment & mood is positive things happen to keep the town positive, so business and people will move here.”*

6 Summary and recommendations

6.1 Overview

Waihi is a diverse and unusual community, with several distinctive aspects. On one hand, the development of a tourism focus and investments in local businesses over the last five years has created a sense of economic activity and optimism, with several people commenting that the town was attracting interest from elsewhere: *“I have heard of people looking to move their business to town because of its ‘go-forwardness’”*. The WCV process has assisted in creating and maintaining strong social networks, and there is a high level of volunteer activity in some areas. On the other hand, there is an unusually large proportion of the community that exists in low socio-economic circumstances, with associated health and related concerns. Economic activity is concentrated in a few areas, with a lack of diversity. There also continue to be very different perspectives on the presence of the mine and its impacts. Most previous studies have reported an underlying support for and acceptance of the operation, but amenity impacts continue to be a major concern and source of stress for some residents.

The potential closure of NWG operations presents both challenges and opportunities to these different areas of the community. There were few suggestions amongst those interviewed that Waihi would experience a major impact, with most believing that the town would adjust relatively smoothly. Some are optimistic that the tourism strategy will bolster the town’s economy, particularly if the Gold Discovery Centre becomes operational while the mine is still open. Others see a gradual decline with Waihi reverting to a quiet and more typical country town.

Key to the wider economic impacts will be the movement of NWG’s workforce on completion of the operations. The research suggests that, while there is a clear bias towards an intention to leave Waihi on completion of employment with NWG, there is a significant proportion of the workforce that is still undecided. There are indications that there is interest in staying in the community if appropriate business and employment opportunities exist. Some of those interviewed see this as a good opportunity for NWG and the community to work together to address common goals for further community development in Waihi.

6.2 Recommendations

The following areas emerged from the research as key areas for NWG to focus on, both in terms of process issues and preparation to ensure that Waihi has the best opportunity to emerge from mine closure transition in as robust a state as possible.

Communication

There was a clear interest within the NWG workforce in continuing to be provided with regular updates about the progress of closure planning. Externally, the uncertainty associated with reconciling talk of closure with possible expansion scenarios continues to be difficult for some in the community to understand and accept. Notwithstanding the efforts of NWG to engage with the broader community on the subject, several of those interviewed indicated that they did not believe that the majority of the population understood the current scenarios and their implications.

Recommendation - when the E Cutback reaches the final decision stage, NWG consider implementing a major communication exercise updating the community on all aspects of current scenarios and impacts. This should include clear statements about uncertainty in different locations including the W end of the open pit, and address the concerns expressed regarding the effects of flooding the open pit. The communication process could include letter box drops of relevant material to ensure that the whole community is as informed as possible. It should include a glossary of terminology for those unfamiliar with the operations involved.

Economic diversity

The principal focus on tourism as a post-closure strategy is raising concerns in several quarters regarding the lack of diversity in the economy once the mine has ceased operation. As one interviewee observed, the Gold Discovery Centre will be a valuable asset for the town but it will not on its own replace the estimated 25% drop in Waihi's GDP. The potential for alternative industries has been highlighted in previous reports and in work undertaken by the HDC. Several interviewees referred to an asset review as a suitable process to explore this area: "There is a need to do a community asset review. Not just develop new ideas which need new infrastructure. A stock take of what we have. The big hole in the middle of town is part of those community assets".

Recommendation - NWG agree with the WCV/VWT/HDC an appropriate mechanism to undertake an asset-based review of the Waihi community and potential diversification opportunities. This should include consideration of workforce skills and availability post-closure. There were a number of individuals within the workforce who expressed interest in developing business opportunities, and it would be valuable to involve such people in the process.

Workforce transition

There was a clear request from sections of the workforce for assistance in preparing for a transition to alternative employment. Given the possible timelines involved, any such program should commence as soon as possible. One interviewee suggested that it would be useful to extend any such program and include members of the broader community who would also benefit from similar skills, thereby helping to address some of the wider issues of disadvantage highlighted earlier. It was also suggested that there would be benefit in linking with relevant local support services such as counselling providers, rather than bring in external resources.

On a related note, and commenting on the difficulties experienced by some small businesses in Waihi, one interviewee commented that *“it would be a good idea to organise some workshop or capacity-building programmes – small business management programme – this would add value to the community. Lots of people don't know what they're getting into with small business, there is a significant failure rate.”* This view was supported by similar comments from others.

Recommendation – develop a workforce transition program which includes capacity-building and support elements. Within the program consider opportunities to engage with and include sections of the Waihi community and relevant local service providers in the process.

Housing divestment strategy

The impact on the housing market of a potential flood of vacated homes is a significant community concern, reflecting the fact that real estate investments are usually a significant component of personal wealth. NWG's approach to divesting its property portfolio has the potential to influence the extent of any impact, above and beyond the effect of workforce departures. Also of relevance here is NWG's support for the community housing project, identified on the 'Bubble Chart' and in the process of initiation via an arrangement with the Hauraki Enterprise Agency.

Recommendation – NWG develop and communicate a formal strategy in relation to divestment of its housing portfolio. Divestment should be staggered in line with the closure of differing parts of the operation over time but initiated as early as practical, recognising that many of the properties owned lie within the impact area of current open pit operations. Divestment may include options including property development and sale, commercial arrangements, community housing etc

Iwi engagement

This research featured limited consultation with representatives of Iwi groups and the wider Maori community. As with previous studies, all of those we spoke to highlighted the impact that the mining of Pukewa has had on local Maori culture. There was a common acknowledgement of the need to undertake a formal healing process. However, there are differences between groups in their relationship with NWG, which also extend to views on appropriate mechanisms to initiate a healing process when the open cut mine closes. One of those interviewed suggested a need

to bring all groups together: *“Everybody needs to be engaged in that process in the same space. There should be an open table. It should have been a collective decision. Rather than talk to groups individually, we should sit at the same table.”* Another suggested that NWG continue to engage with groups individually. The difficulty in this area was acknowledged: *“NWG has that complexity to deal with but they have to be patient. They need to stay informed of the complexity of the relationships between Maori.”*

Recommendation – consideration should be given to engaging an organisation with relevant cultural experience to undertake a more detailed cultural assessment of the impacts of mining and mine closure on Iwi groups and the general Maori community in Waihi. This should have as an objective the aim of agreeing and initiating an appropriate process of involvement in closure planning and communication on all aspects of operations.

Youth opportunities

Many of those interviewed highlighted the continued movement of young people away from Waihi, and the future challenges that this will create for the community. It is likely that mine closure will see a further reduction in residents in the 20-30 year age group, which is already significantly under-represented. There are relatively few opportunities for those who stay in Waihi, and it is also likely that any decrease in economic activity could result in a reduction in casual employment positions. It has been observed in previous studies and in this research that there is little engagement with youth groups through the WCV process.

Recommendation – NWG engage directly with WCV, Social Development Group, HDC and relevant agencies working with youth organisations in the Waihi area to review and align current initiatives and engagement processes.

6.3 A monitoring framework

A range of indicators have been used in this report (and the other sources referenced) to explore various aspects of the Waihi community. It is possible to construct a monitoring framework to track social trends and the outcomes of specific initiatives, but before such a framework is developed it is important to establish its focus and objectives. For example, the initial exercise undertaken by the WCV and reported in the Jackman/Thomas report to establish the aspects of Waihi that people valued identified a number of things under the different well-being areas that could be measured over time to track progress. These included a number of aspects covered in this report e.g. *“Lots of jobs for all stratas of our society”, “Keeping our young people here”, “Heritage/history”, “Local Marae supported and encouraged”*. There are a number of examples of such community-developed monitoring initiatives, including many developed under the sustainable development banner (one of the early examples was ‘Sustainable Seattle’).

A framework to monitor the social impact of NWG operations and its community initiatives would have a different purpose. It would need to focus specifically on the areas of impact and influence of the mine, and to be able to take into account other influences on outcomes. If desired, such a framework could be oriented towards the impacts of closure of the NWG operations in Waihi, including the issues identified in this and previous studies.

The development and implementation of a monitoring framework is not a simple process, and should be undertaken in conjunction with key stakeholders. This would extend to the choice of organising concept (e.g. Four Well-beings or Five Capitals), the key issues and areas of focus, and the types of indicators involved. An example of a framework using the Five Capitals model for a mine in Australia, negotiated between the mining company and community stakeholders, is shown in the following table. This indicates the issues which were highlighted as areas to be monitored. It does not specify how the issues were to be tracked, but some additional information on types of indicators (although not for this operation) is included in Appendix B. One of the advantages of the Five Capitals model is that it aligns closely to the concept of different types of assets, and therefore allows a focus on the extent to which activities are contributing to a community’s overall asset base.

Table 25 - Example of a monitoring framework for new mining operation

1. Natural Capital	1. Environmental awareness amongst the residents of the Shire of Ravensthorpe
2. Economic Capital	2. Spread of dieback within the Shire of Ravensthorpe
3. Social Capital: a) General	3. Ravensthorpe Nickel Local Spend
	4. New Business Start-Ups in the Shires of Ravensthorpe and Esperance
b) Social Capital: Aboriginal Relations	5. Proportion of new families participating in Ravensthorpe Nickel’s induction program
	6. Depth and complexity of community networks: new groups, size of groups in the Shire of Ravensthorpe
	7. Social cohesion and integration of new families
	8. Ravensthorpe Nickel’s contribution to employment of Aboriginal people from the region.
4. Human Capital	9. Quality of relations between Aboriginal and non-Aboriginal people
	10. Ravensthorpe Nickel’s contribution to skills development of young people in the region
	11. Retention rates for students enrolled at Ravensthorpe District High School
	12. Provision of employment opportunities to “locals” (i.e. not new arrivals)
5. Built Capital	13. Range of services and amenities available to the community

It is suggested that NWG and the Steering Group for this SIA further discuss the scope and objectives of any framework proposed for Waihi, and identify partnerships that will continue to utilise this information post closure. If it is agreed to proceed, then it will be necessary to identify baseline monitoring indicators and means of measurement relevant to the aims and objectives of the WCV and community across the Four Well beings or Five Capitals.

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Appendix A – Socio-demographic data

This socio-demographic profile uses existing publicly available data primarily from Statistics New Zealand (SNZ) and draws upon the 2006 Census and other New Zealand Government statistics. This information is used to quantify variables that can be related directly and indirectly to the impact of the Newmont Waihi Gold (NWG), Martha open pit and Favona underground operations to Waihi urban area.

NWG is a major contributor to the local economy. Approximately 200 (61%)²⁵ of NWG employees are residents of Waihi²⁶. The annual operations payroll of the mine is approximately \$40.3 million (approximately 22% of gross town product²⁷). Community investment programs total around \$670,000 per annum and \$2 million per annum in project costs.

Waihi and the nearby towns of Paeroa and Waihi Beach is the domicile for the majority of Waihi Gold employees.

Waihi is administered by the Hauraki District Council, and located in the Waikato Region on the North Island of New Zealand. Apart from mining, other prominent sectors include retail and wholesale trade, accommodation and restaurants, financial and business services.

Population highlights

At the time of the 2006 Census Waihi Urban area consisted:

- 4,503 persons at their usual place of residence with 2,154 (48%) males and 2,346 (52%) females.

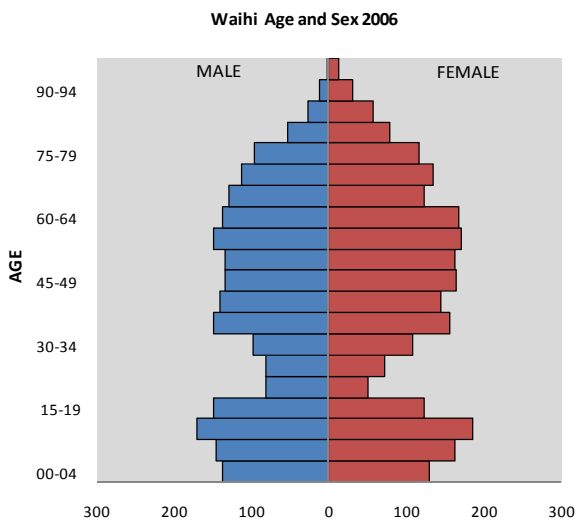
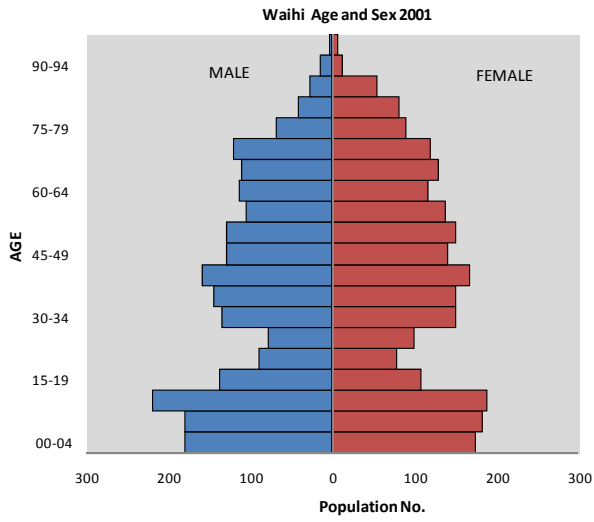
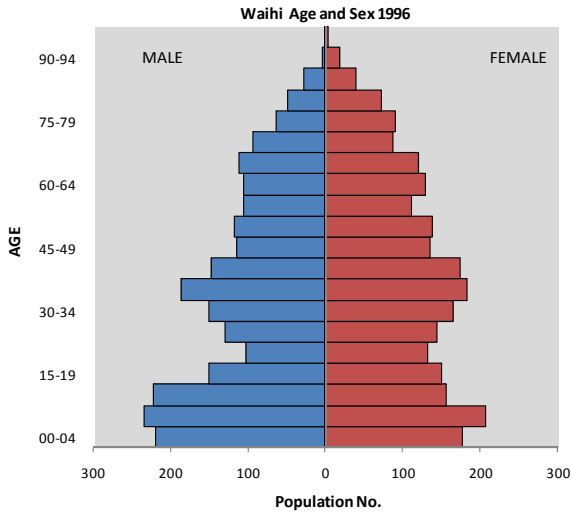
This demonstrates a percentage change of 0.5%²⁸ (21 persons) decrease in the Waihi usual resident population between 2001 and 2006 Censuses.

²⁵ Beyond the Mine (2007: 7).

²⁶ Local defined as the town of Waihi and the immediately surrounding area (approximately 20 km radius, including Waihi Beach and Paeroa).

²⁷ Source: Operating scenarios for Newmont mining activity in Waihi, June 2009, V4
http://www.marthamine.co.nz/PDF/scenarios_1108.pdf

²⁸ This figure is based upon Statistics New Zealand, 2006 Census, Quick Stats about Waihi.



Labour force

The total labour force at the time of the 2006 census in Waihi was 1863 persons. This represents approximately 41% of the total Waihi Urban area population.

The unemployment rate in Waihi during the same period was 8.3% (5.5% Hauraki District and 5.1% New Zealand).

Labour force status ^{(a) (b)}, Waihi Urban Area, 2006

	Waihi Urban Area
Employed full-time ^(c)	1149
Employed part-time	534
Employed	1683
Unemployed	153
Labour force	1863
Not in labour force	1683
Unemployment rate	8.3%
Unidentifiable ^(d)	45

(a) Persons aged 15 years and over.

(b) Based on usually resident population count

(c) Full-time is defined as having worked 30 hours or more in all jobs during the week prior to Census night.

(d) Excludes overseas visitors.

Source: SNZ Census 2006, Work and Labour Force Status and Ethnic Group (Grouped Total Responses) by Sex, for the Census Usually Resident Population Count Aged 15 Years and Over

The unemployment rate in Waihi at the time of the 2001 census was higher at 15.5% compared with Hauraki District 9.0% and 7.5% for all of New Zealand²⁹.

Unemployment Rate, Waihi, Hauraki District and New Zealand, 2001 and 2006 ^(a)

	Waihi	Hauraki District	New Zealand
Census	%	%	%
2001	15.5	9.0	7.5
2006	8.3	5.5	5.1

(a) Persons aged 15 years and over.

Source: SNZ Census 2006 and SNZ Census 2001

Employment by industry

Retail Trade was the largest employer at the 2006 Census in Waihi Urban Area comprising 14.3%, compared with Waikato region 9.8% and New Zealand 9.9%. The next largest employer in Waihi Urban Area was Manufacturing 12.8%, (Waikato region 11.0%, New Zealand 11.0%) followed by Construction 9.3% (Waikato region 8.4%, New Zealand 7.5%) and finally Health Care and Social Assistance 8.6% (Waikato region 8.0%, New Zealand 8.1%). These four industries combined comprised 756 persons or 44.9 per cent of total employees in Waihi Urban Area.

Mining is relatively high at 3.2% of the usual resident population in comparison with the Waikato region 0.5%, and New Zealand 0.2%.

²⁹ SNZ 2001, Waihi Community Profile

Employment by industry, Waihi Urban Area, Waikato Region and New Zealand, 2006 ^(a)

Industry	Waihi Urban Area		Waikato Region	New Zealand
	number	%	%	%
Agriculture, Forestry and Fishing	78	4.6	12.4	6.8
Mining	54	3.2	0.5	0.2
Manufacturing	216	12.8	11.0	11.0
Electricity, Gas, Water and Waste Services	6	0.4	0.7	0.5
Construction	156	9.3	8.4	7.5
Wholesale Trade	39	2.3	3.9	5.0
Retail Trade	240	14.3	9.8	9.9
Accommodation and Food Services	117	7.0	5.6	5.6
Transport, Postal and Warehousing	63	3.7	3.5	4.1
Information Media and Telecommunications	6	0.4	1.0	1.9
Financial and Insurance Services	33	2.0	2.0	3.2
Rental, Hiring and Real Estate Services	54	3.2	2.5	2.7
Professional, Scientific and Technical Services	66	3.9	5.9	7.8
Administrative and Support Services	63	3.7	2.9	3.3
Public Administration and Safety	33	2.0	3.4	4.1
Education and Training	99	5.9	7.3	7.2
Health Care and Social Assistance	144	8.6	8.0	8.1
Arts and Recreation Services	15	0.9	1.8	1.6
Other Services	63	3.7	3.8	3.9
Not Elsewhere Included	144	8.6	5.7	5.6
Total Industry	1683	100.0	100.0	100.0

(a) Based on usually resident population count

Source: SNZ Census 2006, Industry (ANZSIC06 V1.0 Division) and Work Status by Age Group, for the Employed Census Usually Resident Population Count Aged 15 Years and Over, 2006

Education – School student numbers

There are five early childhood centre's located in Waihi, ABC Waihi, First Steps Waihi, Waihi Kindergarten, Waihi Playcentre and Pukewa Te Kohanga Reo.

Early Childhood Centres enrolments, Waihi Urban Area, July 2008

Early Childhood Centre	Institution Type	Roll as at July 2008
ABC Waihi	Education & Care Service	62
First Steps Waihi	Education & Care Service	55
Waihi Kindergarten	Free Kindergarten	54
Waihi Playcentre	Playcentre	24
Pukewa Te Kohanga Reo	Te Kohanga Reo	9

(a) Statistics are as at July of each year, for full-time students.

Source: Early Childhood Directory, the Ministry of Education, New Zealand

Waihi Urban Area has two Government Primary contributing schools (Year 1 – 6), Waihi Central and Waihi East and Waihi Secondary college (Years 7 to 13). The only non-government school in St. Josephs Catholic School.

Schools enrolments, Waihi Urban Area, July 2008

School	School Type	School Roll July 2008
St Joseph's Catholic School (Waihi)	Full Primary (Year 1-8)	50
Waihi Central School	Contributing (Year 1-6)	232
Waihi East School	Contributing (Year 1-6)	142
Waihi College	Secondary (Year 7-15)	811

(a) Statistics are as at July of each year, for full-time students.

Source: School Directory, the Ministry of Education, New Zealand

School Deciles³⁰, Waihi and Paeroa 2007, 2008 & 2009

School Name	2007 Deciles	2008 Deciles	2009 Deciles
St Joseph's Catholic School (Waihi)	4	3	3
Waihi Beach School	5	6	6
Waihi East School	4	3	3
Waihi Central School	2	2	2
Waihi College	4	3	3
Paeroa Central School	1	1	1
St Joseph's Catholic School (Paeroa)	3	4	4
Paeroa College	2	2	2

Source: Ministry of Education, NZ

³⁰ A school's Decile indicates the extent to which it draws its students from low socio-economic communities. Decile 1 schools are the 10% of schools with the highest proportion of students from low socio-economic communities. Decile 10 schools are the 10% of schools with the lowest proportion of these students.

Housing

In 2006, the majority of housing stock in Waihi Urban Area comprised of detached housing. There were 1635 separate houses, 141 semi-detached, (including Two or More Flats/ Units/Townhouses/ Apartments/Houses Joined together).

Dwelling Type for Private and Non-private Occupied³¹, Waihi Urban Area, 2006

	2006 Dwellings
Dwelling Type:	
Separate house	1635
Two or More Flats/ Units/Townhouses/ Apartments/Houses Joined Together	141
Other Occupied Private Dwellings	27
Occupied Private Dwelling Not Further Defined	72
Institutions	3
Total Occupied Non-private Dwellings	6
Total Dwelling Type	1884

(a) Excludes overseas visitors.

Source: SNZ 2006 Census Dwelling Type for Occupied Dwellings

The number of unoccupied dwellings in Waihi Urban Area increased between the 1996 and 2001 census by 80.5% and 9.2% between 2001 and 2006 respectively.

Unoccupied³² Dwelling Waihi Urban Area, Paeroa and Hauraki District, 1996, 2001 and 2006

Area Unit	1996 Unoccupied Dwelling Count	2001 Unoccupied Dwelling Count	2006 Unoccupied Dwelling Count	Increase or Decrease (-) 1996–2001		Increase or Decrease (-) 2001–2006	
				No.	%	No.	%
Waihi	108	195	213	87	80.5%	18	9.2
Paeroa	111	141	87	30	27%	-54	-38%
Hauraki District	576	888	903	312	54.2%	15	1.7%

Source: SNZ, 2006. Unoccupied Dwelling Count for Area Units in the Hauraki District, 1996, 2001 and 2006; 2006 Census of Population and Dwellings

³¹ For the census a dwelling is defined as occupied if it is: occupied at midnight on the night of the census, or occupied at any time during the 12 hours following midnight on the night of the census unless the occupant(s) completed a questionnaire at another dwelling during that period.

³² In census statistics, a dwelling is defined as unoccupied if it is: unoccupied at all times during the twelve hours following midnight on the night of the data collection, and suitable for habitation. For all other data collections, a dwelling is defined as unoccupied if it is not defined as occupied or under construction.

Rent

Median rent figures for Waihi are included with the Hauraki District data. The Department of Building and Housing was holding 240 new bonds for the Hauraki District (which includes Waihi) as at May 2009. The median weekly rent during December 2008 to May 2009 half-yearly counts for a 2-bedroom house was \$200, 3-bedroom house \$230 and 4-bedroom house \$270.

By way of comparison during the same period the median weekly rent in the Thames/Coromandel for a 2-bedroom house was \$225, 3-bedroom house \$270 and 4-bedroom house \$295.

Median rents for a 3-bedroom house for the Hauraki District are on average 35% lower than New Zealand totals.

Median weekly rents and new bonds, Hauraki (entire district), Thames/Coromandel (entire district), Western Bay of Plenty - Waihi Beach/Omokoroa and New Zealand totals (a)

December 2008 to May 2009					
	Hauraki Median Rent (\$)	Hauraki New Bonds	Thames/ Coromandel Median Rent (\$)	Waihi Beach / Omokoroa Median Rent (\$)	New Zealand total Median Rent (\$)
1 Bedroom Flats/Units					
	160	11	160	150	195
2 Bedroom Flats/Units					
	180	19	200	215	245
2 Bedroom Houses					
	200	44	225	225	260
3 Bedroom Houses					
	230	141	270	280	310
4 Bedroom Houses					
	270	25	295	322	400

(a) All figures are in NZD

Source: Department of Building and Housing, NZ, Market Rent, 01-Dec-2008-31-May-2009

Average Sale Price for Houses

The average sale price for a house in Waihi for 2008 was \$255,000, the same recorded in Te Aroha. Paeroa's average price was slightly lower at \$230,000.

Average house sale price for, Waihi, Paeroa, Te Aroha, 1999 to 2008 (a)

Year	Waihi (\$)	Paeroa (\$)	Te Aroha (\$)
1999	110,000	110,000	119,000
2000	115,000	110,000	119,500
2001	112,000	105,000	119,000
2002	115,000	100,000	119,500
2003	120,000	105,000	130,000
2004	135,000	120,000	140,000
2005	175,000	150,000	170,000
2006	220,000	190,000	220,000
2007	240,000	225,000	250,000
2008	255,000	230,000	255,000

Source: Newmont Waihi Gold, June 2009

The House price trend over the past 10 years have seen house prices increased in value between 92% and 98% in the Thames/Tauranga area to 2008 with pressure on prices now reducing approximately 8% in the past year.

Appendix B – Examples of indicators in Five Capitals framework

Domain	1 st Generation Indicators	2 nd Generation & beyond
Economic capital	Per capita income of community \$\$ value of the mine's local spend	Value of financial assets held by the community (savings, investments, etc) Equity of income distribution Diversity of income sources in community No & type of new enterprises not dependent on mining
Human capital (employment)	Number of local jobs created \$ spent on training	Number of people from previously marginalised groups obtaining jobs Skill levels of local workforce Employment mobility (ability to transition to other jobs – mining and non-mining)
Human capital (education)	\$\$ spent on education support School attendance rates	School completion rates Student performance against benchmarks Community views on value of education
Human capital (health)	\$\$ spend on health support Number of children in feeding programs Access to & utilisation of health services	Incidence of communicable diseases Malnutrition levels Community attitudes, knowledge & behaviours Level of dependence on the mine for provision of health services
Social capital	\$\$ and in-kind support provided to community groups & organisations	Strength of community organisations Levels of trust and cooperation in the community Amount of 'bridging' capital