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Report

Preliminary Social Impact Review of the Potential Costs and Benefits of the Awatarariki Plan Changes

Prepared for Whakatāne District Council Prepared by Beca Limited

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1 Introduction

The Whakatāne District Council has initiated a proposed change to the Whakatāne District Plan and requested a change to the Bay of Plenty Regional Natural Resources Plan (being delivered by the Bay of Plenty Regional Council). These are both land use planning responses to the assessed debris flow risk posed by future rainfall events in the Awatarariki Stream catchment (collectively these are referred to as the "Awatarariki Plan Changes" in the remainder of this report).

Boffa Miskell Limited, have provided planning advice to identify an effective approach to managing debris flow risks from the Awatarariki Stream catchment and have provided both an Issues and Options Report (August 2017) and a Plan Change Evaluation Report (January 2018). It is noted that this follows significant work and consideration of alternative management options and approaches (discussed further in section 2.1 of this report).

The Whakatane District Council has requested some further advice on the potential social costs and benefits of the Plan Changes and advice on whether from a social perspective, these considerations may have resulted in a change to the evaluation reporting (pursuant to Section 32 of the Resource Management Act) in respect of the Plan Changes.

1.1 Scope

The International Association for Impact Assessment defines social impact assessment as:

"...the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions' (International Association for Impact Assessment, 2003).

Using the New Zealand Transport Agency Social Impact Guidelines (Draft) (2017) as a base, the following framework has been used for considering the potential social impacts of the Plan Changes (both positive and negative):

- People's way of life;
- Community services and facilities
- Physical, biophysical environment and resources available to people and the community
- The quality of the living environment including elements of amenity (noting some elements are captured in resources available and services / facilities above)
- Existing family and social networks of a community (including cohesion, stability, and character)
- The health and wellbeing of people
- Material wellbeing, personal and property rights
- People's fears and aspirations
- People's / community's culture and identity
- Existing political systems



In preparing the Awatarariki Plan Changes, the Whakatāne District Council has had three evaluation reports prepared:

- Landslide and Debris Flow Hazard Management: Issues and Options, prepared by Boffa Miskell for Whakatāne District Council and dated 5 July 2013
- Planning Provisions for Debris Flow Risk Management on the Awatarariki Fanhead, Matatā: Issues and Options, prepared by Boffa Miskell for Whakatāne District Council and dated 10 August 2017
- Planning Provisions for Debris Flow Risk Management on the Awatarariki Fanhead, Matatā: Section 32 Evaluation Report, prepared by Boffa Miskell for Whakatāne District Council and dated 31 January 2018

Also, over this period, there has been extensive consultation with landowners and residents in the community, as different structural and non-structural options have been considered. This has included consultation on the options for planned retreat and for the financial incentives to facilitate such planned retreat (various sources, including the above report and Whakatane District Council Community Forum presentation, March 2013).

This Social Costs and Benefits Report provides a short review of these reports, to supplement the existing evaluation of options and where appropriate provide further commentary on potential social costs and benefits of the Plan Changes.

The report is structured as following:

- Section 2 provides context to this report, particularly highlighting key matters regarding the Awatarariki
 Plan Changes relevant to the consideration of social consequences and the authors understanding of the
 consideration of social consequences to date;
- Section 3 provides a high-level overview description of the Matatā community and social profile drawing from existing published information;
- Section 4 provides a review and scope of the potential social changes anticipated by the Awatarariki
 Debris Flow Plan Changes and, where appropriate this includes identification (quantitative and/or
 qualitative commentary) of the potential social costs and benefits of the Plan Changes (supplementing
 those already identified in the Section 32 Report);
- Section 5 examines the implications of the social changes identified in Section 4 considering the existing Evaluation Reporting for the Plan Changes (Section 2) to conclude whether these matters would likely materially change the outcomes of that reporting and the conclusions of the efficiency and effectiveness evaluation of the Plan Changes; and
- Section 6 provides a summary of material reviewed and referenced in this report.

1.2 Assumptions

- No interviews or primary research will be undertaken during this review. However, it is noted that there has been consultation with residents and community representatives in response to the 2005 debris flow event, the subsequent investigation of engineering mitigation options, the proposed Plan Changes and the proposed Managed Retreat package. This information has been reviewed in the preparation of this report (key documents are cited in Section 6).
- No provision or attempt has been made to financially quantify potential social costs and benefits (beyond those already reported in the Section 32 in respect of risk of life impacts).



2 Existing Evaluation of the Awatarariki Plan Changes

2.1 Context Information

The following highlights key facts and information which are considered relevant to the potential social consequences of the Awatarariki Plan Changes¹:

- A high rainfall event resulted in a number of debris flow events which impacted on the settlement of Matatā (December 2005). This event resulted in significant impacts, including flooding, loss of transport links, destruction of 27 dwellings and damage to a further 85 properties. Council has advised that the damage from these events was in the order of \$20 million.
- Since that time, the Whakatāne District Council has undertaken engineering assessments to respond to the risks associated with debris flow hazards from the Awatarariki Stream Catchment. This has included initial identification of a preference for engineering solutions for risk minimisation, both in the upper stream catchment and subsequently for lower stream catchment mitigation measures.
- Over this time, the Council has also undertaken a review of the risk to life and property from future debris flows. The culmination of engineering and hazard assessments since 2005, is that in 2012, the Council accepted expert advice that there was no feasible engineering solution to appropriately mitigate risk to life and property from future potential debris flows from the Awatarariki Stream Catchment.
- The scale of the issue is that the risks to life (and property) on 34 privately-owned properties in Matatā (which equates to approximately 10% of the settlement) have been assessed as unacceptable and, following consideration of engineering options, Council has sought to identify planning and land use response alternatives for these properties.
- Planning and land use responses have included consideration of options for early warning systems (to reduce risks to life) and proactive catchment management processes. However, these have been concluded to be insufficient to appropriately mitigate risks (e.g. warning system notification timeframes and ongoing operation implications are not adequate or sufficiently certain to reduce risk to an 'acceptable level'2).
- In 2016 the Ministry of Building, Innovation and Employment (MBIE) issued a determination under the Building Act 2004³ that supported the Council's decisions not to issue building consents. MBIE determined that the risks to life and exacerbation of hazards from such work were such that Council should not grant building consents for new dwellings in the high-risk area identified in Matatā. This effectively means that, under current legislative and policy interpretation the 18 properties currently vacant are unable to be developed for habitation (albeit there are some properties with buildings on them that do not require Building Consent approval such as a caravan or other temporary buildings).



¹ This is not intended as a fulsome description of all facts pertaining to the Awatarariki Plan Changes, but rather provides a summary of the authors understanding of issues material to the consideration of potential social consequences of these Plan Changes. This summary is provided from material reviewed in the preparation of this report (as cited in the References section of this report).

² Davies T., 2017 Awatarariki Fan, Matata: Debris-Flow Early Warning Systems Feasibility Study, University of Canterbury.

³ Determination 2016/034, Ministry of Business Innovation and Employment

- The Bay of Plenty Regional Council's Regional Policy Statement sets objectives and policies that require the District Council to appropriately manage the risk of natural hazards. In particular, Objective 31 and Policies NH 3B and NH 12A are relevant. Policy NH 3B requires Council to reduce a natural hazard risk outcome from a 'high natural hazard risk' to a 'medium level (or lower if reasonably practicable)'. In this regard, while Policy NH 12A recognises the consideration of the practicality of implementation of planning measures for existing land uses, the imperative to reduce hazard risk outcomes remains by way of Policy NH 3B. The RPS is required to be given effect to in District Plans / Regional Plans. It is concluded that the RPS policy is directive and while it provides that there may be some scope to consider the timing / staging of risk reduction for these high hazard areas, the intent to reduce hazard risk outcomes requires response (in the context of both existing land uses and in the context of zoning to allow for land uses that enable habitation / development in the high hazard risk area).
- In response to the above, the Whakatāne District Council has initiated two Plan Changes for those properties in the 'high risk area' (referred to as those properties directly affected by the Awatarariki Plan Changes), one to the District Plan and the other to the Regional Plan. These plans seek:
 - In the case of the District Plan Change, to recognise the debris flow risk in the District Plan and rezone these areas from 'Residential' to a zone that will restrict future residential activity (i.e. coastal protection zone identifying the high-risk hazard areas of the Awatarariki Stream catchment fanhead). It is noted and acknowledged that this Plan Change can only manage land use that does not have 'existing use rights' (e.g. the existing 16 residential properties with dwellings on them will not be impacted by the Plan Change).
 - In the case of the Regional Plan Change, to initiate provisions to make all residential development on sites subject to high risk on the Awatarariki fanhead a 'Prohibited Activity'. In this case, the prohibition would apply to affected sites that are currently in residential use and/or have 'existing use rights' for residential activity. It is proposed that the rule would apply from 31 March 2021.
- Of the 36 properties directly impacted by the Awatarariki Plan Changes, 34⁴ are privately owned. In the 2005 event it is understood that all the privately-owned properties were inundated with debris flow material. 10 of the dwellings affected had repairs undertaken and 11 were destroyed (of which 6 have since been rebuilt and 5 remain legally 'vacant' properties). The balance (13 properties) were vacant sections in 2005 and remain 'vacant' (noting that, at the time of preparing this report, there are some properties with structures on them that do not require or have a building consent).
- Consultation has been undertaken with the affected community (residents), iwi⁵ and other statutory agencies. In particular, consultation since 2017 has focussed specifically on the planning options being considered by Council. There has been significant feedback (both formally and informally) from the community regarding both the planning response proposed by Council and the Managed Voluntary Retreat (discussed further below). This process included a 'Consensus Development Group'. The purpose of this group was to endeavour to identify common ground on land use and planning based responses (with landowners, Council and other community representatives represented).



⁴ For the purpose of this consideration of social consequence, primary focus has been on the 34 private properties within the high risk zone (as the impact of the Plan Changes on these properties is the planned retreat). It is acknowledged that the Plan Changes also impact 2 additional private properties within the medium risk zone (for these properties new objectives, polices and rules are proposed to implement the directives of the RPS. The intended outcome of these provisions is to enable existing buildings in this 'medium risk' area to be retained and maintained, while new buildings and activities will be managed to give specific consideration to how the development responds to debris flow risk management).

⁵ Ngati Rangitihi, Ngati Awa, Ngati Tuwharetoa ki Kawerau, and Te Rangitira o Ngati Rangitihi Inc.

In addition to the planning responses, a proposal for Managed Voluntary Retreat has been prepared. This approach would seek to incentivise property owners to voluntarily retreat from the high natural hazard risk area. The Council's managed voluntary retreat proposal seeks to enable landowners to obtain financial assistance for relocation options (through a collaborative financial support mechanism with the District and Regional Council and Central government). This package is complementary to the Plan Changes proposed above and is subject to separate investment decision-making from the parties (particularly Central Government)⁶.

2.2 Social Evaluation of the Awatarariki Plan Changes (to date)

A number of social issues are identified in the reports that the Whakatane District Council has prepared in their consideration of the effectiveness and efficiency of the Awatarariki Plan Changes (to achieve the purposes of the Resource Management Act 1991). The Boffa Miskell report (2018) recognises and provides commentary on:

- The risk to life and the economic cost of such risk to life;
- The material wellbeing, personal and property rights changes for impacted residents;
- The views and concerns of residents in respect of their wellbeing, fears and aspirations;
- The opportunities that the Managed Voluntary Retreat proposal provides to respond to potential adverse social consequences in respect of material wellbeing and private property rights. In particular, this consideration is reflected in the timing proposed for implementation of the Regional Plan Change (with the date for effect of the Plan Change sequenced to enable the delivery of the Managed Voluntary Retreat mechanism if this is enabled); and
- The potential for various options to enable people to be involved in processes (in respect particularly to the Regional Plan), thereby participating in democratic and statutory systems.

The Evaluation Report (Boffa Miskell 2018) recognises the overall potential economic and social costs of retreat. However, the report does not further identify these 'costs' nor provide any further quantification beyond the economic cost to life and the property costs identified above.

As such, it is considered that there has been an acknowledgement of social impacts of the Plan Change and this has informed the overall evaluation of the Plan Change provisions. The remainder of this report provides supplementary consideration of the potential social consequences of the Plan Changes, in accordance with the framework and methodology set out in section 1 of this report.



⁶⁶ It is noted that this is not a financial compensation model for the Plan Changes, as such compensation is not required under the Resource Management Act. Given the nature of this proposal, it has been considered in the context of potential social consequences (albeit that it is also recognised that there is some remaining uncertainty as to the final feasibility of delivery of this proposal).

3 The Matata Community

Matatā is a small rural and coastal community within the Whakatane District (Bay of Plenty). The population of Matatā has been relatively stable and at the time of the 2013 Census was approximately 645 residents⁷. At this size, the community makes up 2 percent of Whakatane District's population, but also provides holiday home accommodation for some. This is, in part evidenced by the number of 'unoccupied dwellings' recorded in the Census (33) and a comparison of the 240 Occupied Dwellings (recorded in the Census) compared to the number of buildings in the settlement area⁸.

The remainder of this section provides a high-level overview of the community of Matatā. Given the nature of this report, which has not included engagement with this community, it is acknowledged that the summary provides only a high-level overview.

3.1 Census Information

At the time of the 2013 Census, the following key demographic characteristics of the resident population of Matatā are noted (for context these are reported relative to the Whakatāne District and/or New Zealand population overall):

- The median age for people was 41.6 years (slightly older than for the District) and potentially reflective of the area as a 'retirement' or coastal settlement. This is also reflected in the overall age structure, with 19% of people aged 65 years and over, compared with 15% of the total Whakatane District population. However, the community also has 22% of people aged under 15 years (compared to around 23% for the District);
- The most common identified ethnic groups in Matatā were European (60%) and similarly New Zealand Māori (60%)⁹. Those identifying themselves as European is similar to the District-wide figure, but the proportion of people identifying themselves as being of Māori ethnicity is higher (compared to 44% for the District).
- The high proportion of people identifying themselves as Māori is also reflected in languages spoken. After English, the next most common language spoken is te reo Māori, which was spoken by 18% of people.
- 64% of people aged 15 years and over have a formal qualification (slightly lower than for the District), and 8% of people aged 15 years and over held a bachelor's degree or higher as their highest qualification.
- The unemployment rate was 14% percent for people aged 15 years and over (again slightly higher than for the District overall). The most common occupational group was 'labourers'.
- For people aged 15 years and over, the median income was \$20,400. 20% of people aged 15 years and over have an annual income of more than \$50,000, with 49% having an annual income of less than \$20,000. Annual individual incomes in Matatā are lower than for the District overall, with fewer people (as a percentage) earning more than \$50,000 per annum.



⁷ This population count has been relatively consistent between 2006 and 2013, but slightly lower than the 666 resident population as that the 2001 Census.

⁸ Counted at 300 - 340.

⁹ As people can identify themselves as belonging to more than one Ethnicity, the Census figures do not add to 100%.

- Couples with children make up 35% percent of all families, while couples without children make up 41% of all families. One-family households make up 66% percent of all households (slightly lower than the District overall). One-person households make up 25% of all households (slightly higher than the District overall). The average household size is 2.7 people.
- Home ownership rates and rentals are slightly higher for Matatā relative to the District. For example, 69% of dwellings were owned (or held in trust) by residents in Matatā, compared to 63% for the district and for households who rented the dwelling that they lived in, the median weekly rent paid was \$250 (compared to \$220 for the District overall). This higher rental is noted against the lower annual median incomes.
- Compared to the District, and certainly relative to the national averages, there were a high proportion of residents in Matatā that were born in New Zealand.

There were 49 business locations in Matatā compared with 3,934 for all of Whakatane District. There has been a decrease of 9% in businesses from the year ended February 2006. There were 50 paid employees, a decrease of 17% from 2006.

3.2 **Community Facilities and Services**

Matatā has several amenities, community facilities and services. Key services and facilities are briefly listed below, and identified in the Map (Figure 1):

- Matatā School Which is a full Primary School (Year 1-8). The school is a co-educational facility with a roll of 80-100 students (the school roll appears stable to slightly growing: from around 80 in 2013 to 100 in
- St Joseph's Catholic School A state integrated full primary school with a roll of between 30 and 40 students (as with Matatā School the roll appears stable to slight growth, with an increase between 2013 to 2016).
- Two childcare centres have been identified in Matatā, providing for pre-school care.
- The Matatā Community Resource Centre, which is both a physical and social media (facebook) facility.
- Medical GP Clinic a newly established (March 2018) Clinic is available, it is based at the Matatā Community Resource Centre and is open Tuesday and Thursday mornings. (given the recent establishment, it is noted that the alternative medical facilities are in Edgecumbe).
- Matatā Camping Ground a family campsite (on Department of Conservation land) with fishing and swimming facilities next to the Matatā wildlife refuge
- Marae (Rangitihi in Matatā, Oniao eastwards along the coast, and Ngāti Umutahi slightly inland of the settlement).
- St Joseph's Catholic Church
- Matatā Rugby and Sports Club
- Matata Tennis Club
- Bus routes two routes service Matatā one which continues to Tauranga and the other which travels in a loop that includes Edgecumbe (see insert on the map below).

Other local services and facilities identified (though outside of Matatā) are considered to be likely used by residents, particularly medical facilities and senior education services (e.g. in Edgecumbe).





Figure 1. Community Facilities / services in Matatā (Source: Adapted from Google Maps (Insert: Baybus))

3.3 Property

There are an estimated 350 properties in Matatā, with some 320 dwellings (this is estimated by count only). In the six months prior to this report, there have been a small number of house and land sales (less than 10). It is noted that some property available for sale is leasehold title (Māori land).



4 Potential Social Costs / Benefits of the Awatarariki Plan Changes

As noted in Section 2.2 the Evaluation Report for the Awatarariki Plan Changes (Boffa Miskell 2018) recognises the overall potential economic and social costs of retreat and provides some identification of these. This section provides supplementary consideration of the potential social consequences of the Plan Changes, in accordance with the framework and methodology set out in section 1 of this report. This report has not attempted to quantify the financial costs of these impacts, but rather provides a review of potential social consequences of the Awatarariki Plan Changes.

4.1 People's way of life and material wellbeing

The Evaluation Report (Boffa Miskell 2018) recognises the potential costs to people's way of life resulting from the Awatarariki Plan Changes. This includes the loss of their homes (and/or holiday homes) (for those 16 properties which currently have dwellings on them), and the loss of property for the remaining landowners. The proposed Managed Voluntary Retreat package being advanced by the Council is recognised as a measure to incentivise people to move away from areas of high hazard risk by addressing the potential material impacts that may mean people are reluctant or less able to consider this option. While this is quantified in economic terms, the following potential social costs are also noted:

- The number of properties directly affected by the Awatarariki Plan Changes is approximately 10% of the existing dwellings or habitable buildings in Matatā. The scale of displacement for these residents will be felt both for those directly affected and for the remaining community. While there are annual property sales in the area that indicate potential for some of these owners to relocate and remain in Matatā (if they chose to), it appears that this would represent a high proportion of current property sales activity. It is also acknowledged that the nature of housing stock means that 'like-for-like' replacement of housing stock would take some time (in the order of years) to achieve. The uncertainty of the Managed Voluntary Retreat package for existing properties is also acknowledged and this may impact on the resources that current property owners have to off-set or address this impact. This means that for some, the loss of property in Matatā may mean loss of ability to live in this community. This will be an adverse social consequence for those affected (potentially significant).
- For others, the affected properties in Matatā appear to be holiday or 'bach' accommodation. For these people, their way of life will be impacted (albeit to a less significant degree) as they will lose recreation opportunities they have established for themselves. The impact for the wider community, in respect of social cohesion and family networks because of this impact is also recognised.
- While the above impacts are identified it is also recognised that for some, these social impacts have already been realised as a consequence of the 2005 debris flow events (in that dwellings and buildings have not been rebuilt since that time). In this regard, it is noted that the hazard event (both historically and any potential future event) represents a significant potential adverse social impact on people's way of life (resulting from loss of property) and of the more significant and fundamental impact from the risk to life of any such future event. This is considered a valid consideration in assessing the potential social costs of the Plan Changes (in that the 'status quo' has the potential to result in adverse effects in the event that a debris flow event occurs).

4.2 Physical, biophysical environment and quality of the living environment

As noted earlier in this report, the Plan Changes themselves will not change the physical or biophysical
environment. However, one consequence of the Plan Changes, particularly in respect of the Regional
Plan, will be to remove the existing use rights for the existing buildings on those properties within the High



Hazard Risk Area. This has the potential to impact on the physical environment, depending on the future ownership of the directly affected properties.

One option is the Managed Voluntary Retreat proposal (discussed in section 2). This process will provide affected landowners with an incentive to vacate affected properties (including land and dwellings). In this case, the future management of this land (and potentially any remaining buildings or the removal of these buildings) will become the responsibility of either the District Council, Regional Council, or the Crown. There is potential for the future use of this land (and its amenity for local residents) to impact on the community depending on the management of this land and the resulting quality of the physical environment for residents in the community and recreation visitors to the area. For example, if the area is actively managed and maintained as 'reserve' or open space, it has the potential to contribute to the value the community places in the physical environment. In contrast, if buildings are left on the site (or persist as 'illegal structures') this has potential social costs with the potential for adverse amenity impacts for residents.

4.3 Existing family and social networks and cohesion of the community

- As noted above, the Awatarariki Plan Changes will impact approximately 10% of properties in the Matatā settlement. However, there is a slightly lower percentage of impact on existing dwellings, given that many of the sites affected do not currently have dwellings on them.
- From review of media and records regarding the impact on and recovery from the 2005 debris flow events, it is clear that the community was significantly impacted and this was reflected in social cohesion. These records indicate that some residents in the community housed others (whose properties were affected) while other directly affected properties left both their properties and the community / settlement. Other activities, including specific recovery activities, are considered to have likely 'bought communities together', including sharing of stories and accounts of the event.
- Noting the potential impacts on people's way of life for those directly affected (noted above) it is recognised that there may be some costs to existing social and family networks experienced by the wider Matatā community. For example, if those residents in directly affected properties are unable to find alternative properties, so as to remain within the Matatā community / settlement this is likely to impact on the whanau, family and social networks of other residents in Matatā.
- While acknowledging this impact, the impacts on social networks and community cohesion of a debris flow event (e.g. an event that resulted in the loss of life and/or property) would also be adverse. In this regard, the relative impacts of the status quo to the Awatarariki Plan Changes are also considered adverse social consequences.

4.4 People's health and wellbeing (including fears, aspirations and uncertainty)

- It is noted that the risk to human life and wellbeing is the key reason for the Awatarariki Plan Changes, as it seeks to reduce risk to life - by removing people from areas with high potential for loss of life (as a result of debris flows). While there was no loss of life in Matatā in the 2005 debris flow event, it is also recognised that this event had adverse social and community effects (both in terms of people's way of life and in terms of their wellbeing, particularly psychological health). As such, the purpose of the Plan Changes is to proactively respond to the potential social costs to people's health and wellbeing. The Evaluation Report (Boffa Miskell 2017) provides specific cost calculations in this regard.
- While the overall driver of the Plan Changes (to provide for the community's health and wellbeing) is acknowledged, it is also recognised that the Plan Change has the potential to adversely impact on these same factors. In particular, the Plan Change(s) (land use response options) have been progressed by Council after consideration of a number of different alternatives, including engineering mitigation and



- early warning systems. This process (in itself) has generated uncertainty for residents and this has had the potential to adversely impact on people's wellbeing¹⁰. Community engagement, as reported by the Whakatane District Council in 2013, highlights some of the frustration and impacts of uncertainty the process has had for landowners and residents of this area.
- In addition to the above, it is acknowledged that the statutory processes of a Plan Change and the communication between Council and the community have the potential to generate and escalate community concerns. In particular, over this period there is the potential for misunderstanding and miscommunication of technical information and the uncertainty of the Council proposal for the Managed Voluntary Retreat process can raise people's fears and in some cases may impact on people's wellbeing (e.g. if these fears give rise to anxiety and adverse health outcomes). It is acknowledged that the Council has made information available through its website and it is understood there has been ongoing community engagement, which are appropriate processes to mitigate these potential impacts. However, it is recognised that the process is unsettling, and this with the timeframes, statutory process uncertainties and the ongoing consideration of the Managed Voluntary Retreat business case, combines to be potentially exacerbating factors.

4.5 Not further assessed

The following provides comments on the remaining social impact framework criteria (for completeness):

- Community Facilities and Services No community facilities or services (noting the road / rail lines are within the area) are directly affected by the Awatarariki Plan Changes¹¹. Consideration has been given to the potential 'consequential' impact to services and facilities as a result of the proportion of properties impacted by the Plan Changes (e.g. the loss of community impacting the viability of services). While the number of properties affected by the Awatarariki Plan Changes is approximately 10% of properties in Matatā, at this level of assessment, the potential for further social costs resulting from consequential impacts on existing community facilities is not considered likely. This is in part on the basis that more than half the properties directly affected do not currently contain dwellings and is further identified because there has been some growth in dwelling numbers in the wider Matatā area (e.g. some increase in housing opportunities elsewhere). It is acknowledged that in a community of this size, there is potential for some key community voices figures or key people who are responsible for delivery of voluntary community facilities could be directly impacted thus impacting on the delivery of these facilities and services (however, this has not been identified at this stage).
- People's / community's culture and identity Culture and identity provides a specific lens on how a community both sees and values itself and its members and what activities the community collectively engages in. For example, annual community events (such as Santa Parades (Christmas), community Guy Fawkes events, markets and fairs / shows). It is understood that the community of Matatā has some community specific cultural events and there is no evidence to suggest that these will be impacted (directly) by the Plan Changes. It is understood that there may be opportunities arising from the Plan Change process to recognise and celebrate people's culture and identity. For example, in the longer-term opportunity for the land within the high hazard area to be integrated to reserve and open space areas and for recognition to be given to wider cultural values of this area. This outcome may, in turn, give rise to



¹⁰ Noting also that consideration of the alternative risk mitigation options was itself driven by Council's goal to identify risk reduction methods / processes that would not require properties to be taken / loss of property rights.

¹¹ However, it is noted that the lagoon (a popular walkway and recreation area) was affected by the 2005 debris flows and has the potential to be impacted by future events.

- social benefits. However, the uncertainty of these outcomes (with the land currently in private ownership) is acknowledged. On this basis, given the nature of this review no further specific consideration has been given as to the potential social costs of benefits of the Plan Changes on culture and identity.
- Impacts on political systems while it is acknowledged that there are potential consequences for the community's relationship with 'Council' including Council's elected representatives (as a consequence of their experience through the Plan Changes), the potential social costs on political systems (political representation and access to such representation) are not considered impacted.



5 Review of Social Costs and Benefits of the Plan Changes

From this report (but also acknowledged in the Council's Evaluation Report for the Plan Changes), it is clear that the Awatarariki Debris Flow Plan Changes will have social impacts and consequences. In particular, this conclusion is reached in acknowledgement that the Plan Change provisions will:

- Change land use patterns in the Matatā community (both future and existing),
- Potentially change the status of people's material and physical circumstances;
- Potentially result in changes to social networks and overall community cohesion given the scale of the residential land impacted relative to the settlement; and
- Impact on some people's wellbeing as the process itself generates uncertainty and exacerbates fears and potential mistrust of Council.

However, it is also clear that the natural hazard, and in particular the actuation of that hazard in 2005, has also resulted in adverse social outcomes (albeit with some potential positive outcomes) and that a future event would have the potential to generate significant adverse social outcomes, the most significant of which would be the loss of life from within the community.

In this regard, while the adverse social consequences of the Awatarariki Plan Changes are acknowledged, the potential social consequences of the 'do minimum' or status quo which would allow people to continue to live in an area subject to high loss of life risk are also considered significantly adverse (albeit the timing for the occurrence of a debris flow event is uncertain¹²).

On the basis of the review of potential social consequences of the Awatarariki Plan Changes (as presented in this report), it is considered that the potential adverse social consequences of this 'status quo' alternative are higher (more adverse) than for the Awatarariki Plan Changes.

In reaching this conclusion the following key considerations are noted:

- Consideration has been given to both physical engineering (structural) and non-structural resource
 options (such as warning system alternatives). While these have been investigated and developed by
 Council over some period of time, it has been determined that they are insufficient to appropriately reduce
 the potential impact to human life (this is a conclusion that a number in the community including residents
 of the land in high risk areas, have accepted); and
- The social costs associated with the potential loss of life and property damage, and the consequential social costs of recovery periods from a future debris flow event are likely to be more significant than the potential social costs identified in respect of the Plan Change provisions, albeit that the likelihood of the timing for such an event is less certain¹³;



¹² As such, this is a potential effective of significant consequence but it is acknowledged it is of uncertain timing (future effect).

¹³ This conclusion is considered consistent with the directive of the Regional Policy Statement. The objectives and policies of this document direct that a potential high risk hazard impact is not appropriate and does not reflect sustainable development outcomes for the Region.

The scope of the proposed Voluntary Managed Retreat approach provides a potential means to ameliorate some social impacts (particularly in respect of property rights and material wellbeing for residents), recognising that these measures are not a requirement or pre-requisite of the Plan Change.

On the basis of the above, while this report has identified additional social costs and potential social costs (as well as potential social benefits) from the Awatarariki Plan Changes, it is not considered that these materially change the overall evaluation of the effectiveness and efficiency of the Plan Changes as reported by Boffa Miskell, 2018. This report concludes that the potential social costs identified for the 'status quo' (being the potential loss of life and the potential adverse social consequences on people's quality of life resulting from the damage / loss of property, which are considered the likely result of a debris flow hazard event) are greater than the social costs identified from the Awatarariki Plan Changes.



References 6

The following source documents have been reviewed in the preparation of this report.

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