

Managed retreat governance: Insights from Matatā, New Zealand

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Executive summary

This report provides an initial summary of case study findings from PhD research investigating the role of environmental planning in enabling managed retreat in New Zealand. It begins with an overview of the case study and background to the decisions that have led to managed retreat in Matatā. Fundamentally, it highlights key administrative barriers and enablers to implementing managed retreat, which will be further developed in the doctoral thesis. Principal findings are summarised below:

1. There is a lack of national policy guidance, legislative mechanisms and implementation support to achieve managed retreat of existing land-use activities under the current planning system. This not only creates difficulties for managed retreat policy formation and implementation (requiring a process of learning by doing) but more broadly, it hinders anticipatory governance and favours absorptive resilience over transformation away from risk.
2. There is no specific risk tolerance criteria in New Zealand to determine when a particular annual loss-of-life risk is acceptable or not. This makes it more difficult to determine the point at which risk reduction (such as managed retreat) is required.
3. The process for funding managed retreat (particularly where there is risk to life) is ad hoc and uncertain, with potential to undermine the legitimacy of incentivised retreat.
4. Whilst ‘voluntary retreat’ is the only tool currently available to territorial authorities to achieve (incentivised) managed retreat of existing uses, (where the Public Works Act 1981 cannot be applied) it is not perceived as being ‘voluntary’ by people and communities if it is combined with regulation to remove existing use rights or withdrawal of service. This perception undermines trust in the retreat process and further emphasises the need for mechanisms that affected communities consider fair.
5. Provision of risk information and previous disaster experience is ineffective in avoiding investment in risky areas. Therefore, other means of implementing managed retreat are necessary in order to reduce intolerable risk to life.

6. There is a mismatch of responsibilities and jurisdiction in the management of existing land uses between territorial and regional authorities under the Resource Management Act 1991 (RMA). Integrated management (and potential transfer of powers) is necessary in order to overcome this barrier. Early political alignment and collaborative policy development may also help the political acceptability of retreat within local government.
7. While regional councils are generally considered to have the ability to extinguish existing use rights, there is uncertainty regarding the application of s85 RMA, and the presence of existing resource consents as highlighted by Grace, France-Hudson, and Kilvington (2018). It is likely that case law arising from the Bay of Plenty Regional Plan Change 17 will provide legal clarity on these matters.
8. In the absence of a national framework, Regional Policy Statements can assist in the enablement of managed retreat where they provide a strong policy framework including a community tested, risk-based approach with key risk thresholds and direction to reduce risk to acceptable levels.
9. Policy learning is occurring across New Zealand, driven by local leadership. Development of national managed retreat principles arising from Matatā demonstrate aspects of adaptive governance.

1.0 Introduction

Semi-structured interviews with council staff, politicians and expert advisors in combination with analysis of key planning documents inform the findings of this research. The purpose of this report is to provide a synopsis of primary administrative barriers and enablers to implementing managed retreat in Matatā, relevant to the wider New Zealand context. As it has already been recognised in Hanna, White, and Glavovic (2017) managed retreat is being applied in a variety of ways across the country due to an absence of formalised national direction. In this case, managed retreat is a last resort attempt to mitigate intolerable risk to life from debris flow on the Awatarariki fanhead. The Whakatāne District Council (WDC) is attempting to implement managed retreat via a voluntary land acquisition package, supported by changes to the District Plan to change the zoning of the high-risk area from 'Residential' to 'Coastal Reserve' to better reflect the hazard, and to introduce risk reduction measures to

the medium risk area by making new activities and intensification of existing activities subject to a resource consent application, and changes to the Regional Plan to extinguish existing use rights in order to ensure complete retreat from the high-risk zone. This is a highly sensitive case study involving decisions that affect people and communities' lives. The social barriers and enablers to managed retreat in Matatā will be analysed later in the doctoral thesis.

2.0 Methodology

Research conducted in Matatā involved 17 semi-structured interviews and analysis of primary planning, governance, case law and risk analysis documentation. Key themes guided the structure and content of the interviews, with specific questions posed depending on the roles and experiences of participants. Participants were selected based on their role in the managed retreat strategy, to explore the rationale, development and selection of the approach, key barriers, enablers, impacts and lessons learned. Participants included environmental planners, technical experts and project managers, politicians, affected community members and an iwi representative. Where consent was given, interviews were digitally recorded, and notes taken, and throughout the process, the interviewer worked to clarify or pursue expansion as appropriate. Case study participants were selected based on their location (i.e. property owners within the high-risk zone); snowball selection derived from council staff knowledge of governance roles and technical experts, and media releases naming key community members and governance actors. Prior to conducting the interviews, the aims of the research, its scope, and ethical considerations were discussed with participants. The interviews were run via a set plan, however there were open-ended questions to allow for flexibility and expression of thought by the interviewee (Yin, 2003). A coding approach was implemented to analyse the interview data, where each document and interview transcript was organised and coded relating to key words, phrases, concepts and topics relating to managed retreat.

3.0 Context: Matatā

Matatā is a rural coastal community in the Bay of Plenty with a population of 645 (Statistics New Zealand, 2013). The socioeconomic status is low, with a deprivation index of 9 out of 10 and unemployment at 13.7% - almost double that

of general New Zealand (Department of Public Health, 2013; Whakatāne District Council, 2017). The town has two schools and two preschools, a Department of Conservation camping ground, a few shops and three marae. Sixty per cent of the population identify themselves as Māori and three Iwi, Ngāti Rangitihi, Ngāti Awa and Ngāti Tūwharetoa ki Kawerau and the Mataatua District Māori Council have ties to the area (Whakatāne District Council, 2017).

As are many communities in New Zealand, Matatā is exposed to a range of natural hazards including earthquakes, landslides, debris flows, floods, coastal erosion and inundation, with far-sourced hazards including tsunami and volcanic eruption from the Taupō Volcanic Zone (Ibid). The 2005 debris flow in the Awatarariki stream was catalysed by a significant amount of rainfall in the catchment resulting in severe flooding and a major debris flow. Rocks up to seven metres in diameter were transported at a velocity of 15-30 km/hr, before releasing an estimated 300,000+m³ of rock, wood debris, silt and slurry onto fanhead properties and Te Awa o Te Atua (Matatā lagoon) (Ibid p.24). The debris flow cut major transport links and caused significant damage to properties (Ibid p.25). With risk assessment modelling indicating a likelihood of five fatalities for the same scale event, it was incredible that loss of life was avoided (Ibid p.25). The most affected part of the community (on the Awatarariki stream fanhead) is located towards the western end of the township. This area consists of 45 properties (sections and developed sites), 34 being in private ownership and 16 homes being permanently occupied.

It is expected that long-term disaster recovery can take five to ten years (Spee, 2008) and WDC recognise that some members of the community who experienced the event remain “severely traumatised” 13 years later (Whakatāne District Council, 2017, p. 3). The community is highly frustrated with the lack of progress to date, with many showing signs of fatigue and anxiety, feeling imprisoned by properties that represent their life savings, unable (and some unwilling) to sell and move on (Ibid).

3.1 Key governance decisions 2005-2018

Following the devastating debris flow in 2005, WDC embarked on recovery, working with the community on a plan and seeking advice from specialist agencies and engineering consultants on the available mitigation works

(Bickers, 2012). In August 2005, Tonkin and Taylor (T&T) identified 11 preliminary engineering and planning options to manage the risks from future debris flows, option A1 being managed retreat, A1a including additional building floor raising and the remaining options comprising engineering protection measures. Following consultation with the community, WDC councillors considered the options proposed. Keeping in mind the project objectives, and the “majority” (Participant 4) of property owners’ wishes to remain on the fanhead, option A2 was selected, a debris dam in the catchment and flood channel on the fanhead based on it having the lowest discounted cost and lowest dis-benefits (Bickers, 2012).

The Ministry of Civil Defence and Emergency Management provided a grant of \$2.890 million for project costs and WDC approved a budget of \$3.558 million for its portion of the project (Whakatāne District Council, 2017). WDC considered issuing dangerous building notices to avoid people reoccupying their properties and applied to the Department of Building and Housing for a Building Act determination to help inform its considerations. However, in 2006, Determination 11912 from the Department of Building and Housing (DBH) reversed WDC’s intended decision path as it did not consider that the estimated 200-500 year return period for triggering the high intensity rainfall event sat outside of the 'ordinary course of events'. This assessment became the basis of Council’s subsequent administration of the Building Act (Whakatāne District Council, 2017) meaning that by 2012, six homes had been rebuilt on the fanhead, subject to ss 71-74 of the Building Act and under the assumption that the risk would be mitigated. In this case, the re-building of houses presents an impediment to both trust in the Council and managed retreat as a process with increased property acquisition costs and inconsistent decision-making affecting residents who believed they were re-building in a protected zone, to be told in time that retreat would be pursued.

With the budget approved, T&T began designing a debris earth dam, but community and iwi opposition saw that concept reviewed in July 2008. WDC and T&T responded by investigating alternative engineering options with a flexible debris detention structure concept eventually approved by Council, at an estimated cost of \$2.4 million. Design work began, and a resource consent application was submitted in 2010. In 2011, peer review of the ring net raised

concerns due to the scale of the project being unprecedented in international experience and scenario modelling incompatibilities, so again, T&T revised the design. In 2012, T&T expressed concerns about the maximum life span of the proposal (being only 50 years), its viability and mounting costs of the project, which by then, were estimated as ranging from \$5 -7 million (Bickers, 2012). Subsequently, WDC commissioned a review of the project. The review concluded that there were inherent risks in applying an engineering solution that had not been physically proven in field application before, not to mention the cost to remove debris from a further 2005 event, estimated at \$5m, on top of the multi-million dollar project costs (CPG New Zealand Ltd, 2012, p. 18).

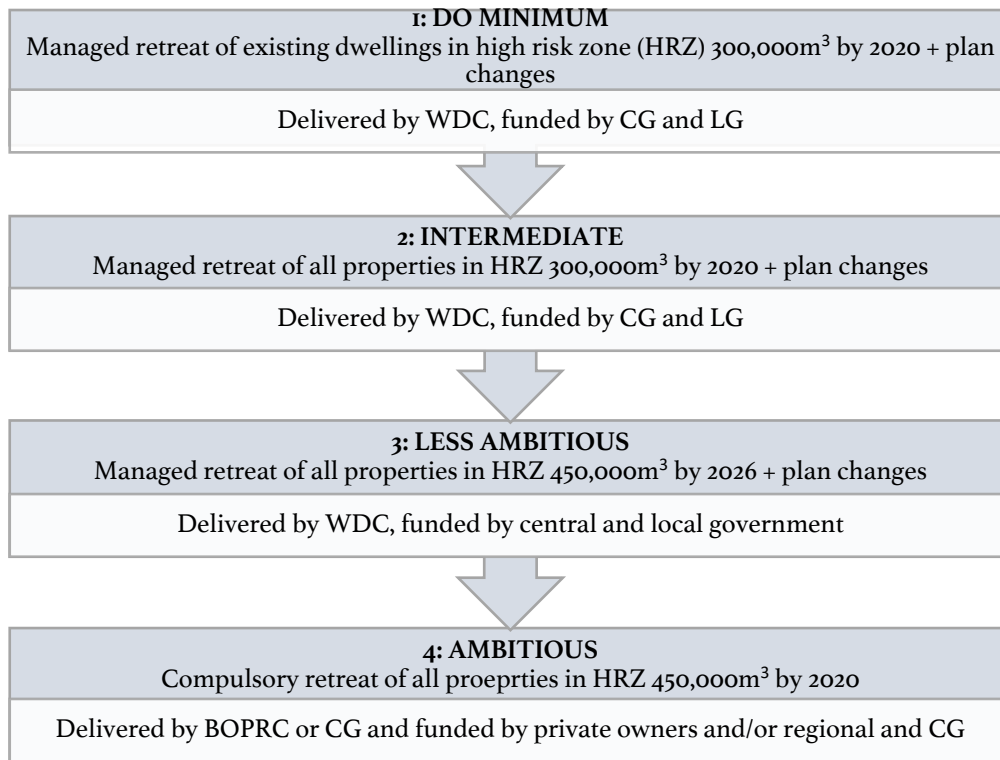
Not only did changes to the engineering solution mean that complete construction costs were more than double the initial estimate, but the engineering solution was not sustainable, with ongoing maintenance and recovery costs and potential for increased risk (Bickers, 2012, p. 26). Bickers' review of the project also provided a wide range of findings including that WDC's financial management had been "less than satisfactory" and the situation the Council found itself in had been "substantially contributed to by the lack of project risk management." Had there been better estimation of engineering risks and costs and a national framework for managing risk, managed retreat would have been rated more favourably in the beginning and a project review triggered earlier to determine this. In December 2012 it was confirmed that there were no viable engineering solutions, leaving WDC to pursue planning options (Whakatāne District Council, 2017). From this point forward, T&T were contracted to undertake a Quantitative Landslide Risk Assessment which concluded an intolerable level of loss-of-life risk (exceeding commonly accepted international values - however there is no specific risk tolerance criteria in New Zealand) from future debris flows.

With intolerable risk to life ascertained and a new governance structure and project staff, WDC began declining building consents in the area, later endorsed by Determination 2016/034. WDC engaged Stimpson & Co to assist in gaining consensus between landowners and Council on determining a way forward. A Consensus Development Group (CDG) was formed, consisting of six landowners, a WDC Councillor and staff, a Bay of Plenty Regional Council (BOPRC) representative, expert advisers and the workshop facilitators. Between

March and May 2015, the CDG attended four full day workshops, considering eight options, from ‘stay’ to ‘full retreat’ including; stay and accept risk, do minimum, implement a range of collective and site-specific engineering solutions or one of the various forms of managed retreat. An initial assessment of the eight options was carried out and results were disseminated to the community.

Following the CDG workshops, the WDC project team worked to prepare the details of a proposed settlement process. The project team identified three remaining options including do nothing, status quo and various forms of managed retreat, excluding engineering solutions due to cost (Ibid). Four short-listed options were chosen for economic analysis, including the following scenarios and ‘do nothing’ as a base comparison:

Figure 1: Short-listed options for assessment



Cost benefit analysis (CBA) and multi-criteria analysis (MCA) were used to compare the shortlisted options. The total costs and benefits of options 1, 2 and 4 were similar and the net present value had significant negative values from (-\$4.8 million (Option 0) to -\$14.0 million (Option 4) due to large upfront costs coupled with discounted benefits spread evenly over the 30-year timeframe (Whakatāne District Council, 2017). Non-monetary benefits and dis-benefits were also assessed.

Options two and three were calculated as being the most beneficial due to their ability to provide property owners with some choice, their subsequent reduction of stress levels and higher chance of implementation success (Ibid, p. 7). Overall, option two provided the highest proportion of benefits and was calculated as the second least costly option to deliver, recommended by the MCA summary as the preferred way forward (Ibid, p. 9). Option two was costed between \$12.2 and \$14.2 million to acquire 75-100% of the 16 properties with dwellings, the 18 vacant sections and to cover reserve development costs.

At a similar time, risk reduction policy was also progressing at the regional level. In July 2016, BOPRC's 'Change 2' was incorporated into the Regional Policy Statement (RPS). The variation introduced a risk-based approach to natural hazard management, placing responsibility on territorial authorities to map, assess, and plan for landslide and debris flow risks. Significantly, the RPS classifies and defines risk according to likelihood and consequence assessments and requires high natural hazard risk to be reduced to medium levels (and low, if reasonably practicable) (Policy NH 3B). The new provisions in the RPS further cemented WDC's responsibilities to reduce risk to a tolerable level as well as recognising the role of the Regional Council to reduce risk levels relating to existing uses. Should the voluntary retreat package be unsuccessful, WDC considered a regional plan change (to rezone the land and extinguish existing use rights) to be the only remaining avenue to meet their obligations.

WDC progressed to adopting the Acquisition Strategy developed by The Property Group Ltd which reflected key principles of land acquisition under the Public Works Act 1981. The Property Group advised that confirmed funding is an essential element of meaningful acquisition, presenting WDC with a 'chicken and egg' situation (Ibid, p. 83). WDC decided that funding agencies would require certainty around the financial parameters, "unlikely to provide funding support if there is a risk of becoming embroiled in an on-going dispute" (Whakatāne District Council, 2015, p. 5). In December 2016, preliminary offers were given to property owners at individual meetings including a non-binding registration of interest to indicate whether they wished to participate further. The proposal reflected an indicative offer based on the current market value of their property without recognition of the hazard, conditional upon funding support from Government and BOPRC. If funding was provided, an updated valuation would

be undertaken and presented in the final offer. The purpose of undertaking the valuations at this time was to define the potential financial envelope to enable meaningful dialogue between the proposed funding agencies. This option was deemed as being voluntary, outside of a regulatory regime, however residents were made aware that the proposal was on a one-time offer basis and BOPRC had statutory authority to extinguish existing use rights without compensation if voluntary retreat was not 100% successful. In addition to the purchase offer, a \$1,200 legal fees contribution, relocation subsidy of \$2,500 for fanhead residents, and potential for deferred settlement of up to 3 years for special circumstances were also included. By February 2017, 23 landowners had provided registrations of interest to WDC with 21 in support of continuing, two declining the preliminary offer and 11 non-responses (Whakatāne District Council, 2017, p. 122).

In 2016 WDC had confirmed formal engagement with agencies for funding. Advice from the local MP at the time was that the government wanted to “see some attempt from the district council around the plan changes - and so we proceeded with preparing our district plan change” (Participant 4). WDC then received legal advice that the district plan changes would only address future development, not existing uses:

...on its own, the work we were doing wasn't sufficient to protect the council in the future if there was another event and people were killed... the advice was that in order to protect WDC, we needed to approach the regional council (Participant 4).

In April 2017, WDC staff formally presented to BOPRC councillors on the need for a regional plan change. BOPRC, unwilling to initiate the plan change, advised “if they wish to seek to seek a regional rule extinguishing existing use rights in the Awatarariki Fanhead area, a request for a private change to the relevant regional plan can be made” (Bay of Plenty Regional Council, 2017, p. 19). BOPRC did not wish to initiate the Regional Plan Change, however, their planning staff assisted WDC in the preparation of it, to align the plan changes. From August-October 2017, WDC carried out plan change consultations in the form of drop in days and individual meetings with affected parties and in February 2018 BOPRC resolved to *accept* the plan change. BOPRC had no grounds to *reject* the plan change, however their legal advice was that *adopting* it would result in responsibility of costs. They accepted it, rather than adopting it,

meaning BOPRC's role would be at "arm's length and process-based with costs shared" (Bay of Plenty Regional Council, 2018, p. 6). BOPRC staff recommended limited notification of the plan on the basis that "it was not appropriate to open a discrete regional community issue up to a national audience for discussion and input and that limited notification expedites the process in order to give certainty to residents" (Ibid). Members of the affected community considered that notification interest was wider than those immediately affected given the potential precedent for wider New Zealand. Acting on advice from WDC that the limited notification test of the RMA around service of documents could not be satisfied, BOPRC subsequently reversed its decision, moving to public notification of Plan Change 17 (Awatarariki Fanhead) to the Bay of Plenty Regional Natural Resources Plan (WDC also moved from limited to public notification for the District Plan Change). In June 2018, Plan Change 17 was publicly notified with new objectives and policies to reduce the natural hazard risk on the fanhead from high to at least medium risk. A rule prohibiting residential activities on identified sites within the high risk area was also introduced, having effect after 31 March 2021. Changes to the District Plan to rezone the land from 'Residential' to 'Coastal Protection Zone', to prohibit residential activities and require resource consent for any new activities were also notified in this process.

The risk reduction process in Matatā has been 13 years in the making, and it's not over yet. While key governance lessons will be further examined in the doctoral thesis, a principal lesson in a post-disaster situation such as this, is the long-term impact of short-term decision making. As experienced in Matatā, there are often strong social and political desires to return to the status quo, to 'bounce-back' from the event, which may be expected given the absence of strong direction concerning the possibility of managed retreat. Those who re-built and re-invested in Matatā would confirm that in the long run, a speedy recovery is not superior to an effective one, having to recover once from disaster, and twice from a difficult process. Cost-benefit analyses cannot always factor in long-term costs of engineering solutions versus the long-term benefit of managed retreat and engineering innovation carries significant risks. Protection works create path dependencies that are hard to veer from once paved, as well as increasing residual risk. Such pathways make transformational resilience extremely difficult. In this

case, overcoming this dependency and arriving at managed retreat was not enabled by a specific action or tool, but the fact that there were no other options left, it was a last resort. In hindsight, a significant opportunity was lost in Matatā. Immediate post-disaster retreat would have been more efficient and effective and less harmful to the long-term resilience of the community, but you can appreciate why this was not pursued at the time. Overcoming the re-build mentality for areas of repeat events where risk cannot be mitigated in other ways is a challenge, but this could be mitigated with stronger national direction, tools and implementation support, which in turn would support more anticipatory governance for areas at high risk from natural hazards in New Zealand.

4.0 Administrative barriers and enablers of managed retreat

With a general understanding of the process to date, one can begin to appreciate its complexity. From 2005-2012 inconsistent decision-making resulted in great difficulty to manage the natural hazard risk in a manner that is acceptable to the community at risk. The following is a summary of fundamental administrative barriers and enablers experienced by project staff, experts and politicians, further developed in the forthcoming doctoral thesis.

4.1 Barriers

4.1.1 National guidance and tools

It is no secret that New Zealand is deficient in national guidance for natural hazard planning (Tonkin & Taylor Ltd, 2016). In the case of managed retreat, the lack of a guiding policy framework (for all hazards) is significant, as it is a contentious and complex approach for planners and managers to implement. Participants involved in developing managed retreat policy consider that the key barrier to implementing it is the “lack of national framework - I think that’s the fundamental one...if there had been that we could have just been down this track, straight through” (Participant 4). When asked whether a decision for Matatā could have been made sooner, Participant 2 considered that in terms of the district council, that was unlikely “because they don’t have the powers to implement managed retreat.” Participant 2 argues that the RMA doesn’t provide useful tools for existing uses:

... in terms of an area that's already developed, the tools are pretty weak, they are incredibly weak. I would have thought, that when it's the district council making development decisions, they should really have the powers to go the other way and revert.

Not only is there no high-level framework to guide decision-making for managed retreat in New Zealand, but the legislative tools are largely absent for existing uses. Under ss 30 and 31 of the RMA, regional councils and territorial authorities can control the use of land and the effects of the use of land for the avoidance or mitigation of natural hazards. However, only regional councils have the power to regulate existing uses. As recognised by Participant 2, territorial authorities are primarily responsible for land use regulation under the RMA and therefore their experience and functions are more aligned to dealing with existing land uses compared to regional council functions and expertise.

The lack of formal guidance for managed retreat has resulted in policy learning across the country, with authorities attempting to progress retreat in numerous ways, including provision of information and restriction of new and re-development through zoning, resource consent conditions and plan rules. In Matatā, due to the intolerable risk to life, WDC has had to be creative in its approach, working outside of the statutory regime to develop a package that incentivises managed retreat. As this approach is non-statutory, WDC cannot enforce it and it has no capacity under the RMA to reduce residual risk in Matatā. The regional council has potential to extinguish existing use rights via the introduction of rules into its regional plan. However, this approach not only requires local collaboration, but it has never been tested in New Zealand and it is likely that case law arising from this plan change will determine the legality of the regulation and whether s 85 of the RMA can be applied in defence. Work currently being undertaken by GNS Science also questions the ability to regulate existing use rights that have resource consent (Grace et al., 2018). WDC's legal advice, supported by the Ministry for the Environment, contradicts this research (Participant 4). This currently leaves confirmation of the mechanism to be tested by the courts, presenting difficulties to authorities attempting to apply it.

When asked whether there should be more national guidance on managed retreat, Participant 5 stated: “Yea. I don't think central government is any wiser in this territory than anybody else. They're looking to us [Regional Council].” Not only is there a lack of a policy framework, tools and clear powers to deliver

managed retreat, extinguishing existing use rights has its uncertainties in terms of timing and enforcement:

...nobody's got any appetite to be sending in bulldozers with protesters lying on the road... When I was talking to one of our regulatory compliance team leaders he asked me the same questions – 'How do you expect me to get these people out?' That's so far down the track for me that we just haven't even thought of it yet, we're a long way from being confident that we're going to get it through. (Participant 5)

Among other details, the timing of the plan change has been acutely considered by planning experts and staff to try and ensure the voluntary retreat package is complete prior to enforcement:

...it turned out to just be having a stab at when they thought the money might be available and nobody knows that – it's just a guess. That's a factor that could change through the submission process. (Participant 5)

By the way we have structured the timing, it really is a last resort...We looked at various things. One of the suggestions was you make it non-complying and it allows people to then seek a resource consent to set a departure date, which had a certain amount of appeal, but then we thought[what] if someone says, 'screw you, I'm not applying'? (Participant 2)

These details are relevant not only to this case, but to other councils intending on applying this process, regardless of the voluntary retreat strategy. As recognised by Participant 2, the RMA is not a retrospective piece of legislation, and when asked whether it requires amendment to enable managed retreat, they stated:

definitely. The changes [2017 amendments] to the RMA really didn't make a lot of difference. There was a lot of hoopla about it, so councils will be a lot more focused on it - but on what? Finding out that there's a whole lot of problems but having no tools to fix it. (Participant 2)

Attempting managed retreat of existing uses in Matatā has highlighted how “successive governments and the RMA have provided a high-level policy direction around natural hazard risk reduction without providing any appropriate tools in the toolbox” (Participant 4). In this case, the project team has had to overcome many barriers to arrive at and deliver managed retreat without a guiding framework. In saying that, the RPS has been a local enabler in this case, somewhat by chance of timing.

4.1.2 RMA jurisdiction and political acceptability

Elected officials make significant decisions for the communities they represent. Regional councils have potential to extinguish existing use rights, however this doesn't necessarily mean that they will be willing to do so. Participants were asked about the level of political acceptance for managed retreat and how this was achieved (the majority of district councillors voted in favour of managed retreat and regional councillors voted to accept the regional plan change request). Participants 3 and 4 talked about it being a journey that councillors have to go through:

It's fair to say they [WDC councillors] weren't in favour of much early on... A number of the councillors have changed significantly in their view of it over time. Even at Council level you need to socialise the issue and then build on it and it took a number of years. Which is why we have a little bit of understanding for the Regional Council because they came into at a later stage and haven't quite had that same journey. (Participant 3)

Participant 4 also recognised the importance of having a tiered governance structure (post 2012) with a focused governance group overtop of the project team and CDG which "brought the political element in early." Whilst WDC councillors had time to come to terms with managed retreat, political actors at the regional level were harder to convince:

We went to the regional council initially around joining us on the voluntary managed retreat strategy and at that point the regional council was sort of under educated I guess around their roles and responsibilities. So, there was some political resistance to the Regional Council being involved. (Participant 4)

When later consulted on the need for a regional plan change, BOPRC considered it a draconian approach and resolved that WDC must prepare a private plan change rather than initiating it themselves. Participant 5 affirmed that although the RPS states (Policy NH 14C) that BOPRC may exercise its function to override existing use rights, "I don't think the Regional Council has ever had any appetite to control existing use rights." Lack of political leadership at the regional level has been a barrier to the enablement of managed retreat in this case. While BOPRC cannot be too harshly criticised as the step to extinguish existing use rights is stringent and unprecedented in New Zealand, it is contradictory that the RPS directs the reduction of high risk to an acceptable level, yet BOPRC refused to initiate a regional plan change to give effect to this,

when it is the only authority in the region with the power to do so. However, BOPRC did not reject the private plan change request from WDC. This mismatch of responsibilities and jurisdiction is a significant barrier to implementing managed retreat, nationwide. While local authorities may have overlapping responsibilities for natural hazard management, they have different legislative capacities which require more integrated management in future.

The Waikato Regional Policy Statement (2016) has already anticipated this issue ahead of its time, providing a potential solution in the explanation to *Policy 13.2 Manage activities to reduce the risks from natural hazards*:

Because existing lawfully established activities have some protection under the Resource Management Act (section 10), there are limitations on how territorial authorities can manage existing development...To avoid unnecessary complications due to this overlap, the regional council will investigate transferring its functions back to the relevant territorial authority (refer to section 33 RMA). (Waikato Regional Council, 2016)

Under section 33 RMA, a local authority may transfer any one or more of its functions, duties or powers (except for the transfer of powers) to another public authority (including territorial authorities). It could be worth testing the transfer of powers before investigating legislative change, but this work-around still requires collaboration within local government and political buy-in at both levels. Participant 4 also questions whether this is a cynical transfer of risk, accountability, and funding responsibility from a regional entity to a smaller local entity. It must also be noted that where an RPS does not specify natural hazard management responsibilities, the obligation to avoid or mitigate natural hazards remains with the regional authority and therefore the functions and powers remain aligned (s 62(2) RMA).

In the case of Matatā, key enablers to overcoming the jurisdictional barrier included Councils' liabilities and the guiding framework and thresholds of the RPS which provides a strong directive that must be given effect to. Time, exposure to the issue definition, solution and implementation processes have also been important factors in the enablement of political acceptance at both levels of local government in this case.

4.1.3 Voluntary retreat: complications of ‘carrot’ and ‘stick’ timing

Since managed retreat eventuated in Matatā, WDC staff have worked towards an incentivised land acquisition package. While it is not legally required to compensate, WDC considers it has a moral obligation to “invest in retreat from high risk natural hazard situations that satisfy certain risk criteria” and that successful retreat requires financial incentive (Whakatāne District Council, 2017, p. 56). WDC intended to pursue the voluntary retreat package before using enforcement under the regulatory framework, but pressure from central government and WDC’s liability in not reducing the risk to an acceptable level forced the timing of the regulatory measures to be brought forward:

...early on, the feeling was that we would work through the acquisition process ...and the plan change would only follow if it needed to...But that kind of shifted a bit because the other view was that the district council needs to do as much as it can do, under its current powers that it does have. So, unless it’s exhausted all of those possibilities first, why would regional and central government step in? (Participant 2)

Central government wasn’t willing to step in until WDC had explored all of its powers under the RMA. While it may seem a logical argument from the top-down, on the ground, presenting a voluntary buy out whilst restrictive plan changes are being developed creates a sense of manipulation for affected residents. Planning experts who developed the regional plan change have attempted to allow sufficient time for the voluntary proposal to operate, however it is only guess work of when (and if) funding may present itself. Unfortunately, the timing of the regulatory process has undermined the principles of the land acquisition strategy by giving the sense that it is not voluntary as residents feel trapped, with no other choice but to take the offer. Clearly representing this view, some members of the community appeared at the plan change consultation wearing t-shirts exhibiting their version of the typical New Zealand Tui slogan for contradictory matters (Figure 2).



Figure 2: T-shirt visualisation

Holding a similar view to that of the Matatā residents, in *Quake Outcasts v The Minister for Canterbury Earthquake Recovery* [2015] NZSC 27 the Supreme Court majority (McGrath, Glazebrook and Arnold JJ) held:

[140] It is true that the Crown did not use its powers of compulsory acquisition under the Act. However, it is unrealistic to describe the transactions that occurred as voluntary. The inhabitants of the red zones had no realistic alternative but to leave, given the damage to infrastructure and the clear message from the government that new infrastructure would not be installed and that existing infrastructure may not be maintained and that compulsory powers of acquisition could be used. [Emphasis added]

Voluntary property acquisition was used as a tool to reduce risk in the Canterbury red zones, but even the acknowledgement of the ability to use powers under the CER Act was seen as undermining the voluntary status of the acquisition, with the Court defining the offer as a ‘Hobson’s choice’ [176]. In Matatā, changes to the Regional Plan to extinguish existing use rights have always been implied as a last resort, however by initiating the regulatory process so that residents must appeal the plan change before funding is confirmed for the ‘voluntary’ buy-out results in a highly fraught situation for residents uncertain of their future and the worth of their assets. The parallel processes of the ‘carrot and the stick’ are somewhat in opposition, one of which is moving faster than anticipated as no external funding had been confirmed for the buy-out. As recognised by Participant 5, the regional plan change is “on a path now, it’s independent of that process.” This leaves affected residents in a tricky situation; if they do not submit on the plan change process (because they are expecting to accept the buyout) they will effectively be excluded from the statutory process of challenging the plan change; their only remaining avenue to defend their property rights. It isn’t necessarily WDC’s fault that this situation has arisen, as they have been doing their best to secure funding, but it represents the difficulty of applying non-statutory retreat with no national guidance or corresponding pot of money, leaving retreat without compensation to be tested by the law, originally

streamlined by the new limited notification plan change process (Schedule 1 Part 5A of the RMA) - but now being publicly notified. Whether or not managed retreat in this form can be realistically deemed ‘voluntary’ is an important question for its future application. The threatened sense of Matatā residents and the conclusion of the Supreme Court in *Quake Outcasts* certainly makes one think otherwise.

4.1.4 Funding and precedent

At the heart of managed retreat are questions of whether compensation is required, to what extent and who carries the cost? Issues with funding are significant in this case, due to the large risk assessment costs, the lack of a reserve fund, the coastal location (high property values) and fundamentally, the incapacity of the local authority to carry the financial burden and the absence of a nationally funded buy-out programme or funding model. WDC determined that while not legally required, it had a moral obligation to compensate owners for their loss of property under voluntary retreat, as well as the view that successful retreat entails financial incentive. Questions arose with regard to setting a precedent, “the worry I have is that the government see it and says, ‘well we are hearing more and more of this now, we don’t want to set a precedent’” (Participant 2). However, WDC has distinguished the business case to avoid this, stating that it only sets a precedent of a moral obligation to compensate where there has been a risk-based approach with community engagement to manage a situation that has no viable risk reduction solutions available, the risk to human life is intolerable and the costs to manage the risk are beyond the fiscal capability of the local authority to manage (Whakatāne District Council, 2017).

Questions of funding and precedent are important as not only do they present a barrier to managed retreat, but they are part of a wider debate relating to how managed retreat is best applied across New Zealand and who bears the cost? In considering precedent for land acquisition, the issue of moral hazard also arises. Participant 5 argued this stating: “I’ve got a sort of niggling concern of moral hazard, that the people become accustomed to being bailed out and then they’ll just keep on taking risks.” In addressing this issue, it is important that land acquisition processes are clearly distinguished to avoid assumptions of compensation across the board. While it is impossible to completely avoid moral

hazard risk, it is possible for prerequisites to be made, such as whether property owners knew of the risks associated with their location before purchasing. This approach was applied in the funding model for Matatā to avoid speculative buyers profiting from the retreat package, but it also sends a signal that the buyout is discreet, based on specific criteria.

A further avenue for precedence, which central government may view more favorably, relates to the collaborative funding contribution model proposed in Matatā. Previous buyouts in New Zealand have been initiatives largely driven and funded by Government. The land acquisition process in Matatā is a collaborative, multi-agency solution that was developed at the local level. Should there be a precedent set for funding managed retreat, Matatā prescribes a funding model that is spread across local and regional ratepayers and national taxpayers.

The tests and precedents discussed are currently being developed by The Department of Internal Affairs with key WDC staff to develop a managed retreat affordability principles framework. This is a step towards stronger national direction and a sign of policy learning and adaptive governance.

4.2 Enablers

4.2.1 Regional planning framework

In the absence of a national framework for dealing with natural hazard risk and particularly for employing managed retreat, the RPS, applying a risk-based approach, became operative just in time to support managed retreat in Matatā. The RPS is highly directive, requiring high natural hazard risks to be reduced to at least medium levels. The timing and role of the RPS has significantly affected the enablement of managed retreat in Matatā. In 2013, WDC commissioned risk assessments and investigations for planning options at Matatā, however, the planning work was put on hold until the RPS became operative. Participant 2 discussed that a district plan change was initially drafted but that it was important to align the policy amendments according to their hierarchy to enable consistent policy frameworks:

...the RPS was still in a state of flux... That's quite important I think, because they [WDC] thought 'we are sticking our necks out all the time with this stuff, so we're not going to do this cart before the horse, we've got changes to the RMA, RPS driving us where we need to go, and our district plan can follow that', so they kind of went with the hierarchy. Whereas what it would've been before is a district plan

change request before the RMA was changed and before the RPS came into effect (Participant 2).

While the RPS timing somewhat decelerated the statutory managed retreat regime, it also strongly supported the cause for managed retreat; “just having that policy framework in the RPS has been helpful to WDC, at the project level but also their councillors themselves have come along that path” (Participant 5). The framework of the RPS prescribes a methodology that allows authorities to make decisions based on risk and in taking the steps it has, WDC can say it is giving effect to it, as well as its statutory responsibilities. District and regional plans are required to give effect to regional policy statements under the RMA, this being a strong directive, affording significant weight to policies of the RPS, and in this case, serving as a key enabler of managed retreat. When asked how the risk-based approach came to fruition, Participant 5 recognised that they had been concerned since the 2004 Japanese tsunami about the lack of attention towards low likelihood, high consequence hazards;

... in about 2010, we decided to take a risk-based approach ... [but] we were breaking new ground with that...A critical part of that was establishing levels of risk-thresholds for those three categories of risk...the community needed to be involved in making calls about that. So, we went through a very structured, but very swift community engagement process where we got input into that and that informed the makeup of the matrix that is now in the RPS. (Participant 5)

As it is clear from the evolution of the RPS, policy learning is continually occurring with regard to natural hazard planning, and research such as Saunders’ (2012) risk-based approach is invaluable to informing the evolution of planning practice. The BOP RPS paves the way for stronger, more explicit regional policy direction to enable managed retreat, particularly whilst national guidance is lacking.

4.2.2 Local leadership

While views from some members of the affected community would strongly dispute it due to grievances with the process, experts who advised WDC recognised the importance of local leadership in gaining traction on managed retreat:

...They’ve had a lot of meetings, a lot of quite difficult meetings, I’ve been at one or two of them and they’ve got professional people in to run the meetings, they have had the risk analyses checked and double checked by outsiders, I think they have absolutely bent over

backwards to do everything they can...in a very thorough and fair manner. (Participant 1)

In this case, as in many post-disaster situations, there remain long-term repercussions of short-term decisions made immediately following the event (Sipe & Vella, 2014). Decisions made prior to 2012 have caused considerable difficulties in enabling managed retreat, particularly the re-building of houses and sunk costs of engineering investigations. Properties were also purchased following the debris flow and as late as 2015, with knowledge of the high-risk levels published, demonstrating that provision of hazard information does not always deter investment. Irrespective of the difficulties at play, the project team working on the planning solution (post 2012) has attempted to provide a fair solution to the community in the context of an ineffective regulatory environment, being creative with the few tools and resources available at this late stage in the recovery process. Many of the social issues experienced (to be discussed in further work) have not been due to a lack of leadership at the local level (post 2012), but a lack of guidance on managed retreat and a consequential process of learning by doing. As recognised by Participants 1 and 2, staff put in a significant amount of effort to deliver a sufficiently robust, inclusive, transparent and fair process - “relative to what’s involved” (Participant 2). It is evident in this case that managed retreat requires significant commitment and courage from the policy, strategy, management and political actors, as well as durability to public (and media) hostility that can become personal and potentially unsafe if not appropriately managed. Managed retreat is inherently contentious; protection of and support to council staff and representatives must be taken into account and monitored throughout the process. Furthermore, the impact that managed retreat has on affected individuals is substantial and it is vital to be highly aware and respectful of this.

5.0 Conclusion

While this report provides only a snapshot of the barriers and enablers experienced in implementing managed retreat in Matatā, it highlights important governance issues that are relevant to the wider New Zealand context. Bay of Plenty Regional Council’s Proposed Plan Change 17 is likely to provide some legal clarity on the extinguishment of existing use rights as a tool to achieve managed retreat, however there still remains a need for national guidance and mechanisms

to enable retreat in a way that is acceptable to affected communities, as well as a framework outlining funding responsibilities and resourcing. Such means would avoid some of the hurdles experienced in Matatā, particularly at the procedural level. Understanding the social barriers and enablers of managed retreat is an additionally critical factor which is examined in the forthcoming doctoral thesis.

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