Appendix A – Case Study Report

Case Study Report

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1 Introduction

This appendix provides a summary discussion of ten Planned Relocation case studies. The learnings from the case study review supports the findings and recommendations provided in the main report. The case study review was primarily completed through a desktop review of publicly available policy and background information.

The case studies considered in this review were shortlisted based on a number of criteria, including:

- A representative range of hazard types (e.g. not all flooding or bushfire etc). Examples were also chosen beyond just natural hazards (such as contamination), where they may provide suitable insights;
- Geographical spread, including different local and state government jurisdictions, as well as some international examples.
- Different funding sources or schemes. For example, the NSW Government Voluntary Purchase Scheme for flooding provides funding for a number of councils in NSW. Only one of the councils (Tweed Shire) was adopted for a case study.

As part of the Planned Relocation discussion paper investigation, Rhelm also engaged with key stakeholders from a range of backgrounds that have either had direct involvement in Planned Relocation or in providing support services in the wake of natural disasters. Some of the stakeholders engaged were involved in the case studies discussed in this appendix. The learnings from that engagement are referenced in the relevant sub-sections of this appendix, and a confidential report on stakeholder engagement was provided to IAG**.** The case studies summarised in this appendices report are listed in **Table 1-1**.

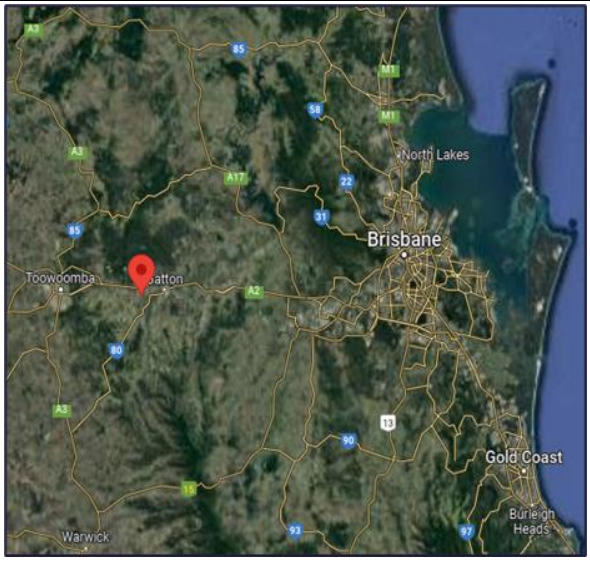
Table 1-1 Case study summary

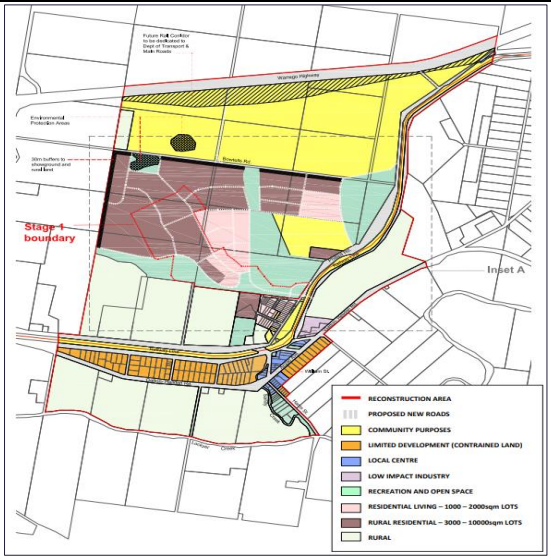
Case Study	Hazard	Location
Grantham relocation	Flood	Queensland, Australia
Tweed River Voluntary House Purchase	Flood	New South Wales, Australia
Victorian bushfire buyback scheme	Bushfire	Victoria, Australia
Geraldton coastal erosion	Coastal erosion	Western Australia, Australia
Loose fill asbestos eradication scheme (Mr Fluffy)	Loose fill asbestos insulation	Australian Capital Territory, Australia
Wittenoom town closure	Asbestos mining	Western Australia
Westconnex mandatory housing acquisition[1]	Transport construction	New South Wales, Australia
Christchurch house purchase	Earthquake liquefaction	Canterbury, New Zealand
Matatā house purchase	Debris flow (flooding)	Bay of Plenty, New Zealand
Isle de Jean Charles	Flooding	Louisiana, United States of America

[1] While not a natural hazard, Westconnex mandatory house purchase was included in the case study review to investigate the policy enablers of compulsory acquisition to establish if similar policies could be applied in natural hazard mitigation.

2 Grantham

Summary information	
Planned Relocation scheme	Rebuilding Grantham together, voluntary land swap
Hazard	Flood
Location	Grantham, Queensland
Scale	Community relocation (100 residential blocks and commercial)
Cost	$30 million
Funding mechanism	Co-funded by Lockyer Valley Council ($12m), Queensland Government ($9m) and Australian Government ($9m).
Statutory framework	The Queensland Reconstruction Authority Act 2011 (the Act) and Queensland Reconstruction Authority (QRA). The Act provided emergency powers to Queensland and its communities to recover from the impacts of natural disaster events between December 2010 and 2011. The QRA was established under the Act and enabled the accelerated reconstruction of Grantham.





Images: 1 - Grantham location (top left) Grantham relocation area zoning (top right) scale of land purchased for relocation area (bottom) (source: Google Maps, QRA)

2.1 Background

In January 2011, the Grantham area, situated in Queensland's Lockyer Valley, was severely impacted by flash flooding that resulted in devastating property damage and loss of life. Around 150 houses were severely damaged or destroyed and twelve people were killed.

In response to the events of January 2011, the Lockyer Valley Regional Council (Council) committed to developing a master plan and land swap program for Grantham and the surrounding area. The reconstruction plan was originally known as 'Strengthening Grantham' and later 'Rebuilding Grantham together'.

2.2 Planned Relocation Program/ Policy

In March 2011, Council entered into a contract to purchase 378 hectares of local freehold farmland elevated above the 2011 flood level. The purchase was to enable the voluntary land swap for eligible residents, as well as provide zoned community and commercial areas to support the master plan and Grantham's ongoing economic resilience.

In April 2011 the Queensland Premier and Minister for Reconstruction declared Grantham a reconstruction area under the *Queensland Reconstruction Act 2011*. The declaration gave statutory effect to the Queensland Reconstruction Authority (QRA) to take primary responsibility for coordinating the rebuilding of Grantham and implement streamlined development regulations.

To establish a vision for the broadscale recovery of Grantham and the parameters to enable it's implementation, Council, in cooperation with the QRA, developed the Grantham Master Plan and Land Offer Program.

To establish the rules to implement the Land Offer Program in accordance with the vision of the Master Plan, Council developed the Grantham Relocation Policy (the Policy):

- **The Grantham Relocation Policy (the Policy)** key components were:
  - Only landowners whose homes and land were located within a specified area, and their home was destroyed or assessed as uninhabitable/unsafe or unsalable as a dwelling fit for habitation, qualified for the land swap scheme
  - landowners who met the eligibility criteria participated in the land swap voluntarily
  - the council offered unencumbered residential allotments to eligible landowners at no cost in exchange for their transferring ownership of their existing land, unencumbered, to Council. Meaning landowners were required to acquit any mortgages owing on existing land prior to transferring ownership to Council.
  - blocks of comparable size land were offered, up to 10 000 square meters; if a landowner elected to take a smaller block than his or her existing one, or his or her land was larger than the maximum size available in the land swap program, no compensation was paid for the difference. Landowners could apply for a larger block and purchase the additional area from Council.
  - all blocks were connected to town water; however, owners were required to meet some sewerage connection costs dependent on block sizes
  - landowners were responsible for the cost of building homes on the new blocks
  - the process was staged so that initial stages accommodated affected members of the Grantham community while later stages allowed Council to sell blocks on the open market to offset the cost of the land swap program

- the land swap operated on a ballot system, where participating residents selected lots not larger than their existing lots in order of highest to lowest preference, and were awarded one of the lots using a randomized computer program.

To establish planning regulations and plan infrastructure and urban utilities needed to support the Land Offer Program, the QRA developed the Grantham Development Scheme:

- **The Grantham Development Scheme (the Scheme)** – The Scheme was given legislative effect by the Queensland Reconstruction Authority Act 2011. The Scheme replaced the existing planning regulation, the Gatton Planning Scheme, to regulate development within the Grantham reconstruction area. The Development Scheme gave Council authority to assess applications lodged under it and allowed Council to expedite rebuilding required within the Grantham reconstruction area. The Development Scheme included a land use plan, an infrastructure plan, and an implementation strategy.
  - The land use plan regulated development within the Reconstruction Area in line with the vision of the master plan
  - the infrastructure plan detailed the infrastructure required to support the land use plan, such as roads and utilities.

2.3 Implementation

The first stage of the Land Swap Program opened to eligible residents in April 2011 through expression of interest and closed at the end of June 2011. The second stage was opened to eligible residents, who did not participate in the first round, in July 2011 and closed in June 2012. The scheme terminated on completion of the second round in June 2012. The QRA reports that the first homes were built and occupied by Christmas 2011.

In terms of scheme participation, it is not possible to determine how many properties were eligible under the scheme from publicly available records. Likewise, it is not possible to determine the precise number of property owners who were eligible and either elected not to participate or were not financially able to participate. The QRA reports that within the Grantham area 29 houses were destroyed with 130 severely damaged. Public records show 100 lots of land were swapped as part of the program, suggesting roughly 75% of properties impacted by the 2011 Grantham flood were swapped.

In addition to the land swap properties, Council financed the construction of the supporting road network, sewage treatment plant, water reservoir, recreation park and eventually the new Grantham showground area.

The rebuilding Grantham program is reported to have cost $30 million, with the Queensland State and Federal government each providing $9 million.

2.4 Lessons Learnt

Rhelm attempted to engage Strengthening Grantham project stakeholders but had not received a response at the time of writing this draft. Despite this, it is possible to build a view of the lessons learnt from Grantham through the review of publicly available information and from the views of other stakeholders contacted by Rhelm.

In 2020, Strengthening Grantham Project Director Jamie Simmonds published the book titled *Rising from the flood: Moving the town of Grantham.* In the chapter *Keys to success*, Simmonds (2020) states that the “From a political, financial, economic, and community perspective, the relocation of Grantham

was seen as a huge success". This view is echoed widely by publicly available literature on the scheme, which is largely viewed both in Australia and internationally as an example of effective Planned Relocation. In the chapter *Keys to success*, Simmonds (2020) goes on to list the key features that enabled the success of Grantham:

- Community leadership – a strong community leader helped keep the community engaged and keep the project on track
- Speed – speed was required to show community that meaningful action was being taken and to prevent people from taking individual action such as rebuilding on the floodplain
- Locally driven – clear boundaries and alignment between all levels of government were required and while the scheme benefited greatly from state and federal support (funding, planning regulation provisions and other support services such as emergency management and mental health support), decisions on the future of the community needed to be made locally within, and driven by, the community.

The view that the relocation of Grantham was effective was shared by the 2012 Queensland Floods Commission of Inquiry (QFCI), which in its Final Report (2012) stated that:

> *The Lockyer Valley Regional Council's land swap program, coupled with the Queensland Reconstruction Authority's development scheme, is a timely and effective floodplain management response to the unique circumstances of Grantham.*

Of the application of a similar scheme in other disaster-prone areas, The QFCI (2012) stated that:

> *Whether other councils are able to implement a land swap program similar to the Lockyer Valley Regional Council's program, in isolation or together with zoning controls, and whether it would be appropriate for them to do so, will depend on the circumstances they face. Relevant matters include views of the community, the availability of close, undeveloped and unconstrained land, council's financial resources and whether floodplain management principles justify restricting development of the land within the floodplain.*
>
> *The success of the Grantham project, however, provides a template for a response to floodplain management which other councils in similar circumstances may wish to adopt.*

Reflective of the prominence of the scheme as an example of large-scale Planned Relocation, a number of stakeholders engaged by Rhelm were familiar with the project and held a range of views on the scheme outcomes. From the perspective that the scheme moved a significant number of people away from intolerable risk in a coordinated and timely way, most stakeholders familiar with the scheme agreed it was effective. However, stakeholders such as the Financial Rights Legal Centre and Red Cross who provided community support post-flood event, raised concerns that:

- The scheme timeframes were too short and the speed at which people needed to make a decision may have compounded post-event stress and anxiety for some members of the community
- The scheme provided the land only and eligible property owners were required to finance the build of their new home either through insurance pay-outs or other private means. Those not able to privately finance the construction of a new home were left behind on flood prone land with little or no support. Some of these people were impacted again by subsequent floods in 2017 and 2020.

2.5 Case study references

Lockyer Valley Regional Council (2011), *Grantham Relocation Policy,* [Queensland Flood Commission of Inquiry Exhibit 602], [online] available at: http://www.floodcommission.qld.gov.au/hearings/exhibits

Queensland Reconstruction Authority [QRA], Case study: Rebuilding Grantham together in 2011, [online], available at: https://www.qra.qld.gov.au/news-case-studies/case-studies/case-study-rebuilding-grantham-together-2011

Queensland Reconstruction Authority [QRA] (2011), *Rebuilding Grantham Together - Development Scheme*, available at: https://www.qra.qld.gov.au/news-case-studies/case-studies/case-study-rebuilding-grantham-together-2011

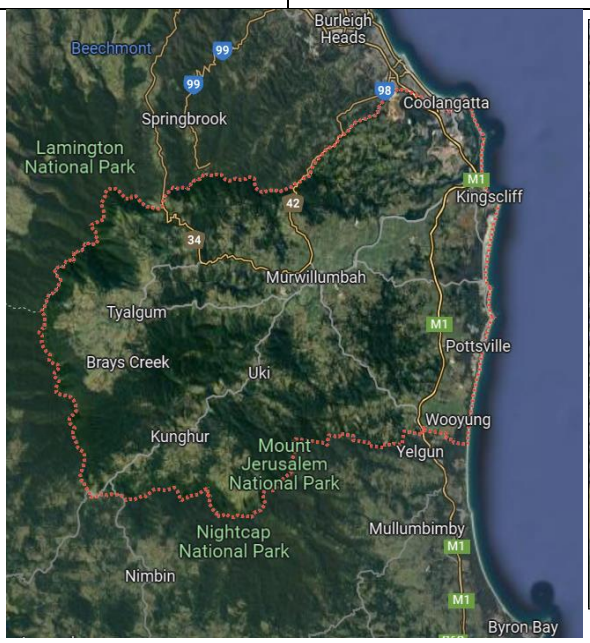
Queensland Reconstruction Authority [QRA] (2011), *Rebuilding Grantham Together - Proposed Development Scheme Grantham Reconstruction Area,* published in 2011, available at: https://www.qra.qld.gov.au/news-case-studies/case-studies/case-study-rebuilding-grantham-together-2011

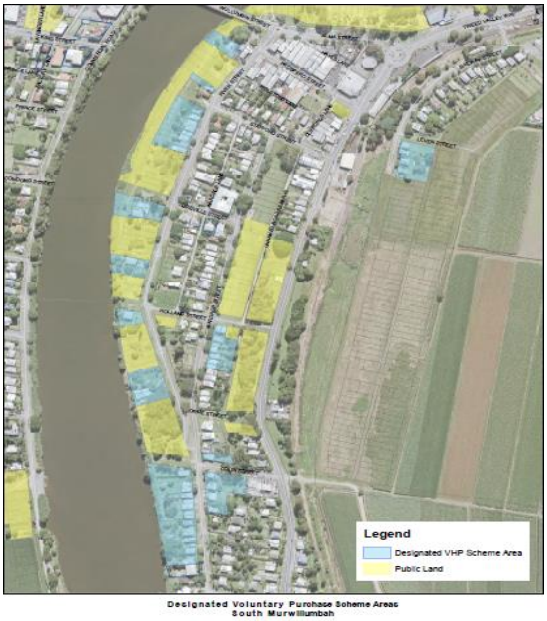
Queensland Floods Commission of Inquiry (2012), *Queensland Floods Commission of Inquiry - Final Report,* available at: http://www.floodcommission.qld.gov.au/publications/final-report/

Simmonds, J (2020), *Rising from the Flood: Moving the town of Grantham,* Bad Apple Press, Sydney NSW.

3 Tweed Shire Voluntary House Purchase Scheme

Summary information	
Planned Relocation scheme	Tweed River Voluntary House Purchase Scheme (VHPS) (Burringbar and Mooball VHPS & South Murwillumbah & Bray Park VHPS)
Hazard	Flood
Location	Tweed Valley, New South Wales
Scale	65 high risk properties (15 properties purchased as at October 2022)
Cost	In the range of $5million - $6million to date
Funding mechanism	The NSW Government (Department of Planning and Environment) provides grants to Councils under the Floodplain Management Program for Voluntary House Purchase Scheme. Under the scheme, the NSW Government pays two-thirds of the program cost and Council pays one-third. The price paid for a home is determined by an independent valuer.
Statutory framework	*The NSW Floodplain Management Program for Voluntary House Purchase Scheme*





Images: Tweed Valley location (left) and aerial view of at risk poperties in South Murwillimbah (right) (source: Google, Tweed Shire Council)

3.1 Background

The Tweed Valley, situated in the north-east corner of New South Wales, has a long history a major flood events. The main arm of the Tweed Rivers flows through the Tweed Valley towns of Murwillumbah and Tweed Heads, and the villages of Condong, Tumbulgum, Chinderah, and Fingal. The Tweed Shire Council (Council) reports the earliest flood on record occurred in 1887, with the most recent flood events occurring in 2017 and 2022. In 2017, around 2,100 houses were flooded across the Tweed Shire and six people were killed. In 2022, over 2,000 properties were damaged with 500 homes deemed uninhabitable.

The Tweed Valley Floodplain Risk Management Study and Plan (Tweed Valley FRMSP, 2014) and Tweed Coastal Creeks Floodplain Risk Management Study and Plan (Tweed Coast FRMSP, 2015) identified around 140 houses at high risk of flooding. For these properties, the studies found that typical flood risk mitigation measures (i.e. levees) would not be suitable and recommended that the most cost effective measure would be to remove the properties from the floodplain. Following on from the 2017 flood event, Council successfully applied to access NSW Government funding under the Floodplain Management Program (FMP) to implement two Council administered VHP schemes (the Tweed River VHP scheme):

- South Murwillumbah and Bray Park VHP scheme
- Tweed Coastal Creeks (Burringbar and Mooball) VHP scheme

Under the NSW FMP, the NSW Government pays two-thirds of the cost of the scheme and Council is required to pay one-third. Funding is paid to the Council to implement the scheme and not individual property owners. Access to the NSW FMP funding does not constitute confirmed annual funding and Council must submit applications for confirmed funding each financial year.

The NSW FMP has supported a number of VHP schemes throughout the state. The Tweed Valley Scheme was used as a representative case study of the implementation of the NSW FMP approach across the wider NSW.

3.2 Planned Relocation Policy

To manage the funding requirements of the NSW FMP, the Tweed River VHP schemes adopted a staged approach where properties in the highest priority areas were included in the first stage. Council then actively pursued high priority properties for purchase. A secondary group of lower priority properties were identified for inclusion in the scheme at a later stage should the state government funding model be expanded. Of the 140 properties identified as being of high risk of flooding by the 2014 and 2015 FRM studies, around 65 were included in the Tweed River VHP scheme. Identified properties were prioritised based on a weighted average scoring framework, shown in **Table 3-1.**

Table 3-1 Tweed River VHPS scoring criteria (source: Tweed Shire Council, 2019)

Criteria	Weighting
Hazard (Depth, Velocity, DxV)	50%
Evacuation Difficulty and Isolation	33%
Depth of Over-Floor Flooding (1%AEP)	17%
Total	**100%**

Table 1: Prioritisation criteria weightings.

Council developed two scoping study and implementation plans (Council implementation guides 2019) to guide the the Tweed River VHP schemes. The documents states that Council followed the following process in implementing the VHP scheme:

- At the beginning of each financial year, Council will seek advice on the availability of external funding to complement Council's budget allocation.
- Based on funding available Council will seek expressions of interest from identified landowners in priority order
- From the interest registered, the highest priority interested properties will be assessed by an independent valuer to determine "market value" of the property
- The landowner will be advised of the assessed value and asked to indicate if they would accept the valued price
- If the landowner indicates the valued price would be accepted, Council approves list of houses to be purchased and funding from the State Government to complete the purchase will be sought
- If funding is secured, a formal offer is made to the landowner
- If the offer is accepted, the purchase will be reported to the next Council meeting for endorsement
- Once approved the purchase of the property will be executed
- Once Council takes possession of the property the dwelling will be removed (for relocation, if suitable) or demolished
- The property is then 'back-zoned' to an appropriate, flood compatible, land use (i.e. park)

In parallel with the roll out of the scheme, Council implemented development controls to cap development on the identified high hazard and VHP areas.

Eligibility criteria was determined by the NSW FMP Guidelines for voluntary purchase schemes, and the following key criteria, as included in Appendix 3 of the Council (2019) implementation plans, had to be met for a property within a Council administered VHP scheme to receive confirmed NSW Government funding:

- No other feasible risk management options are available to address the risk to life at the property
- Subsidised funding is generally only available for residential properties and not commercial or industrial properties
- Funding in only available for properties approved for construction prior to 1986 when the original Floodplain Development Plan was gazetted by the NSW Government. Of the 140 properties identified in the Tweed Valley as being eligible for the VHP scheme on a risk basis, 14 were constructed after 1986 and were ineligible for State funding.
- Properties being considered for a VHP scheme should be located:
    - Within high hazard areas where there is a significant risk to life for occupants and those who may have to evacuate or rescue them
    - Within a floodway where the removal of the house may be part of a floodway clearance program aimed to reduce the significant impact caused by existing development on flood behaviour elsewhere in the floodplain

- Within the footprint of a proposed flood mitigation measure or where a planned flood mitigation measure may result in increased flood risk to the property. In this instance the cost of VHP should be considered as part of the total works package.

3.3 Implementation

Rhelm engaged with Council staff directly involved in the implementation of the Tweed River VHP to discuss the implementation of the scheme. Council staff reported that since the inception of the two schemes in 2018:

- Of the 65 properties identified as high risk of flood damage, 15 properties have been purchased
- Of the 15 properties purchase, the NSW Government has contributed to 11 properties and Council has solely financed the purchase of 4 properties due them being ineligible for state funding.

In its submission to the NSW Flood Inquiry 2022 (submission number 1193), Council called on the NSW government to urgently review the NSW FMP guidelines eligibility criteria to allow a greater number of residents to participate. In its submission, Council (2020) also stated that a significant cash injection is required to accelerate the Council's existing VHP scheme:

> *Councils such as Lismore or Tweed in a rate capped environment would not have the financial capacity to do a bulk voluntary housing purchasing program therefore the state should prioritise and give consideration to a separate fund that would enable the 100% of the purchase price to be met by the State for homes that are under existing voluntary house purchase schemes that have been deemed uninhabitable through a flood natural disaster such as we have seen in 2022. This would require the State's annual budget program of $2m to be lifted significantly in the order of $300m in the first year and $200 m in the second financial year to make a significant meaningful difference to the effectiveness of the program.*

Due to individual properties being purchased, information on the value of the house purchases to date is confidential and not publicly available.

3.4 Lessons learnt

Key lessons learnt from the review and engagement with Council include:

- Vacant lots are not part of the NSW scheme. This can create challenges when one owner has multiple lots but only one dwelling. The owner or Council would need to consolidate these lots in order for them to be eligible under the scheme.
- Voluntary purchase schemes have many associated costs which need to be accounted for. In addition to consolidation costs (identified above), there are other costs such as demolition and rehabilitation of the land. These are currently not included in the NSW Government scheme, and are required to be funded by Council.
- Administrative complexity hinders progress – The NSW government scheme can be relatively complex and leads to lengthy wait times and uncertainty in outcomes. The waiting time and uncertainty of outcome has caused individual property owners to pursue alternative action (such as selling it on the open market).
- Delay in implementation diminishes funding purchase power through movements in property market and construction costs. While funding has remained constant since 2018, property prices have doubled in some parts of the Tweed Valley and construction costs have increased

significantly. It is understood that the level of funding for the NSW Government Scheme for the state overall has not been revised since 2018.

- There needs to be a coordinated plan for returned land – Many of the parcels of land that has been purchased are currently vacant with no plan for future use. Due to the disaggregated nature of the purchasing, and the length of time over which the scheme will operate, it can be difficult to adequately plan for alternative uses.
- Clarity of information is required to manage community perceptions – Council reported that the local community were initially largely opposed to the scheme as they perceived the scheme would drive down property values through zoning properties as at risk. Community perceptions changed once they were engaged and provided information on the mechanics of the scheme and the provision to purchase property at pre-flood event market prices.

3.5 Case study references

McLean L, Rose D (2019), *Voluntary House Purchase – A Council Perspective,* [conference paper], presented at the 2019 Floodplain Management Australia National Conference

Tweed Shire Council (2019), *Buringbah and Mooball Voluntary House Purchase Scheme – Scoping Study and Implementation Plan V1.6*, [online] available at: https://www.tweed.nsw.gov.au/property-rates/floods-stormwater/flood-studies-projects/voluntary-house-raising-scheme

Tweed Shire Council (2019), *South Murwillumbah & Bray Park – Scoping Study and Implementation Plan V1.5,* [online] available at: https://www.tweed.nsw.gov.au/property-rates/floods-stormwater/flood-studies-projects/voluntary-house-raising-scheme

Tweed Shire Council (2019), Action Item – Council Meeting Wednesday 17 April 2019: Exhibition of Voluntary House Purchase Schemes and High Flood Hazard Areas Policy

Tweed Shire Council (2022), *Tweed Shire Council submission to the NSW Independent Flood Inquiry 2022*, submission number 1193, available at: https://www.nsw.gov.au/nsw-government/projects-and-initiatives/floodinquiry/submissions-1015-1214

4 The Victoria Bushfire Buyback Scheme

Summary information	
Planned Relocation scheme	The Victoria Bushfire Buy-Back Scheme (voluntary)
Hazard	Bushfires
Location	Victoria (whole of state)
Scale	Individual properties at unacceptably high risk of bushfire damage
Cost	$50 million funding package ($2012)
Funding mechanism	State Government funded
Statutory framework	Crown's common law powers to buy and own land

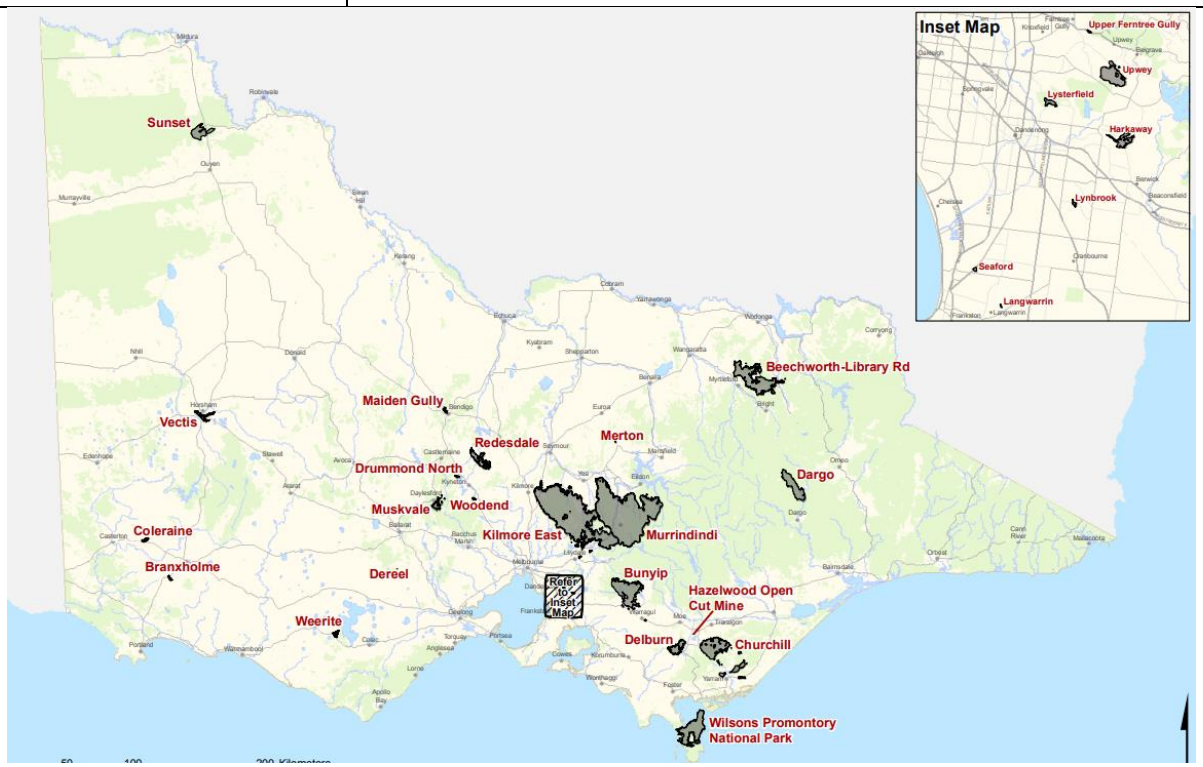


Image: location and scale of 2009 Victorian busfires (source: State of Victoria)

4.1 Background

The February 2009 Victorian bushfires impacted 109 towns and 33 communities across the state, destroyed more than 2,100 homes, damaged around 450,000 hectares of land, and killed 173 people. On one day, 7 February 2009, known as 'Black Saturday', around 400 separate bushfires burned across the state. The February fires were so wide-reaching that they were not fully extinguished until mid-March.

Immediately following the 'Black Saturday' fires, the then Victorian Premier announced the State's intention to establish a royal commission into the causes and circumstances of the fires. The royal commission commenced in May 2009 and concluded in May 2010. In July 2010 the Victorian Bushfires Royal Commission final report was released, making 66 recommendations about changes needed to reduce the risk, and the consequences, of similar disasters in the future. Recommendation 46 was that:

The State develop and implement a retreat and resettlement strategy for existing developments in areas of unacceptably high bushfire risk, including a scheme for non-compulsory acquisition by the State of land in these areas.

In response to Recommendation 46, in October 2011 the Victorian Government announced that $50 million had been allocated to the voluntary Bushfire Buy-Back Scheme and that applications would be open from March 2012. The implementation of Recommendation 46 was initially rejected by the Brumby Government on the grounds that (Brumby 2010) "all the advice that we got from fire agencies is that there would be a higher fire risk, not a lower fire risk for those remaining" if land was voluntarily acquired. On coming to power in 2010, the Baillieu Government reversed the decision of the previous government and implemented Recommendation 46.

4.2 Planned Relocation Policy

On announcement of the Scheme, the Deputy Premier and Minister for Bushfire Response announced the Bushfire Land Acquisition Panel (the Panel) oversee the operation of Scheme and manage acquired properties. The primary functions of the Panel were to confirm the eligibility of applicants and make recommendations on future use of acquired land.

To identify properties eligible for the Scheme, properties were assessed against existing 2009 bushfire data and maps and ranked according to several bushfire risk factors including (but not limited to):

- whether anyone is currently living on the land
- the distance of the property from an established township
- the type, density and extent of vegetation on, or adjoining the property
- environmental and landscape significance of the area
- the topography of the area and the prevailing weather conditions and climate.

A formal Victorian Government policy document including eligibility criteria for the Bushfire Buy-back Scheme (the Scheme) was not able to be obtained for the case study review. However, the publicly available *Bushfire Royal Commission Implementation Monitor Final report 2012* (BRCIM 2012) includes details of the Scheme. The details were provided by the Victorian Department of Justice (DOJ) to the BRCIM as evidence of implementation actions.

The BRCIM (2012) reported that the eligibility criteria of the Scheme were:

- owner-occupier whose principal place of residence was destroyed by the Victorian bushfires in early 2009
- have not commenced rebuilding on the property
- a site is not available on the property that will enable a replacement dwelling to be located at a distance greater than 100 metres from forest vegetation and that vegetation adjoins a large area of forest such as a national park, State park, State forest or private plantation.

4.3 Implementation

Following the announcement of the Scheme in October 2011, letters were sent to around 1,600 landowners and community consultation sessions were held around the State to advise the community on details of the Scheme. In March 2012, the Victorian Government made a public call for applications and application forms were made available on the DOJ website. The Scheme officially closed for applications on 31 May 2012. The BRCIM reports that, at 31 May 2012, 187 applications had been received from the public.

The Victorian Government (2013) reported that as at February 2013, 115 landowners had proceeded to settlement and 100 of those properties had settled.

Eligible properties were bought back at the higher of their pre-bushfire value or current market value. News reports from the time report that the cost of the Scheme was around $25 million, however this has not been verified against government records.

4.4 Lessons Learnt

Due to the length of time that has passed since the implementation of the bushfire buyback scheme (the scheme concluded in 2012), neither Rhelm nor IAG were able to identify stakeholders with knowledge of the scheme.

There is little publicly available information on the successes, barriers or otherwise of the Victorian bushfire buyback scheme. Media reports from the time suggest that community concerns with the scheme were that the to be eligible for the buyback scheme, the residence had to be the primary place of residence and a number of the impacted properties were holiday homes or rental properties. This meant that uninsured property owners planning to retire to or sell their properties suffered significant financial loss.

The initial delay in implementing the scheme, resulting in a lag of nearly three years from disaster event to scheme implementation, may have reduced participation in the scheme as it is highly likely that some residents and property owners would have taken individual action in that period.

4.5 Case study references

Anon (2012), *Govt bushfire buyback scheme attracts fewer victims,* Crikey, [online]. Available at www.crikey.com.au

ABC Victoria (2010) *John Brumby details the State Government response to the Bushfires Royal Commission,* [online}. Available at *https://www.abc.net.au/local/stories/2010/08/27/2995659.htm*

Gray, D (2012), *More than 100 homeowners accept bushfire buyback,* The Age, [online]. Available at https://www.theage.com.au/national/victoria/more-than-100-homeowners-accept-bushfire-buyback-20121023-283ed.html

State Government of Victoria (2012), Bushfire Royal Commission Implementation Monitor – Final Report, published 2012

State Government of Victoria (2012), Victorian Bushfire Recovery Three Year Update, published 2012

State Government of Victoria (2013), *Victorian Bushfire Recovery Four Year Update,* published 2013

5 Geraldton Coastal Erosion

Summary information	
Planned Relocation scheme	Drummond Cove (Geraldton) beach cottage relocation
Hazard	Coastal erosion and inundation
Location	Geraldton, Western Australia
Scale	26 beach cottages
Cost	The total cost of the scheme is unknown. Each affected leaseholder was offered $15,000 in demolition costs.
Funding mechanism	Unknown
Statutory framework	Transfer of land Act 1893

Image: Google maps (L), Daniel Wilkins (R)

5.1 Background

Geraldton is situated on the mid- West coast of Western Australia, around 400km North of Perth. Greater Geraldton encompasses the city of Geraldton as well as the towns of Mullewa and Greenough. Geraldton is frequently exposed to high southerly winds off the Indian Ocean and experiences strong storm surges. Due to the combination of factors, homes situated along Geraldton's coastline are vulnerable to coastal erosion and inundation.

In 1995, the Shire of Greenough (since amalgamated into the City of Greater Geraldton) commenced a scheme to relocate 26 Drummond Cove beach cottages situated on Crown Land to a new site outside the coastal erosion zone.

Due to the amount of time that has passed since the Drummond Cove beach cottage relocation, there is little publicly available information on the scheme. The information included in this section of the report was largely obtained through discussion with stakeholders with direct involvement in the scheme.

5.2 Planned Relocation Policy

The Drummond Cove beach cottages were lease-hold properties situated on Crown Land. Leaseholders could hold a lease for a maximum of 21 years before renewing for another term at the approval of the local government authority, formerly the Shire of Greenough. Leaseholders were permitted to build on Crown Land, and it is reported that most buildings were small fibro beach cottages. On recognition of the vulnerability of the leasehold sites to coastal erosion and inundation, the Shire of Greenough elected not to renew the leases to the at-risk land, instead offering leaseholders entry to a ballot to free-hold land in an adjacent lot outside the erosion zone.

Key aspects of the scheme include:

- The ballot was only open to current leaseholders of impacted land and the longest leaseholders were given priority to more desirable lots.
- Stakeholders with familiarity of the scheme report that impacted leaseholders were provided with a $15,000 demolition allowance to remove their current beach cottage from the impacted site and were permitted to keep any difference in cost.
- The new blocks were reported to be a significant reduction in block size but leases were converted from a 21-year leasehold of Crown Land to freehold.
- Recipients of new lots were offered mortgages through a local government authority to rebuild on the new lot.

5.3 Implementation

It was reported that all the impacted 26 leaseholders elected to participate in the ballot scheme and take up new blocks on free-hold land. The Shire of Greenough (Council) was able to implement the scheme relatively easily as the vacant land was owned in freehold by Council and Council self-funded the sub-division works. The process allowed Council to improve additional lots for sale on the open market to offset some of the relocation scheme costs.

Despite the availability of free-hold land and appetite for Council to provide a solution, it is reported that there was strong community resistance to the scheme and it took around 10-years to complete. The reported reasons for community resistance were:

- Some leaseholders had strong attachment to the impacted sites and did not want to move after the lease had expired.
- There was some resistance to the design of the ballot which gave preference to longest leaseholders. This created a perception of favouritism towards influential leaseholders.
- The fairness of the ballot was questioned as it provided impacted leaseholders with preferential access to previously unreleased desirable land. Impacted leaseholders also did not have to pay for the land, only the construction costs of the new build.
- The new sites were significantly smaller than the impacted sites, and did not have direct beach access.

5.4 Lessons Learnt

Lessons learnt from engagement with Drummond Cove beach cottage relocation stakeholders include:

- Planned relocation policy makers should proactively develop strategies for managing community perceptions of equity. Community resistance can significantly slow the process of relocation.
- Connection to place can be difficult to overcome and outweigh other elements of relocation schemes such as compensation provisions, avoided risk to human safety, or the perception of 'getting a good deal'.
- The design of planned relocation schemes should carefully consider the mechanisms for expediated dispute resolution.
- Government agencies at all levels that manage jurisdictions prone to natural hazards should be proactive in identifying freehold land that could viably provide sites for relocation schemes.

5.5 Case study references

All reported information was obtained from discussion with stakeholders with direct involvement in the Drummond Cove beach cottage relocation scheme.

6 Loose-fill Asbestos Insulation Eradication Scheme (Mr Fluffy)

Summary information	
Planned Relocation scheme	Loose-fill Asbestos Insulation Eradication Scheme (Mr Fluffy) voluntary buyback program
Hazard	Infrastructure/Asbestos risk
Location	ACT region
Scale	Individual properties with loose-fill asbestos insulation
Cost	$790 million cost of property acquisition and demolition, $272 million net cost
Funding mechanism	$1 billion Federal Government loan to ACT Government. Properties were demolished and land was remediated and sold on open market to assist with the costs of the scheme.
Statutory framework	Land Acquisition Act 2014

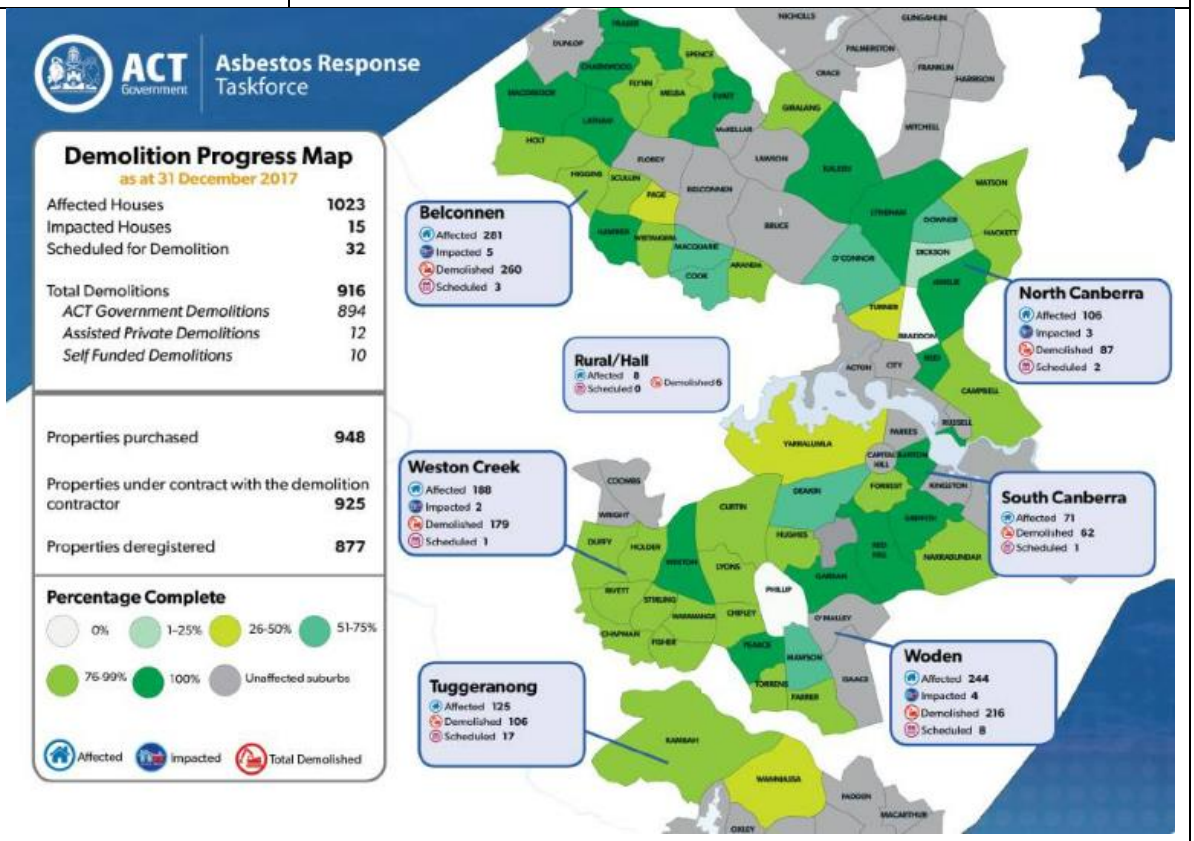


Image: ACT Government loose-fill asbestos eradication scheme demolition plan and progress map (source: ACT Government)

6.1 Background

During the late 1960's and 1970's loose fill asbestos insulation was installed in the ceilings of homes in Canberra and the surrounding region. The operator installing the asbestos fibre insulation product was nicknamed 'Mr Fluffy' for the products 'fluffy' texture and appearance. The 'Mr Fluffy' nickname is now synonymous with the widespread asbestos contamination that occurred in Canberra region homes. At the time, there was little public knowledge of the dangers of exposure to asbestos and 'Mr Fluffy' became popular as a cost-effective and long-lasting product. Mr Fluffy was not held together by a

bonding agent and once released into the air, the asbestos fibres were able to migrate through cracks and contaminate the entire house.

Between 1988 and 1993, in response to concerns over the health hazards of the Mr Fluffy product, the Commonwealth and ACT governments conducted a survey of homes constructed prior to 1979 to identify houses with loose-fill asbestos. The survey identified 1600 affected houses in need of remediation. The houses first had the roof space sealed and then loose-fill asbestos was removed. The scheme was thought to have managed the risk, until 2013 when it was discovered that residual loose fill asbestos had migrated down through the walls of a house in Downer in Canberra's inner-north.

In October 2014, the ACT Government announced the loose-fill asbestos eradication scheme (the Scheme) to purchase all houses affected by loose fill asbestos. Purchased house were demolished, and blocks were remediated and resold on the open market. At the same time, the ACT and Federal governments launched the co-funded Asbestos Disease Assistance Fund to support people who suffer from an asbestos related disease as a result of exposure to loose fill asbestos from living in a Mr Fluffy property.

6.2 Planned Relocation Policy

To be eligible for the Scheme an affected house had to first be added to the Affected Residential Premises Register (the Register). The Register is maintained as a requirement under the *Dangerous Substances Act 2004* (the Act 2004). Once added to the register, property owners were the invited to be part of the Scheme on a voluntary basis. Homeowners could elect not to participate in the Scheme, however, would be required under *the Dangerous Substances Act 2004* to treat the asbestos contamination in accordance with the provisions of DSA.

An 'affected house' was defined as a house that contains, or has contained, loose fill asbestos insulation. Only the ACT Government could determine whether a house was classified as an 'affected house'. A homeowner was defined as the person or persons who is the registered Crown Lessee at the time of surrender of affected house (In legal terms, homeowners in the ACT hold a 99 year lease on Crown Land). Unit owners were also eligible to participate in the Scheme and were defined as the registered owner at the time of purchase of the affected unit.

Should a homeowner choose to participate in the Scheme, on surrender of the property to the ACT Government, they would receive:

- the market value of the affected block (house and land) or unit as at the date it was added to the Register, including improvements and as if the house or unit did not contain loose fill asbestos insulation.
- an additional $1,000 to contribute to legal fees incurred in attending to the surrender
- a right to a waiver of stamp duty on a residential property purchased in the ACT, up to the value of the stamp duty calculated as if it was payable on the affected block (as valued)
- a first right of refusal to purchase the affected block (at full market value, to be determined at the time of purchase) after it is remediated. This did not apply to units as these property types were dealt with on a case-by-case basis.

In exchange for sale of the affected house to the ACT Government, the homeowner was required to waive their right to pursue legal action against the ACT and the Commonwealth in relation to any financial loss because of purchasing, living in or any other interest in the affected block. Market value offers were determined as the average of two independent property valuations. Homeowners could

contest the independent valuations and seek a "Presidential Determination", however would be bound by this determination even if lower than the preceding offer.

Where the affected house was occupied by a tenant, the ACT Government introduced laws to allow a tenant to break an existing lease and leave a property with just two days' notice, where a landlord was able to give a tenant just one week's notice to vacate an affected property.

The original Scheme ended in June 2020, and to manage affected properties remaining in private ownership beyond expiry of the scheme, The ACT introduced the *Loose-fill Asbestos Legislation Amendment Act 2020* (the Act 2020) in July 2020. The Act 2020 required that the Register be updated to reflect whether an affected property required an Asbestos Management Plan (AMP) and whether a compliant plan was in place. Property owners were required to display a readable copy of their current AMP in an ACT Government supplied display case at prominent location near the entry of their home. This was to allow tradespeople, care workers or other people needing to attend the home to view information about asbestos contamination and remediation. The Act 2020 also restricted development approval being granted on an affected property for any building works other than demolition and remediation.

Importantly, the Act 2020 also facilitated the placing of an 'Administrative Interest' on the title of affected properties remaining in private ownership advising that the property may be compulsorily acquired if not demolished by mid-2025. The ACT Government has this right to compulsorily acquire properties under *the Land Acquisition Act 1994*. The meant homeowners opting not to participate in Scheme on a voluntary basis may be compelled to demolish the affected home or have their home compulsorily acquired, on the grounds the remaining property posed a serious safety risk to the occupant and the community.

Upon the discovery of more affected houses after the original Scheme ended in 2020, The ACT Government recommenced the Loose Fill Asbestos Insulation Eradication Scheme in August 2021. The houses were not identified in 1988-1993 survey, partly due to the loose-fill asbestos being originally installed by homeowners as DIY projects and the not the 'Mr Fluffy' operator. The current scheme is ongoing.

6.3 Implementation

In the *Implementation of the Loose-fill Asbestos Insulation Eradication Scheme* progress report (2022) presented to the Legislative Assembly for the ACT in February 2022, the ACT Government reported that as at 31 December 2021:

- 1,048 properties had been identified as affected by loose fill asbestos
- Of the 1,048 affected houses, 989 properties had been surrendered to the ACT Government
- 1011 properties had been demolished (982 by the ACT Government, 30 privately)
- 996 remediated blocks had been removed from the Register meaning they could be resold
- 652 First Right of Refusal (FRoR) offers had been made to original owners
- 891 remediated blocks had been offered on the open market for public sale
- Sales had been settled on 965 blocks (874 public sale, 48 FRoR, 43 to an ACT Government Agency)

The ACT Government (2022) reported that the approximate net cost of the scheme as at end of December 2021 was $272 million. This amount in made up of the amounts in **Table 6-1**. Note the figures

in **Table 6-1** are included as reported by the ACT Government (2022), the costs less revenue do not sum to the reported $272 million. The difference is assumed to be attributable to unreported costs.

Table 6-1 Mr fluffy cost and revenue items (Source: ACT Government 2022)

Costs		Revenue	
Item	**$ million**	**Item**	**$ million**
Property acquisition	712.1	Public sales revenue	580.7
Demolition	88.2	First right of refusal sales	40.8
		Sales to Government	29.0
Total cost	800.3	Total revenue	650.5

6.4 Lessons Learnt

There are several key features of the 'Mr Fluffy' scheme that are relatively unique:

- The opportunity for the ACT Government to acquire, remediate and re-sell the land on the open market provided a unique revenue source to offset the large capital outlay required to deliver the scheme. This compares with some other natural hazards, such as bushfire, where it may not be possible to rebuild in the same location.
- There is a relatively high take-up of the scheme compared with a number of the other case studies. Part of this may be driven by the community perceived risk associated with asbestos (and the fact that the health impacts occur with prolonged exposure), compared to other natural hazards (such as flooding) which are probabilistic and acute in nature.
- Previous surveys on the location of 'Mr Fluffy' houses meant the ACT Government had a well-established data-set of the scale of the contamination risk as well as prior knowledge of the existence of some level of risk (albeit an assumption that the risk was contained).

6.5 Case study references

The ACT Government (2022), *Implementation of the Loose-fill Asbestos Insulation Eradication Scheme 1 July – 31 December 2021*, presented August 2022

The ACT Government (2021), Implementation of the Loose-fill Asbestos Insulation Eradication Scheme 1 January – 31 June 2021, presented August 2021

The ACT Government (2022), *Voluntary Buyback Program Guidelines - Loose-fill Asbestos Insulation Eradication Scheme,* July 2022 version.

The ACT Government (2017),*Case Study: Loose-fill Asbestos Eradication Scheme*, [online]. Available at: https://www.asbestossafety.gov.au/research-publications/case-study-act-government-loose-fill-asbestos-eradication-scheme

7 The “closing down” of Wittenoom

Summary information	
Planned Relocation scheme	The “closing down” of Wittenoom
Hazard	Mining related airborne asbestos
Location	Wittenoom, Western Australia
Scale	Closure of township
Cost	Unknown
Funding mechanism	State Government funded
Statutory framework	Wittenoom Closure Bill 2019 and Wittenoom Closure Act 2022

Images: Wittenoom location (top left) A sign warning the public of the asbestos risk (top right) Wittenoom gorge (bottom) (source: Google Maps, State Library of Western Australia)

7.1 Background

Wittenoom, located around 250kms directly south of Port Hedland in Western Australia, was the largest town in the Pilbara region during the asbestos mining era of the 1940's to early 1960's. Today, the former town is degazetted and does not appear on official maps. The townsite of Wittenoom was established in 1947 to house the growing workforce of a blue asbestos mine and crushing mill located nearby. The Western Australian Government agreed to construct housing requirements, a school, post office, police station, hospital, water supply and a paved road out to the mine site. At the height of mining operations, the population of Wittenoom was 20,000. The population included workers and their families as well as service providers (medical staff, teachers, police, bank workers, hospitality staff). In 1957, the operator of the Wittenoom mine, Colonial Sugar Refinery (CSR) formed an agreement with James Hardie to supply blue asbestos for use in James Hardie's cement building products.

In 1962 the first known case of asbestos related mesothelioma in Australia was recorded in a worker employed at the Wittenoom asbestos mine. The diagnosing physician, Dr James McNulty, wrote to the mine operator, advising them that "the relatively short period of exposure to blue asbestos confirms the impression that these tumours may arise after transitory exposure to crocidolite." By 1965, there were over 100 recorded cases of lung disease among Wittenoom miners and former miners.

All asbestos mining and related activities at Wittenoom were shut down in 1966 due to economic reasons, rather than health related concerns. It wasn't until 1978, 11 years after mining operations ceased, that the Western Australian Government began closing down the townsite and encouraging residents to relocate due to increasing evidence of the health risks from residual airborne asbestos fibres. Between 1986 and 1992 houses were demolished, and all public services were phased out. In 2006, the Western Australian Government removed the town's official town status and shutdown power and water supplies. In 2008, an area covering 46,500 hectares and including the old town and mine sites, was declared a contaminated site under the Contaminated Sites Act (2003). The Western Australian Government reports that the area, known as the Wittenoom Asbestos Management Area, is the largest contamination site in the Southern Hemisphere.

Today, at least 1,200 former mine workers and town residents are recorded to have died from Asbestos Diseases, according to a database maintained by the University of Western Australia.

7.2 Planned Relocation policy

There is no record of a formal Planned Relocation policy in the form of land acquisitions or otherwise until the introduction of the Wittenoom Closure Bill in 2019 enabled the WA Government to acquire and demolish 14 remaining properties in the town. Rather, from the early 1980's, residents were encouraged to relocate from the town through the demolition of housing and public amenities and the gradual closure of public services such as schools and hospitals. Initially, in the early 1980's there were plans to redevelop the town as tourist resort suggesting that, initially, there was no formal policy to completely remove people from the area or prohibit new development. Indeed, in 1993, after over 500 cases of asbestos related disease had been recorded in former residents of Wittenoom, the mine operator parent company was able to sell 74 blocks of land and 4 houses on the open market for between $150-$300 which allowed for private residential ownership. Even when the power grid was shut down in 2006 and the area was declared a contaminated site in 2008, residents were not forcibly removed, and some residents remained.

The lack of formal land acquisition in the early years of closing the town is assumed to be due to the nature of property ownership in the town, with most residential properties and buildings being owned

either by the mine operator parent company or the WA Government. The migratory nature of the mining workforce and attached population is likely to mean private residential property ownership in the town was rare, and that the closure of services and demolition of housing was considered an effective deterrent. It is likely that the decline of asbestos mining in the 1960's and ultimate closure of the last remaining mine in 1966 would have caused a large section of the population to leave Wittenoom independently of a formal relocation policy.

7.3 Implementation

In 2019, partly in response to a small but enduring residential population and people continuing to visit the town and surrounding contaminated area for tourism purposes, the WA Parliament passed the Wittenoom Closure Bill (the Bill 2019). The Bill 2019 provides for compulsory acquisition of remaining private properties and the demolition of all remaining structures. The Bill fixes the compensation amounts payable for the compulsory acquisition of land at:

- $325,000 for a lot on which an owner resides and an additional $50,000 for solatium and moving expenses.
- $65,000 for a lot which is improved but is free from a primary residence.
- $30,000 for a vacant lot.

The Wittenoom Closure Bill 2021 Explanatory Memorandum reported that the WA Government did engage in voluntary acquisition with a significant number of privately held properties prior to introduction of the Bill in 2019, however a formal record of number of properties or associated value was not able to be found for this case study review.

7.4 Lessons learnt

Rhelm did not attempt to contact Wittenoom stakeholders due to the significant amount of time that has passed between the initial closure of Wittenoom. From the publicly available information it can be established that:

- Despite the extreme measures of withdrawing all services, partially demolishing the town and ultimately degazetting, or closing down, the townsite, the absence of a formal property acquisition policy meant that people continued to live in and travel to the contaminated area. Albeit in relatively small numbers.
- The long and protracted process of closing the townsite and implementing property acquisition legislation provided the opportunity for people to acquire property in the area. That property now needs to be purchased by the state government.

7.5 Case Study References

WorkSafe Western Australia (2011), *Asbestos: The Wittenoom Tragedy Reflections from Dr Jim McNulty, former Commissioner for Health,* available at http://www.safetyline.wa.gov.au/INSTITUTE

Western Australia Department of Lands, *Information on the former town of Wittenoom* [online] available at: https://www.wa.gov.au/system/files/2021-04/CL-BRC-Wittenoom_brochure_0.pdf

Western Australian Government (2021), *Explanatory Memorandum – The Wintenoom Closure Bill 2021,* available at https://www.parliament.wa.gov.au/publications/tabledpapers.nsf/displaypaper/4110829ce55bcb019743f0ad4825877c0001ef70/$file/tp-829.pdf

8 WestConnex Land and Property Acquisition

Summary information	
Planned Relocation scheme	WestConnex mandatory land acquisition
Hazard	N/A – transport related property purchase
Location	Sydney, NSW
Scale	Individual properties in transport corridor
Cost	$1.4 billion
Funding mechanism	State government funding
Statutory framework	NSW Roads Act 1993 and Land Acquisition Act 1991

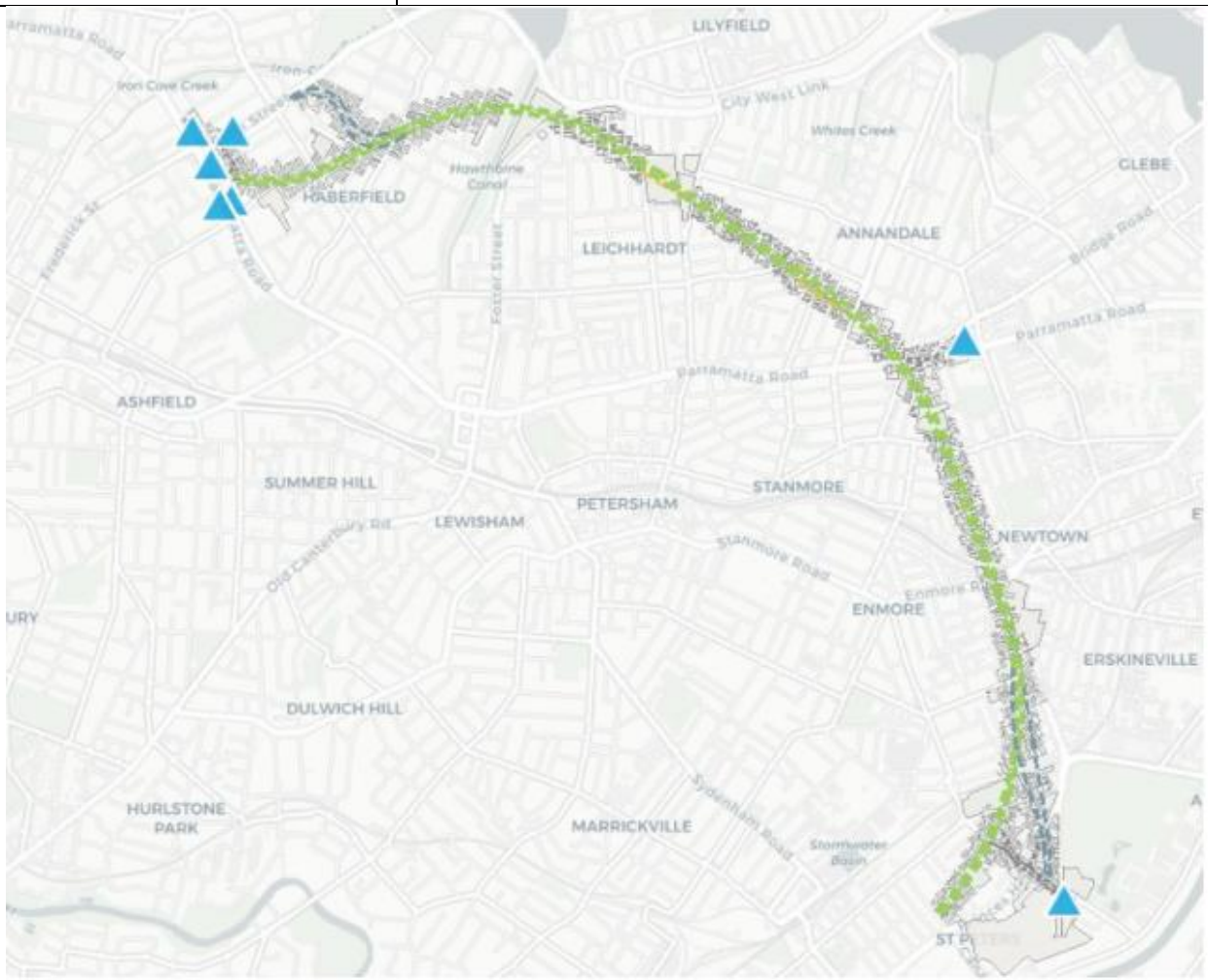


Image: Map of suburbs impacted by Westconnex development (source: Transurban https://stage3a.anzgeo.com)

8.1 Background

WestConnex, one of Australia's largest road infrastructure projects, is a 33km mostly underground motorway network in Sydney's inner-west. WestConnex will be completed in stages, with the first stage opened to traffic in 2019 and the final stage scheduled for completion in 2023. The construction of WestConnex included the compulsory acquisition of around 400 residential and commercial properties located within the design footprint. The NSW Government, via Transport (TfNSW), has a statutory right to acquire land that forms part of land required to construct or widen a road under the Roads Act 1993. In conjunction with the Roads Act 1993, under section 37 of the Land Acquisition (Just Terms Compensation) Act 1991, landowners are entitled to be paid compensation if the land is compulsorily acquired.

While the WestConnex compulsory land acquisition is not a natural hazard related Planned Relocation program, it has been included in this report to provide comparison and discussion of how mandatory acquisition schemes functions and the policy settings that enable them.

8.2 Compulsory acquisition policy

For land that is located within the footprint of a road construction or widening footprint, TfNSW will in the first instance attempt to negotiate a sale price based on the agreed appraisal of a property valuer. If negotiations fail, and a mutually acceptable agreement cannot be reached, the Roads Act 1993 gives RMS the statutory powers to acquire the property. The compulsory acquisition process and the compensation that a landowner is entitled to receive is governed by the Land Acquisition Act 1991.

If a landowner does not accept the initial offer, and agreement cannot be negotiated, the following process will apply:

- RMS will make an application to the Minister for Roads, Maritime and Freight for approval to compulsorily acquire the property by an acquisition notice published in the Government Gazette (the permanent public record of official NSW Government notices).
- Legal ownership of the property will transfer to the NSW Government on the date of publication of the acquisition notice in the Government Gazette, and before any offer of compensation is made to property owners.
- Within 30 days after publication of the Acquisition Notice in the Government Gazette, the NSW Government must give property owners a written notice of the compulsory acquisition, their entitlement to compensation and the amount of compensation offered as determined by the Valuer-General.
- Property owners have 90 days in which to either accept the amount of compensation offered or to lodge an objection to the amount of compensation with the Land and Environment Court.
- If property owners accept the amount of compensation offered they will be required to enter into a Deed of Release with the NSW Government. Compensation will be paid within 28 days after the NSW Government receives the completed Deed of Release.
- Interest is payable on the amount of compensation offered to property owners from the date the land is acquired until payment is made.
- If property owners do not accept the amount of compensation offered and commence proceedings in the Land and Environment Court, they must give notice of the proceeding to the NSW Government. Within 28 days of the notice being given, the NSW Government must make an advance payment to property owners of 90% of the compensation offered if they agree to

accept the payment. If the payment is not accepted, the advance and interest will be deposited into a trust account pending the decision of the Land and Environment Court.

- The NSW Government is entitled to vacant possession of the property once it has paid compensation or an advance payment of 90% of the compensation to the property owner or has deposited the advance payment and interest into a trust account.

Under the Land Acquisition Act 1991, compensation is payable for the market value of the land at the date of its acquisition. The impact of the new road development is not factored into market price.

The NSW Government may, at it's discretion, take into account "special value" and "disturbance" losses. Meaning in addition to the market value, landowners may also receive payments for:

- Severance payment, if portion of land is acquired and that purchase subsequently devalues remaining land
- Legal costs including conveyancing fees
- Valuation fees
- Relocation expenses including stamp duty costs associated with a replacement property purchase
- Mortgage breakage or re-establishment fees
- Solatium costs to compensate owners for inconvenience of moving

8.3 Implementation

As at October 2019, the NSW Government had acquired 419 properties for the WestConnex project at a total cost of approximately $1.4 billion.

Resident dissatisfaction with the WestConnex property acquisition process was so great, and the number of cases being appealed in the Land and Environment Court increased to such a level (The number of Valuer General determinations appealed in the Land and Environment Court increased from 1 in 2013-14 to 64 in 2016), that NSW Customer Service Commissioner launched a review into the process in 2016. Residents reported dissatisfaction with valuations given for their property, inconsistent communication from the project and a general feeling that they have not been treated fairly.

8.4 Lessons learnt

Rhelm did not attempt to engage with Westconnex mandatory land and property acquisition stakeholders, however the Customer Service Commissioner (CSC 2016) *NSW Housing Acquisition Review Summary Report* provides a comprehensive list of stakeholder 'pain points' and indicators of 'what success looks like' for residents and the community to avoid those pain points. While the review covers all NSW housing acquisition, given Westconnex was the catalyst for the review, it has been inferred that the findings relate to resident and community experiences with Westconnex.

'What success looks like' for residents (CSC 2020):

- Given early and adequate notice that their property is required in order to have time to find a new home and relocate.
- Find the process easy to understand through effective communication.
- Given flexibility in the acquisition process in relation to the settlement period that caters for their individual circumstances.
- Understand how their property is valued and what is taken into consideration for their payment.
- Satisfied with how the process was handled overall.

- Residents whose houses are not imminently required for a project, are able to engage with the acquiring authority to investigate if an owner-initiated acquisition is possible.

'What success looks like' for communities (CSC 2020):

- Understand why acquisitions are necessary.
- Aware that adequate research and investigation has been undertaken to minimise the number of homes required and thought has been given to remaining residents who will live through the construction and operational phase of the projects.
- Their former neighbours are treated with respect during acquisition process.

8.5 Case study references

Customer Service Commissioner of NSW (2016), *NSW Housing Acquisition Review Summary Report Customer Service Commissioner,* available at https://www.nsw.gov.au/sites/default/files/2022-02/customer%20service%20commissioner%20nsw%20housing%20acquisition%20review%20summary%20report.pdf

Inner West Council (2021), *Submission to Inquiry into acquisition of land in relation to major transport projects* (submission 85), available online at https://www.parliament.nsw.gov.au/lcdocs/submissions/73781/0085%20Inner%20West%20Council.pdf

NSW Government (2021), *Property Acquisition Policy CP21017*, available at https://www.nsw.gov.au/housing-and-construction/property-acquisition

9 Christchurch Residential Red Zone Voluntary Crown Offer

Summary information	
Planned Relocation scheme	Residential Red Zone Voluntary Crown Offer
Natural hazard	Geotechnical
Location	Greater Christchurch region, New Zealand
Scale	Clusters of properties (almost 8000 properties in the Red Zones)
Cost	Canterbury Earthquake Recovery Authority spent about NZ$1.7 billion on acquiring and managing the Red Zones
Funding mechanism	Canterbury Earthquake Recovery Fund of NZ$5.5 billion established by Budget 2011 (of which $1,067m was allocated to Land zoning costs resulting from the Government's red zone offer)
Statutory framework	*Canterbury Earthquake Response and Recovery Act 2010*. The Act was repealed on 19 April 2011 and replaced with the *Canterbury Earthquake Recovery Act 2011*. Canterbury Earthquake Recovery Authority (CERA) was established on 29 March 2011 to lead and coordinate the Government's response and recovery efforts. CERA was disestablished on 18 April 2016 as the Government transitioned to establishing long-term, locally-led recovery and regeneration arrangements.

Images: Waimakariri District red zone (top left), Christchurch red zone (top right), Port Hills red zone (bottom left), an aerial image of a 'red zoned' block (bottom right) (source: Nielsen 2016)

9.1 Background

Christchurch is the largest city in the Canterbury region, located on New Zealand's South Island. On 4 September 2010, a 7.1-magnitude earthquake at Darfield, 45km west of Christchurch, caused extensive land damage including widespread liquefaction in the Christchurch region. Between September 2010 and late 2012, the greater Christchurch region experienced 15,000 aftershocks causing significant additional damage. The additional damage was most severe during the 6.3-magnitude earthquake on 22 February 2011, with the epicentre just 6km south of the city. The February tremor caused significant damage to the Christchurch CBD and killed 185 people.

In March 2011, the Canterbury Earthquake Recovery Authority (CERA) was established. It serviced the area of "greater Christchurch", which was defined as the districts of Christchurch City Council, Selwyn District Council, Waimakariri District Council, and the adjoining coastal marine area. The Government's emergency response included an area-wide process for categorising properties based on geotechnical assessments by consulting firm Tonkin & Taylor. The properties in the worst affected areas were 'zoned red' based on the following criteria:

- There is significant and extensive area wide land damage
- There is a high risk of further damage to land and buildings from low-levels of shaking
- The success of engineering solutions would be uncertain and uneconomic, and
- Any repair would be disruptive and protracted.

In the Port Hills, properties were zoned red on the basis that they faced an unacceptable life risk caused by the earthquakes and associated cliff collapse, rock roll and land slippage.

In total, 8,060 residential houses in greater Christchurch were eventually 'zoned red'. Of these, 7,346 were in flat land areas and 714 were across the Port Hills.

9.2 Planned Relocation policy

The New Zealand Government designed two key policy instruments to enable to voluntary purchase of property in severely damaged areas:

- Residential Red Zone Voluntary Crown Offer – only insured property owners were eligible
- Residential Red Zone Offer Recovery Plan – targeted a purchase of uninsured properties

Residential Red Zone Voluntary Crown Offer

In August 2011, the Government made voluntary offers to purchase insured residential red zone properties. Insured property owners had two options:

- Option 1: CERA, acting for the Government, buys the property at a price based on the most recent rating valuation (2007/08) for the land and improvements. The Crown takes over any insurance claims for the property.
- Option 2: CERA, acting for the Government, buys the land portion of the property at a price based on the most recent rating valuation (2007/08) for the land. The Crown takes over the Earthquake Commission (EQC) claim for land damage only. These claims are managed by CERA. The owner retains the benefit of all insurance claims for damage to the house.

The zoning of properties on the Port Hills took longer than for the flat land areas due to the difficulty of establishing the level of life risk posed by rock roll, cliff collapse and land movement. Owners of insured residential properties in the Port Hills were eligible for Crown offers for their insured residential properties in August 2012.

Owners of red-zoned properties were offered 12 months from the date on their offer letter, or until 31 March 2013 (whichever came first) to accept the offer.

Residential Red Zone Offer Recovery Plan

The Crown initially offered 50% of the ratable land value (excepting improvements) for uninsured, vacant, and insured commercial properties in the Red Zone. The Government's rationale for reduced offers was that fully compensating uninsured landowners would set a dangerous precedent. Another explanation was that Crown was buying something different from insured property owners, who transferred the benefits of their insurance claims under Option 1 or the Earthquake Commission claim under Option 2 to the Crown.

The reduced offer was challenged in the courts. In March 2015, the Supreme Court ruled that a Statutory Recovery Plan should have been instituted, which would have included a process for public consultation about the Crown's offer to individual property owners. The Court ruled that "the offer to the 'uninsured and uninsurable' owners of red zone properties was not lawful because the purposes of [the Act] had not been considered when making this decision."

In response to the Supreme Court ruling, a Recovery Plan was created and approved. This led to new offers being made to owners of uninsured residential properties, vacant land, and insured commercial properties in the Red Zones.

Conditions of voluntary purchase

The Crown offer to residents in the residential red zone was voluntary. However, at the time of making the zoning announcement, the Government issued a notice on the CERA website that:

- The Council would not be installing new services (or maintaining existing services in the longer term) in the red zone
- If only a few people remain in a street or area, the Council and other utility providers may reach the conclusion that it is no longer going to maintain services to the remaining properties
- Insurers may cancel or refuse to renew insurance policies
- Whilst the ultimate future of the red zones is undecided, CERA has the power of compulsory acquisition under the Act for the properties market value at the time, which could be substantially lower than the Crown's offer

9.3 Implementation

Figures provided by CERA to the end of July 2013 showed that of the 7,143 signed sale and purchase agreements issued under the Residential Red Zone Voluntary Crown Offer:

- 1,657 (23%) under Option 1
- 5,486 (77%) were settled under Option 2

The final date for accepting the Crown offer was 10 December 2015. At that time, 96 per cent of owners (7,720 of 8,060 properties) in the residential red zone had accepted the offer. The final settlement date for these properties was 26 February 2016.

The Residential Red Zone Survey (Nielsen, 2016) stated the majority (86%) of owner-occupied household respondents (2,038 former owners) remained in greater Christchurch (54% in Christchurch City, 22% in Waimakariri District, 10% in Selwyn District). Some 4% were living in Canterbury but had left greater Christchurch. The remaining 10% had left the region (with 8% relocating elsewhere in New Zealand and 2% moving overseas).

The majority (93%) of former owner-occupiers purchased the home they are currently living in, with 58% purchasing an existing home and 37% purchased or built a new home.

The aspects dominating choice of new location were affordability, absence of earthquake damage and safety from natural disasters. Nearly a quarter (23%) were influenced in choice of location by the opportunity to build a new home.

In a 2015 survey of property owners in the Red Zones, a majority found that the Crown's offer had provided them with certainty of outcome and the confidence to move forward. They also found the process simple and clear.

CERA made considerable efforts to communicate with the affected communities. It adapted its approach to communicating the Crown's offer to communities, but we note that the same survey found that a significant minority (22%) felt that they were not given the best available information to inform their decisions.

The Crown-iwi Recovery Partnership

Ngäi Tahu's involvement in the recovery extends from governance through to economic development and social and cultural provision. Ngäi Tahu is the largest iwi in the South Island. According to the 2006 Census, 49,185 people identify themselves with Ngäi Tahu. Of those, 13,683 lived in Canterbury in 2006.

Ngäi Tahu is responsible for facilitating the Iwi Mäori Recovery Programme in partnership with CERA, Te Puni Kökiri and the Christchurch Mäori Leaders Forum as part of the Recovery Strategy for Greater Christchurch. This programme spans initiatives across housing and redevelopment on Mäori land and reserves, development of cultural services and facilities and the restoration and recovery of the rivers and other significant natural features. It relates directly to mana whenua interests but is also relevant to the wider population of Mäori in Canterbury.

9.4 Lessons learnt

Key lessons learnt from the review and engagement with engineering firm Tonkin and Taylor include:

- New Zealand residential buildings that have a current house insurance policy that includes fire cover are automatically covered against natural disasters with the Government guaranteed Earthquake Cover (EQC). Home-owners who do not have fire cover are not covered by EQC. EQC includes coverage for land under the house and outbuildings, the land within eight metres of the house and outbuilding, and the land supporting the main accessway to the house up to 60 metres from the home. The availability of EQC in New Zealand meant that Government viewed the relocation scheme as financially neutral as EQC coupled with residential insurance would finance the scheme.
- Speed of implementation was considered critical for social wellbeing. Tonkin and Taylor cited international studies that found post-disaster suicide rates increase amongst displaced community members if they are not back within stable accommodation within 6-months.
- Insurance providers provided residential damage profile data on a confidential basis which allowed Tonkin and Taylor to build a comprehensive damage profile of Christchurch suburbs and quickly establish red, orange and green zones which dictated required action.
- The initial view of Government stakeholders was that the community would respond negatively to being informed that they would be required to relocate from high risk 'red zones', providing community support and counselling resources to the community, however the response was

overwhelming positive and impacted residents were eager to relocate and have their property purchased.

- The relocation scheme had strong backing from all levels of Government. Members of New Zealand's central government worked closely with local Government to facilitate progress.

Canterbury Earthquake Recovery Authority: Assessing its effectiveness and efficiency (Controller and Auditor-General, 2017) reported that:

Governance, organizational structure, and functions

- There needs to be clarity about what a recovery agency should achieve, expressed in a performance framework with realistic targets and regular reporting
- Skills and capabilities need to be regularly assessed during the different phases of the recovery
- Governance arrangements need to be reviewed for each phase of the recovery
- There needs to be an agreed process for making timely decisions about the recovery, e.g. strategic decision-making separate from operational decision-making
- Regularly assess whether the recovery agency is the best mechanism for delivering particular outputs and outcomes
- Agencies need good communication and engagement with the community to manage expectations and build trust
- Inter-agency and intra-governmental tensions need to be prepared for and managed to ensure progress if effective and efficient

Managing operations and reporting performance

- To manage uncertainty in a disaster recovery, a recovery agency needs to have flexible arrangements for funding and staffing
- A recovery agency needs effective financial and management controls from the start. The early stage of recovery is where there is greatest risk for fraudulent activities and inappropriate spending of public funds
- A recovery agency needs to think ahead about the future phases of the recovery and plan for them at a strategic level
- An effective performance framework needs to link recovery activities to the desired outcomes, giving the agency the opportunity to adjust their processes as required

Lessons identified in *Land Zoning Policy and the Residential Red Zone: Responding to land damage and risk to life* (CERA, 2016) include:

- It is important to take the time to set up the right team from the start
- There is no instruction manual for recovery policy
- Communication is critical
- Community engagement is vital to your strategy
- Collaboration builds a greater collective understanding for all involved
- Use a planned, adaptive community engagement approach

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10 Awatarariki Planned Relocation Programme

Summary information	
Planned Relocation scheme	Awatarariki Planned Relocation Programme
Natural hazard	Geotechnical/flood
Location	Matatā, Bay of Plenty, New Zealand
Scale	Cluster of properties (34 properties – 16 homes and 18 vacant sections)
Cost	$15 million
Funding mechanism	Co-funded by Whakatāne District Council and the Bay of Plenty Regional Council totalling $10 million, and the Central Government (Department of Internal Affairs) contributing $5 million
Statutory framework	The *Local Government Act 2002* requires councils to "give particular regard to" the avoidance or mitigation of natural hazards. The *Resource Management Act 1991* also requires councils to manage significant risks from natural hazards, as a matter of national importance. The *Building Act 2004* – Council declined applications for new building consents in the high debris flow risk area (endorsed by a determination issued by the Ministry of Business Innovation and Employment) Regional and District Plan changes were the legal mechanism that supported the Planned Relocation process (Bay of Plenty Regional Natural Resources Plan – Plan Change 17, Whakatāne District Plan – Plan Change 1)

Images: The aftermath of the debris flow at Matatā (left), an aerial image of the impacted area (right) (source: McSaveney et al., (2005), Whakatāne District Council)

10.2 Background

Matatā is a community situated in the Eastern Bay of Plenty in the North Island of New Zealand. In May 2005, extremely heavy rainfall in the steep catchments behind Matatā caused debris flows of dense fluid containing large rocks, tree stumps, sand and silt from numerous stream catchments. The most destructive debris flow was from the Awatarariki Stream, at the western end of Matatā, where an estimated 300,000 cubic metres of debris was deposited on the Awatarariki fanhead. The debris flow destroyed 27 homes, damaged 87 properties, cut road infrastructure and caused $NZ 20 million in damage.

After the event, the causes of the debris flow were assessed, and a range of options were identified by Tonkin and Taylor (2005) including retreat, dam options (debris detention) and fanhead options (directing debris flows). A cost benefit analysis concluded that the debris dam and debris flood channel option offered the greatest benefit. Community consultation undertaken confirmed preference for an engineering solution, rather than retreat.

The District Council 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. In 2006, Determination 11912 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'. 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 2007 to 2008, a range of debris detention structures were presented to the community. The community expressed concerns about the proposed debris detention structures and associated flooding impacts, including upstream environmental impacts and heritage impacts.

In December 2012, following an independent review of the proposed Debris Flow Control System developed by Tonkin and Taylor (2009), and a re-evaluation by the District Council of lower catchment solutions, Council resolved that there were no viable engineering solutions, and decided to pursue non-structural planning-based options.

In 2015, the Whakatāne District Council commissioned a hazard and risk assessment for debris flows on the Awatarariki fanhead. Parts of the Awatarariki Stream fanhead were declared a 'high-risk zone' for future debris flows (loss-of-life and property damage risks). The high-risk area included 45 properties (34 in private ownership – 16 homes, 18 vacant sections).

10.3 Planned Relocation policy

In July 2019, joint funding for a property acquisition package was agreed to by the Whakatāne District Council and the Bay of Plenty Regional Council (totalling $10 million), and the Central Government (Department of Internal Affairs) ($5 million).

The Planned Relocation package included:

- Offers to eligible property owners for the purchase of their properties at a fair, current market value (supported by market evidence), with no discount made for the known hazard/risk
- Contributions towards legal fees
- Relocation costs (for residents whose fanhead property is their primary place of residence)
- Mortgage break fees (if applicable)

Voluntary Offer

The voluntary nature of the proposed package reflects the legislative provision under the *Resource Management Act 1991*. Property owners have an existing use right that can only be revoked by a Regional Council through a Regional Plan rule, although there is no known example in New Zealand of this occurring in the circumstances of hazard prone residential land.

Recommendation was made that the retreat package be a 'one time' offer with property owners able to request a second valuation on a Council managed basis. A 'one time' offer would mitigate Council's risk of ongoing financial liability (The Property Group Limited, 2018).

The following information is available on the District Council's FAQ website:

- Property owners can choose to participate, and can opt-out at any time until a Sale and Purchase agreement is signed
- Some property owners may initially choose not to participate but then after further consideration, may change their minds and want to enter the process
- Property owners who choose not to participate, or opt-out after commencing the retreat package process, can continue to occupy their homes, until Plan Change 17 to the Regional Natural Resources Plan is determined and comes into effect
- If the Plan Change, as notified, is approved, property owners will lose their existing use rights and continued occupation from 31 March 2021 will become unlawful

District and Regional Plan Updates

In June 2018, change to the Bay of Plenty Regional Natural Resources Plan (Plan Change 17) was publicly notified with new objectives and policies to reduce the natural hazard risk on the fanhead. A rule prohibiting residential activities on identified sites within the high-risk area was introduced and existing use rights extinguished, having effect after 31 March 2021 (except for one property where existing use rights expire on or before 31 March 2022). Plan Change 17 was incorporated into the Regional Natural Resources Pan and made operative on 29 March 2021.

Changes to the Whakatāne District Plan (Plan Change 1) 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. In addition, the Awatarariki Debris Flow Policy Area was introduced, delineating areas of high, medium and low risk in accordance with the natural hazard provisions of the Regional Policy Statement. Plan Change 1 was incorporated into the Whakatāne District Plan and made operative on 29 March 2021.

10.4 Implementation

By February 2017, 23 landowners had provided registrations of interest to Council with 21 in support of continuing, two declining the preliminary offer and 11 non-responses.

On 31 October 2020 the Planned Relocation offers expired. On 31 March 2021, one remaining resident was given one year's grace period to leave. On 31 March 2022, the home was handed over. One lot owner living in a shipping container remained on site.

10.5 Lessons Learnt

Principal findings from *Managed retreat governance: Insights from Matatā, New Zealand* (Hanna, C. et. al., 2018) include:

- 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
- There is no specific risk tolerance criteria in New Zealand to determine when a particular annual loss-of-life risk is acceptable or not, making it difficult to determine the point at which risk reduction is required
- The process for funding managed retreat is ad hoc and uncertain
- The program 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 undermines trust in the process and further emphasises the need for mechanisms that affected communities consider fair
- Provision of risk information and previous disaster experience is ineffective in avoiding investment in risky areas
- There is a mismatch of responsibilities and jurisdiction between territorial and regional authorities, integrated management and policy alignment is required

10.6 Case study references

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11 Isle de Jean Charles Resettlement Program

Summary information	
Planned Relocation scheme	Isle de Jean Charles Resettlement Program
Natural hazard	Flood
Location	Isle de Jean Charles, Louisiana, USA
Scale	Community
Cost	US$48.3 million ($2016)
Funding mechanism	Funded by the U.S. Department of Housing and Urban Development in Community Development Block Grant funds for the Resettlement of Isle de Jean Charles, as part of the Office of Community Development's winning application to the National Disaster Resilience Competition
Statutory framework	Louisiana Road Home Corporation Act became effective on 29 June 2006. The Act created the Road Home Corporation, trading as Louisiana Land Trust (LLT), which was formed to manage the properties and land that has been bought by the state as part of the recovery from Hurricane Katrina and Rita in 2005. This Act enabled LLT to purchase land for the Isle de Jean Charles resettling community who had been affected by Hurricane Katrina and Rita.

Images: a flooded section of Isle de Jean Charles (left) Isle de Jean Charles and resettlement area locations (right) (source: Louisiana Government)

11.1 Background

Isle de Jean Charles is an island located on the Gulf Coast of southern Louisiana, United States of America. The island, like much of coastal Louisiana, is being impacted by coastal erosion and sea level rise. The residents of Isle de Jean Charles are predominantly of American Indian ancestry and maintain a strong connection to the land as their family lines have lived on the island for hundreds of years.

The Isle de Jean Charles Resettlement program policy (IDJC 2020) reports that the island once encompassed 22,000 acres of land, and today only 320 acres of the island remain. The single remaining road to the mainland is often impassable due to high tides, strong winds or storm surges, cutting residents off from schools and employment zones on the mainland. The Louisiana Office of Community Development (2020) reports that the challenges of restoring the Island land mass are insurmountable.

The Centre for Public Integrity (CPI 2022) reports that in the early 2000's the United States (U.S) Army Corps of Engineers chose not to extend the 158-kilometre (98 mile) long Morganza-to-the-Gulf Hurricane Protection System of levees, locks and floodgates (a system designed to protect against Category 3 storm surges) to the Isle de Jean Charles. According to estimates at the time it would have cost US$100 million to protect the Island with levees. In 2006 the parish government offered to build more than 60 houses in a new subdivision in nearby Bourg, but the plan was abandoned due to resistance from Bourg residents (CPI 2022).

In 2014 the United States Department of Housing and Urban Development (HUD), in partnership with the Rockefeller Foundation, launched the US$1 billion National Disaster Resilience Competition (NDRC). The NDRC was open to sixty-seven states and municipalities that had experienced a presidentially declared disaster between 2011-13. In 2016 HUD announced the State of Louisiana as one of 13 winning entries and awarded the State US$93 million in grant funding, US$48.3 million in grant funding was to be allocated to the Isle de Jean Charles Resettlement program (the program).

IDJC 2020 states that the purpose of the program is to assist all IDJC residents' options to for resettling in lower risk areas on mainland Louisiana, in a way that maintains their cultural values and economic wellbeing (IDJC 2020). A co-purpose of the scheme is to offer former Island residents who live in areas impacted by Hurricane Isaac (August 2012) an opportunity to re-join the community in the resettlement location.

11.2 Planned Relocation Program/ Policy

In 2019, on behalf of the Louisiana Office of Community Development, the Louisiana land trust bought 515 acres of land 40 miles north of Isle de Jean Charles near Schriever, Terrebonne Parish as the site for resettling community. 'The New Isle' as named by the Isle de Jean Charles community will include more than 500 homes, community and commercial spaces as well as other amenities designed in conjunction with island residents.

The Isle de Jean Charles settlement program is a voluntary program, offering a range of options depending on an Island residents current or previous residency status.

Residents who were either:

- current permanent, primary residents as at commencement of the resettlement program (March 2019), or
- past permanent, primary residents who were displaced by Hurricane Issac in 2012 and did not own a permanent off-island home

were offered two options:

- A new home and plot of land at the resettlement site (labelled Option A) , or
- Funding toward an existing home within Louisiana, away from the resettlement site, that meets program standards (labelled Option D). The new home must be outside the recognised 100-year floodplain.

Past permanent, primary residents who:

- were displaced from the Island before Hurricane Issac and lived in a program eligible parish at the time of the storm (28 August 2012), or
- were displaced by the storm and own an off-island home but wish to re-join the community, or

- who lived in a program eligible parish at the time of the storm, and settled on the island after that time.

were offered a single option:

- An improved lot that was ready for construction within the resettlement site (labelled Option B).

Participants eligible for the improved lot ready for the construction of a new home:

- Were required to demonstrate financial ability to build a new home at the resettlement site. The program provided support to eligible residents to identify financing options to build a new home, if required
- Were prioritised based on where they had lived on the Island.

Current permanent, primary residents accepting options A or D were allowed to maintain ownership of their current Island property but were required to sign a 'Homeowner Assistance Agreement' preventing them from living on, selling, or making substantial repair to Island property.

The Louisiana Office of Community and Development resettlement plan consisted of 4 phases.

Phase 1

- Phase 1 of the resettlement plan includes gathering data about preliminary land use and an infrastructure survey of the island. Louisiana Office of Community Development (LOCD) also conducted an initial outreach to current residents to identify the resident's priorities and values, these included access to the island continuing to maintain and strengthen cultural identity. LOCD released a final report on their findings for phase 1.

Phase 2

- During phase 2 LOCD continued to engage in public meetings and one-on-one conversations with residents.
    - December 2016 - June 2017: LOCD held site evaluations of possible sites for the resettlement community. Residents were given the opportunity to visit these potential sites as well.
    - July 2017 - December 2017: LOCD conducted a site preference survey among the residents. A consultant team was introduced to develop a master plan for the new community with residents' input.
    - January 2018 - September 2018: LOCD and the consultant team held design workshops to showcase potential ideas for residents. An academic advisory committee was formed to provide guidance to the planning team.
    - Dec 2018: The final design plan was finalized and released to the community, it included 120 houses, commercial and retail spaces, a community centre and walking trails. The Louisiana land trust on behalf of LOCD purchased 508 acres of land for $11.7 million dollars as the site for the resettling community.

Phase 3

- Phase 3 was supposed to start in May 2020 but due to COVID construction works have been put on hold. Phase 3 includes acquiring permits, laying infrastructure and construction, launching workforce training programs, initiating business activities and environmental reviews. As of

November 2019, the new site was named The New Isle by the Isle de Jean Charles resettling community.

Phase 4

- Volunteered residents move into The New Isle and enter into a forgivable mortgage on the new property and 1/5 of the mortgage will be forgiven each year. If the resident maintains primary residency and required insurance for the property, after 5 years the resident will then own the property in full.

11.3 Implementation

Despite being initially welcomed by Isle de Jean Charles Native American tribal groups, changes to the resettlement program eligibility criteria and recreational development on the Island has led to tension between tribal groups and the State of Louisiana.

In August 2022, the Centre of Public Integrity published a comprehensive article on the Isle de Jean Charles resettlement titled Leaving the island: The messy, contentious reality of climate relocation. The CPI (2022) article includes interview extracts with government officials, academics specialising in disaster relocation and American Indian tribal leaders. There is also a large amount of media articles on the subject that are published on the Isle de Jean Charles Resettlement website (https://www.isledejeancharles.la.gov/news).

From the available literature, it seems opinions on the success of the scheme are divided. While government officials from Louisiana Office of Community Development consider the scheme a success from the viewpoint that it moved people to a safer location and aimed to keep community together, academics and American Indian tribal leaders have been critical of the scheme.

The CPI (2022) report that the main criticisms of the scheme were that:

- Policy makers were not sufficiently informed of Isle de John Charles population and demographics, initially believing that most of the Island's population identified to a single Native American tribe, the Isle de Jean Charles tribe. This led to an initial declaration that the resettlement grant would promote tribal unification. On later learning that some Island residents identify as members of the United Houma Nation, and that the non-Indigenous Island population was larger than first thought, the State of Louisiana redefined the scope of the resettlement objective to "the resettlement of all willing members of the Isle de Jean Charles community, irrespective of any familial, cultural or tribal affiliation" (CPI 2022).
- The change in scope led to a change in the eligibility criteria early in the resettlement period leading to distrust of the process.
- Policy makers under-estimated the number of tribal members displaced from the Island due to natural disasters over the years, meaning not all tribal members were eligible to re-join their communities. This entrenched a sense of community displacement.
- Community members did not have sufficient involvement in the resettlement plan and became frustrated that the plan had moved away from one of it's original goals of tribal reunification. At one stage Tribal leaders contended that the process has disenfranchised them and began working on a separate resettlement and reunification plan without government assistance.
- Due to the location of the resettlement site being within the floodplain, there was concern that insurance costs and land taxes would be unaffordable for many movers, particularly those on the Social Security payments.

- Media report that when the resettlement plan was approved, Tribal groups agreed to participate based on a belief that the Isle de John Charles would not be repurposed, and it would be left to nature. Since the resettlement program has commenced, the State of Louisiana has invested in recreational developments on the Island de John Charles, such as recreational fishing facilities, and enhancements to the road connecting the Island to the mainland. Adding to community frustration with the scheme, in early 2021 the Terrebonne Parish School Board voted to close the elementary school on the island. The school was reportedly subsequently sold to a sporting organisation. The development has left tribal groups with a perception they were misled.

In terms of participation in the resettlement program, of the 42 households eligible for a new house in the resettlement site, 37 accepted the offer. The resettlement site also includes 25 improved lots for eligible residents. The construction on the subdivision of the resettlement site took around two years to complete and was delayed by back-to-back hurricane seasons. The land is reported to have cost around $US 11 million. Rhelm was not able to locate information on the cost of constructing the sub-division or new homes at the time of writing this draft.

Around one third of the resettlement site sits inside a floodplain and new houses are built on wooden slats at a minimum of 2.5 feet above the ground. Homeowners are prohibited from closing in the bottom of homes as they are specifically designed allow air and water to move under the house and to not obstruct the passage of floodwaters

Media reports state that homes under construction in the resettlement site were hit by Hurricane Ida in 2021 but suffered minimal damage due to being constructed to new standards for specific types of severe weather such as hurricanes, tornadoes, and hail.

11.4 Lessons Learnt

The IPC (2022) report and newspaper articles published on the resettlement website provide useful insights into the lessons of the Isle de John Charles resettlement perspective, particularly from the perspective of Planned Relocation from culturally significant land. Some key lessons are:

- Community involvement and ownership of decision making is vital
- Policy makers must engage with the community, where the community is located, to understand local needs and issues. As opposed to relying on data and assuming a one-size fits all approach will work
- Policy makers must ensure consistency and clarity in community engagement and communications

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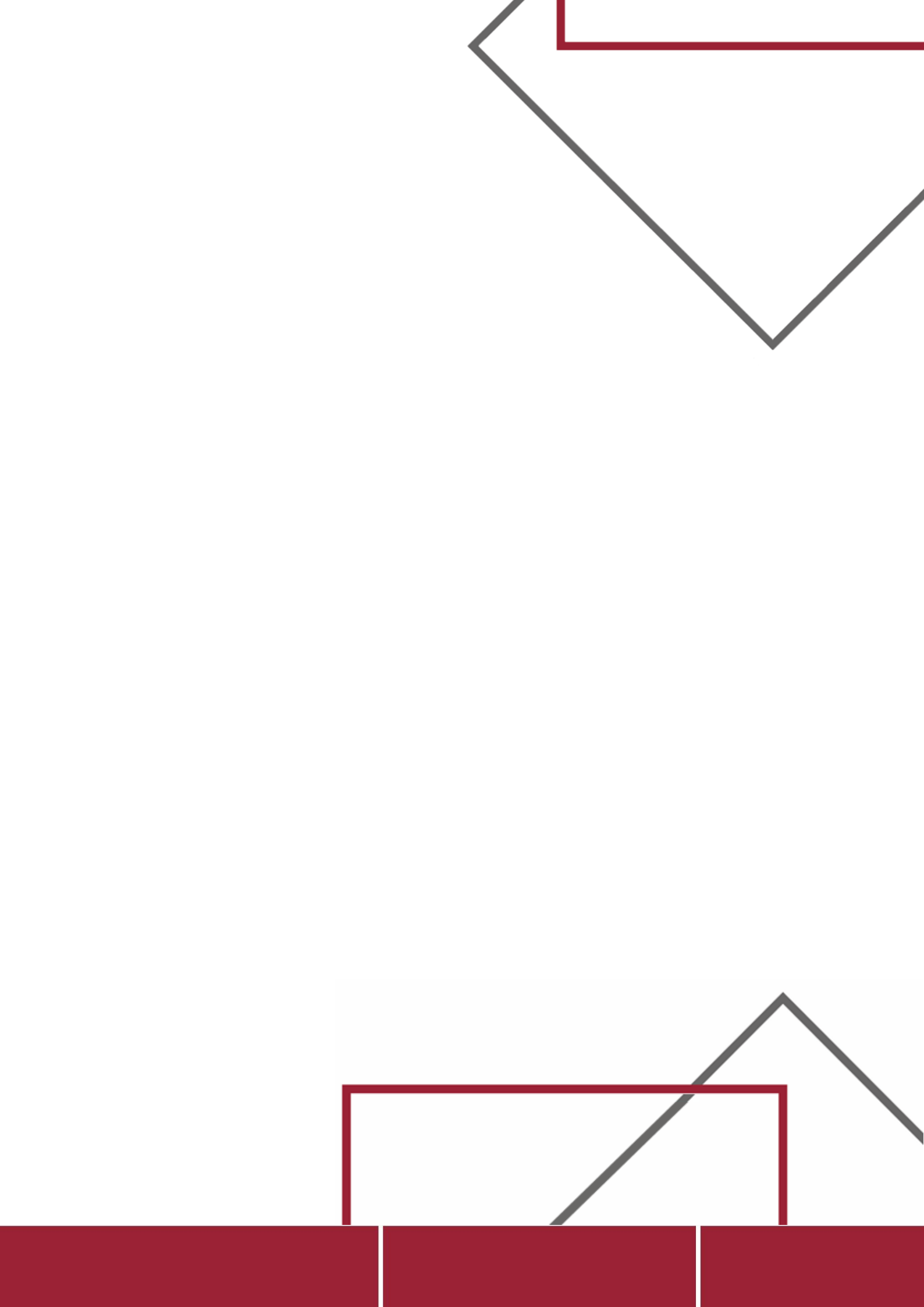

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