

**Public Excluded**

<b>To</b>	Waikato District Council
<b>From</b>	Vishal Ramduny Acting General Manager Community Growth
<b>Date</b>	6 July 2020
<b>Prepared by</b>	Kelly Nicolson Senior Policy Planner
<b>Chief Executive Approved</b>	Y
<b>DWS Document Set #</b>	GOV1303 / 2667124
<b>Report Title</b>	Approval of the Proposed Waikato District Plan Stage 2 (Natural Hazards and Climate Change) for Notification

The general subject of the matter to be considered while the public is excluded, the reason, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 are as follows:

Reason for passing this resolution	Ground(s) under section 48(1) for the passing of this resolution
Good reason to withhold exists under section 7(2):	Subject to subsection (3), a local authority may by resolution exclude the public from the whole or any part of the proceedings of any meeting only on 1 or more of the following grounds:
(j) prevent the disclosure or use of official information for improper gain or improper advantage.	(a) that the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist.

## I. EXECUTIVE SUMMARY

The purpose of this report is to seek Council approval for the *Proposed Waikato District Plan ("PWDP") – Stage Two Natural Hazards and Climate Change* for notification, calling for public submissions.

Stage 1 of the PWDP was notified on 18 July 2018. Work has continued developing Stage 2 - the climate change and natural hazards provisions. Councillors have received progress reports and workshop updates as the work on Stage 2 has proceeded. Draft provisions were reported to council on 9 September 2019. Council resolved to seek community feedback on

the draft and the results were brought to councillors in two workshops in March 2020. Councillors were advised that there was one final round of formal engagement with iwi authorities, required by Schedule 1 of the Resource Management Act (RMA). This engagement started earlier in the year and continued until recently. All engagement has now been completed and changes have been made to the draft in the light of feedback received.

Stage 2 contains recommended planning provisions for natural hazards including river flooding, flood ponding, coastal inundation and erosion, Huntly mine subsidence, slope instability, wildfire and liquefaction, as well as climate change.

Objectives, policies and rules on these topics are recommended to be contained in a new chapter to be added to the PWDP, Chapter 15 Natural Hazards and Climate Change. Maps of natural hazard areas are recommended to be added as overlays on the Planning Maps. Chapter 15 and the maps are accompanied by another document, Variation 2, which amends Stage 1 text to make it consistent with the approach to natural hazards and climate change proposed in Stage 2.

Staff consider that Stage 2 and the variation to Stage 1 are now ready to be notified together with the evaluation report prepared in accordance with section 32 of the RMA (S32 report). These documents are attached to this report. It is proposed to notify Stage 2 and Variation 2 in late July 2020, with submissions closing in late September (41 working days). This timing will enable the hearing commissioners to hear Stage 2 submissions following on from the Stage 1 hearings in early 2021.

## 2. RECOMMENDATION

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**THAT the report from the Acting General Manager Community Growth be received;**

**AND THAT the Proposed Waikato District Plan Stage 2 (Natural Hazards and Climate Change) and Variation 2 to Stage 1, as attached to the staff report, be adopted and publicly notified, pursuant to sections 73 and 79 and Schedule 1 of the Resource Management Act 1991(RMA);**

**AND FURTHER THAT Stage 2 and Variation 2 be publicly notified on 27 July 2020, with submissions closing on 23 September 2020;**

**AND FURTHER THAT the Council confirms that, in preparing Stage 2 and Variation 2, due regard has been given to the Section 32 evaluation report and the duty to consider the appropriateness of plan provisions, and that the Council is satisfied with the evaluation;**

**AND FURTHER THAT** the Council confirms that, in accordance with Clause 4A, Schedule 1 of the RMA, a copy of the draft proposed Stage 2 and Variation 2 has been provided to the following iwi authorities (as the representatives of their respective hapuu) and consultation has been completed with them:

- Waikato-Tainui
- Ngati Tamaoho
- Ngati Maniapoto
- Tainui Awhiro and
- Hauraki Collective;

**AND FURTHER THAT** the Council confirms that it has had particular regard to the advice received on the draft district plan provisions from iwi authorities, before notifying the plan and variation, and has recorded this outcome in the Section 32 evaluation report;

**AND FURTHER THAT** the General Manager Community Growth is authorised to amend the documents attached to the staff report prior to public notification, only to correct any minor errors that do not change the effect or meaning of the provisions, provided all changes are recorded with reasons and circulated to elected members prior to public notification;

**AND FURTHER THAT** the Council seal be applied to the Proposed Waikato District Plan Stage 2 (Natural Hazards and Climate Change) and Variation 2 and be signed by His Worship The Mayor and the Chief Executive following the resolution of Council and prior to notification;

**AND FURTHER THAT** the Council resolution and report, including attachments, be released into the Open Meeting.

### **3. BACKGROUND OVERVIEW AND OPTIONS**

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#### **3.1. BACKGROUND**

Staff have reported to Council committee meetings and workshops throughout the development of the WPDP and Stage 2 and have sought decisions and policy guidance from councillors at key milestones during that time. For completeness, this report covers a lot of detail that councillors have already received. The intention of covering the detail again in this report is to provide one comprehensive report underpinning the recommendation to adopt Stage 2 for notification.

##### **3.1.1. THE PROCESS**

In April 2014, Council resolved to begin the review of the Operative Waikato District Plan (WDC1404/08/1/7). The review was to integrate and update the Franklin and Waikato sections of the district plan into one document. The new plan was to provide a consistent approach to development and growth for the first time since the district boundary changes in 2010.

In 2017, it became clear that the natural hazard and climate change topics would not be completed in time for notification with the rest of the PWDP. This was due to delays in receiving the flood mapping data and other technical information associated with natural hazards. In March 2018, Council resolved that the climate change and natural hazards topics be reviewed and notified separately from the rest of the district plan topics.

In June 2018, Council adopted Stage 1 of the PWDP for notification (WDC1806/07). Stage 1 covered all district plan topics, except natural hazards and climate change. Stage 1 was notified on 18 July 2018. Council received submissions from 989 people and organisations and 423 made further submissions. The hearing of submissions on Stage 1 started in September 2019 and the hearing commissioners have now completed 16 hearings - around half-way through.

Work has continued developing Stage 2, the natural hazard and climate change provisions. Councillors have received regular progress reports and workshop updates as the work has progressed. Details of relevant Council meetings and workshops are recorded in the S32 report.

This report signals another milestone in the district plan review. Staff consider that Stage 2 (Natural Hazards and Climate Change) and Variation 2 to Stage 1 are ready for notification. This will complete the notification of the full suite of proposed plan provisions to replace the operative district plan.

The remaining steps and expected timings for the district plan review process are:

- Notification of Stage 2 and Variation 2 (July 2020)
- Submissions received until (late September 2020)
- Submissions summarised
- Further submissions called for (late 2020)
- Hearing of submissions on Stage 2 and Variation 2 (May 2021, after completion of Stage 1 hearings)
- Decisions issued by hearing commissioners (third quarter 2021)
- Appeals to Environment Court (notices received late 2021)
- Operative District Plan (best scenario late 2023).

Council's decision in 2018, to separate out the natural hazards and climate change provisions from the rest of the district plan review, changed the process into a rolling review in terms of the RMA. This report covers Stage 2 of the rolling review, which completes the proposed plan as originally envisaged.

### **3.1.2. ENGAGEMENT AND CONSULTATION**

Extensive engagement was undertaken on the draft hazards and climate change text and maps over several years. Details of the consultation process are recorded in the S32 report. Feedback from key stakeholders, iwi, coastal communities at Raglan and Port Waikato, and the wider district was received, considered and, where considered appropriate, incorporated into revised draft provisions and maps.

The public engagement on Stage 2 started when the draft objectives and policies, and 1D flood modelling for the Waikato and Waipa Rivers, were made available for public feedback, along with the Stage 1 Draft Proposed District Plan in November 2017. Nine community drop-in sessions were held throughout the district. These were for the community to engage with staff and councillors about any topic in the District Plan that was important to them. No specific feedback was received on the objectives, policies or flood maps at that time.

A series of community workshops/drop-in sessions were held in Raglan and in Port Waikato in December 2017 and November 2018. The initial sessions were to gather information about coastal hazards from the local communities. Subsequent sessions were held to share the findings of the coastal hazard assessment and to give the community an opportunity to provide feedback.

As required by the RMA, the following parties were consulted:

- The Minister for the Environment; and
- Those other Ministers of the Crown who may be affected by the policy statement or plan;
- Local authorities who may be so affected; and
- Tangata whenua who may be affected, through iwi authorities. Five iwi authorities were approached in this regard: Waikato-Tainui, Ngati Tamaoho, Ngati Maniapoto, Tainui Awhiro and Hauraki Collective. As noted below, a number of hapuu were also consulted.

A collaborative partnership with Waikato Regional Council staff was established for the development of Stage 2, with both councils contributing to the development of a two-dimensional flood model for the 1% Annual Exceedance Probability (AEP) flood event of the Waikato and Waipa Rivers. Waikato Regional Council staff also contributed technical information and support to Waikato District Council staff throughout the development of the draft provisions and hazard maps.

Draft Stage 2 natural hazards and climate change provisions were reported to council on 9 September 2019. Council approved the draft to be made available for community feedback (WDC1909/45.)

Public engagement took place at a number of open days in various locations around the district, following the release of the draft of Stage 2 in September and October 2019. Public and stakeholder feedback was received and a summary of the feedback was reported to the Policy & Regulatory Committee on 3 February 2020. The feedback received, and suggestions as to how it could be incorporated into the plan, were presented to councillors at two workshops on 11 and 18 March 2020.

Consultation with iwi has occurred throughout the review of Stage 2. In particular, Raglan and Port Waikato iwi were engaged during the development of the coastal hazards assessment and the subsequent development of draft provisions and hazard maps.

The draft Stage 2 provisions, the hazard maps, and Variation 2 were sent to iwi authorities and other hapuu on 14 April 2020, and their advice sought, as required by Schedule 1, clause 4A of the RMA. In light of the COVID-19 disruptions, staff delayed bringing this report to Council while dialogue continued with iwi authorities and hapuu and their feedback was

received. All feedback received from these entities was considered and responded to. Iwi advice and feedback received are detailed in the S32 report.

Consultation has now been completed in accordance with the requirements of the RMA and the Local Government Act 2002. Changes have been made to the plan in response to feedback received.

## 3.2 OVERVIEW

District plans promote the sustainable management of natural and physical resources, primarily through managing the effects of land use, development and subdivision on the environment. Management of the effects of natural hazards focuses on future land uses, especially building, with the idea of keeping new development out of harm's way. Climate change complicates this because hazard events are predicted to occur more frequently and to affect some land, especially on the coast, in ways that have not been experienced in the past. District plan controls therefore need to be supported by a community information programme.

Stage 2 comprises of these documents:

- New Chapter 15: Natural Hazards and Climate Change, inserted into the PWDP.
- Maps of natural hazard areas, added as overlays on the Planning Maps.
- Variation 2, containing amendments to the text of Stage 1 chapters to ensure that Stage 1 is consistent with the approach to natural hazards and climate change proposed in Stage 2.

These documents are attached to this report, together with the S32 report.

### 3.2.1 Statutory provisions

The RMA contains these definitions:

“**natural hazard** means any atmospheric or earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment.”

“**climate change** means a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods.”

Section 6 of the RMA requires councils to recognise and provide for the management of significant risks from natural hazards, as a matter of national importance. Section 7 of the RMA requires councils to have particular regard the effects of climate change when developing RMA plans.

Under section 30 of the RMA, district council functions include “the control of any actual or potential effects of the use, development, or protection of land, including for the purpose of the avoidance or mitigation of natural hazards.”

District councils have no specific function in regard to climate change, but must have particular regard to the effects of climate change in all RMA decision-making. Climate change is a relevant consideration in the management of natural hazards, because of the increased risk of natural hazards due to the changing climate.

The RMA gives regional councils functions to control land use to avoid or mitigate natural hazards that overlap the district council function. Within each region, the regional policy statement allocates specific responsibilities between councils, to ensure that approaches are co-ordinated. The Waikato Regional Policy Statement (RPS) provides (4.2.10) that for natural hazards, district councils control the use of land, except that Waikato Regional Council is to control the use of land in areas identified as primary hazard zones, being areas where the risk to life, property or the environment from natural hazards is intolerable. To date, the Waikato Regional Plan has not adopted any primary hazard zone or other natural hazards provisions, so control of land use in relation to natural hazards is managed solely through district plans.

#### *Waikato Regional Policy Statement*

The RPS contains detailed policies and methods that district plans must give effect to:

#### **“Policy 13.1 – Natural hazard risk management approach**

Natural hazard risks are managed using an integrated and holistic approach that:

- a) ensures the risk from natural hazards does not exceed an acceptable level;
- b) protects health and safety;
- c) avoids the creation of new intolerable risk;
- d) reduces intolerable risk to tolerable or acceptable levels;
- e) enhances community resilience;
- f) is aligned with civil defence approaches;
- g) prefers the use of natural features over man-made structures as defences against natural hazards;
- h) recognises natural systems and takes a ‘whole of system’ approach; and
- i) seeks to use the best available information/best practice.

#### **Policy 13.2 Manage activities to reduce the risks from natural hazards**

Subdivision, use and development are managed to reduce the risks from natural hazards to an acceptable or tolerable level including by:

- a) ensuring risk is assessed for proposed activities on land subject to natural hazards;
- b) reducing the risks associated with existing use and development where these risks are intolerable;
- c) avoiding intolerable risk in any new use or development in areas subject to natural hazards;
- d) minimising any increase in vulnerability due to residual risk;
- e) avoiding the need or demand for new structural protection works; and
- f) discouraging hard protection structures and promoting the use of alternatives to them, including natural defences in the coastal environment.

### **Policy 13.3 High impact, low probability natural hazard events**

The risks associated with high impact, low probability natural hazard events such as tsunami, volcanic eruptions, earthquakes and debris flows are considered, having particular regard to:

- a) personal health and safety;
- b) damage and/or disruption to essential community services;
- c) the ability of a community to respond and recover; and
- d) civil defence readiness, response and recovery planning.”

These policies are accompanied by a number of method statements requiring specific implementation through district plans. The recommended planning provisions and maps of Stage 2 give effect to these.

#### *New Zealand Coastal Policy Statement*

The district plan must also give effect to the New Zealand Coastal Policy Statement (NZCPS). Objective 5 is to ensure that coastal hazard risks, taking account of climate change, are managed by:

- locating new development away from areas prone to such risks;
- considering responses, including managed retreat, for existing development in this situation; and
- protecting or restoring natural defences to coastal hazards.

Policies 24-27 require:

- identification of areas potentially effected by coastal hazards over at least 100 years;
- management of new subdivision, use and development in areas of coastal hazard risk;
- management of redevelopment and changes of use to reduce the risk of adverse effects from coastal hazards;
- discourage hard protection structures, while promoting other alternatives such as natural defences; and
- assess the range of options for reducing coastal hazard risk in areas of significant existing development likely to be affected by coastal hazards.

#### *Stage 2 approach*

Stage 2 incorporates the approaches required by the RMA, RPS and NZCPS, including by:

- taking a risk-based approach in managing subdivision, use and development for the avoidance or mitigation of natural hazards
- minimising any increase in vulnerability due to residual risk
- avoiding the need or demand for new structural protection works and utilising natural defences wherever possible
- giving particular consideration to coastal hazards in a 100 year time frame.

### **3.3 CONTENT OF PROPOSED PLAN PROVISIONS**

Matters included in PWDP Stage 2 relate to:

- Flooding, ponding and flood defences
- Coastal hazards
- Huntly mine Subsidence
- Liquefaction
- Land instability
- Wildfire
- Climate change.

The proposed Chapter 15, which is attached, contains overarching objectives and policies that apply to all natural hazards. In addition, there are specific objectives and policies recommended for each of the natural hazards mentioned above.

#### *Overarching provisions*

Objective 1 seeks a resilient community, where the risks from natural hazards to people, property, infrastructure and the environment from subdivision, use and development of land are avoided or appropriately mitigated.

Objective 2 is for a well-informed community, that can effectively and efficiently respond and recover from natural hazard events.

Objective 3 seeks a well-prepared community, that is able to adapt to the projected effects of climate change.

General policies outline how these objectives are to be achieved including by:

- providing for subdivision, use and development where the natural hazard can be adequately managed
- restricting development in higher-risk areas
- taking into account the projected effects of climate change when planning for land use, subdivision and development.

Chapter 15 also includes the proposed rules on natural hazards, described in more detail below.

Variation 2 amends chapters of Stage 1, to align the text with the contents of Chapter 15. Variation 2 mainly adjusts Stage 1, rules in the zone chapters to cover assessment of natural hazards. These are described in the next section of this report.

### **3.3.1 Flooding and flood defences**

#### *Background*

The flood maps recommended to be added to the Planning Maps underpin the recommended provisions. These maps were provided by Waikato Regional Council. There are four mapped areas for managing flood and ponding hazards and residual risk:

**High Risk Flood Area** is where the depth of flood water in a 1% AEP flood event is expected to exceed one metre and the speed of flood water is expected to exceed two metres per second. Such flood waters are considered to put the community at an unacceptable (or intolerable) level of risk in terms of loss of life, injury or serious damage to property. These areas have been identified through the two-dimensional flood modelling. Subdivision and new activities within the High Risk Flood Area overlay are recommended to be carefully regulated.

**Flood Plain Management Area** is the 1% AEP floodplain and has been identified using both one-dimensional and two-dimensional flood modelling, depending on the level of information available. All of the High Risk Flood Area is contained within the wider Floodplain Management Area.

**Flood Ponding Area** - There are two mapped flood ponding areas that are expected to experience floodwater ponding in a 1% AEP rainfall event where the source of flooding is from the land rather than the river. One of these areas is located in the southern part of Huntly, on the eastern side of the river and has been specifically identified because it is an integral part of the Lower Waikato-Waipā Flood Control Scheme, managed by the Waikato Regional Council. The other ponding area is located around Lake Waahi and Lake Puketirini in Huntly West. The flood plain rules are recommended to apply to both of these mapped flood ponding areas. Other 1% AEP ponding may occur in other areas but these are not shown on the planning maps.

**Defended Area** - This is an area that is protected from flooding from the river by stopbanks owned and maintained by Waikato Regional Council. The mapped defended area identifies land that is protected by those stopbanks which are designed to provide protection in a 1% AEP flood. These are generally located along the length of the Waikato River. Defended areas are recommended to be included in the district plan to ensure that the residual risk (potential for flooding due to a greater-than-design flood event that overtops the stopbanks or a breach of the stopbank) is understood and is considered as part of any subdivision or development proposals or any proposal to rezone land to a more intensive land use.

#### *Overview of the recommended provisions for flooding, ponding or residual risk*

The key principles underpinning the proposed approach to the provisions are to discourage development where there is high risk of flooding; to allow development within the floodplain under certain conditions; to protect the effectiveness of the stopbanks; and to assess any residual risk on land protected by stopbanks. The provisions as drafted reflect the following recommended approach for the flood overlays:

#### **High Flood Risk Area**

- Enable farm and accessory buildings without floors
- Allow for maintenance and minor upgrading of infrastructure
- Provide a consenting pathway for minor additions to existing buildings
- Discourage new buildings to limit the risk to people and property
- Discourage the location of emergency services in this area so that these are still able to respond in an emergency
- Discourage hazardous facilities

- Discourage community infrastructure
- Provide for subdivision where additional lots/building platforms are outside high risk areas, and discourage subdivision that cannot meet these conditions.

### **Flood Plain Management Area and Flood Ponding Area**

- Allow for buildings where risk is managed by setting minimum floor levels
- Allow for stand-alone garages and farm and accessory buildings without floors
- Allow for minor additions to existing buildings that do not have the minimum floor levels to minimise risk to people and property
- Allow for new infrastructure
- Allow for earthworks to create a building platform
- Restrict the volume, area and height/depth of earthworks other than those associated with creating a building platform
- The implications of the floodplain to be assessed for subdivision applications
- Discourage the establishment of hazardous facilities.

### **Defended Area**

- Locate earthworks and buildings away from any 1% AEP stopbank, so as not to disturb them
- Subdivision to create additional lots will require additional assessments including stopbank security, adverse effects to people and property from potential failure or overwhelming, and any mitigation measures.

## **3.3.2 Coastal hazards**

### *Background*

In order to better understand the coastal hazards and the risk to communities, Focus Resource Management Group was commissioned by Council to define areas potentially vulnerable to coastal erosion and coastal flooding. All of the district's coastlines have been assessed, apart from the east coast around Miranda<sup>1</sup>. The study included a detailed assessment for Raglan and Port Waikato urban areas and a broad-scale desktop coastal hazard assessment for the open coastline and estuaries along the western coastline.

The assessment identified areas at greatest risk of inundation and/or erosion with existing sea level in urban areas (high coastal hazard risk). It also identified additional areas that could be affected by inundation and/or erosion with projected sea level rise over the next 100 years (coastal sensitivity areas). Risk avoidance is recommended as the preferred approach, wherever practical, with high coastal hazard risk when:

- constructing new buildings
- establishing major new infrastructure
- undertaking major upgrades to existing infrastructure

<sup>1</sup> This coast is being reviewed under a project lead by the Hauraki District Council and the results will be reported when ready.

- considering applications for greenfield development or any other significant intensification of land use.

In areas of existing development, the recommended policies and rules aim to avoid increasing and, where reasonably practicable, reducing the risk of adverse effects from coastal hazards within the identified high risk hazard areas and the coastal sensitivity areas.

In the Coastal Sensitivity Area, the recommended policies and rules allow for development that can adapt to changes in the future, such as buildings that can be raised or relocated if and when required.

#### *Overview of the recommended provisions for Coastal Hazards*

Four overlays have been developed based on either erosion or inundation risk. These overlays are recommended to be included in the Stage 2 maps.

The four coastal hazard areas recommended to be added to the Planning Maps are:

#### **High Risk Coastal Hazard (Inundation) Area and High Risk Coastal Hazard (Erosion) Area**

These overlays identify land where there is significant risk from either coastal erosion or coastal inundation with existing sea level and coastal processes.

#### **Coastal Sensitivity Area (Erosion) and Coastal Sensitivity Area (Inundation)**

These overlays identify land that is potentially vulnerable to either coastal erosion or coastal inundation over the period to 2120, assuming a sea level rise of one metre.

Subdivision and development are recommended to be discouraged in the high risk overlays. The table below outlines the general direction of the recommended rules for managing coastal hazards:

<b>High Risk (both erosion and flooding)</b>	<b>Coastal Sensitivity (both erosion and flooding)</b>
Restrictions on new buildings.	Provide for new buildings that are relocatable. Buildings within the flood hazard area will require a minimum floor level.
Limited additions to existing buildings.	No additional rules for additions to existing buildings.
Provide for buildings and structures that have an operational or functional need to be in that location.	No additional rules for buildings and structures that have a functional or operational need.
Provide for farm and accessory buildings with no floor.	No additional rules for farm and accessory buildings.
Restrict earthworks.	Allow small-scale earthworks.
Provide for maintenance of lawfully-established protection structures.	Provide for maintenance of lawfully-established protection structures.

High Risk (both erosion and flooding)	Coastal Sensitivity (both erosion and flooding)
Consent will be required for new protection structures.	Consent will be required for new protection structures.
Discourage subdivision to create additional lots through a non-complying activity status.	Subdivision provided for as a discretionary activity.
Consents will need to be accompanied by a coastal hazard assessment including the effects of climate change.	Consents will need to be accompanied by a coastal hazard assessment including the effects of climate change.

### 3.3.3 Huntly Mine Subsidence

#### *Background*

Subsidence has occurred in the past at Huntly East due to former underground coal mining and is recommended to be identified as a **Mine Subsidence Risk Area**.

In the 1980's, the area was subject to extensive land subsidence due to pillars collapsing within the mines. Due to the potential for ongoing subsidence, the area of risk has been identified in the district plan from the mid-1990's and the operative rules require resource consent for earthworks, building and subdivision.

The Mine Subsidence Risk Area has been subject to a number of council-commissioned assessments since 2008, to determine whether subsidence is still ongoing. Ian R Brown Associates Ltd, was engaged by Council to reassess the probability of subsidence following the closure of the Huntly East Mine and subsequent flooding of the mine workings. The assessment concluded that there is the potential for further subsidence as a result of pillar destabilisation from flooding. In addition to that, the assessment considered methane gas as another potential hazard. The conclusions of this report were confirmed in a peer review by Terra Firma.

Subsequently, RDCL Engineering Consultants were engaged to provide Council with a risk-based assessment of the hazards, by assessing the likelihood of a particular event occurring and the consequence of that event on residential and non-residential buildings and in-ground and above ground linear infrastructure. This work confirmed that there is a continued risk of subsidence while the mine is flooding, but the likelihood of methane gas migrating to the ground surface was considered to be extremely low due to the geology and presence of ground water above the mine, obstructing the upward migration of gas. It is recommended that there be no controls in the district plan in relation to gas migration.

#### *Overview of the Provisions for Mine Subsidence Risk Area*

The recommended rules on landuse in the Mine Subsidence Risk Area provide:

- Minor additions to existing buildings up to 15m<sup>2</sup> and a maximum length of 20m for an entire building is permitted.
- Additions that do not meet the permitted standards require consent.
- Detached garages up to 55m<sup>2</sup> in area and the length of the building being no greater than 20m are permitted.

- Stand-alone garages that do not meet the permitted standards will require resource consent.
- Construction and upgrading of existing infrastructure is permitted.
- Small quantities of earthworks are permitted.
- Earthworks that do not meet the permitted standards will require a consent.
- Construction of new buildings will require consent.
- Subdivision applications require consent and must be accompanied by a report that:
  - Confirms that each site is suitable for the activity intended.
  - Includes a detailed design of the proposed residential building and confirmation that the design and building materials can accommodate ground settlement.

These rules are generally more permissive than the operative district plan. The operative district plan is silent on infrastructure in this area.

### 3.3.4 Liquefaction

#### *Background*

New Zealand's focus on liquefaction has increased as a result of the experience of the Canterbury Earthquake Sequence 2010 - 2011.

The soil type and the depth of the water table are key determinants of whether an area is susceptible to liquefaction. Soil types that are susceptible to liquefaction are typically those that are geologically young and deposited in low energy environments. The areas containing significant deposits of potentially liquefiable soils are often relatively flat and close to waterways. These are the same areas that have historically made for attractive places for people to settle and build.

The document titled "Planning and engineering guidance for potentially liquefaction-prone land" has informed the approach to managing liquefaction in Stage 2. That document was developed by the Ministry for the Environment, the Earthquake Commission and the Ministry of Business, Innovation and Employment.

#### *Overview of the Provisions for Liquefaction*

Areas susceptible to liquefaction have not been mapped as part of Stage 2. Liquefaction risk is proposed to be assessed as part of every application for subdivision throughout the district to determine if the site is exposed to a significant risk from natural hazards under section 106 of the RMA. There is currently insufficient information available to map areas susceptible to liquefaction. In future, when information becomes available, a plan change might be considered to identify and map those areas.

The approach of the proposed provisions is to include assessment criteria on subdivision and some land uses (such as multi-unit development) to confirm the liquefaction vulnerability category. Geotechnical or other assessment will be required to determine if the site is susceptible, to evaluate any risk of liquefaction, and to indicate any mitigation needed. The associated assessment criteria in the proposed plan enable the outcomes and

recommendations of the geotechnical assessments to be assessed and conditions to be imposed on resource consents where appropriate.

### 3.3.5 Land instability

Areas of land instability exist within the district. To comprehensively identify these areas over the entire district is not considered practical. This is because of the size of the district and the changing circumstances in which land instability occurs (often after high rainfall or seismic events). Consequently, the recommended Chapter 15 includes a policy for land instability to be assessed in the context of new development. Policies are supported by assessment criteria, in restricted discretionary activity rules, that require assessment to confirm that a building platform is stable before subdivision or development takes place. Geotechnical assessment to assess slope stability is also part of the building consent process.

### 3.3.6 Wildfire

The proposed Chapter 15 includes a policy for buffers to be provided around new residential development subject to elevated fire risks. The policy is supported by assessment criteria, in restricted discretionary activity rules, that require appropriate assessment to be made during the consenting phase. More broadly, fire hazards are controlled by Waikato Regional Council, the Department of Conservation and Waikato District Council, through legislation other than the RMA; using both regulation and by increasing public awareness through information.

### 3.3.7 Consideration of climate change

#### *Background*

The effects of climate change, as they are currently understood, are likely to impact the Waikato district in various ways and potentially include:

- Higher weather temperatures;
- More frequent intense winter rainfalls which will increase the likelihood of rivers flooding and flash flooding when urban drainage systems become overwhelmed;
- Longer summers with higher temperatures and lower rainfall will reduce soil moisture and groundwater supplies;
- Drought intensity will likely increase over time. Drier conditions in some areas are likely to be coupled with more frequent droughts;
- River flows are likely to be lower in summer and higher in winter; and
- Rising sea levels will increase the risk of erosion, coastal flooding and saltwater intrusion and increase the demand for coastal protection.

Climate change will not introduce any new types of coastal hazards, but it will increasingly change the nature and extent of the impact from coastal hazards compounded by sea level rise. Sea level rise will exacerbate and increase the frequency of coastal erosion and inundation. It will also raise groundwater levels in coastal areas and inland low-lying coastal plains. This will increase the risk from coastal hazards to exposed coastal development and

result in risks not previously experienced; for example, liquefaction risk as sea level continues to rise and saltwater intrusion into ground water supplies.

The proposed provisions include an objective which enables a well-prepared community to adapt to the projected effects of climate change. Policies achieve this objective by managing effects of climate change on subdivision and development and by adopting a precautionary approach when dealing with uncertainty.

The technical models for natural hazards have included an allowance for climate change as determined by national guidance. For example, the flood modelling has included a projected increase in rainfall intensity associated with a temperature increase of at least 2.1 degrees Celsius by 2120. Similarly included is the projected increase in sea level of at least one metre by 2120, with increases in storm surge, waves and wind.

### **3.3.8 Consideration of other natural hazards**

The natural hazards discussed above are considered to pose the risks that are most appropriate to be managed under the district plan.

Less frequent natural hazards in a district are not considered to need a district plan response. These include tsunamis, volcanic eruptions, extreme wind events and drought. The RPS (13.3.1) calls for local authorities to consider the potential effects of these low-probability events, but allows for responses other than through the district plan.

Emergency management by agencies, such as the Waikato Civil Defence and Emergency Management Group, play a significant role in preparing for low-probability events. They do this by using hazard management tools such as education and advocacy, warning systems and emergency preparedness. There are also non-statutory instruments and processes, such as community response plans and programmes to increase community preparedness, including contingency planning. Insurance and emergency services also play an important role.

The Building Act 2004 also contributes to the management of the impacts of natural hazards on buildings. It requires new buildings to meet the requirements of the Building Code against ground shaking, flooding and wind loadings. The Building Act also provides for identification of existing buildings that are earthquake-prone and the exercise by Council of the powers in relation to these.

## **3.4 SECTION 32 EVALUATION**

Section 32 of the RMA requires Council, as part of the review of the District Plan, to carry out an evaluation to examine the extent to which the objectives of the PWDP are the most appropriate way to achieve the purpose of the RMA. Council must also examine whether the “provisions” (being policies and rules) of the PWDP are the most appropriate way to achieve the objectives by:

- a) identifying other reasonably-practicable options for achieving the objectives; and
- b) assessing the efficiency and effectiveness of the provisions in achieving the objectives; and
- c) summarising the reasons for deciding on the provisions.

This assessment of the provisions must also identify:

- a) the costs of benefits anticipated from the provisions (and, if practicable, quantify the costs and benefits); and
- b) an assessment of the risk of acting or not acting if there is insufficient or uncertain information about the subject matter of the provisions.

The S32 report is attached. Council is required, pursuant to Schedule 1 of the RMA, to have “particular regard” to the S32 report when determining whether to publically notify Stage 2 and Variation 1.

### **3.5 WHEN RULES TAKE LEGAL EFFECT**

The RMA gives Council options to determine the timing when rules take legal effect. The default position is that the rules in Stage 2 and Variation 2 will not have immediate legal effect when notified. The rules will only take legal effect after submissions have been heard and decisions are released.

Council has a power to delay legal effect until the proposed plan becomes operative after appeals. Alternatively, council can apply to the Environment Court for approval for an order that legal effect be immediate on notification.

No change is recommended to the default timing in this case. The release of decisions is considered the appropriate time for the proposed rules to take legal effect. Stage 2 and Variation 2 are intended to build community resilience to natural hazards over a long time frame. As such, the time taken for submissions and hearings will make little difference. The new rules and mapped hazard areas are likely to benefit from fine tuning through the submissions and hearings process.

### **3.6 NOTIFICATION**

The RMA requires a notification period of at least 40 working days. The time frame for notification, recommended above, allows 41 working days. This is considered adequate for people to lodge their submissions given the wide consultation that has already taken place. This timing will enable the hearing commissioners to hear Stage 2 submissions following on from the Stage 1 hearings in early 2021.

Council has previously appointed the hearings commissioners to hear submissions on both Stages 1 and 2. This was done in September and December 2018 (WDC1809/14; WDC 1812/08) and April 2019 (WDC1904/07 and 1904/08).

A letter to each landowner in the district will be sent out as part of the public notification. It is envisaged that the letter will be enclosed with the first instalment rates notice in early August 2020. It will contain information about where the documents can be viewed and encourage landowners to make a submission. At the same time, public notices and specific notification of Government, iwi and other parties will proceed in accordance with the RMA. This will be accompanied by a council media release and other marketing.

Anyone can make a submission on the content of Stage 2 and Variation 2 during the notification period. Submission forms will be available through council’s website and will also be available at Council offices, libraries and on the website. A hard copy can also be mailed out on request.

As usual in district plan processes, council is entitled to make its own submission on the proposed plan. Staff will consider the need for a council submission and will engage with the appropriate council committee if a submission is considered beneficial.

### **3.7 OPTIONS**

The options open to Council now are:

1. Approve notification of all of Stage 2 and Variation 2 (recommended).
2. Delay notification - call for further reporting, consultation and section 32 evaluation on identified issues.
3. Proceed with notification of specific parts of Stage 2 and Variation 2 and delay consideration of remaining parts and call for further reporting on identified issues.

Options 2 and 3 are not recommended. These options will incur additional costs for further plan development work and an overall delay of the district plan review project. There is no guarantee that further polishing done at this stage will make any difference to the public submissions.

Option 1 is recommended as the best way forward in practical terms. Notification of the whole package now means that public submissions can be received, any weaknesses brought to light, and work can begin on any needed improvements sooner than under other options. Notification will not disadvantage the people affected because the proposed rules will not have any immediate legal effect.

Option 1 is also the most efficient. It will enable the hearings panel to efficiently hear submissions following on from Stage 1 hearings in 2021. This timing should enable the decisions on the whole of the Proposed Waikato District Plan to be released by September 2021.

## **4. CONSIDERATION**

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### **4.1 FINANCIAL**

The Policy and Regulatory Committee received a detailed financial update on the district plan review on 3 February 2020 (P&R2002/02). The cost of Stage 2 drafting, notification and reports, experts and legal advice for hearings was estimated at \$1.02 million. There is no material change to that estimate to date, however, staff continue to seek efficiencies where possible. One such example is posting the Stage 2 notice with rates notices (this will see a saving of over \$30,000). The committee report also identified further post-notification costs for the district plan review as a whole. This included hearing panel costs, decision notification costs and an estimate for appeal costs.

### **4.2 LEGAL**

The review of the District Plan has been carried out in accordance with the requirements of the RMA. Senior legal advisors from Tomkins Wake have been involved in the development and review of the recommended Stage 2 provisions.

### **4.3 STRATEGY, PLANS, POLICY AND PARTNERSHIP ALIGNMENT**

The recommended provisions and maps for Stage 2 give effect to relevant National Policy Statements, National Environmental Standards and the RPS. It is not considered that the Future Proof Strategy is affected by Stage 2.

#### 4.4 ASSESSMENT OF SIGNIFICANCE AND ENGAGEMENT POLICY AND OF EXTERNAL STAKEHOLDERS

The pre-notification engagement and the public notification of Stage 2 satisfies the level of engagement for plan changes/reviews. It has been done as per Council's Significance and Engagement Policy (a key policy under the Local Government Act.)

Highest levels of engagement	Inform	Consult	Involve	Collaborate	Empower
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The public notification process will be undertaken as part of Schedule 1 of the RMA. Pre-engagement with tangata whenua, the community, stakeholders and partners occurred throughout the duration of the policy development process.					

The following external stakeholders have been engaged with or consulted during the preparation of the PWDP; and

Planned	In Progress	Complete	
		✓	Internal
		✓	Iwi authorities with interest in the Waikato district
		✓	Mana Whenua in Raglan and Port Waikato
		✓	Households
			Key stakeholders including Mercury Energy
		✓	Business
		✓	Waikato Regional Council

Further engagement will be undertaken through the notification and submission phase. Staff will facilitate public open days around the district while Stage 2 is open for submissions. Staff intend to engage a "friend of the submitter" which is what was done for Stage 1.

## 5. CONCLUSION

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Staff consider that Stage 2 is now ready for notification. It is recommended that Council adopt and proceed with public notification of the Proposed Waikato District Plan Stage 2 (Natural Hazards and Climate Change) and Variation 2 to Stage 1, pursuant to sections 73 and 79 and Schedule 1 Resource Management Act 1991.

## 6. ATTACHMENTS - *to be circulated under separate cover*

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- A. Proposed District Plan Stage 2 – new chapter 15
- B. Planning Maps showing natural hazard areas
- C. Proposed District Plan - Variation 2 to Stage 1
- D. Section 32 Report

Released to open (WDC2007/05)