



# EFFECT OF FLOOD HAZARD NOTATION ON PROPERTY VALUES



REPORT PREPARED FOR  
THE TAUPŌ DISTRICT COUNCIL

Plan Change 34  
Update of Flood Hazard Areas  
Lake Taupō and its major tributaries.

September 2015



**TRUSS & KEYS**  
VALUERS LIMITED

# EFFECT OF FLOOD HAZARD NOTATION (PLAN CHANGE 34) ON PROPERTY VALUES

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Plan Change 34  
Update of Flood Hazard Areas  
Lake Taupō and its major tributaries.



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## 1.0 INTRODUCTION

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### 1.1 BACKGROUND

Under the Resource Management Act, the Taupō District Council is required to prepare and maintain a District Plan to ensure management of how land is used and subdivided. Plan Change 34 is being developed by Taupō District Council to incorporate new information on flood risks related to Lake Taupō and its major tributaries into the District Plan.

This plan change will update existing flood hazard plans around the Tokaanu Stream and the Tongariro and Tauranga Taupō Rivers, as well as introducing new areas of potential flood risk, around the Hinemaiaia River, Kuratau River, Whareroa Stream and the margin of Lake Taupō.

The plan change will include objectives, policies and rules to provide direction on how land use activities and subdivision will be managed in light of the identified flood risks. The areas affected by these new rules will be identified on a series of District Plan maps showing the different levels of flood risk - low, medium and high. All of the potential flood hazard areas will be based on the 1% Annual Exceedance Probability flood event (including climate change).

The Taupō District Council is going to start consulting with landowners about this new flood information during 2015. It is anticipated that the effect of a flood hazard notation and possible rules in the District Plan on valuation of properties, amongst other things will be raised as an issue by landowners.

### 1.2 NATURE AND SOURCE OF INFORMATION RELIED UPON

Truss & Keys Valuers Limited have obtained information from the Taupō District Council and various third party sources to assist with this report. These sources include Real Estate Institute of New Zealand, Property Guru, Local and Regional Councils, and industry peers. I reserve the right, (under no obligation) to review this report and revise my opinion after the release of this report, if any information relied upon by third parties or others is subsequently proven to be incorrect.

This report has been prepared on the basis that the party to whom it is addressed has made full disclosure of all information that may affect the report. Truss & Keys Valuers Limited accepts no responsibility for the consequences of a failure to make such disclosure.

### 1.3 RESTRICTIONS ON USE, DISTRIBUTION OR PUBLICATION

This report may only be relied upon by the Taupō District Council. Use by, or reliance upon this document by anyone other than the Taupō District Council, is not authorised by Truss & Keys Valuers Limited and Truss & Keys Valuers Limited is not liable for any loss arising from such unauthorised use or reliance.

We accept no liability to third parties nor do we contemplate that this report will be relied upon by third parties. We invite other parties who may come into possession of this report to seek our written consent to them relying on this report. We reserve the right to withhold our consent or to review the contents of this report in the event that our consent is sought.

Truss & Keys Valuers Limited specifically prohibit the publication of this report in whole or in part, or any reference thereto, or to the conclusions contained therein, or to the name and professional affiliation of the Valuers, without written approval of the Valuer concerned.

### 1.4 VALUATION STANDARDS

This report has been completed in compliance with International Valuation Standards (2013) 101, 102, 103, 230, 310, and the Australia and New Zealand Property Standards (2012) Guidance Notes.

## 2.0 PURPOSE

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The purpose of this report is to provide the Taupō District Council with opinion and information on what the impact of placing a low, medium, or high flood hazard classification will be on the value of the affected properties both in the short and long term as proposed by Plan Change 34 to the Taupō District Plan.

## 3.0 SCOPE OF WORK

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### 3.1 PROPERTY VALUE IMPACTS

Report on the likely property value impacts from the proposed changes (Plan Change 34) to the District Plan regarding revised Flood Hazard Plans (short term and longer term). Discuss stigma and adverse publicity.

### 3.2 NEW ZEALAND EXPERIENCES

Provide reporting based upon New Zealand “experiences” relating to comparable examples from elsewhere in New Zealand. As very limited information exists regarding the effects of District Plan notation changes on property markets it has been necessary to also consider actual flooding events and their impacts.

Discuss the likely impacts of notation changes and their long term outcomes.

### 3.3 LOW, MEDIUM AND HIGH RISK IMPACT

Comment on impact in relation to low, medium and high risk flood hazards as identified on the mapping tool and information provided.

### 3.4 SPECIFIC PROPERTY ISSUES

Provide short comment on specific property issues such as the availability of insurance and finance, plus building consent requirements.

## 4.0 WHAT ARE FLOOD HAZARD PLANS

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Flood Hazard notations and associated planning rules are developed by Local and Regional Councils to fulfil their requirements under the Resource Management Act. In particular to control “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”.

These plans include objectives, policies and rules to provide direction on how land use activities and subdivision will be managed in light of the identified flood risks.

Many local councils use the 1% Annual Exceedance Probability (AEP) flood event to assess whether areas are at risk of flooding, and which areas therefore require special consideration of this in managing the use of the land and construction of buildings.

The Taupō District Council flood hazard areas will be based on the 1% Annual Exceedance Probability flood event (including climate change).

Hydrologists define the likelihood of flood peak flows by their Annual Exceedance Probability (AEP). A so-called 100-year flood does not mean that there is exactly one flood of this size every 100 years. It means that there is a 1 in 100 chance in any given year that a flood of this dimension or greater will occur. It is therefore more correctly called a 1% AEP flood.

From a valuation perspective, the adoption of a 1% AEP is also an appropriate event to use for the assessment of the impact of flood vulnerability on value, as it reflects practical perceptions of vulnerability by purchasers, and is consistent with practices adopted by overseas property experts and researchers.

## 5.0 METHODOLOGY

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It is my opinion, the only appropriate method to determine if there is likely to be any loss in value for affected or potentially affected properties is a market based sales approach.

Market value is defined in the Property Institute of New Zealand Valuation Standards as: ‘the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arms length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion’.

The concept of market value reflects the collective perceptions and actions of the market place and is the basis for valuing most resources in market-based economies. All properties come with a package of advantages and disadvantages depending upon the individual perspective of buyers and sellers. Repairs and maintenance become absorbed in the market dynamics. The cost based approach, does not enter the equation and is irrelevant to establishing market value.

Any reliance on cost based methodology to fix a value, by which I mean the associated costs of mitigating potential flood risk, is inappropriate as that approach does not conform to a market-based concept. It is a well-known axiom of valuation that the cost of undertaking work does not necessarily reflect its value in an open market. Value is not a function of cost, it is a function of market activity.

In determining whether a property has suffered a reduction in value, Valuers would normally look to the market and recent sales of relevant properties. This exercise is normally undertaken some years after the change or event when sufficient relevant sales are available. However, after the change or event occurs, difficulties in isolating the relevant elements of the market sales still persist.

In this case, the sales approach relating to Plan Change 34 is not currently possible because the market is not yet aware of the Flood Hazard Plan changes and therefore the sales that have occurred do not take these changes into account. We must therefore attempt to predict the likely effects that Plan Change 34 will have on the relevant property market.

Research from national and international literature shows that it can take years for a market to adjust to such changes. Any impact to property values as a result of the flood hazard notations will ultimately be determined by sales evidence over a period of time.

We can however provide useful information on the likely impacts of these changes based on research of New Zealand experiences.



## 6.0 MARKET EVIDENCE (NEW ZEALAND EXPERIENCES)

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Information and research relating to the affect a notation such as Plan Change 34 is likely to have on the local property market with any reliability is difficult to obtain. I have therefore utilised research from around New Zealand predominantly where flooding events have occurred. I would expect the impact on property values after an actual flood event would be more severe than a change of notation to the respective District Plan where owner and purchasers are considering the perceived risks.

It can take years for a market to adjust to changes to various aspects of District Plan changes, any impact to property values as a result of the flood hazard notations will ultimately be determined by sales evidence over a period of time.

Within New Zealand there are a number of examples where actual flooding events have had impacts on the relative property market, which I would consider are relevant to the perceived risk from a notation change.

### 6.1 KAPITI COAST

Parts of the Kapiti area are low lying and subject to flooding from the Waikanae and Otaki Rivers. Those areas likely to be affected in a 1% AEP event are extensively mapped on the District Plan. Flooding in Otaihanga occurred in January 2005 when the Waikanae River burst its stop banks. This was the worst flooding seen in the area for 40 years, causing damage to 18 homes and the evacuation of around 700 people from the adjoining area.

Recent research (EQC 2014) of value impacts considered evidence relating to 20 house sales within this immediate area which occurred since mid-2010. In Otaihanga, the market stopped immediately following the floods with recovery over a relatively short 2-3 year time period.

There appeared to be little or no discount for properties subject to ponding or inundation of the site only during these floods.

Researchers identified that, there is greater resistance to higher risk properties located within the river corridor where flood waters entered the dwelling. These properties previously suffered the greatest damage. From properties being marketed in mid-2012, a discount of 5%-10% on the property value relative to unaffected properties was observed.

### *Vacant Land Trends*

In terms of determining the impact on land values, researchers had difficulty in identifying sales of vacant land in areas susceptible to flooding other than infill development. The majority of land sales tended to occur in newly formed subdivisions where sites are engineered and contoured to comply with current regulations.

As such, the Residual Approach was applied to the improved sales in order to identify the relative land component. The Residual Approach is used to determine the underlying land value by deducting the “market” value of the dwelling, outbuildings, site development and chattels from the sale price.

Whilst this is an accepted approach, it is more subjective and relies on a consistent analysis of value for the on site improvements based on size, quality, construction materials and location.

The risk of ponding had limited impact on property prices. Comparing land prices of mapped sites to unmapped sites, it was difficult to identify any difference in value for mapped sites. In other words, there is no measureable additional discount for the flood mapping or risk of ponding.

The Kapiti Coast District Council demonstrated a culture of high disclosure. Hazard areas are clearly identified on the District Plan with respect to flooding risk. Specific site risks are also recorded on the Land Information Memorandum report (LIM report).

Despite this high level of disclosure, this appeared to have limited direct impact on property values in the sales analysed.

### *Summary*

1. In general there is no discernible difference in the values for properties within the 1% AEP Flood Management Area which are subject to ponding, relative to similar properties outside the Flood Management Area.
2. Where flood waters had entered the dwelling a discount of 5%-10% relative to unaffected properties was observed.
3. I would therefore surmise that the perceived risk due to changes in flood plan notations would have a similar impact; i.e. very limited effect on those properties within the Low Flood Risk areas. Properties located within the High Flood Risk areas are exposed to the greatest risks, potential purchasers may well consider these properties should attract a discount, this may be in the region of 10%.

## 6.2 THAMES COAST

A recent research project was undertaken to identify any value differences between flood affected properties and non-affected properties through the Thames Coast. The impact of detailed flood mapping was also considered (Gamby, Reid 2005).

Thames Coast is an area which has been the subject of ongoing flooding since the late 1800s resulting in ongoing flood protection throughout the district.

Significant flooding occurred in 2002 around Thames township and also affected coastal townships immediately north of Thames.

Detailed flood mapping was developed by the Thames District Council following the 2002 floods. This was reviewed and updated in 2011. Allowing for global warming, the change in standards has resulted in a significant change to required floor height levels adjoining or close to various streams that run through this area.

A detailed sales analysis was undertaken on 10 residential sale properties in Te Puru and Tararu which were significantly affected by the 2002 floods. Following the flood, there was some buyer resistance to properties in high risk areas close to the Tararu Creek and at the northern end of Te Puru where flooding was more prevalent. However, this resistance has lessened over time.

Despite the risk of flooding, subsequent evidence from isolated sales in Te Puru still shows premium prices for beachfront properties, particularly from purchasers from outside the district. This highlights the desirability of coastal positions which tends to override any negative influence from risk factors such as periodic flooding, coastal erosion and the like.

The research commented that prior to flood protection works, local agents reported a strong resistance from locals to areas of prevalent flooding at the northern end of Seaview Terrace. With recent extensive flood protection works, the risk of flooding has been mitigated to the extent that the public now perceive this area as a low-medium risk location. This is a significant factor in reducing any potential negative impact on value.

The report also commented that “the new flood mapping introduced by Thames District Council also appears to be impacting the market in affected areas. The reviewed mapping appears to be creating buyer resistance where new floor level heights are well above the previous standard. This creates uncertainty and introduces standards which potentially affect any new additions or new housing. The report commented that anecdotally, from discussions with local agents, a discount of up to 10% - 15% on land values, or 4% - 7% on the total price were evident for properties in areas close to undefended streams”.

However, the report also noted that no discernible discount was seen for sites subject to ponding.

*Summary*

1. Some buyer resistance to properties in high risk properties where flooding was more prevalent. However, this has lessened over time.
2. Premium prices for beachfront properties retained.
3. Extensive flood protection works mitigates public perception of risk. This is a significant factor in reducing any potential negative impact on value.
4. Anecdotal evidence showed a discount of up to 10% - 15% on land values, or 4% - 7% on the total price were evident for properties in areas close to undefended streams.
5. No discernible discount was seen for sites subject to ponding.
6. Again, I would therefore surmise that the perceived risk due to changes in flood plan notations would have a similar impact; i.e. very limited effect on those properties subject to ponding.

Gamby, Evan. Reid, Pamela, *Gold Mining – Environmental Stigma or Property value Enhancement*, 2005

### 6.3 FEILDING

A recent study (EQC 2014) by EQC and its expert Valuers was undertaken in the Feilding area. Extracts from the report follows:

In February 2004, Feilding was significantly affected by flood waters from the Makino Stream which flowed through the commercial area and adjoining residential areas. Up to 150 properties were inundated by floodwaters.

Real estate activity ceased for a period of 3-4 months following the floods, with activity slowing returning to normal.

Following initial resistance to properties in worst affected areas, some 8 years on there is still resistance from locals to properties in worst affected areas.

With the passing of time, however, prices for badly affected properties that do sell, are achieving prices very close to the market level of unaffected properties. Any discount is now small and disappearing.

Flood protection works carried out since the floods are likely to be a significant factor in reducing the impact of potential flood vulnerability.

#### *Summary*

1. Still resistance from locals to properties in worst affected areas.
2. Prices for badly affected properties are achieving prices very close to the market level of unaffected properties. Any discount is now small and disappearing.
3. Flood protection works carried are likely to be a significant factor in reducing the impact of potential flood vulnerability.

*EQC, Diminution in Value Methodology for Increased Flooding Vulnerability, April 2014*

#### 6.4 PREVIOUS NOTATION TAUPŌ DISTRICT COUNCIL 2000

The previous change to the Taupo District Plan Flood Hazard Notations occurred in 2000 when the Taupo District Council undertook a review. While a comprehensive study or analysis has not been undertaken regarding the effect on property values post these notation changes, I would provide the following comments regarding my experiences and Truss & Keys Valuers Ltd observations in providing property advice to clients purchasing or mortgaging properties in these areas after 2000.

In general terms information regarding the Flood Hazard Notations are provided to clients through the District Plan, valuation reports, vendors or Real Estate Agents. Clients often do have concerns purchasing in the areas noted as flood prone however, I have not had any experiences where clients have altered their purchasing decisions or prices offered for properties within these areas. Generally once they have taken advice as they see appropriate they proceed with their purchases without effect from the Flood Hazard Notation.

I have not observed any value difference for comparable properties located in the Flood Hazard Area as opposed to outside the Flood Hazard Area. I believe the previous notation change occurred without any long term effect on the “developed” property market with the same having now been accepted as part and parcel of living in the vicinity of Lake Taupo and its tributaries.

I would however, expect differences for comparable “vacant” sites inside and outside the flood prone areas. This is due to the increased construction costs as a result of building on “low lying” land and the associated engineering requirements and not the notation itself.

*Summary:*

1. No long term effect on property values for developed property.
2. No observed value difference for comparable properties located in the Flood Hazard Area as opposed to outside the Flood Hazard Area.
3. Purchasing public have accepted Flood Hazard Notations as a normal part of due diligence.
4. Any value difference for vacant land is reflective of engineering and construction costs for developing on “low lying” land not the Flood Hazard Notation itself.

## 6.5 MARKET EVIDENCE CONCLUSIONS

In most of the case studies considered, there was a significant short term (up to 3 years) impact on the property market for properties that were subjected to actual flooding, particularly where flood waters entered the dwelling. These generally diminished over time with markets often returning to normal conditions and being difficult to distinguish from non flood affected properties.

I would expect that this situation would be more severe than a notation change as proposed, as it is a perceived risk under consideration as opposed to an actual flooding event.

The speed of recovery from an actual flooding event was dependent upon the ongoing risk of future flooding. As can be seen from the case studies, the recovery from significant one-off events can occur over a relatively short timeframe particularly where mitigation “works” have been undertaken.

Low to moderate buyer resistance is evident in areas subject to ongoing risk of flooding. Anecdotal evidence from experienced local valuers and sales agents in these areas suggested that the greater the perception of risk, the greater the discount in price.

Flood mitigation works tend to have a significant positive effect on buyer perceptions and hastened recovery following flooding.

The frequency of flooding events is likely to have an impact on the perceived risk of property ownership in areas that are subject to the proposed notation change. No significant flooding events have occurred within the Taupo District since 2004 and since this time significant mitigation work has been undertaken to further reduce the risks of a repeat event.

This should have a positive impact on the perceived risk of property ownership in the area subject to the notation change.

## 7.0 STIGMA AND ADVERSE PUBLICITY (SHORT AND LONG TERM)

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A natural concern of property owners is that property located in flood prone areas are subject to a “value loss” due to the risk or perceived risk of flood damage. This perception can be termed “stigma”.

Stigma has been defined by the Australian Property institute (API 1999) as “an intangible factor that may not be measurable in terms of cost to cure but may have real impact on Market Value”. Stigma evolves from the current or past effect of a negative event in the area which influences the markets perception. It is usually a negative perception which results in a discount in value associated with the property or area which means prices do not follow the typical market trend.

The media is an outlet that exacerbates and can prolong the stigma attached to a flood prone area. The portrayal of flooding using dramatic footage of evacuations and damaged houses perpetuates the stigma attached to a particular area and amplifies the sense of fear and caution which is detrimental to the reputation of an area.

Stigma attaches to property in flood prone areas after an event as a result of perceived risk and uncertainty. However, it is my belief and experience that widespread stigma does diminish over time and property value will again normalise. While stigma associated with a particular property may remain however, it is unlikely to affect a wider area in the longer term.

I do not believe that significant "stigma" will result from the notations proposed by Plan Change 34, this would be more likely occur after an actual flooding event.

I would now refer to the following examples of property related stigma:

### 7.1 ONEKAWA, NAPIER

An example of how the market deals with a stigma, or the perception of one, comes from Onekawa, Napier. Part of the Onekawa area was initially a refuse tip, filled and developed as a residential subdivision by the Napier City Council in the 1950s and 1960s. There have been ongoing subsidence issues over a number of years with a major recent effect on a property at 20 Henderson Crescent, which received widespread publicity, including television coverage.

Despite the obvious effect on the value of that particular property, there is no widespread stigma attached to nearby properties and the suburb is seen as a desirable residential location with some residential sales in excess of \$300,000 per property. While some other properties have minor subsidence issues, this is not seen as a significant market factor affecting their value. Significantly, the fill hazard area is known and identified on Council records and would be recorded in any LIM report.

The Onekawa situation supports my view that individual instances of stigma on particular properties have no widespread effect on property values of nearby properties and surrounding localities.



## 7.2 LAKE ROTOITI, ROTORUA

The situation at Lake Rotoiti, Rotorua is also relevant. Adverse publicity regarding the water quality of the lake starting in 2002 caused a negative impact on lakeside property values at that time. Over the passage of time since the publicity, market normality has returned and recent sales indicate that the initial stigma has now largely dissipated.

## 7.3 AWATAPU DRIVE, WHAKATANE

This was a council subdivision developed over a landfill area in the 1980s. Around 1999 – 2000, four residential properties being 4, 8, 10 and 12 Awatapu Drive, developed serious contamination from inadequate filling and compaction and were virtually unsaleable. Whakatane District Council acknowledged liability and agreed to purchase the properties at their full market value as if they were not contaminated.

The sales evidence from within Awatapu Drive at that time clearly established that the stigma arising from the contamination did not accrue to other properties in Awatapu. The suburb, which is mainly group housing, continues to sell. There was and still is, no residual stigma or loss in value to properties other than the four affected ones. This is confirmed by recent sales in Awatapu with the sale trends commensurate with the greater Whakatane area.

## 7.4 STIGMA AND PUBLICITY CONCLUSIONS

1. Individual instances of stigma on particular properties has no widespread effect on property values of nearby properties and surrounding localities.
2. Stigma can attach to property in flood prone areas after a flood event, or as a result of perceived risk and uncertainty. However, widespread stigma will diminish over time and property value will again normalise.
3. As time passes the public will become more aware of the notation change and the associated planning rules and become more knowledgeable about the issues. Concerns and anxieties will ease and market resistance will likely diminish.

## 8.0 PROPERTY INSURANCE

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Insurance cover is generally available for properties located in areas identified within 1% AEP Flood Hazard Areas. It is often more complicated and owners may have to pay more.

Insurance companies make their own decisions about the risk from natural hazards. As a result different insurance companies may take different approaches to property. It is common for insurers to apply a higher excess or premium to the property.

Where the flood hazard is considered extreme by the insurer, flood may be completely excluded. This is less common and only when the insurer considers the risk too high to cover e.g. the area has had multiple flood events within a short period. Insurers will always reserve the right to refuse cover however, declining home insurance is uncommon when flood is the only hazard.

The above provides general advice and comment only, property owners and intending purchasers should take specific advice from their Insurance provider.

## 9.0 PROPERTY FINANCE

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The vast majority of property in New Zealand requires some funding from either Trading Banks or other Financial Institutions.

Property is affected by general market conditions, but to a large degree is a function of finance and if funding is difficult to gain or is expensive, a large sector of the market is removed and demand falls to a position where there is very little in the way of market activity.

Our advice has been that as a general rule, 1% AEP land is acceptable to lenders if this type of land can still be developed and the buildings on the land can be insured. Banks are generally willing to accept these properties as security for a mortgage, although they may require a higher level of equity than non-flood prone properties.

The above provides general advice and comment only, property owners and intending purchasers should take specific advice from their own Bank or Finance Company to ascertain their policies.

## 10.0 CONSTRUCTION REQUIREMENTS

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When a building consent is required to build a dwelling or structure upon a property, the Local Authority is required to consider if the work will create or make worse a natural hazard on a property.

The Building Act states a building consent authority must refuse a building consent if the land on which the building work is to be carried out is subject to one or more natural hazards, or the building work is likely to accelerate, worsen or result in a natural hazard on that land or any other property.

A building consent can be issued pursuant to section 72 of the Building Act 2004. Section 72 states that the consent authority must issue a building consent if it considers the building work will not cause or make worse a natural hazard on the property. This is a conditional consent as a natural hazard has been identified.

Often dwellings constructed within flood hazard areas require an elevated floor level with additional site works to mitigate against potential flood events, resulting in added construction costs.

These additional construction costs are often factored in by purchasers when buying property, particularly vacant land whereby they are often willing to purchase but at a level below that of a comparable property on a non-flood prone site.

## 11.0 VALUE IMPACTS (BY CATEGORY)

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Plan Change 34 will include a three tier Flood Hazard Risk Classification. These along with their respective likely value impact from the plan change notation are summarised as follows:

### 11.1 LOW FLOOD RISK

Definition: Damage to property is likely to be non-structural and mainly due to inundation and deposition of sediment.

#### Value Impact (Plan Change 34):

1. Likely very little short term impact on values for developed properties, the market is likely to adapt very quickly to the notation.
2. If a flooding event were to occur, a short term impact on value is possible however, this is likely to be short term with the market returning to pre-event levels relatively quickly.
3. More significant impact may be seen for vacant (undeveloped) land, due to purchasers factoring in increased construction costs.
4. Purchasers of development block land are likely to apply a discount, due to increased development construction costs, and also the risk around market perception. This is likely to vary depending upon the desirability of the land.

### 11.2 MEDIUM FLOOD RISK

Definition: Damage to Property is unlikely to be structural provided that weak points such as windows and doors are retained above flood level.

#### Value Impact (Plan Change 34):

1. Properties with this notation are likely to be of more concern for purchasers who are most likely to undertake a higher level of due diligence prior to purchase.
2. Values of developed properties with this notation in the short term may see some limited resistance from purchasers however, in the longer term are likely to return to pre-notation change levels if no flood event occurs.
3. Again more significant impact may be seen for vacant (undeveloped) land, due to purchasers factoring in increased construction costs.
4. Purchasers of development block land are likely to apply a discount, due to increased development construction costs, and also the risk around market perception. This is likely to vary depending upon the desirability of the land.

### 11.3 HIGH FLOOD RISK

Definition: Damage to property is likely to be widespread and structural, including instances where buildings have been raised above the “flood level”.

#### Value Impact (Plan Change 34):

1. Properties with this notation will be of most concern for purchasers who undertake a higher level of due diligence prior to purchase.
2. Values of developed properties with this notation may experience a discount in the market, particularly if the property had previously not been identified within a Flood Hazard Area.
3. Post notation is likely to see some buyer resistance and discounting to previously unidentified properties. The level of this would be difficult to predict with any certainty, and would depend upon a number of factors including the reporting around Land Information Memorandum (LIM) reports, post notation adverse publicity, media attention etc. I believe this would be relatively short term (up to 3 years) with public concerns and anxiety eventually diminishing with the market adopting a new level around these properties.
4. The level of discount over the longer term for developed properties may be up to 10%, however the market will find its own level.
5. Again more significant impact may be seen for vacant (undeveloped) land, due to purchasers factoring in increased construction costs with discounting likely to be above 10% due to these costs.
6. Developers are unlikely to purchase development land with these notations unless there is a significant positive driver for the land e.g. foreshore or river frontage. Purchasers are often willing to accept a higher degree of risk (such a flooding) if their drive to purchase a very desirable property given its other positive attributes is sufficiently strong.
7. Development land with this classification is likely to be seen as undesirable and likely to face development opposition from Local and Regional Authorities.

## 12.0 CONCLUSIONS

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Information and research relating to the affect a notation such as Plan Change 34 is likely to have on the local property market with any reliability is difficult to obtain. I have therefore utilised research from around New Zealand predominantly where flooding events have occurred as outlined above.

I would expect the impact on property values after an actual flood event would be more severe than a change of notation to the respective District Plan where owners and purchasers are considering the perceived risks. The hazard already exists regardless of whether or not it is shown on the District Planning map.

From research undertaken and local experience, I am of the opinion that:

1. Plan Change 34 will have very limited effect on those properties within the Low Flood Risk areas, any adverse publicity or “stigma” associated with the change will likely be short term (up to 3 years) with the market returning to pre-change levels relatively quickly.
2. Those properties located within the Medium Flood Risk areas will provide a higher level of anxiety and concern for both property owners and purchasers. However, this again is likely to diminish over time and the market will again adjust relatively quickly.
3. Properties located within the High Flood Risk areas are exposed to the greatest risks. Potential purchasers may well consider these properties should attract a discount with research suggesting that this may be in the region of 10%. However, over the longer term the market will adjust and find its own level.
4. It must also be remembered that many of the properties identified within Plan Change 34 were also previously identified within the existing Flood Hazard Plans within the Taupō District Plan, and many of these properties have experienced previous flooding events. This should provide some mitigation as the market has already adjusted to this notation.
5. The research shows that the greatest value declines and the slowest recoveries have been experienced by those properties that have actually experienced a severe flood event, not a flood hazard notation change such as Plan Change 34. It must be remembered that the hazard already exists regardless of whether or not it is shown on the District Planning map.

## 13.0 REFERENCES

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- The Building Act, <http://www.legislation.govt.nz/act/public/2004>
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## 14.0 QUALIFICATIONS AND DISCLAIMERS

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### Information

This report has been prepared on the basis that the party to whom it is addressed has made full disclosure of all information that may affect the report. Truss & Keys Valuers Limited accepts no responsibility for the consequences of a failure to make such disclosure.

### Benefit

These exclusions and limitations are intended to confer and shall confer a benefit on Truss & Keys Valuers Limited, its shareholders, directors, employees, agents and assigns.

I trust this report, which is valid with an original signature only, satisfies your present requirements. If I can be of any further assistance, please do not hesitate to communicate with the writer.

Yours faithfully

**TRUSS & KEYS VALUERS LIMITED**



**ALEX I KEYS**  
**REGISTERED VALUER**  
*ANZIV, SPINZ, BBS (VPM)*