

## 11 Leigh Currie (Instant Green)

### Draft HPUDS Revised Strategy 2016 – Submission Information

Here's how to provide feedback on the Review to the joint Council working group.

- ▶ Provide feedback via the website [www.hpuds.co.nz/review](http://www.hpuds.co.nz/review)
- ▶ Email [hpuds@hbrc.govt.nz](mailto:hpuds@hbrc.govt.nz) (this form can be used as a base)
- ▶ Write to HPUDS Review, Hawke's Bay Regional Council, Private Bag 6006, Napier 4142

All feedback and submissions are due by 12 noon Monday 22nd August 2016.

The Working Group will be meeting in the week commencing 12 September 2016 to hear verbal submissions. The Working Group will then consider all of the verbal and written submissions, plus advice from the Technical Advisory Group, and decide whether or not to go ahead with the amendments to the HPUDS Settlement Pattern proposed by the Strategy Review.

If you would like to briefly present your submission verbally at the Working Group's meeting in September, then please tick box below.

☒ I would like to present my submission verbally

#### Submitter Information:

Name: Leigh Currie  
Email address: [sales@instantgreen.co.nz](mailto:sales@instantgreen.co.nz)  
Contact phone number: 021 220 1676  
Postal address: 35 Wyllyatt Rd  
Napier

#### Feedback starters

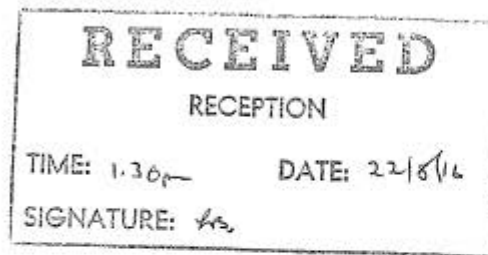
Some questions regarding the Draft Revised HPUDS Strategy 2016.  
A Reviewed HPUDS Settlement Pattern Map is attached.

Q1: What are these the big issues that the Reviewed Strategy needs to tackle?

## 12 Brian Daly

|                                                                                                                                                                                 |                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <b>Name *</b>                                                                                                                                                                   | Brian Daly                                                                       |
| <b>Email *</b>                                                                                                                                                                  | [REDACTED]                                                                       |
| <b>Phone Number *</b>                                                                                                                                                           | [REDACTED]                                                                       |
| <b>Address</b>                                                                                                                                                                  | PO Box [REDACTED], Hastings                                                      |
| <b>Please state here if you would like to briefly present your submission verbally at the Working Group's meeting (date to be confirmed in week commencing 12th September).</b> | No                                                                               |
| <b>Q1: Are these the big issues that the Reviewed Strategy needs to tackle?</b>                                                                                                 | Yes                                                                              |
| <b>Q2: Do you think our projections of development demand and capacity are correct?</b>                                                                                         | As best as can be assumed at this stage                                          |
| <b>Q3: Are there other assumptions and issues that we need to be aware of that will influence urban development over the next 10–30 years?</b>                                  | Urban displacement in the Napier area due to sea level rises.                    |
| <b>Q4: Do you support any particular parts of the draft revised Strategy?</b>                                                                                                   | We request the Brookvale Road option be included and rezoned for development now |

## 13 Charlie & Susan Davidson



### **Submission**

Heretaunga Plains Urban Development Strategy Review

Inclusion of Specific Site to Urban Boundaries

Charlie and Susan Davidson

126 Main Road, Clive

## 1.0 INTRODUCTION

This submission has been prepared by Charlie and Susan Davidson in accordance with the requirements of the Heretaunga Plains Urban Development Strategy. (HPUDS)

A request is sought from the HPUDS joint review committee to consider the inclusion of the property 126 Main Road, Clive (1.0739ha) in the urban development area for settlement of Clive. The inclusion of the property under HPUDS is the logical extension of the urban boundary for a site which for the most part is urban in character, and is best zoned for urban use.

The following submission outlines the property, its characteristic and reason why it meets the outcomes of the HPUDS.

## 2.0 SITE & LOCATION

The site subject to this application for inclusion in HPUDS urban land area is located at 126 Main Road, Clive being that land legally described as:

- Lots 1 and 4 DP 8555 contained in Certificate of Title HB137/171, being approximately 5842m<sup>2</sup> and 4896m<sup>2</sup> (1.0739 hectares) in total area.

The Certificate of Title is subject to the following interests of relevance:

- Gazette Notice (716488.1) adjoining State Highway No 1 (Limited Access Road).
- Notice (720235.20) pursuant to Section 91 Transit New Zealand Act.

The site is rectangular in shape and flat in contour. Accessed directly off Main Road (gate 126). The site contains the following building development:

- Main Dwelling (272m<sup>2</sup> gross floor area) & Sleepout
- Accessory Shed (500m<sup>2</sup> floor area)
- Accessory buildings
- Café (Commercial Activity) - 125m<sup>2</sup>.
- Art Gallery / Retail Activity – 75m<sup>2</sup>.
- An oversized secondary residential dwelling within the Plains Zone - 130.30m<sup>2</sup>
- Yard Waiver - Commercial Building – 8.45 metres

The sites and location of existing building development is shown below:

### **Location Map**

The site contains mature fruit trees along the southern side of the existing driveway. There is an existing mature hedge and solid timber fence located along the sites front boundary with Main Road. The site is accessed via an existing crossing at 126 Main Road, Clive. These are shown in the photos below:





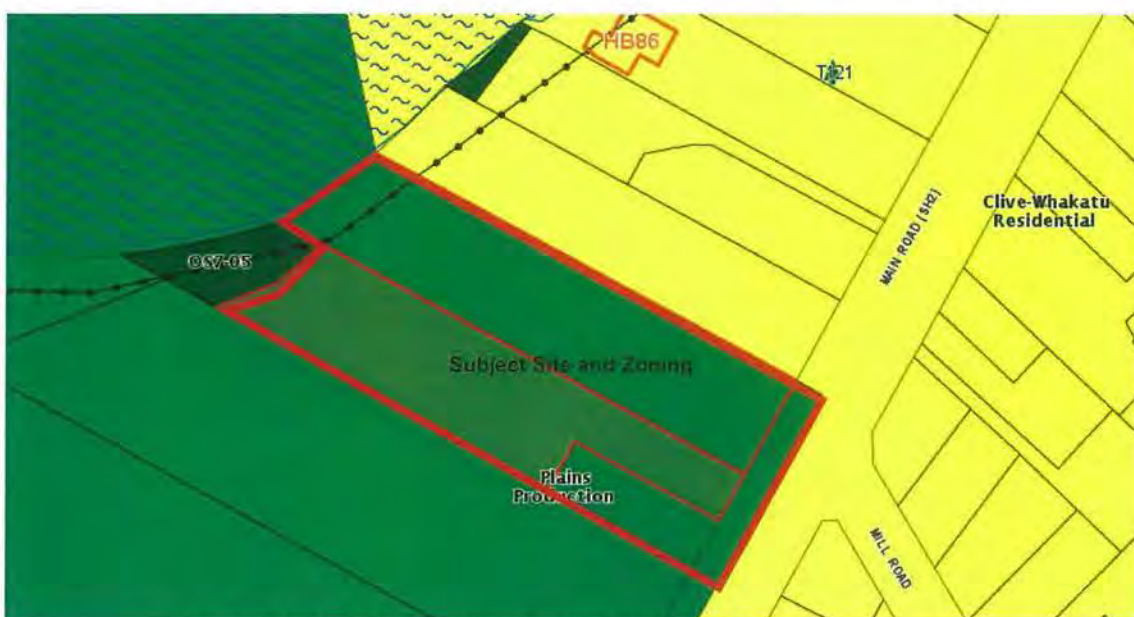
The adjoining properties on the sites southern boundary are zoned Plains are identified as 124 and 120 Main Road, Clive. 124 is utilised for purely residential use and has historically been divided from 126 although still zoned “plains”

120 is also used for residential and has land based primary production purposes. Other sites in the vicinity include residential properties opposite the site, Peter McLean ‘Sculpture and Art’ and Commercial properties further towards Clive Village. The site directly adjoins the Clive River and a Reserve (R45) to the rear of the property.

Although the property of 124 Main Road Clive, is not the submitters property, given its size (984m/sq) and its use being residential it is considered logical to include this property also in the HPUDS urban boundary. This will allow the future rezoning of the property to the more appropriate residential zoning.

### **Current Zoning**

The subject site and surrounding site zonings are shown in the Planning Maps below:



**Existing Site Zoning and surrounding Property Zoning**

The site although zoned Plains Production Zone is for the most part used in an urban (residential and commercial) manner and have incredibly limited productive use and would in no way is an economic orchard or grazing unit.

The site is also wedged between the existing Clive-Whakatu Residential Zoning on the northern and eastern boundaries and the Clive River to the west.

### 3.0 INCLUSION OF PROPERTY INTO HPUDS

The nature of this urban development boundary adjustment is in accordance with the principals of the Heretaunga Plains Urban Development Strategy as outlined below.

#### 1) The Location

The HPUDS review recognizes south Clive as an area for further investigation and urban development:

*Recommendation 4: Remove the following two areas from the 'Inappropriate Areas for Development' identified in HPUDS • Clive South (an area south off Read Crescent and bounded by SH2 and Muddy Creek)*

Although the site is not within the specific area between SH2 and Muddy Creek it is adjacent this area and is more easily serviced and is at a higher ground level avoiding flooding issues. Therefore, the location is considered suitable for consideration to be included in HPUDS.

#### 2) The Site

The site satisfies the greenfield growth area criteria; New Residential Greenfield Growth Area Criteria (Heretaunga Plains Subregion) **Pol Ud4.2**

In determining future Residential Greenfield Growth Areas, not already identified within Policy UD4.3, for inclusion within urban limits in the Heretaunga Plains sub-region, the following general criteria shall apply –

| Criteria                                                                                                     | Assessment                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Must form an extension contiguous with existing urban areas and settlements                               | Property is within 50km speed area and adjoins residential zone. Site already compromised with residential dwelling taken off original site at front. Residential properties opposite and on northern boundary.                          |
| b) Land is identified as having low versatility, and/or productive capacity has been compromised by:         | (see below)                                                                                                                                                                                                                              |
| i. Size and shape of land parcels that mitigates against productive use                                      | Land pocket too small to be economic.                                                                                                                                                                                                    |
| ii. Surrounding land uses and reverse sensitivity                                                            | The only adjoining Plains Production Zone site (southern boundary) is lifestyle in nature and is unlikely to involve land uses that will create reverse sensitivity effects                                                              |
| iii. Lack of water and/or poor drainage                                                                      | Given the scale of the site providing irrigation would not be economical.                                                                                                                                                                |
| c) Clear natural boundaries exist, or logical greenbelts could be created to establish a defined urban edge. | The site has clear boundaries, being residential boundary to the north, the Clive River to the west and SH2 to the west. South of the site is the proposed urban edge which could be further defined by a landscaping strip and setback. |
| d) Supports compact urban form                                                                               | The site is surrounded on two boundaries by residential zoned properties and the site is only 500m from the centre of Clive. The development of the site is considered to support a compact urban form.                                  |



|                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>e) Can be serviced at reasonable cost</b>                                                                                                                                                                                                                     | <p>Artisian water (water supply) was tested in 2014 and deemed by Honor Well drillers to have sufficient pressure to service the whole of Clive – this can be verified by an simple test if necessary. Other services available on site.</p> <p>In regard to waste water this can be discharged into council's sewer (see attached email from HDC Waste Water Manager)</p> <p>There is also an existing stormwater connection on SH2 which could be utilized following onsite attenuation</p>                                             |
| <b>f) Can be integrated with existing development</b>                                                                                                                                                                                                            | The subdivision and development of the site will incorporate the existing development onsite (dwellings and commentarial use)                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>g) Can be integrated with the provision of strategic and other infrastructure (particularly strategic transport networks in order to limit network congestion, reduce dependency on private motor vehicles and promote the use of active transport modes)</b> | <p>Site directly adjacent to Cycle track and foot paths. School bus stop directly over road. Bus stop for local towns within walking distance.</p> <p>Sewerage infrastructure has been discussed with David James HDC and was considered that four additional site/houses would not impact seriously on capacity.</p> <p>NZTA have also verbally confirmed that they have no issue with having an additional four households use the existing access (written verification to follow however was not completed at time of submission)</p> |
| <b>h) An appropriate separation distance from electricity transmission infrastructure should be maintained in order to ensure the continued safe and efficient operation and development of the electricity transmission network</b>                             | There are no national or regional transmission lines in the vicinity of this site                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>i) Promotes, and does not compromise, social infrastructure including community, education, sport and recreation facilities and public open space.</b>                                                                                                        | Doctors, Swimming pool, rowing club, primary school, sports ground, Retirement home, Garage, Eating places, community hall, shopping, church all within walking, easy cycling or three minutes' drive.                                                                                                                                                                                                                                                                                                                                    |
| <b>j) Avoids or mitigates the following locational constraints</b>                                                                                                                                                                                               | (see below)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>i. projected sea level rise as a result of climatic changes</b>                                                                                                                                                                                               | Site has highest topographical measure in Clive area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>ii. active coastal erosion and inundation</b>                                                                                                                                                                                                                 | None evident                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>iii. stormwater infrastructure that is unable to mitigate identified flooding risk</b>                                                                                                                                                                        | Not identified as a flooding risk area. Stormwater from existing houses and café managed. (see attached HBRC hazard assessment)                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>iv. flood control and drainage schemes that are at or over capacity</b>                                                                                                                                                                                       | Recent flooding in Clive (6.8 2016) did not occur on site                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>v. active earthquake faults</b>                                                                                                                                                                                                                               | None identified in HBRC Hazard Report                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>vi. high liquefaction potential</b>                                                                                                                                                                                                                           | Scalar Penetrometer tests for both ends of site identified liquefaction as high but easily mitigated by piles instead of concrete pads for building (see Building Consent plans)                                                                                                                                                                                                                                                                                                                                                          |
| <b>vii. nearby sensitive waterbodies that are susceptible to potential contamination from on-site wastewater systems or stormwater discharges</b>                                                                                                                | Clive river does not receive waste water from existing or proposed buildings. New dwellings would require stormwater discharge through existing town infrastructure Avoiding any hazardous discharge to the Clive River                                                                                                                                                                                                                                                                                                                   |
| <b>viii. no current wastewater reticulation and the land is poor draining</b>                                                                                                                                                                                    | Sites will discharge into Councils reticulated sewer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

Given the assessment against the HPUDS Criteria it is considered that our site (126 Main Road Clive) is a perfect candidate for inclusion in HPUDS for future growth of Clive.

### 3) OPUS Report on Alternative Greenfield Sites

The OPUS report on alternative greenfield sites and review of the HPUDS settlement pattern identifies that:

*Amongst other things, the report identified a need for action around **immediate greenfields supply availability issues**. This was related to higher than expected population and household growth, and issues with several of the identified development areas to the market.*

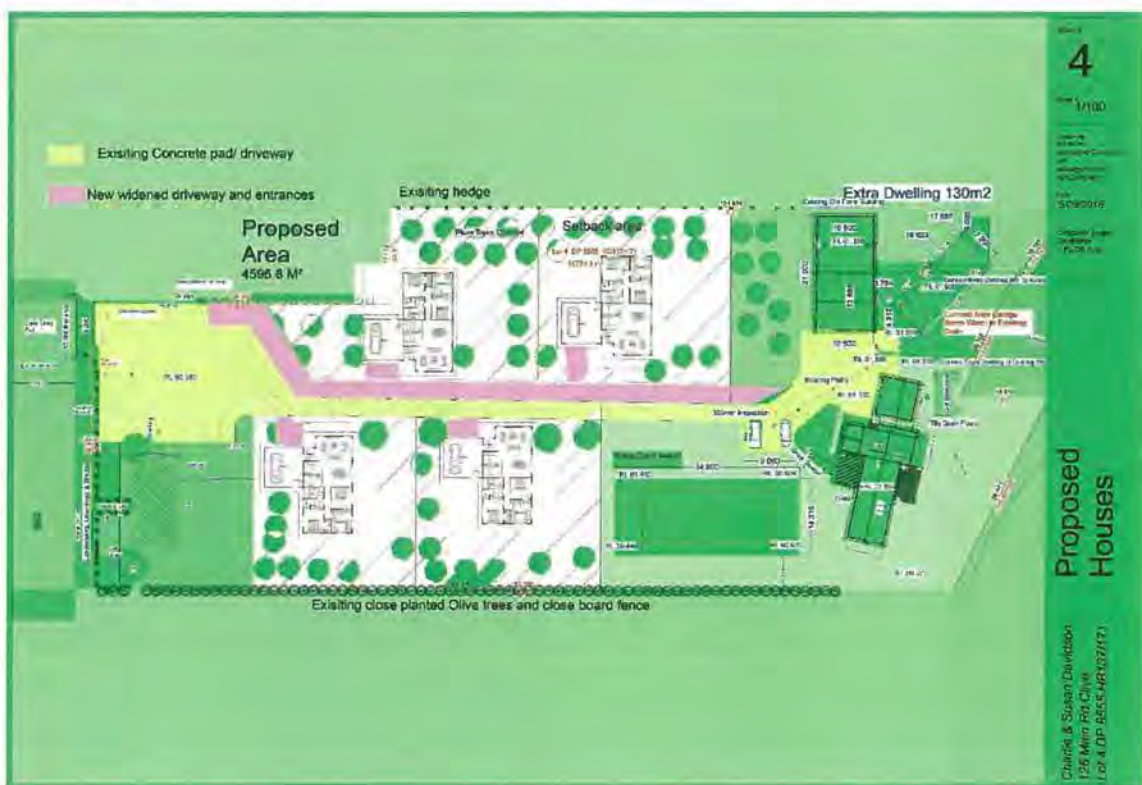
It is considered that the inclusion of our site in the HPUDS will help with the release of greenfield sites and given the servicing options proposed these sites could be provided to market very quickly (subject to council approving resource consent). The potential development is explained in the following section.

### 4.0 POTENTIAL DEVELOPMENT

Following the property being included as future residential development land resource consent would be prepared to release the residential sites and assist in meeting the current short fall in residential sections in Clive and the Hastings/Napier Districts. The following is our concept for the development:

#### Sites and Dwellings

It is proposed that land be made available to subdivide and build four new residential dwellings of similar size to the ones identified in the basic "Concept" maps shown below.



Dwellings would be as ecofriendly as possible and appropriate in design to house elderly people as well as having enough frontage for families. Sections would be approximately ¼ of the 4596.8 square metres available in accordance with the District Plan minimum lot size (1,000m/sq) for Clive.



## **Access**

Access would be provided through the existing corridor off State highway 2 – approved in RMA 20120304. This would require Café parking to be reorganized and a privately owned and maintained driveway would be established over the existing one. It is not expected NZTA would have any issues with this after having approved of an indiscernible number of cars entering the café parking area at any one time.

## **Planting**

To maintain a green attractive environment would be initiated on the northern side and on the southern side as many trees as possible left as well as the hedging on both sides. One section would have a border with the café with existing planted fruit trees providing a natural setback.

## **Consultation**

The neighbours have been consulted about the possibility of this development and are supportive.

## **5.0 SUMMARY**

This is not intended to be a complete document but does outline clearly the possibility of freeing up some land which is clearly wanted and needed in Clive and which we can clearly show to be in accordance with HPUDS philosophy and guidelines. Overall we believe this site should be included for the following reasons:

- Overall given the proximity to the existing residential zone,
- the natural boundary to the west (Clive River) and
- the existing urban development on the property
- Ability to easily connect to council services
- Outside of flood hazard
- Provides for residential demand in Clive only 500m from town centre
- Does not remove economically productive soil resource
- Can be easily and cheaply serviced
- Subject to consent these sites could be provided to market relatively quickly

Therefore, if Council want to make a positive effort at including further land for development we recommend the inclusion of 126 Main Road Clive in HPUDS.

We are happy to discuss this submission in further detail and would appreciate the opportunity to support this submission.

**Charlie and Susan Davidson**

126 Main Road, Clive

027 220 5024

[ibdavidsonnz@hotmail.com](mailto:ibdavidsonnz@hotmail.com)

## APPENDIX DOCUMENTS:

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- Email from HDC Waste Water Manager (10 Aug 2016)
- Map - Proposed Area to be included in HPUDS (South Clive)
- HBRC Natural Hazards Report
- HDC Maps:
  - Aerial Photo
  - Current Zoning
  - HDC Utilities

*Note: Written comment from NZTA regarding access will be submitted however this was not complete at time of lodgment.*

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**Subject:** FW: 126 Main Road Clive Storm water and Sewerage

**Importance:** High

**From:** David James <[davidj@hdc.govt.nz](mailto:davidj@hdc.govt.nz)>

**Sent:** Wednesday, 10 August 2016 10:30 a.m.

**To:** Charlie Davidson

**Subject:** RE: 126 Main Road Clive Storm water and Sewerage

Hi Charlie

I'm sorry I did not get back to you yesterday, I know you're timelines are tight.

Regarding wastewater servicing of your property there is a mains connection in close proximity to your property so physical connection will not be difficult. Our hydraulic model assessment of the Clive wastewater system indicated that the system is near capacity in a 1 in 5 year wet weather, however, it would probably be able to cater with 4 more connections. A more detailed assessment could be carried out if your project progresses.

The stormwater manager has your information however he was tied up in mediation yesterday. I'll follow up with him later today.

I hope this information is helpful.

Regards

Dave



DAVID JAMES  
WASTEWATER MANAGER

Phone 06 871 5000 Mobile 027 705 7464 Email [davidj@hdc.govt.nz](mailto:davidj@hdc.govt.nz) Web [hastingsdc.govt.nz](http://hastingsdc.govt.nz)  
Hastings District Council, Private Bag 9002, Hastings 4156, New Zealand

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**From:** Charlie Davidson [<mailto:ibdavidsonnz@hotmail.com>]

**Sent:** Sunday, 7 August 2016 1:12 p.m.

**To:** David James; [dillons@hdc.govt](mailto:dillons@hdc.govt)

**Subject:** 126 Main Road Clive Storm water and Sewerage

Re Storm water and Sewerage 126 Main Road Clive  
LOTS 1 4 DP 8555

*Re our phone conversation and consultation with Mark Clews*  
Attn David James and Dillon Stuart.



Thanks for being prepared to have a quick initial look at the plan we are submitting to HDPUDs to make land available for up to four house sites. We would appreciate your opinions regarding the capacity for Clive infrastructure to cope with this proposal.

I attach a draft concept plan with sites noted.

- New sites are adjacent to Clive Stormwater outlet
- Tentative plans being made for new dwellings to use water recycling technology.
- Two existing houses divert stormwater overflow into Clive River
- Café on site uses Clive stormwater and a new sump was created for carpark overflow.
- 150mm Sewerage pipes exist on site.
- Tile drains are featured throughout the site.
- Flooding and ponding issues have had no impact historically.

What we ask is that you identify any areas you see as problematic in this field we need to address, or, its general suitability regarding Storm water and Sewerage.

Many thanks

Charlie and Susan Davidson

*Click on Susans' Gallery Link*

<https://www.facebook.com/media/set/?set=a.179835822108650.41583.179633502128882&type=1>

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## HAWKE'S BAY NATURAL HAZARD PROPERTY REPORT

Wednesday, 17 August 2016

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**126 Main Road, Clive  
Hastings District  
Lot 1 DP 8555  
0966016100**

This report summarises the known hazards intersecting this property, based on research commissioned to assess regional risk – these research reports are summarised below. The hazard assessment methodologies, information compilation and presentation techniques used for these assessments include certain qualifications and limitations on the use, noting:

- a) The hazard information provided is based on the best information available at the time of the studies and was supplied under specific contract arrangements including financial and time constraints.
- b) The hazard information may be liable to change or review if new information is made available.
- c) Councils and other organisations may hold more detailed hazard information than provided here. This Natural Hazard Property Report is not a substitute for a Land Information Memorandum (LIM).
- d) The precision and accuracy of the data varies, therefore it is important that you obtain expert advice to help to interpret the information.

The hazard maps in this report are based on the following referenced research reports. Online Natural Hazards Resource Database contains a register of the hazard documents, research material, and publications from either the Council or external organisations and this database may contain other pertinent information related to this area:

The referenced reports are:

- (i) Earthquake Fault lines
  - Earthquake hazards in Hawke's Bay Initial assessment
  - Earthquake hazard analysis - Stage 1. Recurrence of large earthquakes determined from geological and seismological studies in the Hawke's Bay area
  - Hawke's Bay region earthquake hazard analysis programme, Stage 2 - a numerical assessment of the earthquake hazard in the Hawke's Bay region.
  - Active Fault Mapping and Fault Avoidance Zones for Central Hawkes Bay District: 2013 Update
  - Active Fault Mapping and Fault Avoidance Zones for Hastings District and environs
  - Fault Avoidance Zone Mapping for Wairoa District, Napier City and surrounds
- (ii) Earthquake Liquefaction
  - Stage II - Earthquake Analysis: Part II - Evaluation of liquefaction potential in the Hawke's Bay Region
- (iii) Earthquake Amplification
  - Hawke's Bay Regional Council earthquake hazard analysis program, Stage III : evaluation of ground shaking amplification potential Volume 1
  - Hawke's Bay Regional Council earthquake hazard analysis program, Stage III : evaluation of ground shaking amplification potential Volume 2: Appendices
- (iv) Quaternary Geology
  - Hawke's Bay Regional Council earthquake hazard analysis program, Stage III : evaluation of ground shaking amplification potential Volume 2: Appendices
- (v) Tsunami Inundation Extents
  - Hawkes Bay Tsunami Inundation by Attenuation Rule
  - Review of Tsunami Hazard in New Zealand
- (vi) Flooding Extents
  - Wairoa River Flood Hazard Study
  - TeNgaru Catchment Flood Hazard Study
  - Waipatiki Catchment Flood Hazard Analysis
  - Kopuawhara Opoutama Flood Hazard Analysis



## HAWKE'S BAY NATURAL HAZARD PROPERTY REPORT

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Wednesday, 17 August 2016

### (vii) Coastal Hazard

- Regional Coastal Environmental Plan
- Clifton to Tangoio Coastal Hazards Strategy 2120 - Coastal Hazard Assessment
- Clifton to Tangoio Coastal Hazards Strategy 2120 - Coastal Risk Assessment
- Other Coastal Hazard Reports
- Cliff Hazard Zone Delineation

### (viii) Wairoa River Bank Stability Zones

- Wairoa River Bank Stability Assessment

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2. Hawke's Bay Regional Council's Hazard maps have been compiled using the best information available to the council. The maps indicate the extent of the hazard from analysis of information only. They do not necessarily reflect the greatest extent of the hazard suffered in the past, or likely to be suffered in the future.
3. The hazard information provided does not imply any actual level of damage to any particular structure, utility service or other infrastructure.
4. These maps should not be relied upon as the sole basis for making any decision in relation to potential risk.
5. The hazard information provided is regional in scope and cannot be substituted for a site-specific investigation. A suitably qualified and experienced practitioner should be engaged if a site specific investigation is required.
6. Hawke's Bay Regional Council makes no representations, warranties or undertakings about any of the information in these maps and/or electronic files including, without limitation, their accuracy, completeness, quality or fitness for any particular purpose.
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## Legend

### Earthquake Liquefaction

- 1. Very Low
- 2. Low
- 3. Moderate
- 4. High
- 5. Very High



## Liquefaction Susceptibility

The information displayed is schematic only and serves as a guide. It has been compiled from Hawke's Bay Regional Council records and is made available in good faith but its accuracy or completeness is not guaranteed. Cadastral Information has been derived from land Information New Zealand's (LINZ) Core Record System Database (CRS).

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Scale 1:5000

Wednesday, 17 August 2016

Original Sheet Size 210x297mm



## Natural Hazards Report

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Wednesday, 17 August 2016

## Liquefaction

Liquefaction occurs when waterlogged sediments are agitated by an earthquake. Buildings can sink and underground pipes may rise to the surface. When the shaking stops, groundwater is squeezed out of the ground causing flooding, which can leave areas covered in mud. Hawke's Bay has several areas with sediment of high liquefaction susceptibility and numerous earthquake sources capable of generating an earthquake large enough to cause liquefaction, and there were numerous reports of liquefaction following the 1931 earthquake.

Low-lying areas in the region, especially those near the coast, and reclaimed land are particularly susceptible. Liquefaction susceptibility maps for Hawke's Bay and Napier/Hastings completed by GNS Science in 1996.

Based on a national seismic model shown above, scientists have estimated Hawke's Bay might experience the following shaking intensities for different return periods in the future. Our risks include earthquake prone buildings which have been identified within our main cities & towns, and although residential dwellings are considered a low risk, damage may be widespread requiring re-housing. Infrastructure networks are also at risk and there are also risks to our future social and economic wellbeing. The Hawke's Bay CDEM is the lead agency for managing any natural hazard event, like a large earthquake that badly affects the people of Hawke's Bay.

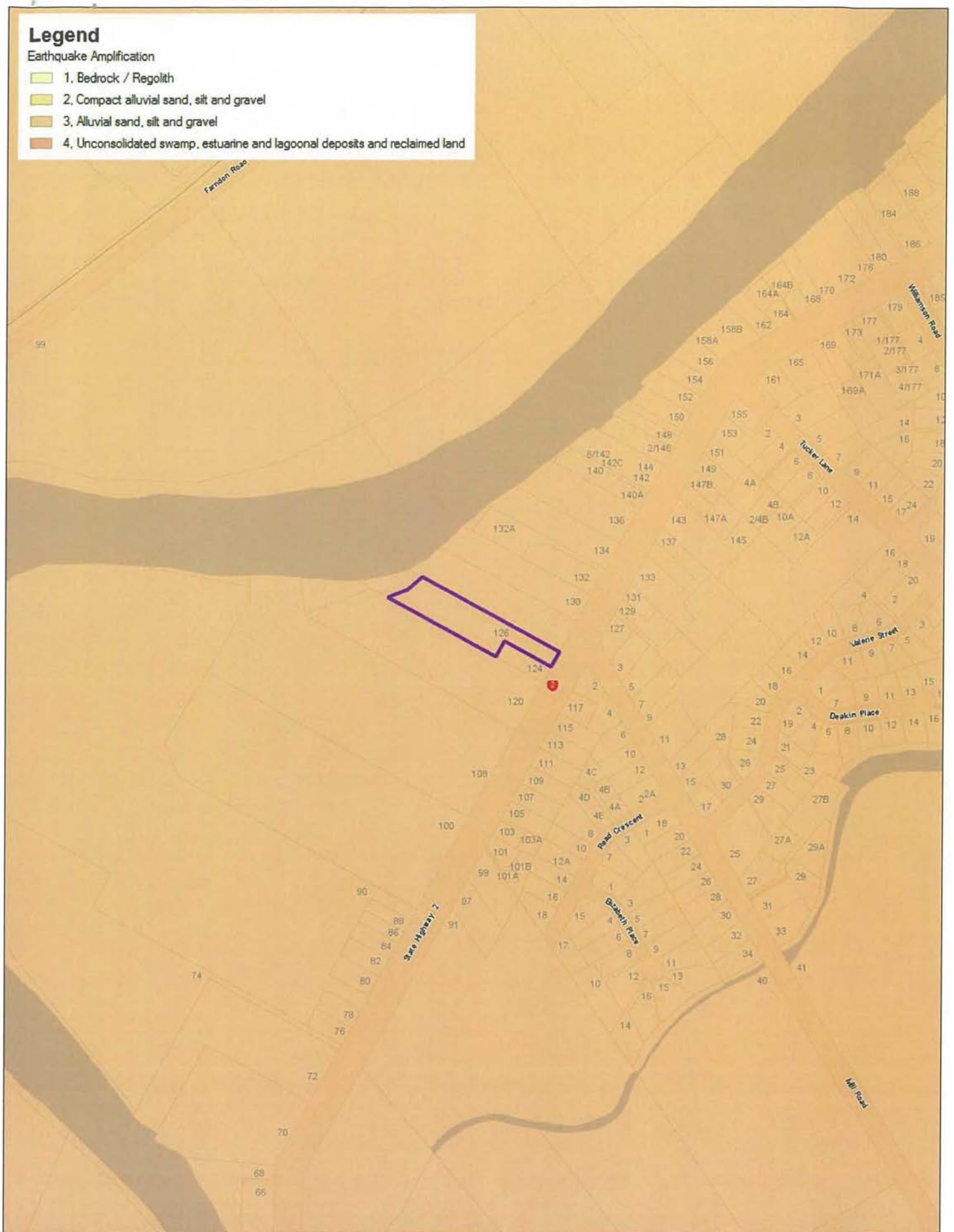


| Return periods for different earthquake shaking intensities in Hawke's Bay |                                                                                                                               |               |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------|
| Modified Mercalli Intensity Scale                                          | Description                                                                                                                   | Return Period |
| MMVI                                                                       | Felt by everybody, Difficulty walking<br>Objects tend to fall from shelves<br>Slight damage to poorly constructed buildings   | 5             |
| MMVII                                                                      | Difficulty standing, furniture movement<br>Noticed by drivers of cars<br>Tiles, water tanks, walls and some buildings damaged | 26            |
| MMVIII                                                                     | Steering of cars affected<br>Buildings damaged including some damage to earthquake resistant buildings.<br>Cracks in ground   | 130           |

## Legend

### Earthquake Amplification

- 1. Bedrock / Regolith
- 2. Compact alluvial sand, silt and gravel
- 3. Alluvial sand, silt and gravel
- 4. Unconsolidated swamp, estuarine and lagoonal deposits and reclaimed land



## Earthquake Amplification

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### Amplification Report

Most of the damage during an earthquake is caused by ground shaking. The amplification map indicating the regional hazard from ground shaking in Hawke's Bay.

Seismic waves, travelling through the earth at different speeds and amplitudes because of a fault rupture, cause the ground to vibrate and shake in an earthquake. The intensity of the shaking is measured on the Modified Mercalli (MM) scale of 1 to 12, although MM10 is the maximum ever observed in New Zealand. The intensity of ground shaking at any location is affected by the magnitude of the earthquake, proximity to the source of the earthquake, and the geological material underneath that location. Larger earthquakes generally produce greater shaking and shaking is usually more pronounced nearer the source of the earthquake. Deep earthquakes generally produce less shaking because the source is deep in the earth. Fault ruptures often start at one point and propagate along the fault, rather than breaking the whole fault at once. In that case, shaking may be more intense at locations towards which the rupture is propagating, and less intense at locations in the opposite direction, that is, in the direction from which rupture is propagating. The damage caused by shaking depends on how large the ground motion is, how long it lasts, and its frequency. Large motions put great stresses on structures that sit on or in the moving ground and the longer the shaking lasts, the more likely the structures are to sustain serious or permanent damage.

Different frequencies of shaking affect buildings differently - in general, low frequency motions affect taller buildings more, while high frequencies affect shorter buildings. The type of material underlying the site can have a great effect on the nature and intensity of the shaking. Sites underlain by hard, stiff material such as bedrock or old compacted sediments usually experience much less shaking than sites located on young, loosely consolidated sediment, which tends to amplify shaking.

Closed basins filled with soft sediment overlying bedrock, such as the Poukawa basin, are especially vulnerable to amplification of shaking, as earthquake waves can become trapped within the basin, travelling back and forth increasing the shaking rather than being dissipated. Water-saturated sites, such as river banks and lagoons, are particularly susceptible to shaking-induced ground damage such as liquefaction.

### WHAT CAN YOU DO?

Most people in Hawke's Bay will survive a large earthquake with some loss, but some people will be severely affected. Action you take now can help reduce damage to your home and business and help you survive. Practice Drop, Cover and Hold



## Legend

### Quaternary Geology

- Land reclaimed since 1931; commonly uncontrolled fills over lagoonal areas or previous river channels
- Estuarine and lagoonal deposits of sand, silt, and minor gravel from pre-1931 Ahuriri Lagoon
- Estuarine, lagoonal, and swamp deposits of sand, silt and minor gravel that have been drained or reclaimed since 1850
- Beach ridges, beaches and tombolos of gravel and sand
- Estuarine, and lagoonal deposits of sand, silt and minor gravel that have been drained or reclaimed since 1850
- Undifferentiated alluvium
- Moderately to coarsely interlayered silt, sandy silt, silty sand and sand deposits (Wairoa River sediments)
- Moderately to coarsely interlayered silt, sandy silt, silty sand and sand deposits (Wairoa River sediments)
- Former river channels occupied in historic time prior to flood control and the 1931 earthquake. Consist of lenticular sands and gravels in the main channels, with interlayered silt deposits (overbank flood deposits)
- Former river channels occupied last century. Consist of lenticular sands and gravels in the main channels, with interlayered silt deposits (overbank flood deposits)
- Finely to moderately interlayered silt and fine sand deposits; (overbank flood deposits)
- Finely to moderately interlayered silt and sand (overbank flood deposits) including extensive 1,800 year Taupo pumice flood deposits
- Lenticular sands and gravels with interlayered silt and pumice deposits (c. 6,500 to 3,000 year former river deposits)
- Lenticular sands and gravels with interlayered silt (c. 6,500 to 3,000 year former river deposits)
- Lenticular sands and gravels with interlayered silt (c. 14,000 to 6,500 year former river deposits)
- Silty sand and discontinuous fine gravels with clay (valley fill)
- Lenticular sands and gravels with interlayered silt (c. > 14,000 years BP [last glaciation])
- Pre-Quaternary geology



## Quaternary Geology

The information displayed is schematic only and serves as a guide. It has been compiled from Hawke's Bay Regional Council records and is made available in good faith but its accuracy or completeness is not guaranteed. Cadastral Information has been derived from land Information New Zealand's (LINZ) Core Record System Database (CRS).

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Scale 1:5000

Wednesday, 17 August 2016

Original Sheet Size 210x297mm





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Cadastral Information has been derived from land Information New Zealand's (LINZ) Core Record System Database (CRS).



**NORTH**

Original Sheet Size 210x297mm

## Natural Hazards Report

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Wednesday, 17 August 2016

### Flooding Report

Information provided on the flooding maps shows general details about flooding patterns and areas at risk. They have been produced using computer models using verification with actual events where possible. Flood extents shown in the maps are not meant to show specific flooding details on each property.

These maps should not be relied upon as the sole basis for making any decision in relation to potential flood risk. Contact the Hawke's Bay Regional Council Engineering Department if further information is required with regards to a specific property.

Urban pipe networks and flooding on the street network in the urban areas have not been considered in the flood modelling. Urban areas show flood risk areas that are the result of the capacity of open drains being exceeded.

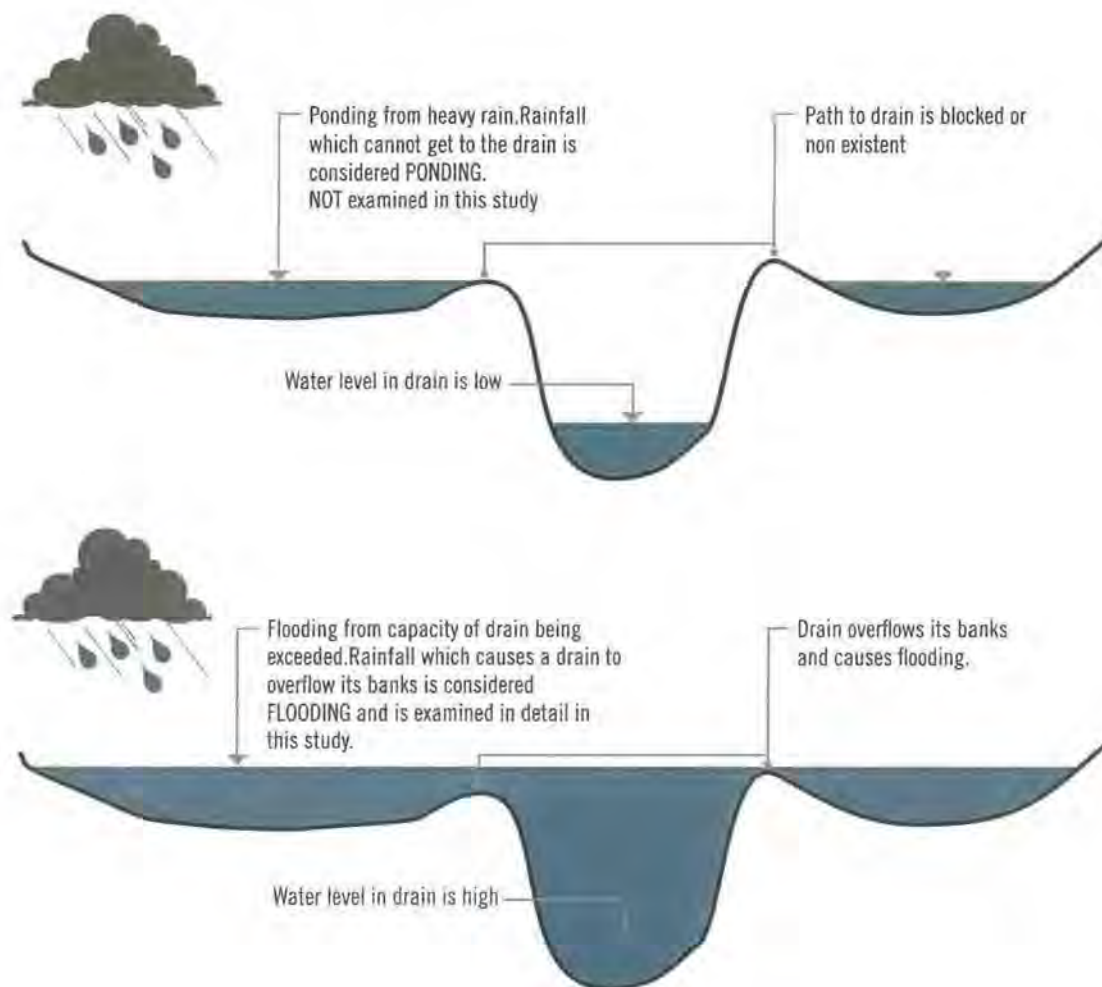
In some flood risk areas, houses and other structures may be elevated above the ground, and would be considered not floodable. These cases are not identified in this flood modelling.

Flood modelling is based on 100 year return period events (1% annual exceedance probability) for river flood risk areas, and 50 year return period events (2% annual exceedance probability) for floodplain flood risk areas.

The effects of climate change have not been included in this flood modelling

### Flooding vs. Ponding

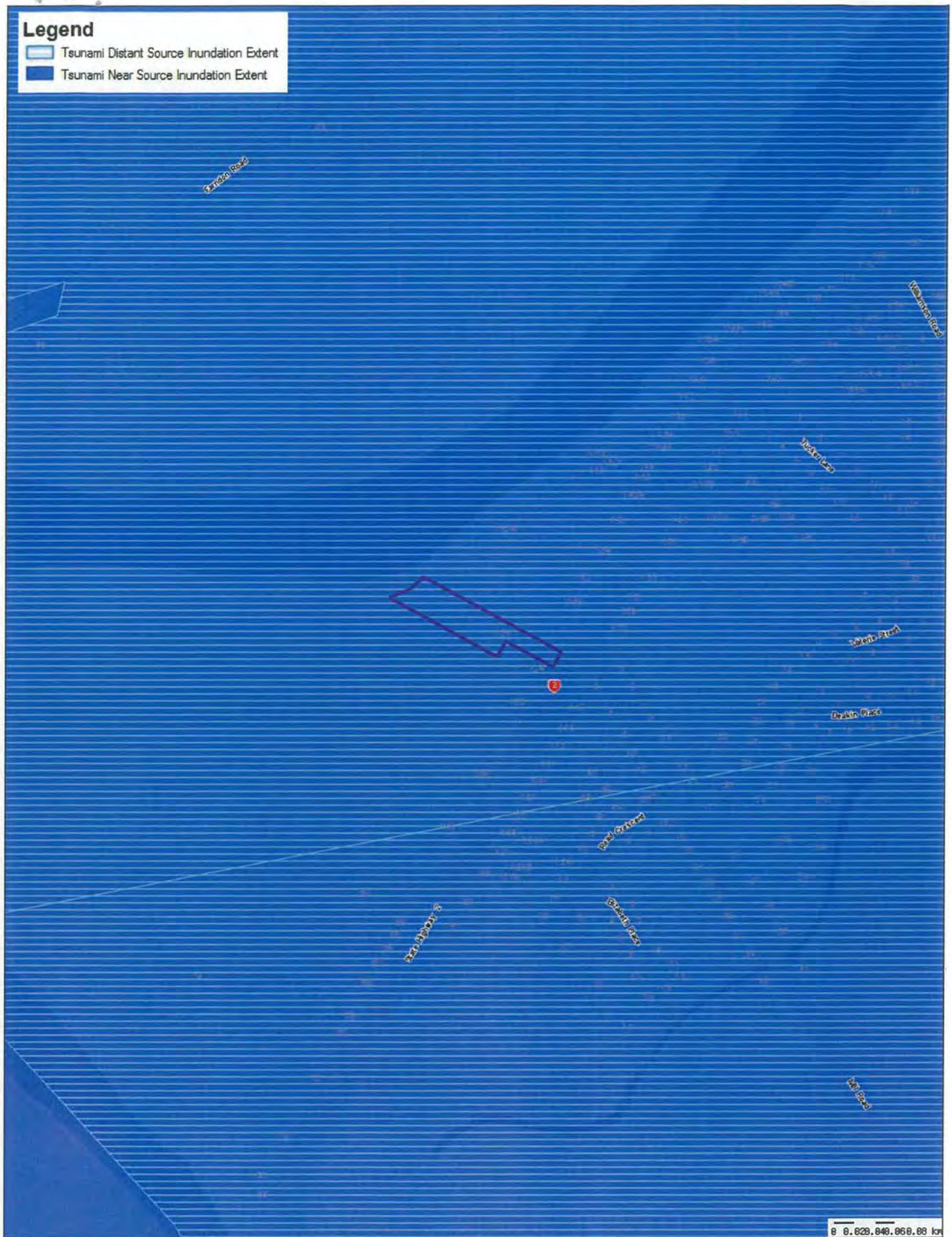
Major flooding happens when the capacity of a stream or drain is exceeded. Small scale, localised ponding may occur in areas where water cannot get to the stream through the normal paths of overland flow when the streams are not in flood. The flood hazard study does not consider this type of localised ponding in detail.





## Legend

- Tsunami Distant Source Inundation Extent
- Tsunami Near Source Inundation Extent



0 0.828,840,860,88 km



## Tsunami Inundation Extents

The information displayed is schematic only and serves as a guide.  
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Scale 1:5000

Wednesday, 17 August 2016

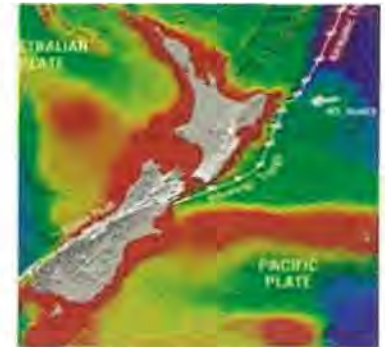
Original Sheet Size 210x297mm



## Tsunami Report

### RISK

The East Coast of New Zealand has been identified with a significant tsunami risk because of our subduction zone marked by the Hikurangi Trough. The massive tsunami in 2004 in the Indian Ocean, in 2009 in the South Pacific and in 2011 in Japan overturned many assumptions regarding the potential for severe tsunami to be generated on subduction zones throughout the Pacific. As new research into New Zealand's subduction tsunami sources will take time, it is best to assume that our subduction zone could generate severe tsunami from earthquake sizes of MW 8-9.



### LOCATION

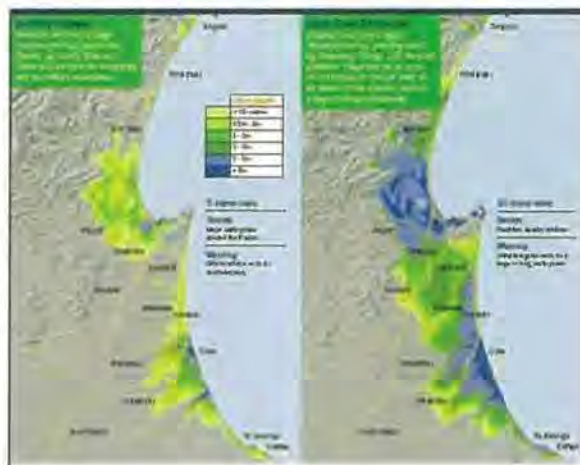
Hawke's Bay's position on the Pacific Ocean means there are risks of tsunami from both local, regional and distance sources, and the East Coast of NZ has the highest risk in the country. Tsunami (pronounced tsu - nam - ee) is a Japanese word meaning 'harbour wave'. It describes a series of fast travelling waves caused by large disturbances on the ocean floor, such as earthquakes, landslides or volcanic eruptions. In the deep ocean tsunami pass almost unnoticed, but as they approach land and therefore shallower coastal waters, they change dramatically - a wave 1-2 metres at sea grows into waves that can be over 30 metres in height.

### INUNDATION

As New Zealand's entire coast is at risk of tsunami, the Hawke's Bay Regional Council has developed tsunami hazard maps to help residents and councils prepare for a large tsunami impacting our region.

These are overview maps only and are not specific enough to predict impact on your individual property. They show some of the worst case scenarios (2,500 year return period) for Hawke's Bay for tsunami coming from both a very large local earthquake or from across the Pacific Ocean.

The maps from Clive to Tangoio are shown below and maps for Wairoa are attached. Further mapping for the remaining Hawke's Bay coastline is due to be published in 2015.

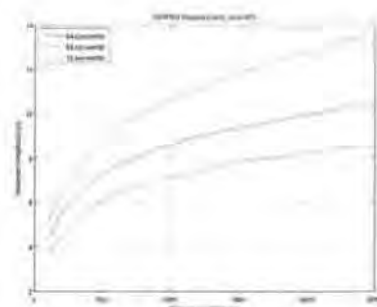


Wave height predictions are shown on this graph based on probabilistic tsunami hazard from all sources for Napier.

Our risks include destruction of homes, businesses and infrastructure in inundation zones, along with injuries and loss of life, with environmental devastation and the slow process of recovery.

Tsunami modelled results are being used by District and City Councils working with local people to prepare community response plans and evacuation maps. If you are keen to be involved, please contact your local Council for information.

The Hawke's Bay CDEM is the lead agency for managing any natural hazard event, like tsunami that affects the people of Hawke's Bay.







HDC Urban Imagery Acquisition: 9 December 2014, 22 December 2014



## 126 Main Road, Clive (Aerial Photo)

DATA SOURCE: Cadastre information derived from the Land Information New Zealand Core Record System (CRS) ©DWIN COPYRIGHT RESERVED

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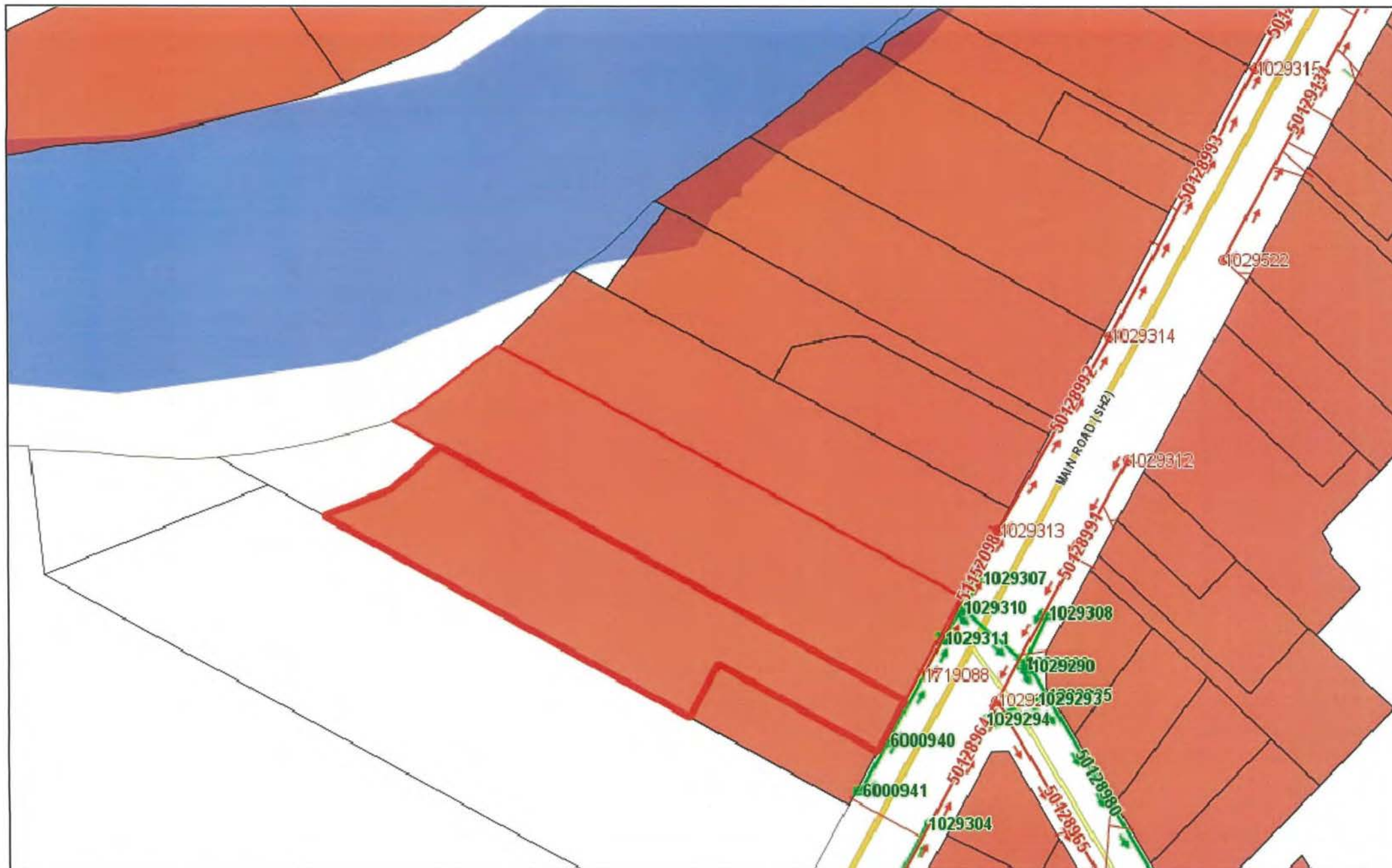


## 126 Main Road, Clive (District Plan Zoning)

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DISCLAIMER: The Hastings District Council cannot guarantee that the data shown on this map is 100% accurate.





## 14 Jill & Jeff Donovan

|                |                     |
|----------------|---------------------|
| Name *         | Jill & Jeff Donovan |
| Email *        | [REDACTED]          |
| Phone Number * | [REDACTED]          |

Please state here if you would like to briefly present your submission verbally at the Working Group's meeting (date to be confirmed in week commencing 12th September). No

**Q2: Do you think our projections of development demand and capacity are correct?** far from it. No sections for sale currently. Unlikely to be sufficient for 12–18 months. HPUDS is acutally constricting growth. There needs to be more land freed up and competition – not just certain landowners coming on and scalping the market.

### Q4: Do you support any particular parts of the draft revised Strategy?

We wish to have our District Plan submission reviewed now that we meet all requirements of HPUDs and the District Plan, and want to be rezoned for residential now.

The Opus Greenfields report for the HPUDS committee contained inaccurate information about reverse sensitivity and mushroom farm odour and should be ignored by the committee and council due to Te Mata Mushrooms not meeting its current consent conditions which require 'zero odour across the boundary'

The Brookvale Road property owners are being penalised and treated unfairly with being unable to develop their land by both council and HPUDS due to a third party not meeting its current consent conditions which require 'zero odour across the boundary'.

The recent Opus Greenfields report ranked Brookvale Road the best option with:

- Flat land close to schools, amenities and public transport
- Low liquefaction and amplification due to Havelock 'pan'
- Lowest development cost
- Best utilisation of existing infrastructure and services (i.e.. can connect to services all along Brookvale)
- Natural buffers to separate from rural area
- Great transport flow and dispersion

We are a willing landowner ready to subdivide/develop now

We have a MOU to work with your neighbours to allow development of the land and look at a service corridor along back of your property

We have road front land that can be put in to sections and connected to existing infrastructure immediately.

**Q5: Are there any other amendments that you think should be made to the draft revised strategy? If so, why?** We want to see Brookvale Road approved in HPUDs and rescheduled to be rezoned now for development.  
We have builders, developers, and buyers knocking on our door almost daily wanting to buy sections. Huge shortage of sections and council been caught with pants down not meeting market demand.  
We request that the committee ignore the possible odour issues on the land as the Mushroom Farm is legally obliged to meet its 'Zero Odour across the boundary' consent. Its actions are having an adverse effect on our being able to enjoy our land, and right to develop.

---

**Any other comments that submitters wishes to make or suggested amendments:**

HPUDS has not identified areas for schools or shopping centres. How can you plan for growth with no inclusion or allowance for these areas?

Why is HPUDs keen on developing areas like Howard Street and Iona Road when the landowners only want to create 'gated communities' and not acutally free up land and sections for builders and the public to buy? This is creating monopolies for these people developing the land and scalping the people who must buy' off the plan'

---



## 15 Matt Edwards

|                                                                                                                                                                                 |                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| <b>Name</b>                                                                                                                                                                     | Matt Edwards                     |
| <b>Email</b>                                                                                                                                                                    | [REDACTED]                       |
| <b>Phone Number</b>                                                                                                                                                             | [REDACTED]                       |
| <b>Address</b>                                                                                                                                                                  | [REDACTED] Waverley Road, Napier |
| <b>Please state here if you would like to briefly present your submission verbally at the Working Group's meeting (date to be confirmed in week commencing 12th September).</b> | No                               |

**Q1: Are these the big issues that the Reviewed Strategy needs to tackle?**

The biggest issue you have is the continual whittling away of high quality flat land suitable for horticulture. The loss over the last 50 years has been significant – understood to be about 2000Ha.

A lot of the plains land is at high risk from earthquake induced liquefaction, tsunami and flooding. Why do you want to put more residential housing and council infrastructure on this land? Have we learnt nothing from what happened at Christchurch? Unpalatable as it may be, new development needs to be 'in the hills' ie off the plains to avoid the above risks!

**Q2: Do you think our projections of development demand and capacity are correct?**

Who can say – they can only ever be a guess but certainly more development on the plains is not wise.

Have you actually considered why we should be planning/encouraging population increase in NZ? We cannot cope with the problems with the population we have now! Why do you plan to make it worse?

**Q3: Are there other assumptions and issues that we need to be aware of that will influence urban development over the next 10–30 years?**

The number of occupants per dwelling unit – which you have addressed in the report. It is of concern that it is low and projected to drop which it will if society continues the way it is now.

Central Govt. policy should have the aim of increasing occupancy which it currently does not.

**Q4: Do you support any particular parts of the draft revised Strategy?**

Taradale Hills development – priority despite servicing issues if saving the plains area is taken seriously.

**Any other comments that submitters wishes to make or suggested amendments:**

The greater the population the lower the quality of life. I would not want to live in any of the overcrowded countries beyond our shores. There really needs to be a serious discussion around this issue – already there are crowd issues occurring in some places, especially with the number of tourists here. We need to address living with zero growth. Yes, really. Growth, taken to the extreme would ultimately lead to no

remaining rural land so it has to be addressed at some stage. Driving through 42km of suburbia from the south to the heart of Sydney recently is not enjoyable. Yes, we are a long way from that here but I see little point in growth for growths sake just for jobs, resulting in NZ becoming a dormitory country to the rest of the world – which is where Auckland has gone!

---



## 16 Endsleigh Cottages



22 August 2016

HPUDS Review  
HB Regional Council  
Private Bag 6006  
Napier 4142

### Draft HPUDS Revised Strategy 2016 – Submission of Endsleigh Cottages Ltd

This submission is on behalf of Mr Denis Hardy of Endsleigh Cottages Ltd own land at 42 Raymond Road, Haumoana. This land forms a subset of a wider area of land in Raymond Road that is being promoted by the Raymond Road Rezoning Group, as suitable for Rural Residential lifestyle growth.

The Endsleigh Cottages land is shown below and legally described as Lot 2 DP 27559 and Lot 2 DP 28884, contained in Certificate of Title HBY3/525.



It is approximately 20.7120ha in area, of which approximately 17ha (located on a lower platform) can only be described as versatile cropping land. This land is under a recently signed long term lease to Apollo Apples for 20 years. It has access to Palomino Road.

The balance 3.7ha sits on an upper terraced platform with access directly off Raymond Road. This upper elevated terrace level is defined by a change in soil characteristics. The transition between platform levels and corresponding soil types is shown below. It is a terrace of land that has, as described by the appended soils report of Fruition, a shallow subsurface, relatively impermeable pan which causes perching of water and creates poor drainage.



It is the submitters opinion, and in fact the wider rezoning group, that there needs to be a variety of residential growth markets that can be brought on in response to demand almost immediately. The need (and provision) for market choice ensures a fair and balanced market that is not constrained through landbanking, a lack of construction and a variety of owners.

In terms of a proposed dual zoning for the land what is sought through the group's submission corresponds with the physical characteristics of the land. The essence of Endsleigh's submission (and in-fact the group's submission) is advanced on the following basis-

- Allowing for lower density residential activity on the upper platform area accessed will allow for a more efficient "wise use" of the land resource for housing. This is land that has low versatility and productive potential.
- The remainder of property will remain in long term production (Apollo contract).

The promotion of this area for housing choice is consistent with an earlier similar submission made to the Proposed Hastings District Plan which subsequently *declined the groups submission* on the following basis

- *The area north of Raymond Road (the subject of this rezoning request) has been excluded on soils and reverse sensitivity grounds.*
- *HPUDS has strong emphasis on protecting versatile and productive lands, including reverse sensitivity.*
- *HPUDS concluded in 2010 that there was no need through to 2045 for further Rural Residential rezoning, but this will be monitored as part of future HPUDS reviews.*

At the time, Mr Clews, the Council's Strategic Manager stated<sup>1</sup> "while the Council may see merit in the submission request, on this basis of the above there is an argument that rezoning the land now would be premature and pre-emptive of broader planning process"

<sup>1</sup> In his internal report comments to the reporting officer



We are now at a point of consideration under the broader Planning Framework. If a comparison is drawn against the characteristics against which growth areas are selected (Section 2.2.1) then there appears no cogent planning reason as to why it should not be genuinely considered. The submitter has been encouraged to advance a submission on the basis that the partner councils believe it to be the most appropriate means of doing so.

### **Protection of Versatile and Productive Soils**

In measuring this submission against any actual or potential effects on the soils, aside from the fact at some point any development on the Heretaunga Plains will involve versatile and productive soils. However, in the case of Endsleigh Cottages land approximately 3.7 hectares of low productive “clay pan” land (truncated by a visible change in typography) is suggested for rezoning whilst the more highly productive land (approximately 17 hectares) located on the much lower platform is promoted to remain Plains zoned. This is a similar approach with respect to the other land of the Raymond Road Rezoning Group. In support of this, the submitters have previously provided a Soil Versatility report.

### **Reverse Sensitivity**

In terms of reverse sensitivity this can be addressed through boundary setbacks and the use of non-regulatory methods such as no-complaints covenants. A key point of difference that makes this land somewhat unique is the fact the land has (through typography) an element of vertical separation which, in addition to setbacks, will avoid remedy or mitigate potential reverse sensitivity effects.

### **Future development**

When the guiding principles of Section 1.6 of the HPUDS revision document providing for increased rural residential living would not be in consistent with these principals and the values and expectations in Section 1.8. The subject land is in very close proximity to the Parkhill development, schooling, kindergarten and public amenities. It is a highly desirable location.

This area of land is located away from the main areas of Te-Awanga and Haumoana where a structure plan is more appropriate to a more intensive coastal residential development pattern. In this instance the subject land can be developed from the existing roading network and serviced by onsite infrastructure under the minimum lot size rules accompanying a rural residential zoning.

In respect to the subject land it can be demonstrated in this instance that a clear natural boundary exists, to form a defined development edge, the land is identified as having low versatility, and/or productive capacity, it can be serviced at a reasonable cost and finally it will avoid or mitigates the following locational constraints (identified under the Strategy)-

- i. projected sea level rise as a result of climatic changes
- ii. active coastal erosion and inundation
- iii. stormwater infrastructure that is unable to mitigate identified flooding risk
- iv. flood control and drainage schemes that are at or over capacity
- v. active earthquake faults
- vi. high liquefaction potential
- vii. nearby sensitive waterbodies that are susceptible to potential contamination from on-site wastewater systems or stormwater discharges

Overall the applicant seeks that its land be earmarked as a future growth option. This may be either in the form of direct mapping or alternatively as an area identified for consideration by way of other planning methods- such as resource consent. The later ensuring that the ongoing adoption of the HPUDS document under the guise of the Regional Policy Statement means that it will give effect to this higher level document.

We wish to be heard on this matter and seek to reserve the right to expand the points raised in this submission and introduce further supporting information should it be necessary



Matthew Holder  
Development Nous Ltd

On behalf of Endsleigh Cottages Ltd



Technical Report

**Appraisal of Land Suitability, Raymond Rd, Haumoana**

*January 2014*



Prepared by:

Jack Hughes

Fruition Horticulture  
PO Box 966  
Hastings

For:

**The Raymond Road Zoning Change Group**

**FRUITION**  
Horticulture  
*Qualified independent advice*

## **Summary**

An appraisal of the soil classification and land use suitability of an area of land identified by the Raymond Road Zoning Change Group was carried out.

The area under consideration is classified as a Waipukurau (HBRC soil maps) or Ruataniwha (Landcare) soil type. This terraced area of higher elevation has a shallow subsurface and relatively impermeable pan which causes perching of water and creates poor drainage.

This poor drainage, limited aeration, moderate to slow permeability, high soil structure and waterlogging vulnerability significantly limits its suitability for horticulture.

Resulting low productivity and episodic plant mortality prevents viable and reliable income to be generated from most crops grown on this land. Mitigation treatments such as deep ripping of the pan and installation of tile drainage at standard spacings do not generally fully ameliorate soil conditions to allow economically acceptable levels of plant growth and productivity.

The significant constraints of this area and consequent low versatility combine to give it a low sustainable productive capacity.

As a result, the area under consideration appears to be outside the criteria normally considered horticulturally suitable as defined by Land Use Capability Classes (MPI).

## **Qualifications and Experience**

*My name is Jack Hughes. I am a horticultural consultant and director of Fruition Horticulture HB Ltd. I provide advice, technical and research services to the fruit industry. Previous to that I spent 3 years as a horticultural consultant with Agriculture New Zealand Ltd specialising in orchard management for both organic and conventional orchards. Prior to that I worked at DSIR (which became HortResearch) for 12 years. I started as manager of the Hawke's Bay Research Orchard and went on to manage HortResearch's national network of research orchards and participate in applied industry research. I have a B.Hort.Sci (1981) from Lincoln University and a certificate in Sustainable Nutrient Management in NZ Agriculture (2013) Massey University.*



## The Brief

I have been asked by the Raymond Road Zoning Change Group (RRCG) to conduct an appraisal of the soil classification and land use suitability of the area circled below (Figure 1.)

**Figure 1. Location map of the general area under consideration**

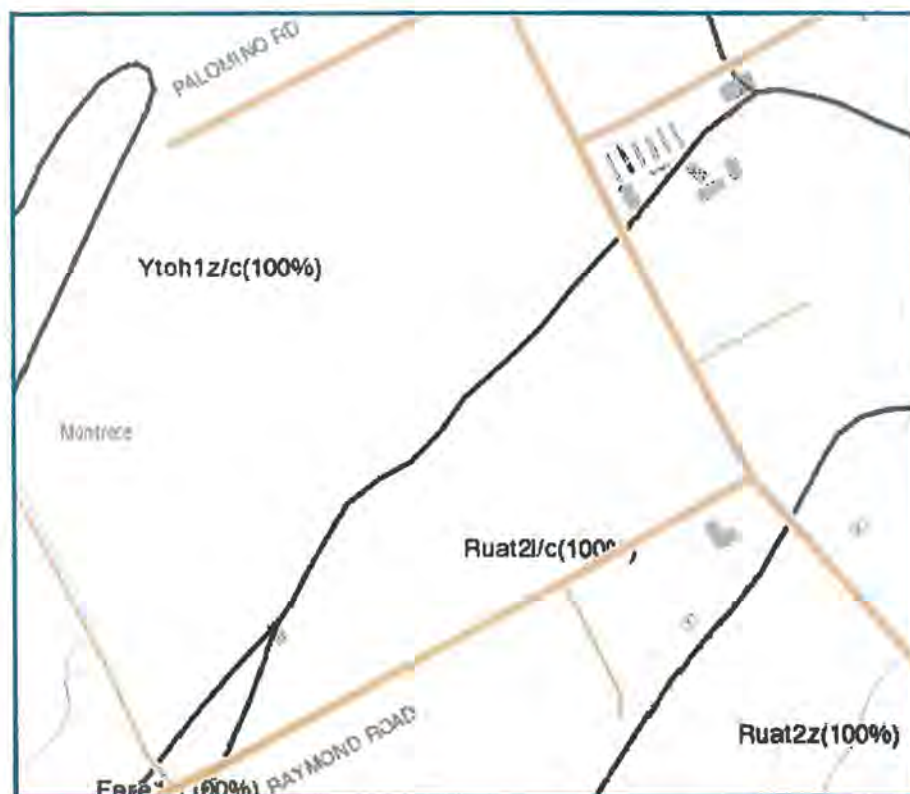


## Background

RRCG have identified a parcel of land within their properties that is described by the LandCare Research Soil S-map database as 'Rua2/c' (Ruataniwha). This parcel of land is referred to as 'the area under consideration' in this report and is mapped in more detail in Appendix 1.

The remaining areas of their properties are classified as 'Ytoh1z/c' (Mangateretere ) (Figure 2).

**Figure 2. Excerpt from LandCare Research Soil S-map Database showing soil classifications of the area under consideration.**



This appraisal considers the soil characteristics of these areas and the implications for land use.

### Soil Classification

The Hawkes Bay Regional Council (HBRC) Soil Maps of the Heretaunga Plains have been integrated with Landcare's database. Each organisation has different names for these soil types so both classifications are shown below to avoid confusion (Table 1).

**Table 1 Landcare and HBRC soil classifications for areas under consideration**

|                          | Landcare                          | HBRC             |
|--------------------------|-----------------------------------|------------------|
| Area under consideration | Ruataniwhaf ( <i>Rua2/c</i> )     | Waipukurau 30    |
| Remaining area outside   | Mangateretere ( <i>Ytoh1z/c</i> ) | Mangateretere 71 |

The HBRC maps, Plan No. 2683 Sheet 5 of 5 (2001), provide a succinct summary of the limitations of the area under consideration (Waipukurau). This terraced area of higher elevation has a shallow subsurface, relatively impermeable pan which causes perching of water and creates poor drainage.



Soil Map class #30  
 Soil name: Waipukurau  
 >30cm ash on sandy loam (loess) on pan at 40-50cm; on terraces  
 Natural drainage Poor, water perched on pan

The remaining, lower elevation area of the RRCG properties are comprised of Mangateretere soils. While they have imperfect drainage because of their clay subsoils which are derived from mudstone, the limitations are not as pronounced as those caused by the Waipukurau pan.

Soil Map class #71  
 Soil name: Mangateretere  
 30-60 cm silt loam on clay from mudstone  
 Natural drainage Imperfect, water table 30-60 cm

#### Landcare Soil Database.

LandCare Research Soil S-map Database website ([smap@landcareresearch.co.nz](mailto:smap@landcareresearch.co.nz)) provides additional information for these soil classification families (Appendix 1).

The relevant soil physical properties of the two adjacent soil types from Landcare's database are abbreviated and compared (Table 2).

Table 2 Summary of soil physical properties of area under consideration and adjacent area

|                                 | <b>Ruatanlwhaf</b><br>(area under consideration) | <b>Mangateretere</b> |
|---------------------------------|--------------------------------------------------|----------------------|
| <b>Key physical properties</b>  |                                                  |                      |
| Depth class (diggability)       | Moderately deep (46-55cm)                        | Deep (>1m)           |
| Rooting barrier                 | Pan                                              | =                    |
| Drainage class                  | Poorly drained                                   | =                    |
| Aeration in root zone           | Very limited                                     | =                    |
| Permeability profile            | Moderate over slow                               | =                    |
| <b>Soil structure integrity</b> |                                                  |                      |
| Structural vulnerability        | Very high (0.78)                                 | Not given            |
| <b>Water management</b>         |                                                  |                      |
| Water logging vulnerability     | Not given                                        | High                 |

The major difference described in Landcare's classification between the soil physical properties of the two soil types is depth class (diggability).

The shallowness of the pan in the area under consideration gives rise to the other characteristics of these soils i.e. poor drainage, limited aeration, moderate to slow permeability, high soil structure and water logging vulnerability.

### **Implications for horticulture**

The poor drainage, limited aeration, moderate to slow permeability, high soil structure and water logging vulnerability of the Ruataniwha soils in the area under consideration significantly limits their suitability for horticulture.

Effects on major fruit crops arising directly from the Ruataniwha soils characteristics include:

- Stunted growth of pipfruit, stonefruit, berryfruit and avocados as a result of poor root growth particularly in late winter-spring when soils are waterlogged and bordering on anaerobic.
- Prevalent incidence of soil borne diseases such as phytophthora in apples and avocados and bacterial blast in stonefruit. Both diseases are exacerbated when trees are under stress from waterlogged conditions.

The resulting combination of low productivity and episodic plant mortality prevents viable and reliable income to be generated from these crops grown in the area under consideration.

Experience in the area over decades has shown that mitigation treatments do not fully overcome the limitations of the site. Deep ripping of the pan can provide temporary benefit but the pan tends to subsequently reform. Equally, installation of tile drainage at standard spacings does not fully ameliorate soil conditions to allow required levels of plant growth and productivity.

It is accepted that wine grapes may tolerate these conditions but the economic viability of sub scale grape plantings (<5ha) is limited.

### **Heretaunga Plains Urban Development Strategy**

The Heretaunga Plains Urban Development Strategy ([hpuds.co.nz](http://hpuds.co.nz)) provides policy and guidance for land use. The significant constraints of the area under consideration and consequent low versatility combine to give it low sustainable productive capacity

### **Implications for Land Use Capability Classes**

The Ministry of Primary Industries (MPI) also provides guidance with its Land Use Capability Classes classification (Appendix 2)

By this criteria, the site under consideration appears to have moderate limitations (wetness or continued waterlogging after drainage) and to be outside the criteria normally considered horticulturally suitable.

As a result, the area under consideration appears to warrant zoning review.

*Fruition has prepared this report with customary and due care but no warranty or liability for its contents are accepted*



### Appendix 3      Land use Capability Classes (abbreviated): source MPI

There are 8 classes (4 arable, 4 non-arable) arranged in order of increasing degree of limitation or hazard to use and decreasing versatility.

1. **Very good multiple use land.** Deep easily worked soils, well drained, usually well supplied with nutrients. Climate is favourable for a wide range of cultivated crops/pasture/forestry.
2. **Good land with slight limitations.** Limitations occur singly or combined and include soils of only moderate depth, unfavourable structure and difficulty in working, wetness (existing permanently as a slight limitation after drainage), slight to moderate salinity and susceptibility to erosion
3. **Moderate limitations.** Shallow soils, low fertility not easily corrected, low moisture holding capacity, wetness or continued waterlogging after drainage, moderate salinity, moderate climatic limitations, moderate to high susceptibility to erosion.
4. **Severe limitations** to arable use restricting choice of crops grown. Intensive conservation practices and/or very careful management needed. Strongly rolling slopes, very shallow soils, low fertility very difficult to correct, excessive wetness with continuing hazard of waterlogging after drainage, high salinity, severe climatic limitations.
- 5.

Non arable classes 5-8

Starts with stable hill country and ends with predominately very steep mountain land above 4000 feet.

*Fruition has prepared this report with customary and due care but no warranty or liability for its contents  
are accepted*



## 17 Evans Family Trust



22 August 2016

HPUDS Review  
HB Regional Council  
Private Bag 6006  
Napier 4142

### Draft HPUDS Revised Strategy 2016 – Submission of Evans Family Trust

This submission is on behalf of the Evans Family Trust who own land between the State Highway and North Shore road in the Whirinaki area. This land is legally described as Lot 7-8 DP 381095 contained in CFR 325069. It is shown in the attached Structure Plan.

The Submitter seeks to have their land identified as a future residential Growth area, or at the very least a Reserve Growth area within the Revised HPUDS Document. This submission proposes an alternative or additional housing choice to those sites identified in HPUDS.

Previously the Whirinaki area was not identified for growth under HPUDS on the basis of perceived servicing constraints (namely water), however this was not the case and for that reason it has been removed from an "inappropriate development area".

It is submitted that the area is entirely consistent with Policy UD4.2 of the Regional Policy Statement—which lists criteria to be considered in promoting an area as suitable for development. This is also the same criteria identified on Page 25 of the HPUDS revised document.

- POL UD4.2** **NEW RESIDENTIAL GREENFIELD GROWTH AREA CRITERIA (HERETAUNGA PLAINS SUB-REGION)**
- In determining future Residential Greenfield Growth Areas, not already identified within Policy UD4.3, for inclusion within urban limits in the Heretaunga Plains sub-region, the following general criteria shall apply:
- a) Must form an extension contiguous with existing urban areas and settlements.
  - b) Land is identified as having low versatility, and/or productive capacity has been compromised by:
    - i. Size and shape of land parcels that mitigates against productive use;
    - ii. Surrounding land uses and reverse sensitivity;
    - iii. Lack of water and/or poor drainage.
  - c) Clear natural boundaries exist, or logical greenbelts could be created to establish a defined urban edge.
  - d) Supports compact urban form.
  - e) Can be serviced at reasonable cost.
  - f) Can be integrated with existing development.
  - g) Can be integrated with the provision of strategic and other infrastructure (particularly strategic transport networks in order to limit network congestion, reduce dependency on private motor vehicles and promote the use of active transport modes).
  - h) An appropriate separation distance from electricity transmission infrastructure should be maintained in order to ensure the continued safe and efficient operation and development of the electricity transmission network.
  - i) Promotes, and does not compromise, social infrastructure including community, education, sport and recreation facilities and public open space.
  - j) Avoids or mitigates the following locational constraints:
    - i. projected sea level rise as a result of climatic changes
    - ii. active coastal erosion and inundation
    - iii. stormwater infrastructure that is unable to mitigate identified flooding risk
    - iv. flood control and drainage schemes that are at or over capacity
    - v. active earthquake faults
    - vi. high liquefaction potential

The proposed North Shore Road Concept plan area meets the criteria of POL UD4.2 as follows:

- It forms a contiguous extension of the existing North Shore Road settlement, and provides sound urban design with layout, connections and backs to backs for residential sections.
- The land is currently Rural Zone and does not comprise prime Plains Zone versatile soils.

- Logical natural boundaries enclose the site being the Whirinaki Stream, North Shore Road and the rear boundary of existing Coastal Settlement Zone properties.
- The site can be serviced and provides good transport connections.
- Can be integrated with the local water infrastructure asset and improve its functionality and security of supply.
- Provides appropriate distance from the national grid.
- Promotes a neighbourhood passive recreation reserve as part of its concept, and for residents to enjoy the coast while being clear of coastal erosion zones/lines 1, 2 and 3.
- Avoids sea level rise being clear of the 100 year coastal erosion line, improves stormwater management for the area, The onsite 1 in 50 year flooding layer that affects parts of the site can be managed. All sites to be created will provide a building platform and servicing designed to be clear of a 1 in 50 year flood. Liquefaction is moderate which can be addressed through building design, and there are no active faults in the area.

The Evans Family have put forward this submission for the long term security of their family and the long term benefit of the community as a whole. They would like to promote a positive community and family environment, for example they will provide a suitable reserve area for safe family recreation, beautification and effective engineering solutions to minimise any possible flooding in the future. The Evans family wish to live in this area for many years to come and would like to ensure that any further development will be done in accordance with all Council requirements and is in the best interests and long term benefit for the area. They wish to build a legacy for their children and want it to be something that their family can be proud of in the years to come.

The development will be of benefit to the North Shore Road area as it may, if approved by council, encourage service providers such as Chorus and Unison to be more proactive in providing their services and in looking after the area as a whole.

The submitter believes any actual or potential effects from the Pan Pac and Contact Energy sites can be appropriately addressed via a structure plan and Plan change process. They are committed to engaging with these parties in this regard.

Matthew Holder  
Development Nous Ltd

On behalf of Evans Family Trust





#### Legend

- Indicative Road Corridor
- Indicative Reserve Area
- Proposed Coastal Residential Area

## HPUDS

### Proposed Residential Growth Area North Shore





## 18 Graeme Lowe Properties Limited and Lowe Family Holdings



### Environmental Management Services

22 August 2016

Ref: SGD362

'HPUDS Review'  
HB Regional Council  
Private Bag 6006  
Napier 4142

Email: [hpuds@hbrc.govt.nz](mailto:hpuds@hbrc.govt.nz)

Dear Sir / Madam

#### **Draft HPUDS Revised Strategy 2016 – Submission from Graeme Lowe Properties Limited and Lowe Family Holdings**

Graeme Lowe Properties Limited and Lowe Family Holdings (Lowe Family) makes the following submission on the Draft Revised Heretaunga Plains Urban Development Strategy (HPUDS) 2016. The submission is drafted using the format of the on-line feedback form:

<http://www.hpuds.co.nz/review/feedback/>

#### **Submitter Information**

Name: Graeme Lowe Properties Limited and Lowe Family Holdings

E-mail: c/- [Stephen.daysh@emslimited.co.nz](mailto:Stephen.daysh@emslimited.co.nz)

Phone Number: P 06 834 4344 / M 021 2468595

Address: c/- Environmental Management Services Ltd, PO Box 149, Napier 4140

Verbal Presentation to Working Group Meeting: Yes we would like the option of presenting our submission to the HPUDS Working Group Meeting.

#### **Feedback**

With regards to the feedback 'starter questions' 1 – 3, the Lowe Family is generally supportive of the approach of the Reviewed Strategy particularly in regard to their Iona Road land continuing to be identified within greenfield residential growth areas and with the identification of the reserve area concept.

*Question 4: Do you support any particular parts of the draft revised Strategy?*

The Lowe Family supports the continued inclusion of their Iona Road land (both 'triangle' (Middle Road / Iona) and 'hill' (Havelock North Hills) areas) as greenfield growth areas identified in the

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strategy. The Lowe Family also supports the inclusion of ‘reserve areas’ in the Draft Strategy and particularly the inclusion of the ‘Middle Road’ reserve area.

*Question 5: Are there any other amendments that you think should be made to the draft revised strategy? If so, why?*

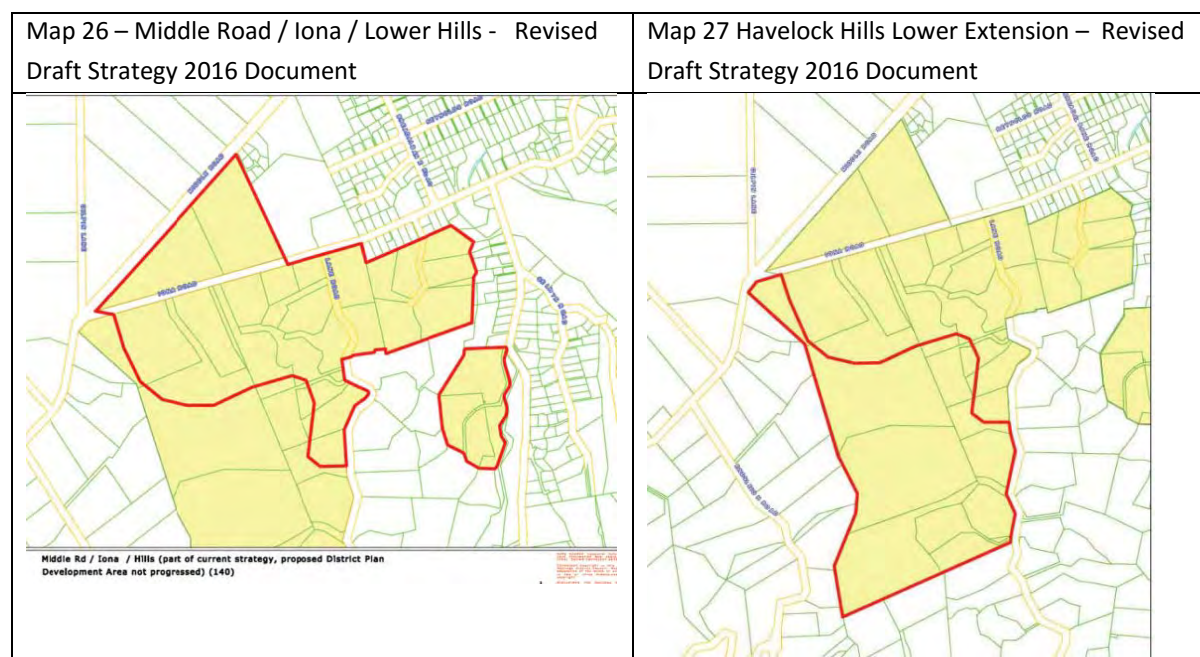
The Lowe Family seeks three specific amendments to the Draft; relating to Mapping, Indicative Yields and Reserve Area triggers. These amendments with reasons are set out under the following subheadings.

### **Mapping of the Iona Road Greenfield Growth Area**

#### **Comments**

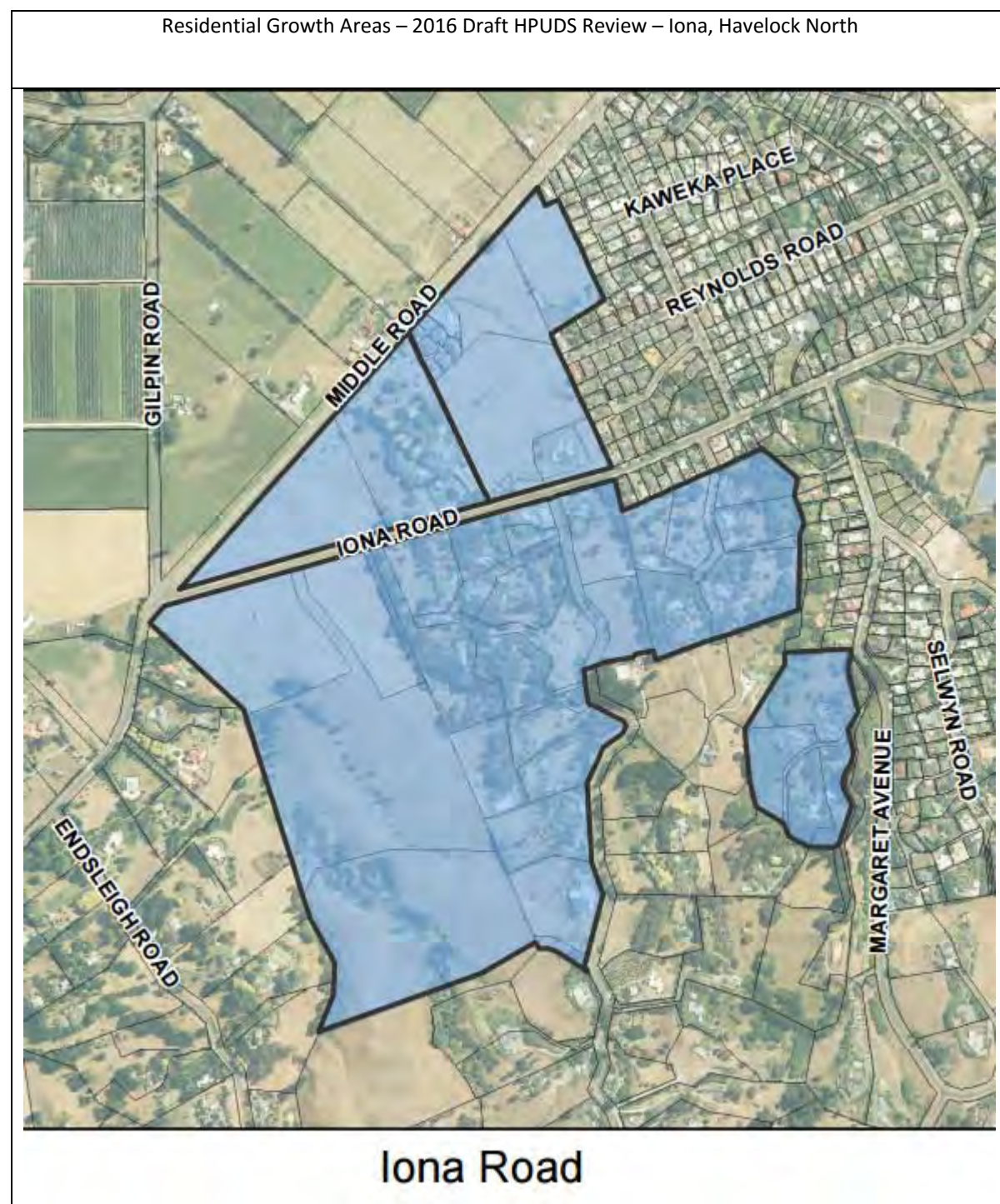
The Draft Revised Strategy includes the HPUDS 2010 map in the document, but refers to revised maps on the website. With regard to the Lowe Family, their Iona Road land is split over two maps in the Draft Revised Strategy document. The two maps are shown in Figure 1 below.

**Figure 1 – Maps of Iona Road Greenfield Areas in the Draft Revised HPUDS Strategy 2016 document**



The HPUDS website includes a series of amended maps for the Draft Revised HPUDS Strategy 2016. The amended map as shown on the website combines Maps 26 and 27 from the document into one map and is shown in Figure 2 below:

**Figure 2** – Updated Iona Road Greenfield Area Map as shown on the Draft Revised HPUDS Strategy 2016 website.



In comparing the maps in Figure 1 with Figure 2 there are some differences. The land that is already zoned residential, but not yet developed between Middle and Iona Roads is included in the identified growth area on the map in Figure 2 but not in the maps on Figure 1. This is supported as it makes sense to identify all of the as yet undeveloped land in the ‘greenfields growth area’. Greater efficiencies will be created by considering all of the land together in developing a structure plan. Indeed, this land is all identified in the Hastings District Council



'Proposed Iona Residential Growth Area – Issues and Options Paper' (July 2016)<sup>1</sup> document currently open for consultation.

Conversely the Map in Figure 2 excludes the southernmost portion of land identified on Map 27 in Figure 1. It is assumed that this land has been excluded in error as it is identified in the land under consideration in the aforementioned Issues and Options paper and no mention is made in the Draft Revised HPUDS Strategy document about reducing the size of this greenfields area. Indeed Map 27 of this document shows this land within the 'Havelock Hills Lower Extension'.

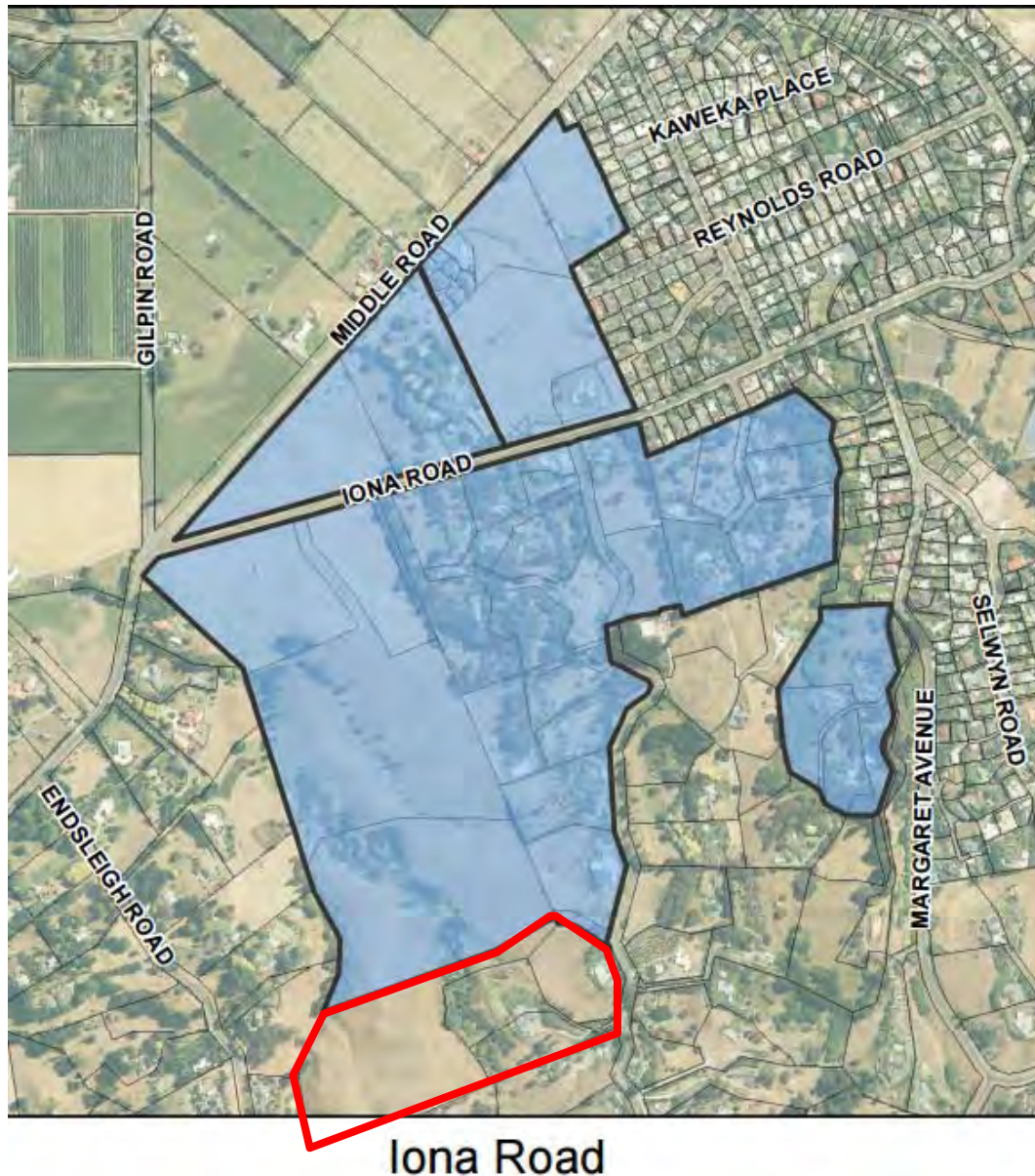
***Relief Sought in regards to mapping:***

The Lowe Family request that the 'Residential Growth Areas – 2016 Draft HPUDS Review – Iona, Havelock North' map is amended by adding the area within the red outline shown in Figure 3 below, so as to be consistent with Map 27 from the Draft Strategy document:

---

<sup>1</sup> <http://www.hastingsdc.govt.nz/proposed-residential-growth-2016>

**Figure 3 – Amendments sought to the ‘Residential Growth Areas – Iona, Havelock North’ map**



It is also requested that the aerial photograph forming this map be extended further to the south in its coverage so as to include the whole of the property in the southwestern portion of the area outlined in red.

**Indicative Yield – Section 2.1.9 of Draft HPUDS Revised Strategy 2016**

***Comments***

Middle Road / Iona - Section 2.1.9 of the Draft document lists Middle Road / Iona as having an indicative yield of 160 dwellings. This is significantly less than the potential of this greenfield area which has been calculated at 210 dwellings in the Iona Issues and Options Report referred to above.

It is assumed that the discrepancy is due to the ‘already zoned land’ that is immediately adjoining existing residential development between Middle and Iona Roads, being excluded from the HPUDS 2010 maps and calculations. As can be seen from Figure 1, Maps 26 and 27, this land was not



identified as a greenfield growth area in HPUDS 2010 on the basis that it was already zoned. The proposed amended map in Figure 2 for the Revised 2016 Strategy however does identify this land as part of the greenfield growth area. Logically the land should be identified and included as part of the Middle Road Iona greenfield growth area as it is part of the greenfield residential land supply. This is the same situation as other greenfield areas identified in HPUDS such as the 'Taradale Hills' where the land already has a residential zoning, but as it is yet to be developed it is identified as an HPUDS greenfield growth area.

The reason for not including this already zoned Iona Road land in the 2010 strategy was that it could have potentially been developed prior to 2015, which is when the strategy was planned to take effect in planning for urban growth in the 30 year period from 2015 – 2045. Given that this has not occurred and that there is an 'Iona Residential Growth' planning process underway, all of the as yet undeveloped land in the Middle Road Iona triangle should be included in the identified growth area. It therefore follows that the indicative yield calculation should be amended to 210 dwellings to reflect the greater area of land available.

Havelock North Hills - With regard to the 'Havelock North Hills' the indicative yield is given as 140 dwellings. Again this is less than the potential yields calculated in the Iona Issues and Options Report. The Lowe Family land alone has a potential yield calculated at 150 dwellings in that report (under Option 2), but this doesn't take into account the yield from the already developed Rural Residential Zoned land also included in the residential growth areas. The Iona Issues and Options Report calculates a yield of 25 additional dwellings from that already developed land (which contains 17 rural residential sites) in the 'lower slopes area' under option 3. There are an additional 12 developed sections in the middle and upper slopes part of this identified greenfield growth area that are not accounted for in these figures. If a simple 1 additional dwelling per section was applied over this land it could potentially contribute 12 additional dwellings. On this basis the potential residential yield from the Havelock North Hills would be 150 (Lowe Family land) + 25 (developed Rural Residential land lower slopes) + 12 (developed Rural Residential land middle and upper slopes); giving a total yield of 187. For the purposes of rounding, an indicative yield of 190 dwellings would be an appropriate figure.

In the context of HPUDS, the more yield that can be generated from the Havelock Hills the better, given the lower versatility of this land for productive activities (Land Use Classification Class 4<sup>2</sup>). Greater residential yield in the Havelock Hills will reduce the need for additional residential growth on the flatter class 1 land of the Heretaunga Plains.

***Relief Sought in regards to Yield:***

The Lowe Family seek that section 2.1.9, Figure 6 of the Draft Revised HPUDS Strategy 2016 be amended by changing the indicative yields as shown below (text to be deleted shown in ~~striketrough~~ font and text to be added shown in underlined font):

---

<sup>2</sup> Hawke's Bay Regional Council online maps - <http://maps.hbrc.govt.nz/IntraMaps80>

### Greenfield Growth Areas (Indicative Yield)

|                      |                                         |
|----------------------|-----------------------------------------|
| ...                  | ...                                     |
| Middle Road / Iona   | <del>160</del> <u>210</u> dwellings     |
| Havelock North Hills | <del>140</del> <u>190</u> dwellings     |
| ...                  | ...                                     |
| TOTAL                | <del>5,030</del> <u>5,130</u> dwellings |

### **Clarification required to Draft HPUDS Revised Strategy 2016 in the Implementation of Reserve Areas to becoming New Greenfield Growth Areas**

#### ***Comments***

Section 2.1.7 'Reserve Greenfield Growth Areas' of the Draft Revised Strategy sets out the rationale for introducing the reserve area concept. Specifically, it includes the following statement: *"Reserve areas will act as replacements if any greenfield growth areas identified in HPUDS are deemed unviable for residential development, or in circumstances where the area is not able to be progressed in a timely fashion when required, or when other issues become insurmountable. These reserve areas may also be advanced if there is a rapid and significant change in growth demand."* With regard to their land within the 'Middle Road' reserve area, the Lowe Family supports this statement and general approach.

Section 3 of the Draft Revised Strategy addresses 'Settlement Pattern Implementation' and includes processes for introducing additional Greenfield Growth Areas (Section 3.2.1) and for introducing additional 'Reserve' Greenfield Growth Areas (Section 3.2.2), however no process is provided for the implementation of an existing reserve area to becoming an identified greenfield growth area. Further to this, the process outlined in section 3.2.1 for introducing additional greenfield growth areas does not include sufficient reference to the availability of reserve areas. This process could therefore encourage applications for new greenfield growth areas where there are already adequate reserve areas identified that could replace or add to the identified greenfield land supply. Given this, the Lowe Family seeks amendments to Section 3.2.1 as well as the introduction of a new section to specify a process for changing the status of a reserve area to becoming a new greenfield growth area.

#### ***Relief Sought in Regards to Section 3.2.1 'Process for Introducing Additional Greenfield Growth Areas'***

The Lowe Family seek that section 3.2.1 of the Draft Revised HPUDS Strategy 2016 be amended to require greater account to be taken of the existence of identified 'Reserve' Greenfield Growth Areas as set out below (text to be deleted shown in ~~striketrough~~ font and text to be added shown in underlined font):

*"...The HPUDS review process was agreed to by all partner councils, and anticipates that the inclusion of additional greenfield areas is only likely to occur in the following circumstances:*

- i. Firstly, if one of the identified greenfield growth areas is deemed unviable for development, a new area will need to be proposed to compensate for the 'lost lots' in that area.*



- ii. Secondly, if a monitoring and review process suggests the future development trends for the Heretaunga Plains sub-region have changed, and more growth areas are required than initially anticipated.

In the case that either i or ii above applies, the identified 'Reserve' Greenfield Growth Areas will have first priority for inclusion as a new greenfield growth area. The inclusion of an area not currently listed in HPUDS would therefore only be possible: where there is no identified Reserve Area for the city, town or settlement where the identified greenfield growth area that needs replacing is located (in terms of i); or where there is no identified reserve area in a location where a monitoring and review process has identified a requirement for a new growth area (in terms of ii)..."

*"Figure 7: Process for Introducing Greenfield Growth Areas Not Already Identified in the HPUDS Settlement Pattern*

|                                                     |                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>New Area is<br/>Proposed for<br/>Development</i> | <p><u>There are no identified 'Reserve' Greenfield Growth Areas available where:</u></p> <ul style="list-style-type: none"> <li>• <i>Monitoring suggests more Greenfield Growth areas are required; or</i></li> <li>• <i>An Existing identified Greenfield Growth Area becomes unviable..."</i></li> </ul> |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

***Relief Sought in Regards to adding a process for Implementing Reserve Areas as Greenfield Growth Areas' in Section 3.2***

The Lowe Family seek that an additional subsection be added to section 3.2 'Process for Introducing Additional Greenfield Growth Areas' with the heading 'Process for Implementing an Identified Reserve Area as a Greenfield Growth Area.' The Lowe Family requests that this process cover the following points:

- An identified Reserve Area can be considered available for residential rezoning in advance of any HPUDS review by resolution of the relevant council when:
  - An identified greenfield growth area is deemed unviable for residential development either in part or in full; or
  - When an identified greenfield growth area that is currently active in the order of sequencing is not being progressed in a timely fashion and there are no other greenfield growth areas available, or likely to become available within a calendar year, to cover that segment of market choice (locational or price); or
  - There is a rapid and significant increase in growth demand that can accommodate an additional greenfield residential area without affecting the overall HPUDS Settlement Pattern and supply balance (between intensification and greenfield development)

The Lowe Family also seeks any additional consequential amendments to the Draft HPUDS Revised Strategy 2016 that are necessary to implement the intent of this submission.

This concludes the feedback from the Lowe Family to the Draft Revised HPUDS Strategy 2016. Thank you for the opportunity to comment.

Yours sincerely

Environmental Management Services Ltd

A handwritten signature in purple ink, appearing to read 'Stephen Daysh', is written over a faint, light purple rectangular background.

Stephen Daysh

**DIRECTOR**



## 19 Gregory Group



19<sup>th</sup> August 2016

HPUDS Review  
HB Regional Council  
Private Bag 6006  
Napier 4142

### Draft HPUDS Revised Strategy 2016 – Submission of Gregory Group

Thank you for the opportunity to submit on the *Heretaunga Plains Urban Development Strategy* (HPUDS) review. This submission is on behalf of the *Gregory Group* and relates to the inclusion of land under the reviewed HPUDS, in particular including of their land as part of the Lyndhurst Road Extension (Map 20).

#### **Amendment to Growth Area Map 20 – Lyndhurst Road Extension**

Under this submission it is proposed to extend the proposed Lyndhurst Road Extension of the proposed urban boundaries to include the land identified in the plan in *Figure 1* below<sup>1</sup>:



**Figure 1 - Proposed Lyndhurst Road Extension**

The land as shown above directly adjoins the existing Lyndhurst Road Extension and although not shown on these plans, is adjoining Graceland's Retirement Complex. The additional area proposed under this submission is approximately 3.7ha.

<sup>1</sup> Refer to Proposed Map 20 – Lyndhurst Road Extension, in the appended documents

## Reasoning for Inclusion in HPUDS

The Draft HPUDS review identified a process for including Greenfield Areas not already identified in the HPUDS Settlement Pattern (HPUDS - Figure 7, pg26):



### Need for Additional Development Areas

The first step is considering whether additional greenfield area is required and/or whether existing greenfield areas are unviable.

There are clear market indications that have identified that there is a very real shortage of residential sections available on the market. This has been widely reported and also identified in the OPUS report *Alternative Greenfield Sites and Review of the HPUDS Settlement Pattern*.

Supporting the increase of supply above projected residential uptake is the Proposed Nation Policy Statement on Urban Development Capacity (NPS-UDC). The NPS Proposed Policy PD5 will require Regional Councils to provide sufficient residential land of 20% over and above projected short and medium term demand; and 15% over and above projected long-term demand for high growth areas. This is an essential component in providing affordable land supply in that having surplus supply options avoids the affordability effects of land banking and provides various options rather than having all land development 'eggs in one basket' so to speak (which has resulted in our current supply issue).



In addition to the clear shortage of residential sections is the fact that a number of existing or proposed urban development sites are either unviable or are hindered by time, cost and/or RMA constraints. Some of the areas are also in their final stages and no longer form part of the future supply. Some of the issues and constraints on existing proposed urban development areas include:

**Arataki Extension** – Unviable due to odour non-compliance issues from Te Mata mushroom farm. Subsequently council have scraped any urban extension of this area for the foreseeable future.

**Northwood (Final Stages)** – Soil contamination issues have hindered progress in the final stages of this development. Although these issues are being addressed, the implementing of central government NES on Contaminated Soil has severely slowed the ability to release this supply and this will continue to affect future greenfield supply in on the Heretaunga Plains.

**Arataki Area**– Development all but complete with some final sections to be released subject to resource consent.

**Iona Road and Hills** – There is public backlash to intensive development in this area, especially higher density development of the Havelock Hills.

**Lyndhurst Stage 2** – It is understood that this area is still waiting on the undertaking of a stormwater solution and release of stage two for development. Although viable, time constraints again have slowed supply to a market with little other options.

**Kaiapoi Road** – the area is yet to be rezoned and there are questions regarding economic viability

These are just some examples of HPUDS development areas that are either unviable or due site factors have slowed supply. By having overly limited development options and a lack of progress toward advancing these options, along with recent market conditions has led to this shortfall in supply.

Therefore, it is considered that HPUDS need to provide alternative and additional land development options and location to cater for both shortfalls in supply and to cater for unviable and limited sites already part of the strategy. This is also supported through the central government direction under the NPS-UDC.

#### Application of Regional Policy Statement Criteria (Policy UD4.2) to Proposed Development Area

In determining future Residential Greenfield Growth Areas, not already identified within Policy UD4.3 of the Regional Policy Statement (RPS), for inclusion within urban limits in the Heretaunga Plains sub-region, the following general criteria shall apply and have been assessed –

| Policy UD4.2 – Greenfield Criteria                                                                          | Assessment                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) <b>Must form an extension contiguous with existing urban areas and settlements</b>                       | The property is adjoining ‘Gracelands’ retirement village and is directly opposite residential land across Pakowhai Road. The land is also adjoining the Lyndhurst Road extension (Map 20) and can easily be included in this urban extension as shown in <i>Figure 1</i> .                                                                                                                                    |
| b) <b>Land is identified as having low versatility, and/or productive capacity has been compromised by:</b> | As seen in the attached <i>HDC Plan – Aerial Photo</i> , the site proposed for inclusion in HPUDS contains two dwellings, large areas of yard area and a number of accessory buildings. There is limited fragmented productive use on the site and the overall area for inclusion is comparatively small, especially in respect to the Heretaunga Plains and other areas included for development under HPUDS. |
| i. <b>Size and shape of land parcels that mitigates against productive use</b>                              | Overall it is considered that the inclusion of the proposed area for future urban development will not adversely compromise the productive capacity of the Heretaunga Plains.                                                                                                                                                                                                                                  |

|                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ii. Surrounding land uses and reverse sensitivity</b>                                                                                                                                                                                                         | <p>The majority of the surrounding land uses are residential, or are proposed to become residential (Lyndhurst extension) and will not create adverse reverse sensitivity effects. The only potential reverse sensitivity issue would be the conflict between the adjoining productive uses on the northern boundary and proposed residential use. This is an issue with the majority if not all of the greenfield sites identified in HPUDS.</p> <p>The issue on the proposed site can be addressed in the same manner as the other greenfield sites, including; having buffer areas between the two use (large yard setbacks); no complaint covenants included on new titles; and landscaping and/or screening between the different land uses.</p>                                                                |
| <b>iii. Lack of water and/or poor drainage</b>                                                                                                                                                                                                                   | <p>Water supply would be via the Councils reticulated network and not considered to be an issue or restriction on the site. The site falls back to a council drain which runs between Lyndhurst and Evenden Road (Parallel to Pakowhai Road) and providing stormwater attenuation is incorporated into the future development of the area it is not considered that stormwater drainage will be a limiting factor for this sites inclusion in HPUDS.</p>                                                                                                                                                                                                                                                                                                                                                             |
| <b>c) Clear natural boundaries exist, or logical greenbelts could be created to establish a defined urban edge.</b>                                                                                                                                              | <p>There are already logical boundaries with Gracelands and Pakowhai Road on two of the boundaries for the area. The remaining to boundaries are proposed to incorporate a defined greenbelt to buffer the urban from the adjoining productive use. This is the same solution recommended by Council applied for the Lyndhurst extension.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>d) Supports compact urban form</b>                                                                                                                                                                                                                            | <p>The proposed site is considered to be compact in that it is central to the Hastings area and is already adjoining the Lyndhurst extension. The site is central to a number of essential amenities and services and is considered to support the 'compact urban form' in the same manner as many of the other recommended greenfield sites.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>e) Can be serviced at reasonable cost</b>                                                                                                                                                                                                                     | <p>The site is fronting all council services on Pakowhai Road, not to mention the council sewer main runs through the site (see attached <i>HDC Plan – Utilities</i>). The site also falls natural to an existing council drain at the rear of the property. The area is also located on the northern side of Hastings City and therefore all waste and sewer services can be gravity fed opposed to having to 'pump the hump' which is required with sites on the southern side of Hastings and there is less distance from the development area to the final discharge point (treatment station)</p> <p>As per all new urban development's the costs of upgrading services would be calculated by council as part of any plan change process and this cost on charged to the developer at time of subdivision.</p> |
| <b>f) Can be integrated with existing development</b>                                                                                                                                                                                                            | <p>The development of the site would incorporate existing dwellings and utilize the existing sewer main running through the property. There are also options for the development of the site to be incorporated with the wider Lyndhurst extension and these options would be explored as part of any plan change process proceeding HPUDS.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>g) Can be integrated with the provision of strategic and other infrastructure (particularly strategic transport networks in order to limit network congestion, reduce dependency on private motor vehicles and promote the use of active transport modes)</b> | <p>The property within walking distance of multiple essential services and community facilities including:</p> <ul style="list-style-type: none"> <li>• Multiple primary and secondary schools</li> <li>• Multiple public parks (including the Regional Sports Park)</li> <li>• The Mahora shopping centre</li> </ul> <p>This central location along with the existing footpaths, cycle ways and bus stops on Pakowhai Road will allow future residents alternative transportation options available to support the reduction in private motor vehicle dependency.</p> <p>The site is also central to district and regional transportation arterials providing effect access throughout Hastings and the wider Heretaunga Plains</p>                                                                                 |
| <b>h) An appropriate separation distance from electricity transmission infrastructure should be maintained in order to ensure the continued safe and efficient operation and</b>                                                                                 | <p>There are no national or regional transmission lines in the vicinity of this site</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

|                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>development of the electricity transmission network</b>                                                                                                |                                                                                                                                                                                                                                                                                                                                       |
| <b>i) Promotes, and does not compromise, social infrastructure including community, education, sport and recreation facilities and public open space.</b> | As identified earlier in this table, the sites location is central to a number of the essential social, community, recreational and educational facilities and the location and development of it will promote the use of these facilities.                                                                                           |
| <b>j) Avoids or mitigates the following locational constraints</b>                                                                                        | The site is not coastal or within an identified area effected by projected sea level rise in the foreseeable future.                                                                                                                                                                                                                  |
| <b>i. projected sea level rise as a result of climatic changes</b>                                                                                        |                                                                                                                                                                                                                                                                                                                                       |
| <b>ii. active coastal erosion and inundation</b>                                                                                                          | The site is not coastal in nature.                                                                                                                                                                                                                                                                                                    |
| <b>iii. stormwater infrastructure that is unable to mitigate identified flooding risk</b>                                                                 | As identified in the attached Hawkes Bay Natural Hazard Property Report, the site is not prone to flooding (1 in 50 year ARI)                                                                                                                                                                                                         |
| <b>iv. flood control and drainage schemes that are at or over capacity</b>                                                                                | I am not aware of stormwater capacity issues in this location, however if there are issues these must be resolvable given that the large area of land proposed to be developed under the Lyndhurst extension. In addition, there are onsite and development options to attenuate stormwater as part of future development of the area |
| <b>v. active earthquake faults</b>                                                                                                                        | None identified in the attached Hazard Report                                                                                                                                                                                                                                                                                         |
| <b>vi. high liquefaction potential</b>                                                                                                                    | The site is not in an area identified as high or very high liquefaction risk in the attached Hazard Report.                                                                                                                                                                                                                           |
| <b>vii. nearby sensitive waterbodies that are susceptible to potential contamination from on-site wastewater systems or stormwater discharges</b>         | There are no known nearby sensitive waterbodies, nor will the proposed residential use contaminant stormwater discharge.                                                                                                                                                                                                              |
| <b>viii. no current wastewater reticulation and the land is poor draining</b>                                                                             | Sites will discharge into Councils reticulated sewer                                                                                                                                                                                                                                                                                  |

Given the assessment above against the *New Residential Greenfield Growth Area Criteria* (UD4.2) it is my opinion that the proposed inclusion (Figure 1) is more than suitable under HPUDS and will clearly assist in providing suitable area of land is available for meeting the next 30 years of residential land supply on the Heretaunga Plains.

It is also envisaged that this area along with the existing Lyndhurst extension will all form part of a wider long term development of the area between Lyndhurst Road, Pakowhai Road, Evenden Road and the regional sports park.

As is the case with all the land recommended for greenfield development consideration under HPUDS, the finer details regarding specific servicing design, structure plans and specified open spaces etc. would be covered as part of the District Council or Private Plan Change for the area.

Overall inclusion of the land in this strategy is considered essential to allow council to provide sufficient residential land for the life of this strategy, and through having more options under this strategy it will ensure the most affordable, logical and sustainable options develop and avoid supply issues as a result of land banking.

## Summary

There is a clear shortage of current residential land supply available in the Heretaunga Plains strategy area and with the limited options and site constraints, existing supply is being hindered and will continue to be hindered if options are too limited. This is having obvious effect on development and growth of the Hastings District in particular. In addition, central government's national policy direction



is that regional council must provide sufficient supply (and over supply) of land for residential development to ensure housing affordability.

The proposed inclusion of the area recommended into the Lyndhurst Extension (Map 20) recommended under this submission will provide further development options and land supply and provide an alternative area for consideration of the territorial authority as it looks to provide a suitable volume of residential zoned land for the market. Supporting this submission is the assessment of the area assessed against the necessary RPS Policy UD4.2 and as concluded the area is considered appropriate for inclusion in HPUDS.

Overall the proposed inclusion of this area in HPUDS for urban development meets Regional Council's and Central Government's policy direction and overall supports the sustainable and necessary residential growth within the Heretaunga Plains catchment.

We thank you for providing this opportunity to submit on the HPUDS review and would like the option of being able to present a verbal submission at the Working Group's meeting (date to be confirmed in week commencing 12th September).



**Jason Tickner**  
Senior Planner  
Development Nous Ltd

|                                          |                                                                                        |
|------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Submitters details:</b>               | Gregory Group<br>c/- BM Accounting Limited<br>PO Box 1040<br>HASTINGS 4156             |
| <b>Address for service of applicant:</b> | Development Nous Ltd<br>PO Box 385<br>Hastings                                         |
| <b>Telephone:</b>                        | 06 876 2159<br>022 043 3541                                                            |
| <b>Email:</b>                            | <a href="mailto:jason.tickner@developmentnous.nz">jason.tickner@developmentnous.nz</a> |
| <b>Contact person:</b>                   | Jason Tickner                                                                          |

## Appendix Documents

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- Draft HPUDS Map 20 – Lyndhurst Road Extension
- Proposed Map 20 – Lyndhurst Road Extension
- HDC Plans
  - Aerial Photo
  - District Plan Zoning
  - Utilities
- Hawkes Bay Natural Hazard Property Report
- Hastings District Plan Appendix 56 – Tsunami Inundation Areas

Draft HPUDS Map 20 – Lyndhurst Road Extension



## Proposed Map 20 - Lyndhurst Road Extension






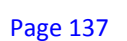
## HDC Plan - Aerial Photo

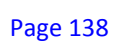


HBLASS Rural Imagery Acquisition: 5-6 January 2015, 11 January 2015, 18-19 February 2015, 28 February 2015, 1-2 March 2015

|                                                                                                                                 |                                     |                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>HASTINGS</b><br/>DISTRICT COUNCIL</p> | <p><b>HDC Plan - Aerial Map</b></p> | <p><small>All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage or retrieval system, without prior written permission from the publisher.</small></p> |
| <p>Map Produced Using Intramaps</p>                                                                                             | <p>18/08/2016</p>                   | <p>1:2000 on A4</p>                                                                                                                                                                                                                                                                                                           |










## Hawkes Bay Natural Hazard Property Report

|                                                                                   |                                                                                                                                                |                                    |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
|  | <b>HAWKE'S BAY NATURAL HAZARD<br/>PROPERTY REPORT</b><br><br><small>CROWN COPYRIGHT RESERVED © Council of Hawke's Bay Regional Council</small> | <small>Ref: 10 August 2018</small> |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|

**806 Pakowhai Road, Waiohiki-Frimley  
Hastings District  
Lot 1 DP 4413  
0963030000**


This report summarises the known hazards intersecting this property, based on research commissioned to assess regional risk – these research reports are summarised below. The hazard assessment methodologies, information compilation and presentation techniques used for these assessments include certain qualifications and limitations on the use, noting:

- a) The hazard information provided is based on the best information available at the time of the studies and was supplied under specific contract arrangements including financial and time constraints.
- b) The hazard information may be liable to change or review if new information is made available.
- c) Councils and other organisations may hold more detailed hazard information than provided here. This Natural Hazard Property Report is not a substitute for a Land Information Memorandum (LIM).
- d) The precision and accuracy of the data varies, therefore it is important that you obtain expert advice to help to interpret the information.

The hazard maps in this report are based on the following referenced research reports. Online Natural Hazards Resource Database contains a register of the hazard documents, research material, and publications from either the Council or external organisations and this database may contain other pertinent information related to this area.

The referenced reports are:

- (i) Earthquake Fault lines
  - Earthquake hazards in Hawke's Bay Initial assessment
  - Earthquake hazard analysis - Stage 1: Recurrence of large earthquakes determined from geological and seismological studies in the Hawke's Bay area
  - Hawke's Bay region earthquake hazard analysis programme: Stage 2 - a numerical assessment of the earthquake hazard in the Hawke's Bay region
  - Active Fault Mapping and Fault Avoidance Zones for Central Hawke's Bay District: 2013 Update
  - Active Fault Mapping and Fault Avoidance Zones for Hastings District and environs
  - Fault Avoidance Zone Mapping for Wairoa District, Napier City and surrounds
- (ii) Earthquake Liquefaction
  - Stage II - Earthquake Analysis: Part II - Evaluation of liquefaction potential in the Hawke's Bay Region
- (iii) Earthquake Amplification
  - Hawke's Bay Regional Council earthquake hazard analysis program: Stage III : evaluation of ground shaking amplification potential Volume 1
  - Hawke's Bay Regional Council earthquake hazard analysis program: Stage III : evaluation of ground shaking amplification potential Volume 2: Appendices
- (iv) Quaternary Geology
  - Hawke's Bay Regional Council earthquake hazard analysis program: Stage III : evaluation of ground shaking amplification potential Volume 2: Appendices
- (v) Tsunami Inundation Extents
  - Hawke's Bay Tsunami Inundation by Attenuation Rule
  - Review of Tsunami Hazard in New Zealand
- (vi) Flooding Extents
  - Wairoa River Flood Hazard Study
  - Te Ngāru Catchment Flood Hazard Study
  - Waipatiki Catchment Flood Hazard Analysis
  - Kopua Whara Opoutama Flood Hazard Analysis

|                                                                                                                                          |                                                                                     |                              |
|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------|
|                                                         | <h2 style="text-align: center;">HAWKE'S BAY NATURAL HAZARD<br/>PROPERTY REPORT</h2> | <p>Page   12 August 2015</p> |
| <p style="text-align: center;"><small>© 2015 DEVELOPMENT NUS. All Rights Reserved. © Copyright Hawke's Bay Regional Council.</small></p> |                                                                                     |                              |

(vii) Coastal Hazard

- Regional Coastal Environmental Plan
- Clifton to Tangoio Coastal Hazards Strategy 2120 - Coastal Hazard Assessment
- Clifton to Tangoio Coastal Hazards Strategy 2120 - Coastal Risk Assessment
- Other Coastal Hazard Reports
- Cliff Hazard Zone Delineation

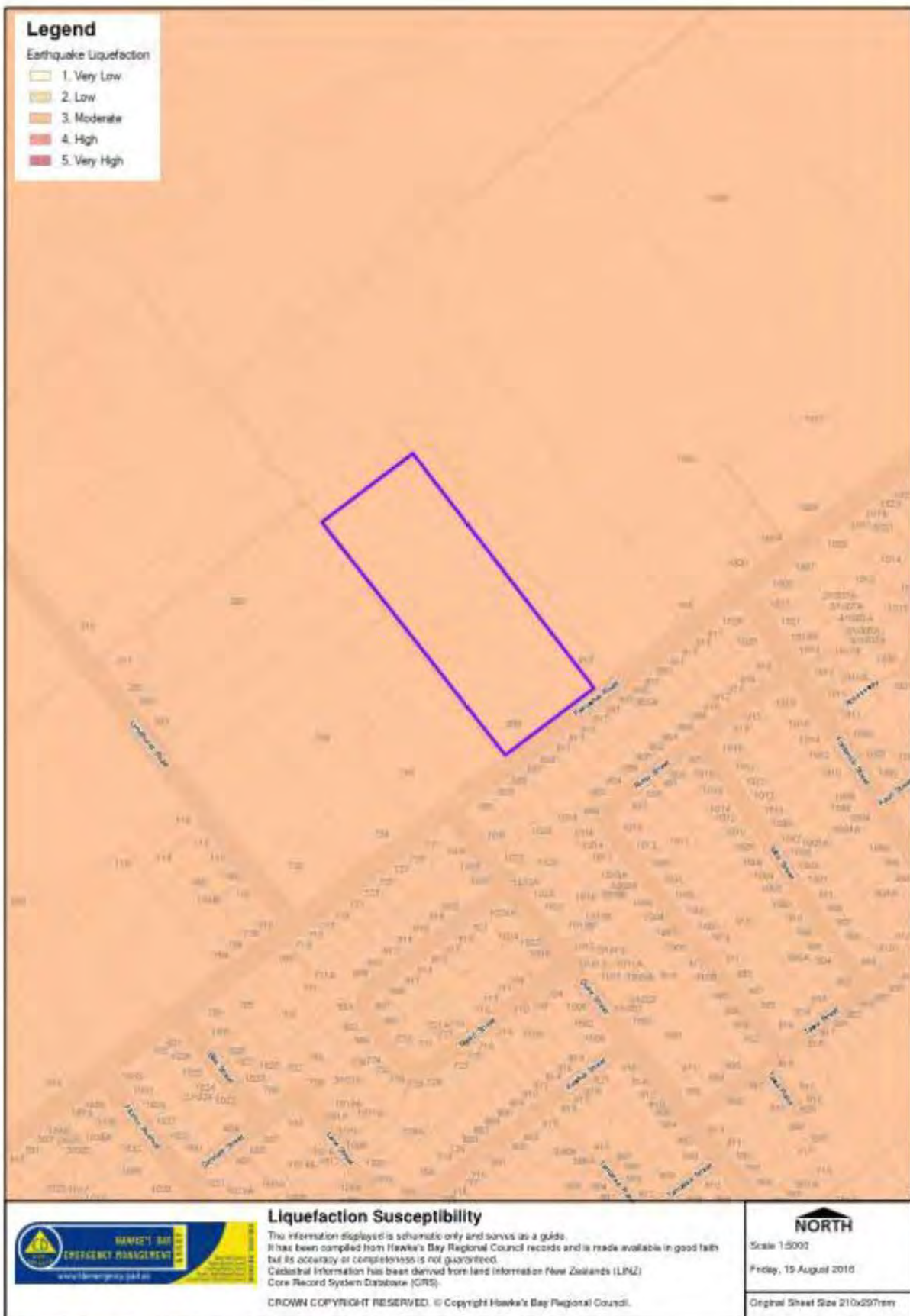
(viii) Wairoa River Bank Stability Zones

- Wairoa River Bank Stability Assessment

**Online Mapping Conditions of Use**

1. Use of these maps is subject to these disclaimers and exclusions. By using these maps the user is signifying his or her agreement to be bound by these exclusions and disclaimers.
2. Hawke's Bay Regional Council's Hazard maps have been compiled using the best information available to the council. The maps indicate the extent of the hazard from analysis of information only. They do not necessarily reflect the greatest extent of the hazard suffered in the past, or likely to be suffered in the future.
3. The hazard information provided does not imply any actual level of damage to any particular structure, utility service or other infrastructure.
4. These maps should not be relied upon as the sole basis for making any decision in relation to potential risk.
5. The hazard information provided is regional in scope and cannot be substituted for a site-specific investigation. A suitably qualified and experienced practitioner should be engaged if a site specific investigation is required.
6. Hawke's Bay Regional Council makes no representations, warranties or undertakings about any of the information in these maps and/or electronic files including, without limitation, their accuracy, completeness, quality or fitness for any particular purpose.
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|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                               |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
|  | <p><b>Natural Hazards Report</b></p> <p>The information displayed is schematic only and serves as a guide. It has been compiled from Hawke's Bay Regional Council records and is made available in good faith but its accuracy or completeness is not guaranteed. Cadastral information has been derived from land information New Zealand (LINZ) Core Record System Database (CRS).</p> <p>CROWN COPYRIGHT RESERVED © Copyright Hawke's Bay Regional Council</p> | <p>Friday, 18 August 2016</p> |
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## Liquefaction

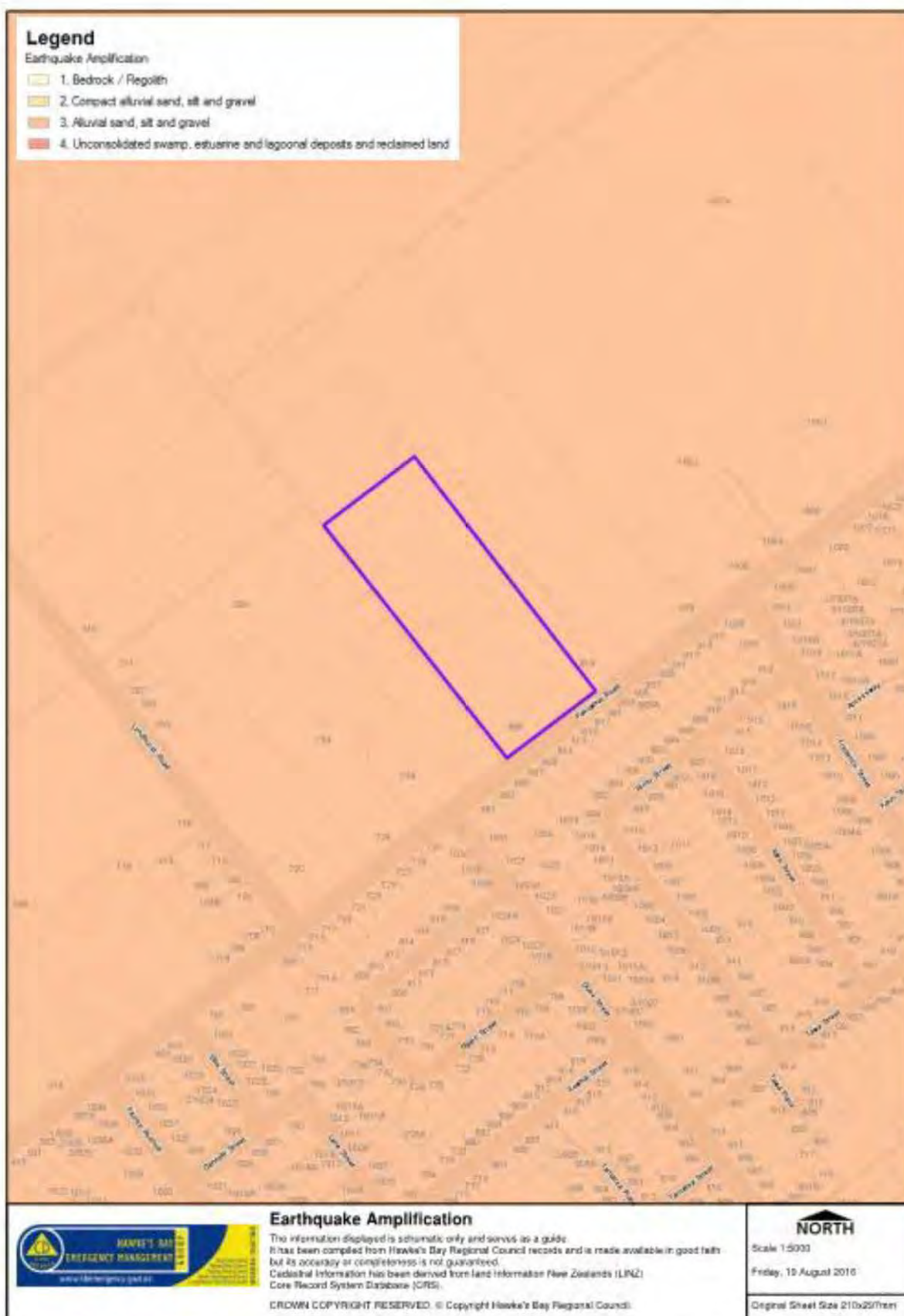
Liquefaction occurs when waterlogged sediments are agitated by an earthquake. Buildings can sink and underground pipes may rise to the surface. When the shaking stops, groundwater is squeezed out of the ground causing flooding, which can leave areas covered in mud. Hawke's Bay has several areas with sediment of high liquefaction susceptibility and numerous earthquake sources capable of generating an earthquake large enough to cause liquefaction, and there were numerous reports of liquefaction following the 1931 earthquake.

Low-lying areas in the region, especially those near the coast, and reclaimed land are particularly susceptible. Liquefaction susceptibility maps for Hawke's Bay and Napier/Hastings completed by GNS Science in 1996.

Based on a national seismic model shown above, scientists have estimated Hawke's Bay might experience the following shaking intensities for different return periods in the future. Our risks include earthquake prone buildings which have been identified within our main cities & towns, and although residential dwellings are considered a low risk, damage may be widespread requiring re-housing. Infrastructure networks are also at risk and there are also risks to our future social and economic wellbeing. The Hawke's Bay CDEM is the lead agency for managing any natural hazard event, like a large earthquake that badly affects the people of Hawke's Bay.



| Return periods for different earthquake shaking intensities in Hawke's Bay |                                                                                                                          |                       |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Return Period (years)                                                      | Description                                                                                                              | Return Period (years) |
| 100                                                                        | felt by everyone; Difficulty walking; Objects tend to fall from shelves; slight damage to poorly constructed buildings   | 5                     |
| 1000                                                                       | Difficulty standing; furniture movement; Reduced by driver's license; Tiles, water tanks, roof and some fittings damaged | 25                    |
| 10000                                                                      | slowing of cars at traffic buildings damaged including some damage to earthquake-resistant buildings; Cracks in ground   | 100                   |





|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                               |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
|  | <p><b>Natural Hazards Report</b></p> <p>This information document is educational only and should be a guide.<br/>It has been compiled from Hawke's Bay Regional Council records and other available sources in good faith.<br/>No warranty or representation is made as to its accuracy.<br/>Cadastral information has been derived from the Information Land Database (ILD2).<br/>Copyright Reserved © 2015<br/>Copyright Hawke's Bay Regional Council</p> | <p>Friday, 18 August 2016</p> |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|

## Amplification Report

Most of the damage during an earthquake is caused by ground shaking. The amplification map indicating the regional hazard from ground shaking in Hawke's Bay.

Seismic waves, travelling through the earth at different speeds and amplitudes because of a fault rupture, cause the ground to vibrate and shake in an earthquake. The intensity of the shaking is measured on the Modified Mercalli (MM) scale of 1 to 12, although MM10 is the maximum ever observed in New Zealand. The intensity of ground shaking at any location is affected by the magnitude of the earthquake, proximity to the source of the earthquake, and the geological material underneath that location. Larger earthquakes generally produce greater shaking and shaking is usually more pronounced nearer the source of the earthquake. Deep earthquakes generally produce less shaking because the source is deep in the earth. Fault ruptures often start at one point and propagate along the fault, rather than breaking the whole fault at once. In that case, shaking may be more intense at locations towards which the rupture is propagating, and less intense at locations in the opposite direction, that is: in the direction from which rupture is propagating. The damage caused by shaking depends on how large the ground motion is, how long it lasts, and its frequency. Large motions put great stresses on structures that sit on or in the moving ground and the longer the shaking lasts, the more likely the structures are to sustain serious or permanent damage.

Different frequencies of shaking affect buildings differently - in general, low frequency motions affect taller buildings more, while high frequencies affect shorter buildings. The type of material underlying the site can have a great effect on the nature and intensity of the shaking. Sites underlain by hard, stiff material such as bedrock or old compacted sediments usually experience much less shaking than sites located on young, loosely consolidated sediment, which tends to amplify shaking.

Closed basins filled with soft sediment overlying bedrock, such as the Poukawa basin, are especially vulnerable to amplification of shaking, as earthquake waves can become trapped within the basin, travelling back and forth increasing the shaking rather than being dissipated. Water saturated sites, such as river banks and lagoons, are particularly susceptible to shaking-induced ground damage such as liquefaction.

## WHAT CAN YOU DO?

Most people in Hawke's Bay will survive a large earthquake with some loss, but some people will be severely affected. Action you take now can help reduce damage to your home and business and help you survive. Practice Drop, Cover and Hold.









|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
|  | <p><b>Natural Hazards Report</b></p> <p>This information displayed is schematic only and serves as a guide. It has been compiled from Hawke's Bay Regional Council records and/or made available in good faith but its accuracy is not guaranteed. Cadastral Information has been derived from Land Information New Zealand's (LINZ) Core Record System Database (CRS).</p> <p>CROWN COPYRIGHT RESERVED © Copyright Hawke's Bay Regional Council</p> | <p>Monday, 16 August 2010</p> |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|

## Flooding Report

Information provided on the flooding maps shows general details about flooding patterns and areas at risk. They have been produced using computer models using verification with actual events where possible. Flood extents shown in the maps are not meant to show specific flooding details on each property.

These maps should not be relied upon as the sole basis for making any decision in relation to potential flood risk. Contact the Hawke's Bay Regional Council Engineering Department if further information is required with regards to a specific property.

Urban pipe networks and flooding on the street network in the urban areas have not been considered in the flood modelling. Urban areas show flood risk areas that are the result of the capacity of open drains being exceeded.

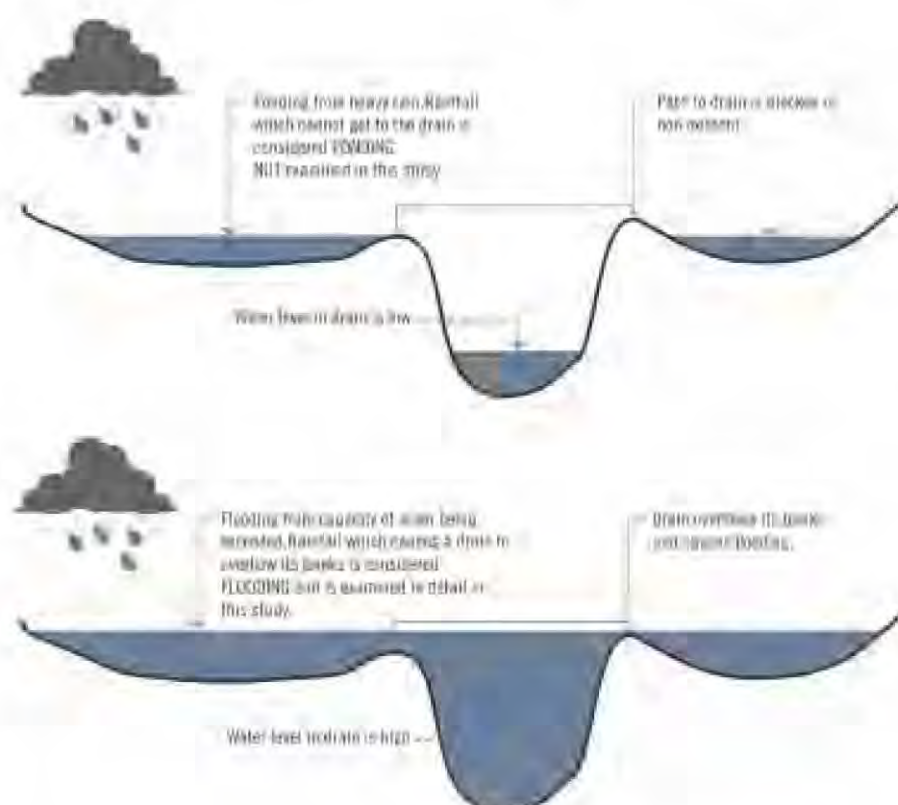
In some flood risk areas, houses and other structures may be elevated above the ground, and would be considered not floodable. These cases are not identified in this flood modelling.

Flood modelling is based on 100 year return period events (1% annual exceedance probability) for river flood risk areas, and 50 year return period events (2% annual exceedance probability) for floodplain flood risk areas.

The effects of climate change have not been included in this flood modelling.

## Flooding vs. Ponding

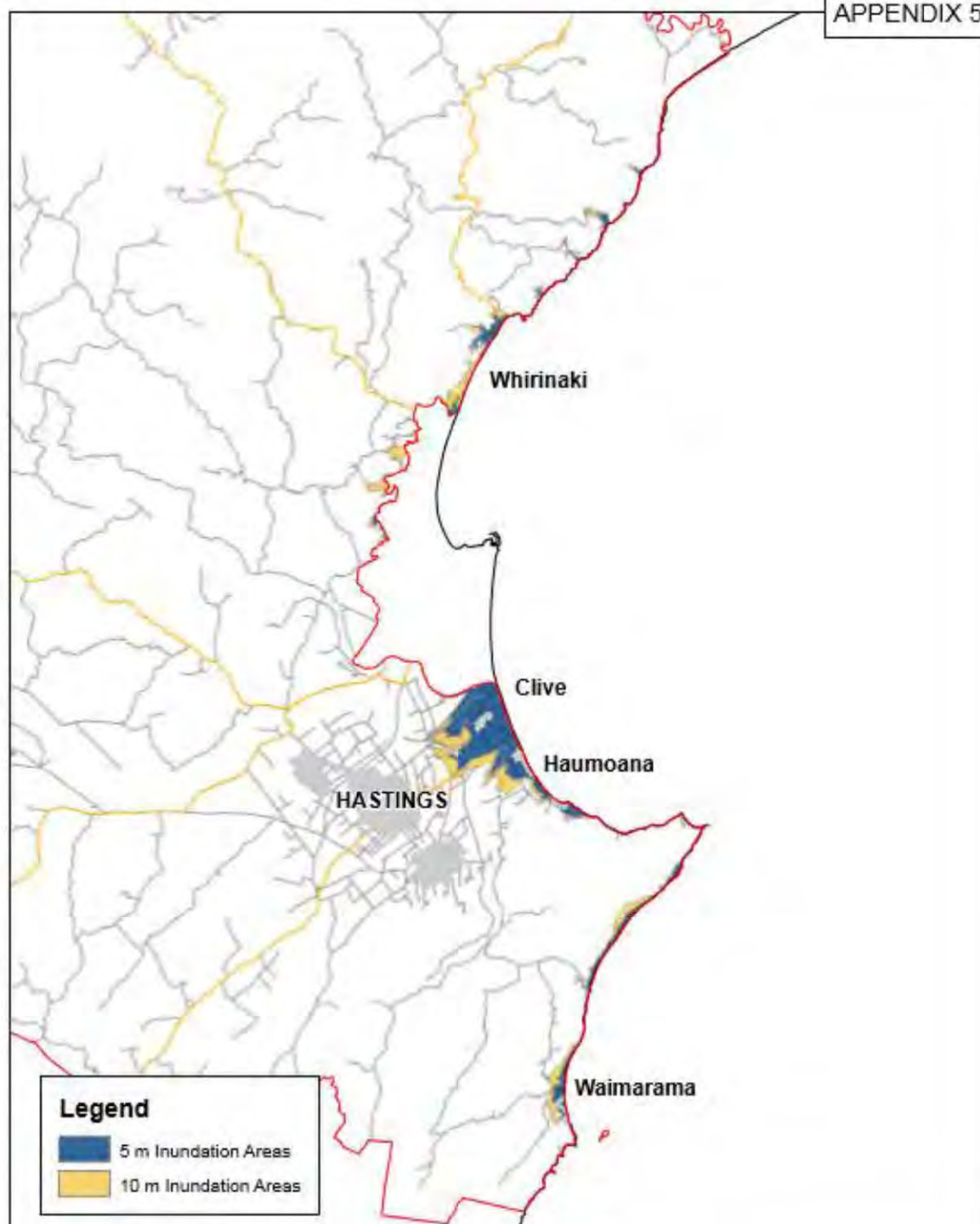
Major flooding happens when the capacity of a stream or drain is exceeded. Small scale, localised ponding may occur in areas where water cannot get to the stream through the normal paths of overland flow when the streams are not in flood. The flood hazard study does not consider this type of localised ponding in detail.





# Hastings District Plan Appendix 58 – Tsunami Inundation Areas

APPENDIX 58



## Tsunami Inundation Areas



**Version:** Council Decisions on Submissions

**Date:** 12 September 2015

**Scale:** 1:350,000

**SOURCE:** Cassini information derived from the Land Information New Zealand's Core Record System (CRS).  
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**DISCLAIMER:** The Hastings District Council cannot guarantee that the data obtained from third party companies and shown on this map is 100% accurate.

## 20 Gerard Gunn

|                                                                                                                                                                                 |                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <b>Name</b>                                                                                                                                                                     | Gerard Gunn                          |
| <b>Email</b>                                                                                                                                                                    | [REDACTED]                           |
| <b>Phone Number</b>                                                                                                                                                             | [REDACTED]                           |
| <b>Address</b>                                                                                                                                                                  | [REDACTED] Waiohiki Road RD3, Napier |
| <b>Please state here if you would like to briefly present your submission verbally at the Working Group's meeting (date to be confirmed in week commencing 12th September).</b> | Yes                                  |
| <b>Q1: Are these the big issues that the Reviewed Strategy needs to tackle?</b>                                                                                                 | Yes                                  |
| <b>Q2: Do you think our projections of development demand and capacity are correct?</b>                                                                                         | Difficult to project but acceptable  |

**Q5: Are there any other amendments that you think should be made to the draft revised strategy? If so, why?**

Yes The land in proximity to maraes/smaller settlements. The HDC has now gone some way towards addressing marae issues with workable "papakainga" provisions, however there are many "in between" parcels of land, which cannot be used for anything economically productive and therefore are under utilized as possible land for housing.

AIM

That HDC will recognize some plains productive zone land, as being able to be used for housing rather than laying bare as not productive agricultural land.

ACTION

HPUDS to acknowledge within a Marae zone, or other settlements, that land/blocks that cannot meet the limited provisions of the Papakainga provisions could be utilised for subdivision/housing. This would be subject to a reasonable chance the land/block was not able to be used for food/cropping in the future/added to larger blocks. "Land locked" blocks which have little or no chance of being added to other non complying blocks to make complying blocks.

TELFER YOUNGS REPORT

In Telfer Young's report Scope of Work paragraph (m) it states  
Review the 2009 findings relating to any areas on the Heretaunga Plains where limitations on the productivity of the soils are apparent, giving consideration to any existing resource constraints

THE DRAFT REPORT

In addition on page 17 of the draft report 2.1.8 third paragraph  
The identification of Bridge Pa and Omaha as Marae Based Settlements not only does not preclude development other marae and maori owned land, providing they can adequately meet the servicing requirements and the district plan provisions

Also in the draft report page 13 it states that the settlement pattern aims to

- Avoid encroaching onto the versatile land of the Heretaunga plains
- Increase densities and intensification in suitable locations
- Reduce the spread of both Hastings and Napier
- Provide a range of household types
- Encourage walking, cycling and public transport as an alternative to the private motor car

#### EXAMPLE

EG. If a block of land is surrounded by Papakainga or other features such as river, major road etc, that prevent addition to adjoining block, then the rule still applies as to a minimum 20ha subdivision.

#### WAIOHIKI

Many of the locals have in the past tried to build houses for their families on ancestral land. Due to their land being previously compulsorily zoned "plains", virtually without notice, they found they had no ability to split their ancestral land for their family members. When they approached the HDC they were told "No". They respected that decision, even though, it was in regard to land the family had owned since they arrived in NZ well before colonisation.

The HDC has now gone some way towards addressing that injustice, with more workable "papkainga" provisions, however there are many "in between" and "other" parcels of land, which cannot be used for anything, and this has not been addressed

#### Examples

1/ Ancestral land that has at one time period had broken ownership AND is land locked/within the marae zone/settlement. This issue will apply to 2 blocks of land adjoining the Waiohiki Marae. One has been bought back from Fraser Shingle and the other is hoped to be reacquired later. Under the current rules they are zoned 20HA minimum for a subdivision and only one dwelling. As this is not a 20HA, nor can it be added to, the land remains under utilised.

2/ Marae blocks acquired by non Maori that are completely landlocked by housing or other features. Many non Maori have similar views and aspirations as Maori and work in "partnership" with Maori. These people would like to live within a marae or settlement zone and there would be a demand for purchasing small land blocks/sections (peri urban) here.

This particular size would be in keeping with any recommendation. In this regard most of these maraes or settlements have more than adequate provisions as far as services are concerned. They were usually settled because services like water were readily available. Today modern sewerage treatment plants are very small and relatively low priced. Gas and solar systems have become far more prevalent. Dropping the density allows for more than adequate on site sewage disposal.

Even if small agricultural operations were viable, the spraying, noise, dust etc that can arise even adds major constraints to residential use if in the middle of housing.

For example in the case of Waiohiki by allowing more houses on currently unused land

- Saves using versatile land already being used as per the draft report
- Increases the density of houses in the area
- Saves adding to Napier and Hastings spread



- Provides more of a different kind of household type
- An public bus route already is in place
- A cycle/walkway is already in place

There are currently 3 more papakaingas in the planning/funding process for Waiohiki and the Marae rebuild has commenced. Waiohiki needs to be recognized for periurban development.

#### RECOMMENDATION

That HPUDS recognize peri urban development on plains zone land(in the right circumstances) and that when such blocks of land exist, they be allowed higher use, such as subdivision for housing, rather than just be empty or semi empty paddocks. This would be a far better outcome/utilization than rezoning the larger currently fully utilized blocks as identified under the report. That this is achieved by expanding/clarifying the words in the draft report to the following:

"The identification of Bridge Pa and Omahu as Marae Based Settlements not only does not preclude development of other Marae and Maori owned land, providing they can adequately meet the servicing requirements and the district plan provisions. In addition land that is within any settlement area that cannot be "reasonably" used for economically viable food and crop production or amalgamation to make useful larger non complying blocks be allowed for subdivision/peri urban housing again subject to the requirement they can adequately meet the servicing requirements and the district plan provisions. Any such development to be in accordance with a peri urban environment rather than a urban environment. The settlement of Waiohiki be included in recognized areas"

---