

Notice is given that a Tasman Resource Management Plan (TRMP) hearing will be held on:

Date: 2 June 2017
Time: 9.30 am
Venue: Council Chambers, 189 Queen St, Richmond

**Environment and Planning Committee
Tasman Resource Management Plan
Hearing 74
Change 57: Brightwater Strategic Review
AGENDA**

MEMBERSHIP

Chairperson	Cr T King	
Deputy Chairperson	Cr S Brown	
Members	Mayor R G Kempthorne	Cr S Bryant
	Cr P Canton	Cr M Greening
	Cr P Hawkes	Cr K Maling
	Cr D McNamara	Cr D Ogilvie
	Cr P Sangster	Cr T Tuffnell
	Cr A Turley	Cr D Wensley

(Quorum 7 members)

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TIMETABLE

9.30 am	Opening, Apologies, Welcome Confirmation of Order and Submission Timetable Decision on any Late Submissions
9.45 am	Hearing of Submissions / Presentation of Reports
12.30 pm	Luncheon Adjournment
1:15 pm	Hearing of Submissions / Presentation of Reports (cont'd)

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Staff Assessment Report Name And Number
620 Change 57: Access, Roads and Walkways

Submission	Rec. No
C57.4100.1	620.1

600 Change 57: Flood Hazard Risk (FHR)**Evaluation Overview**

The topics covered in this Staff Evaluation Report relate to flood hazards and flood hazard management beyond the Industrial Zone (Industrial Zone flood hazards are covered separately in Staff Evaluation Report 618). This report addresses issues relating to broader flood hazard information and management within Brightwater, and flood hazard terminology.

A total of five submitters provided submissions on this topic.

There were no further submissions on this topic.

Submissions Dealt with in this Report

C57.336.2	Batten, Garrick	6.16.1.1	Delete amendments to issue 6.16.1.1 about flood hazard risk.
C57.336.8	Batten, Garrick	C57 GEN	Ensure the rezoning is based on flood modelling using longer term data and complemented with citizen-based science.
C57.3886.5	Fonterra Co-Operative Group Ltd	6.16.3.1	Reword policy 6.16.3.1 as: "To avoid significant flood hazard risk when rezoning land to meet residential, commercial and industrial demand".
C57.3886.9	Fonterra Co-Operative Group Ltd	Chapter 2	Add a definition of "floodway".
C57.3886.10	Fonterra Co-Operative Group Ltd	AM 90	Show extent of Wairoa River floodway in and around Brightwater.
C57.3973.1	Balgowan Investments Ltd	6.16.3.1	Amend policy 6.16.3.1 to recognise that mitigation can address flooding risk, particularly for business land.
C57.3973.2	Balgowan Investments Ltd	6.16.3.3	Amend policy 6.16.3.3 to recognise that mitigation can address flooding risk, particularly for business land.
C57.3973.3	Balgowan Investments Ltd	6.16.20.1	Retain former wording of method 6.16.20.1(a) regarding Flood Hazard Special Area rules.
C57.3973.14	Balgowan Investments Ltd	17.4.20	Delete comments about flood hazard risk in reason for limiting building coverage on Wairoa River flood plain at Brightwater.
C57.3975.1	BTK Developments Ltd	6.16.3.1	Amend policy 6.16.3.1 to recognise that mitigation can address flooding risk, particularly for business land.
C57.3975.2	BTK Developments Ltd	6.16.3.3	Amend policy 6.16.3.3 to recognise that mitigation can address flooding risk, particularly for business land.
C57.3975.3	BTK Developments Ltd	6.16.20.1	Retain former wording of method 6.16.20.1(a) regarding Flood Hazard Special Area rules.
C57.3975.14	BTK Developments Ltd	17.4.20	Delete comments about flood hazard risk in reason for limiting building coverage on Wairoa River floodplain at Brightwater.
C57.3977.1	Coutts, R J Family Trust	6.16.3.1	Amend policy 6.16.3.1 to recognise that mitigation can address flooding risk, particularly for business land.
C57.3977.2	Coutts, R J Family Trust	6.16.3.3	Amend policy 6.16.3.3 to recognise that mitigation can address flooding risk, particularly for business land.
C57.3977.3	Coutts, R J Family Trust	6.16.20.1	Retain former wording of method 6.16.20.1(a) regarding Flood Hazard Special Area rules.
C57.3977.14	Coutts, R J Family Trust	17.4.20	Delete comments about flood hazard risk in reason for limiting

Evaluation and Recommendations 600.1

A. Evaluation

1.0 Affected Plan Amendments

The affected plan provisions include:

- Definitions: Chapter 2
- Issue 6.16.1.1
- Policies 6.16.3.1; 6.16.3.3
- Method 6.16.20.1
- Principal Reasons 17.4.20
- Area Map 90

2.0 Issues

The issues raised by submitters are considered under the following broad categories: Flood modelling and Mapping; Definitions; Removal of Flood Hazard Special Area Rules; and Flood mitigation.

2.1 Flood Modelling and Mapping

Submitter C57.336 (Batten, G) requested Council use longer-term data to model flood hazards and complement this with citizen-based science. Submitter C57.3886 (Fonterra) wants Council to be more specific about where the flood hazards are, and show the extent of the Wairoa floodway in and around Brightwater.

The flood model used by Council in 2013 was prepared by SKM Ltd. The depth and velocity of floodwaters from the Wairoa/Wai-iti rivers and tributaries has been calculated with a computer model. This two dimensional hydraulic modelling was undertaken using DHI Mike21 software on a 2 x 2 metre grid across the flood plain. The elevation (from LiDAR data) and a roughness factor was determined for each cell in the grid. The elevation model is "ground verified" by checking for and inserting small scale features such as culverts, narrow drains and the like that the LiDAR data may have or did miss. The roughness factor relates to how easily floodwater can flow across the cell and is adjusted to reflect different land uses (pasture, roads, vegetation, residential areas, etc.).

Flood flows are entered into the upstream channels at the model boundary. For each time step the computer calculates how the water would flow to or from each adjacent cell. It does this over and over and repeating for each time step. For each time step the model calculates the flood depth and flow velocity for each cell. The model outputs were calibrated against the mapped extents of actual floods by using the measured river flows from the known flood(s) as the inputs into the model. The model was adjusted in areas where outputs and actual flood event data vary by more than a minor degree, but further field checks, adjusting cell roughness and such like.

Once the model reasonably reliably reproduces known flood events, the model then allows Council to predict the extent of flooding and other flood effects beyond the scale of known flood events across the modelled area. Various scenarios can be modelled such as different size floods, different land uses or different land elevations. For example this might be to assess the potential impacts of predicted climate change or to assess the effects of a channel realignment, culvert upgrade, stopbank construction, change of land use, effects of land recontouring, etc.

This model can be used to consider various scenario's, and can be adapted over time to accommodate changes to conditions over time (i.e. where mitigation is provided). The timeframes that Council have used are largely determined through the Building and Resource Management Acts. For the Building Act, Council must look at water not entering buildings in at least a 2% AEP flood event (i.e. 50 year flood event) and for the Resource Management Act we must use the 1% AEP (i.e. a 100 year flood event). Case law has not supported planning above a 100-year event for normal developments. Hydro dam construction and such like come under different requirements. This means the requirements within Plans do not protect land or property in all flood scenarios. Individual landowners retain the ability in most cases to provide flood protection above the minimum requirements of Council by increasing floor or ground levels.

In terms of mapping, aside from a brief period after TRMP notification in 1996, Council has not shown flood maps in the Tasman Resource Management Plan (TRMP). It remains an option for

Council to do so, and can provide additional certainty for planning purposes if the information is reliable. On the other hand, such maps can provide a false certainty where the conditions or nature of the ground conditions, mitigation works or water flows change over time. Retaining the flood mapping outside the TRMP allows the information to evolve and applications to be assessed against the most recent information. Staff will recommend that flood flow paths are not shown on the TRMP Area maps.

Flood information can be requested from Council. In this case, the Brightwater Wakefield Flood Modelling Report 2013 can provide clear information on known and predicted flood flow paths.

2.2 Terms and Definitions

Submitter C57.3886 (Fonterra) requests a definition of 'floodway' be added to Chapter 2 (Definitions).

Following consideration of the term 'floodway', staff will be recommending that this term is deleted and replaced with 'flood flow path'. This change is consistent with the terms already used in Chapter 13 (Natural Hazards). The term "floodway" carries a connotation of deliberate preservation and/or construction of a pathway for floodwaters to flow, as well as also being a naturally available flood flow path such as a river channel or watercourse. The term "flood flow path" is more generic in that the combination of gravity and topography can determine the path of floodwater flow, either naturally or deliberately. A definition of "Flood Flow Path" is suggested below:

"Flood Flow Path' - is the course or route taken by floodwater in not only a natural channel or watercourse, but also that taken by surface water flow resulting from the exceedance of primary watercourse or pipe network capacity or failure during periods of intense or prolonged rainfall. Such a course or route will be determined by local topography, including features on the land such as solid fences, buildings, or raised garden beds; and may be naturally occurring (eg river berm) or be specifically formed for the purpose of avoiding or limiting flood hazard on, or floodwater damage to, adjacent land or development."

2.3 Removal of Flood Hazard Special Area Rules

Submitters C57.3973, C57.3975 and C57. 3977 (Balgowan Investments, BTK Developments and Coutts RJ Family Trust) request Council retains the Flood Hazard Special Area rules (method 6.16.20.1(a)). The submission picks up an anomaly in the Plan, where the correlating Special Area rules in Chapter 18 do not refer to flood hazards. It would serve no purpose to retain this reference to the Special Area rules, instead the method 6.16.20.1(a) ought to refer to the use of 'rules to manage flood hazard risks', as proposed.

2.4 Flood Hazard Risks and Mitigation

Submitter C57.336 (Batten, G) seeks a deletion of changes to Issue 6.16.1.1 relating to flood hazard risk. Changes were made to Issue 6.16.1.1 to read as follows:

"Recognition of flood hazard risk on the low-lying land in the vicinity of the Wairoa and Wai-iti rivers and the Pitfure and Mt Heslington streams."

The submitter's concerns appear to stem from Council's reliance on the SKM model and the submitter has a number of reservations about the accuracy of the results. Nonetheless, the issue of flooding in Brightwater is a particular matter for this settlement, and recognition of that in the TRMP is appropriate.

Submitters C57.3973; C57.3975 and C57. 3977 (Balgowan Investments, BTK Developments and Coutts RJ Family Trust) would like Council to amend policies 6.16.3.1 and 6.16.3.3 to recognise that mitigation can address flooding risk, particularly for business land. Fonterra are seeking recognition of 'significant' flood risk.

In regard to Policy 6.16.3.1, the approach for avoidance or mitigation is already supported through policy 13.1.3.8:

"To avoid, unless there is effective mitigation, the expansion of flood prone settlements into those parts of the surrounding flood plains where they might be subject to flood hazard."

The staff recommendation is to recognise the role of mitigation in flood hazard management and delete Policy 6.16.3.1 to avoid duplication of policies within the TRMP that have district-wide application.

In regard to Policy 6.16.3.3, which recognises there is a specific flood risk to some industrial land in Brightwater, the following policy was proposed in Plan Change 57:

"To rationalise the provision of limit resubdivision and the extent of buildings on industrial land

that is subject to flood hazard risk."

Changes to this policy are proposed following receipt of submissions including renumbering to 6.16.3.3A. The new policy recognises the ability for some flood hazard risks to be managed in Brightwater industrial zones. This is addressed further below and in SER 618 (Industrial Land and Risk of Flood Hazard). Staff are recommending a change in order to recognise the role of mitigation in flood hazard management. Operative policy 6.16.3.3 is being recommended to be retained unaltered in SER 618.

2.5 Significant Risk

Changes to the RMA in 2017 mean councils will need to consider not only flood hazard management but also the management of significant risks from natural hazards such as floods. The term 'significant risk' has been now inserted into the Resource Management Act as a matter of national importance that councils must recognise and provide for. Chapter 13 (Natural Hazards) already has a policy to avoid the effects of significant risks from natural hazards on land use activities. No definition of 'significant risk' is included in the Act.

The term 'significant risk' is likely to evolve over time and in particular contexts. Staff are expecting further direction or guidance on this term once the Ministry for the Environment issues its planned National Policy Statement on Natural Hazard Management (programmed for 2018). Currently, assessing the risk from natural hazards requires a "combined assessment of –

- (a) the likelihood of natural hazard occurring (whether individually or in combination); and
- (b) the material damage to land in respect of which the consent is sought, other land, or structures that would result from natural hazards; and
- (c) any likely subsequent use of the land in respect of which the consent is sought that would accelerate, worsen, or result in material damage of the kind referred to in paragraph (b)"

(Risk Based Approach to Natural Hazards under the RMA, Tonkin and Taylor, 2016).

Staff are recommending that Policy 6.16.3.3A includes consideration of significant risk from floods at the time of building or subdividing in the Brightwater Industrial zones.

Policy 6.16.3.3A:

"To manage the effects of flood hazards on subdivision and development of industrial land in Brightwater to avoid significant risks on the site or beyond the site."

Note: This policy is being recommended through SER 618.

2.6 Flood Hazard Risk

The proposed Plan Change introduced the term 'Flood Hazard Risk'. This terminology may have confused some of the submitters.

"Flood Hazard" refers simply to the nature of the hazard (i.e. hazard derived from flooding), whereas "Flood Hazard Risk" refers to the combined probability of the flood hazard and the consequences arising from that hazard. A number of references to "Flood Hazard Risk" appear to be more likely referring to the nature and/or probability of the hazard.

The use of the following terms are suggested:

- "Flood Hazard" – when only the type of hazard is being referred to, and
- "Flood Hazard Risk", being "Risk from Flooding Hazard" – when matters of both the probability AND consequences of the hazard (eg damage, loss of service or threat to life) are of concern.

Consequential changes to the Proposed Plan Change are being recommended to ensure the terminology is correct and consistent (refer SER 618).

3.0 Options

3.1 Option 1

Retain, amend or delete the proposed amendments to Issue 16.6.1.1.

3.2 Option 2

Retain, amend or delete the proposed amendments to Policies 6.16.3.1 and 6.16.3.3, or delete entirely.

3.3 Option 3

Add a definition for 'flood flow path' or 'floodway' to Chapter 2; or maintain absence of the definition.

3.4 Option 4

Retain, amend or delete the proposed amendments to Principal Reasons for Rules 17.4.20.

3.5 Option 5

Retain, amend or delete reference to Flood Hazard Special Area Rules (16.6.20.1(a)).

3.6 Option 6

Add flood flow path maps to Area Map 90; or retain Area Map 90 (unaltered).

B. Staff Recommendations

1. Retain proposed amendments to Issue 16.6.1.1.
2. Delete policy 6.16.3.1 in its entirety.
3. Amend proposed policy 6.16.3.3 in accordance with the recommendation and reasoning in SER 618 (Industrial Land and Flood Hazard).
4. Add a definition for 'flood flow path' to Chapter 2.
5. Retain proposed amendments to Principal Reasons for Rules 17.4.20.
6. Retain the proposed deletion of the reference to Flood Hazard Special Area Rules (16.6.20.1(a)) through this Plan Change.
7. Retain Area Map 90 as is (not alter to show the flood flow paths).

C. Reasons

1. The issue of flooding in Brightwater is a particular matter for this settlement, and recognition of that in the TRMP is appropriate. The contributing waterways to the flooding of parts of the settlement are well established.
2. Policy 6.16.3.1 is deleted to avoid duplication with policy 13.1.3.8 (Natural Hazards) and to recognise mitigation as a legitimate flood management tool.
3. Addition of a definition for 'flood flow path' provides clarity about the term and assists with interpretation.
4. The reason for retaining the proposed amendments to the Principal Reasons for Rules 17.4.20 is that they provide an explanation and rationale for controlling the extent of building coverage.
5. Deletion of the reference to Flood Hazard Area rules (16.6.20.1(a)) is because there are no corresponding Special Area rules within the TRMP.
6. The reason for retaining Area Map 90 without flood flow paths shown is because retaining the flood mapping outside the TRMP allows the information to evolve and applications to be assessed against the most recent information.

D. Plan Amendments

Topic : 2.2

Add a definition for 'flood flow path' as follows:

"'Flood Flow Path' - means the course or route taken by floodwater in not only a natural channel or watercourse, but also that taken by surface water flow resulting from the exceedance of primary watercourse or pipe network capacity or failure during periods of intense or prolonged rainfall. Such a course or route will be determined by local topography including features on the land such as solid fences, buildings, or raised garden beds; and may be naturally occurring (eg river berm) or be specifically formed for the purpose of avoiding or limiting flood hazard on, or floodwater damage to, adjacent land or development."

Topic : 6.16.3

Add a new policy 6.16.3.3A:

"To manage the effects of flood hazards on subdivision and development of industrial land in Brightwater so as to avoid significant risks on the site, or beyond the site."

Topic : 6.16.3.3

Retain operative policy in its original form:

"To rationalise the provision of industrial land so that the effects of industrial activities are minimised."

Topic : 6.16.3.1

Delete proposed and operative policy 6.16.3.1.

F. Submission Recommendations

C57.336.2	Batten, Garrick	Disallow
C57.336.8	Batten, Garrick	Allow In Part
C57.3886.5	Fonterra Co-Operative Group Ltd	Allow In Part
C57.3886.9	Fonterra Co-Operative Group Ltd	Allow In Part
C57.3886.10	Fonterra Co-Operative Group Ltd	Disallow
C57.3973.1	Balgowan Investments Ltd	Allow In Part
C57.3973.2	Balgowan Investments Ltd	Allow In Part
C57.3973.3	Balgowan Investments Ltd	Disallow
C57.3973.14	Balgowan Investments Ltd	Disallow
C57.3975.1	BTK Developments Ltd	Allow In Part
C57.3975.2	BTK Developments Ltd	Allow In Part
C57.3975.3	BTK Developments Ltd	Disallow
C57.3975.14	BTK Developments Ltd	Disallow
C57.3977.1	Coutts, R J Family Trust	Allow In Part
C57.3977.2	Coutts, R J Family Trust	Allow In Part
C57.3977.3	Coutts, R J Family Trust	Disallow
C57.3977.14	Coutts, R J Family Trust	Disallow

618 Change 57: Industrial Land and Risk of Flood Hazard

Evaluation Overview

This topic relates to the rezoning proposals for industrial land affected by flood hazards, and the associated planning framework.

Plan Change 57 proposes to ensure that flood hazard risk is better managed in the existing industrial zones in Brightwater. The latest flood hazard modelling has shown that flood hazard ranges from low to high in the existing Light Industrial and Rural Industrial zone locations.

As part of growth planning a new area of land has been rezoned Rural 1 Light Industrial Deferred on River Terrace Road that generally avoids areas of flood hazard. There are no submissions on the new area.

There are submissions on the policies and rules underpinning the zoning response adopted in Plan Change 57. These submitters have land on either side of Factory Road where a flood path from the Wairoa River is located.

A total of five submitters raise a number of submission points on this topic and these are discussed in the following sections.

There was one further submitter on this topic.

Submissions Dealt with in this Report

C57.87.1	Brightwater Engineering	ZM 90	Retain Brightwater Engineering property accessed off Spencer Place as Light Industrial Zone.
<i>Oppose</i>			FC57.806.2
C57.87.2	Brightwater Engineering	ZM 90	Retain balance of Brightwater Engineering land (northeast towards Nelson) as Light Industrial Closed subject to removal of Closed zone status when Mt Heslington Stream is diverted.
<i>Oppose</i>			FC57.806.3
C57.1212.1	Tasman District Council	6.16.3.3	Retain old policy 6.16.3.3 about rationalising the provision of industrial land to minimise industrial effects. Retain new policy on resubdivision with a new policy number.
C57.3886.2	Fonterra Co-Operative Group Ltd	ZM 90	Rezone strip of land between Factory Road and Wairoa River (Sec 250 Waimea East Dist) from Light Industrial Closed to Rural 1 (map supplied).
C57.3886.3	Fonterra Co-Operative Group Ltd	ZM 90	Retain proposed zoning of Rural Industrial to Rural 1 on Lot 4 DP 377009 (map supplied).
C57.3886.4	Fonterra Co-Operative Group Ltd	ZM 90	Delete Rural Industrial Closed Zone from CT115/3, CT9B/133 and CT78/13 on Factory Road. Retain as Rural Industrial (map supplied).
C57.3886.6	Fonterra Co-Operative Group Ltd	6.16.3.3	Reword policy 6.16.3.3 as: "To limit resubdivision and manage the extent of buildings on industrial land that is subject to significant flood hazard risk".
C57.3886.7	Fonterra Co-Operative Group Ltd	C57 GEN	Explain reasons for preferred option chosen for managing industrial growth and flood hazard risk in Section 32 report.
C57.3886.8	Fonterra Co-Operative Group Ltd	C57 GEN	Give reasons for reduced building coverage in the Rural Industrial Closed Zone in Section 32 report.
C57.3886.11	Fonterra Co-Operative Group Ltd	17.12.2.1	Retain maximum coverage of 75 percent for Rural Industrial Zone in condition (n) and delete lower maximum and floodway provision from Rural Industrial Closed Zone.
C57.3886.12	Fonterra Co-Operative Group Ltd	ZM 90	Rezone three titles at Factory Road (map supplied) from Rural Industrial Closed to Rural Industrial.
C57.3886.13	Fonterra Co-Operative	16.3.4.1(aa)	If Rural Industrial Closed zoning is retained at Factory Road,

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	Group Ltd		subdivision of three titles (map supplied) is either controlled or discretionary depending on lot size.
C57.3886.14	Fonterra Co-Operative Group Ltd	16.3.4.4A	If Rural Industrial Closed zoning is retained at Factory Road, subdivision of three titles (map supplied) is either controlled or discretionary depending on lot size.
C57.3886.15	Fonterra Co-Operative Group Ltd	16.3.4.7	If Rural Industrial Closed zoning is retained at Factory Road, subdivision of three titles (map supplied) is either controlled or discretionary depending on lot size.
C57.3973.4	Balgowan Investments Ltd	6.16.20.1	Delete method 6.16.20.1(d): "rules relating to closed subdivision and coverage in industrial zones that are subject to flood hazard risk".
C57.3973.5	Balgowan Investments Ltd	6.16.30	Delete new wording about consolidating industrial activities south of SH 6 and closing subdivision in parts of the zone with most flood hazard risk.
C57.3973.6	Balgowan Investments Ltd	16.3.4.1	Delete the Light Industrial Closed Zone provisions from 5, 11 and 13 Factory Road which change status of subdivision so no longer a controlled activity.
C57.3973.7	Balgowan Investments Ltd	16.3.4.4A	Delete the Light Industrial Closed Zone discretionary subdivision provisions from 5, 11 and 13 Factory Road.
C57.3973.8	Balgowan Investments Ltd	16.3.4.7	Delete the Light Industrial Closed Zone prohibited subdivision provisions from 5, 11 and 13 Factory Road.
C57.3973.9	Balgowan Investments Ltd	17.4.1	Delete reference to Light Industrial Closed Zone in preamble to Industrial Zone rules.
C57.3973.10	Balgowan Investments Ltd	17.4.3.1	Reinstate previous provision (a) for buildings as a permitted activity on submitter's site (13 Factory Road).
C57.3973.11	Balgowan Investments Ltd	17.4.3.1	Delete addition of (c)(iii) regarding maximum building coverage in Brightwater Light Industrial Zone from 90 percent to 60 percent and reference to floodway.
C57.3973.12	Balgowan Investments Ltd	17.4.3.2	Delete change of maximum building coverage in Brightwater Light Industrial Closed Zone to 15 percent.
C57.3973.13	Balgowan Investments Ltd	17.4.3.3	Delete the addition to matter (3) regarding increased flood hazard risk when considering applications for increased building coverage in Industrial Zones.
C57.3973.15	Balgowan Investments Ltd	ZM 90	Delete Closed Zone status from Light Industrial areas where assessed flood risk is low to medium.
	<i>Oppose</i>		FC57.806.1
C57.3975.4	BTK Developments Ltd	6.16.20.1	Delete provision 6.16.20(d): "rules relating to closed subdivision and coverage in industrial zones that are subject to flood hazard risk".
C57.3975.5	BTK Developments Ltd	6.16.30	Delete new wording about consolidating industrial activities south of SH 6 and closing subdivision in parts of the zone with most flood hazard risk.
C57.3975.6	BTK Developments Ltd	16.3.4.1	Delete the Light Industrial Closed Zone provisions from 5, 11 and 13 Factory Road which change status of subdivision so no longer a controlled activity.
C57.3975.7	BTK Developments Ltd	16.3.4.4A	Delete the Light Industrial Closed Zone discretionary subdivision provisions from 5, 11 and 13 Factory Road.

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C57.3975.8	BTK Developments Ltd	16.3.4.7	Delete the Light Industrial Closed Zone prohibited subdivision provisions from 5, 11 and 13 Factory Road.
C57.3975.9	BTK Developments Ltd	17.4.1	Delete reference to Light Industrial Closed Zone in preamble to Industrial Zone rules.
C57.3975.10	BTK Developments Ltd	17.4.3.1	Reinstate previous provision (a) for buildings as a permitted activity on submitter's site (11 Factory Road).
C57.3975.11	BTK Developments Ltd	17.4.3.1	Delete addition of (c)(iii) regarding maximum building coverage in Brightwater Light Industrial Zone from 90 percent to 60 percent and reference to floodway.
C57.3975.12	BTK Developments Ltd	17.4.3.2	Delete change of maximum building coverage in Brightwater Light Industrial Closed Zone to 15 percent.
C57.3975.13	BTK Developments Ltd	17.4.3.3	Delete the addition of matter (3) regarding increased flood hazard risk when considering applications for increased building coverage in Industrial Zones.
C57.3975.15	BTK Developments Ltd	ZM 90	Delete Closed Zone status from Light Industrial areas where assessed flood risk is low to medium.
<i>Oppose</i>			FC57.806.4
C57.3977.4	Coutts, R J Family Trust	6.16.20.1	Delete provision 6.16.20.1(d): "rules relating to closed subdivision and coverage in industrial zones that are subject to flood hazard risk".
C57.3977.5	Coutts, R J Family Trust	6.16.30	Delete new wording about consolidating industrial activities south of SH 6 and closing subdivision in parts of the zone with most flood hazard risk.
C57.3977.6	Coutts, R J Family Trust	16.3.4.1	Delete the Light Industrial Closed Zone provisions from 5, 11 and 13 Factory Road which change status of subdivision so no longer a controlled activity.
C57.3977.7	Coutts, R J Family Trust	16.3.4.4A	Delete the Light Industrial Closed Zone discretionary subdivision provisions from 5, 11 and 13 Factory Road.
C57.3977.8	Coutts, R J Family Trust	16.3.4.7	Delete the Light Industrial Closed Zone prohibited subdivision provisions from 5, 11 and 13 Factory Road.
C57.3977.9	Coutts, R J Family Trust	17.4.1	Delete reference to Light Industrial Closed Zone in preamble to Industrial Zone rules.
C57.3977.10	Coutts, R J Family Trust	17.4.3.1	Reinstate previous provision (a) for buildings as a permitted activity on submitter's site (5 Factory Road).
C57.3977.11	Coutts, R J Family Trust	17.4.3.1	Delete addition of (c)(iii) regarding maximum building coverage in Brightwater Light Industrial Zone from 90 percent to 60 percent and reference to floodway.
C57.3977.12	Coutts, R J Family Trust	17.4.3.2	Delete change of maximum building coverage in Brightwater Light Industrial Closed Zone to 15 percent.
C57.3977.13	Coutts, R J Family Trust	17.4.3.3	Delete the addition of matter (3) regarding increased flood hazard risk when considering applications for increased building coverage in Industrial Zones.
C57.3977.15	Coutts, R J Family Trust	ZM 90	Delete Closed Zone status from Light Industrial areas where assessed flood risk is low to medium.
<i>Oppose</i>			FC57.806.5

Evaluation and Recommendations 618.1

A. Evaluation

1.0 Affected Plan Provisions

Policies 6.16.3.1 and 6.16.3.3.

Rules 16.4.3.1, 16.3.4.1(aa), 16.3.4.4A, 16.3.4.7, 17.4.1, 17.4.3.1, 17.4.3.2, 17.4.3.3, 17.12.2.1.

Method 6.16.20.1.

Principal Reasons and Explanations 6.16.30.

2.0 Issues

Issues raised by submitters are considered under the following broad categories: Closed Industrial zones, building coverage, rezoning, Spencer Place sites and submissions on policies.

2.1 Closed Industrial Zones

The Proposed Plan introduced Closed Industrial zones in particular locations in Brightwater. The Closed Zone provisions would prohibit subdivision and limit development (15% building coverage). A Closed zone is appropriate where the hazard is extreme or the options for mitigation are so limited that subdivision and development are highly constrained.

The flood modelling shows the flood hazard is variable across the proposed Closed Zone locations. Of the three titles where Fonterra has sought to remove the Rural Industrial Closed zoning, only one title close to SH 6 has moderate/high flood hazard under a 1% Annual Exceedance Probability (AEP) flood event. The other two have moderate or low flood hazard.

Submitter 87 (Brightwater Engineering) owns land zoned Light Industrial and Light Industrial Closed on the township side of SH 6. This submitter supports the Light Industrial zoning on its land accessed from Spencer Place and also the Light Industrial Closed Zone on the rear part of the property provided that the Closed zoning is removed when the Mt Heslington Drain is diverted. The latter project is part of the Brightwater Flood Protection works project that is in the Long Term Plan 2015-2025 for years 4-10. The land at the rear has areas of medium and high flood hazard.

Fonterra land next to the SH6/Factory Road intersection is zoned Rural Industrial Closed with a similar flood hazard profile to the rear of Brightwater Engineering land.

Submitters Coutts, BTK Developments and Balgowan Investments raise issues relating to land also included as Closed zones. Flood hazard is between low to high.

For all the sites, there are a number of on-site and off-site mitigation options available to reduce the flood hazard on the sites included in the proposed Closed Zone. How a particular site is developed and what it is used for will affect what risk the flood hazard presents.

Following consideration of the submissions, and as a result of the variable flood hazard and the ability for on-site or off-site mitigation of the flood hazard, staff are recommending removal of the Closed Zone provisions. This option has been selected on the basis it provides a more flexible approach to flood management on the sites previously included in the Closed Zone. The benefit of this approach is that it allows site-by-site consideration of flood hazards in the context of a proposed activity and any on-site or off-site flood hazard effects created by the activity.

The sites previously shown as Closed Zones in the Rural Industrial and Light Industrial zones in Brightwater will instead be 'specified sites' (identified on the planning maps). These sites are proposed to have specific provisions that control development through Restricted Discretionary activity status for subdivision and building. The matters of discretion are going to be restricted to flood hazard matters.

The potential costs of this approach is a lack of certainty for site owners that development can occur on the specified sites. This uncertainty has to some extent been reduced through restricting discretion to solely flood hazard matters and a supporting policy that allows for flood hazards to be 'managed' rather than completely 'avoided'. This means mitigation options can be proposed for developments.

2.2 Building Coverage in the Industrial Zone

The proposed Plan Change sought to reduce the maximum coverage of 90% on Light Industrial zoned land subject to medium to high flood hazard in that zone to 15% and not permit buildings in floodways. The floodways were not defined or shown on the TRMP planning maps.

While the proposed Plan Change provided some certainty about the size of buildings that could be built, it left some degree of uncertainty on the location and effect of buildings within floodways over the site. Submissions sought greater clarity around the floodways, their location and greater coverage options.

Coverage of 60% was proposed for sites not in the Closed zones in Brightwater. The reasons for 60% were set out in the s.32 report. The 60% coverage is consistent with the adjoining Tourist Services Zone that is subject to similar flood hazards, and recognises that the industrial area is subject to low flood hazards that make it inappropriate to allow the coverage to go to the maximum of 90%.

Lower building coverage means that the sites retain some capacity for accommodating flood flows. Reduced building coverage also accommodates inherent uncertainties in the flood model and retains options for flood hazard management over time.

One submitter suggested using different subdivision consent categories based on lot size to manage flood hazard. The submission didn't mention any particular lot size.

Following consideration of the submissions, the provision of 15% coverage and control on the location of buildings as a Controlled Activity could be retained as rules for specified sites (previously identified as Closed Industrial zone) in the Light Industrial and Rural Industrial zones in Brightwater. This would provide some certainty for development.

However, there is also a case for increasing or removing the coverage limits where the activity status increases to Restricted Discretionary, so that there is greater flexibility for site-by-site assessment. This approach is favoured because each site may have options for managing flood flow paths across their sites (either as a result of on-site or off-site mitigation) and building coverage may be able to be significantly increased where mitigation or avoidance reduces flood hazard. Coverage of 60% is proposed to remain as a permitted standard, except that as a Restricted Discretionary activity, the effects of that coverage are assessed in relation to flooding.

Alternatively, removal of a site coverage restriction entirely or up to 75% on specified sites while retaining controls relating to flood hazards may provide greater flexibility and better outcomes. It must be noted that building coverage controls are not, however, only imposed for flood management reasons and if there is no specified limit, it would be appropriate to also introduce an assessment criterion relating to amenity and stormwater management.

The Proposed Plan Change did not propose any change to the 75% coverage rule permitted in the Rural Industrial zones outside the Closed Rural Industrial zone at Brightwater. Under the proposal contained in this report, specified sites in the Rural Industrial zone (i.e. ex proposed Closed zone) would become subject to the Restricted Discretionary rules for building coverage. This means 75% would be the permitted standard, but like the Light Industrial zone, any effects of building on flood hazards would be assessed at the time of building consent.

Information on the existing flood flow paths can be obtained from Council using the most up-to-date information available or the applicant may commission their own work. The issue of mapping flood flow paths is considered in SER 600 (Flood Hazards).

2.3 Rezoning Industrial Land

Fonterra has requested the land to the east of Factory Road (sec 250 Waimea East District) be rezoned from existing Light Industrial and proposed Light Industrial Closed Zone to Rural 1 zone. This land is primarily a drainage area and has little or no practical purpose for industrial activities. Staff will recommend this land is rezoned to Rural 1.

The property at 96 Ellis St is requested to be rezoned from Light Industrial to Commercial or Residential. The activities on the land now are a dairy with flats above and an outside yard behind the dairy. The history of the property is that there have been a resource consent (RM020279) to establish a mail sorting facility for NZ Post and an application (RM010423) to establish a trailer-making business. The latter was withdrawn on 25 July 2001 as the application was inadequate. The

land at the rear was also a garden shop at one stage. The 1393sqm site is subject to at least moderate flood hazard.

Prior to the TRMP, the site was zoned Commercial on the frontage to Ellis Street and Industrial in the Transitional Plan (Waimea Section). There are several dwellings close by.

Rezoning the front part of the site with the shop and upstairs flat to Commercial may be appropriate but no further industrial zoning is added at this location because of dwellings and school nearby. The submitter has verbally indicated they wish to withdraw this submission and they wanted to wait until closer to the hearing to confirm this. A recommendation will be provided at the hearing pending any withdrawal.

NZTA's submission and further submission raised concerns about the increased traffic effects on the State Highway from re-zoning Industrial and Closed Industrial land. The submission called for a transportation assessment, which has been completed by Council's Transportation Officer, Chris Pawson. The details of this assessment are set out in Staff Evaluation Report 620. The assessment concluded the capacity of the existing intersection at River Terrace Road and State Highway 6 was sufficient to manage the additional traffic demands from rezoning. In relation to transportation effects, the change from 'proposed Closed Industrial zones' with no subdivision opportunity, to a Specified Site means there is no material difference from the opportunities for subdivision that are available now. Where permitted activity standards cannot be met, 'access' remains a matter of discretion for consideration in a resource consent application.

2.4 Spencer Place Sites

The owner of this land submitted their support (Submitter 87) for the Closed Zone and 15% building coverage provided that it only applied up until the Mt Heslington Stream diversion works applied.

The Grey Property (Part Section 2, Waimea South District, being the land contained in Certificate of Title 65/68 or on those parts of Lots 4 and 5 DP 18856, Waimea South District) is also subject to an existing height restriction of 8 metres - Rule 17.4.3.2 (Controlled Activity).

Following close of submissions, a pre-hearing meeting was held with the submitter's agent to discuss removing the Closed Zone status and making the planning approach for this site consistent with other properties subject to similar hazards. The new provisions enable more flexibility on this site that is subject to flood flows and allows any future flood mitigation works on the Mt Heslington Stream to be taken into account if the owner seeks to develop the site. It was agreed that this approach would be extended to include Lot 5 DP18856, which is subject to flood flows, but not previously identified as a Closed Zone. Staff recommend this site is included as a specified site, subject to Restricted Discretionary planning provisions for flood management.

The height restriction continues to apply to these sites as a Controlled activity as this has not been the subject of submissions. The height provision will only be able to be acted on as a Controlled activity where no further building coverage is proposed (i.e. replacement, or alterations of existing buildings). The retention of the building coverage limit allows redevelopment of existing buildings as a Controlled activity, but any further extension will require a Restricted Discretionary activity consent.

2.5 Submissions on Proposed Policy

Policy 6.16.3.1

The proposed policy 6.16.3.1 is: "To avoid flood hazard when rezoning land to meet residential and business demand". Fonterra has proposed that this be qualified so that it refers to the avoidance of significant flood hazard risk and includes reference to commercial demand so that it reads: "To avoid significant flood hazard risk when rezoning land to meet residential, commercial and industrial demand".

The group of three submitters who have Light Industrial Closed zoned land that has been raised up between the Wairoa River and Factory Road have submitted that the policy should be amended to recognise that mitigation can address flooding hazard, particularly on business land.

The Fonterra submission proposes to add "significant" to make the policy more compatible with other policies already in the TRMP in Chapter 13 such as policy 13.1.3.1.

Changes to policy 6.16.3.1 are set out in SER 600, which recommends deletion of the policy as it duplicates policy 13.1.3.8 (Natural Hazards) and is not specific to Brightwater.

Policy 6.16.3.3

The proposed policy is:

"To limit resubdivision and the extent of buildings on industrial land that is subject to flood hazard."

Fonterra has sought a similar qualification on this policy so that it is reworded as: "To limit resubdivision and manage the extent of buildings on industrial land that is subject to significant flood hazard risk". The submitter has also sought the reasons why the Council has chosen its preferred options in the Proposed Plan Change. Reasons for an amended approach are set out in this report. The submitter has asked for the policy to be amended rather than deleted.

Staff are recommending a new policy that is specific to Brightwater and provides a context for the Restricted Discretionary activities for subdivision and land use. The new policy has much the same intent at the policy proposed through Plan Change 57, and is set out below:

Replacement Policy 6.3.3.3A is: "To manage the effects of flood hazards on subdivision and development of industrial land in Brightwater so as to avoid significant risks on the site, or beyond the site."

This policy is specific to Brightwater and is intended to make clear that there are management options for the flood hazard in these industrial zones. It is intended to enable a wide variety of on-site or off-site mitigation options to be considered by the applicant.

Tasman District Council also submitted on this policy requesting the original policy is retained, in addition to the proposed policy, as it relates to managing the extent of industrial zoned land, rather than flood hazards. It is recommended this submission is accepted on the basis that the intent of the original policy was inadvertently removed through the proposed plan change process.

3.0 Options

3.1 Option 1

Retain or remove proposed Closed Zone status and associated restrictions for all or some of the properties shown on Planning Map 90.

3.2 Option 2

Provide greater or lesser discretion around extent and location for buildings and structures on the sites proposed for Closed Zoning using Restricted Discretionary activity status for 'specified sites'.

3.3 Option 3

Insert Restricted Discretionary assessment criteria relating to flood hazard management.

3.4 Option 4

Retain or remove Prohibited subdivision activity status within Closed zones and replace with Restricted Discretionary activity status for 'specified sites'.

3.5 Option 5

Retain, remove or amend references to the term 'flood hazard risk' and 'floodway' and introduce references to 'significant flood hazard' and 'flood flow path'.

3.6 Option 6

Retain, amend or remove rules, and associated text, relating to 15% building coverage for sites proposed in the Rural Industrial and Light Industrial Closed Zones (or specified sites); and replace with a Restricted Discretionary activity where matters of discretion relate to flood hazard management.

3.7 Option 7

Rezone the strip of land between Factory Road and Wairoa River (sec 250 Waimea East District) from proposed Light Industrial Closed to Rural 1 Zone. The site is currently zoned Light Industrial.

3.8 Option 8

Retain or amend operative Policy 6.16.3.3:

"To rationalise the provision of industrial land so that the effects of industrial activities are minimised."

3.9 Option 9

Amend, retain, or remove specific rules relating to the specified sites on Spencer Place sites.

3.10 Option 10

Add Lot 5 DP 18856 as a specified site on Planning Map 90.

3.11 Option 11

Retain or amend the proposed 60% building coverage rule in the Light Industrial zone in Brightwater.

4.0 Preferred Options

4.1 Preferred Option 1

Remove proposed Closed zone status and associated restrictions for all of the properties shown on Planning Map 90.

4.2 Preferred Option 2

Provide greater discretion around extent (Building Coverage) and location for buildings and structures on the sites proposed for Closed zoning using a Restricted Discretionary activity status for specified sites (i.e. those sites previously shown as Closed Industrial zones).

4.3 Preferred Option 3

Add matters of discretion for Restricted Discretionary activities in Brightwater relating to flood hazard management.

4.4 Preferred Option 4

Remove Prohibited subdivision activity status within Closed zones and replace with Restricted Discretionary activity status for specified sites, and include matters of discretion for subdivision relating to flood hazard management.

4.5 Preferred Option 5

Amend references to the term 'flood hazard risk' and 'floodway' and introduce references to 'significant flood hazard' and 'flood flow path'.

4.6 Preferred Option 6

Amend the proposed rezoning of the strip of land between Factory Road and Wairoa River (sec 250 Waimea East District) from proposed Light Industrial Closed to Rural 1 Zone. The site is currently zoned Light Industrial.

4.7 Preferred Option 7

Retain specific rules relating to the Spencer Place specified sites for height only, and delete references to 15% building coverage.

4.8 Preferred Option 8

Add Lot 5 DP 18856 as a specified site on Planning Map 90.

4.9 Preferred Option 9

Retain the proposed 60% building coverage in the Light Industrial zone in Brightwater.

B. Staff Recommendations

1. Delete Policy 6.16.3.1 (refer SER 600).
2. Retain Policy 6.16.3.3 in its original form:
"To rationalise the provision of industrial land so that the effects of industrial activities are minimised."
3. Insert a new Policy 6.16.3.3A:
"To manage the effects of flood hazards on subdivision and development of industrial land in Brightwater to avoid significant risks on the site, or beyond the site."
4. Remove the Rural Industrial Closed zone from the proposed planning map (90).

5. Remove the Light Industrial Closed zone from the proposed planning map (90).
6. Apply a Restricted Discretionary Activity status to subdivision of specified lots (i.e. those lots previously identified as being proposed Rural and Light Industrial Closed zones in Brightwater) subject to actual or potential significant flood hazards. The corresponding matters to which discretion is restricted are:
 - (a) the protection of flood flow paths during at least a 1 percent Annual Exceedance Probability flood event; and
 - (b) the extent to which effects of a 1 percent Annual Exceedance Probability flood event are mitigated; and
 - (c) the effects that any proposed development has on the flood hazard within the site and beyond the site boundaries.
7. Amend proposed rule 17.12.2.1 for the Closed Rural Industrial Zone that introduced a 15% building coverage rule to a Restricted Discretionary activity, for specified sites, with matters of discretion restricted to:
 - (a) the protection of flood flow paths during at least a 1 percent Annual Exceedance Probability flood event; and
 - (b) the extent to which effects of a 1 percent Annual Exceedance Probability flood event are mitigated; and
 - (c) the effects that any proposed development has on the flood hazard within the site and beyond the site and beyond the site boundaries.
8. Amend proposed rule 17.4.3.2 in the Light Industrial Zone that introduced a 15% site coverage rule to a Restricted Discretionary activity, for specified sites, with matters of discretion restricted to:
 - (a) the protection of flood flow paths during at least a 1 percent Annual Exceedance Probability flood event; and
 - (b) the extent to which effects of a 1 percent Annual Exceedance Probability flood event are mitigated; and
 - (c) the effects any proposed development has on the flood hazard within the site and beyond the site boundaries.
9. Amend matter (3) of 17.4.3.3 Restricted Discretionary Activities (Building and Alteration) to include the matters of discretion in (8) above, where the site is in Brightwater.
10. Rezone the strip of land between Factory Road and Wairoa River (sec 250 Waimea East District) from proposed Light Industrial Closed to Rural 1.
11. Retain specific rules relating to height limits for the identified Spencer Place sites and delete references to 15% building coverage.
12. Add Lot 5 DP 18856 as a specified site on Planning Map 90.
13. Amend method 6.16.20.1(d) to remove reference to Closed Industrial zone subdivision and coverage.
14. Amend explanatory references relating to Closed Industrial zone in 6.16.30.
15. Delete all other consequential references to Closed Industrial (Rural and Light) Zone and Closed zones as proposed in Plan Change 57.
16. Make terminology corrections.

C. Reasons

1. A change to the approach for responding to flood hazards in this location is proposed following receipt of feedback from submissions and further submissions; as well as reviewing the provisions for reasonable land use and development, while preserving opportunity for appropriate management of flood hazards in Brightwater.
2. The proposed approach moves away from providing certainty through avoidance of the flood hazard and risks to a more flexible site-by-site approach. This enables a wider range of options for management (including avoidance or mitigation) to be considered.
3. The policy regime directs landowners and applicants towards flood hazard management rather than blanket avoidance. This is considered appropriate as there are variable flood hazard levels ranging from low to high (but not extreme hazards) on many properties in Brightwater. In many cases there are a range of options for managing the flood hazard and/or flood risk. For future Plan Changes, in other more extreme flood hazard scenarios or where there are few options, it may be more appropriate to 'avoid' the flood hazards using a closed zone approach.
4. Introducing the term 'significant' in relation to natural hazards is consistent with recent changes introduced through the Resource Management Legislation Amendment Act 2017. Section 6(h) of the Resource Management Act 1991 now requires councils to recognise and provide for the management of significant risks from natural hazards as a matter of national importance. Amended Policy 6.16.3.3A now recognises and provides for that change.

D. Plan Amendments**Topic : 6.16.1**

No Plan amendments to Issue 6.16.1.

Topic : 6.16.3

Add new policy 6.16.3.3A:

"To manage the effects of flood hazards on subdivision and development of industrial land in Brightwater so as to avoid significant risks on the site or beyond the site."

Topic : 6.16.3.3

Retain operative policy in its original form:

"To rationalise the provision of industrial land so that the effects of industrial activities are minimised."

Topic : 6.16.3.1

Delete policy 6.16.3.1.

Topic : 6.16.20.1

Amend method (d) by deleting the word "Closed" before "subdivision" so it reads:

"Rules relating to subdivision and building coverage in industrial zones that are subject to flood hazard risk."

Topic : 6.16.30

1. Amend the first paragraph of Principal Reasons and Explanation to:
"Flooding from the Pitfure and Mt Heslington streams and the Wairoa and Wai-iti rivers is a limiting factor which constrains future growth at Brightwater. Much of the land on the north, west and east sides of Brightwater is prone to flooding. Close to the Pitfure Stream at the north-western end of the township, the flood-prone land has value for rural or recreational purposes. Walking and cycling on the Great Taste Cycle Trail are popular activities along the banks of the Wairoa River. The Brightwater Bypass provides an edge on the south side of the town."
2. Amend the third paragraph of Principal Reasons and Explanation to:
"Some existing scattered industrial activities have the potential to create effects that are incompatible with residential neighbours. While existing use rights protect existing activities, it is intended to consolidate industrial activities south of State Highway 6 on an area of land adjoining River Terrace Road that has been identified as flood free. Flood hazard risk in the existing industrial zones is recognised by controlling the location and extent of development and closing subdivision in parts of the zones most at risk."

Topic : 16.3.4

Add a new rule:

"16.3.4.3A Restricted Discretionary Subdivision (Industrial Zones – Specified sites at Brightwater)

Subdivision in the Rural Industrial and Light Industrial zones in specified sites in Brightwater (as shown on the planning maps) is a restricted discretionary activity, where the subdivision complies with controlled activity conditions 16.3.4.1(b), (c),(d), (l), (o), (p), (zc), (zd) and (ze).

A resource consent is required. Consent may be refused or conditions imposed, only in respect of the following matters to which the Council has reserved its control under rule 16.3.4.3:

(1) (a) Protection for flood flow paths during at least a 1 percent Annual Exceedance Probability flood event.

(b) The effects of a 1 percent Annual Exceedance Probability flood event are mitigated so that any identified building location is not subject to inundation.

(c) The effects any proposed development has on the flood hazard within the site and beyond the site boundaries."

4. Add a new condition:

(na) The building to be constructed or altered does not extend the footprint on Specified Sites in Brightwater (as shown on the planning maps).

Topic : 16.3.4.1

Amend second proposed condition 16.3.4.1(aa) [now to be (ab)] to:

"The subject land is not in the Light Industrial Zone or Rural Industrial Zone at Brightwater specified sites (as shown on the planning maps)."

Topic : 16.3.4.4A

Delete proposed Discretionary Subdivision rule 16.3.4.4A.

Topic : 16.3.4.7

Delete proposed Prohibited activity rule 16.3.4.7.

Topic : 17.4.1

Amend Scope of Section 17.4.1 by deleting the words "(including the Light Industrial Closed Zone)" so it reads:

"This section deals with land uses in the Heavy Industrial Zone and the Light Industrial Zone. Rules apply to both zones unless otherwise stated. Subdivisions are dealt with in Chapter 16.3. Information required with resource consent applications is detailed in Chapter 19."

Topic : 17.4.3

Insert new rule as follows:

"17.4.3.3A Restricted Discretionary Activities (Building Construction or Alteration - Specified Sites)

Construction or alteration of a building that either:

- (a) complies with permitted activity standards 17.4.3.1(c)(iii), (d), (f)-(u) and extends the footprint of a building in the Light Industrial zone in specified sites in Brightwater (as shown on the planning maps), or
 - (b) does not comply with Controlled Activity condition 17.4.3.2 (b),
- is a restricted discretionary activity.

A resource consent is required. Consent may be refused or conditions imposed, only in respect of the following matter to which the Council has restricted its discretion:

(1) (a) Protection for flood flow paths during at least a 1 percent Annual Exceedance Probability flood event.

(b) The effects of a 1 percent Annual Exceedance Probability flood event are mitigated so that any identified building location is not subject to inundation.

(c) The effects any proposed development has on the flood hazard within the site and beyond the site boundaries."

Topic : 17.4.3.1

1. Amend condition (a) of Permitted activity rule 17.4.3.1 to:
"The building is not on any of the Specified Sites in the Light Industrial Zone at Brightwater (as shown on the planning maps)."
2. Amend proposed building coverage condition 17.4.3.1(c)(iii) by replacing "floodway" with "flood flow path".

Topic : 17.4.3.2

1. Amend first part of rule 17.4.3.2 to:
"Controlled Activities (Building Construction or Alteration - Light Industrial Zone at Brightwater)
For the area of the Light Industrial zone in Brightwater contained within Part Section 2, Waimea South District being the land contained in Certificate of Title 65/68 or on those parts of Lots 4 and 5 DP 18856, Waimea South District, any construction or alteration of a building is a controlled activity, if it complies with the following conditions:
(a) The maximum height of a building is 8 metres.
(b) The building coverage is not extended on the site."
2. No Plan amendments to matter (2) of rule 17.4.3.2.

Topic : 17.4.3.3

1. Amend the introductory paragraph of Restricted Discretionary activity rule 17.4.3.3 by inserting "(a) or 17.4.3.3A" so it reads:
"Construction or alteration of a building that does not comply with the conditions of rules 17.4.3.1, 17.4.3.2(a) or 17.4.3.3A is a restricted discretionary activity."
2. Amend matter (3) of rule 17.4.3.3 to:
"The necessity for the increased building coverage in order to undertake the proposed activities on the site. Any increased flood hazard or flood hazard risk will be a consideration at Brightwater, including:
(a) Protection for flood flow paths during at least a 1 percent Annual Exceedance Probability flood event.
(b) The effects of a 1 percent Annual Exceedance Probability flood event are mitigated so that any identified building location is not subject to inundation.
(c) The effects any proposed development has on the flood hazard within the site and beyond the site boundaries."

Topic : 17.4.20

Amend the second paragraph of the 'Building Coverage' section in Principal Reasons for Rules 17.4.20 to:
"A flexible approach to building coverage has been introduced in 2017 to enable site-by-site design for avoidance or mitigation of flood hazards. The sites have either a low-to-medium, medium-to-high or high flood hazard and are located on the floodplain of the Wairoa River at Brightwater and have been subject to periodic flooding. A site at the northern end of Spencer Place, Brightwater, is also bisected by the main

trunk wastewater line."

Topic : 17.12.1

Amend the first sentence of Scope of Section 17.12.1 to:
 "This section deals with land uses in the Rural Industrial Zone and specified sites in this zone at Brightwater."

Topic : 17.12.2

Insert new rule as follows:

"17.12.2.3A Restricted Discretionary Activities (Building Construction or Alteration - Specified Sites at Brightwater)

Construction or alteration of a building that does not comply with permitted activity condition 17.12.2.1(na) is a restricted discretionary activity where the building construction or alteration complies with 17.12.2.1 (e)-(i), (n) (o), (p), and (u).

A resource consent is required. Consent may be refused or conditions imposed, only in respect of the following matters to which the Council has restricted its discretion:

(1) (a) Protection for flood flow paths during at least a 1 percent Annual Exceedance Probability flood event.

(b) The effects of a 1 percent Annual Exceedance Probability flood event are mitigated so that identified building location/s are not subject to inundation.

(c) The effects any proposed development has on the flood hazard within the site and beyond the site boundaries."

Topic : 17.12.2.1

1. Insert an exception in introductory paragraph of rule 17.12.2.1 so it reads:
 "Any land use is a permitted activity, except where specified in rule 17.12.2.3A, that may be undertaken without resource consent if it complies with the following conditions:"
2. Retain proposed amendments to condition 17.12.2.1(f).
3. Amend condition 17.12.2.1(n) to:
 "The maximum building coverage is 75 percent and not located in a flood flow path."
4. Add a new condition:
 "(na) The building to be constructed or altered does not extend the footprint on Specified Sites in Brightwater (as shown on the planning maps)."

Topic : 17.12.2.4

Amend the introductory paragraph of Discretionary activity rule 17.12.2.4 by inserting "17.12.2.3A" so it reads:

"Any land use that does not comply with the conditions of rule 17.12.2.1, 17.12.2.2, 17.12.2.3 or 17.12.2.3A is a Discretionary Activity."

Topic : 17.12.20

Amend proposed final paragraph of Principal Reasons for Rules 17.12.20 to:

"Stockpiles of loose material and extensive building construction have the potential to exacerbate the impacts of flooding, such as in parts of Brightwater."

Topic : ZM 90

Amend Zone Maps 90 (Brightwater) to show:

- Rural 1 Deferred Light Industrial Zone on 49 & 55 River Terrace Roa and on 61 Factory Road
- Rural 1 Zone at the southern end of the Rural Industrial Zone
- Add site specific notations for those properties no longer shown as 'Light or Rural Industrial Closed zones' relating to rules 16.3.4.4A (subdivision), 17.4.3.3 and 17.12.2.1 (see attached map).
- Extend the Specified Sites in Spencer Place to include Lot 5 DP 18856.

F. Submission Recommendations

C57.87.1 <i>Disallow</i>	Brightwater Engineering FC57.806.2	Allow
C57.87.2 <i>Allow</i>	Brightwater Engineering FC57.806.3	Disallow
C57.1212.1	Tasman District Council	Allow In Part
C57.3886.2	Fonterra Co-Operative Group Ltd	Allow

C57.3886.3	Fonterra Co-Operative Group Ltd	Allow
C57.3886.4	Fonterra Co-Operative Group Ltd	Allow
C57.3886.6	Fonterra Co-Operative Group Ltd	Allow In Part
C57.3886.7	Fonterra Co-Operative Group Ltd	Allow In Part
C57.3886.8	Fonterra Co-Operative Group Ltd	Allow
C57.3886.11	Fonterra Co-Operative Group Ltd	Disallow
C57.3886.12	Fonterra Co-Operative Group Ltd	Allow
C57.3886.13	Fonterra Co-Operative Group Ltd	Disallow
C57.3886.14	Fonterra Co-Operative Group Ltd	Disallow
C57.3886.15	Fonterra Co-Operative Group Ltd	Disallow
C57.3973.4	Balgowan Investments Ltd	Allow In Part
C57.3973.5	Balgowan Investments Ltd	Allow In Part
C57.3973.6	Balgowan Investments Ltd	Allow In Part
C57.3973.7	Balgowan Investments Ltd	Allow In Part
C57.3973.8	Balgowan Investments Ltd	Allow
C57.3973.9	Balgowan Investments Ltd	Allow
C57.3973.10	Balgowan Investments Ltd	Disallow
C57.3973.11	Balgowan Investments Ltd	Disallow
C57.3973.12	Balgowan Investments Ltd	Allow In Part
C57.3973.13	Balgowan Investments Ltd	Disallow
C57.3973.15	Balgowan Investments Ltd	Allow
<i>Disallow</i>	FC57.806.1	
C57.3975.4	BTK Developments Ltd	Allow In Part
C57.3975.5	BTK Developments Ltd	Allow In Part
C57.3975.6	BTK Developments Ltd	Allow In Part
C57.3975.7	BTK Developments Ltd	Allow In Part
C57.3975.8	BTK Developments Ltd	Allow
C57.3975.9	BTK Developments Ltd	Allow
C57.3975.10	BTK Developments Ltd	Disallow
C57.3975.11	BTK Developments Ltd	Disallow
C57.3975.12	BTK Developments Ltd	Allow In Part
C57.3975.13	BTK Developments Ltd	Disallow
C57.3975.15	BTK Developments Ltd	Allow
<i>Disallow</i>	FC57.806.4	
C57.3977.4	Coutts, R J Family Trust	Allow In Part
C57.3977.5	Coutts, R J Family Trust	Allow In Part
C57.3977.6	Coutts, R J Family Trust	Allow In Part
C57.3977.7	Coutts, R J Family Trust	Allow In Part
C57.3977.8	Coutts, R J Family Trust	Allow
C57.3977.9	Coutts, R J Family Trust	Allow
C57.3977.10	Coutts, R J Family Trust	Disallow
C57.3977.11	Coutts, R J Family Trust	Disallow
C57.3977.12	Coutts, R J Family Trust	Allow In Part
C57.3977.13	Coutts, R J Family Trust	Disallow

Staff Evaluation Report : 618 - Change 57: Industrial Land and Risk of Flood Hazard

C57.3977.15 <i>Disallow</i>	Coutts, R J Family Trust FC57.806.5	Allow
C57.3980.1	McDonald, Malcolm	Disallow

MEMORANDUM

TO: Maxine Day, Tom Chi
FROM: Eric Verstappen, Resource Scientist - Rivers and Coast
DATE: 3 May 2017
RE: **Assessment of PC57 Submissions**

This memo has been prepared in support of the Staff Evaluation Reports for Plan Change 57. I have considered the Proposed Plan Change material and submissions in conjunction with my colleague, Glenn Stevens also a Resource Scientist at TDC.

Fonterra (3886)

The issue for the proposed Rural Industrial Closed (RIC) Zone is appropriately managing the risk or hazard for any development and/or use of that land. While there is a known and recorded flood hazard on the land, there are both on-site and off-site mitigations actually and potentially available that will mitigate or even remedy this hazard to a (possibly) significant degree. Glenn Stevens and I consider that zone closure is an unnecessarily restrictive method of ensuring appropriate use and development of that area and to manage the flood hazard and maintenance of flood pathways over this land (Area1, see attached map).

The flood model, using LiDAR point data to define terrain elevation, indicates that localized topography of the proposed RIC and on the northern area in particular, indicates a degree of hazard that could be reduced by targeted shallow infill that would very likely have little adverse consequence, as SH6 crown levels are the controlling influence on flow "downstream". However, in the present day circumstances, I would regard Area 1 in its present state as being subject to significant flooding hazard (and potentially also flood risk (flood probability *and* consequence) resulting from widespread flow with depth exceeding 0.5m in some areas, rather than high flow velocity over the site) during a severe to extreme (1-2% AEP and greater) flood event in the Wairoa river.

I would not equate the hazard map definition of "Extreme Hazard" in the S32 report as best aligning with or equating to "significant" Hazard (or "risk", as noted in the submission). I would also regard a High and Very High Hazard as being a "significant hazard". The Fonterra submission uses "hazard" and "risk" as if they are synonymous, but this is not strictly the case. A significant flooding *hazard* is not the same as a significant flooding *risk*, as the former may not result in consequences of sufficient severity to result in the latter eventuating.

While the Fonterra Area 1 in the proposed RIC zone is (in my view) presently subject to "significant flooding hazard" from the Wairoa in flood events exceeding 1-2% AEP (annual exceedance probability), being a 50-100 year annual recurrence interval (ARI), whether that translates to a "significant risk" on that property is dependent on the nature of the development on it. The flood hazard to this area 1 begins to occur in flood events between around 2-5% AEP (20-50 year ARI), perhaps nearer the 2% AEP than 5% AEP event, according to the flood model and historical

mapped floods (more or less). In a 1% AEP event, most of the Area 1 land is subject to a Medium flood hazard as shown in the S32 report map, with a small area subject to High hazard. I regard both hazard levels as being significant *flood hazard* levels (but not necessarily significant *flood risk* levels).

The flood model also indicates potential off-site mitigation measures (a bund on the left bank of the Mill Lead in this locality) that could prevent flood flows up to at least 1% AEP (for example) from entering a significant proportion of this Light Industrial area. Diverting a 1% AEP flow back into the river rather than flowing through the LI area would add less than 2% (around 24 cumecs vs 1400 cumecs) to the river flow.

These potential flood hazard mitigation methods (and possibly others) for the Fonterra RIC site and the wider LI site generally have not been modelled or explored in detail. This would be necessary for the bund suggestion, to determine potential adverse effects of such on the wider floodplain to the north-east. However, it is considered that the hazard to the RIC site could be readily mitigated to some useful degree, very likely without generating a more than minor adverse effect beyond the site.

In addition, Glenn and I consider that a prohibition on subdivision and reducing site coverage to a maximum of 15% does not of itself result in the present flood hazard in Area 1 being satisfactorily managed. For example, a building having only 10% site coverage could be constructed across the width of the site (ie parallel to SH6) and have a more significant effect on flood flows across the site than a building having say 30% site coverage but located on the western margin of the site (proposed RIC area) and perpendicular to SH6. It is very likely, if not certain, that a maximum 75% site coverage is too high for this Area 1. Equally however, a maximum 15% coverage is probably unnecessarily constraining.

What is important is that any subdivision proposal and any building, whatever its site coverage, FFL and location, be considered on its merits in relation to the effect it would have on the present flood pathway through the site. Appropriate consideration of building (location, coverage, FFL etc) is the key, so that flood hazards and risks are satisfactorily and appropriately managed and flow path provision and function is preserved. Preserving a discretionary status (rather than permitted or controlled) may be advisable and reasonable. Alternately, coverage exceeding 15% (perhaps up to 30%), along with conditions relating to location, FFL and effects on flow path function, may be able to be applied as a controlled activity. Given the issues involved, I prefer a more precautionary "discretionary" approach. It is the preservation of effective flood flowpaths and potential effects of any proposal on flooding hazard on and off site that are key.

Council has a flood model that could be used to provide guidance on what is an appropriate flow path in particular circumstances, or what the effects of a development proposal (including on or off-site flood hazard mitigation works) might be. However, such modelling has not been undertaken so as to provide a more robust recommendation on these matters at this time. This includes being able to identify a possible (minimum) flow path width, rather than saying what is there now must be preserved without supporting evidence to reinforce that view.

On the matter of the use of the term "floodway" and hence defining what that is, perhaps the use of an alternate such as "flow path" may work. To my mind, a floodway conducts floodwaters in a somewhat more defined or specific manner than a flow path or floodplain might otherwise do generally, once the capacity of a primary flow path (such as the main channel of the river) is exceeded. Despite this (or as well as), the main channel of a river is also a floodway.

A definition for "Floodway" might be something like:

“Floodway - a defined floodwater flow path, either natural or constructed, that is preserved or provided for specific floodwater carrying functionality, for the purposes of limiting flooding hazard on, or floodwater damage to, adjacent land or development”.

It’s one thing to come up with a “Floodway” definition but altogether another to come up with a plan showing where these things are (or should be) in BGW. We have yet to model, let alone map, such things for BGW. However, the flood model (and historical flood maps) gives us a pretty reasonable indication of where **flow paths** are, but some of these might not be the desired location(s) to act as enduring, defined floodways, which have an element of purpose and preservation for hazard mitigation associated with them.

As noted earlier, the term “floodway” (to my mind) carries a connotation of deliberate preservation and/or construction of a pathway for floodwater flow, as well as also being a naturally available flood flow path such as a river channel or watercourse. The term “Flood Flow Path” is somewhat more generic, in that the combination of gravity and topography can determine the path of floodwater flow, either naturally or deliberately. A definition of “Flood Flow Path” is suggested below:

“Flood Flow Path - is the course or route taken by floodwater in not only a natural channel or watercourse, but also that taken by surface water flow resulting from the exceedance of primary watercourse or pipe network capacity or failure, during periods of intense or prolonged rainfall. Such a course or route will be determined by local topography, and may be naturally occurring (eg river berm) or be specifically formed, for the purpose of avoiding or limiting flood hazard on, or floodwater damage to, adjacent land or development”.

The Fonterra Area 1 (proposed RIC zone) is definitely a *flow path* in a flood event exceeding 20 year ARI, perhaps nearing 50 year ARI *at present*. However this flow path may not necessarily need to become a designated *floodway* in the sense that we need to preserve this flow path for floodway purposes, ie that water needs to be able to flow along this path into the foreseeable future. The issue here is that flood hazard mitigation measures may be possible (eg bunding) that removes the area from being a flow path, as floodwaters have been diverted back under the bridge. There is potential at some stage for such to occur, but would need to go through due investigation and planning processes. In the meantime, the area will function as a flood path and thus we need to be mindful of the nature of any development on this land, so that an adequate flow path is maintained through this area. Could all be subject to a (discretionary?) RC process that looks into development proposals in this light.

Balgowan Investments (13 Factory Rd - 3973)

BTK Developments (11 Factory Rd - 3975)

Coutts, RJ Family Trust (5 Factory Rd - 3977)

Many of the flood hazard issues commented on in response to the Fonterra submissions also closely relate to the land at 5, 11 and 13 Factory Rd belonging to the 3 submitters above. However, much of the land on these 3 titles has been raised to a level that greatly reduces flood hazard to the sites. Only 5 Factory Rd (Coutts) has a significant area of land on the SE area of the title that has either not been or only insufficiently infilled, with the resulting lower lying land being subject to

significant (High in the S32 rating diagram) flooding in a 2% AEP (50 year ARI) or greater flood event.

The balance of the 3 titles are modelled as being subject to no flooding hazard (as is the Fonterra land) in a 5% AEP (20 year ARI) flood event in the Wairoa River. The lower lying SE area of the Coutts land (and a very small lower lying area of the southern Balgowan title) becomes significantly affected by flood hazard (High hazard rating) in a 2% AEP (50 year ARI) Wairoa flood event.

Somewhere between a 1-2% AEP flood event, parts of the remaining Balgowan and BTK titles are modelled to become subject to relatively minor (Low hazard rating) flooding hazard, with the low lying Coutts and Balgowan land remaining subject to a High hazard rating. In essence, we do not have the evidence to categorically say that flood hazard exposure of these 3 titles is so severe or difficult to satisfactorily manage, that zone closure and prohibition on subdivision and 15% maximum coverage restrictions etc are necessary.

For similar reasons to Fonterra, while the proposed Light Industrial Closed zoning will achieve the development/flood management outcomes we seek, it is nevertheless considered to be an unnecessarily restrictive route to achieve those outcomes. This is because Glenn and I consider that the same outcomes can be achieved through a resource consent process and appropriate rules/activity cascade. This is particularly the case for these 3 lots, as most of the land concerned is not subject to significant/High flooding hazard.

Flood hazard mitigation options for the land that remains categorized as being subject to significant/high flood risk are available (eg fill the balance of the land) and are considered unlikely to have a more than minor adverse effect on flooding hazard beyond the sites concerned. However, given the location of these sites and that there is some flood hazard exposure to them, there may be cause to have few permitted activities allowable on these sites.

Virtually all of the submissions stem from the proposed closure of the Light Industrial Zone and prohibition of subdivision. Appropriate management of flooding hazard in this area and land in this zone can be satisfactorily achieved by subdivision and development proposals being discretionary activities, with effects on and of flooding hazard being matters against which any proposals are assessed.

H & A Seifried (2782) & Balgowan (3973.16), BTK Developments (3975.16), Coutts (3977.16)

The proposed Residential Deferred Zone (DRZ) is supported and allows for the most readily developable land on the Seifried land holding to take place. Flood hazard mitigation works will be required but are likely to be relatively straight forward, to deal with floodwater flows emanating from the Robertson Rd area (Jeffries Rd catchment) and some floodplain flow from the Pitfure stream.

The Seifried submission, to extend the DRZ as indicated in the plan provided, is also supported in principle. It usefully increases the area of relatively flood hazard-free residential land availability in this area. However, this additional "triangle" of land also increases flood hazard mitigation requirements (and to some extent, difficulties) over and above the originally proposed DRZ area. The submitter's consultant, Land and River Ltd, have determined that flood hazard mitigation measures are available in principle and we agree.

Increasing the size of the DRZ footprint to that proposed by Seifried also allows for flood hazard mitigation works be undertaken for/over a wider area and the costs of the work to be spread over a larger number of lots. If the originally proposed DRZ is developed first, there may be economic and physical impediments that subsequently discourages further expansion over the additional

“triangle” area as a potential future “stage 2”. This is because it may be more difficult to provide a flood hazard mitigation methodology that integrates well with “stage 1” and the ability to recover the costs of the very necessary flood hazard mitigation works required for “stage 2”, from a lower lot yield compared to “stage 1”.

In summary, there is merit in considering the expansion of the DRZ generally as submitted (it may be that the SW tip of the “extended western boundary line” may be able to terminated a little to the NW and further away from SH6 without compromising flood hazard mitigation implementation or potential adverse effects). While the flood mitigation measures required for the larger area are likely to be a little more difficult and costly to provide than for the originally proposed DRZ, such mitigation is possible according to the submitter’s consultant, Land and River Ltd. However, such mitigation measures will need thorough investigation, as it may mean (for example) that some form of flood channel to conduct floodwater from the Robertson Rd area splits the housing layout for the area in two.

Balgowan (3973.16)

BTK Developments (3975.16)

Coutts (3977.16)

Snowden’s Bush Vineyard Ltd (3983.2)

From a flood hazard perspective, the proposed Deferred Residential Deferred Zone (DRZ) is supported and allows for the most readily developable land west of the Mt Heslington Stream flood flow path on the Snowden’s Bush Vineyard land holding (and others west and south) to take place. Other than essentially within the Mt Heslington Stream overflow channel (“the channel”), the land west of the channel is modelled as being free from flooding hazards arising from outflows from the Mt Heslington and Wairoa River. However, the effects of incident rainfall on this area from within the Brightwater township are not modelled or known.

From a flood hazard perspective, the DRZ is considered suitable for residential development, so long as flood flow requirements down the channel are provided for and residential/infrastructural development is appropriately set back from the channel. This setback may be needed for such purposes as amenity, maintenance access or for the purpose of allowing for any potential channel capacity increase that may be required.

The additional land proposed by Snowden’s Bush Vineyard Ltd (SBV) to be rezoned as DRZ (“stage 2”) is shown in Council’s flood model, on the one hand, as being relatively flood free in events up to 1-2% AEP (50-100 year ARI), other than in an area generally located in the SE corner of the property adjacent to Bryant Rd. On the other hand however, the flood map drawn up after the severe January 1986 flood event in the Wairoa River (a little smaller than a 1%AEP event) indicates widespread flooding over this area, with all of this additional “stage 2” area being subject to flood flow.

(Note: This seeming “anomaly” arises as a result of changes to the bed level in the Wairoa River from 1986 to the present. The model was calibrated against the 1986 flood event, with the riverbed levels as close to that existing in 1986 and with a flood event of the size of the 1986 event. Since 1986, the bed level of the Wairoa River has experienced degradation in a number of locations (determined in subsequent river cross-section surveys). After the model was calibrated, the river

bed levels in the model were adjusted to incorporate the most recent bed levels, to enable modelling of the effects of flood events in a present-day setting.)

This raises the point that suggests that, in general terms, the model terrain should be checked and confirmed as representing prevailing topography. Further investigation should be undertaken as necessary, to confirm flood hazard exposure to this (or any) area and thus suitability for residential rezoning, or that some form of flood hazard mitigation is required.

This additional area shares an eastern boundary with the Mt Heslington flood flow channel and similar considerations with respect to channel setback and such (as noted above for the Council-proposed DRZ) apply here. While Council flood maps and model outputs indicate the existence of flooding hazard on the balance area of the SBV land, it may only affect (according to the model) around 20% or less of the stage 2 area in a 1% AEP (100 year ARI) flood event in the Mt Heslington/Wairoa. Mitigation of this flooding hazard is considered to be ideally resolved by measures taken beyond the property boundary, although the hazard has the potential to be mitigated within the site itself.

Overall, the SBV submission is worth consideration, although the nature of the flood hazard risk to it may need to be confirmed. Although there are flood hazards to be investigated and mitigation measures determined, they are not considered to be intractable. It may require a realignment of the NE DRZ boundary to a more south-westerly location, with appropriate flood hazard mitigation works being undertaken and the balance of the land remaining Rural.