Proposed Private District Plan Change 47

Major Gardens, Kelson – Rezoning to General Residential Activity Area and General Recreation Activity Area

Publicly Notified: **13 August 2019**

Submissions Close: **10 September 2019 at 5.00pm**

HUTT CITY
TE AWA KAIRANGI

Part 1: Introduction

1. What is Proposed Private District Plan Change 47?

Urban Edge Ltd, on behalf of F.L.Y Building Ltd, lodged a private plan change request with Hutt City Council ("Council") on 24 April 2019. On 30 July 2019, Council formally accepted the private plan change request and instructed officers to commence the plan change process for a private plan change, as set out in the First Schedule of the Resource Management Act 1991 ("the RMA").

The requested plan change, including the Section 32 evaluation, is included in Part 5 of this document.

2. What does Proposed Private District Plan Change 47 propose?

In brief, Proposed Private District Plan Change 47 ("the Proposed Plan Change") seeks to rezone properties at 280 Major Drive, 50 Kaitangata Crescent and 204 Liverton Road, Kelson ("the site") to a combination of General Residential Activity Area and General Recreation Activity Area to enable further residential development of the site. The Proposed Plan Change would also introduce site specific provisions to the District Plan. The site specific provisions primarily address:

- The design of stormwater management to address potential effects on the ecological integrity of water bodies, both onsite and downstream, and
- The potential effects of subdivision on safety and efficiency of Liverton Road.

3. Structure of this document

This document contains five parts:

Part 1	Introduction
Part 2	Public Notice
Part 3	Proposed Amendments to Chapter 11 and District Plan Map E1
Part 4	Chapter 11 Subdivision, with proposed amendments
Part 5	Request and Section 32 Evaluation
Part 6	Submission Form (Form 5)

All parts of this document are publicly available from Council, as detailed in the Public Notice (Part 2 of this document).

4. The Process for Proposed Private District Plan Change 47

The process for the Proposed Plan Change to date has been as follows:

24 April 2019	Request for the Proposed Plan Change lodged with Council by Urban Edge Planning Ltd (on behalf of F.L.Y Building Ltd).
21 May 2019	Further information requested by Council (under clause 23(1)(a) of Schedule 1 of the RMA).
11 June 2019	Further information received by Council from Urban Edge Planning Ltd.
30 July 2019	Council formally accepts the private plan change request, and instructs officers to commence the plan change process for a private plan change, as set out in the First Schedule of the RMA.
13 August 2019	Proposed Plan Change is publicly notified.

Upon notification of the Proposed Plan Change, all interested persons and parties have an opportunity to provide further input through the submission process. Council's process for public participation in the consideration of this Proposed Plan Change, as set out in the First Schedule of the RMA, is as follows:

- The period in which submissions may be made is at least 20 working days from the date of the Public Notice (see Part 2 of the document for details).
- After the closing date for submissions, Council must prepare a summary of the submissions and this summary must be publicly notified.
- Certain persons may make further submissions in support of, or in opposition to, the submissions already made no later than 10 working days after the notification of the summary of submissions.
- If a person making a submission or further submission asks to be heard in support of his/her submission, a hearing must be held.
- Following the hearing, Council must give its decision on the Proposed Plan Change in writing (including its reasons for accepting or rejecting submissions).
- Any person who has made a submission has the right to appeal the Council decision on the Proposed Plan Change to the Environment Court.

Part 2: Public Notice

PUBLIC NOTICE

Public Notification of Proposed Private District Plan Change 47 to the City of Lower Hutt District Plan

Clause 5 and Clause 26 of the First Schedule of the Resource Management Act 1991

Proposed Private District Plan Change 47: Major Gardens, Kelson – Rezoning to General Residential Activity Area and General Recreation Activity Area

Hutt City Council has accepted a request from Urban Edge Limited, on behalf of F.L.Y Building Limited, for a proposed change to the City of Lower Hutt District Plan. The purpose of the proposed change is to enable further residential development at 280 Major Drive, 50 Kaitangata Crescent and 204 Liverton Road, Kelson ("the site"). The proposed change seeks the following amendments to the District Plan:

- Rezoning the site to a combination of General Residential Activity Area and General Recreation Activity Area.
- Addition of two new policies to the Subdivision chapter of the District Plan (Chapter 11). The new policies relate to stormwater management and effects on Liverton Road.
- Amendment to the existing restricted discretionary activity Rule 11.2.3(d) and discretionary activity Rule 11.2.4(l) of the District Plan so that these rules apply to the site.
- Addition of a new non-complying activity rule to the Subdivision chapter of the District Plan.

Documentation for the proposed plan change can be viewed:

- On Council's website: www.huttcity.govt.nz/pc47;
- At all Hutt City Council Libraries; and
- At the Customer Services Counter, Council Administration Building, 30 Laings Road, Lower Hutt.

Copies can also be requested by contacting Hutt City Council:

- Phone: 04 570 6666 or
- Email: district.plan@huttcity.govt.nz

Any person may make a submission on the proposed plan change. However, if the person could gain an advantage in trade competition through the submission, then the person may do so only if the person is directly affected by an effect of the proposal that:

- Adversely affects the environment; and
- Does not relate to trade competition or the effects of trade competition.

Submissions close on Tuesday, 10 September 2019 at 5.00pm.

Submissions may be lodged in any of the following ways:

- Email: submissions@huttcity.govt.nz
- Post: District Plan Division, Hutt City Council, Private Bag 31912, Lower Hutt 5040
- In Person: Council Administration Building, 30 Laings Road, Lower Hutt

Submissions must be written on, or in accordance with, Form 5 of the Resource Management (Forms, Fees and Procedure) Regulations, and must include:

- Details on the specific provisions the submission relates to;
- Whether the specific provision is supported or opposed or proposed to be amended, with reasons; and
- Precise details on the decision that is sought from Council.

Submissions must also address potential trade competition advantages and state whether or not you wish to be heard in support of your submission.

Submission forms (Form 5) are available:

- On Council's website: www.huttcity.govt.nz/pc47;

- At all Hutt City Council Libraries; and
- At the Customer Services Counter, Council Administration Building, 30 Laings Road, Lower Hutt.

Copies can also be requested by contacting Hutt City Council:

- Phone: 04 570 6666; or
- Email: district.plan@huttcity.govt.nz

The process for public participation in the consideration of this proposal under the Resource Management Act is as follows:

- After the closing date for submissions, Hutt City Council must prepare a summary of decisions requested by submitters and this summary must be publicly notified.
- There must be an opportunity for the following persons to make a further submission in support of, or in opposition to, the submissions already made:
    - Any person representing a relevant aspect of the public interest.
    - Any person who has an interest in the proposal greater than the general public has.
    - The local authority itself.
- If a person making a submission asks to be heard in support of their submission, a hearing must be held.
- Hutt City Council must give its decision on the provisions and matters raised in the submissions (including its reasons for accepting or rejecting submissions) and give public notice of its decision within two years of notifying the proposal, and serve it on every person who made a submission.
- Any person who has made a submission has the right to appeal against the decision on the proposal to the Environment Court if:
    - In relation to a provision or matter that is the subject of the appeal, the person referred to the provision or matter in the person's submission on the proposal; and
    - In the case of a proposal that is a proposed policy statement or plan, the appeal does not seek the withdrawal of the proposal as a whole.

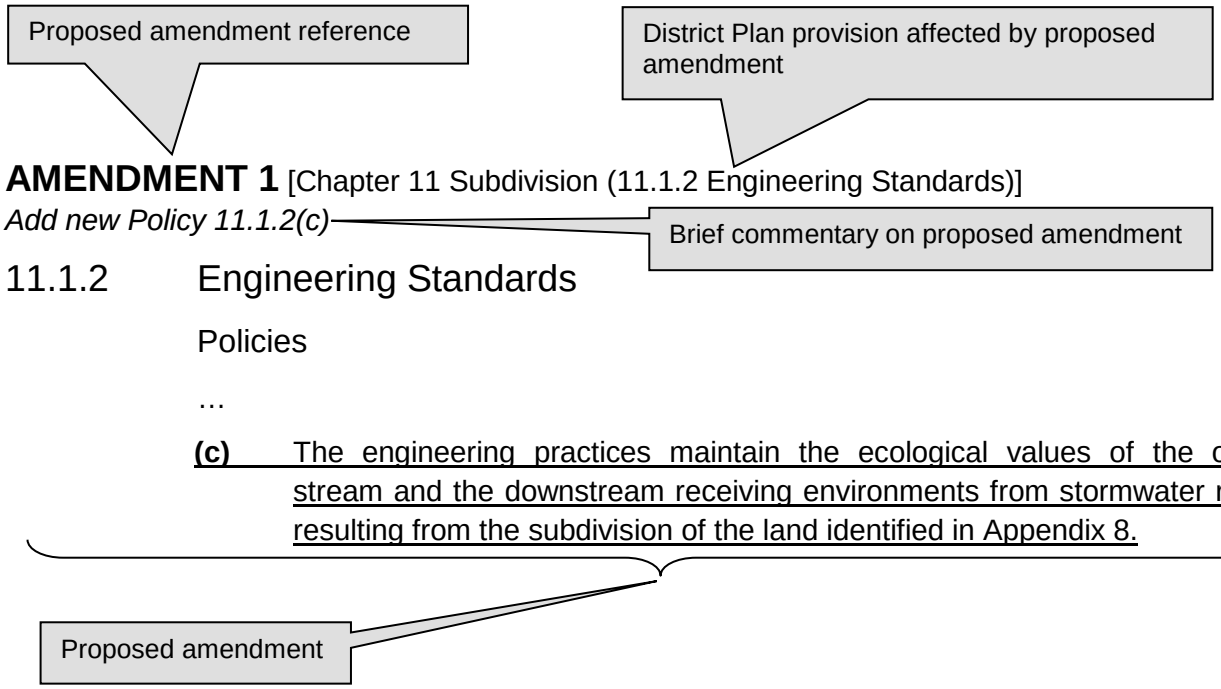
Please contact Nathan Geard (04 570 6996 or Nathan.Geard@huttcity.govt.nz) if you have any questions about the proposal.

Jo Miller
Chief Executive

13 August 2019

Part 3: Proposed Amendments to Chapter 11 and District Plan Map E1

Proposed additions are <u>underlined</u>.



AMENDMENT 1 [Chapter 11 Subdivision (11.1.2 Engineering Standards)]

Add new Policy 11.1.2(c)

11.1.2 Engineering Standards

Policies

…

(c) <u>The engineering practices maintain the ecological values of the onsite stream and the downstream receiving environments from stormwater runoff resulting from the subdivision of the land identified in Appendix 8.</u>

AMENDMENT 1 [Chapter 11 Subdivision (11.1.2 Engineering Standards)]
Add new Policy 11.1.2(c)

11.1.2 Engineering Standards

Policies

…

(c) The engineering practices maintain the ecological values of the onsite stream and the downstream receiving environments from stormwater runoff resulting from the subdivision of the land identified in Appendix 8.

AMENDMENT 2 [Chapter 11 Subdivision (11.1.2 Engineering Standards)]
Add new Policy 11.1.2(d)

11.1.2 Engineering Standards

Policies

…

(d) To restrict access and avoid increased traffic volumes from land identified in Appendix 8 to Liverton Road, to maintain traffic safety and efficiency.

AMENDMENT 3 [Chapter 11 Subdivision (11.2.3 Restricted Discretionary Activities)]
Add new Restricted Discretionary Activity 11.2.3(d)

11.2.3 Restricted Discretionary Activities

…

(d) Any subdivision of the site identified in Appendix Subdivision 7 or Appendix Subdivision 8.

AMENDMENT 4 [Chapter 11 Subdivision (11.2.3.1 Matters in which Council has restricted its discretion)]
Amend Matter of Discretion 11.2.3.1(c)

11.2.3.1 Matters in which Council has restricted its discretion

(c) Any subdivision of the site identified in Appendix Subdivision 7 or Appendix Subdivision 8.

…

(xiv) In regard to Appendix Subdivision 7, the engineering measures proposed to manage stormwater runoff to ensure the ecological health of Speedy's Stream and the onsite wetland. To assist, expert assessment shall be undertaken, and provided with any subdivision application. This report shall identify the following:

(i) The existing ecological values of Speedy's Stream and the onsite wetland;

(ii) The stormwater runoff rates for both the onsite wetland and

Speedy's Stream to maintain these ecological values (including for smaller frequent events like the 1 in 1 year and 1 in 2 year rainfall events);

(iii) The acceptable level of contaminants in the stormwater to maintain the ecological values of both the onsite wetland and Speedy's Stream;

(iv) The engineering practices (for example, bio-retention devices and detention tanks) required to treat and control all stormwater runoff to ensure that the identified ecological values are at least maintained and the stormwater runoff rates and treatment identified in the points above are achieved. These engineering practices shall control all runoff generated by the 85-90th percentile rainfall depth. This is defined as treating the stormwater volume generated by the 27mm rainfall depth; and

(v) Any potential conditions that may need to be imposed on the subdivision consent to ensure that these engineering measures are undertaken and appropriately maintained.

(xv) In regard to Appendix Subdivision 8, the engineering measures proposed to manage stormwater runoff to ensure the ecological health of any onsite streams and downstream receiving environments. To assist, expert assessment shall be undertaken, and provided with any subdivision application. This report shall identify the following:

(i) The existing ecological values of the onsite streams (and their downstream receiving environments);

(ii) The stormwater runoff rates for the onsite streams (and their downstream receiving environments) to maintain ecological values (including for smaller frequent events like the 1 in 1 year and 1 in 2 year rainfall events);

(iii) The acceptable level of contaminants in the stormwater to maintain the ecological values of the onsite streams (and their downstream receiving environments);

(iv) The engineering practices (for example, bio-retention devices and detention tanks) required to treat and control all stormwater runoff to ensure that the identified ecological values are appropriately protected, and the stormwater runoff rates and treatment identified in the points above are achieved; and

(v) Any potential conditions that may need to be imposed on the subdivision consent to ensure that these engineering measures are undertaken and appropriately maintained.

AMENDMENT 5 [Chapter 11 Subdivision (11.2.4 Discretionary Activities)]
Amend Discretionary Activity Rule 11.2.4(l)

11.2.4 Discretionary Activities

…

(l) Any subdivision of the sites identified in Appendix Subdivision 7 or Appendix Subdivision 8 that does not comply with the standards and terms for controlled activity under Rule 11.2.2.1 in respect of (a) Allotment Design.

AMENDMENT 6 [Chapter 11 Subdivision (11.2.4.1 Assessment Criteria for Discretionary Activities)]
Amend Assessment Criteria 11.2.4.1(e)

11.2.4.1 Assessment Criteria for Discretionary Activities

…

(e) For the sites identified in Appendix Subdivision 7 and Appendix Subdivision 8, those matters to which Council has restricted its discretion under Rule 11.2.3.1(c).

AMENDMENT 7 [Chapter 11 Subdivision (11.2.5 Non-Complying Activities)]
Add new Non-Complying Activity Rule 11.2.5(b)

11.2.5 Non-Complying Activities

…

(b) Any subdivision of the site identified in Appendix Subdivision X which results in any lots with residential dwellings having vehicular access to Liverton Road.

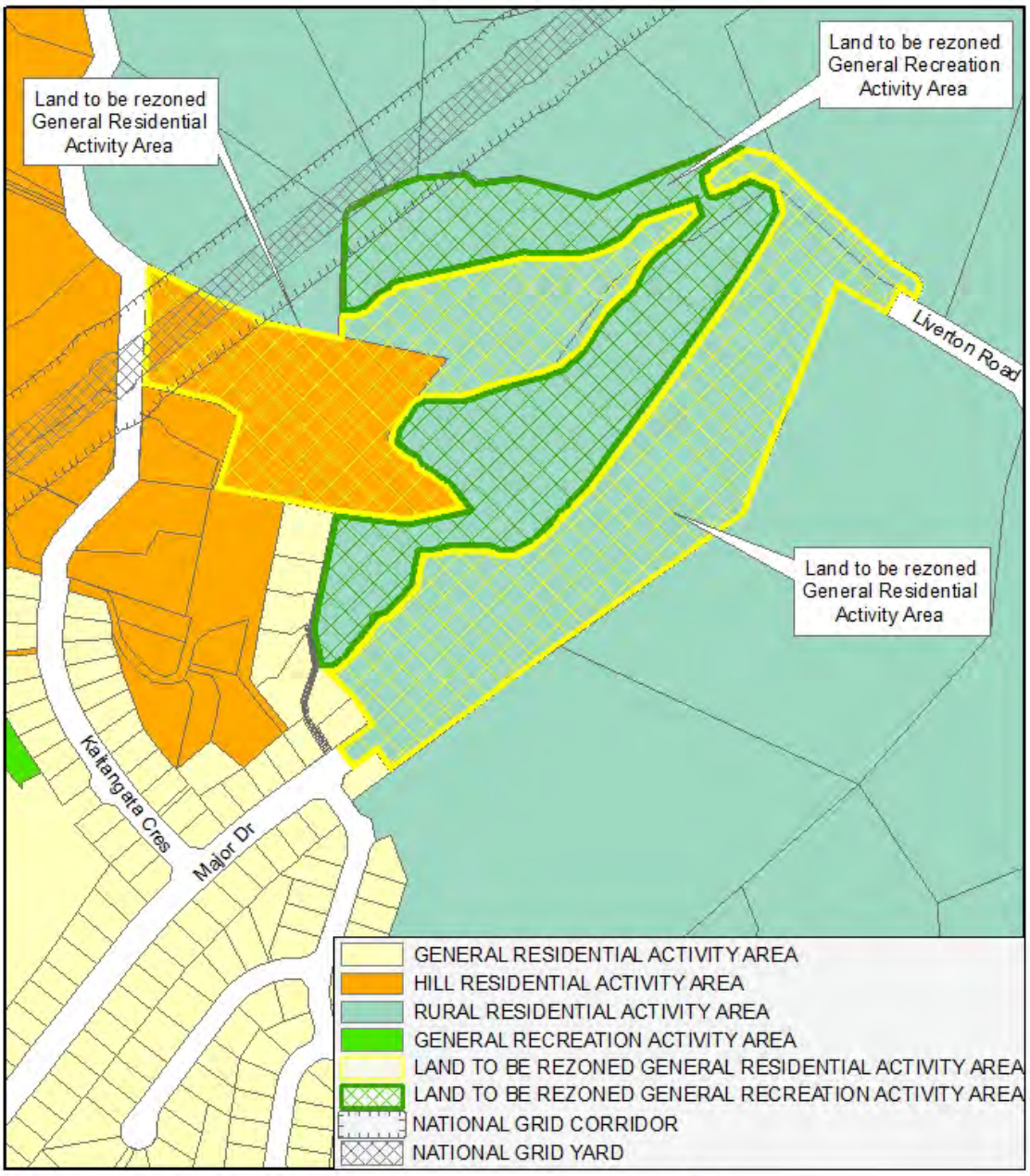
AMENDMENT 8 [Chapter 11 Subdivision (Appendix Subdivision 8)]
Add new Appendix Subdivision 8

Appendix Subdivision 8

Major Drive, Kaitangata Crescent and Liverton Road, Kelson

AMENDMENT 9 [Planning Maps (Planning Map E1)]

Amend Planning Map E1



Proposed Private District Plan Change 47

280 Major Drive, 50 Kaitangata Crescent and 204 Liverton Road, Kelson

Planning Map E1

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Scale 1:4,000

HUTT CITY **District Plan - City of Lower Hutt**

11 Subdivision

Introduction

Subdivision is a process which enables title to be transferred. Nevertheless, it does impose constraints on the future use and development of land. In addition the engineering work often required to make land suitable for development must be managed as there can be adverse effects on the environment. It is therefore important these effects are addressed and managed in the Plan.

Except for boundary adjustments and the leasing of retail space within existing buildings in appropriate activity areas, all subdivisions require a resource consent as it may be necessary to impose engineering conditions, design allotment standards and financial contributions to ensure that adverse effects are managed and mitigated.

The provisions of this Chapter apply to all activity areas. Activities must also be assessed in terms of the requirements of each activity area, and the requirements of Chapters 12, 13 and 15, to determine whether or not a resource consent is required.

11.1 Issues, Objectives and Policies

11.1.1 Allotment Standards

Issue

Subdivision of land can impose a constraint on the future use or development of land. It is necessary to ensure land which is subdivided can be used for the proposed use or purpose.

Objective

To ensure that land which is subdivided can be used for the proposed use or development.

Policy

(a) To ensure that allotments have minimum design standards such as, minimum size, shape and frontage, which are suitable for the proposed use or development.

Explanation and Reasons

While it is recognised that subdivision of land is essentially a process for enabling title of land to be transferred, it nevertheless imposes constraints on the future use and development of land by establishing boundaries of particular allotments. There is a need to ensure that land which is subdivided is suitable for the proposed use and development. Failure to do so can result in the future use or development being

unable to comply with the required performance standards for the activity area.

Such non-compliance with specified performance standards can have adverse effects on the environment. In considering whether land which is subdivided is suitable for the proposed use or development such matters as design, size, building platform and shape of allotments are important matters that need to be considered by Council. The objectives, policies and rules of the activity areas need to be taken into account.

11.1.2 Engineering Standards

Issue

Subdivisions need to be serviced in a manner that adverse effects are avoided, remedied or mitigated and that adverse effects on the health, safety and wellbeing of residents are no more than minor.

Objective

To ensure that utilities provided to service the subdivision protect the environment and that there are no adverse effects on the health and safety of residents and occupiers.

Policy

(a) To ensure that utilities provided comply with specified performance standards relating to such matters as access, street lighting, stormwater, water supply, wastewater, gas, telephone, electricity and earthworks.

(b) Use engineering practices to maintain the ecological values of Speedy's Stream and the onsite wetland from stormwater runoff resulting from the subdivision of the land identified in Appendix Subdivision 7.

(c) The engineering practices maintain the ecological values of the onsite stream and the downstream receiving environments from stormwater runoff resulting from the subdivision of the land identified in Appendix 8.

(d) To restrict access and avoid increased traffic volumes from land identified in Appendix 8 to Liverton Road, to maintain traffic safety and efficiency.

Explanation and Reasons

Utility services provided by the subdivider must be in accordance with specified engineering performance standards to ensure that the environment is protected and there are no adverse effects on the health, safety and wellbeing of residents and occupiers. Incompatible and inappropriate services can have adverse effects on the proper functioning of existing services and also lead to additional maintenance costs.

11.1.3 Natural Hazards

Issue

Subdivision of land subject to natural hazards can lead to allotments which are inappropriate if the adverse effects cannot be avoided, remedied or mitigated. There is a need to ensure that subdivision of land subject to natural

hazards is managed and controlled.

Objective

To ensure that land subject to natural hazards is subdivided in a manner that the adverse effects are avoided, remedied or mitigated.

Policies

(a) Subdivision of land within the Wellington Fault Special Study Area should be managed to ensure that the allotments are of sufficient size and shape so that buildings and structures are not sited within twenty metres of a faultline.

(b) Subdivision of land subject to flooding is discouraged as this can lead to greater intensity of use and development and have adverse effects on the environment.

(c) Subdivision of land should be managed to ensure that within each allotment there is a suitable building platform so that buildings and associated structures will not be adversely affected by slope instability, including the deposition of debris.

Explanation and Reasons

Subdivision of land subject to natural hazards may lead to allotments which are inappropriate as the adverse effects cannot be controlled or mitigated. It is important that the subdivision is designed in a manner that the natural hazard can be avoided or mitigated. In this respect, it is important that allotments are of sufficient size and are of an appropriate shape so that the proposed use or development can be sited to avoid the natural hazard, or the necessary mitigation measures can be implemented, without affecting detrimentally the viability of the use or development.

11.1.4 Special Areas

Issue

Subdivision of land in the coastal environment and in areas of ecological value can have adverse effects that need to be controlled.

Objective

To ensure that land in the coastal environment, areas adjoining lakes and rivers and other environmentally sensitive areas are protected from inappropriate subdivision.

Policy

(a) To ensure that land in the coastal environment, areas adjoining rivers and lakes and other environmentally sensitive areas are not subdivided to an extent or manner where amenity values, ecological, social, cultural and recreational conditions are adversely affected.

Explanation and Reasons

The Act, the New Zealand Coastal Policy Statement and the Regional Policy Statement require the Plan to ensure that inappropriate subdivision of land does not occur in the coastal environment.

The Regional Policy Statement recognises that wetlands, lakes and rivers are

important as they provide a habitat for a rich flora and fauna. These areas also have high social, cultural and recreational values. It is therefore important that lands adjoining such areas are managed and controlled to avoid and mitigate adverse effects.

11.1.5 General Rural and Rural Residential Activity Areas

Issue

Inappropriate subdivision of lands in the General Rural and Rural Residential Activity Area which leads to the use of lands for more intense urban purposes such as residential development, can have adverse effects on amenity values and to an inefficient land use pattern.

Objective

To ensure that the amenity values and the efficient use of land in General Rural and Rural Residential Activity Areas are maintained by restricting subdivision of lands which could lead to greater intensity of use and development for urban related purposes, such as more intense residential development.

Policy

(a) The minimum size of allotments should be large so as to ensure that rural amenity values and an efficient land use pattern are maintained.

Explanation and Reasons

Large sized allotments are required in General Rural and Rural Residential areas to maintain amenity values. It is therefore necessary to prevent the close subdivision of land in the General Rural and Rural Residential Activity Areas.

As there is adequate supply of urban land in the City it is an inefficient use of a valuable resource to allow rural and rural residential land to be subdivided into urban sized allotments.

11.1.6 Retail Leasing

Issue

The leasing of retail space within existing buildings, such as shopping centres, can give rise to a technical subdivision under the Resource Management Act 1991. Such subdivisions do not have effects warranting subdivision control under the provisions of the Plan. The imposition of unnecessary controls will result in inappropriate costs and barriers to the tailoring of retail spaces to the requirements of tenants. Unnecessary controls can therefore contribute to the number of vacant retail spaces which detract from the vitality and viability of commercial centres.

Objective

Ensure that the leasing of retail space within existing buildings and appropriate activity areas can proceed without the need for subdivision consent.

Policy

(a) Resource consent will not be required for subdivisions resulting from the

leasing of retail space within existing buildings and in appropriate activity areas.

Explanation and Reasons

Under the Act the leasing of retail space within existing buildings can technically be considered to be a subdivision. Such subdivisions do not have any adverse effects which warrant control under the provisions of the Plan. It is therefore appropriate that the leasing of retail spaces within existing buildings is a Permitted Activity.

11.2 Rules

11.2.1 Permitted Activity

(a) In all activity areas, minor boundary adjustments.

(b) In all Commercial Activity Areas, subdivision of existing retail premises by way of leasing.

11.2.1.1 Permitted Activity - Conditions

Minor boundary adjustments must comply with the following conditions:

(a) Do not create additional building sites.

(b) Following subdivision does not increase any non-compliance with the rules specified for the activity area.

11.2.2 Controlled Activities

All subdivisions in the following activity areas are Controlled Activities except where provided for as Permitted or Discretionary Activities:

(a) General Residential Activity Area.

(b) Hill Residential Activity Area.

(c) Landscape Protection Residential Activity Area.

(d) Special Residential Activity Area.

(e) General Business Activity Area.

(f) Special Business Activity Area.

(g) Rural Residential Activity Area.

(h) General Rural Activity Area.

(i) Suburban Commercial Activity Area.

(j) Central Commercial Activity Area.

(k) Petone Commercial Activity Area 1.

(l) Petone Commercial Activity Area 2.

(m) Community Iwi Activity Area 1 - Marae.

(n) Community Iwi Activity Area 3 - Kokiri Centres.

(o) In all activity areas, where a certificate of title has been issued for a site prior to 5 December 1995 or where a site has been created by a staged development whether under a staged unit plan or cross lease plan lodged with the District Land Registrar and where part of the development (or a building on one site on such plan exists) has been completed prior to 5 December 1995, then in such circumstances the allotment design standards and terms shall not apply.

Compliance with other standards and terms is necessary.

(p) In all Commercial, Business, Recreation, Community Health and Community Iwi Activity Areas the allotment design standards and terms shall not apply:

(i) where there are existing buildings on an allotment prior to December 1995; and

(ii) where the subdivision of that allotment does not create a vacant allotment (i.e. with no buildings).

Compliance with all other standards and terms is necessary.

(q) In all Residential and Rural Activity Areas the allotment design standards and terms shall not apply:

(i) where there are existing dwelling houses on an allotment prior to December 1995; and

(ii) where the subdivision of that allotment does not create an allotment with no dwelling house.

Compliance with all other standards and terms is necessary.

(r) Any subdivision located wholly within Avalon Business Activity Area (Sub-Area 2)

11.2.2.1 Standards and Terms

All Controlled Activity subdivisions shall comply with the following Standards and Terms:

(a) Allotment Design

The minimum size of an allotment shall exclude rights of way and access legs to a rear site.

General Residential Activity Area

Minimum size of allotment:	400m^2
Minimum frontage:	3m to ensure that there is drive-on access to the allotment. For rear allotments the 3m frontage may be satisfied through a registered Right of Way outside the title (outside legal boundaries of the allotment).
Shape factor:	All allotments must be able to contain a rectangle measuring 10m by 15m. Such a rectangle must be clear of any yard or right of way and have a suitable building platform.

Other:	Compliance with the permitted activity conditions of the activity area.

General Residential Activity Area on residential sites identified on the District Planning Maps as Medium Density Residential

Minimum size of allotment:	300m^2
Minimum frontage:	3m, to ensure that there is drive-on access to the allotment. For rear allotments the 3m frontage may be satisfied through a registered Right of Way outside the title (outside legal boundaries of the allotment).
Shape factor:	All allotments must be able to contain a rectangle measuring 9m by 14m. Such a rectangle must be clear of any yard or right of way and have a suitable building platform.
Other:	Compliance with the permitted activity conditions of the activity area.

Special Residential Activity Area

Minimum size of allotment:	700m^2
Minimum frontage:	15m, except for rear allotments which must have a minimum 3m frontage. For rear allotments the 3m frontage may be satisfied through a registered Right of Way outside the title (outside legal boundaries of the allotment).
Shape factor:	As for General Residential Activity Area.
Other:	Compliance with the permitted activity conditions of the activity area.

Hill Residential Activity Area

Minimum size of allotment:	1000m^2
Minimum frontage:	20m, except for rear allotments which must have a minimum 3m frontage. For rear allotments the 3m frontage may be satisfied through a registered Right of Way outside the title (outside legal boundaries of the allotment).
Shape factor:	As for General Residential Activity Area.
Other:	Compliance with the permitted activity conditions of the activity area.

Except

in Maungaraki Road, Pt Sec 30 and former Secs 31,32 and Pt Sec 33 Maungaraki Village, where a proposed allotment is in the area identified on Appendix Subdivision 1, the minimum subdivision requirements shall be -

Minimum size of allotment:	2000m^2

Minimum frontage:	30m

and

in Maungaraki Road, Lots 1 and 2 DP 90829 (formerly Lot 1 DP 71986 and Pt Sec 35 Maungaraki Village contained in C.T. 550/178), identified on Appendix Subdivision 1, the minimum subdivision requirements shall be -

Minimum size of allotment:	600m^2
Minimum frontage:	20m

Landscape Protection Residential Activity Area

Minimum size of allotment:	2000m^2
Minimum frontage:	20m, except for rear allotments, 3m frontage. For rear allotments the 3m frontage may be satisfied through a registered Right of Way outside the title (outside legal boundaries of the allotment).
Shape factor:	As for General Residential Activity Area.
Other:	Compliance with the permitted activity conditions of the activity area

Central Commercial Activity Area, Suburban Commercial Activity Area and Petone Commercial Activity Area 1.

Minimum size of allotment:	200m^2
Minimum frontage:	6m
Other:	Compliance with the permitted activity conditions of the activity area

Petone Commercial Activity Area 2

Minimum size of allotment:	1000m^2
Minimum frontage:	20m
Other:	Compliance with the permitted activity conditions of the activity area

General and Special Business Activity Area

Minimum size of allotment:	200m^2
Minimum frontage:	6m to enable drive on vehicular access to each allotment.
Other:	Compliance with the permitted activity conditions of the activity area

Avalon Business Activity Area (Sub-Area 2)

Minimum size of allotment:	400m^2
Minimum frontage:	3m to enable drive on access to the allotment.
Other:	Compliance with the permitted activity conditions of the activity area

Rural Residential Activity Area - Titiro Moana Road, Part Section 34

Maungaraki Village and Lots 6,7,& 8 DP 81789 (formerly Pt Sec 35 Maungaraki Village) as shown in Appendix Subdivision 2.

- There shall be no allotment of lesser area than 8,000m^2.
- The average area of all allotments shall not be less than 1.5 ha.
- That the boundaries of allotments are chosen in relation to optimum house sites.
- The location of any proposed works for water storage purposes including any weir, piping and storage tanks, be shown.
- Areas of regenerating bush be identified and preserved.

Other Rural Residential Activity Areas

Minimum size of allotment:	2 ha
Minimum Frontage:	100m for front allotments. 6m for rear allotments.
Shape Factor:	All allotments must be able to contain a rectangle measuring 30m by 20m. Such a rectangle must be clear of any yard or right of way and have a suitable building platform.
Other:	Compliance with the permitted activity conditions of the activity area

General Rural Activity Area

Minimum size of allotment:	15ha.
Minimum frontage:	150m for front allotments. 6m for rear allotments.
Shape Factor:	All allotments must be able to contain a rectangle measuring 30m by 20m. Such a rectangle must be clear of any yard or right of way and have a suitable building platform.
Other:	Compliance with the permitted activity conditions of the activity area Subdivision in Hebden Cres/Liverton Road, Pt Lot 2 DP 578 in accordance with Drawing No. 469SCH4^C by Lucas Surveys shown in Appendix Subdivision 3 and subject to an encumbrance being lodged against each new title as shown in Appendix Subdivision 4 regarding the neighbouring quarrying activities.

Community Iwi Activity Area 1 - Marae

Waiwhetu (Puketapu Grove), Te Mangungu (Rata Street), Koranui (Stokes Valley), Te Kakano O Te Aroha (Moera) and Pukeatua (Wainuiomata) - Minimum size of allotment and frontage the same as the General Residential Activity Area.

Te Tahau O Te Po (Puke Ariki, Hutt Road) - Minimum size of allotment and frontage the same as the General Business Activity Area.

Community Iwi Activity Area 3 - Kokiri Centres

Pukeatua (Wainuiomata) - Minimum size of allotment and frontage the same as the General Business Activity Area.

Ngau-matau (Seaview) - Minimum size of allotment and frontage same as the Special Business Activity Area.

All Activity Areas

Notwithstanding the subdivision standards for each respective activity area there shall be no specific allotment size in any activity area for allotments created solely for utilities. Where those allotments created for such purposes have a net site area of less than 200m_2 there shall be no minimum frontage or shape factor requirements.

(b) Engineering Design

(i) Access

Compliance with Chapter 14A - Transport

(ii) Service Lanes, Private Ways, Pedestrian Accessways and Walkways

Compliance with Chapter 14A - Transport in this Plan

(iii) Street Lighting

Compliance with AS/NZS 1158:2005 Code of Practice for Road Lighting

(iv) Stormwater

Compliance with the following standards:

Levels of Stormwater Protection to be provided by Services in New Areas

Minimum Standard			
	Primary System ARI	Total System ARI	Freeboard (mm)
Parks & Reserves	2	5	-
Recreational Buildings	10	50	200
Non – Habitable Buildings	5	10	200
Residential Houses	10	100	500
Commercial	20	100	100
Industrial	10	50	100
Public Utilities	10	100	500
Culverts	20	100	-
Bridges	50	100	-
Car Parks	5	10	-
Arterial Roads	20	50	-
Local Roads	10	20	-
Hill Roads (gradient >3%)	10	20	-

Subsidiary Standards			
	Max. Depth and speed on roads and footpaths	Max. Depth	Max. Speed
1.	Arterial Roads	0.1m	2.0m/s
	Local Roads	0.2m	2.0m/s
	Hill Roads	0.1m	3.0m/s
	Walkways only	0.4m	1.0m/s
2.	Depth Speed Product	< 0.4mm/s	
3.	Channel/Pond Side Slopes	Maximum 1:5 Vertical : Horizontal	
4.	Channel/Pond Freeboard	> 0.5 metre	
5.	Detention Pond	< 1.2 metres depth of water unless access restricted	
6.	Kerb Opening	< 150mm high unless screened	
7.	Pipe Diameter	>= 300mm for mains >= 225mm for sump leads	
8.	Watercourses	No scour or deposition in events < 5yrs ARI	

Levels of Stormwater to be provided by New Drains in Existing Areas

Recommended Standard				**Minimum Standard**				**Subsidiary Standards**		
	Primary System ARI	Total System ARI	Free board (mm)		Primary System ARI	Total System ARI	Freeboard (mm)	1. Max. Depth & speed on roads and footpaths:	Max. Depth	Max. Speed
Parks & Reserves	2	5	-	Parks & Reserves	2	5	-	Arterial Roads	0.1m	2.0m/s
Recreational Buildings	10	50	200	Recreational Buildings	10	50	200	Local Roads	0.2m	2.0m/s
Non Habitable Buildings	5	10	200	Non Habitable Buildings	5	10	200	Hill Roads	0.1m	2.0m/s
Residential Houses	10	100	500	Residential Houses	10	50	200	Walkways only	0.4m	1.0m/s
Commercial	20	100	100	Commercial	10	50	50	2. Depth Speed	<0.4mm/s	
Industrial	10	50	100	Industrial	10	50	50	3. Channel/ Pond Freeboard Side Slopes	Maximum 1:5 Vertical : Horizontal	
Public Utilities	10	100	500	Public Utilities	10	50	200	4. Channel/Pond Freeboard	>0.5 metres	
Culverts	20	100	-	Culverts	20	100	-	5. Detention Pond	< 1.2 metres depth of water unless access restricted	
Bridges	50	100	-	Bridges	50	100	-	6. Kerb Opening	< 150mm high unless screened	
Car parks	5	10	-	Car parks	5	10	-	7. Pipe Diameter	>=300mm for mains >=225mm for sump leads	
Arterial Roads	20	50	-	Arterial Roads	10	20	-	8. Watercourses	No scour or deposition in events <5yrs ARI	
Local Roads	10	20	-	Local Roads	10	20	-			
Hill Roads (gradient >3%)	10	20	-	Hill Roads (gradient >3%)	10	20	-			

(v) Wastewater

Compliance with the following standards:

Residential Areas

ADWF (Average Dry Weather Flow) 270 l/h/d

PDWF	(Peak Dry Weather Flow)	540 l/h/d
MWWF	(Maximum Wet Weather Flow)	1080 l/h/d
	where l/h/d = litres/head/day	

Business Areas

Where the industrial domestic waste and trade waste flows are known, these shall be used as the basis for sewer design. When the above information is not available the following may be used as the design basis.

ADWF	(Average Dry Weather Flow)	0.52 l/ha/sec
PDWF	(Peak Dry Weather Flow)	1.56 l/ha/sec
MWWF	(Maximum Wet Weather Flow)	1.56 l/ha/sec
	where l/ha/sec = litres/hectare/second	

The design of sewage disposal systems for industries with very heavy water usage is to be based on the specific requirements for that industry.

Retail and Suburban Commercial Areas

ADWF	(Average Dry Weather Flow)	0.25 l/ha/sec
PDWF	(Peak Dry Weather Flow)	0.44 l/ha/sec
MWWF	(Maximum Wet Weather Flow)	0.44 l/ha/sec
	where l/ha/sec = litres/hectare/second	

Associated Compliance Standards

pipe diameter	> 150mm for mains
pipe velocity	>0.6 metres/sec
minimum standby pump capacity	100% for 2 pump installation 50% for 3 pump installation
minimum storage in pumped system	4 hours ADWF (Average Dry Weather Flow)

(vi) Water Supply

Compliance with the following standards:

- NZS PAS 4509:2008 NZ Fire Service Code of Practice for Fire Fighting Water Supplies
- Hutt City Council Bylaw 1997 Part 17 Water Supply.
- Part 6 NZS 4404:2004 (Land Development and Subdivision Engineering).

subject to the following criteria and guideline values:

Criteria	Guideline Values
Minimum available flow at Point of Supply	15 litres per minute

Pressure at Point of Supply (static)	
Minimum (for highest level sites - nearing the supply reservoir elevation)	10 metres head
Minimum (for the majority of a supply zone)	30 metres head
Maximum	90 metres head
Minimum covered reservoir storage capacity	the greater of the Fire Service Code of Practice or the following: under 1,000 population - 700 litres per person 1,000-2,000 population - 650 litres per person over 2,000 population - 600 litres per person
Minimum system flow capability	The system shall provide flows equivalent to the Fire Service Code of Practice flow requirements plus two thirds of the peak daily consumption flow; whichever is greater. Peak daily consumption flows shall be as follows: (i) Over 2,000 population - 1,400 litres per person per day (ii) Under 2,000 population - as in table below.
Minimum pumping capacity without using a standby unit	Deliver total maximum day demand in 15 hours.
Minimum pumping standby capacity	100% 2 pump installation

Peak Flow on Maximum Days

No. of Dwellings	Litres per second	No. of Dwellings	Litres per second	No. of Dwellings	Litres per second
1	0.6	16	3.2	90	8.8
2	0.9	18	3.4	100	9.3
3	1.2	20	3.6	120	10.4
4	1.4	25	4.1	140	11.4
5	1.6	30	4.6	160	12.4
6	1.8	35	5.1	180	13.4
7	1.9	40	5.5	200	14.1
8	2.1	45	5.9	250	16.1
9	2.2	50	6.2	300	18.0

10	2.4	60	6.9	350	19.8
11	2.7	70	7.6	400	21.3
12	2.9	80	8.2	500	24.2

(vii) Telecommunications and Electricity

Compliance with the requirements of the relevant network utility operator.

(viii) Earthworks

Compliance with the following:

- NZS 4431 1989 (Code of Practice for Earth Fill for Residential Development) and Part 2 NZS 4404:2004 (Land Development and Subdivision Engineering
- Erosion and Sediment Control Guidelines for the Wellington Region and Small Earthworks Erosion and Sediment Control for small sites, 2003, Greater Wellington Regional Council.

(c) Contamination

Compliance with the following:

- Ministry for the Environment, Contaminated Land Management Guidelines 1 – 5

(d) Esplanade Reserves, Strips and Access Strips

Compliance with the following:

(i) In all activity areas esplanade reserves or strips are not required for the following subdivision activities:

- Boundary adjustments in all activity areas.
- A minor adjustment to an existing cross lease or unit title due to the increase in the size of allotment by alterations to the building outline or the addition of an accessory building.
- A subdivision where the allotment is created solely for utilities and that allotment has a net site area of less than 200m^2 and is not within 20m of any river or lake.

(ii) In all activity areas, in respect of lots less than 4 hectares, an esplanade reserve of 20m shall be set aside for such lots along the bank of any river whose bed has an average width of 3m or more where the river flows through or adjoins the lot concerned, except that properties with access to Moores Valley Road or Crowther Road that this standard applies to shall have an esplanade reserve of 5m.

(iii) In respect of lots with areas of 4 hectares or greater, an esplanade reserve or strip of 20m width shall be set aside for such lots along the banks of the following rivers and lakes:

- Hutt River,
- Wainuiomata River,
- Orongorongo River,
- Waiwhetu Stream,
- Lake Kohangatera,
- Lake Kohangapiripiri.

(iv) In respect of lots with areas 4 hectares or greater, an esplanade reserve or strip of 20m width shall be set aside for lots adjoining the mean high water springs of the sea.

For the avoidance of doubt, non-compliance with the provisions (ii) to (iv) shall be considered as a Discretionary Activity and assessed in terms of sections 104 and 105, and Part II of the Act.

(e) Earthworks

Compliance with permitted activity conditions 14I 2.1.1.

Compliance with NZS 4431 1989 (Code of Practice for Earth Fill for Residential Development) and Part 2 NZS 4404:2004 (Land Development and Subdivision Engineering).

Erosion and Sediment Control Guidelines for the Wellington Regional 2003 and Small Earthworks Erosion and Sediment Control for small sites, Greater Wellington Regional Council.

Exception: The standards in Rules 14I 2.1.1 (a) and (b) shall not apply to trenching carried out as part of the subdivision.

(f) Other Provisions

Compliance with the following:

(i) Financial Contributions in Chapter 12 of this Plan.

(ii) General Rules in Chapter 14 of this Plan.

11.2.2.2 Matters in which Council Seeks to Control

The matters over which control is reserved are:

(a) The design and layout of the subdivision, including the size, shape and position of any lot, any roads or the diversion or alteration to any existing roads, access, passing bays, parking and manoeuvring standards, and any necessary easements;

(b) The provision of servicing, including water supply, waste water systems, stormwater control and disposal, roads, access, street lighting, telephone and electricity;

(c) Management of construction effects, including traffic movements, hours of operation and sediment control;

(d) Provision of esplanade reserves, esplanade strips and access strips;

(e) Site contamination remediation measures and works;

(f) Protection of significant sites, including natural, cultural and archaeological sites;

(g) Avoidance or mitigation of natural hazards; and

(h) The design and layout of the subdivision where any lot may affect the safe and effective operation and maintenance of and access to regionally significant network utilities (excluding the National Grid) located on or in proximity to the site;

(i) The outcome of consultation with the owner and operator of regionally significant network utilities (excluding the National Grid) located on or in proximity to the site; and

(j) Those matters described in Section 108 and 220 of the Resource Management Act 1991.

Note: Rule 11.2.3 (b) covers subdivision within the National Grid Corridor.

11.2.2.3 Assessment Criteria

The following assessment criteria will be used:

(a) Allotment Design:

- Allotments to have the appropriate net site area and dimensions to enable activities, buildings or structures to be sited to comply with the specified activity area requirements.
- Subdivisions should be designed so as to give areas a strong and positive identity by taking into account characteristics of the area and ensuring that roading patterns, public open space/reserves and community facilities are well integrated.
- Account must be taken of the future development potential of adjoining or adjacent land and any potential reverse sensitivity effects on regionally significant network utilities (excluding the National Grid).
- The roading pattern must take into account the future development pattern of adjacent land.
- Subdivisions should be designed in a manner which recognises and gives due regard to the natural and physical characteristics of the land and adverse effects are avoided, remedied or mitigated.

(b) Engineering Design

(i) Access

- The legal road must be of sufficient width to cater for all functions the road is expected to fulfil, including the safe and efficient movement of all users, provision for parked vehicles, the provision of public utilities, landscaping and public transport facilities.
- The carriageway width should allow vehicles to proceed safely at the operating speed intended for that type of road in the network, with acceptable minor delays in the peak period.
- The carriageway should be designed to discourage motorists from

travelling above the intended speed by reflecting the functions of the road in the network. In particular, the width, the horizontal and vertical alignments and superelevation should not be conducive to excessive speed.

- Intersections or junctions should be designed to allow all desired movements to occur safely without undue delay. Projected traffic volumes should be used in designing all intersections or junctions on traffic routes.
- Footpaths shall be provided on both sides of roads and shall be designed and located taking into account pedestrian amenity and likely use patterns. Footpaths may be reduced to only one side where:
  - there is no development fronting that part or side of the road,
  - topography or vegetation precludes provision, or
  - vehicle volumes and speeds are low and use of the carriageway is considered to be safe and comfortable for pedestrian use, and
  - pedestrian use will not be deterred by the lack of a footpath.
- Materials used in the construction of roads must be durable, maintainable, cost effective and compatible with Council's engineering standards.
- Allotments must have drive on access. In cases where it can be shown that it is physically not possible to provide drive on access, alternative arrangement for off-street parking must be provided.
- Where appropriate, when designing the roading network, account must be given to the provision of public transport facilities and the provision for safe, convenient and efficient access for cyclists and pedestrians.

(ii) Service Lanes, Private Ways, Pedestrian Accessways and Walkways

- Service lanes must be of sufficient width and of appropriate design to cater for vehicular traffic which services the allotments.
- All private ways and pedestrian accessways must be of sufficient width and of appropriate design for the use of land they serve.
- Walkways must be taken into account the existing topography, link open space network with community facilities and public services.

(iii) Street Lighting

Public lighting to be provided to roads, footpaths, pedestrian accessways and to major pedestrian and bicycle links likely to be used at night to provide safe passage for pedestrians, cyclists and vehicles.

(iv) Stormwater

- The stormwater system to provide a level of protection defined in terms of Average Recurrence Interval (ARI) based on the type and intensity of development.

- The environment downstream of the proposed subdivision is not degraded by drainage flows or floodwaters.
- The roading system retains access to allotments and minimises the occurrence of traffic accidents during and after storm events.
- The stormwater system is designed to ensure that the land form of watercourses is stabilised and that erosion is minimised.
- Floodways and ponding areas to be restricted to areas where there is no damage to property, and to discharge or contain all gap flow (gap flow being the difference between the pipe flow and the total flow, i.e. the amount flowing on the surface for any given ARI).
- Materials used in stormwater systems to be durable, maintainable, cost-effective and compatible with Council's engineering performance standards.

(v) Wastewater

- The wastewater system is adequate for the maintenance of public health and the disposal of effluent in an environmentally appropriate manner.
- All wastewater systems shall be designed so that they have sufficient capacity for the ultimate design flow.
- All wastewater systems shall be designed so that they are self cleansing with the current or expected peak dry weather flow.
- Materials used in the wastewater system must be durable, maintainable, cost efficient and compatible with Council's engineering performance standards.
- Connection to a community sewerage system where one is available, and has the capacity to accept the additional sewerage load that the occupancy of the subdivision will create; or the installation of a sewerage system and community treatment plant when there is no community sewerage system available and the number of residential allotments and the soil/groundwater conditions indicate that the cumulative effects of the sewerage effluents have the potential to adversely affect public health.

(vi) Water Supply

- In urban areas reticulated water supply must be provided to each allotment for domestic, commercial or industrial consumption and provision for fire fighting purposes.
- Materials used in the water supply system must be durable, maintainable. cost-effective and compatible with Council's engineering performance standards.
- Reservoir storage, pumping and pipe flow capacity shall meet required volume, flow and pressure criteria according to Council's engineering performance standards.
- The provision and protection of access for maintenance of components of water supply system.
- All water supply mains shall be designed so they have sufficient

capacity for the ultimate design flow.

- Adequate and suitable water supply shall be provided in the General Rural and Rural Residential Activity Areas.
- In all areas, the provision of a reticulated drinking water supply to all residential allotments if it is practicable to do so.

(vii) Telecommunication and Electricity

- Electricity supply must be provided to each allotment. The Council may exempt subdivisions or particular allotments from this requirement in appropriate circumstances but may require that provision, such as the registration of easements, be made for the provision of electricity supply in the future. In urban areas where practicable this should be by means of an underground system.
- Provision should be made to ensure that telephone connections can be made to each allotment. In urban areas where practicable, such provision should be made by means of an underground system.

(viii) Earthworks

- Before any earthworks are carried out a thorough investigation be undertaken to determine the suitability of the land. Particular attention must be given to drainage, slope and foundation stability matters, topography, significant existing natural, cultural and archaeological resources, post construction settlement, shrinkage and expansion of material plus compaction.
- Appropriate design and construction methods must be used to control and manage soil erosion, surface runoff and siltation.

(c) Contamination

Where a site for subdivision has been identified as a potential or confirmed contaminated site the applicant shall undertake an assessment of the site, which shall include:

- The nature of contamination and the extent to which the occupants of the site, the immediate neighbours, the wider community and the surrounding environment will be exposed to the contaminants.
- Any potential long-term or cumulative effects of discharges from the site.
- Any remedial action planned or required in relation to the site, and the potential adverse effects of any remedial action on the matters listed in the two matters above, whether at the site or at another location.
- Proposed validation to demonstrate that remediation has been carried out to an acceptable standard.
- The management of the decontamination risk and any risk due to residual contamination remaining on the site (eg. risks involved are maintenance of underground services, risks associated with earth working and soil disturbance, and compliance with management regimes).

The site assessment, proposed remediation, validation and future site management shall be to the satisfaction of the Hutt City Council, Wellington Regional Council, and the Medical Officer of Health.

(d) Esplanade Reserves, Strips and Access Strips

Whether provision has been made for esplanade reserves and/or strips along the margins of any water body.

If a reduction in the width or waiver of an esplanade reserve is sought, Council would have regard to the following:

- The purpose for the creation of the esplanade reserve set out in Section 229 of the Resource Management Act 1991;
- Whether the reduction in size or width of an esplanade reserve would adversely effect:
  - Natural character, amenity values, and ecological values of the adjacent waterbody;
  - Access to an existing or potential future reserve or feature of public significance;
  - The public's ability to gain access to and along the edge of the water body; and
  - The protection of significant sites, including natural, cultural and archaeological sites.
- Whether a waiver or reduction of the width of an esplanade reserve would ensure the security of private property or the safety of people; and
- Whether the land is within a natural hazard area or in an identified risk from one or more natural hazards.

11.2.3 Restricted Discretionary Activities

(a) Any subdivision that does not comply with the standards and terms for controlled activity under Rule 11.2.2.1 in respect of (b) Engineering Design, (c) Contamination and (e) Earthworks.

(b) Any subdivision located within a National Grid Corridor that complies with the standards and terms under Rule 11.2.3.2.

(i) Non-notification

In respect of Rule 11.2.3 (b), public notification of applications for resource consent is precluded. Limited notification will be served on the National Grid Operator as the only affected party under section 95B of the Act.

Note: Rule 11.2.3 (b) (i) prevails over Rule 17.2.2.

(c) Any subdivision located within close proximity to consented and existing renewable energy generation activities.

(i) Non-notification

In respect of Rule 11.2.3 (c), public notification of applications for resource consent is precluded. Limited notification will be served on the renewable energy generation activities' operator as the only affected party under section 95B of the Act.

Note: Rule 11.2.3 (c) (i) prevails over Rule 17.2.2.

(d) Any subdivision of the site identified in Appendix Subdivision 7 or Appendix

Subdivision 8.

11.2.3.1 Matters in which Council has restricted its discretion

(a) Any subdivision that does not comply with the standards and terms for controlled activity under Rule 11.2.2.1 in respect of (b) Engineering Design, (c) Contamination and (e) Earthworks.

(i) Any actual or potential adverse effects arising from the proposed non-compliance, and measures to avoid, remedy or mitigate such effects.

(ii) Amenity Values:

The extent to which any earthworks proposal will affect adversely the visual amenity values of the area, and the extent to which the earthworks will result in unnecessary scarring and be visually prominent.

The effects on the amenity values of neighbouring properties including dust and noise.

The extent to which replanting, rehabilitation works or retaining structures are included as part of the proposal to mitigate adverse effects. Earthworks should not result in the permanent exposure of excavated areas or visually dominant retaining structures when viewed from adjoining properties or public areas, including roads.

(iii) Existing Natural Features and Topography:

The extent to which the proposed earthworks reflect natural landforms, and are sympathetic to the natural topography.

(iv) Historical or Cultural Significance:

The extent to which the proposed earthworks will affect adversely land and features which have historical and cultural significance.

(v) Natural Hazards:

Consideration should be given to those areas prone to erosion, landslip and flooding. Earthworks should not increase the vulnerability of people or their property to such natural hazards. In the Primary and Secondary River Corridors of the Hutt River, consideration should be given to the effects on the flood protection structures.

(vi) Construction Effects:

The extent to which the proposed earthworks have adverse short term and temporary effects on the local environment.

(vii) Engineering Requirements:

The extent of compliance with NZS 4431 1989 (Code of Practice for Earth Fill for Residential Development).

The extent of compliance with Part 2 NZS 4404:2004 (Land Development and Subdivision Engineering).

(viii) Erosion and Sediment Management:

The extent of compliance with the "Erosion and Sediment Control Guidelines for the Wellington Regional 2003" and "Small Earthworks – Erosion and Sediment Control for small sites" by Greater Wellington

Regional Council.

(ix) Contaminated Land:

The extent to which works are consistent with the Ministry for the Environment, Contaminated Land Management Guidelines 1 – 5.

(x) Vegetation protection and presence:

The extent to which protection is given and how the safe, continuous presence of vegetation is provided for in the area as shown in Appendix Subdivision 5 by using an appropriate legal mechanism.

(xi) Visual effects of built development on the wider area (Appendix Subdivision 6):

Consideration shall be given to any actual and potential adverse effects of built development in the area identified on Appendix Subdivision 6 on visual amenity of the wider area (ie the valley floor and upper Holborn Drive). To assist, an expert assessment shall be undertaken, and the extent to which development controls are placed on identified individual lots as a result of the assessment's findings shall be taken into account.

For the purposes of this rule, built development includes but is not limited to structures of any height such as dwellings and ancillary buildings, decks, fences, walls and retaining walls.

(b) Any subdivision located within a National Grid Corridor that complies with the standards and terms under Rule 11.2.3.1.

(i) the extent to which the design, construction and layout of the subdivision demonstrates that a suitable building platform(s) can be located outside of the National Grid Yard for each new lot to ensure adverse effects on and from the National Grid and on public health and safety are appropriately avoided, remedied or mitigated;

(ii) The provision for the on-going operation, maintenance (including access) and planned upgrade of Transmission Lines;

(iii) The risk to the structural integrity of the National Grid;

(iv) The extent to which the subdivision design and consequential development will minimise the risk of injury and/or property damage from such lines;

(v) The extent to which the subdivision design and consequential development will minimise the potential reverse sensitivity on and amenity and nuisance effects of the transmission asset; and

(vi) The extent to which landscaping will impact on the operation, maintenance, upgrade and development (including access) of the National Grid.

Advice Note: Compliance with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001) is mandatory under the Electricity Act 1992. All activities regulated by NZECP34, including buildings, structures, earthworks and the operation of mobile plant, must comply with that regulation. Activities should be checked for compliance even if they are permitted by the District Plan.

Vegetation to be planted within proximity to Transmission Lines as shown on

the planning maps should be selected and/or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003 or prevent access to support structures. To discuss works, including tree planting **near** any Transmission Line especially works within the transmission corridor; contact the National Grid operator.

(c) Any subdivision of the site identified in Appendix Subdivision 7 or Appendix Subdivision 8.

(i) Amenity Values:

The extent to which any earthworks proposal will affect adversely the visual amenity values of the area, and the extent to which the earthworks will result in unnecessary scarring and be visually prominent.

The effects on the amenity values of neighbouring properties including dust and noise.

The extent to which replanting, rehabilitation works or retaining structures are included as part of the proposal to mitigate adverse effects. Earthworks should not result in the permanent exposure of excavated areas or visually dominant retaining structures when viewed from adjoining properties or public areas, including roads.

(ii) Existing Natural Features and Topography:

The extent to which the proposed earthworks reflect natural landforms, and are sympathetic to the natural topography.

(iii) Historical or Cultural Significance:

The extent to which the proposed earthworks will affect adversely land and features which have historical and cultural significance.

(iv) Construction Effects:

The extent to which the proposed earthworks have adverse short term and temporary effects on the local environment.

(v) Engineering Requirements:

The extent of compliance with NZS 4431:1989 (Code of Practice for Earth Fill for Residential Development).

The extent of compliance with Part 2 NZS 4404:2004 (Land Development and Subdivision Engineering).

(vi) Erosion and Sediment Management:

The extent of compliance with the "Erosion and Sediment Control Guidelines for the Wellington Region 2002" and "Small Earthworks – Erosion and Sediment Control for small sites" by Greater Wellington Regional Council.

(vii) The design and layout of the subdivision, including the size, shape and position of any lot, any roads or the diversion or alteration to any existing roads, access, passing bays, parking and manoeuvring standards, and any necessary easements;

(viii) The provision of servicing, including water supply, waste water systems, stormwater control and disposal, roads, access, street lighting, telephone and electricity;

(ix) Management of construction effects, including traffic movements, hours of operation and sediment control;

(x) Avoidance or mitigation of natural hazards;

(xi) The design and layout of the subdivision where any lot may affect the safe and effective operation and maintenance of and access to regionally significant network utilities (excluding the National Grid) located on or in proximity to the site;

(xii) The outcome of consultation with the owner and operator of regionally significant network utilities (excluding the National Grid) located on or in proximity to the site;

(xiii) Those matters described in Section 108 and 220 of the Resource Management Act 1991;

(xiv) In regard to Appendix Subdivision 7, t~~T~~he engineering measures proposed to manage stormwater runoff to ensure the ecological health of Speedy's Stream and the onsite wetland. To assist, expert assessment shall be undertaken, and provided with any subdivision application. This report shall identify the following:

i. The existing ecological values of Speedy's Stream and the onsite wetland;

ii. The stormwater runoff rates for both the onsite wetland and Speedy's Stream to maintain these ecological values (including for smaller frequent events like the 1 in 1 year and 1 in 2 year rainfall events);

iii. The acceptable level of contaminants in the stormwater to maintain the ecological values of both the onsite wetland and Speedy's Stream;

iv. The engineering practices (for example, bio-retention devices and detention tanks) required to treat and control all stormwater runoff to ensure that the identified ecological values are at least maintained and the stormwater runoff rates and treatment identified in the points above are achieved. These engineering practices shall control all runoff generated by the 85-90th percentile rainfall depth. This is defined as treating the stormwater volume generated by the 27mm rainfall depth; and

v. Any potential conditions that may need to be imposed on the subdivision consent to ensure that these engineering measures are undertaken and appropriately maintained.

(xv) In regard to Appendix Subdivision 8, the engineering measures proposed to manage stormwater runoff to ensure the ecological health of any onsite streams and downstream receiving environments. To assist, expert assessment shall be undertaken, and provided with any subdivision application. This report shall identify the following:

i. The existing ecological values of the onsite streams (and their downstream receiving environments);

ii. The stormwater runoff rates for the onsite streams (and their downstream receiving environments) to maintain ecological values

(including for smaller frequent events like the 1 in 1 year and 1 in 2 year rainfall events);

iii. The acceptable level of contaminants in the stormwater to maintain the ecological values of the onsite streams (and their downstream receiving environments);

iv. The engineering practices (for example, bio-retention devices and detention tanks) required to treat and control all stormwater runoff to ensure that the identified ecological values are appropriately protected, and the stormwater runoff rates and treatment identified in the points above are achieved; and

v. Any potential conditions that may need to be imposed on the subdivision consent to ensure that these engineering measures are undertaken and appropriately maintained.

11.2.3.2 Standards and Terms

(a) Any Subdivision located within a National Grid Corridor shall:

(i) comply with the Standards and Terms for a Controlled Activity in Rule 11.2.2.1 and

(ii) demonstrate that each new residential allotment can provide a complying Shape Factor as required under Rule 11.2.2.1(a) or in the case of industrial and commercial activities, a suitable building platform which is fully located outside of the National Grid Yard.

11.2.4 Discretionary Activities

(a) Avalon Business Activity Area.

(b) Special Commercial Activity Areas 1 and 2.

(c) Rural Residential Activity Area - all subdivisions with direct access off Liverton Road.

(d) Historic Residential Activity Area.

(e) General, Special, River and Passive Recreation Activity Areas.

(f) Extraction Activity Area.

(g) Community Health Activity Area.

(h) Any subdivision within the identified coastal environment as shown in Map Appendices 2A, 2B, and 2C.

(i) Any subdivision which is not a Permitted, Controlled or Restricted Discretionary Activity.

(j) Any subdivision located wholly or partially within Avalon Business Activity Area (Sub-Area 1).

(k) On 2/76 Normandale Road, Pt Lot 1 DP 7984, any earthworks undertaken as part of a subdivision, in that part of the site identified to the north and east of the stream, as shown on Appendix Earthworks 3.

(l) Any subdivision of the site identified in Appendix Subdivision 7 or Appendix

Subdivision 8 that does not comply with the standards and terms for controlled activity under Rule 11.2.2.1 in respect of (a) Allotment Design.

11.2.4.1 Assessment Criteria for Discretionary Activities

(a) The matters contained in sections 104 and 105, and in Part II of the Act shall apply.

(b) Compliance with the engineering design standards.

(c) The degree of compliance or non-compliance with any relevant Permitted and Controlled Activity Standards and Terms.

(d) Those matters listed in the Assessment Criteria for Controlled and Restricted Discretionary Activities.

(e) For the site identified in Appendix Subdivision 7 and Appendix Subdivision 8, those matters to which Council has restricted its discretion under Rule 11.2.3.1 (c).

11.2.5 Non-Complying Activities

(a) Any subdivision of land within the National Grid Corridor that does not comply with the standards and terms under Rule 11.2.3.2.

(b) Any subdivision of the site identified in Appendix Subdivision 8 which results in any lots with residential dwellings having vehicular access to Liverton Road

11.3 Anticipated Environmental Results

(a) That allotments created are suitable for the proposed use.

(b) That adverse effects arising from the subdivision of land will be managed and mitigated.

(c) That where appropriate and necessary there be improved public access to public areas

Part 5: Request and Section 32 Evaluation

24 April 2019

URBANEDGE PLANNING LTD

Andrew Cumming

Hutt City Council

30 Laings Road

Lower Hutt

Dear Andrew

PLAN CHANGE 280 MAJOR DRIVE AND 50 KAITANGATA CRESCENT, KELSON

Please find attached an application in accordance with Clause 21 of the Resource Management to rezone 280 Major Drive and 50 Kaitangata Crescent, Kelson. The purpose of this plan change is to allow for the site to be rezoned in a manner that meets the Council's desired outcomes under the Urban Growth Strategy and to assist Council to meet its short and medium term needs for housing supply as required under the National Policy Statement for Urban Development Capacity. It is considered that the proposed zones represent the most appropriate zones for the site and the purpose of the Act.

The applicant is seeking the plan change to be adopted by the Council. The reasons for this are as follows:

- The proposed plan change allows for Council to meets the intentions of the Urban Growth Strategy, which identifies the application site as a future urban growth area;
- The rezoning would assist with Council meeting its housing needs under the National Policy Statement for Urban Development Capacity;
- The rezoning provides for a flexible of housing typologies to be provided, including potential areas of Medium Density Development providing it can meet the framework of the District Plan;
- The proposed zoning is consistent with the District Plan approach to zoning in the Hutt Valley, with General Residential Activity Area zoning being the prominent zone for residential development away from main shopping centres and public transport routes. However, this zoning still provides a consenting framework for a variety of residential development forms to be provided, subject to the outcomes as outlined under the objectives and policies being met and the environmental effects are addressed;
- The proposal includes the protection of the significant vegetation on the site through the use of the General Recreation Activity Area zone; and
- Council has adopted previous plan changes that provide housing supply (for example 64 Waipounamu Drive).

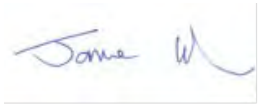
Please find attached to this application the following documents:

- A section 32 assessment of the plan change and the supporting reports and appendices; and
- A tracked changes version of the subdivision chapter, with proposed changes.

M: 022 659 1996
E: james@uep.co.nz
PO Box 39071, Wellington Mail Centre, Lower Hutt 5045
www.urbanedgeplanning.co.nz

If you have any questions regarding this plan change, please let me know.

Kind Regards



James Beban
Urban Edge Planning

Section 32 Evaluation

Introduction

(1) Proposed Plan Change 47 seeks to rezone the application site at the north end of Major Drive, Kelson from its existing zonings of Rural Residential Activity Area and Hill Residential Activity Area to that of General Residential Activity Area and General Recreation Activity Area, under the city of Lower Hutt District Plan (the District Plan).

(2) The application site is located on the lower slopes of the Western Hutt hills, at the northern end of Major Drive, the main road servicing the suburb of Kelson. It comprises three separate properties at 280 Major Drive (being Lot 2 DP 87274), 50 Kaitangata Crescent (being Lot 4 DP 81542) and 204 Liverton Road (Lot 1 DP 87274) that together, total an area of 12.58ha.

(3) The purpose of the plan change is to extend the General Residential Activity Area zone at the northern end Major Drive to provide for suburban residential development at a similar density and pattern as that currently provided for within the Kelson suburb.

(4) As part of the proposed Plan Change, site-specific policies and alterations to an existing Chapter 11 (subdivision) rules and standards are proposed. These changes will address specific environmental constraints associated with the development of the site. These provisions are primarily designed to ensure that stormwater runoff from any future developed site does not adversely affect the ecological integrity of any onsite streams and any downstream receiving environments. As outlined in Appendix 3b, these watercourses include the Liverton Road Stream and tributaries (being tributaries of the Hutt River, which has high aquatic and fauna values). Policies and an associated rule has also been proposed to ensure undue traffic safety effects do not occur on Liverton Road as a result of the changes proposed.

(5) While there are areas of the site which have been identified by Hutt City Council as draft Significant Natural Areas (SNA's)[1], these sites are largely contained on the land proposed for General Recreation Activity Area. It is noted that there is a small area (0.14ha within Lot 1 as shown in Appendix 3b, Figure 2) of the draft SNA that is proposed to be rezoned to General Residential Activity Area[2]. However, the potential for ecological impacts within this area are site specific and therefore more appropriately managed through the resource consent process (which allows for the consideration of the ecological effects associated with the development of the site using the relevant assessment matters in Chapter 11 (Subdivision Chapter) of the District Plan).

(6) The Resource Management Act 1991 ("the RMA" or "the Act") requires an evaluation of the proposed Plan Change ("the proposed Plan Change") under section 32. In addressing the relevant section 32 matters of the RMA, this report has been structured as follows:

(7) This report presents:

- Introduction
- Statutory Basis for Section 32 Evaluation

[1] The proposed SNA's are those that Hutt City Council publicly released for feedback in 2018, as part of a forthcoming Plan Change. Despite having no statutory weight, this proposed Plan Change 47 seeks to respond to those proposed SNA's through the proposed General Recreation Activity Area zoning and including Ecological Assessments at a site-specific level (Appendix 3a and 3b). The proposed SNA's have been mapped by Hutt City Council: *http://gisweb.huttcity.govt.nz/html5viewer/index.html?viewer=ecosites*

[2] Originally there was also a 0.06ha 'finger' identified as draft SNA (as is referenced in Appendix 3b). It is noted that the extent of the draft SNA's have been further refined and this has since been removed from the draft SNA maps by HCC.

- Purpose, Scope and Background of the proposed Plan Change
- Scale and Significance Analysis
- Research and Consultation
- National, Regional and Local Planning Framework
- Environmental Effects of the proposed Plan Change
- Evaluation of Options
- Evaluation of Proposed Policy
- Evaluation of Proposed Rules and Standards
- Conclusion
- Appendices

Statutory Basis for Section 32 Evaluation

(8) The overarching purpose of Section 32 (s32) of the Resource Management Act 1991 ("the RMA" or "the Act") is to ensure that any proposed District Plan provisions are robust, evidence-based and the best means to achieve the purpose of the Act.

(9) The s32 evaluation report provides the reasoning and rationale for the proposed provisions and should be read in conjunction with those provisions.

(10) Section 32 of the RMA requires that an evaluation report be prepared before the notification of a plan change by Council. Sections 32 (1), 32 (2), 32 (3), 32 (4) and 32 (4A) provide guidance as to what such an evaluation must examine and consider as follows:

> *(1) An evaluation report must—*
>
> > *(a) examine the extent to which the objectives are the most appropriate way to achieve the purpose of this Act; and*
> >
> > *(b) examine whether, the provisions in the proposal are the most appropriate way to achieve the objectives by –*
> >
> > > *(i) identifying other reasonably practicable options for achieving the objectives; and*
> > >
> > > *(ii) assessing the efficiency and effectiveness of the provisions in achieving the objectives; and*
> > >
> > > *(iii) summarising the reasons for deciding on the provisions; and*
> >
> > *(c) contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.*
>
> *(2) An assessment under subsection 1(b)(ii) must –*
>
> > *(a) identify and assess the benefits and costs of the environmental, economic, social and cultural effects that are anticipated from the implementation of the provisions, including opportunities for –*

(i) economic growth that are anticipated to be provided or reduced; and

(ii) employment that are anticipated to be provided or reduced; and

(b) if practicable, quantify the benefits and costs referred to in paragraph (a); and

(c) assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.

(3) If the proposal (an amending proposal) will amend a standard, statement, regulation, plan, or change that is already proposed or that already exists (an existing proposal), the examination under subsection (1)(b) must relate to –

(a) the provisions and objectives of the amending proposal; and

(b) the objectives of the existing proposal to the extent that those objectives

(i) are relevant to the objectives of the amending proposal; and

(ii) would remain if the amending proposal were to take effect.

(4) If the proposal will impose a greater prohibition or restriction on activity to which a national environmental standard applies than the existing prohibitions or restrictions in that standard, the evaluation report must examine whether the prohibition or restriction is justified in the circumstances of each region or district in which the prohibition or restriction would have effect.

(4A) If the proposal is a proposed policy statement, plan, or change prepared in accordance with any of the processes provided for in Schedule 1, the evaluation report must—

(a) summarise all advice concerning the proposal received from iwi authorities under the relevant provisions of Schedule 1; and

(b) summarise the response to the advice, including any provisions of the proposal that are intended to give effect to the advice.

(11) This report has been prepared in accordance with these requirements.

Relevant Case Law

(12) The decision in Long Bay-Okura Great Parks Society Incorporated v North Shore City Council (Decision A 078/2008) and amended in High Country Rosehip Orchards Ltd and Ors v Mackenzie DC ([2011] NZEnvC 387) to reflect the changes made by the Resource Management Amendment Act 2005, sets out the mandatory requirements for district plans as follows. These have been updated here to reflect amendments to the RMA.

A. General requirements

1. A district plan should be designed to accord with and assist the territorial authority *to carry out* its functions so as to achieve, the purpose of the Act.

2. When preparing its district plan the territorial authority must *give effect to* any national

policy statement or New Zealand Coastal Policy Statement.

3. When preparing its district plan the territorial authority shall:

   (a) *have regard to* any proposed regional policy statement;

   (b) *give effect to* any operative regional policy statement;

   (c) *have regard to* the extent to which the plan needs to be consistent with the plans of adjacent territorial authorities.

4. In relation to regional plans:

   (a) the district plan must *not be inconsistent with* an operative regional plan for any matter specified in s30(1) [or a water conservation order]; and

   (b) *must have* regard *to* any proposed regional plan on any matter of regional significance etc.;

5. When preparing its district plan the territorial authority must also:

   - have regard to any relevant management plans and strategies under other Acts, and to any relevant entry in the Historic Places Register and to various fisheries regulations; and to consistency with plans and proposed plans of adjacent territorial authorities;
   - take into account any relevant planning document recognised by an iwi authority; and
   - not have regard to trade competition;

6. The district plan must be prepared *in accordance with* any regulation and any direction given by the Minister for the Environment.

7. The requirement that a district plan (change) must also state its objectives, policies and the rules (if any) and may state other matters.

B. Objectives [the s32 test for objectives]

8. Each proposed objective in a district plan is *to be evaluated* by the extent to which it is the most appropriate way to achieve the purpose of the Act.

C. Policies and methods (including rules) [the s32 test for policies and rules]

9. The policies are to *implement* the objectives, and the rules (if any) are to *implement* the policies.

10. Each proposed policy or method (including each rule) is to be examined, as to whether it is the most appropriate method for achieving the objectives of the district plan by:

    (a) *identifying* other reasonably practicable options for achieving the objectives; and

    (b) *assessing the efficiency and effectiveness* of the provisions in achieving the objectives, including:

        (i) identifying, assessing and quantifying (where practicable) the benefits and costs of the environmental, social and cultural effects anticipated from the implementation of the provisions, including opportunities for economic growth and employment; and

        (ii) assessing the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules, or other methods;

and

(iii) if a national environmental standard applies and the proposed rule imposes a greater prohibition or restriction than that, then whether that greater prohibition or restriction is justified in the circumstances.

D. Rules

11. In making a rule the territorial authority must *have regard to* the actual or potential effect of activities on the environment.

12. There are special provisions for rules about contaminated land.

13. There must be no blanket rules about felling of trees in any urban environment.

E. Other statutes

14. Territorial authorities may be required to comply with other statutes.

(13) The benefits and costs are defined in s2 of the RMA as including benefits and costs of any kind, whether monetary or non-monetary.

(14) Section 32 applies to the entire policy and plan development and change process from issue identification to decision release. Therefore, s32 is applicable:

- When objectives are identified and assessed;
- When examining policies, rules, or other methods;
- After the draft plan or provision is prepared;
- When the decision is made to notify;
- In the officer 's report on submissions;
- During deliberations by the council hearings committee; and
- Before the final decision is being released.

(15) A s32 evaluation is an iterative process, requiring a regular review of earlier steps and conclusions when necessary.

Purpose and Scope and Background of the Proposed Plan Change

Purpose and Scope of the Proposed Plan Change

(16) Proposed Plan Change 47 seeks to rezone the application site from;

- Rural Residential Activity Area (7.2ha at 280 Major Drive and 3.2ha at 204 Liverton Road) and Hill Residential Activity Area (2.2ha at 50 Kaitangata Crescent);

  to:

- General Residential Activity Area and General Recreation Activity Area, under the City of Lower Hutt District Plan.

(17) The current zonings have been operative on the application site since 2004. The Transmission Line Overlay crosses the north-western boundary. There are no other overlays relevant to the site.

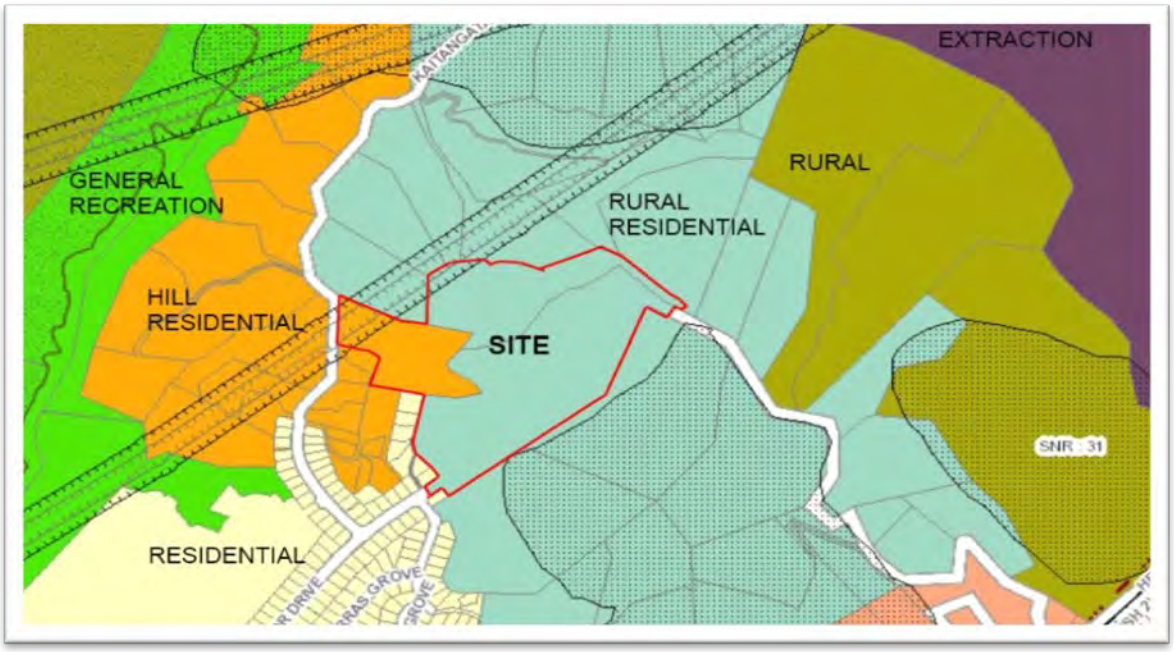


Figure 1: Current Zoning and Transmission Line Overlay for the Application Site

(18) The areas that are to be rezoned are shown on the map in Appendix 1 and comprise the following:

- Two separate areas of the site are to be rezoned General Residential Activity Area. One (to the south of the site) is to be 3.9ha. The other (to the north of the site) is to be 3.2ha.
- One connected area of the site comprising 5.5ha is to be rezoned General Recreation Activity Area. This area would separate the two proposed General Residential Activity Areas.

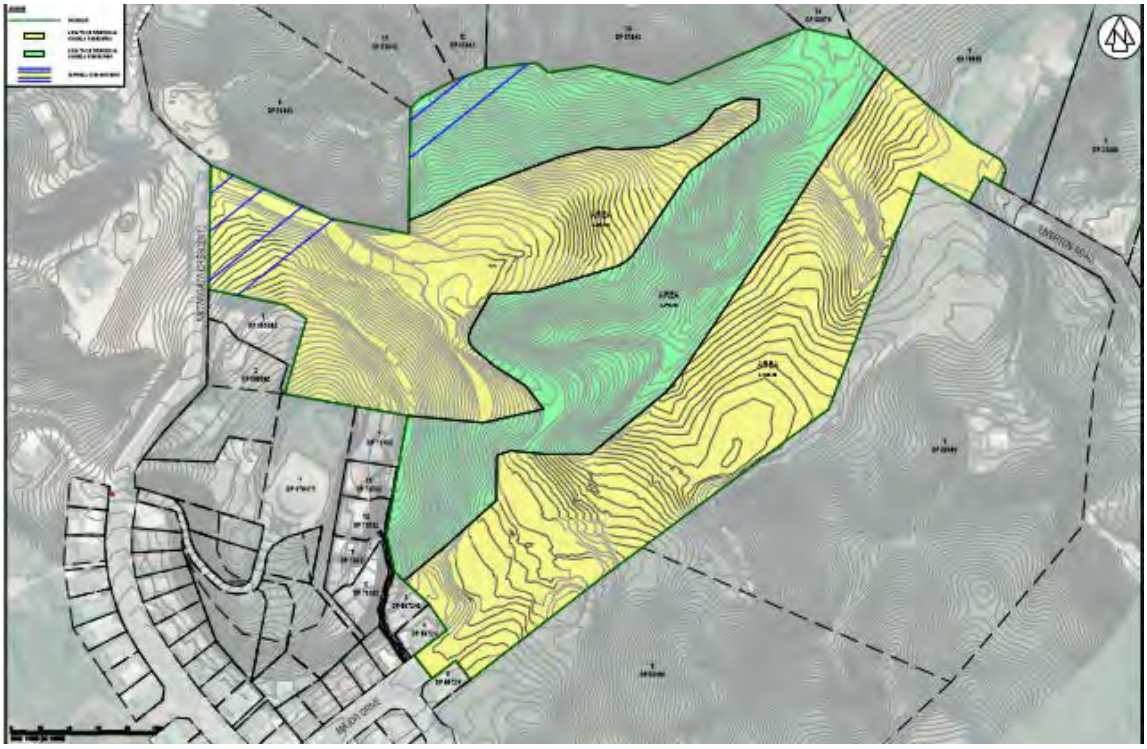


Figure 2: Proposed Rezoning of the Application Site with the General Residential Activity Area (Yellow) and General Recreation Activity Area (Green) shown (refer to Appendix 1).

(19) The proposed General Residential Activity Area zone would allow for a greater residential yield than the existing Rural Residential Activity Area and Hill Residential Activity Area zoning on the site. The proposed General Residential Activity Area would result in an extension of the General Residential Activity Area zoning and development pattern along Major Drive, to the south-west. Once rezoned, the application site could yield approximately 62 complying allotments, with access to the sites provided from Major Drive and Kaitangata Crescent. An indicative development plan has been submitted (Appendix 2) which shows this. It should be recognised that this is only one of a number of development scenarios that could occur under the proposed zoning. Any final design and layout of allotments would be subject to resource consent process and approval.

(20) The proposed General Recreation Activity Area zoning is being sought for two reasons:

- This area contains the majority of the draft SNA's within the site. The proposed General Recreation Activity Area zone is considered the most appropriate zone to ensure that future development in this area is limited, thereby ensuring that this vegetation is retained.
- This area proposed for General Recreation Activity Area is likely to be vested as reserve as part of the future subdivision of the site. As such, this proposed Plan Change would ensure that the site is already appropriately zoned for Council management for recreation purposes. Initial conversations with Council Officers suggest that Council would seek to take this land on as reserve.

(21) As part of the proposed Plan Change, site-specific policies, and alterations to an existing rules and standards are proposed to address specific environmental constraints associated with the development of the site. These provisions are primarily designed to ensure that stormwater runoff from any future subdivision of the site does not adversely affect the ecological integrity of the onsite streams and any downstream receiving environments and that the proposal does not result in undue traffic safety effects on Liverton Road.

Site Description

(22) The application site is situated in Kelson, Lower Hutt. It comprises an area of approximately 12.4ha, across three separate allotments (being Lots 1 & 2 DP 87274 and Lot 4 DP 81542). Two of the three allotments contain existing dwellings and several detached accessory buildings on each of these developed allotments. The third, being Lot 1 DP 87274 (or 204 Liverton Road), is a vacant land holding occupying the northernmost portion of the application site.

(23) The topography of the land is mixed, with the highest portion of the site being located at the western most extent near Major Drive and Kaitangata Crescent. There is a general sloping trend across the site from west to the east down towards Liverton Road where the site is near its lowest point. A densely vegetated gully occupies the middle of the site. Vegetation in this gully is comprised of regenerating native bush and at the low point of the gully a stream drains the catchment. The southernmost portion of the site is occupied by a spur which runs from Major Drive down to the top of Liverton Road. The vegetation cover along the spur is limited and is generally comprised of open grass paddocks used for the non-intensive grazing of livestock.

(24) The south-western periphery of the site is adjoined by developed residential properties, with larger developed Hill Residential landholdings to the west, and Rural Residential landholdings to the north, east and south.

(25) Vehicle access to the application site can be obtained from three different points, being Liverton Road from the south-east, Major Drive from the south-west and Kaitangata Crescent from the west.

Scale and Significance Assessment

(26) Under s32(1)(c) of the RMA, this evaluation report needs to:

> *contain a level of detail that corresponds to the **scale and significance** of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal (**emphasis** added).*

(27) The following Scale and Significance Assessment discusses the proposed Plan Change in terms of 8 factors and scores each factor out of 5 (where 1 is low and 5 is high).

(28) The Assessment concludes with a table summarising the factors and scores and gives a final overall score for the scale and significance of the proposed Plan Change.

Factor 1 Reason for the Change

(29) The proposed Plan Change seeks an appropriate zoning that allows for the development potential of the site to be realised in the manner that assists Council with meeting its requirements under the National Policy Statement for Urban Development Capacity (NPS-UDC) and its strategic objectives for growth and development as set out under the Long-Term Plan 2018-2028 (LTP) and Urban Growth Strategy 2012-2032 (UGS).

(30) The proposed zones and provisions respond to the topographical constraints, ecological values and character of the local area.

(31) For the reasons identified above, the Factor 1 'reason for change' scores 4.

Factor 2 Resource Management Issues / Problem Definition

(32) The resource management issues that would be addressed through this plan change are as follows:

- *1.10.2 (Amenity Values) - The different character and amenity values of areas contribute significantly to the environment of the City. The Act recognises the importance of people's environment (which is defined to include amenity values) and it is necessary to recognise these as essential elements in the Plan.*
- *1.10.3 (Residential Activity) - The manner in which an urban area is arranged can have an important effect on resource use, social and economic well being and environmental quality.*
- *1.10.6 (Recreation and Open Space) - Areas of open space and recreation facilities are of crucial importance to the overall environment of the City and to the health and well being of residents. People need a diverse range of open space and recreational opportunities and it is important that these are provided within the City.*
- *4A 1.1.1 (Residential Character and Amenity Values) - Residential dwellings and activities, subdivision patterns, open space, vegetation and a general absence of non residential, or large scale commercial or industrial operations, all contribute to the residential character and amenity values associated with the general residential areas of the City. It is important that activities are managed to ensure residential*

character is retained, and amenity values are maintained and enhanced.

- *4A 1.2.1 (Building Height, Scale, Intensity and Location) - The height, scale, intensity and location of buildings and structures can cause adverse effects upon amenity values of neighbouring properties, and the residential character of the surrounding area. It is important that such adverse effects are managed.*
- *7A 1.1.1 (Adverse Effects of General Recreation Activities on Adjoining Residential Activity Areas) - General Recreation Activity Areas are located throughout the City, with many adjoining Residential Activity Areas. Activities in recreation areas can generate adverse effects, which detract from the amenity values of adjoining residential areas.*
- *7A 1.1.2 (Recreation Activities Need to be Compatible with the Characteristics of the Land) - The type of activities carried out should be compatible with the physical characteristics of the land. Areas which are generally flat and not covered with bush should be developed for more active and formal recreation purposes. Areas covered in bush and steeper areas should be protected from inappropriate use and development.*
- *11.1.1 (Allotment Standards) - Subdivision of land can impose a constraint on the future use or development of land. It is necessary to ensure land which is subdivided can be used for the proposed use or purpose.*
- *11.1.2 (Engineering Standards) - Subdivisions need to be serviced in a manner that adverse effects are avoided, remedied or mitigated and that adverse effects on the health, safety and wellbeing of residents are no more than minor.*
- *11.1.4 (Special Areas) - Subdivision of land in the coastal environment and in areas of ecological value can have adverse effects that need to be controlled.*
- *14I 1.1 (Natural Character) - Earthworks can cause unnecessary scarring of the landscape, and alterations to the natural topography. This can significantly alter the natural character of the City's landscape. It is important that earthworks are managed to avoid, remedy or mitigate adverse effects upon the natural topography.*
- *14I 1.2 (Amenity, Cultural and Historical Values) - Unnecessary scaring of the landscape, removal of vegetation and alteration of the natural topography can affect adversely visual amenity values, historical and cultural values. Earthworks will be managed to ensure such values are maintained.*

(33) Most of the above resource management issues are appropriately addressed through the District Plan's existing objectives policies and rules of the District Plan. While the proposed Plan Change does not seek the introduction of new objectives to the District Plan it proposes the introduction of new policies and a rule as well as alterations to the existing rules and standards to address anticipated issues associated with future development of the site in relation to stormwater runoff and the protection of existing ecological values, within onsite streams and any downstream receiving environments. These changes also seek to maintain the traffic safety of Liverton Road.

(34) Factor 2 *Problem / Issue* scores 2 for the above reasons.

Factor 3 Degree of Shift from the Status Quo

(35) The proposed rezoning of the site to General Residential and General Recreation Activity

Areas (which are existing established zones in the adjoining and surrounding area), would provide for additional development potential of the site while protecting most ecological values identified within the site[3].

(36) The proposed introduction of a new policy and additions to an existing rule and standard within the subdivision chapter of the District Plan, are site specific and have no wider implications.

(37) Factor 3 Degree of Shift from the Status Quo therefore scores 2.

Factor 4 Who and How Many Will be Affected/Geographical Scale of Effects

(38) The proposed Plan Change seeks rezoning which would allow for more intensive scale of residential development in the two proposed General Residential Activity Areas, when compared to the existing zoning. The effects from this development would be mostly localised to surrounding properties in the immediate environment as these are the parties, where the change in the development pattern would be the most prominent.

(39) The site contains vegetation and a stream with ecological values, as identified in the Ecological Assessment Report (Appendix 3b). Any proposed subdivision or development of the proposed General Residential Activity Area would trigger the need for a resource consent process to assess the potential and actual effects. The proposed policy and additions to an existing rule and standard would mitigate any potential adverse effects from stormwater runoff to the onsite streams and any downstream receiving environments in the long term.

(40) The proposed General Recreation Activity Area would contain the majority of the ecologically significant vegetation. This zone does not support residential development and therefore assists with ensuring that the ecologically significant vegetation is retained on the site. This measure assists with reducing the wider effects associated with the proposed Plan Change.

(41) Factor 4 Who and How Many Will be Affected/Geographical Scale of Effects scores 2, for the reasons outlined above.

Factor 5 Degree of Impact on or Interest from Iwi/Maori

(42) The application site is not identified as having significant cultural values. However, the onsite streams and any downstream receiving environments (which include the Hutt River) could be affected by stormwater runoff. The proposed Plan Change proposes provisions to manage stormwater runoff, which also has the secondary outcome of reducing the cultural effects associated with discharges to watercourses. Any other potential effects on cultural values as a result of subdivision and/or development (i.e. from vegetation removal, stream culverting or erosion and sediment control) are more appropriately managed on a case by case basis through the resource consent process.

(43) It is also recognised that as part of the plan change pre-notification consultation period, consultation with iwi was initiated (refer to Appendix 7). While Port Nicholson Block Settlement Trust confirmed that they had no concerns, Te Runanga o Toa Rangatira Inc and Te Runanganui o Te Atiawa are yet to provide any formal feedback on this proposed Plan Change.

[3] Ecological values are referenced within Appendix 3b, section 1, page 4 and 5.

(44) Factor 5 Degree of impact on interests from iwi or Maori scores 2 for the following reasons:

- consultation has been initiated with all iwi. Only Port Nicholson Block Settlement Trust has responded to date, with no concerns relating to the proposed Plan Change;
- provisions are proposed to address the effects associated with stormwater runoff to the onsite streams and their downstream receiving environments;
- any subdivision which may impact on the Liverton Road Stream and tributaries will require resource consent;
- zoning to General Recreation Activity Area contains the bulk of the draft SNAs; and
- the application site itself does not have any identified significant cultural values.

Factor 6 Timing and Duration of Effects

(45) The effects of the proposed Plan Change would be ongoing from the time development of the site is enabled by this plan change. While the construction effects associated with development of the site would likely be for a limited amount of time, the effects of the buildings and activities at the site on the surrounding area would be ongoing (e.g. stormwater runoff). However, a plan change that results in a new development will always have ongoing effects.

(46) *Factor 6 Timing and Duration of Effects* scores 3 for the reasons outlined above.

Factor 7 Type of Effects

(47) The type of effects that would be generated by a development that is enabled by the proposed Plan Change are well understood and are similar in type and scale to the effects generated by existing developments on adjacent sites with General Residential Activity Area and General Recreation zonings. The resulting effects will be consistent with those anticipated by the Urban Growth Strategy and LTP, which identifies the site as being a future growth area.

(48) The existing provisions in combination with the proposed new policy and addition to a rule and standard, would assist in addressing the long term effects of development.

(49) *Factor 7 Type of Effects* scores 2 due to the low significance of the effects.

Factor 8 Degree of Risk and Uncertainty

(50) The degree of risk and uncertainty is low. The General Residential and General Recreation Activity Area zones proposed for the application site are well established in the District Plan and the resulting development forms are well understood.

(51) It is acknowledged that the proposal would introduce the need to undertake engineering works which maintains the ecological health of onsite streams and any downstream receiving environments. This adds a small amount of risk and uncertainty to the plan change.

(52) *Factor 8 Degree of Risk and Uncertainty* scores 2 due to the certainty provided by the existing proposed zones, while recognising the small level of uncertainty resulting from the proposed policy and alterations to an existing rules and standards.

Overall Scale and Significance

(53) Table 1 *Summary of Scale and Significance* below lists the factors discussed above and the scores for each factor. The scores are then combined to give a total scale and significance score for the proposed Plan Change.

(54) The scale and significance of the proposed Plan Change is Moderate.

Table 1 Summary of Scale and Significance

Factor	Score
1. Reason for Change	4
2. Problem / Issue	2
3. Degree of Shift from Status Quo	2
4. Who and How Many Affected, Geographic Scale of Effects	2
5. Degree of Impact on or Interest from Maori	2
6. Timing and Duration of Effects	3
7. Type of Effect	2
8. Degree of Risk or Uncertainty	2
Total (out of 40)	**19**

Total Score Interpretation

0-10 Scale and Significance = Low

11-20 Scale and Significance = Moderate

21-30 Scale and Significance = High

31-40 Scale and Significance = Very High

Research and Consultation

Research

(55) In preparation for this evaluation, the current District Plan has been reviewed and technical advice from external experts has been commissioned. The key evidence base comprises the following assessments:

- Services Assessment – Cuttriss Consultants Ltd (Appendix 2);
- Initial Ecological Assessment - Wildlands (Appendix 3a);
- Stormwater and further Ecological Assessment – Morphum Environmental (Appendix 3b);
- Landscape and Visual Assessment – Drakeford Williams Ltd (Appendix 4);

- Geotechnical Report – Abuild Consulting Engineers Ltd (Appendix 5); and
- Traffic Assessment – Harriet Fraser Traffic Engineering & Transportation Planning (Appendix 6).

Pre-Notification Consultation

(56) In preparing the proposed Plan Change, pre-notification consultation has been undertaken with the following parties in accordance with Clause 3 and 4A of Schedule 1 of the RMA:

- Te Runanga o Toa Rangatira Inc;
- Te Runanganui o Te Atiawa;
- Port Nicholson Block Settlement Trust;
- New Zealand Transport Agency;
- Greater Wellington Regional Council;
- Wellington City Council;
- Upper Hutt City Council;
- Porirua City Council;
- Winstone Aggregates;
- Wellington Electricity Lines Limited; and
- Transpower.

(57) The outcome of this consultation is outlined below (and within Appendix 7):

Te Runanga o Toa Rangatira Inc:

On 4 May 2018 an email was sent to the Trust advising them of the proposed Plan Change and seeking their input and any comment they might have with regard to the proposal and application site. Further emails were sent as no response was received to the initial communication.

Port Nicholson Block Settlement Trust:

On 4 May 2018 an email was sent to the Trust advising them of the proposed Plan Change and seeking their input and any comment they might have with regard to the proposal and application site.

Mr Morrie Love (a trustee) responded to the email on the 7th of May stating he saw no issue with the proposed rezoning. Additionally, he stated that he was aware of an old temporary Pa site in the wider area, but its precise location was difficult to determine.

Te Runanganui o Te Atiawa:

On 4 May 2018 an email was sent to the Trust advising them of the proposed Plan Change and seeking their input and any comment they might have with regard to the proposal and application site. Further emails were sent as no response was received to the initial communication.

New Zealand Transport Agency:

On 1 May the New Zealand Transport Agency was advised via email of the proposed Plan Change. A response was received on 28 May acknowledging receipt of the email and acknowledging that the proposed Plan Change is consistent with the growth projections the Transport Agency is aware of. Also confirming that the signaled interchange between State Highway 2 and Major Drive has capacity to accommodate the vehicle movements associated with developing the application site in a complying manner. They did note that any future allotments should have vehicle access orientated towards Major Drive and avoid Liverton Road due to its limitations.

Greater Wellington Regional Council:

On 1 May Greater Wellington were advised via email of the proposed Plan Change. An initial meeting was held with GWRC officer's on 16 May. This meeting discussed the extent of the proposed Plan Change and moved into the future subdivision and earthworks shown on the indicative layout plans provided as part of the pre-consultation plan set. GWRC were generally supportive of the proposed plan change but strongly encouraged any final design of a future subdivision to avoid the need for stream reclamation and preserve as much as possible the draft significant natural area within the application site.

Wellington City Council:

On 31 August Wellington City Council were advised via email of the proposed Plan Change. Council's Place Planning Manager (John McSweeny) responded on the same day advising that WCC had no comments to make at that stage.

Winstone Aggregates:

On 4 May 2018, following an initial phone conversation an email was sent to Winstone Aggregates advising them of the proposed Plan Change. Upon establishing the appropriate point of contact within the organisation, Winstone's advised that their main concerns (if any) would centre around typical reverse sensitivity issues relating to quarries - namely noise and amenity effects. Accordingly, they would have their acoustic consultant review the initial documentation and also discuss the proposal with engineer in charge of Belmont Quarry, regarding the quarry operations future expansion plans and general operations. Their noise assessment confirmed no impact over 50dBA at the closest receiver's notional boundary. Winstone Aggregates have confirmed that they are supportive of the proposed Plan Change.

Transpower New Zealand:

On 18 June an email was sent to Transpower New Zealand advising them of the proposed Plan Change and seeking their input and any comment they might have with regard to the proposal and application site. After clarification of several details Transpower confirmed they were happy that the existing development controls afforded by the National Grid corridor overly would continue to apply to the site and the provisions remain unchanged.

(58) No other feedback has been received to date on this proposed Plan Change.

National, Regional and Local Policy Framework

(59) The following sections consider and discuss the national, regional and local policy framework that provides the context for the proposed Plan Change.

Resource Management Act 1991

(60) A s32 evaluation includes analysis of how the proposed Plan Change achieves the purpose and principles contained in Part 2 (sections 5-8) of the RMA.

(61) Section 5 sets out the purpose of the RMA, which is to promote the sustainable management of natural and physical resources. Section 5 states:

> *Sustainable Management means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –*
>
> *(a) Sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations; and*
>
> *(b) Safeguarding the life-supporting capacity of air, water, soil and ecosystems; and*
>
> *(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

(62) The proposed zones are considered to be the best way to achieve Section 5 of the Act. The existing zones allow for low density housing to be established and there are no requirements within the District Plan to manage the quality of stormwater from the site. The application site is situated at the fringe of the urban boundaries of Lower Hutt and is adjoined by properties in the General Residential Activity Area to the south-west. The site is readily able to be accessed from the existing roading network and can be serviced by existing infrastructure.

(63) The existing Rural Residential Activity Area zone was established in the District Plan as a stepping stone zone for future urban development (as identified in 8A1.1.2 Policy (a)). As such, properties in this zone are not intended to be rural residential in perpetuity and could be expected to change to a more intensive development zone in a manner that is proposed within this Plan Change. As such, the proposed Plan Change is considered to meet the purpose of the Act in that it is allowing for the communities to provide for their social and economic well-being through the rezoning of a site for urban development in a manner that is signalled through the District Plan.

(64) The process of preparing the plan change has recognised natural sensitivities for the site, namely the possible SNA's within the application site and the need to maintain the ecological function of the area. It is proposed to address these matters through zoning most of the SNA as General Recreational Activity Area (which is a zone that discourages housing) and imposing a new policy and alterations to the rules and standards that addresses the stormwater effects arising from future development associated with the plan change. These factors assist with ensuring the ecological integrity of the draft SNA's are maintained through this proposed Plan Change.

(65) The proposed Plan Change would allow for additional housing to be developed on the site. Given the current topographical and zoning constraints, it is envisioned that the application site could reasonably yield approximately 12 - 16 complying allotments. Under the proposed Plan Change, the yield of the site could be expected to yield approximately 62 complying allotments. This additional yield represents a more efficient use of the site as the there are few of these large blocks of land available for development in the urban fringe of Hutt City. The proposed General Residential Activity Area zone would allow for the site to be developed in a manner that is consistent with the existing pattern of residential development to the south-west of the site and forms a natural extension at the northern end of Major Drive.

(66) Given the above factors, the proposal and has been tested in terms of s32 and the provisions selected are the best way of meeting the purpose of the RMA.

(67) In achieving the purpose of the RMA, Council needs to recognise and provide for the Matters of National Importance identified in section 6:

> *In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:*
>
> *(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:*
>
> *(b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:*
>
> *(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:*
>
> *(d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:*
>
> *(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:*
>
> *(f) the protection of historic heritage from inappropriate subdivision, use, and development:*
>
> *(g) the protection of protected customary rights.*
>
> *(h) management of significant natural hazard risk*

(68) The section 6 matters that are applicable to this proposal are subsections 6(a), 6(b), 6(c), 6(d), 6(e), and 6 (h). Overall, the proposed zones, policy, rules, and standards are consistent with Section 6 of the Act.

Section 6(a)

(69) The proposed Plan Change would generally result in streams that run through the gully being located within the General Recreation Activity Area. This zone largely supports the establishment of recreational activities (and discourages residential development) and would ensure that this part of the site is appropriately zoned to allow for this area to eventually become part of the Hutt City Council reserves network (which is envisioned as part of a future subdivision of the site). It is considered that this proposed zone would ensure that the natural character of the onsite streams is preserved.

(70) As part of the plan change, an additional policy, rules, and standards are proposed to ensure that the future stormwater runoff from the site does not compromise the ecological integrity of the onsite streams and their downstream receiving environments (including Hutt River / Te Awa Kairangi). It is considered that these proposed standards, combined with the proposed General Recreational zoning ensures that the onsite streams and their downstream receiving environments are protected from inappropriate subdivision and development.

Section 6(b)

(71) The site is not an identified as an outstanding natural landscape or feature, nor does it meet the threshold to be considered as one under the criteria of the Regional Policy Statement

(this is confirmed in the landscape and visual assessment contained in Appendix 4). It is considered therefore that there are no outstanding landscapes or features that are required to be protected as part of this plan change.

Section 6 (c)

(72) As part of the plan change an ecological assessment of the site has been undertaken. This ecological assessment has identified that part of the site contains an area of high ecological and/or natural value. It is noted that initially there was some overlap of the potential draft significant natural area (SNA) identified in the Wildlands report. However, the extent of the draft SNA has since been refined and the proposed zoning now has no overlap with the identified SNA extent. This correlates with the work further undertaken by Morphum, where the General Residential zoning previously overlapped the SNA, these areas generally comprise gorse and scrub with the more significant natural areas being wholly contained within the proposed General Recreation Activity Area. Regardless, it is proposed to retain and protect the identified natural areas through the proposed General Recreational Activity Area zoning. It is proposed to ensure the ecological health of the onsite streams and downstream environment is maintained through the proposed policy, rules, and standards. These measures would ensure that the areas of significant indigenous vegetation are maintained and protected overtime.

Section 6(d)

(73) The existing site is in private ownership and there is no public access to any of the site. The proposed rezoning of the majority of the potential SNA area to General Recreation Activity Area is in preparation to transfer this area to Hutt City Council as reserve. In this regard, the proposed Plan Change would allow for this area to eventually become part of the Hutt City Council reserves network and it likely to be able to be accessed from a new roading network (once a subdivision is completed). The proposal is therefore consistent with Section 6 (d) of the Act.

Section 6(e)

(74) While it is noted that only the Port Nicholson Block Settlement Trust have provided comment during pre-notification consultation, there are no known cultural sites of significance present and the proposed Plan Change will not restrict the existing relationship of Maori and their culture and traditions. Requiring stormwater treatment for future development will minimise adverse effects on streams and their downstream receiving environments, which are of cultural value. The proposed Plan Change is therefore consistent with s6(e).

Section 6 (h)

(75) The application site is not located in an area identified as being at risk from natural hazards. The applicant has had a geotechnical report prepared which has confirmed that the proposed site can be developed for residential purposes as intended, and there are no site stability restrictions. Given these factors, the proposal is considered to be consistent with Section 6(h) of the Act.

(76) The Plan change must also have particular regard to the Other Matters referred to in section 7:

> *In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to—*
>
> *(a) kaitiakitanga:*
>
> *(aa) the ethic of stewardship:*
>
> *(b) the efficient use and development of natural and physical resources:*
>
> *(ba) the efficiency of the end use of energy:*
>
> *(c) the maintenance and enhancement of amenity values:*
>
> *(d) intrinsic values of ecosystems:*
>
> *(e) [Repealed]*
>
> *(f) maintenance and enhancement of the quality of the environment:*
>
> *(g) any finite characteristics of natural and physical resources:*
>
> *(h) the protection of the habitat of trout and salmon:*
>
> *(i) the effects of climate change:*
>
> *(j) the benefits to be derived from the use and development of renewable energy.*

(77) The Section 7 matters that are applicable to this proposal are 7(b), 7 (c), 7 (d), and 7(f). The proposed Plan Change is considered to be consistent with these subsections.

Section 7(b)

(78) The applicant site is situated on the periphery of the urban boundaries of the Hutt Valley. The proposed General Residential and General Recreation Zones, with the associated site-specific policy and alteration to the rules and standards in the Subdivision Chapter, is considered to achieve most efficient use of the resource (being a largely undeveloped site). The proposed zones allow for the development potential of the site to be realised, in a manner than is consistent with how the District Plan, LTP and UGS envisions this environment to be developed, while ensuring that the ecological values of the draft SNA are maintained. The proposal is therefore considered to be consistent with Section 7(b) of the Act.

Section 7(c)

(79) The proposal rezoning would allow for the site to be developed in a manner that is consistent with the surrounding residential properties and in a manner that responds to the ecological and traffic limitations that exist on the property. There are no operative landscape provisions or overlays which pertain to the subject site, or the immediately surrounding area. Additionally, the site has not been identified in a recent landscape study undertaken by Hutt City Council as having special amenity values that would otherwise require additional provisions or protections. It is considered that the existing bulk and location and subdivision rules pertaining to the General Residential Activity Area will ensure that any future development of the site is consistent with Section 7(c) of the Act.

Section 7(d)

(80) As discussed above in the Section 6 (c) assessment, the proposed Plan Change includes rezoning the application site in a manner (including the introduction of a site-specific policy

and amendment to the rules, and standards to ensure that the ecological values are maintained following any future development of the property.

Section 7(f)

(81) The application site has not been identified as a potential Outstanding Natural Feature, Outstanding Natural Landscapes or Special Amenity Landscapes in Hutt City Council's recently released draft maps for consultation. While the site has been identified as having a potential Significant Natural Area (SNA) the proposed residential zoning is clear of the revised draft SNA extent. The proposal rezoning would allow for the site to be developed in a manner that is consistent with the surrounding residential properties and in a manner that responds to the ecological limitations that exist on the property. It is considered that the existing bulk and location and subdivision rules of the General Residential Activity Area, in conjunction with the proposed policy and standards, will ensure that any future development of the site is consistent with Section 7(f) of the Act.

Section 8

(82) Section 8 of the RMA states:

> *In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).*

(83) Section 8 of the RMA requires that applications take into account the principles of the Treaty of Waitangi. As part of the consultation process, local iwi were invited to provide feedback on the plan change. Only the Port Nicholson Block Settlement Trust have responded to date, with no concerns raised.

(84) There are no known cultural sites of significance present on this land. Provisions have been proposed to ensure the ecological values of the onsite streams and the downstream environment (including Te Awa Kairangi (Hutt River)) are considered and maintained through the design and development of the application site. Accordingly, it is considered that the proposal is consistent with Section 8 of the Act.

National Policy Statements

(85) Section 75(3)(a) of the Resource Management Act 1991 states that a district plan change must give effect to any National Policy Statement. The following National Policy Statements are currently in force:

- National Policy Statement on Urban Development Capacity;
- National Policy Statement for Freshwater Management;
- National Policy Statement for Renewable Electricity Generation; and
- National Policy Statement on Electricity Transmission.

(86) Of these, only the National Policy Statements on Urban Development Capacity and Electricity Transmission are considered to be relevant in the consideration of the plan change request and have been assessed accordingly below.

National Policy Statement for Urban Development Capacity:

(87) The National Policy Statement pertaining to Urban Development Capacity became operative on 1 December 2016. Wellington, specifically Lower Hutt City is classified as a medium-growth urban area has been. As such, the proposal must be considered against the policies of this National Policy Statement.

(88) The relevant policies that require consideration when assessing this proposal are policies PA1 – PA4. These are discussed in detail below:

PA1: *Local authorities shall ensure that at any one time there is sufficient housing and business land development capacity according to the table below:*

a. Short term Development capacity must be feasible, zoned and serviced with development infrastructure.

b. Medium term Development capacity must be feasible, zoned and either:

- serviced with development infrastructure, or
- the funding for the development infrastructure required to service that development capacity must be identified in a Long Term Plan required under the Local Government Act 2002.

c. Long-term Development capacity must be feasible, identified in relevant plans and strategies, and the development infrastructure required to service it must be identified in the relevant Infrastructure Strategy required under the Local Government Act 2002.

(89) The proposal is considered to be consistent with Policy PA1. The application site is currently zoned Hill Residential Activity Area and Rural Residential Activity Area, and as such provides for a limited capacity of development due to the greater net site area requirements under this existing zoning (compared to the General Residential Activity Area). The practical yield of the site is further reduced, given the existing topography of the site and constraints within the zone provisions, objectives and policies with regard to earthworks.

(90) Economically viable development and additional housing will be maximised by providing for a greater density of development across the site through rezoning some of this land to General Residential Activity Area. This will lower the minimum net site area requirements for subdivision that exist under the current zoning.

(91) The application site is able to be serviced by existing infrastructure. City reticulated services for all three waters (wastewater, stormwater and potable water), are available in the immediate environment and with capacity to service a development that complies with the standards of the General Residential Activity Area. Other infrastructure connections such a power, telecom and gas are also available within the area and extensions to these networks can be made throughout the site.

(92) A portion of the site is identified in the UGS and LTP as an area for future residential housing to assist with Council meeting its housing supply. The rezoning of a large area of the application site to General Residential Activity Area will increase the residential development potential of the site, thereby assisting Council in meeting their short and medium-term development capacity requirements as identified in the UGS and LTP.

PA2: *Local authorities shall satisfy themselves that other infrastructure required to support urban development are likely to be available.*

(93) The proposal is considered to be consistent with Policy PA2. The services assessment report contained in Appendix 2 confirms that the application site is able to be serviced by either existing or new infrastructure which has adequate capacity in the local environment.

PA3: *When making planning decisions that affect the way and the rate at which development capacity is provided, decision-makers shall provide for the social,*

economic, cultural and environmental wellbeing of people and communities and future generations, whilst having particular regard to:

a. Providing for choices that will meet the needs of people and communities and future generations for a range of dwelling types and locations, working environments and places to locate businesses;

b. Promoting the efficient use of urban land and development infrastructure and other infrastructure; and

c. Limiting as much as possible adverse impacts on the competitive operation of land and development markets.

(94) The proposed Plan Change is considered to be consistent with Policy PA3. The proposed General Residential Activity Area allows for a range of housing developments and land holdings to be provided in future.

(95) The proposed Plan Change also represents an efficient use of urban land and development infrastructure. The area to be rezoned to the General Residential Activity Area is largely undeveloped (with the exception of two houses). The proposed rezoning would allow for the site to be developed for residential purposes at a density that is consistent with the character of Kelson (which is predominantly zoned General Residential Activity Area). The site is already serviced by existing infrastructure and it is considered that the existing infrastructure in the area still has capacity to support the future development of the site for residential purposes at a density that is reflected by the proposed zoning.

PA4: *When considering the effects of urban development, decision-makers shall take into account:*

a. The benefits that urban development will provide with respect to the ability for people and communities and future generations to provide for their social, economic, cultural and environmental wellbeing; and

b. The benefits and costs of urban development at a national, inter-regional, regional and district scale, as well as the local effects.

(96) The proposal takes into account relevant factors of Policy PA4. The proposed rezoning would allow for the site to be developed for residential purposes at a density greater than currently provided for. This in turn will allow for additional housing to be constructed in an area of the Hutt Valley where the housing supply is currently limited, and where Council investment in additional infrastructure (such as roading or services) has already been planned within the LTP. The proposed General Residential Activity Area would ensure that the development is undertaken in a manner that maintains the environmental wellbeing of the local environment as well as enabling a housing form that will be consistent with the character of Kelson (which is predominantly zoned General Residential Activity Area).

(97) Due to the modest size of the area proposed to be rezoned (12.58ha), it is considered that the benefits and costs associated with the proposal are limited to the local and district scale. In this regard, the proposal is considered to have benefits for both Kelson and Lower Hutt. The proposed rezoning allows for a more efficient use of the residentially zoned land which is currently poorly utilised, in part due to the existing zoning provisions not providing the commercial viability to develop it.

National Policy Statement for Electricity Transmission:

(98) The National Policy Statement pertaining to Electricity Transmission became operative on 13

March 2008. Situated within the north-western corner of the site is the Transpower Haywards – Melling B (HAY-MLG B) 110kV Transmission line. As such, the proposal must be considered against the policies of this National Policy Statement.

(99) The relevant objectives and policies that require consideration when assessing this proposal are objective 5 and policies 10 and 11. These are discussed in detail below:

Objective 5: To recognise the national significance of the electricity transmission network by facilitating the operation, maintenance and upgrade of the existing transmission network and the establishment of new transmission resources to meet the needs of present and future generations, while:

- *managing the adverse environmental effects of the network; and*
- *managing the adverse effects of other activities on the network.*

Policy 10

(100) In achieving the purpose of the Act, decision-makers must to the extent reasonably possible manage activities to avoid reverse sensitivity effects on the electricity transmission network and to ensure that operation, maintenance, upgrading, and development of the electricity transmission network is not compromised.

Policy 11

(101) Local authorities must consult with the operator of the national grid, to identify an appropriate buffer corridor within which it can be expected that sensitive activities will generally not be provided for in plans and/or given resource consent. To assist local authorities to identify these corridors, they may request the operator of the national grid to provide local authorities with its medium to long-term plans for the alteration or upgrading of each affected section of the national grid (so as to facilitate the long-term strategic planning of the grid).

(102) The Hutt City District Plan already recognises the importance of the transmission lines through the establishment of a National Grid Yard. This National Grid Yard applies to the north-western portion of the site. The District Plan controls activities within the National Grid Yard. The proposed Plan Change does not alter the extent of the National Grid Yard or the activity status of developments within this yard. Furthermore, the overall extent of the site in the National Grid Yard is small, being confined to the north-western corner of the application site. Given these factors, the proposed Plan Change is considered to be consistent with the objectives and policies of the National Policy Statement for Electricity Transmission.

(103) As part of the preparation of the proposed Plan Change consultation has been undertaken with Transpower. Transpower has not raised any concerns regarding the proposal (comments attached in Appendix 7).

National Policy Statements

(104) Section 75(3)(b) & (ba) of the Act also states that a district plan change must give effect to any New Zealand coastal policy statement and a national planning standard. The following are currently operative:

- New Zealand Coastal Policy Statement; and
- National Planning Standards (first round).

(105) In this instance the NZCPS is not considered to be relevant in the consideration of the proposed plan change. However, an assessment of the National Planning Standards is provided below.

National Planning Standards:

(106) The first round of National Planning Standards became operative on 5 April 2019. The NPS seeks to standardise a wide range of metrics within Regional and District Plans nationwide, to improve the efficiency and effectiveness of the planning system by providing for national consistency. The National Planning Standards contains varying timescales for Territorial Authorities to incorporation and adoption the standardised frameworks into respective plans. As such, it is considered that this site-specific plan change is not the appropriate place to begin to restructure the Plan in accordance with the National Planning Standards. Council is currently well within the statutory timeframes specified to make the required changes and the changes proposed to the existing plan provisions are such that they can easily be transferable at the time Council in future seeks to implement the changes required across the plan in its entirety. To begin to incorporate the National Planning Standards structure in this plan change would be counterproductive to the intent of the National Planning Standards. It would result in a Plan with two different structures and require changes to definitions, zonings and a range of other factors.

(107) It is considered there are no other National Policy Statements relevant to this proposed Plan Change.

National Environmental Standards (NES)

(108) A district plan must give effect to any national planning standard. The following national environmental standards are currently in force:

- National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health;
- National Environmental Standards for Electricity Transmission Activities;
- National Environmental Standard for Sources of Drinking Water;
- National Environmental Standards for Air Quality;
- National Environmental Standards for Telecommunication Facilities; and
- National Environmental Standards for Plantation Forestry.

(109) Under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health, if a site has been the subject of an activity or industry described in the Ministry for the Environment's Hazardous Activities and Industries List ('HAIL') then the NESCS warrants further consideration. It is our understanding that no previous activities have occurred on the site which are identified on the HAIL list. As such, no further assessment against this National Environmental Standard is required for the proposal.

(110) While the application site is traversed by the Haywards – Melling B (HAY-MLG B) 110kV Transmission line, the National Environmental Standard for Electricity Transmission Activities is not considered to be relevant in this instance, as it applies to the operation, maintenance and upgrading of existing lines. There are no provisions in the NES that relate to third party impacts on lines.

(111) It is considered that the National Environmental Standards pertaining to air quality, telecommunication facilities, plantation forestry and water quality for human consumption are

not applicable to this proposal.

National Guidance Documents

(112) The following national guidance documents are considered relevant to this topic:

- Draft NPS Indigenous Biodiversity released by Ministry for the Environment on 25 October 2018 (not gazetted)
- New Zealand Biodiversity Action Plan 2016–2020
- Statement of national priorities for protecting rare and threatened species

Document	**Relevant provisions**
Draft NPS Indigenous Biodiversity	*Objective 1 - To recognise and provide for Hutia Te Rito in managing te Taiao.* *Objective 2 - To take into account the principles of Te Tiriti o Waitangi.* *Objective 3 - To maintain indigenous biodiversity and enhance ecosystems* *Objective 4 - To improve the integrated management of New Zealand's land, fresh water and coastal environments to promote the objectives of this national policy statement.* *Objective 5 - To enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety, through subdivision, use, and development, while recognising…(a) The need for resource use and development to occur within appropriate constraints to promote the objectives of this national policy statement…* *Objective 6 - To protect wetlands and their significant values and encourage wetland restoration and reconstruction.*
New Zealand Biodiversity Action Plan 2016–2020	*The Action Plan is a targeted update of the original New Zealand Biodiversity Strategy.* *Goal A – Mainstreaming biodiversity across government and society* *Goal B – Reduce pressures on biodiversity and promote sustainable use* *Goal C - Safeguarding ecosystems, species and genetic diversity* *Goal D – Enhance the benefits to all* *Goat E – Enhance implementation*
Statement of national priorities for protecting	*National Priority 1: To protect indigenous vegetation associated with land environments (defined by Land Environments of New*

rare and threatened species on private land	*Zealand at Level IV), that have 20% or less remaining in indigenous cover.* *National Priority 2: To protect indigenous vegetation associated with sand dunes and wetlands; ecosystem types that have become uncommon due to human activity.* *National Priority 3: To protect indigenous vegetation associated with 'originally rare' terrestrial ecosystem types not already covered by priorities 1 and 2.* *National Priority 4: To protect habitats of acutely and chronically threatened indigenous species.*

(113) The existing and proposed new provisions of the District Plan incorporate the overarching direction within these national guidance documents to ensure ecological values are retained. The proposed Plan Change is consistent with all relevant national guidelines.

Regional Policy Statement for the Wellington Region (RPS)

(114) Under Section 75(3)(c) of the Resource Management Act 1991, a District Plan must give effect to any RPS.

(115) The RPS for the Wellington Region sets out the regional approach for managing the environment and providing for growth and associated effects. The RPS identifies the significant resource management issues for the region and outlines the policies and methods required to achieve the integrated sustainable management of the region's natural and physical resources.

(116) The objectives and policies of the RPS most relevant to this plan change are:

Section 3.3 Energy, Infrastructure and Waste

Objective 10: The social, economic cultural and environmental benefits of regionally significant infrastructure are recognised and protected.

Policy 8 - *Protecting regionally significant infrastructure.*

(117) The Hutt City District Plan recognises the importance of the transmission lines through the establishment of a National Grid Yard. This National Grid Yard applies to a north-western portion of the site. The District Plan controls activities within the National Grid Yard. The proposed Plan Change does not alter the extent of the National Grid Yard or the activity status of developments within this Yard. Furthermore, the overall extent of the site in the National Grid Yard within the application site is small.

(118) Consultation has been undertaken with Transpower as part of the Plan Change process. Transpower have confirmed that they have no concerns regarding the plan change.

(119) Given these factors, the proposed Plan Change is considered to be consistent with this Objective and Policy of the RPS.

Section 3.4 Freshwater

Objective 12: The quantity and quality of fresh water: (b) safeguard the life supporting capacity of water bodies.

Policy 14 - *Minimising contamination in stormwater from new developments.*

Policy 40 - *Safeguarding aquatic ecosystem health in waterbodies.*

Objective 13: The region's rivers, lakes and wetlands support healthy functioning ecosystems.

Policy 14 - *Protecting aquatic ecological function of water bodies.*

(120) The stormwater and ecological report prepared by Morphum Environmental (Appendix 5) has confirmed that the site is suited to residential development. However, to do so, ecological considerations are required as part of this plan change and subsequent resource consents. Engineering solutions will be required to manage the quality and quantity of stormwater discharge from the site. These solutions would ensure that the ecological health and function of the onsite Liverton Road Stream and tributaries and any downstream receiving environments could be maintained, as unmitigated development could have detrimental effects on the health and functioning of these watercourses.

(121) In this regard, an additional policy and alterations to existing rules and standards have been proposed for the subdivision chapter of the District Plan, which will ensure that appropriate considerations are given to the impacts of stormwater runoff and how it is managed to ensure the ecological health of the aforementioned. The proposal (including the associated proposed provisions) is therefore considered to be consistent with the above objectives and policies of the RPS.

Section 3.6 Indigenous ecosystems

Objective 16: Indigenous ecosystems and habitats with significant biodiversity values are maintained and restored to a healthy functioning state.

Policy 23 - *Identifying indigenous ecosystems and habitats with significant indigenous biodiversity values.*

Policy 24 - *Protecting ecosystems and habitats with significant biodiversity values.*

Policy 47 - *Managing effects on indigenous ecosystems and habitats with significant indigenous biodiversity values.*

Policy 64 - *Supporting a whole catchment approach.*

(122) An ecological assessment of the site has been undertaken (Appendix 5). This ecological assessment has identified the onsite streams and any downstream receiving environment as having ecological values that have the potential to be adversely affected by stormwater runoff. As the District Plan does not currently include provisions relating to stormwater management, these have been proposed as part of this Plan Change.

(123) The proposed General Recreation Activity Area zone will cover the majority of the area recognised as a potential SNA. The marginal balance of the SNA located within the proposed General Residential Activity Area is minor and will either be protected through the pending SNA Plan Change, or do not represent a significant impact.

(124) Given the matters discussed above, the proposed Plan Change is consistent with the intentions of the above objective and policies.

Section 3.7 Landscape

Objective 17: The region's outstanding natural features and landscapes are identified and their landscape values protected from inappropriate subdivision use and development.

Policy 25 - *Identifying outstanding natural features and landscapes.*

Policy 26 - *Protecting outstanding natural features and landscape values.*

Objective 18: The region's special amenity landscapes are identified and those landscape values that contribute to amenity and the quality of the environment are maintained or enhanced.

Policy 27 - *Identifying special amenity landscapes. Promoting discharges to land.*

Policy 28 - *Managing special amenity landscape values.*

(125) A landscape and visual assessment has been undertaken as part of the proposed Plan Change (Appendix 4). The assessment by Drakeford Williams Ltd has found that the application site does not meet the required thresholds to qualify as an Outstanding Natural Feature, Outstanding Natural Landscape, or Special Amenity Landscape and therefore the above objectives and policies are not applicable to this proposal. This is consistent with the draft landscape areas recently released by HCC for public feedback, which did not identify any outstanding or special landscapes within the subject site.

Section 3.8 Natural Hazards

Objective 19: The risks and consequences to people, communities, their businesses, property and infrastructure from natural hazards and climate change effects are reduced.

Policy 29 - *Avoiding inappropriate subdivision and development in areas at high risk from natural hazards.*

Policy 51 - *Minimising the risks and consequences of natural hazards.*

Objective 21: Communities are more resilient to natural hazards, including the impacts of climate change, and people are better prepared for the consequences of natural hazard events.

Policy 29 - *Avoiding inappropriate subdivision and development in areas at high risk from natural hazards.*

Policy 51 - *Minimising the risks and consequences of natural hazards.*

(126) The site is not situated in an identified natural hazard zone. A geotechnical assessment report has been prepared for the site (Appendix 5) and the resulting earthworks that would be required to enable a future subdivision (noting that the earthworks would be subject to a resource consent application). This report confirms the site can be developed for residential purposes. As such, the application site is not considered to be at a high risk from natural hazards and appropriate mitigation measures will be incorporated into the future subdivision and development to ensure that any relevant natural hazard risks (i.e. slope stability) are

addressed. As such, the proposal is considered to be consistent with these objectives and policies of the RPS.

Section 3.9 Regional Form, Design and Function

<u>Objective 22</u>: A compact well designed and sustainable regional form that has an integrated, safe and responsive transport network and:

(e) urban development in existing urban areas, or when beyond urban areas, development that reinforces the region's existing urban form;

(g) a range of housing (including affordable housing);

(h) integrated public open spaces;

(i) integrated land use and transportation; and

(k) efficiently use existing infrastructure (including transport network infrastructure);

<u>Policy 31</u> - *Identifying and promoting higher density and mixed use development.*

<u>Policy 33</u> - *Supporting a compact, well designed and sustainable regional form.*

<u>Policy 55</u> - *Maintaining a compact, well designed and sustainable regional form.*

<u>Policy 57</u> - *Integrated land use and transportation.*

<u>Policy 58</u> - *Co-ordinating land use with development and operation of infrastructure.*

<u>Policy 67</u> - *Maintaining and enhancing a compact, well designed and sustainable regional form.*

(127) Objective 22 and the associated policies seek to ensure a compact, well designed and sustainable regional form that provides a range of housing options. The area is identified for residential growth within the Long Term Plan and Urban Growth Strategy as it is a natural extension of an existing residential area. The proposed General Residential Activity Area zone remains within the urban limits of Hutt City thereby maintaining a compact urban form with sustainable use of existing infrastructure. The zoning will allow for a variety of housing densities and development forms (subject to obtaining any required resource consents).

(128) Zoning part of the site as General Recreation Activity Area would retain open space and conserve areas of ecological value within the City. Any potential future transfer of this land to Council would allow public access to the area for passive recreation.

(129) Objective 22 and the associated policies seek to ensure that development is undertaken within an existing urban environment in a manner which represents the efficient use of existing infrastructure. The site is located adjacent to an established residential area (being Kelson) and can be serviced, either by an extension of existing infrastructure where practicable or via the installation of new infrastructure (Appendix 2).

(130) The applicant has proposed a new policy to ensure that the proposal maintains the traffic safety of Liverton Road. This ensures that the site effectively uses existing infrastructure.

(131) The proposed rezoning would facilitate a more intensive pattern of residential development within the site than would otherwise be provided for by the existing zones. However, Kelson is serviced by public transport (bus), is located in proximity to a main transport link (State Highway 2) and a number of public amenities (recreational facilities, school and a local

amenity shops). As such, it is considered appropriate that the application site supports a higher level of development density than what is currently allowed for under the District Plan.

(132) Given the above factors, the proposal is considered to be consistent with the above objective and policies of the RPS.

Section 3.10 Resource Management with Tangata Whenua

Objective 23: The region's iwi authorities and local authorities work together under Treaty partner principles for the sustainable management of the region's environment for the benefit and wellbeing of the regional community, both now and in the future.

Objective 24: The principles of the Treaty of Waitangi are taken into account in a systematic way when resource management decisions are made.

Objective 25: The concept of kaitiakitanga is integrated into the sustainable management of the Wellington region's natural and physical resources.

Objective 26: Mauri is sustained, particularly in relation to coastal and fresh waters.

Objective 28: The cultural relationship of Māori with their ancestral lands, water, sites, wāhi tapu and other taonga is maintained.

Policy 66 - *Enhancing involvement of tangata whenua in resource management decision-making – non-regulatory*

Policy 48 - *Principles of the Treaty of Waitangi – consideration*

Policy 49 - *Recognising and providing for matters of significance to tangata whenua – consideration*

(133) The application site is not identified as having any specific cultural value or significance. As part of the plan change, consultation has been initiated with iwi, yet formal feedback has only been received from the Port Nicholson Block Settlement Trust, to date. This feedback raised no concern with the proposal.

(134) It is noted that any potential adverse stormwater impacts on the onsite streams (including the culturally significant Hutt River, as a downstream receiving environment) are proposed to be addressed through the proposed plan provisions and that areas of significant ecological value (i.e. draft SNA sites) will be largely protected from development, within the proposed General Recreation Activity Area. All other relevant ecological effects associated with higher density residential development will be addressed through subdivision and land use consents. This will ensure any cultural impacts are avoided, remedied or mitigated appropriately.

(135) Given the above factors, the proposal is considered to be consistent with the above objectives and policies of the RPS.

Section 3.11 Soils and Minerals

Objective 29: Land management practices do not accelerate soil erosion

Policy 15 - *Minimising the effects of earthworks and vegetation clearance – district and regional plans*

Policy 41 - *Minimising the effects of earthworks and vegetation disturbance – consideration*

Policy 68 - *Minimising soil erosion – non-regulatory*

(136) To enable the development of the site, resource consent will be required. The level of earthworks required for residential developments would trigger the thresholds in the District Plan. As part of any resource consent decision, erosion and sediment control measures would need to be installed on the site (as this is a matter that Council has restricted its discretion to when undertaking an assessment of earthworks applications). These measures would ensure that sediment runoff does not affect water quality and that the erosion risk during the site development works are addressed.

(137) It is acknowledged that in its current state, the site is relatively unmodified, and contains a variety of vegetation types. However, the most ecologically significant vegetation is identified as a potential SNA and will be largely contained within the area proposed for General Recreation Activity Area zoning. The effects of vegetation clearance are therefore minimised where possible. Any removal of vegetation required for residential development in the proposed General Residential Activity Area will be subject to current district plan standards, and will be subject to resource consent if these standards are breached.

(138) Given the above factors, the proposal is considered to be consistent with the above objective and policies of the RPS.

Regional Plans:

(139) Section 74(2)(a) (ii) of the RMA requires Council to have regard to a proposed regional plan of its region in regard to any matter of regional significance or for which the regional council has primary responsibility under Part 4.

Proposed Natural Resource Plan

(140) The proposed Natural Resources Plan for the Wellington Region (NRP) is a combined air, land, water and coastal plan. Once it is made operative it will replace the existing Regional Coastal Plan and the four current regional plans (Regional Air Quality Management Plan, Regional Freshwater Plan, Regional Plan for Discharges to Land and, Regional Soil Plan). As the NRP is not yet beyond challenge, a weighting assessment must be applied against the operative provisions.

(141) This Plan Change must have regard to the following objectives, policies in the proposed Natural Resource Plan, as detailed in Table 2.

Table 2: Key Natural Resources Plan objectives and policies

Objectives	**Policies**
Objective O9 *The recreational values of the coastal marine area, rivers and lakes and their margins and natural wetlands are maintained and enhanced.*	*Policy P9 - Provides that the reduction in public access along rivers and lakes should be avoided.*
Objective O17	*Policy P31 Requires aquatic ecosystem health and mahinga kai to be maintained or restored by*

The natural character of the coastal marine area, rivers, lakes and their margins and natural wetlands is preserved and protected from inappropriate use and development.	*managing the effects of use and development on physical, chemical and biological processes to achieve a range of outcomes, including minimising adverse effects on:* • *flow characteristics and hydrodynamic processes in rivers and natural wetlands* • *aquatic habitat diversity and quality; and* • *riparian habitats.*
Objective O23 *The quality of water in the region's rivers, lakes, natural wetlands, groundwater and the coastal marine area is maintained or improved.*	*Policy P33 More than minor adverse effects of activities on species known to be present in Schedule F1 watercourses shall be avoided, including discharging contaminants, seabed disturbance during spawning season and diversion of water such that the river would be impassable to migratory species.*
Objective O25 *To safeguard aquatic ecosystem health and mahinga kai in fresh water bodies and coastal marine area:* • *(a) water quality, flows, water levels and aquatic and coastal habitats are managed to maintain aquatic ecosystem health and mahinga kai, and* • *(b) restoration of aquatic ecosystem health and mahinga kai is encouraged, and* • *(c) where an objective in Tables 3.4, 3.5, 3.6, 3.7 or 3.8 is not met, a fresh water body or coastal marine area is improved over time to meet that objective.*	*Policy P37 and P38 Activities in and adjacent to natural wetlands shall be managed to maintain wetland values and wetland restoration shall be encouraged.*
Objective O28 *The extent of natural wetlands is maintained or increased and their condition is restored.*	*Policies P40, P41 and 42 Requires the protection and restoration of significant indigenous ecosystems, and activities to be avoided in these areas in the first instance unless in accordance with a restoration management plan. Where avoidance is not possible, adverse effects shall be managed by:* • *avoiding more than minor adverse effects;* • *where more than minor adverse effects cannot be avoided, remedying them;* • *where more than minor adverse effects cannot be remedied, mitigating them;* • *where residual adverse effects remain it is appropriate to consider the use of biodiversity offsets;* • *Proposals for mitigation and biodiversity*

	offsets are assessed against the principles listed in Schedule G.
Objective O48 *Stormwater networks and urban land uses are managed so that the adverse quality and quantity effects of discharges from the networks are improved over time.*	*Policy P62 Promotes the discharge of contaminants to land rather than water particularly where adverse effects are possible.*
	Policy P63 Lists the ways in which the adverse effects of discharges can be minimised including by using land-based treatment, constructed wetlands or other systems to treat contaminants prior to discharge.
	Policy P73 Minimise the adverse effects of stormwater discharges by using a range of measures, including good management practice and water sensitive urban design.
	Policy P95 Lists the ways in which the discharge of contaminants to land shall be managed, including ensuring the discharge does not result in more than minor adverse effects on soil health, not exceeding the natural capacity of the soil and not resulting in a discharge that enters water.
	Policy P97 Minimising the discharge of contaminants from earthworks using a source control approach, and using good management practices in site management, erosion and sediment control design operation and maintenance to minimise the adverse effects of sediment-laden stormwater discharges.
	Policy P98 Good management practice shall be used to minimise the risk of accelerated soil erosion, control silt and sediment runoff and ensure the site is stabilised and vegetation cover restored.
	Policy P102 Provides that reclamation of riverbeds (including piping over a length longer than necessary for a crossing) is to be avoided except under certain circumstances, including where it is associated with a growth and/or development framework or strategy approved by a local authority under the Local Government Act 2002 (and where no other practicable alternatives apply) or the reclamation is of an ephemeral flow path. *"Ephemeral flow path" is defined as a river that does not have an active bed, or has a bed that is predominantly vegetated, and only conveys water during or immediately following heavy rainfall events, and does not convey or retain water at other times*

Assessment against the proposed objectives and policies of the Proposed Natural Resources Plan

(142) The proposal is considered to have regard to the relevant objectives and policies of the Proposed Natural Resources Plan. Residential development of the site under the zoning proposed has the potential to result in some streambed loss, vegetation loss, stormwater runoff, erosion and sedimentation, flooding, and weed introduction. The ecological report prepared for the development of the site (Appendix 3b) has confirmed that the ecological effects can be mitigated.

(143) It is recognised that this development would be subject to a Regional Council (e.g. streambed loss) and/or District Council consent (e.g. earthworks). The potential and actual effects on ecology would be considered within this consenting framework, and if required, mitigation measures would be required.

(144) As part of the proposal, a new policy and additions to an existing rule and standard are proposed to ensure that the ecological values of the onsite streams and any downstream receiving environment are not degraded from stormwater runoff. This is because stormwater considerations are not currently addressed within the District Plan.

(145) Section 75(4)(b) states that a district plan must not be inconsistent with a regional plan. In this case, the operative Freshwater Plan and the Soil Plan are considered relevant. A summary of the policies relevant to this proposal are included below and followed by a concluding assessment.

Operative Freshwater Plan

(146) The Freshwater Plan has a number of general objectives and policies, followed by more specific objectives and policies that relate to certain aspects for which rules have been developed, including specific protection required for certain waterbodies.

(147) The key policies for this proposal are summarised in Table 3 below:

Table 3: Key Freshwater Plan policies

Policy 4.2.9	*Requires decision makers to have regard to a range of characteristics of watercourses when considering the protection of their natural character and the adverse effects of subdivision, use and development, including ecosystems, habitats and species, water quality, natural flow characteristics and hydraulic processes, and the topography and physical composition of watercourses.*
Policy 4.2.11	*Requires decision makers to avoid, remedy or mitigate adverse effects having regard to:* • the maintenance of biological and physical processes; • the maintenance of habitat for feeding, breeding and sheltering aquatic life; • the maintenance of the diversity of aquatic life; • the maintenance of the ability of fish to disperse and migrate; • the times which will least affect feeding, spawning, dispersal or migratory patterns of fish and other aquatic species; and • the prevention of irreversible adverse effects.
Policies	*Details the relevant considerations when determining the nature and extent of conditions, including the significance of adverse effects and the extent to which*

4.2.35-36	*the community benefits from the proposal.*
Policy 7.2.2	*Provides that uses of river beds should not be allowed where there have adverse effects on a range of listed values, including tangata whenua, natural amenity, lawful public access, flood hazard, bed or bank stability, water quantity and hydraulic processes, and safety.*
Policy 7.2.15	*Provides that reclamation or drainage should only be carried out when there are no practicable alternatives and there are significant benefits to the community.*

Operative Soil Plan

(148) The Soil Plan focuses on avoiding, remedying or mitigating the adverse effects associated with soil disturbance and vegetation removal activities, including accelerated erosion and sediment runoff.

(149) The key policies in relation to the earthworks and vegetation disturbance activities are provided in Table 4.

Table 4: Key Soil Plan policies

Policy 4.2.14	*To avoid, remedy or mitigate the adverse effects of vegetation disturbance by promoting:* • the maintenance and enhancement of vegetation in erosion prone areas; • the conversion of erosion prone areas to forestry or soil conservation woodlots, or regeneration or active restoration to native bush; • riparian management, including where this will help safeguard the lifesupporting capacity of aquatic ecosystems; • compliance with industry recognised standards and procedures such as the Logging Industry Research Organisation's (LIRO) “Forestry Code of Practice” (Second Edition, 1993); and/or • the maintenance and retention of erosion control plantings.
Policy 4.2.15	*To regulate soil disturbance activities to ensure that they are unlikely to have significant adverse effects on:* • erosion rates; • soil fertility; • soil structure; • flood mitigation structures and works; • water quality; • downstream locations; • bridges, culverts and other water crossing structures; • aquatic ecosystems; and • historic sites with tangata whenua values.
Policy	*To ensure that recognised erosion control and land rehabilitation techniques are*

4.2.16	*adopted to avoid, remedy or mitigate any adverse effects resulting from soil disturbance activities.*

Assessment against the relevant objectives and policies of the Regional Plans

(150) The proposal is considered to not to be inconsistent with the relevant objectives and policies of the Operative Freshwater Plan or the Operative Soil Plan. Residential development of the site under the zoning proposed has the potential to result in some streambed loss, vegetation loss, stormwater issues, erosion, sedimentation, flooding, and weed introduction. The ecological assessment prepared for the development of the site (Appendix 3b) has confirmed that the ecological effects can be mitigated.

(151) It is recognised that this development would be subject to a Greater Wellington Regional Council consent (e.g. any streambed loss) and/or District Council consent (e.g. earthworks, vegetation removal). The potential and actual effects on ecology would be considered within this consenting framework, and if required, mitigation measures would be required.

(152) As part of the proposal, a new policy and alterations to the existing rules and standards are proposed to ensure that the ecological values of the onsite streams and any downstream receiving environment are not degraded from stormwater runoff. This change is required because stormwater considerations are not currently addressed within the District Plan.

Other Relevant Management Plans and Strategies

(153) Section 74(2)(b)(i) of the RMA requires territorial authorities to consider management plans and strategies prepared under other Acts.

(154) A number of other non-statutory strategies and policies, produced by Greater Wellington Regional Council (GWRC) and Hutt City Council (HCC), have been considered in preparing the proposed Plan Change. These are:

- Long-Term Plan 2018 - 2028;
- Economic Development Plan 2015 – 2020;
- Urban Growth Strategy 2012 – 2032;
- Environment Sustainability Strategy 2015 – 2045; and
- Housing Policy 2008.

Long-Term Plan 2018-2028 (LTP)

(155) The Long Term Plan sets the following targets in relation to Urban Development:

- Target population growth of 0.6% per annum to ensure that at least 110,000 people live in the city by 2032; and
- A target of 6000 new houses by 2032.

(156) The Long Term Plan sets the following targets in relation to Kelson:

- To provide for residential development on approximately 40 – 50 hectares in the Upper Kelson area;
- To partner with developers to provide key infrastructure for Greenfield development including roading and water infrastructure in Upper Kelson; and

- Investigate the provision of community facilities that may be required as a result of increasing population growth in the Upper Kelson area.

(157) The proposed Plan Change would allow for the additional supply of residential sections in Kelson through being able to undertake more intensive development on the site than what is currently allowed for under the District Plan. This increased development potential would assist with Council meeting these targets and is being undertaken within the Upper Kelson area as envisioned by the LTP.

(158) The proposed Plan Change is therefore considered to be consistent with the Long Term Plan.

Economic Development Plan 2015 – 2020 (EDP)

(159) The EDP provides a vision for economic development from 2015 - 2020. The EDP includes four areas of focus for Hutt City Council and its strategic partners. These are listed below in order of priority:

1. Grow science, technology, engineering and manufacturing capability and businesses;
2. Rejuvenate the Hutt CBD;
3. Stimulate growth and development;
4. Continue business support.

(160) One of the measures under the Stimulate Growth and Development heading is to increase the number of residential developments from 281 per year to 310 per year and increasing the value of residential development from $66.3 million to $73 million. The Plan Change would assist with Council achieving these measures and therefore is considered to be consistent with the EDP.

Urban Growth Strategy 2012 – 2032 (UGS)

(161) In 2012, Hutt City Council approved its Urban Growth Strategy that encourages 6,000 houses to be constructed in the District over the next 20 years. When preparing the Urban Growth Strategy, Council reviewed all Rural Residential-zoned land and remaining undeveloped residential land within the city to assess its suitability for general residential development. Through this process, land at the end of Major Drive, Kelson was identified as suitable for moderate to large scale residential development.

(162) The Urban Growth Strategy specifically seeks to provide 40-50 hectares of greenfield development within the upper Kelson Area. The land in Kelson could provide between 300-600 sections, if it was fully rezoned to General Residential Activity Area and developed.

(163) The proposal would allow for residential development of two large blocks of land (approximately 7.1ha in total area) in Kelson in a manner that is consistent with the envisioned character of the adjoining urban area. It is therefore considered that the proposed Plan Change is meeting the intended outcomes of the Urban Growth Strategy.

Environmental Sustainability Strategy 2015 – 2045 (ESS)

(164) The ESS sets out Council's ambitions to protect, enhance or repair the environment. The ESS identifies seven key focus areas: water, waste, transport, land use, biodiversity, energy and risk and resilience. Each focus area is led by three overarching strategic goals – lead, protect and enhance. The proposed Plan Change incorporates measures that respond to the biodiversity and land use focus areas of the Strategy. The majority of ecologically significant areas on the site are to be rezoned to General Recreation Activity Area to provide them with the greatest level of long-term protection under the current District Plan provisions. Stormwater management provisions are proposed to manage any potential for adverse

effects on the onsite streams and downstream receiving environment. It is therefore considered that the Plan Change does not conflict with the ESS.

Housing Policy 2008 (HP)

(165) The HP seeks to provide affordable housing within the City. Two of the key objectives of the Policy is:

- To help ensure that the housing needs of Hutt City are met and to improve the affordability of housing in Hutt City by;
  - increasing the supply of residential developments;
  - ensuring there is a more balanced mix between intensive housing and non-intensive housing developments, particularly around shopping centres and key transport routes; and
  - ensuring a supply of social housing for the elderly and socially disadvantaged.
- Ensure the District Plan and associated intensive housing design guidelines recognise and maintain appropriate levels of residential amenity.

(166) The proposed Plan Change would allow for the additional supply of residential sections through being able to undertake more intensive development on the site than what is currently allowed for under existing District Plan zonings. The potential sections resulting from the proposal would allow for a range of housing sizes and development density to be undertaken on the site. It is considered that the potential development density resulting from the proposal Plan Change would be consistent with the District Plans expectations for the character of the wider environment. The proposal is therefore considered to be consistent with the HP.

Iwi Management Plans

(167) There are no relevant Iwi Management Plans.

District Plans in the Wellington Region

(168) Section 74(2)(c) of the RMA requires territorial authorities to consider the extent to which a Plan Change needs to be consistent with the plans or proposed plans of adjacent territorial authorities.

(169) The proposed Plan Change involves an area of land that is located well within the boundaries of the City of Lower Hutt. It will have no effect on the operative plans or proposed plans of any adjacent territorial authorities and as such, will not be inconsistent with them. All adjoining territorial authorities have been consulted, with no issues raised to date.

City of Lower Hutt District Plan - Objectives and Policies

(170) This section reviews the current objectives and policies of the District Plan pertaining to the General Residential Activity Area, General Recreation Activity Area, Hill Residential Activity Area, Rural Residential Activity Area, Subdivision, Transport and Earthworks Chapters, and explores whether these are sufficient to provide the required level of policy support to the proposed Plan Change.

(171) The General Residential Activity Area provisions are currently being reviewed by proposed

Plan Change 43. Proposed Plan Change 43 was publicly notified on 9 November 2017 and the further submission phase closed on 4 September 2018. Therefore, the provisions proposed by Plan Change 43 have no legal effect yet and this plan change is assessed against the current operative provisions of the General Residential Activity Area.

Chapter 1 Introduction and Scope of the Plan

(172) Chapter 1 of the City of Lower Hutt District Plan identifies the Area Wide objectives which the District Plan seeks to achieve. The area wide objectives which are considered to be relevant to the Plan Change are as follows:

1.10.1 - Resource Management and Tangata Whenua of Lower Hutt

Objective: To respond to the principles of the Treaty of Waitangi and other matters of significance to the tangata whenua as specified in the Act.

Policies

(a) *To have particular regard to tangata whenua's desire to carry out kaitiakitanga.*

(b) *To protect waahi tapu and sites of cultural or historical significance to tangata whenua from desecration or disturbance.*

(c) *To recognise and protect the tangata whenua desire to maintain and enhance their traditional relationship with the environment.*

(d) *To consult with the tangata whenua when discharging functions and duties under the Act.*

1.10.2 - Amenity Value

Objective: To identify, maintain and enhance the character and amenity values of the different activity areas.

Policy

To identify within all activity areas the general character and amenity values of that activity area

1.10.3 - Residential Activity

Objective: To accommodate residential growth and development through consolidation of the existing urban area but to allow some peripheral development.

Policies

(a) *To provide opportunities for gradual intensification of residential densities by:*

- ***(i)*** *Enabling higher densities along major transport routes and near suburban focal points,*
- ***(ii)*** *Providing for infill development throughout the established residential areas to appropriate minimum standards, and*
- ***(iii)*** *Managing the rate at which land at the periphery of the urban area is developed for residential purposes.*

1.10.6 - Recreation and Open Space

Objective: To provide and maintain a diverse range of open space and recreation facilities for the enjoyment of residents and visitors which meet the needs of different sectors of the community.

Policy

(a) *To ensure the adequate provision of open space for the passive recreational needs of the community.*

(b) *To ensure adequate provision of larger open space areas for active and passive recreation.*

(c) *To ensure the protection and enhancement of areas of special recreation amenity.*

(d) *To ensure the conservation of natural and heritage features and landscapes.*

(173) Consultation has been initiated with iwi as part of the plan change process. Formal feedback has only been received from the Port Nicholson Block Settlement Trust to date. This feedback raised no concern with the proposal.

(174) The proposed policy and alterations to the existing rules and standards to address stormwater runoff are appropriate, to manage any potential adverse effects on ecological values of the onsite streams and downstream receiving environments (namely the Hutt River), which are of cultural relevance.

(175) The LTP and UGS identify this area as a site for future residential growth as it is on the fringe of the urban area of Hutt City. The location of the site will retain the consolidation and sustainability of the existing urban area. This is further reinforced by objectives and policies of the District Plan that recognises the potential for rural residential land to convert to higher density residential use over time. The proposed Plan Change responds to the NPS-UDC as it provides an opportunity for additional residential development (catering for a range of housing options) in an area which is appropriate for this land use.

(176) It is recognised that the site is located next to an established residential area which is serviced by existing infrastructure and social, recreational and cultural facilities (such as Kelson Primary School, the local church and the shops situated on Major Drive). State Highway 2 and the local roading network will be able to accommodate the additional traffic flow which could result from a future subdivision of the site. Given these factors, it is considered appropriate to apply a zoning of General Residential Activity Area to 7.1ha of the 12.6ha site.

(177) The Area Wide objectives and policies of the District Plan recognise that properties within the General Residential Activity Area are readily able to be developed either as a result of their natural topography, or as a result of bulk earthworks undertaken as part of the subdivision which created those properties. While the application site is undulating, with a steep to moderately steep hillside topography, there are many examples on the eastern and western hills of Lower Hutt where properties which have a slope angle, which is similar to that of the application site, are also within the General Residential Activity Area. The geotechnical report (Appendix 5) confirms that the site is suitable for residential development, which will be subject to engineering considerations through resource consent. It is therefore considered that the General Residential Activity Area is appropriate for the topography of the application site.

(178) As part of the proposed Plan Change, a 5.5ha portion of the site would be rezoned to the General Recreation Activity Area. This area of site that is to be rezoned to the General Recreation Activity Area will increase the ability to undertake informal recreational activities (i.e. walking) in the local environment and provide greater protection of ecologically valuable areas from future development (i.e. residential development is a Discretionary Activity in this zone).

(179) While there are no significant landscapes values associated with the site, residential development will be limited to the non-vegetated, more accessible slopes, which are less visible in views into the site from surrounding properties than the steeper bush clad slopes.

Summary

(180) No changes are required to these Objectives and Policies as a result of the proposed rezoning.

(181) Overall, it is considered that the Plan Change will contribute to achieving these Objectives and Policies. Rezoning the site to the General Residential and General Recreation Activity Areas will achieve a balance between maintaining the amenity values and character of the local environment, while ensuring that the most appropriate development form for the site is achieved. It is considered that maintaining the status quo would not be as effective or efficient in achieving these Objectives and Policies.

General Residential Activity Area:

4A 1.1.1 - Residential Character and Amenity Values

Objective: ***To maintain and enhance the amenity values and residential character of the General Residential Activity Area of the City.***

Policy

(a) *That opportunity be provided for a diversity of residential activities.*

(b) *To ensure residential amenity values are retained, protected and enhanced through the establishment of a net site area per dwelling house.*

(c) *That adverse effects arising from noise, dust, glare, light spill and odour be managed.*

(d) *That vegetation and trees which add to the particular amenity values of the area be retained where practicable.*

(e) *That the clearance of vegetation be managed to avoid, remedy or mitigate any adverse effects on the intrinsic values of ecosystems.*

(182) The majority of the suburb of Kelson is situated in the General Residential Activity Area. The proposed rezoning would allow for a development form on the application site that is consistent with the established pattern of development within this suburb. In this regard, the proposal is consistent with the character of the wider area.

(183) Policies (a), (b), and (c) anticipate, and will provide for, a range of residential activities within the application site. The proposed General Residential Activity Area zoning will be consistent with the majority of the developed residential sites which adjoin the external site boundaries. The existing General Residential Activity Area rules will ensure that any future development undertaken as a result of this plan change is consistent with the anticipated character and amenity values of the local environment.

(184) For controlled activity subdivisions, the District Plan sets a net site area of 400m² within the General Residential Activity Area. The rule framework of the District Plan however does anticipate higher density development through the provision of multi-unit residential developments (however such developments are identified restricted discretionary activities and must be assessed through the resource consent process). The rules that control density would be equally applicable to the application site as the other properties that surround the site that are also in the General Residential Activity Area.

(185) With regard to Policies (d) and (e), these ensure that due consideration is given to vegetation with higher amenity values and that the effects of vegetation removal in general is undertaken in such a way that, if required, avoids, remedies or mitigates the adverse effects on essential values of ecosystems. The majority of land identified as potential SNA, with

indigenous vegetation, will be contained within the proposed General Recreation Activity Area zone, which is an appropriate way to maintain the ecological values. As such, it is not appropriate to rezone the entire 12.6ha site to General Residential Activity Area. It is noted that there are two smaller portions of the draft SNA areas (approximately 0.2ha), located within the proposed General Residential Activity Area. Ground truthing ecological investigations recommend a revision of this SNA within Lot 1, potentially reducing this portion of draft SNA.

4A 1.2.1 - Building Height, Scale, Intensity and Location:

Objective: ***To avoid, remedy or mitigate adverse effects caused by building height, intensity and location on the amenity values of adjacent residential sites and the residential character of the surrounding residential area.***

Policy

(a) *To establish a minimum net site area and maximum site coverage requirement to ensure medium density development is achieved.*

(b) *To ensure all new development is of a height and scale, which is compatible with surrounding residential development.*

(c) *To ensure a progressive reduction in height of buildings the closer they are located to a site boundary, to maintain adequate daylight and sunlight to adjoining properties.*

(d) *To manage the siting of all buildings so as to minimise detraction from the character and visual attractiveness of the surrounding residential activity area.*

(e) *To manage the siting of all buildings so as to minimise detraction from the amenities of adjoining properties.*

(f) *To establish a minimum permeable surface area to assist with the sustainable management of stormwater.*

(g) *That where practicable, the siting of accessory buildings be managed to maintain safety and visibility during manoeuvres.*

(186) The wording of this objective and the supporting policies is largely consistent across a number of the residential subzones within the District Plan, including the General and Hill Residential Activity Areas. Essentially the District Plan seeks to ensure that residential buildings maintain the amenity values and residential character of neighbouring properties. The proposed General Residential Activity Area zoning would ensure that the amenity values of the neighbouring properties are maintained through the bulk and location rules that exist in this chapter.

(187) The site sits within a residential landscape and access to the site is through local streets that contains residential development. The landscape and visual assessment (Appendix 4) considers that the development form that would result from the proposed General Residential Activity Area would remain consistent with the character of the wider environment. Furthermore, residential development will be limited to the largely non-vegetated, more accessible slopes, which are less visible from surrounding properties than the steeper bush clad slopes.

(188) The above policies are specific to the bulk and location of buildings. While no buildings are proposed as part of this Plan Change application, the existing suite of rules in the General Residential Activity Area Chapter are considered to be satisfactory to ensure future buildings and structures are in keeping with the development character and patterns of the local environment. Achieving compliance with the existing rule provisions of the General

Residential Activity Area is considered to be sufficient to achieve the outcomes sought by these policies. No additional provisions, specific to the site, are required to achieve the outcomes intended by these bulk and location policies.

(189) For the reasons above, it is considered that the site is able to support a higher density of development than that envisioned under the existing Hill Residential Activity Area or Rural Residential Activity Area.

Summary

(190) No changes are required to these Objectives and Policies as a result of the proposed rezoning.

(191) Areas of the site (identified as proposed General Residential Activity Area) are better suited to the outcomes sought by these Objectives and Policies as they provide for intensification of development where it can best achieve a consolidated urban form and sustainable use of existing services and infrastructure.

Rural Residential Activity Area:

8A1.1.1 - Rural Residential Character and Amenity Values

Objective: To ensure that the character and amenity values of rural residential areas are maintained and enhanced.

Policy

(a) *To provide for rural residential development where the existing activities and subdivision pattern have established areas with rural residential characteristics and amenity values.*

(b) *To ensure that the adverse effects of activities do not detrimentally affect rural residential character and amenity values or the intrinsic values of ecosystems.*

(c) *To allow for small businesses providing products and services to the entire City and where a rural environment is more appropriate because of the scale and effects generated by the activities.*

(d) *To ensure that rural residential character and amenity values are not compromised by inappropriate subdivision standards.*

(192) This Rural Residential Activity Area Objective and Policy would no longer be relevant under the proposed rezoning, with the General Residential and General Recreation Activity Area objectives and policies becoming applicable.

(193) The outcomes of this Objective and Policy would be low density residential development. This is not considered appropriate to achieve the scale and intensity of residential growth which has been identified for this area under the Long Term Plan and Urban Growth Strategy. The objectives and policies of the General Residential Activity Area provide for higher density developments.

(194) Rural Residential developments generally occur in close proximity to urban development and some, such as the western hills of the Hutt Valley, anticipated a zone change (such as the one proposed) as the urban environment expanded.

(195) The landscape and visual assessment (Appendix 4), states that the proposed Plan Change is suitable for this area. The site is relatively contained within a shallow valley, which is backdropped by the Belmont Hills and Belmont Regional Park in wider views from Hutt City to the west. The east facing slopes above Kaitangata Crescent are screened in views from the floor of Hutt Valley by intervening landform, namely the reservoir knoll on Benhar Close.

The steep west facing slopes are visible from the floor of Hutt Valley, although the flatter tops of the spurs are screened by vegetation within the site and on-site boundaries. Furthermore, the proposed General Recreation zoning provides an opportunity to maintain the landscape and amenity values of the most valued areas of vegetation and onsite streams.

(196) It is noted that rural residents who will remain to the north, east and south of the site (post proposed Plan Change) would be buffered from any future residential development by landform and existing bush cover, which reduces the potential for adverse effects on the visual amenity values of the hillside environment and on existing residential character and amenity (refer to Appendix 4).

8A1.1.2 - Opportunity for Future Urban Growth

Objective: ***To retain land as rural residential, recognising that it may be appropriate to utilise the land for urban expansion in the future if demand justifies this.***

Policy

(a) *To allow for rural residential development adjacent to urban environments where it may be appropriate for there to be expansion of the urban environment in the long term future.*

(197) This Rural Residential Activity Area Objective and Policy would no longer be relevant under the proposed rezoning, with the General Residential Activity Area objectives and policies becoming applicable.

(198) This site was identified for residential growth in the UGS and LTP. As identified in this objective and policy of the District Plan, it is appropriate to convert rural residential land to residential when the demand justifies it. The site is now in demand for such a transition and will achieve consistency with the NPS-UDC by doing so. The application site is considered particularly suitable for General Residential Activity Area zoning due to its proximity to existing services, topography and relationship to urban development. Furthermore, the site has been deemed appropriate for residential use by all appended specialist reports.

8A1.1.3 - Liverton Road

Objective: ***To recognise that it is not appropriate for there to be further growth in the number of vehicles using Liverton Road.***

Policy

(a) *To require subdivisions creating opportunity for further dwellings or new activities that will generate traffic movements to use alternative routes to Liverton Road.*

(199) This Rural Residential Activity Area Objective and Policy would no longer be relevant under the proposed rezoning. However, the intent of the policy outcome will pass through to a proposed new policy that will sit under the engineering Objective under Chapter 11 which will seek to continue to restrict vehicular access to Liverton Road.

8A1.1.4 - Recreation

Objective: ***To allow rural residential areas to be used for recreation and leisure activities, where amenity values and character are not adversely affected.***

Policy

(a) *To allow for activities that provide recreational opportunities or ancillary facilities that support recreational activities.*

(200) This Rural Residential Activity Area Objective and Policy would no longer be relevant under the proposed rezoning, with the General Recreation Activity Area objectives and policies becoming applicable.

(201) The proposed Plan Change includes a General Recreation Activity Area zone of 5.5ha to provide recreation and leisure activities to the wider area and maintenance of ecological values and landscape character.

8A1.2.1 - Minimum Requirements for Sites and Buildings

Objective: ***To recognise those elements within a site that determine the character and amenity values of rural residential areas and manage them appropriately.***

Policy

(a) *To ensure the character and amenity values of rural residential areas are maintained and enhanced through specific minimum site area conditions for dwellings.*

(b) *To require minimum setback requirements and maximum site coverage for all buildings.*

(c) *To establish appropriate minimum conditions for the size and shape of sites.*

(d) *To manage the siting of all buildings and structures to mitigate the effects of a flood hazard on development.*

(202) This Rural Residential Activity Area Objective and Policy would no longer be relevant under the proposed rezoning, with the General Residential and General Recreation objectives and policies becoming applicable.

(203) This Objective and Policy for the Rural Residential Activity Area envisions a lower density of development than the General Residential Activity Area. In this regard, it is considered that, given the site is an area identified in the UGP and LTP for future residential growth and is surrounded by properties in the General Residential Activity Area, the low-density outcomes sought by this existing zone, do not represent the most efficient use of the site. As such, it can be considered that the objectives and policies in the General Residential Activity Area represent a more appropriate outcome for the site, than those outlined above.

(204) The proposal has been assessed by a Landscape Architect (Appendix 4). This assessment considers that the resulting development form that would result from the General Residential Activity Area is in keeping with the character of the wider environment. As such, it is considered that the site is able to support a higher density of development than what is envisioned under the existing zoning.

Summary

(205) No changes are required to these Objectives and Policies as a result of the proposed rezoning.

(206) The site is better suited to the zoning proposed by this Plan Change as it allows for preservation of areas of draft SNA (within the proposed General Recreation Activity Area) and provides for intensification of development (within the proposed General Residential

Activity Area) where it can best achieve a consolidated urban form and sustainable use of existing services and infrastructure. As such, it can be considered that the objectives and policies in the General Residential Activity Area and General Recreation Activity Area represent a more appropriate outcome for the site, than those outlined above.

Hill Residential Activity Area:

4D 1.1.1 - Residential Character and Amenity Values

Objective: ***To maintain and enhance the distinct characteristics and amenity values associated with the hillside residential areas of the City.***

Policy

(a) *That the visual appearance and nature of earthworks be managed to minimise the adverse effects on the visual amenity values of the hillside environment.*

(b) *That the clearance of vegetation be managed to avoid, remedy or mitigate any adverse effect on the visual amenity values of the hillside environment or the intrinsic values of ecosystems.*

(c) *That where practicable significant trees which contribute to the amenity values of the hillside areas be retained.*

(d) *That where practicable, the natural appearance of the skyline be preserved from development to maintain its visual appearance.*

(e) *To ensure residential amenity values are maintained, protected and enhanced through the establishment of a net site area.*

(207) This Hill Residential Activity Area Objective and Policy would no longer be relevant under the proposed rezoning, with the General Residential objectives and policies becoming applicable. Landscape characteristics are however proposed to be retained under the proposed Plan Change.

(208) The site is characteristic of the Kelson landscape with the landform folded into rolling spur and gully slopes. It is acknowledged that the site does exhibit several elements that make it consistent with the Hill Residential Activity Area (such as vegetated gullies and streams).

(209) The proposal has been assessed by a Landscape Architect (Appendix 4). This assessment considers that the development form that would result from the proposed Plan Change is in keeping with the character of the wider environment. The proposed residential land avoids the steeper hill slopes and gullies, which will minimise effects on existing streams and native bush cover. Residential development will be limited to the less vegetated, more accessible slopes, which are less visible from surrounding properties than the steeper bush clad slopes.

(210) While large scale earthworks will be required for residential development, it is possible to mitigate the effects of earthworks through revegetation of exposed areas, particularly those fill batters adjoining existing bush. Given the topography, it is unlikely that more engineered cut faces will be visible from outside the site and they too can be grassed and left to naturally revegetate over time.

(211) Given this finding, the site is able to support a higher density of development than what is envisioned under the existing Hill Residential Activity Area objectives and policies.

4D 1.2.1 - Site Stability

Objective: ***To ensure future development does not affect adversely the stability of the site.***

Policy

(a) *That earthworks and the clearance of vegetation be managed to ensure the stability of the site and to avoid, remedy or mitigate any consequential adverse effects on neighbouring properties.*

(212) The objective and policy identify a fundamental outcome that should be sought by all development that occurs on sloping property. However, it is also noted that the outcomes sought under this objective are also sought under the earthworks chapter and Section 106 of the Act. In this regard, if this objective and policy is no longer applied to the site (because the General Residential Activity Area does not contain this policy), then this would not result in an outcome that is not covered by other aspects of the District Plan and Resource Management Act 1991. Furthermore, a geotechnical report for the site has been prepared (Appendix 5). The report concludes that the site is not constrained, to any particular degree, by the topography and that it is suitable for residential development.

4D 1.2.2 - Building Height, Scale, Intensity and Location

Objective: ***To avoid, remedy or mitigate adverse effects caused by building height, intensity and location on the amenity values of adjacent residential sites and the residential character of the surrounding residential area.***

Policy

(a) *To establish a minimum net site area and maximum site coverage to ensure low density development is achieved.*

(b) *To ensure all new development is of a height and scale which is compatible with surrounding residential development.*

(c) *To ensure a progressive reduction in height buildings the closer they are located to a site boundary to maintain adequate daylight and sunlight for adjoining properties.*

(d) *To manage the siting of all buildings so as to minimise detractions from the character and visual attractiveness of the surrounding residential activity area.*

(e) *To manage the siting of all buildings so as to ensure that any detraction from the amenities of adjoining properties are no more than minor.*

(f) *That the scale and siting of garages and carports be managed to reduce the need for extensive excavation into the hillside, and to enhance the streetscape and amenity values of adjoining sites.*

(213) This Objective and Policy for the Hill Residential Activity Area envision a lower density of development than the General Residential Activity Area. In this regard, it is considered that, given the site is an area identified in the UGP and LTP for future residential growth and is surrounded by properties in the General Residential Activity Area, the low-density outcomes sought by this existing zone, do not represent the most efficient use of the site. As such, it can be considered that the objectives and policies in the General Residential Activity Area represent a more appropriate outcome for the site, than those outlined above.

(214) The wording of these objective and policies are largely consistent across a number of the Residential subzones within the District Plan, including the General Residential Activity Areas. The outcomes sought under this Objective are relevant and appropriate for the site. However, as the General Residential Activity Area contains a similar worded objective it is considered that the proposed Plan Change will not result in a change in overall outcomes sought from constructing residential buildings (albeit at a higher density as allowed for under the General Residential Activity Area when compared to the Hill Residential Activity Area).

(215) The proposal has also been assessed by a Landscape Architect (Appendix 4). This assessment considers that the resulting development form that would result from the General Residential Activity Area is in keeping with the character of the wider environment. It is considered that the site is able to support a higher density of development than what is envisioned under the existing Hill Residential Activity Area.

Summary

(216) No changes are required to these Objectives and Policies as a result of the proposed rezoning.

(217) The site is better suited to the zoning proposed by this Plan Change as it allows for preservation of areas of draft SNA (within the proposed General Recreation Activity Area) and provides for intensification of development (within the proposed General Residential Activity Area) where it can best achieve a consolidated urban form and sustainable use of existing services and infrastructure. As such, it can be considered that the objectives and policies in the General Residential Activity Area and General Recreation Activity Area represent a more appropriate outcome for the site, than those outlined above.

General Recreation Activity Area:

7A 1.1.1 - Adverse Effects of Recreation Activities on Adjoining Residential Activity Areas

Objective: ***To ensure that recreation activities have adverse effects, which are no more than minor on adjoining residential activity areas.***

Policy

(a) *To ensure that recreation activities are of a scale and character that amenity values of adjoining residential activity areas are not affected adversely.*

(b) *To ensure that adverse effects, such as noise, glare, light spill and odour, generated by activities in the General Recreation Activity Area, are managed to ensure that residential amenity values are maintained.*

(218) Objective 7A 1.1.1 is a broad objective that seeks to ensure that recreation activities do not have significant effects on the adjoining residential activities. This objective recognises that a variety of activities can be undertaken on recreationally zoned land, and in some instances, it is appropriate that the effects of these are controlled through the District Plan rules.

(219) Policy 7A 1.1.1 (a) and (b) seeks to ensure that recreational activities are of a scale and character that maintains the amenity values of the adjoining residential properties. The proposed area to be rezoned General Recreational Activities would adjoin residential properties. Due to the topographical and ecological constraints with this area, any recreational activities undertaken are likely to be low intensity and informal (like walking). These low intensity and informal activities are considered to maintain the amenity values of the adjoining residential properties.

(220) The outcomes sought under this objective and associated policies remain relevant and therefore, it is considered that the current wording of this objective associated policies is appropriate, and no changes are required as part of this plan change.

7A 1.1.2 - Recreation Areas Need to be Compatible with the Characteristics of the Land

Objective: ***To ensure that recreation activities carried out are compatible with the physical characteristics of the land.***

Policy

(a) *To encourage land of suitable topography to be developed and used for formal and active forms of recreation.*

(b) *To avoid bush-clad areas of high amenity values from being used and developed for formal and active forms of recreation.*

(c) *To ensure that bush-clad areas are protected from inappropriate use and development.*

(d) *To ensure that recreation activities carried out in bush-clad areas do not compromise visual amenity values.*

(221) This objective and associated policies recognise that the recreational activities carried out on a site respond to the corresponding physical characteristics of the land. In the Hutt Valley, the General Recreation Activity Area covers a variety of land characteristics including flat sports fields, through to vegetated hillsides. The proposed area of General Recreation Activity Area will generally be a vegetated hillside and is only intended to accommodate informal recreational activities (e.g. walking tracks). This intended recreational use is consistent with other parcels of land that are situated in the same zone, with similar terrain, within the Hutt Valley. As such, this objective and associated policies are considered to be appropriate for the proposed Plan Change.

Summary

(222) No changes are required to these Objectives and Policies as a result of the proposed rezoning.

(223) Areas of the site (identified as proposed General Recreation Activity Area) are better suited to the outcomes sought by these Objectives and Policies as they allow for the preservation of areas of draft SNA.

Subdivision:

11.1.1 - Allotment Standards

Objective: ***To ensure that land which is subdivided can be used for the proposed use or development.***

Policy

(a) *To ensure that allotments have minimum design standards such as, minimum size, shape and frontage, which are suitable for the proposed use or development.*

(224) The above objective and policy are relevant, regardless of the zoning of the site. The Objective and Policy are broad and ensure that any allotments created are fit for the purpose that is determined by the underlying zoning. This is supported through the rule framework of the District Plan that sets minimum allotment size, shape and frontage requirements for the various zones of the District Plan. Given the broad nature of this objective and the policy, the current wording is relevant and appropriate to the proposed Plan Change and will ensure that appropriate environmental outcomes for the site are achieved.

11.1.2 - Engineering Standards

Objective: ***To ensure that utilities provided to service the subdivision protect the environment and that there are no adverse effects on the health and safety of residents and occupiers.***

Policy

(a) *To ensure that utilities provided comply with specified performance standards relating to such matters as access, street lighting, stormwater, water supply, wastewater, gas, telephone, electricity and earthworks.*

(225) This Objective recognises that utilities need to protect the environment and that there are no adverse effects on the health and safety of residents. The services report (Appendix 2) confirms that the proposed rezoning is appropriate for this site, as it can be appropriately serviced.

(226) This Policy provides an emphasis on ensuring that subdivisions comply with the standards relating to utilities. However, unlike the objective, the requirement to consider the effects on the environment from servicing the subdivision is absent. It is important that the engineering provisions incorporated into the future development of the site recognise watercourses and requires measures to ensure that they (and their downstream receiving environments) are not degraded as a result of future development. The absence of environmental considerations under this policy means this requirement is not currently provided for in the policy framework pertaining to engineering design for subdivisions.

(227) As such it is considered that a site-specific policy is needed to address this matter. The proposed policy (and associated rules and standards) ensure that future development manages stormwater discharge to minimise potential adverse impacts on onsite streams and their downstream receiving environments. The broad wording of the above Objective remains appropriate to support the proposed policy.

11.1.4 - Special Areas

Objective: ***To ensure that land in the coastal environment, areas adjoining lakes and rivers and other environmentally sensitive areas are protected from inappropriate subdivision.***

Policy

(a) *To ensure that land in the coastal environment, areas adjoining rivers and lakes and other environmentally sensitive areas are not subdivided to an extent or manner where amenity values, ecological, social, cultural and recreational conditions are adversely affected.*

(228) This Objective and Policy recognise the need for environmentally sensitive areas to be protected from inappropriate subdivision. The application site contains draft SNA's (as identified by Hutt City Council). This Objective and Policy require the protection of these areas from inappropriate subdivision and that the ecological and amenity values of these areas are not adversely affected.

(229) This Objective and Policy will continue to support the proposed stormwater management provisions that are proposed by this Plan Change, to ensure the on-going ecological health of onsite streams and their downstream receiving environments.

Summary

(230) The existing Subdivision Objectives and Policies should remain in place. However, a new site- specific policy is proposed to ensure stormwater runoff to the onsite streams (and downstream receiving environments) is appropriately managed.

Transport

Objective 3.1: Safe, efficient, resilient and well-connected transport network that is integrated with land use patterns, meets local, regional and national transport needs, facilitates and enables urban growth and economic development, and provides for all modes of transport.

Objective 3.2: Adverse effects from the construction, maintenance and development of the transport network on the adjacent environment are managed.

Objective 3.4: Adverse effects on the safety and efficiency of the transport network from land use and development that generate high volumes of traffic are managed.

Objective 3.5: Adverse effects on the safety and efficiency of the transport network from on-site transport facilities (vehicle access, parking, manoeuvring and loading facilities) are managed.

Policy 14A 4.1

Additions and upgrades to the transport network should seek to improve connectivity across all modes and be designed to meet industry standards that ensure the safety, efficiency and resilience of the transport network are maintained.

Policy 14A 4.2

Land use, subdivision and development should not cause significant adverse effects on the connectivity, accessibility and safety of the transport network, and, where appropriate, should:

- *seek to improve connectivity within and between communities; and*
- *enable walking, cycling and access to public transport.*

Policy 14A 4.3

The transport network should be located and designed to avoid, remedy or mitigate adverse effects on the adjacent environment.

Policy 14A 4.5

Any activity that is a High Trip Generator must be assessed on a case by case basis. Adverse effects of High Trip Generators on the safety and efficiency of the transport network should be managed through the design and location of land use, subdivision or development.

Policy 14A 4.6

Vehicle access, parking, manoeuvring and loading facilities should be designed to standards that ensure they do not compromise the safety and efficiency of the transport network.

Policy 14A 4.7

The transport network, land use, subdivision and development should provide for all transport modes.

(231) The above Objectives and Policies seek to ensure that appropriate levels of roading access

is provided to meet the expected level of demand, in a safe manner, while having particular regard to amenity values of the local area. The continued use of this Objective and these Policies will assist with the provision of appropriate roading connections to the area in a manner that requires the consideration of the amenity values of the local environment.

(232) A traffic assessment report has been prepared as part of the proposed Plan Change (Appendix 6). The report confirms that adequate connections are available to the site from Major Drive and that the anticipated demand resulting from the change to zoning can be accommodated within the existing roading network. The report identifies that there are access limitations from Liverton Road and that access to and from this route to the south-east should be restricted. Some site-specific transport matters will need to be addressed at the resource consenting stage.

(233) The site can be rezoned to General Residential Activity Area and developed for residential purposes with the development meeting the transportation related objectives, policies and rules of the District Plan.

Summary

(234) No changes are required to these Objectives and Policies as a result of the proposed rezoning.

Earthworks

14I 1.1 - Natural Character

Objective: ***To ensure that earthworks are designed to maintain the natural features that contribute to the City's landscape.***

Policy

(a) *To ensure that earthworks are designed to be sympathetic to the natural topography.*

(b) *To protect significant escarpments, steep hillside areas, and the coastal area by ensuring that earthworks are designed to retain the existing topography, protect natural features, and prevent erosion and slips.*

(235) It is acknowledged that in its current state, the site is relatively unmodified. It is also acknowledged that higher density residential development of this site would modify this landform. When earthworks are undertaken, it will modify the sites natural characteristics. As resource consent will be required for these earthworks, consideration will be given to ensure the development remains sympathetic to the natural topography of the site.

(236) The application site does not contain any significant escarpments and is not located in a coastal area.

(237) Hutt City Council has identified a draft SNA overlay which falls within Lots 1 and 2 of the application site. The majority of the draft SNA will be located within the proposed General Recreation Activity Area. Any potential ecological effects of residential development in the proposed General Residential Area Zone can be assessed through the resource consent process. Potential for stormwater runoff to enter onsite streams will be managed through the proposed new policy and alterations to the existing rules and standards in the subdivision chapter of the District Plan.

(238) A geotechnical report for the site has been prepared (Appendix 5). The report concludes that the site is not constrained to any particular degree by the undulating topography and that it is suitable for residential development.

(239) It is therefore considered that the proposed Plan Change is consistent with the outcomes sought under the above Objective and Policy of the District Plan.

14I 1.2 - Amenity, Cultural and Historical Values:

Objective: ***To ensure earthworks do not affect adversely the visual amenity values, cultural values or historical significance of an area, natural feature or site.***

Policy

(a) *To protect the visual amenity values of land which provides a visual backdrop to the City.*

(b) *That rehabilitation measures be undertaken to mitigate adverse effects of earthworks upon the visual amenity values.*

(c) *To protect any sites with historical significance from inappropriate earthworks.*

(d) *To recognise the importance of cultural and spiritual values to the mana whenua associated with any cultural material that may be disinterred through earthworks and to ensure that these values are protected from inappropriate earthworks.*

(240) While the application site is located on undulating land, the landscape and visual assessment prepared for the proposed Plan Change (Appendix 4) considers that the site is relatively contained within a shallow valley, which is backdropped by the Belmont Hills and Belmont Regional Park. The east facing slopes above Kaitangata Crescent are screened in views from the floor of Hutt Valley by intervening landform, namely the reservoir knoll on Benhar Close. The steep west facing slopes are visible from the floor of Hutt Valley, although the flatter tops of the spurs are screened by vegetation. As such, the site is not considered to form a backdrop to the city.

(241) It is acknowledged that in its current state, the site is relatively unmodified, and is covered with a variety of vegetation types. A resource consent application will be required for any extensive modification to the site (e.g. earthworks). Mitigation measures are likely to be required, by condition of consent, that ensure the overall amenity values of the local environment are maintained (i.e. revegetation of exposed earthwork areas).

(242) The application site is not identified in the Plan as having any unique historical or cultural significance. As part of the plan change, consultation has been initiated with iwi, yet formal feedback has only been received from the Port Nicholson Block Settlement Trust. This feedback raised no concern with the proposal.

(243) It is therefore considered that the proposed Plan Change is consistent with the outcomes sought under the above objective and policies of the District Plan.

Summary

(244) No changes are required to these Objectives and Policies as a result of the proposed rezoning.

Proposed District Plan Change 43: Residential and Suburban Mixed Use

(245) Proposed Plan Change 43 “Residential and Suburban Mixed Use” was publicly notified on 7 November 2017. The hearing for this plan change is still to be had and therefore the provisions proposed by Plan Change 43 have no legal effect yet. However, given this plan change is to be heard this year, it is prudent that this proposal is considered against the

potential outcomes that may result.

(246) This proposed Plan Change reviews the General Residential Activity Area provisions and proposes the introduction of two new activity areas, providing for medium density residential development and suburban mixed use in targeted areas.

(247) The purpose of proposed Plan Change 43 is to provide for greater housing capacity and a wider range of options for housing styles and sizes at medium densities within the existing urban area.

(248) Proposed Plan Change 43 provides for additional infill housing and medium density development in the General Residential Activity Area. New provisions are proposed which would increase the development potential for sites larger than 1400m^2 in area. Under Plan Change 43, the sites subject to the plan change would be larger than 1400m^2 and therefore the proposed rules under Plan Change 43 would apply to the site. These rules would allow for terraced and clustered houses, shared parking and outdoor living areas. Buildings could be up to 10 metres high and cover up to 60% of the site, while restricting building height in relation to the rear and side boundaries with recession planes and boundary setbacks to protect neighbouring properties. However, under the proposed provisions of PC 43 a development of this form would require resource consent and would be assessed under the Medium Density Design Guide. Part of this assessment includes ensuring the development form would be compatible with the character of the surrounding area.

(249) Proposed Plan Change 43 includes objectives to ensure that residential activities are the dominant activities in General Residential areas, and to ensure that built development is compatible with the amenity levels associated with low to medium density residential development.

(250) It is noted that proposed Plan Change 43 does not have legal effect and cannot be considered in relation to this proposed Plan Change. Regardless, it is noted that the application site and the wider Kelson area is not specifically targeted under PC43, as either a proposed Suburban Mixed Use Activity Area or a Medium Density Residential Activity Area, as is it does not meet the location requirements for the two new activity areas (i.e. it is not located in or around one of the nine targeted suburban centres identified). It is therefore expected that this site would remain a General Residential Activity Area.

Effects of the Proposed Plan Change

(251) While not a statutory requirement of a section 32 analysis under the RMA, the following effects assessment assists with determining the appropriateness of the proposed Plan Change.

Amenity and Character Effects

(252) The application site is located on the lower slopes of the Western Hutt hills, at the northern end of Major Drive, the main road servicing the suburb of Kelson. It comprises three separate properties (280 Major Drive, 50 Kaitangata Crescent and 204 Liverton Road), that together total 12.58ha. The properties at 280 Major Drive and 50 Kaitangata Crescent each have a single dwelling established dwelling on them, while 204 Liverton Road is vacant. The site is adjoined by the General Residential Activity Area to the south-west, Hill Residential to the west and Rural Residential Activity Areas to the north, south and east.

(253) The existing zoning anticipates low-density residential development. The density of development provided for under the current Hill Residential Activity Area zoning (being a minimum net site area of 1000m²) and Rural Residential Activity Area (being a minimum net site area of 2ha) is far less than that of the adjoining General Residential allotments (minimum net site area of 400m²).

(254) Development on the application site under Hill Residential conditions would still conceivably contain a roading network, streetlights, footpaths, services and the ensuing residential built form, being up to 8m high dwellings that could cover a maximum of 35% of their respective net site areas.

(255) Development on the application site under Rural Residential conditions would still conceivably contain roading, services and the ensuing residential built form, being up to 8m high dwellings or accessory buildings, that could cover a maximum of 450m^2.

(256) The landscape and visual assessment prepared by Drakeford Williams (Appendix 4) for the proposed Plan Change concludes that the resulting development form from the proposed change in zoning (to General Residential Activity Area) is appropriate within the context of the local environment and will be consistent with the established residential character of the Kelson area. In limited close and midground views from properties in Drummond Street, Major Drive, the development would be perceived as an extension of the existing suburban housing area. In more distant views from rural residential properties to the north and east, there would be a change in land use to a more intensive pattern of residential development, but one compatible with the established Kelson suburb and with limited impact on the existing rural amenity. From a landscape and visual perspective, Drakeford Williams conclude the General Residential Activity Area zoning is appropriate for this site.

(257) Under the existing District Plan provisions 11.2.2.3, the assessment criteria for residential development must be taken into account when considering an application for consent. These criteria include:

> *"Subdivisions should be designed in a manner which recognises and gives due regard to the natural and physical characteristics of the land and adverse effects are avoided, remedied or mitigated." (11.2.2.3(a))*

(258) This assessment criteria allow Council to have control over the final form of the subdivision and to ensure that its layout, form and density is consistent with the topography of the site and the intended character and amenity values of the local environment.

(259) In addition, the existing permitted bulk and location standards within the district plan would control the form of dwelling development on the site. If a future dwelling does not comply with one or more of the permitted bulk and location standards, then a resource consent would be required, and the resulting environmental effects would require consideration. These existing operative provisions were considered within the landscape assessment by Drakeford Williams and are considered to remain suitable for the proposed rezoning without further amendment.

(260) The proposed General Residential Activity Area also provides opportunities for higher density forms of development, or multi-unit residential development. This form of development is subject to the resource consent process (starting as a Restricted Discretionary Activity), and assessed on a case by case basis, to ensure potential adverse effects are at a level that is deemed acceptable through the consideration of an application against the requirements of the Design Guide and the Objectives and Policies of the Plan. While the proposed Plan Change does not seek to further enable this higher form of development, when compared to

the existing provisions of the District Plan, no additional restrictions or limitations are proposed to reduce the potential for this type of development to occur on the site.

(261) The zoning of 5.5ha of the site to General Recreation Activity Area, discourages the location of residential buildings or structures in this area (these would be classified as a Discretionary Activity). Given this area contains the majority of the ecologically significant areas of the site, the stringent development controls that exist within the rule framework of the General Recreation Activity area is considered appropriate to ensure potential effects are managed to ensure the visual amenity values of the site are maintained.

(262) To facilitate development of the application site under both the current and proposed zones it is likely substantial earthworks would be required to create suitable building areas and roading access to future allotments/dwellings. The proposed Plan Change does not propose the development of the site, but in any case, the appropriateness of the existing earthwork provisions within the District Plan are considered further for this site.

(263) Presently, earthworks on any site zoned Hill Residential Activity Area, are not a Permitted Activity (i.e. they require resource consent approval prior to being undertaken). Both the existing Rural Residential Zone and proposed General Residential and General Recreation zoning would allow for a level of earthworks to occur as a Permitted Activity (up to 50m^3 of earth could be disturbed, and the existing ground levels could be altered by up to 1.2m (cut or fill)) without triggering the need for resource consent.

(264) Given the scale of the earthworks required to facilitate a residential subdivision in the proposed General Residential Activity Area, these provisions would not be met and resource consent would be required. The resource consent would allow for the Council to consider several effects associated with the proposed earthworks including:

- *Amenity Values: The extent to which any earthworks proposal will affect adversely the visual amenity values of the area, and the extent to which the earthworks will cause unnecessary scarring and be visually prominent. Consideration must be given to adverse effects on visual amenity values, and the value of the site as a visual backdrop to the city. The extent to which replanting or rehabilitation works are included as part of the proposal to mitigate adverse effects. Earthworks should not result in the permanent exposure of excavated areas.*

(265) As such, the existing earthworks standards and matters of control within the General Residential Activity Area would be sufficient to allow Council to assess and manage the effects of earthworks, including requiring changes to the design of the earthworks or impose conditions of consent that ensure the amenity effects from the earthworks are appropriately mitigated, remedied or avoided.

(266) The residential development of the site would also require vegetation clearance. Under the District Plan, and the provisions of Plan Change 36 (which are yet to become operative), resource consent would be required for vegetation removal, where the vegetation exceeds 500m^2 in area (this limit does not apply to pest species of plants). Any substantial residential development of the site would trigger the need for a resource consent for vegetation clearance. Under the District Plan, vegetation clearance is an identified Restricted Discretionary Activity, with one of the matters that Council has restricted its discretion to being:

- *Amenity - The extent to which the proposal will affect adversely the visual amenity values of the site and surrounding area. The visual prominence of the vegetation and any replacement planting to be undertaken will be taken into consideration.*

(267) These matters would allow for Council to require changes to vegetation removal or impose conditions of consent that ensure the environmental effects from the vegetation clearance in relation to amenity values are appropriately mitigated, remedied or avoided. This might include the mitigation of any potential edge effects.

(268) It is considered that given these existing District Plan rules, any resulting effects from the development of the property for residential purposes would be appropriately addressed and that the proposed Plan Change will not result in unacceptable environmental outcomes.

Ecological Effects

(269) The operative District Plan identifies large substantive stands of significant vegetation as a Significant Natural Resource (SNR). These SNR's cover a large area of the Hutt Valley. The application site is not located within an identified SNR. It is acknowledged that not being located in a SNR does not preclude there being ecological value, as in this case, parts of the site have been identified as draft SNA's (as identified by Hutt City Council). However, the plan change for incorporating SNAs within the District Plan has not yet been publicly notified and remains at a pre-schedule 1 or draft stage with the identified areas having no legal effect.

(270) Notwithstanding this, this proposed Plan Change addresses the issue by proposing the areas of vegetation and gully be rezoned as General Recreation Activity Area which will adequately protect the majority of this area, as this zone generally discourages development. While earthworks are provided for as a Permitted Activity within this area, it is limited to 50m³ and changes in ground level by a maximum of 1.2m in height. This is considered sufficiently restrictive that any earthworks undertaken in this area would be small scale, thereby ensuring the ecological values of this area are maintained until such time as the SNA plan change is formally notified.

(271) Within the area proposed for General Residential Activity, approximately 0.2ha is also identified as a draft SNA[4]. It is noted in the ecological assessment (Appendix 3b) that 0.14ha of this (within Lot 1) is actually gorse-dominated scrub with relatively low ecological significance[5].

(272) The majority of the draft SNA is proposed within the General Recreation Activity Area, with only a small area within the proposed General Residential Activity Area not having any impact on the validity of this proposed Plan Change as it can still be addressed under the future SNA Plan Change. The existing District Plan rules regarding vegetation clearance within the General Residential Activity Area are therefore considered to be appropriate (given that there is no SNR overlay and the majority of potential SNA's are located within the area

[4] Appendix 3b notes that a 0.06ha 'finger' of draft SNA (within Lot 2) within the proposed General Residential Activity Area which exhibits 'wetland characteristics' (possibly resulting from a possible historical farm crossing and stock pugging at the base of the gully). It is noted that this area is no longer identified as a proposed SNA by HCC.

[5] Equally, the area or boundary of the SNA could be amended based on the 'site specific' ecology assessment undertaken as part of this plan change (refer to Appendix 3b).

proposed for General Recreation Activity). Any potential edge effects and weed introduction from vegetation clearance and residential development will be assessed during the resource consent process.

(273) The streams within the site and their downstream receiving environments will be protected from the effects of stormwater runoff from residential development by a proposed new policy and alteration to the existing rules and standards. Greater Wellington Regional Council's Freshwater Plan and Proposed Natural Resources Plan also has objectives, policies and rules regarding works in and around waterbodies. This will ensure an additional layer of protection is currently, and will continue to be, afforded to the onsite streams and the downstream receiving environments in this area.

(274) All other potential ecological effects as identified in Appendix 3b (e.g. erosion and sedimentation) will be appropriately considered during the resource consent process.

Natural Character Effects

(275) The District Plan seeks to ensure that earthworks do not result in unnecessary scarring of the landscape, and removal of vegetation. This is supported through Policy 14I 1.1 (b) which states: "*protect the distinctive characteristics, including steep hillsides, significant escarpments, and extensive vegetation cover, which contribute to the visual amenity values*." This policy applies to all zones in Hutt City.

(276) To facilitate residential development on the site, earthworks would be required for roading, house platforms, and services installation. Under the existing Hill Residential Activity Area and Rural Residential Activity Area zone, all earthworks require resource consent. The site is not subject to any specific landscape restrictions within the operative plan nor has the site been identified within the recent draft landscape areas (Outstanding Natural Features and Special Landscapes). Further, the landscape assessment has confirmed the site is suitable to accommodate development consistent with the General Residential Activity Area.

(277) The proposed General Residential zoning would allow for a level of earthworks to occur as a Permitted Activity. Up to 50m³ of earth could be disturbed, and the existing ground levels could be altered by up to 1.2m (cut or fill) without triggering the need for resource consent. Given the scale of the earthworks required to facilitate a residential subdivision, these provisions would not be met and resource consent would be required. The resource consent would allow for the Council to consider several effects associated with the proposed earthworks including:

- *Existing Natural Features and Topography: The extent the proposed earthworks will alter the natural topography. Earthworks in these activity areas should be designed to retain the natural topography and protect natural features.*

These matters would allow Council to require changes to the design of the earthworks or impose conditions of consent that ensure the environmental effects from the earthworks is relation to natural character are appropriately mitigated, remedied or avoided.

(278) Part of the site is proposed to be rezoned to the General Recreation Activity Area to ensure that the surrounding vegetation (identified as potential SNAs) is predominantly protected from being removed as the site is developed.

(279) It is considered that given these existing District Plan considerations pertaining to earthworks, and the proposed General Recreation Activity Area, any resulting effects from the development of the property for residential purposes would be appropriately addressed. The proposed Plan Change will not result in unacceptable environmental outcomes in

relation to natural character as a result of earthworks.

Infrastructure Effects

(280) The proposed General Residential Activity Area would allow for a higher density of residential development to be undertaken on the site when compared to the existing zoning. A review of the capacity of the services within the local area has been undertaken by Cuttriss Consultants Limited, with findings detailed in the assessment report attached in Appendix 2. As part of the work by Cuttriss Consultants, consultation was undertaken with Wellington Water Limited (Appendix A of Infrastructure report) to assertain the existing infrastructure capacity for the area and identify any constraints which may exist.

(281) The infrastructure report considered the water, wastewater, power, telecommunications and stormwater capacity in the local area. The reports finds that this existing infrastructure either has sufficient capacity to accommodate the additional demand generated by a future residential development of the site; or that where constraints might exist (such as adequate pressure for firefighting) new infrastructure can be provided to the site and this is best addressed via the resource consent process. It is considered that adequate provisions already exist within the District Plan to give Council the ability to consider such matters through the resource consent process.

(282) To support the Cuttriss Consultants services assessment an ecological assessment has been undertaken by Morphum which considers the impacts associated with the increased impervious areas on the receiving environment (Appendix 3b). A new policy and additions to the existing rules and standards have been proposed to manage stormwater and ensure the effects of a future residential development of the site do not adversely impact on the onsite streams and their downstream receiving environments.

Natural Hazard Effects

(283) The application site is not located in an identified natural hazards zone.

(284) The potential natural hazard risk present on the property is slope instability from earthworks. In this regard, a geotechnical report for the site has been prepared (Appendix 5). The report concludes that the site (where General Residential Activity Area zoning is proposed) is not constrained to any particular degree by the topography and that it is suitable for residential development.

(285) It is also recognised that when the landowner proposes to subdivide the site, it would be subject to an assessment under Sections 6(h) and 106 of the Resource Management Act 1991. This assessment would allow for a more in-depth consideration of any potential natural hazard risks, that may become apparent as a result of detailed site investigations.

(286) It is considered that given the above factors, there are no natural hazard risks that would result in the proposed General Residential Activity Area zone being an inappropriate zone for the site.

Recreational Effects

(287) The application site is currently privately owned, with no ability for the public to use the site for recreational purpose. As part of the plan change, it is proposed to rezone a portion of the property to the General Recreation Activity Area to facilitate its future use as passive reserve. In this regard, the proposed Plan Change has positive recreational benefits as it is creates an area of recreational zoning that does not currently exist, thereby allowing for an increase in open space in the local environment.

(288) It is considered that given the above factors, there are no recreational effects that would

result in the proposed Plan Change being inappropriate for the site.

Historical and Cultural Effects

(289) The application site is not identified in the Plan as having any unique historical or cultural significance.

(290) As part of the plan change, consultation has been initiated with iwi, yet formal feedback has only been received from the Port Nicholson Block Settlement Trust. This feedback raised no concern with the proposal.

(291) As part of the plan change process, a new policy and additions to the existing rules and standards are proposed to address stormwater runoff from the site, to ensure that the ecological health of the onsite streams and their downstream receiving environments are not compromised. In this regard, the proposed Plan Change is improving the potential historical and cultural effects that could result from the development of the site currently.

(292) It is considered that given the above factors, there are no historical or cultural effects that would result in the proposed Plan Change being inappropriate for the site.

Traffic Effects

(293) The potential traffic related effects of the proposal to rezone the site to General Residential Activity Area and the resulting residential development have been assessed in the traffic assessment contained in Appendix 6.

(294) This report focuses on the traffic effects which could result from potential residential development enabled by the change in zoning and whether any traffic safety or efficiency effects would arise within the existing traffic environment. The report also considers the traffic associated with the future development of the residentially zoned land at 89 Waipounamu Drive.

(295) The report concludes that in terms of traffic effects, the site represents a suitable location for residential zoning. It identified that limitations exist with regard to Liverton Road, and it would be inappropriate for further intensification of traffic movements along this road due to its narrow and winding nature. It however concludes, that the local road network to the west (being Major Drive) and State Highway 2 could readily accommodate the additional traffic generated from the expected level of development, without compromising the network's safety and efficiency.

(296) It is recommended that at the resource consent stage the existing footpath on Kaitangata Crescent is extended to opposite to the northernmost access to the subdivision. The existing Major Drive bus service could be extended into the site, but provision would need to be made for turning at the resource consent stage.

(297) Overall, it is considered that the potential traffic effects can be appropriately addressed by the existing District Plan rules and the proposed Plan Change would not result in any significant traffic effects.

Economic Effects

(298) While the economic effects of the proposed Plan Change have not been quantified, they are considered to be positive. This is due to the proposed General Residential Activity Area allowing for a greater intensity of residential development on the site. This means an increased yield in the number of residential properties, and therefore an increased number of people living in the local area. This will assist with supporting the local shops as well as retail, service and commercial businesses in the wider environment.

(299) The proposed General Residential Activity Area does not encourage or support non-residential businesses being established (with the exception of small-scale home occupations). As such, the proposed Plan Change is not going to result in the creation of a commercial or retail hub that will compete with existing commercial centres.

(300) The proposed Plan Change measures would add additional costs to the future development of the site. However, any additional costs that would result are small relative to the total costs associated with the subdivision of the site or the construction of the dwelling. As such, these additional costs are considered to not result in undue economic effects which would prevent residential development from occurring.

(301) It is therefore considered that there are no economic effects that would make the proposed Plan Change inappropriate for the site.

Evaluation of Options

(302) Section 32(2)(b) requires that if practicable the benefits and costs of a proposal are quantified. Quantifying costs and benefits would add significant time and cost to the s32 evaluation. Given the moderate scale and significance of the proposed Plan Change, exact quantification of the benefits and costs is not considered necessary to distinguish between the available options.

(303) During the preparation of this plan change the following five options have been considered:

Option 1: Do nothing (i.e. retain the existing Plan zones and provisions);

Option 2: Rezone the entire site to General Residential Activity Area;

Option 3: Rezone the entire site to Hill Residential Activity Area;

Option 4: Undertake a Structure Plan with site specific provisions; and

Option 5: Rezone the site to General Residential Activity Area (with site specific standards for stormwater treatment and runoff and traffic management onto Liverton Road) and General Recreation Activity Area (i.e. the proposed Plan Change).

Table 5: the benefits, costs, efficiency and effectiveness of each broad option

Option 1: Do nothing (i.e. retain the existing Plan provisions)
Opportunities for Economic Growth and Employment • The potential for economic growth is limited to what is allowed for under the District Plan for the site (1000m² lots in Hill Residential Activity Area or 2ha in Rural Residential Activity Area) or via a resource consent application.
Benefits • The site could be developed in conjunction with the existing zone provisions. There is a degree of certainty associated with these provisions around the density of development that could be achieved. • There would be no costs associated with the Plan Change process.
Costs

- There would be significant uncertainty associated with any further intensification of the site as this would be considered against the existing objectives, policies and rules pertaining to the Hill Residential Activity Area and Rural Residential Activity Area.
- The development potential of a serviced site within the existing urban boundaries would not be fully realised. The proposed Plan Change allows urban growth and development of this area as identified in the UGS and LTP.
- There would be a lost opportunity to provide additional informal recreational activities in the local environment.
- It would be difficult to require the treatment of stormwater as part of the development as there are no specific policies or rules in the District Plan requiring this. As such, the development of the site under the existing provisions of the District Plan could result in poor environmental outcomes for the on-site stream. This would be inconsistent with the outcomes sought under the Regional Policy Statement and the Resource Management Act (section 6).
- There are potential cultural issues associated with any degradation of onsite streams and their downstream receiving environments as a result of stormwater runoff.
- The community would not have access to the site as they would if it were zoned for General Recreation Activity.
- The existing vegetation which has contributed to the site being identified as a proposed SNA could be compromised.

Risk of Acting or Not Acting

- If the Council does not act, the site retains zoning that is considered to not be the most appropriate to meet the purpose of the Resource Management Act 1991.
- If the Council does not act, the Council foregoes an opportunity to ensure efficient and effective zoning to meet the objectives expressed in the UGS and giving effect to the NPS-UDC.
- There is a risk that the site would be developed at lower intensity, that is more at a level that is envisioned under the Hill Residential Activity Area zone (being 1000m² lots) or Rural Residential Activity Area (being 2ha lots), which would represent a lost opportunity cost.
- If a future developer tried to undertake an intensive development of the site, it would be subject to an assessment against the existing objective, policies and rules for the Hill Residential Activity Area and Rural Residential Activity area and therefore there is significant risk as to whether this higher density development could be supported through the resource consent process.

Efficiency and Effectiveness

- The efficiency of this option is considered low. The costs (economic, social and environmental) significantly outweigh the benefits.
- The effectiveness of this option is low because it would result in the site retaining its existing zoning, which is not considered the most appropriate zone to meet the

purpose of the Act given the existing development form in the local area, the geographic location of the site within an existing urban boundary, and the ecological values of the local environment.

Overall Assessment of Option

- This option is not recommended as it does not strike a balance between development potential of the site being realised and the ecological values of the local environment being protected. The option would lead to poorer environmental outcomes and reduced development potential, which represents a lost opportunity cost.

Option 2: Rezone the entire site to General Residential Activity Area

Opportunities for Economic Growth and Employment

- This option provides for the maximum economic growth as it allows for the entire site to be developed for residential purposes. This would result in the maximum potential yield from the site to be realised, which would provide the greatest employment and economic opportunities for the site.

Benefits

- The proposal would result in the most residential lots being achieved on the site which is within the existing urban boundary.
- The density of development arising from the proposal would be comparable and consistent with what has been achieved on the residential sites to the south-west.
- There would be certainty associated with any further intensification of the site as this would be considered against the existing objectives, policies and rules pertaining to the General Residential Activity Area.
- Allows the Council to better meet its housing supply requirements under the NPS-UDC, when compared to the existing zone and resource consent decision.
- Allows growth and development of this area, as identified in the UGS and LTP.

Costs

- The costs associated with the plan change process, including the preparation of expert reports to support the plan change.
- The onsite stream and areas with potential SNA status, would remain unprotected and could be removed, damaged or modified. This would be inconsistent with the outcomes sought under the RPS and the RMA (section 6).
- There is the potential for development to occur on the site with no recognition of the effects from stormwater runoff, which could result in poorer environment outcomes for the onsite streams, as well as the wider receiving environment.
- There would be a lost opportunity to provide additional informal recreational activities in the local environment.
- There are potential cultural issues associated with the degradation of the onsite

streams as a result of stormwater runoff.

Risk of Acting or Not Acting

- If the Council does not act the site retains zoning that is not considered to be the most appropriate to meet the purpose of the RMA.
- If the Council does not act, it foregoes an opportunity to meet the objectives expressed in the UGS as well as giving effect to the NPS-UDC.
- If Council acts, there is a risk from rezoning the entire site to the General Residential Activity Area that poor environmental outcomes could arise. This would be from a combination of the possible loss of the onsite stream ecology as well as any off-site effects from untreated stormwater runoff.
- The risk of acting is that the existing undeveloped form of the site would change in response to the residential development that would be facilitated.

Efficiency and Effectiveness

- The effectiveness of this option is low because it would result in the site intensifying in development to the point where ecological values are at risk, which is not considered to meet the purpose of the Act or the existing objectives of the District Plan.
- While the proposal would result in the most dwellings being established on the site, the efficiency of this option is low because the environmental costs significantly outweigh the benefits.

Overall Assessment of Option

- This option is not recommended as it could result in poor environmental outcomes, which would result in the loss or degradation of regionally significant ecosystems.

Option 3: Rezone the entire site to Hill Residential Activity Area

Opportunities for Economic Growth and Employment

- This option provides for minimal economic growth as it allows for low density residential development. This would result in a lower potential yield from the site to be realised, which would provide the least employment and economic opportunities for the site.

Benefits

- Lower density development would complement the existing development form in the surrounding Hill Residential Area.
- Any potential effects from intensified residential development are minimised.

Costs

- The onsite streams and areas with potential SNA status, would remain unprotected and could be removed, damaged or modified. This would be inconsistent with the

outcomes sought under the RPS and the RMA (section 6).

- Does not allow the Council to meet its housing supply requirements under the NPS-UDC, when compared to the existing or proposed zoning.
- Does not allow for the growth and development of this area, as identified in the UGS and LTP.
- There are costs associated with the plan change process, including the preparation of expert reports to support the plan change.

Risk of Acting or Not Acting

- If the Council does not act, the site retains a zone that is considered to not be the most appropriate to meet the purpose of the Resource Management Act 1991.
- If the Council does not act, the Council foregoes an opportunity to meet the objectives expressed in the UGS as well as giving effect to the NPS-UDC.
- The risk of acting is that the existing undeveloped form of the site would change in response to the residential development that would be facilitated.
- If the Council does act, the level of housing development would be reduced from what the site could realise and therefore Council foregoes an opportunity to meet the objectives expressed in the UGS as well as giving full effect to the NPS-UDC.

Efficiency and Effectiveness

- The effectiveness of this option is low because it would result in the site reducing its development potential to a point where it is not considered to meet the purpose of the Act or the existing objectives of the District Plan.
- While the proposal would result in lower density development (which is consistent with some of the surrounding properties), the efficiency of this option is low because the economic and social costs significantly outweigh the environmental benefits.

Overall Assessment of Option

- This option is not recommended as it would not provide for urban growth on a site which (the need for which is set out in the LTP, UGS and NPS-UDC).

Option 4: Structure Plan with site specific provisions

Opportunities for Economic Growth and Employment

- This option would provide for high economic growth as it allows for the site to be developed in a comprehensive manner. This would result in close to the maximum potential yield from the site to be realised, which would provide the greatest employment and economic opportunities for the site.

Benefits

- A structure plan would provide a high degree of certainty for the outcomes that would be realised on the site.
- Would provide more certainty regarding housing supply under NPS UDC
- Allows nuanced rules to address any site specific provisions required to enable medium density residential housing.

Costs

- Less flexibility at consenting stage
- Significantly greater upfront financial cost associated with the preparation of the plan change as a greater level of information is required to support a structure plan.
- Takes longer to prepare the plan change due to the greater level of inputs.
- The structure plan outcomes may not be materially different than what could arise through the resource consent process, given the existing objectives, policies and rules that apply to the General Residential Activity Area. As such, a structure plan may to a degree, duplicate existing provisions that exist in the District Plan.
- A structure plan approach, particularly one that promotes medium density housing, would be inconsistent with how the District Plan currently, and (under Plan Change 43) proposes to zone properties for multi-unit medium density residential housing. The District Plan uses the location of shopping centres and public transport nodes as the bases for where medium density housing is located. While the site has limited access to public transport, it is not serviced by a shopping centre. The scale of the proposed development is such that it does not warrant the inclusion of its own shopping centre. On this basis, to develop a structure plan for the site that has medium density housing would be contrary to the Lower Hutt City approach to the zoning of sites for medium density residential housing.

Risk of Acting or Not Acting

- The risk of acting is that the existing undeveloped form of the site would change in response to the residential development that would be facilitated.
- The risk of acting is that it would result in a medium density site specific zone that is inconsistent with how the District Plan generally identifies areas as being appropriate for rezoning to medium density areas. This would then result in a tension with the framework with how medium density areas are identified and could potentially undermine this framework within the District Plan.
- There is a financial risk associated with proceeding with this option as the costs to prepare a structure plan are considerably higher than a rezoning of the site and given the District Plans current approach to medium density housing (as outlined in the point below), this approach could result in a zone that does not best meets the purpose of the Act and therefore compromises the potential success of the plan change.
- The risk of not acting means that either the site would be developed to its existing Hill Residential Activity Area and Rural Residential Activity Area density (which represents a lost opportunity in terms of lot yield) and would result in Council not

being able to meet its growth requirements under the National Policy Statement for Urban Development Capacity.

- The risk of not acting means that no protection is afforded to the onsite streams or terrestrial vegetation (which have been identified as a potential SNAs) via the current zoning or specific provisions.

Efficiency and Effectiveness

- The efficiency of this option is only moderate because the significant upfront costs combined with uncertainty of the plan change process outweighs the benefits that might be achieved through a marginally increased development yield. The efficiency is also reduced through the virtue that zoning the site for medium density residential housing through a structure plan would be inconsistent with how the District Plan currently and proposes (through Plan Change 43) to zone sites specifically for medium density housing.
- While a structure plan would be effective in confirming the number of dwellings that could be established on the site, the increase in yield may not be materially greater than what could arise from the a General Residential Activity Area zoning given the topographical and ecological constraints of the site, and the proposed rule framework, which would allow for multi-unit residential development providing the environmental effects were addressed and the development form could meeting the outcomes sought under the objectives, policies, rules and the design guide. On balance, it is considered that a structure plan approach is not an effective as rezoning of the site to General Residential Activity Area.

Overall Assessment of Option

- This option is not recommended as while it would provide for a known amount of urban growth on the site, the upfront costs and low flexibility at the consenting stage outweigh the potential benefits in this location.

Option 5: Rezone the majority of the site to General Residential Activity Area with site specific standards for stormwater treatment, and traffic management onto Liverton Road and rezone the northern portion rezoned for General Recreation Activity Area (Recommended Option).

Opportunities for Economic Growth and Employment

- This option provides for enhanced economic growth when compared to Option 1 and 3 as it allows for an increase in housing supply when compared to what could be established on the site under the existing zone rules. However, the amount of economic growth and employment is less than what could be achieved under Option 2 and potentially Option 4.

Benefits

- This option best meets the purpose of the RMA as it results in the site being zoned in a manner that allows for optimal residential development, while maintaining the environmental values of the site.

- The proposal would result in more residential lots being achieved on the site when compared to the existing zoning of the property.
- The density of development arising from the proposal would be comparable to what could be achieved on the residential properties to the south-west of the site. As such, the resulting development form on the property would not be inconsistent with the District Plans expectations for the wider environment.
- There would be certainty associated with any further intensification of the site as this would be considered against the existing objectives, policies and rules pertaining to the General Residential Activity Area.
- This option allows for the implementation of engineering measures that ensures the ecological values of the onsite stream are maintained.
- The General Recreation Activity Area zoning will provide protection of all other terrestrial ecological areas.
- This option introduces a new informal recreational opportunity into the local area when compared to the existing situation.
- Allows the Council to better meet its housing supply requirements under the NPS-UDC, when compared to the existing zone.
- Allows growth and development of this area, as identified in the UGS and LTP.
- Ensures that the proposal does not result in unintended traffic safety effects on Liverton Road.

Costs

- The cost associated with the plan change process.
- There are costs associated with the implementation of the mitigation measures to ensure that stormwater from the site is appropriately controlled.
- A potential reduction in the number of residential lots, when compared to Option 2, that allows for the entire site to be rezoned to the General Residential Activity Area.
- A reduction in the area of informal recreation space, when compared to Option 3, that allows the entire site to be rezoned to the General Recreation Activity Area.

Risk of Acting or Not Acting

- The risk of acting is that the existing undeveloped form of the site would change in response to the residential development that would be facilitated.
- The risk of not acting means that either the site would be developed to its existing Hill Residential Activity Area and Rural Residential Activity Area density (which represents a lost opportunity in terms of lot yield) and would result in Council not being able to meet its growth requirements under the National Policy Statement for Urban Development Capacity.
- The risk of not acting means that no protection is afforded to the onsite streams or terrestrial vegetation (which have been identified as a potential SNAs) via the current zoning or specific provisions.

Efficiency and Effectiveness

- The efficiency of this option is high because the benefits significantly outweigh the costs.
- The effectiveness of this option is high because providing for urban growth while preserving the environmental integrity of the site, the traffic safety of the local environment, ensures Council meets its requirements under the NPS-UDC, while also meeting the purpose of the Act and the existing objectives of the District Plan.

Overall Assessment of Option

- This option is the recommended option as it is the option that best meets the purpose of the Act in that it finds an appropriate balance between increasing the development potential of the site while still recognising and protecting the ecological sensitivities associated with the site and the traffic safety of the local environment. The rezoning of a portion of the property to General Recreation Activity Area will provide protection for the existing terrestrial ecology from future development, and the introduction of provisions around stormwater management will ensure the ecological function of the onsite streams, is maintained by the proposal.
- This option would be consistent with the statutory requirements of the RMA and consistent with the objectives and policies of the RPS.

(304) Option 5 is the recommended approach for the proposed Plan Change as it is considered to be the most appropriate for achieving the purpose of the Act in that it achieves a balance between enabling the maximum yield of the site is to be realised, while ensuring the ecological values of the site are accounted for and the traffic safety of the local environment is maintained.

Evaluation of Proposed Objectives

(305) The proposed Plan Change does not include any new objectives as it is considered that the existing objectives for the General Residential Activity Area, General Recreation Activity Area and the Subdivision and Earthworks Chapters of the Plan are appropriate.

Evaluation of Proposed Policies

(306) The proposed Plan Change seeks to introduce two new policies to Chapter 11 Subdivision, which is evaluated below. The proposed policies are highlighted and underlined as a way to identify that they are proposed and new to the District Plan.

11.1.2 - Engineering Standards Policy

(c) The engineering practices maintain the ecological values of the onsite stream and the downstream receiving environments from stormwater runoff resulting from the subdivision of the land identified in Appendix X.

Why this Policy is proposed

Proposed Policy 11.1.2 (c) provides clear direction that engineering practices need to be implemented into the design of the future subdivision of the site to ensure that the ecological values of the onsite streams are maintained, including any downstream receiving environment.

The existing objective under which this proposed policy would be located, directly references the consideration of the environment from engineering practices, and therefore would support a specific policy of this nature. This policy provides the context to the proposed rules and standards which require the management of stormwater on the site.

How this Policy achieves the Objectives

Objective 11.1.2 recognises that infrastructure needs to protect the environment. Proposed Policy 11.1.2 (c) will achieve the intent of Objective 11.1.2 by manging effects from the future development of the site to maintain the ecological values of the onsite streams and their downstream receiving environments. The preservation of these ecological values protects the environment, thereby ensuring the outcomes of Objective 11.1.2 are achieved.

11.1.2 – Engineering Standards Policy

(d) To restrict access and avoid increased traffic volumes from land identified in Appendix X to Liverton Road, to maintain traffic safety and efficiency.

Why this Policy is proposed

Proposed Policy 11.1.2 (d) provides clear direction that increased access to Liverton Road should be restricted. The existing policy framework of the Rural Residential Activity Area and the traffic assessment undertaken by the traffic engineer both identify limitations of Liverton Road to cope with additional traffic volumes. The proposed policy ensures that any future subdivision(s) of the application site have a policy framework which discourages the use of Liverton Road by limiting future access to it, in order to maintain traffic volumes to their current levels.

Consideration was given to bringing over the exact wording of Policy 8A 1.1.3 (a) into the General Residential Activity Area provisions. However, doing so may have wider implications outside the scope of the Proposed Plan Change and the site specific option is preferred.

The existing objective under which this proposed policy would be located, directly references the consideration of utilities, of which roading is one, and therefore would support a specific policy of this nature. This policy provides the context to the existing rules and standards which requires the consideration of the access arrangements to any subdivision and to ensure that the access arrangements to the site are not from Liverton Road.

How this Policy achieves the Objectives

Objective 11.1.2 recognises that utilities and infrastructure needs to be of an appropriate standard to ensure the health and safety of residents and future occupants is provided for.

Proposed Policy 11.1.2 (d) will achieve the intent of Objective 11.1.2 by managing the potential traffic safety effects on Liverton Road. The restricting of access to Liverton Road from the application site, thereby ensures the outcomes of Objective 11.1.2 are achieved.

Evaluation of Proposed Additions to the Rules

(307) The Plan Change will introduce three new additions to the rule framework of the Plan. The additions as are made to two existing rules, being Restricted Discretionary Rule 11.2.3 and Discretionary Rule 11.2.4, and a new Non-Complying Activity Rule is also proposed at Rule 11.2.5. These are required to ensure that the outcomes sought under the existing Objective 11.1.2 and proposed Policy 11.1.2(c) & (d) are achieved. The proposed additions to the existing rules framework are highlighted and underlined below:

Rule 11.2.3 – Restricted Discretionary Activities

(d) Any subdivision of the site identified in Appendix Subdivision 7 or Appendix Subdivision X.

And

Rule 11.2.4 – Discretionary Activities

(l) Any subdivision of the site identified in Appendix Subdivision 7 or Appendix Subdivision X, that does not comply with the standards and terms for controlled activity under Rule 11.2.2.1 in respect of (a) Allotment Design.

Rule 11.2.5 – Non-Complying Activities

(b) Any subdivision of the site identified in Appendix Subdivision X which results in any lots with residential dwellings having vehicular access to Liverton Road.

Purpose of the rules

The proposed addition to existing Rule 11.2.3 (d) ensures that subdivision applications, on the application site are an identified Restricted Discretionary Activity. It is acknowledged that this is a higher resource consent activity base than what subdivision applications are normally assessed against (which is a Controlled Activity). The Restricted Discretionary Activity consent activity status ensures that while subdivision activities are still provided for, the adverse effects of the application (particularly with regard to the effects of stormwater runoff to watercourses) are appropriately managed, when considered against the matters in the proposed additions to standard 11.2.3.1(c), discussed further below.

Proposed Rule 11.2.4 (l) provides for subdivision proposals which do not comply with the Controlled Activity standards for allotment design to be considered as a Discretionary Activities. This would ensure that more intensive subdivision design/proposals with additional potential for significant adverse effects could be appropriately considered under the Discretionary requirements under the Resource Management Act.

The existing Controlled Activity rules and standards do not currently afford direct consideration to the ecological health of the onsite streams or their downstream receiving environments. The proposed rule therefore elevates any subdivision application into the

Restricted Discretionary Activity framework. This elevation of the activity status will not only allow for the consideration of the application without the presumption of approval; it will also allow for the direct considerations of the onsite streams and downstream receiving environment through the matters listed in proposed standard 11.2.3.1(c).

Consideration was given to the inclusion of a new Controlled Activity standard, instead of elevating the activity status to Restricted Discretionary from the outset. However, it was not practicable to insert a measurable standard for maintaining ecological values of the onsite streams into the District Plan framework. As such, there was a small risk that by starting the consent assessment as a Controlled Activity, Council would have to approve the consent, even if there were adverse effects on the ecological value of the onsite streams or any downstream receiving environment. The Restricted Discretionary Activity status prevents this from occurring. Furthermore, the proposed amendment is site specific to avoid unintended consequences through application outside the subject site.

Proposed Rule 11.2.5.(b) ensures that where subdivision proposals seek to increase the number of allotments with residential dwellings accessing Liverton Road are given an appropriate activity status which reflects the intent of proposed policy 11.1.2(d). The wording of the proposed rule ensures that subdivision applications which do not seek to increase access to Liverton Road, can be processed as either Restricted Discretionary or Discretionary Activities, given the traffic safety constraints associated with this existing road.

The risk of not including the proposed rules is that poor environmental outcomes could arise from subdivisions applications where stormwater is not managed appropriately, and the ecological values of the onsite streams or downstream receiving environments are irreversibly compromised. Similarly allowing for additional traffic onto Liverton Road could compromise the safety and efficiency of this road.

Evaluation of Proposed Addition to a Standard

(308) The Plan Change will introduce the addition of (c) to existing standard 11.2.3.1 to ensure that the outcomes sought under the existing Objective 11.1.2, proposed policies 11.1.2(c) and 11.1.2(d) and addition to rule 11.2.3(d) are achieved. The proposed additions to this standard are highlighted and underlined below:

Rule 11.2.3.1 - Matters in which Council has restricted its discretion

(c) Any subdivision of the site identified in Appendix Subdivision 7 or Appendix Subdivision X.

The matters over which Council has restricted its discretion to are as follows:

(i) Amenity Values:

The extent to which any earthworks proposal will affect adversely the visual amenity values of the area, and the extent to which the earthworks will result in unnecessary scarring and be visually prominent.

The effects on the amenity values of neighbouring properties including dust and noise.

The extent to which replanting, rehabilitation works or retaining structures are included as part of the proposal to mitigate adverse effects. Earthworks should not result in the permanent exposure of excavated areas or visually dominant retaining structures

when viewed from adjoining properties or public areas, including roads.

(ii) Existing Natural Features and Topography:

The extent to which the proposed earthworks reflect natural landforms, and are sympathetic to the natural topography.

(iii) Historical or Cultural Significance:

The extent to which the proposed earthworks will affect adversely land and features which have historical and cultural significance.

(iv) Construction Effects:

The extent to which the proposed earthworks have adverse short term and temporary effects on the local environment.

(v) Engineering Requirements:

The extent of compliance with NZS 4431:1989 (Code of Practice for Earth Fill for Residential Development).

The extent of compliance with Part 2 NZS 4404:2004 (Land Development and Subdivision Engineering).

(vi) Erosion and Sediment Management:

The extent of compliance with the "Erosion and Sediment Control Guidelines for the Wellington Region 2002" and "Small Earthworks – Erosion and Sediment Control for small sites" by Greater Wellington Regional Council.

(vii) The design and layout of the subdivision, including the size, shape and position of any lot, any roads or the diversion or alteration to any existing roads, access, passing bays, parking and manoeuvring standards, and any necessary easements;

(viii) The provision of servicing, including water supply, waste water systems, stormwater control and disposal, roads, access, street lighting, telephone and electricity;

(ix) Management of construction effects, including traffic movements, hours of operation and sediment control;

(x) Avoidance or mitigation of natural hazards;

(xi) The design and layout of the subdivision where any lot may affect the safe and effective operation and maintenance of and access to regionally significant network utilities (excluding the National Grid) located on or in proximity to the site;

(xii) The outcome of consultation with the owner and operator of regionally significant network utilities (excluding the National Grid) located on or in proximity to the site;

(xiii) Those matters described in Section 108 and 220 of the Resource Management Act 1991;

(xiv) In regard to Appendix Subdivision 7, the engineering measures proposed to manage stormwater runoff to ensure the ecological health of Speedy's Stream and the onsite wetland. To assist, expert assessment shall be undertaken, and provided with any subdivision application. This report shall identify the following:

(i) The existing ecological values of Speedy's Stream and the onsite wetland;

(ii) The stormwater runoff rates for both the onsite wetland and Speedy's Stream to maintain these ecological values (including for smaller frequent events like the 1

in 1 year and 1 in 2 year rainfall events);

(iii) The acceptable level of contaminants in the stormwater to maintain the ecological values of both the onsite wetland and Speedy's Stream;

(iv) The engineering practices (for example, bio-retention devices and detention tanks) required to treat and control all stormwater runoff to ensure that the identified ecological values are at least maintained and the stormwater runoff rates and treatment identified in the points above are achieved. These engineering practices shall control all runoff generated by the 85-90th percentile rainfall depth. This is defined as treating the stormwater volume generated by the 27mm rainfall depth; and

(v) Any potential conditions that may need to be imposed on the subdivision consent to ensure that these engineering measures are undertaken and appropriately maintained.

(xv) In regard to Appendix Subdivision X, the engineering measures proposed to manage stormwater runoff to ensure the ecological health of any onsite streams and downstream receiving environments. To assist, expert assessment shall be undertaken, and provided with any subdivision application. This report shall identify the following:

(i) The existing ecological values of the onsite streams (and their downstream receiving environments);

(ii) The stormwater runoff rates for the onsite streams (and their downstream receiving environments) to maintain ecological values (including for smaller frequent events like the 1 in 1 year and 1 in 2 year rainfall events);

(iii) The acceptable level of contaminants in the stormwater to maintain the ecological values of the onsite streams (and their downstream receiving environments);

(iv) The engineering practices (for example, bio-retention devices and detention tanks) required to treat and control all stormwater runoff to ensure that the identified ecological values are appropriately protected, and the stormwater runoff rates and treatment identified in the points above are achieved; and

(v) Any potential conditions that may need to be imposed on the subdivision consent to ensure that these engineering measures are undertaken and appropriately maintained.

Purpose of the Standard

The proposed standard replicates the matters that Council has retained its control over when assessing Controlled Activity Standards. By making these matters Restricted Discretionary Activity standards for the purposes of the application site, it ensures that Council are able to consider the relevant effects that arise from complying with the standards and terms under Rule 11.2.3.1 of the District Plan.

It is proposed to make additions to standard 11.2.3.1(c) in the District Plan. This proposed standard gives Council the ability to impose conditions on future subdivisions to ensure engineering measures are implemented that maintain the ecological health of the onsite streams and downstream receiving environments, from stormwater runoff.

The additions to the standard also provide flexibility in that different engineering measures can be used to ensure the ecological health of the onsite streams and downstream receiving environments. It is up to the applicant to select the most appropriate measures relative to the development to ensure that the ecological values of these onsite streams and their downstream receiving environments are maintained.

Opportunities for Economic Growth and Employment

The standard is neither supportive or restrictive of economic growth. The standard only applies when subdivision consent is being sought and the matter upon which the application is considered are the same as what any subdivision in Lower Hutt is assessed against (albeit at a higher consent activity level).

Proposed additions to standard 11.2.3.1(c) in the District Plan give Council the ability to impose conditions on future subdivisions to ensure engineering measures are implemented that maintain the ecological health of the onsite streams and their downstream receiving environments, from stormwater runoff.

Benefits

The standard is clear and outlines what information needs to be provided with a subdivision application in this area, which provides certainty to plan users. The majority of the proposed additions to the standard are replicated from what is contained in the Controlled Activity standards and what are applied to a very similar site (being Appendix Subdivision 7). The applicability of these standards and how they are implemented are well understood. These existing standards also have strong linkages to the existing objective and policy framework.

The proposed additions to standard 11.2.3.1(c) align with the existing objectives of the District Plan and the proposed policy. This standard is in direct response to an environmental effect that requires addressing and allows Council to impose appropriate conditions on any subdivision application to ensure that these outcomes are achieved.

Costs

The implementation of stormwater treatment measures into the subdivision has a direct additional financial cost associated with the development process.

Risk of Acting or Not Acting

The risk of not including these standards is that the proposed rule will not have any standards in which it can be assessed against. This results in the proposed rule framework not complying with the requirements of the Resource Management Act 1991 (which requires Restricted Discretionary Activities to have standards that they can be assessed against).

The risk of not acting is that poor environmental outcomes could arise from untreated stormwater runoff and changes to the ecological health of the onsite streams and their downstream receiving environments.

Efficiency and Effectiveness

The proposed additions to this existing standard ensure that the relevant environmental effects are considered when assessing a subdivision on the site, while still ensuring that the development is enabled through the planning provisions. The majority of the existing

standard is replicated from what is contained in the Controlled Activity standards and what is currently applied to a similar site (being Appendix Subdivision 7). The applicability of these standards and how they are implemented are well understood. These existing standards also have strong linkages to the existing objective and policy framework. The proposed additions to standard 11.2.3.1(c) align with the existing objectives of the District Plan and the proposed new policy. This standard is in direct response to a potential environmental effect that requires addressing and allows Council to impose appropriate conditions on any subdivision application to ensure that appropriate ecological outcomes are achieved. Given these factors, the additions to standard 11.2.3.1(c) are considered to be an efficient and effective way to ensure the proposed rules considered the environmental effects, while ensuring that the objectives and policies of the District Plan (including the proposed policy) are achieved.
Overall Assessment of additions to standard 11.2.3.1(c) The proposed additions to standard 11.2.3.1(c) enable development while ensuring that the required environmental effects associated with the subdivision are addressed. The standard is clear and outlines what information needs to be provided with a subdivision application, which provides certainty to plan users. The majority of the proposed standards are replicated from what is contained in the Controlled Activity standards and what is applied to a similar area (being Appendix Subdivision 7). The applicability of these standards and how they are implemented are well understood. These existing standards also have strong linkages to the existing objective and policy framework. As such, the proposed additions to this standard are considered appropriate for the application site.

(309) Overall, it is considered that the additions to existing Rules 11.2.3(d) and 11.2.4 and Standard 11.2.3.1(c) are the most appropriate to achieve the existing objectives and proposed new policy of the Plan.

Conclusion

(310) The purpose of the proposed Plan Change is to rezone the site to allow for the future residential development of the property, while still ensuring that the ecological values of the wider environment are maintained. These planning measures seek to:

- Rezone the site to a more appropriate zone that allows for the development potential of the site to be realised, in a manner that is compatible with the character of the surrounding environment.
- Recognise and maintain the significant ecological values of the site and the wider environment.
- Introduce a site-specific policy, rule, and standard that recognise the need for engineering practices to be incorporated into the subdivision designs to manage stormwater runoff so that the ecological values are maintained.
- Introduce a site specific policy that recognises the need to limit access to Liverton Road; and

- Ensure that that residential growth is consistent with the direction of the Urban Growth Strategy, LTP and NPS-UDC.

(311) The proposed Plan Change introduces a new policy and amends an existing rule and standard to manage land use and subdivision activities on the site. These proposed provisions specifically respond to the ecological values of the application site and the wider environment.

(312) The Plan Change proposes to amend and update the following parts of the District Plan:

- Chapter 11 (Subdivision Chapter) – policies, rules, and standards.
- Altering Maps E1 and E2 to reflect the new zoning.

(313) Overall, the Plan Change ensures the following:

- The application site is rezoned to the most appropriate zone to facilitate residential development and to protect ecological values on the site and in the wider environment; and
- The proposed District Plan provisions, namely the proposed policy and additions to an existing rule and standard, have been tested in terms of section 32 of the RMA and the provisions selected are considered the best way of meeting the purpose of the RMA.

(314) The proposed Plan Change has been evaluated under the requirements of Section 32 of the RMA and is the best available means for Council to meet its statutory requirements and achieve the sustainable management purpose of the RMA.

Appendices

Appendix 1: Area Proposed to be rezoned

Appendix 2: Services Assessment – Cuttriss Consultants Ltd

Appendix 3a: Initial Ecological Assessment - Wildlands

Appendix 3b: Stormwater and further Ecological Assessment – Morphum Environmental

Appendix 4: Landscape and Visual Assessment – Drakeford Williams Ltd

Appendix 5: Geotechnical Report – Abuild Consulting Engineers Ltd

Appendix 6: Traffic Assessment – Harriet Fraser Traffic Engineering & Transportation Planning

Appendix 7: Pre-notification Consultation Correspondence

Appendix 1 – Area proposed to be rezoned

LEGEND:

- BOUNDARY
- AREA TO BE REZONED AS GENERAL RESIDENTIAL
- AREA TO BE REZONED AS GENERAL RECREATION
- NATIONAL GRID CORRIDOR

11 DP 81542
12 DP 81542
13 DP 81542
15 DP 83679
1 DP 79918
1 DP 23363
5 DP 81542
AREA 3.2029Ha
AREA 5.4796Ha
AREA 3.9006Ha
KAITANGATA CRESCENT
LIVERTON ROAD
1 DP 360062
2 DP 360062
7 DP 71483
7 DP 476471
11 DP 73832
10 DP 73832
9 DP 73832
8 DP 73832
3 DP 657243
4 DP 65724
5 DP 65724
1 DP 80494
3 DP 80494
MAJOR DRIVE

0 20 40 60 80 100m
SCALE 1:1000 (A3 1:2000)

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JOB
PROPOSED REZONING OF
LOTS 1-2 DP 87274 & LOT 4 DP 81542
280 MAJOR DRIVE, KELSON

CLIENT
MAJOR GARDENS LTD

AMENDMENT	NAME	DATE

SCALE A1 1:1000 | REDUCED SCALE (A3 1:2000)

	NAME	DATE
FIELDWORK	SJ	06/17
DESIGNED	-	-
DRAWN	EMJ	10/18
CHECKED	CM	10/18

DRAWING NUMBER 29447PC
SHEET 1 OF 1 SHEETS
REVISION -

Appendix 2 – Services Assessment

PROPOSED PLAN CHANGE

280 MAJOR DRIVE &
50 KAITANGATA CRESCENT
KELSON

INFRASTRUCTURE ASSESSMENT

Prepared for Major Gardens Limited

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Date 9 April 2019

Status **Final**

Approved for Release

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TABLE OF CONTENTS

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PREAMBLE

It is proposed to subdivide 280 Major Drive (Lots 1 & 2 DP 87274) and 50 Kaitangata Crescent (DP 81542) into residential lots. This requires a zoning change to the Hutt City Council District Plan. Cuttriss Consultants Ltd has been engaged to carry out an investigation of the existing infrastructure to confirm that it can support this proposal.

Development of this site will be in two separate areas being an extension of Major Drive, and a new road and right of way off Kaitangata Crescent as shown on Cuttriss Consultants Ltd's indicative subdivision layout drawings numbered 29447P5 sheets 1-4.

SERVICES

Water Supply

This area is fed from the Liverton Reservoir located at the top of Kaitangata Crescent. The top water level of this reservoir is approx. RL241.0m MSL. Water supply will be provided to this proposed development to Hutt City Council standards.

Major Drive Extension

The lots off the end of Major Drive will be supplied by extending the existing 150mm Council main that terminates at the current end of Major Drive. This main will be able to provide both domestic and fire flow.

Kaitangata Crescent

The lots off Kaitangata Crescent will be supplied by extending the existing 100mm Council main in Kaitangata Crescent into this area of development. Houses will need to be located below RL210.0m MSL to be provided with domestic water supply to Council standards. Any houses above that level will likely require a consent notice advising that water supply to that property does not meet Council standards and private booster pumps are required to provide adequate water pressure. This is similar to lots located off Benhar Close immediately adjacent to the Liverton Reservoir.

Fire flow cannot be provided to this area off the existing 100mm main in Kaitangata Crescent. This issue can be mitigated by laying a 100mm cross connection from this area to the 150mm main to be laid as part of the Major Drive Extension. This would be along the same alignment as the proposed sewer gravity main connection discussed below.

Refer to Wellington Water Ltd's email in Appendix A that confirms that water supply can be provided to their standards.

Wastewater

Major Drive Extension

There is an existing Council main that currently terminates at the end of Major Drive, however, this main is too high to provide a gravity service to this development. It is proposed to lay a new 150mm gravity main down the Major Drive extension to a new pump station to be constructed at the cul-de-sac at the end of the new Major Drive extension. This pump station, to be owned by Council, will pump the wastewater back into the existing Council gravity main at the end of Major Drive.

Kaitangata Crescent

A new gravity main will be laid in the new road to service this area. This gravity main will be laid down the hill along an existing track to connect into the new gravity main being laid in the Major Drive extension and wastewater will flow down to the pump station.

Some lots may require private pumping systems to connect into the new gravity main in the new road.

Wellington Water Ltd has advised that new pumping stations are to be built in this area by Council. These pumping stations will have the capacity to cater for this development. Refer to Wellington Water Ltd's email in Appendix A.

Stormwater

There is no reticulated stormwater system in this general vicinity, and as a result both the Major Drive and Kaitangata Crescent areas of development will discharge to a gully located between these two areas. This gully drains northward and eventually discharges under SH1 to the Hutt River. Refer to Wellington Water Ltd's email in Appendix A.

Wellington Water Ltd requires that an assessment be undertaken of any downstream constraints to ensure that stormwater runoff from the development does not worsen any flooding that may already be occurring downstream.

To mitigate this issue, the stormwater design for this site will incorporate stormwater attenuation measures to ensure post-development flows do not exacerbate any downstream flooding should it be occurring. Attenuation is a common practice and can readily be achieved in a number of ways, including using private detention tanks on houses, shared detention tanks, pipes, or ponds, or a combination of these measures.

Morphum Environmental Ltd has prepared an Ecological Assessment of this site. Their report surmises that stormwater treatment and attenuation are required. They identify a number of options and locations for stormwater treatment and we consider that it is practical for the options in their report to be implemented on this site.

To this end and as shown on the Cuttriss indicative subdivision layout drawings, the gully finger that extends into the northern portion of Lot 2 DP 87274 could be made available for stormwater attenuation and treatment.

UTILITY SERVICES

Power

We liaised with Wayne Watkins of Wellington Electricity and were advised as follows (refer to WE email in Appendix B).

Major Drive Extension
This area can be serviced both from Major Drive and Liverton Road but will require existing transformers to be upgraded and a new berm substation to be installed.

Kaitangata Crescent
WE has advised that they can reticulate this area through the existing low voltage supply and by upgrading an existing pole transformer in Kaitangata Crescent.

Telecommunications

Chorus advised that they can provide Air Blown Fibre telephone reticulation for a development on this site. Refer to Chorus letter in Appendix B.

Gas

We liaised with Dave Harle of The Gas Hub who advised that they can service both of these areas from existing infrastructure. There is another major development under construction nearby and Powerco are upgrading their services accordingly. This will provide the gas supply required for this area. Refer to The Gas Hub email in Appendix B.

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ROADING AND ACCESS

Roading

Major Drive Extension

Major Drive will be extended down into the site terminating in a cul-de-sac. The road will be designed in accordance with the width and grade standards set out in NZS4404:2010.

The current provisions of the District Plan seek to discourage any activity that may increase traffic on Liverton Road, which is described as having a "narrow formation and twisty alignment". As a result, the design as shown on the Cuttriss indicative subdivision layout plans numbered 29447P5 sheets 1-4 avoids connecting the Major Drive extension with the end of Liverton Road, with the exception of a possible pedestrian or cycle link.

Kaitangata Crescent

A new road and a new right of way are to be constructed off Kaitangata Crescent to access this area. Two other new right of ways will also be formed off the new road to access further down into the site.

All roads and right of ways in both areas will be able to constructed to the legal and carriageway widths and grades to meet Hutt City Council requirements along with the standards set out in NZS4404.

We further understand that Harriet Fraser Traffic Engineer has provided a preliminary report on the indicative roading layout shown on the Cuttriss plans, and can support the proposal.

Access

All lots will be able to be provided with drive-on access from the new roads and rights of ways, and on-site parking will be available in accordance with District Plan standards for the General Residential zone.

CONCLUSION

It is proposed to undertake a Plan Change to re-zone and subdivide the properties at 280 Major Drive and 50 Kaitangata Crescent Kelson, into residential lots. Cuttriss Consultants Ltd has undertaken an investigation of the existing infrastructure to confirm that it can support this proposal.

As part of our investigation, we have liaised with the relevant utility service providers and Wellington Water Ltd to determine whether or not the existing infrastructure in the local area has any limitations, and whether or not it could be extended to service the proposed development.

Our assessment of the infrastructure in this area has confirmed that the proposal to develop this land into residential lots is suitable, and that there is sufficient capacity and solutions available to service the proposal.

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Appendix A
Wellington Water email

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Jim McMenamin <jim@cuttriss.co.nz>

RE: FW: Proposed Development - 280 Major Drive, Kelson

1 message

Matt Aitchison <Matt.Aitchison@wellingtonwater.co.nz> 16 May 2018 at 11:49
To: Jim McMenamin <jim@cuttriss.co.nz>
Cc: Land Development <Land.Development@wellingtonwater.co.nz>, Ryan Rose <Ryan.Rose@wellingtonwater.co.nz>, Colin McElwain <colin@cuttriss.co.nz>

Hi Jim,

We have just modelled a 100 mm link from the extended 150 mm main in the Major Drive extension to the 100 mm main in the new Cul De Sac off Kaitangata Cres and the pressure now holds up when the fire flow is applied. Please note we have assumed that the main in the new Cul De Sac is at 210 m which gives the 30m operating had based on a reservoir level of 240.

Please feel free to get back to me should you require anything further.

Kindest Regards

Matt

From: Jim McMenamin [mailto:jim@cuttriss.co.nz]
Sent: Tuesday, 15 May 2018 4:19 p.m.
To: Matt Aitchison
Cc: Land Development; Ryan Rose; Colin McElwain
Subject: Re: FW: Proposed Development - 280 Major Drive, Kelson

Hi Matt,

There are only 5 lots off the Kaitangata Cres cul-de-sac that will have private pumps. These will lift into the gravity main in the cul-de-sac head.

The water main would follow the sewer main connection alignment. This is along an existing track.

Trust this answers your queries.

It would be appreciated if we could get an answer on the the water supply by weeks end.

Thanks

Jim

Jim McMenamin | Senior Civil Engineer

Cuttriss Consultants Limited

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On 15 May 2018 at 15:24, Matt Aitchison <Matt.Aitchison@wellingtonwater.co.nz> wrote:

Hi Jim,

With regard to the wastewater because these lots will go to new pump stations (which means attenuation will automatically be built into the development) I don't believe this as an issue that would hold up the development at this stage. At this stage is there a way to avoid double pumping the wastewater from the new Cul De Sac off Kaitangata Cres into the Major Drive extension. I e. Could you arrange the termination of the rising main so that it discharges into the existing Gravity main in Major Drive.

As far as water is concerned the issue of the Consent notices on the title would best be answered by HCC. Personally I don't see any issue as long as the future owners realise they will need to take care of pressure themselves. For the firefighting flows I could get the modelling team to put that in the model. Would you think it would be feasible to run the "link" main along the same alignment as the wastewater rising main from new Cul De Sac off Kaitangata Cres?

Hope all this makes sense.... Please feel free to give me a call anytime.

Regards

Matt

From: Jim McMenamin [mailto:jim@cuttriss.co.nz]
Sent: Tuesday, 15 May 2018 12:39 p.m.
To: Matt Aitchison
Cc: Land Development; Ryan Rose; Colin McElwain
Subject: Re: FW: Proposed Development - 280 Major Drive, Kelson

Hi Matt,

Some queries as follows:

Wastewater

Any further progress on this?

Water

The lots off Benhar Close (leads up to Liverton Reservoir) have less than 30m pressure. They have consent notices on their titles and use private booster pumps. Would this be an option for lots off Kaitangata Cres if they are higher than RL210.0m??

If fire flow to the lots off Kaitangata Cres is an issue, would a cross connection to this area off the 150mm main at the end of Major Drive that is being extended further north resolve his issue?

Look forward to your response.

Thanks

Jim

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Civil Engineer

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On 4 May 2018 at 16:28, Matt Aitchison <Matt.Aitchison@wellingtonwater.co.nz> wrote:

Hi Jim,

I have sat with the modelling team (Water and Wastewater) to get an indication of any potential issues with respect to potential impacts of the development that you have sent through (attached).

Water

We have done a quick check of adding in the 60 and 30 houses and I note the following.

There doesn't appear to be any issues with the 60 houses as this area is fed by a 150mm Dia main and this land appears to be well below the top water level in the Reservoir.

With respect to the 30 lots that will be fed from a 100mm line and we have assumed that these properties will be no higher that R.L. 210 m in order to achieve a minimum pressure of 30m as per the Regional standard. However when a fire flow of 25 l/s is added to this location adequate pressure is not maintained. At this stage we haven't done any upgrade scenarios in order to meet the relevant standards

Wastewater

We are in the process of building the wastewater network for this area at the moment however preliminary results indicate that there may be capacity issues in the 225mm main that serves the majority of Kelson. At this stage we need to check some of the assumptions in the model and potentially we may need to also check some of the inverts as there was quite a bit of missing Asbuilt information.

Stormwater

I suspect that we would need to see some form of assessment of any downstream constraints to make sure flooding in the 10 year event and the 100 year event where there is no provision for secondary overflow is not worsened as a result of the development. I gather there will also need to be consents from Greater Wellington for the new discharges as well.

I will plug away at refining the Wastewater implications but please feel free to get back to me in the meantime.

Have a great weekend..!

Kindest Regards

Matt

Matt Aitchison Senior Engineer – Land Development

Wellington Water

DDI 04 801 3242 Mob 027 803 0402 Tel 04 912 4400

Private Bag 39804, Wellington Mail Centre 5045
Level 4, IBM House, 25 Victoria Street, Petone, Lower Hutt

www.wellingtonwater.co.nz

From: Jim McMenamin [mailto:jim@cuttriss.co.nz]
Sent: Tuesday, 1 May 2018 4:26 p.m.
To: Land Development; Chandra Koswatte
Cc: Colin McElwain; Sam Gifford
Subject: Proposed Development - 280 Major Drive, Kelson

Hi all,

Attached is a plan showing the proposed development at the end of Major Drive, and off Kaitangata Crescent in Kelson.

It is proposed to create approximately 60 lots off the end of Major Drive and approximately another 30 lots off Kaitangata Crescent.

It is proposed to service this development as follows:

Wastewater

Major Drive

The 60 lots at the end of Major Drive will all be serviced by a gravity main that falls to a pump station at the end of the new cul-de-sac. This pump station will lift back to the Council gravity main in Major Drive.

Kaitangata Crescent

The lots at the end of the new cul-de-sac will be serviced by a gravity main that will connect to the new main at the end of Major Drive which in turn falls to the new pump station. The 5 lots off the right of way will have private individual pump lines back up to the gravity main in the new road off Kaitangata Crescent

Water

Both areas will be fed from Liverton Reservoir.

Major Drive

This area will be fed off the existing 250mm main at the end of Major Drive

Kaitangata Crescent

This area will be fed off the existing 100mm main in Kaitangata Crescent.

Stormwater

Both areas will discharge to a gully located between the two areas of development. This gully eventually discharges down to a culvert under Hebden Crescent and SH2.

Can you please advise if there are any issues in servicing this development as outlined above.

Jim McMenamin | Senior
Civil Engineer

Cuttriss Consultants Limited

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Appendix B
Utility Service emails

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Jim McMenamin <jim@cuttriss.co.nz>

RE: Initial Consultation - Private Plan in Kelson, Lower Hutt

1 message

Watkins, Wayne (WE) <WWatkins@welectricity.co.nz> 11 May 2018 at 16:00
To: Jim McMenamin <jim@cuttriss.co.nz>
Cc: Colin McElwain <colin@cuttriss.co.nz>, "james@uep.co.nz" <james@uep.co.nz>, Sam Gifford <sam@sgp.co.nz>

Hi Jim,

At the Major drive end the LV could be stretched to supply the first 6 houses without too much issues. At the Liverton Road end the pole transformer would need to upgraded but we would be limited to whether we have to replace the pole to hold a larger Transformer and would only get you as far as 100m into the subdivision on the north-east end.

At the Kaitangata end we could possibly get away with LV from the street and a pole Transformer upgrade.

Within the main development which is 500m long the voltage would bottom out and this is where a mini sub would be required.

Regards

Wayne Watkins – IISC
Programme Manager
Wellington Electricity
M +64 21 409 216 **D** +64 4 915 6121 **T** +64 4 915 6100 **F** +64 4 915 6130 **W** www.welectricity.co.nz
85 The Esplanade, Petone, PO Box 31049, Lower Hutt 5040, New Zealand

From: Jim McMenamin [mailto:jim@cuttriss.co.nz]
Sent: Friday, 11 May 2018 3:46 p.m.
To: Watkins, Wayne (WE)
Cc: Colin McElwain; james@uep.co.nz; Sam Gifford
Subject: Re: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Wayne,

Colin McElwain is liaising with our client to discuss the issue of undergrounding the 11kv.

As part of our servicing investigation into we would like to know if there are any issues in providing power to this development from your existing reticulation.

If you could review this and come back to me it would be much appreciated.

Regards

Jim

Jim McMenamin | Senior
Civil Engineer

**Cuttriss Consultants
Limited**

Email. jim@cuttriss.co.nz

DDI. +64 4 920 2974

Mob 029 2888 477

Web http://www.cuttriss.co.nz

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191 High Street

Lower Hutt 5040

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On 10 May 2018 at 15:14, Sam Gifford <sam@sgp.co.nz> wrote:

Hi Gents

Just following up, do you have any comments that I can go back to Wayne with? Alternatively if you wish to contact him directly, that's no problem at all and I'll leave it in your more than capable hands.

Cheers,

Sam

From: Sam Gifford <sam@sgp.co.nz>
Sent: Wednesday, May 2, 2018 2:26 PM
To: colin@cuttriss.co.nz; Jim@cuttriss.co.nz
Cc: james@uep.co.nz
Subject: FW: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Gents

We have been engaging with key stakeholders over the last couple of week and I sent this to WELL last night.

Not so much a plan change issue from my perspective but more FYI when it comes to the subdivision side of things. Can you provide any comment regarding the potential of undergrounding of the 11kv line down the road alignment? I will then go back to Wayne at a high level and just clarify that these matters will be dealt with at the subdiv stage and the intention (at this point in time) for the 11kv line.

If you could let me know that would be fantastic.

Cheers,

Sam

From: Watkins, Wayne (WE) <WWatkins@welectricity.co.nz>
Sent: Wednesday, May 2, 2018 10:55 AM
To: Tim Lester <tim.lester@edison.co.nz>; Sam Gifford <sam@sgp.co.nz>
Cc: Hardy, Ray (WE) <RHardy@welectricity.co.nz>; Glynn, Gerry (WE) <gglynn@welectricity.co.nz>
Subject: RE: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Tim,

Thanks for sending through these preliminary plans for this subdivision.

280 Major Drive/Liverton Road:

1. Our HV overhead runs through this area and I see that there are poles that are going to be in the middle of sections etc. Is the developers intending to underground the full length in the new road?
2. The subdivision will require a substation. Asset and Planning will be required to provide network approval.

50 Kaitangata Crescent:

1. The subdivision will require LV reinforcement. Asset and Planning will be required to provide network approval.

Please advise on the above

Regards

Wayne Watkins – IISC
Programme Manager
Wellington Electricity
M +64 21 409 216 **D** +64 4 915 6121 **T** +64 4 915 6100 **F** +64 4 915 6130 **W** www.welectricity.co.nz
85 The Esplanade, Petone, PO Box 31049, Lower Hutt 5040, New Zealand

---

From: Tim Lester [mailto:tim.lester@edison.co.nz]
Sent: Wednesday, 2 May 2018 7:49 a.m.
To: Sam Gifford
Cc: Watkins, Wayne (WE); Hardy, Ray (WE); Glynn, Gerry (WE)
Subject: RE: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Sam,

Thank you for sending through the proposed plan change information for land at 280 Major Drive, 50 Kaitangata Crescent and 204 Liverton Road Kelson.

Locating WELL's infrastructure on the attached Plan Change concept information is very useful in understanding potential network impacts.

Normally such pre consultation would be issued directly to WELL. In this instance I have cc'd in the relevant people for their information and appropriate feedback.

Regards

Tim Lester | Consenting Specialist

Edison Consulting Group

good people, great results

Mobile: +64 21 993 223 | www.edison.co.nz

From: Sam Gifford [mailto:sam@sgp.co.nz]
Sent: Tuesday, 1 May 2018 10:19 p.m.
To: Tim Lester
Subject: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Tim,

Given the involvement James and I had with the recent Waipounamu Plan Change we are keen to formally engage with WELL at the outset this time around. The plan change we are currently working on, albeit in the early stages, is looking to be of a very similar nature to Waipounamu. Please find attached initial consultation documentation we are circulating to various stakeholders.

If you have any feedback, questions or wish to discuss the future application in more detail please don't hesitate to contact James Beban of Urban Edge Planning (james@uep.co.nz) or myself.

Kind Regards,

Sam

--

Sam Gifford

SG Planning Ltd

Phone: 0275362869

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Jim McMenamin <jim@cuttriss.co.nz>

RE: 280 Major Drive, Kelson, Lower Hutt

1 message

Dave Harle <dave@thegashub.co.nz>
To: Jim McMenamin <jim@cuttriss.co.nz>

15 May 2018 at 10:49

Hi Jim

We have completed our gas supply modelling and I can advise that our existing infrastructure can support an additional 80 odd houses without any supply issues.

You will be aware that there is another development occurring off Kaitangata Crescent now.

In light of this development and its size we are planning to upgrade our supply into Kelson over the next few years,

This upgrade will provide for future expansion.

In relation to significant cost in upgrading infrastructure, our current policy is that this is Powerco's responsibility.

In the majority of cases the return from developments and uptake does not require us to request a significant cost contribution for the upgrade.

Our financial modelling where request a financial contribution from Developers relates to the subdivision proper rather than the infrastructure upgrade.

I trust this addresses your preliminary requirements.

Regards

Dave

Dave Harle | **Account Manager**

M 027 777 4702 | DDI 04 978 0547 | Extn 5547

Level 4, 1 Grey Street | PO Box 62 | Wellington 6140

Chorus Network Services
PO Box 9405
Waikato Mail Centre
Hamilton 3200
Telephone: 0800 782 386
Email: tsg@chorus.co.nz

Sub Div Ref: BMT46415
Your Ref:

24 May 2018

Major Gardens Ltd

Attention: **Jim McMenamin**
Dear Sir / Madam

SUBDIVISION RETICULATION – BMT: 280 Major Drive, Lower Hutt. 90 Lots - Simple Estimate

Thank you for your enquiry regarding the above subdivision.

Chorus is pleased to advise that, as at the date of this letter, we would be able to provide ABF telephone reticulation for this subdivision. In order to complete this reticulation, we require a contribution from you to Chorus' total costs of reticulating the subdivision. Chorus' costs include the cost of network design, supply of telecommunications specific materials and supervising installation. At the date of this letter, our estimate of the contribution we would require from you is $124,200.00 (including GST).

We note that (i) the contribution required from you towards reticulation of the subdivision, and (ii) our ability to connect the subdivision to the Chorus network, may (in each case) change over time depending on the availability of Chorus network in the relevant area and other matters.

If you decide that you wish to undertake reticulation of this subdivision, you will need to contact Chorus (see the contact details for Chorus Network Services above). We would recommend that you contact us at least 3 months prior to the commencement of construction at the subdivision. At that stage, we will provide you with the following:

- confirmation of the amount of the contribution required from you, which may change from the estimate as set out above;

- a copy of the Contract for the Supply and Installation of Telecommunications Infrastructure, which will govern our relationship with you in relation to reticulation of this subdivision; and

- a number of other documents which have important information regarding reticulation of the subdivision, including - for example - Chorus' standard subdivision lay specification.

Yours faithfully

Toko Taitua
Network Services Coordinator

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Appendix C
Proposed Zoning and Indicative Scheme Plans

LEGEND:

- FENCE
- BOUNDARY
- TOP OF BANK / BASE OF BANK
- TOP OF WALL / BASE OF WALL
- EARTHWORKS CUT/FILL
- SEWER (RECORDS) / SEWER MH (SURVEYED/RECORDS)
- STORMWATER (RECORDS) / STORMWATER MH (SURVEYED/RECORDS) / SUMP
- WATER (RECORDS) / FIRE HYDRANT / TOBY
- OVERHEAD LINES
- POWER POLE / GATE
- SURVEYED CONTOUR / HCC GIS CONTOUR
- 61.50t TOP OF BANK/WALL LEVEL
- 61.50b BASE OF BANK/WALL LEVEL
- 61.50f LEVEL AT BASE OF FENCE
- 61.50k LEVEL ON TOP OF KERB

NOTES:

1. COORDINATES ARE IN TERMS OF NEW ZEALAND GEODETIC DATUM 2000, WELLINGTON CIRCUIT.
2. LEVELS ARE IN TERMS OF WELLINGTON VERTICAL DATUM 1953.
3. THIS PLAN DEFINES THE TOPOGRAPHICAL NATURE & FEATURES OF THE SITE AT THE TIME OF SURVEY. GROUND LEVELS SHOWN ON THIS PLAN ARE EXISTING GROUND LEVELS AND MAY NOT BE APPROPRIATE LEVELS TO USE FOR THE DETERMINATION OF HEIGHT PLANES OR MAXIMUM HEIGHT AS DEFINED IN THE DISTRICT PLAN.
4. CONTOUR INTERVALS ARE 1.0m.
5. SERVICES HAVE BEEN LOCATED ON SITE WHERE POSSIBLE, OTHERWISE SHOWN FROM RELEVANT SERVICE AUTHORITIES RECORDS.

N

DP 23363

5 DP 81542

LOT 1 DP 87274 WN54D/684

LOT 4 DP 81542 WN48A/760

LOT 2 DP 87274 WN54D/685

KAITANGATA CRESCENT

MAJOR DRIVE

1 DP 360062

2 DP 360062

7 DP 71483

7 DP 476471

11 DP 73832

10 DP 73832

9 DP 73832

8 DP 73832

3 DP 657243

4 DP 65724

5 DP 65724

1 DP 80494

3

0 20 40 60 80 100m

SCALE 1:1000

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JOB

INDICATIVE LAYOUT FOR SUBDIVISION
LOTS 1-2 DP 87274 & LOT 4 DP 81542
280 MAJOR DRIVE, KELSON

CLIENT

MAJOR GARDENS LTD

AMENDMENT	NAME	DATE

SCALE A1 1:1000 — REDUCED SCALE (A3 1:2000)

	NAME	DATE
FIELDWORK	SJ	06/17
DESIGNED	-	-
DRAWN	EMJ	06/17
CHECKED	KG	06/17

DRAWING NUMBER 29447P5

SHEET 1 OF 4 SHEETS

REVISION -

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PROPOSED RESERVE

LOT 2 DP 87274 WN54D/685

PROPOSED ROAD

PROPOSED RESERVE

Ø225 WINGWALL OUTLET IL 182.74

STONE RETAINING WALL

VEHICLE CROSSINGS

46 1529m²

7 DP 71483

11 DP 73832

10 DP 73832

9 DP 73832

8 DP 73832

3 DP 657243

4 DP 65724

5 DP 65724

1369m²

561m²

38 918m²

26 524m²

25 618m²

24 551m²

23 574m²

22 626m²

21 690m²

20 723m²

19 721m²

18 704m²

17 711m²

16 729m²

15 1106m²

14 496m²

13 419m²

12 418m²

11 1096m²

10 693m²

9 799m²

8 651m²

7 589m²

6 690m²

5 649m²

4 493m²

3 919m²

2 460m²

1 465m²

102 93m²

100 10370m²

0 10 20 30 40 50m

SCALE 1:500

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INDICATIVE LAYOUT FOR SUBDIVISION
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AMENDMENT	NAME	DATE

SCALE A1 1:500 | REDUCED SCALE (A3 1:1000)

	NAME	DATE
FIELDWORK	SJ	06/17
DESIGNED	-	-
DRAWN	EMJ	06/17
CHECKED	KG	06/17

DRAWING NUMBER 29447P5

SHEET 2 OF 4 SHEETS

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AREA TO BE TRANSFERRED TO LOT 1 DP 79918 854m²

PROPOSED PUBLIC ACCESS

PROPOSED RIGHT OF WAY

PROPOSED RESERVE

PROPOSED ROAD

WETLAND

WETLAND

72 731m²

61 782m²

106 1609m²

60 1321m²

107 57498m²

LOT 2 DP 87274 WN54D/685

29 1531m²

30 508m²

28 692m²

104 339m²

103 1355m²

32 1161m²

31 1095m²

33 649m²

34 613m²

35 569m²

36 645m²

37 561m²

38 918m²

27 427m²

26 524m²

25 618m²

0 10 20 30 40 50m

SCALE 1:500

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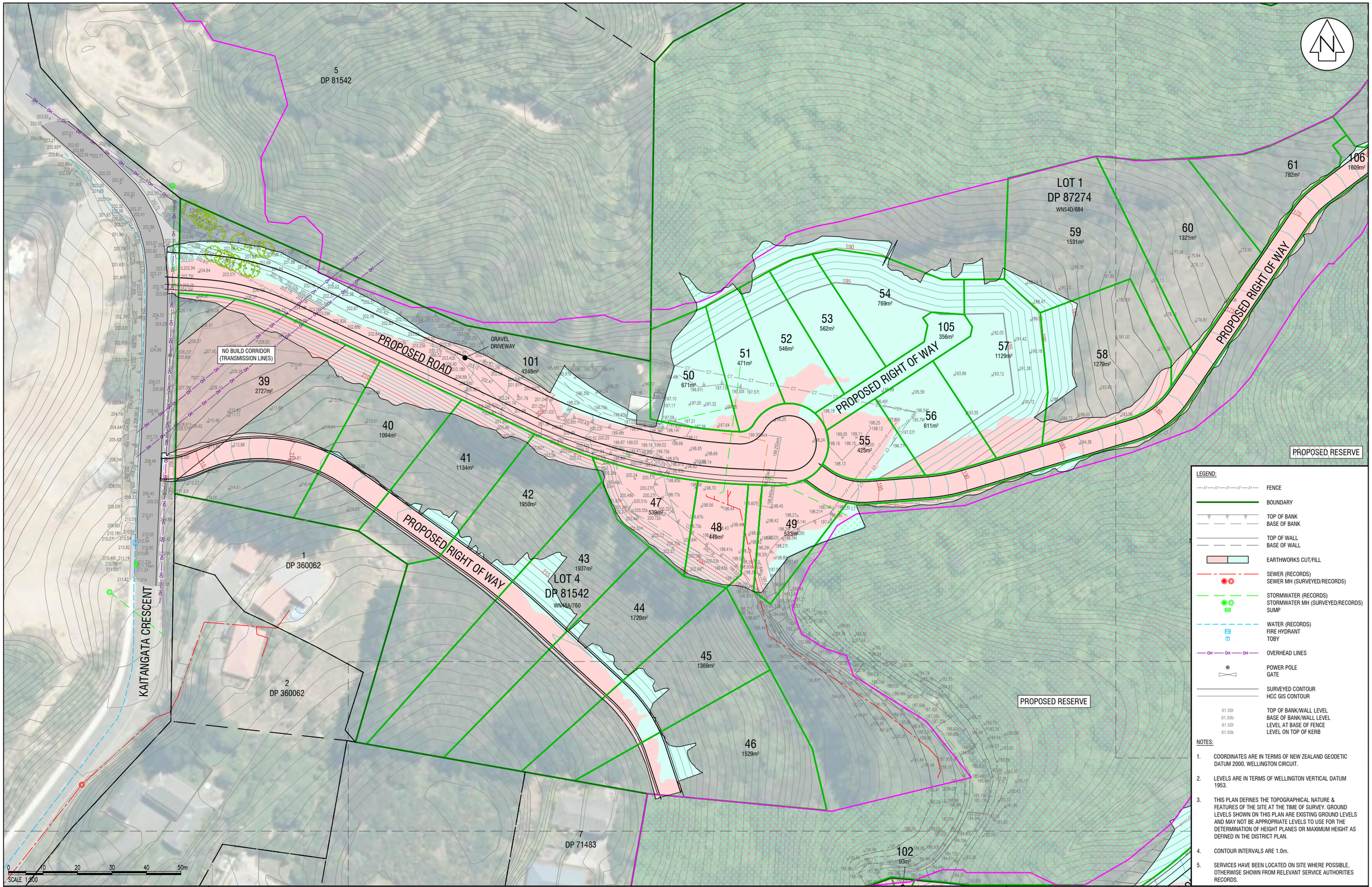
DRAWING NUMBER 29447P5

SHEET 3 OF 4 SHEETS

REVISION -



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CLIENT

MAJOR GARDENS LTD

AMENDMENT	NAME	DATE

SCALE A1 1:500 | REDUCED SCALE (A3 1:1000)

	NAME	DATE
FIELDWORK	SJ	06/17
DESIGNED	-	-
DRAWN	EMJ	06/17
CHECKED	KG	06/17

DRAWING NUMBER 29447P5

SHEET 4 OF 4 SHEETS

REVISION -

LEGEND:

- BOUNDARY
- AREA TO BE REZONED AS GENERAL RESIDENTIAL
- AREA TO BE REZONED AS GENERAL RECREATION
- NATIONAL GRID CORRIDOR

11 DP 81542
12 DP 81542
13 DP 81542
15 DP 83679
1 DP 79918
1 DP 23363
5 DP 81542
AREA 3.6628Ha
REVISED SNA BOUNDARY AS AT DECEMEBR 2018
AREA 4.4046Ha
AREA 4.5156Ha
LIVERTON ROAD
KAITANGATA CRESCENT
1 DP 360062
2 DP 360062
7 DP 71483
7 DP 476471
11 DP 73832
10 DP 73832
9 DP 73832
8 DP 73832
3 DP 657243
4 DP 65724
5 DP 65724
MAJOR DRIVE
1 DP 80494
3 DP 80494

0 20 40 60 80 100m
SCALE 1:1000 (A3 1:2000)

Cuttriss
Surveyors. Engineers. Planners.
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JOB

PROPOSED REZONING OF LOTS 1-2 DP 87274 & LOT 4 DP 81542 280 MAJOR DRIVE, KELSON

CLIENT

MAJOR GARDENS LTD

	AMENDMENT	NAME	DATE
A	ZONE BOUNDARIES AMENDED	LKS	03/19

SCALE A1 1:1000 | REDUCED SCALE (A3 1:2000)

	NAME	DATE
FIELDWORK	SJ	06/17
DESIGNED	-	-
DRAWN	EMJ	10/18
CHECKED	CM	10/18

DRAWING NUMBER 29447PC

SHEET 1 OF 1 SHEETS

REVISION A

Appendix 3a – Initial Ecological Assessment – Wildlands

DRAFT

ASSESSMENT OF POTENTIAL ECOLOGICAL EFFECTS OF A PROPOSED PLAN CHANGE FOR THE MAJOR GARDENS PROPERTY, KELSON, LOWER HUTT

providing outstanding ecological services to sustain and improve our environments

Wildlands

R4480a

DRAFT

ASSESSMENT OF POTENTIAL ECOLOGICAL EFFECTS OF A PROPOSED PLAN CHANGE FOR THE MAJOR GARDENS PROPERTY, KELSON, LOWER HUTT

View, nearly due north, across LH009.00 Kaitangata Crescent scrub from 280 Major Drive, Kelson.

Contract Report No. 4480a

January 2018

Project Team:
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Prepared for:

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CONTENTS

Reviewed and approved for release by:

W.B. Shaw
Director/Principal Ecologist
Wildland Consultants Ltd

1. INTRODUCTION

Cuttriss Consultants Ltd is working with their client - Major Gardens Ltd - to develop land at Lot 2 DP 87274 (7.195 hectares), Lot 1 DP 87274 (3.176 hectares), and Lot 4 DP 81542 (2.210 hectares) at 280 Major Drive and 51 Kaitangata Crescent, Kelson (Figure 1). The proposed finalised recontoured slopes are shown in Figure 2. Hutt City Council (HCC) is working with Cuttriss Consultants on a proposed plan change for this location and have provided information to Cutriss Consultants showing that a proposed Ecological Site[1] occurs on part of the site, along with advice that works within Ecological Sites should, ideally, be avoided (Figure 1).

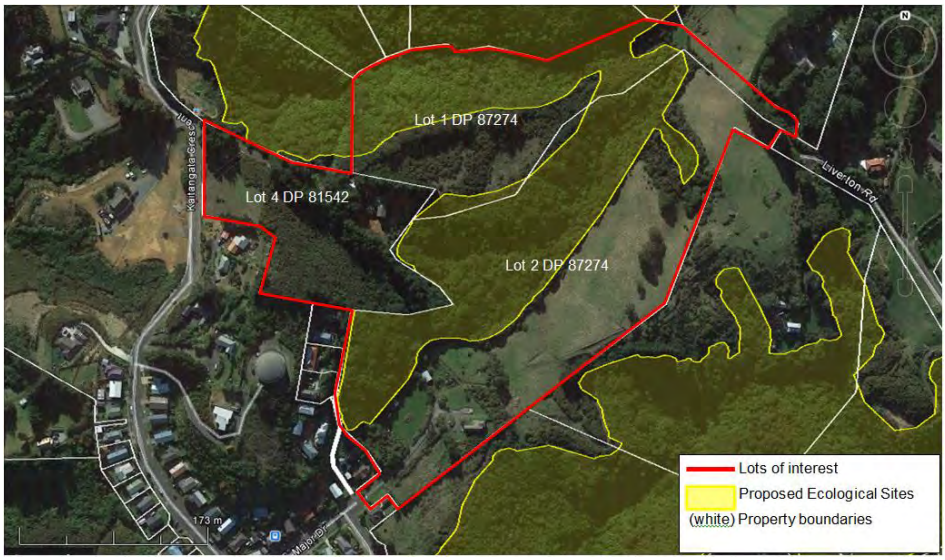

Figure 1: Lots subject to the proposed plan change are shown by the red boundary.

Most of the land is currently zoned Rural Residential but Lot 4 DP 81542 is zoned as Hill Residential (Figure 3). Rural Residential allotments are generally substantially larger than those in urban residential environments and includes allotments of varying sizes and wide frontages. HCC policy is to allow for rural residential development adjacent to urban environments where it may be appropriate[2]. Hill Residential development encourages low to medium density housing with minimal disturbance of vegetation and soils to retain the natural character of the hills surrounding higher density residential areas[3].

It is proposed that both areas will change to higher density residential zone than currently included in the District Plan. HCC is encouraging the developers to use a design-led structure plan approach that works with the constraints and attributes of the site, avoids ecological areas, steep areas, and any revegetated areas but nevertheless

---

1 Identified as being potentially significant under RPS Policy 23. Greater Wellington Regional Council 2013: Regional Policy Statement for the Wellington region. Greater Wellington Regional Council, Wellington: 201 pp.

2 http://iportal.huttcity.govt.nz/Record/ReadOnly?Tab=3&Uri=4346971

3 http://iportal.huttcity.govt.nz/Record/ReadOnly?Tab=3&Uri=4347022.

makes full use of other areas, which could include medium density on parts of the site (Andrew Cummings, HCC, pers. comm., 20 November 2017).

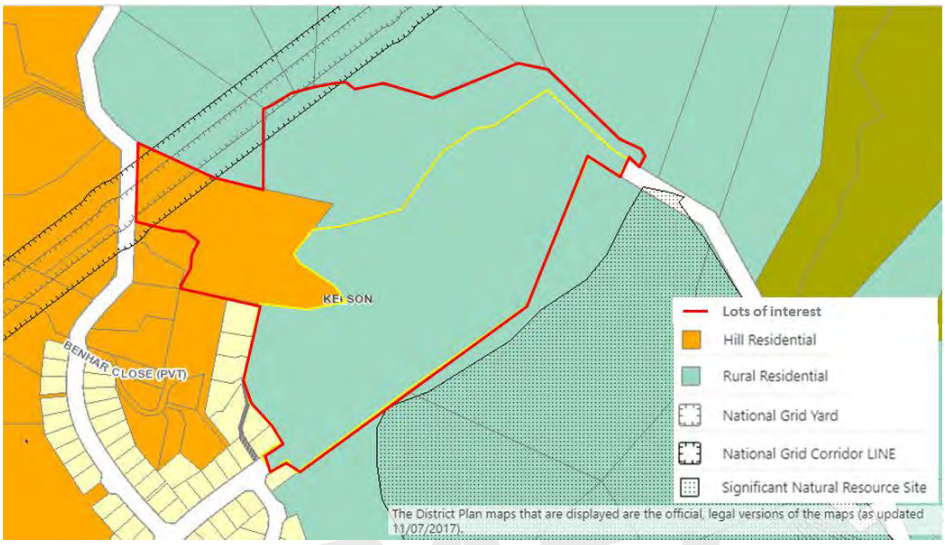

Figure 3: Lower Hutt District Plan Zones for the site and surrounding areas.

The headwaters of unnamed tributaries of the Hutt River lie within the site. Main tributaries are shown in Figure 4, but additional streams also occur within the site (Figure 8). In this report, these streams will be referred to with the tag name of Liverton Road Stream and tributaries.

Figure 4: The site contains headwaters of the Liverton Road Stream.

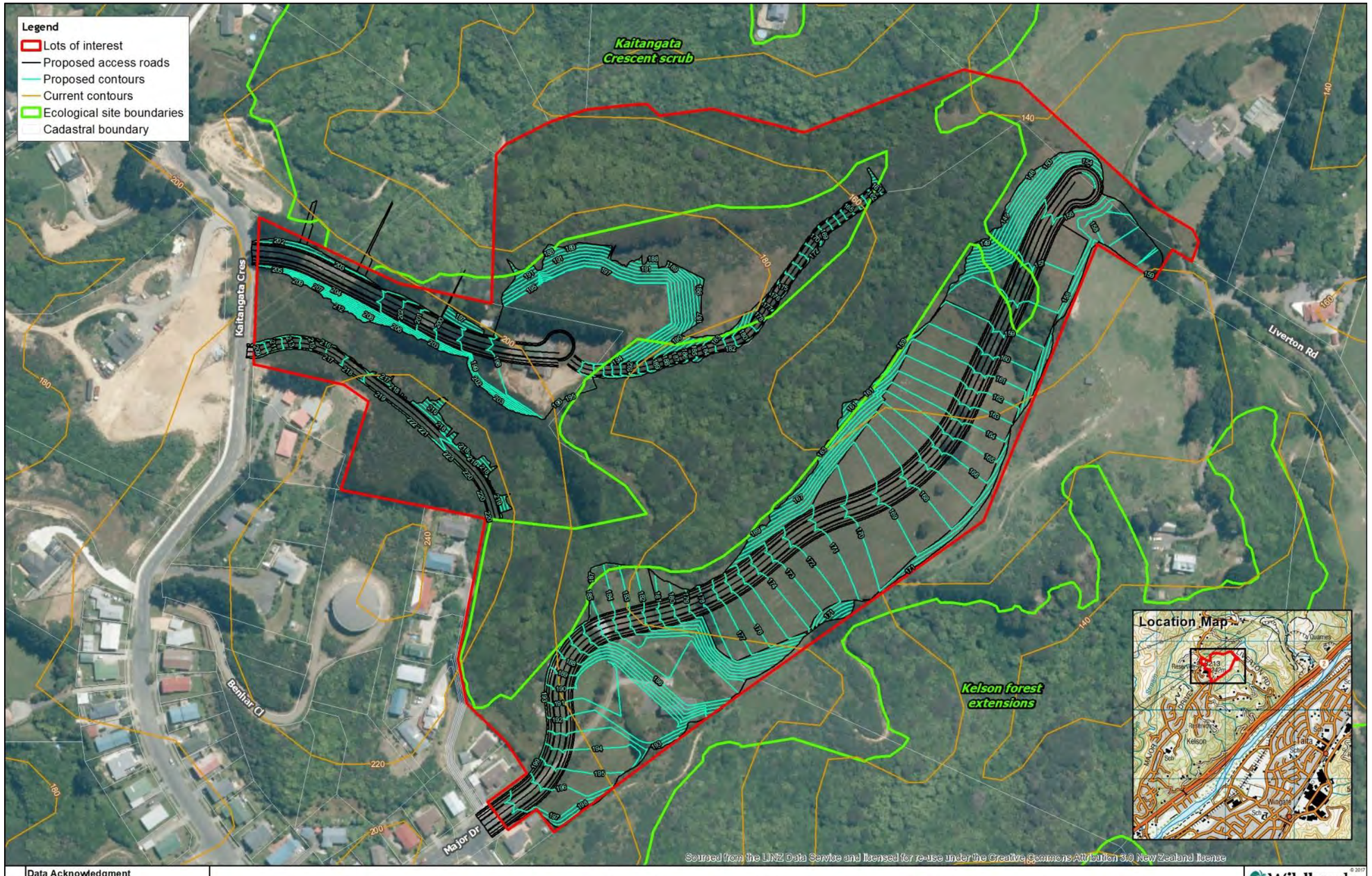

Figure 2. Proposed recontouring of the lots of interest at 280 Major Drive and 51 Kaitangata Crescent, Kelson

2. METHODS

Preliminary Site Survey

- Wildlands staff accompanied Cuttriss Consultants and Hutt City Council staff on-site to discuss potential effects and mitigation opportunities relating to the proposed Ecological Site, and the proposed plan change and subdivision.
- Provided initial feedback via email.

Stage 1: Site Survey and Report to Accompany Plan Change

- Compiled relevant digital data and prepared a base map using high resolution colour aerial photography.
- Undertook a literature review to identify any relevant information relating to the ecological values of the site, including ecological context and relevant planning provisions.
- Sourced bird records from from the eBird[1] and NatureWatch[2] databases, and fish records from the New Zealand freshwater database managed by NIWA.
- Undertook a field survey to assess the ecological features at the site.
- Mapped and described the vegetation and habitat types on the site on high resolution colour aerial photography.
- Recorded all plant and animal species observed during the field survey.
- Took representative site photographs.
- Identified any potential ecological constraints to the proposed plan change and/or earthworks associated with the proposed subdivision development.

A subsequent report will address Stage 2: Assessment of Ecological Effects for proposed subdivision, if required.

3. ECOLOGICAL CONTEXT

3.1 Wellington Ecological District

The site occurs within the Wellington Ecological District, which comprises steep, strongly faulted hills and ranges; two harbours, one with several small islands, the large Pāuatahanui estuary, and the large Hutt River valley.

Site geology comprises alternating grey sandstone and mudstone sequences with poorly-bedded sandstone (Begg and Johnston 2000). On steep slopes there are

[1] http://ebird.org/content/newzealand/
[2] http://naturewatch.org.nz/

moderately-leached, stony and shallow steepland soils. These are moderately fertile, with only slight scree erosion, and mainly used for pastoral farming, with some areas reverting to scrub. Soils on hilly, rolling and flattish slopes are generally moderately deep to deep loess or drift material over greywacke (McEwen 1987).

The climate is windy with west to northwest winds prevailing, a high wind-run and frequent gales. Summers are warm and winters mild. Annual rainfall is 900-1,400 mm, evenly distributed throughout the year.

Within the Hutt Valley, indigenous forests were originally widespread, with podocarp forests of kahikatea (*Dacrydium dacrydioides*), tōtara (*Podocarpus totara*), and matai (*Prumnopitys taxifolia*) on hills, rimu (*Dacrydium cupressinum*)-northern rātā (*Metrosideros robusta*)/kohekohe (*Dysoxylum spectabile*) forest nearer coast, and miro (*Prumnopitys ferruginea*)-rimu/tawa (*Beilschmiedia tawa*) forest at higher elevations (McEwen 1987). Compared to Tararua Ecological District, very little beech is present, although black beech (*Fuscospora solandri*) and hard beech (*F. truncata*) occur in ridge stands between Haywards and Moonshine.

Various vegetation classification systems have been developed to predict the likely ecosystem or vegetation types that occurred prior to human arrival. Singers and Rogers (2014) have classified New Zealand's terrestrial ecosystems and Singers (2014) predicts that tawa, kāmahi (*Weinmannia racemosa*), podocarp forest (MF7) occurred here prior to vegetation clearance. Leathwick *et al.* (2012) predict that the vegetation pattern at the site is likely to have been rimu-miro (*Prumnopitys ferruginea*)/kāmahi-red beech(*Fuscospora fusca*)-hard beech (*Fuscospora truncata*) forest and rimu/tawa-kāmahi forest

Much of the Wellington Ecological District is now farmed (semi-extensive sheep and cattle), with *c*.30% of the land covered in exotic grassland and *c*.8% in exotic forest. Areas of gorse (*Ulex europaeus*) and/or broom (*Cytisus scoparius*) are common, covering *c*.14.5% of the district, while urban areas comprise *c*.22% of landcover in the ecological district (Landcover Database v4.1; Landcare Research 2015).

Remaining indigenous vegetation within the Ecological District includes saltmarsh communities around Pāuatahanui Inlet, 'Mānuka and/or Kānuka' (*c*.2% of landcover), 'Broadleaved Indigenous Hardwoods' (*c*.15% of landcover), and remnants of the original indigenous forest (*c*.2% of landcover), although many areas have been logged for podocarps. The site is classified in the Landcover Database as containing 'Broadleaved Indigenous Hardwoods' and 'High Producing Exotic Grassland' (Landcover Database v4.1; Landcare Research 2015).

3.2 Ecological domains

The lots of interest occur between about 160 and 230 metres above sea level in the lower reaches of Ecological Domain (eco-domain) 58 Tararua (<550 metres) (Greater Wellington Regional Council 2002). This is mostly a mountainous domain with a strong correlation between climatic factors and altitude and distinct growth limits for plant species which relate to temperature and sunshine hours as well soil leaching due to increasing rainfall with altitude. In the west of this domain podocarp forest dominates with northern rata-rimu emerging over a tawa/kāmahi canopy below 400m,

and rimu over a kāmahi canopy is dominant above. The lowland forest in sub-eco-domain 58a is influenced by relatively high rainfall from westerly wind that result in a higher of proportion of kāmahi and fuchsia (*Fuchsia excorticata*) than elsewhere in this eco-domain.

3.3 Ecological sites

The site includes, and is adjacent to, proposed Ecological Site LH009.00-Kaitangata Crescent Scrub and is adjacent to, and just to the north of, proposed Ecological Site LH011.00 Kelson Forest Extensions (Figure 2).

Vegetation within the 24.69 hectare proposed Ecological Site LH009.00-Kaitangata Crescent scrub is dominated by māhoe (*Melicytus ramiflorus*)-mixed broadleaved scrub with kānuka (*Kunzea robusta*), kohekohe, five-finger (*Pseudopanax arboreus*), patē (*Schefflera digitata*), cabbage tree (*Cordyline australis*) and treeferns. Small areas of gorse shrubland are present. Common forest bird species are known to be present, and banded kōkopu (*Galaxias fasciatus*) and longfin eel (*Anguilla dieffenbachii*; At Risk-Declining)[1] have been recorded from streams within the Ecological Site. The Ecological Site is part of a series of forest and scrub areas on the western hills of the Hutt Valley that provide habitat of indigenous species and linkages between habitats for mobile species such as birds.

The 76.38 hectare proposed LH011.00 Kelson forest extensions Ecological Site comprises a narrow area of indigenous vegetation contiguous with Speedys Reserve and almost contiguous with Kelson Bush. Kelson Bush contains regionally representative and relatively unmodified lowland māhoe-dominated forest. Tawa-dominated mixed broadleaf forest is also present. Canopy species include rewarewa (*Knightia excelsa*), tawa, rangiora (*Brachyglottis repanda*), māhoe, tree fern, five finger and kohekohe. Northern rātā and poroporo (*Solanum aviculare*; At Risk-Declining)[2], have been recorded at the site. Six indigenous bird species have been reported, including bush falcon (*Falco novaeseelandiae ferox*; At Risk-Recovering), whitehead (*Mohoua albicilla*; At Risk-Declining)[3] and the regionally sparse bellbird (*Anthornis melanura melanura*). Ngahere gecko (*Mokopirirakau* "southern North Island"; At Risk-Declining)[4] is known from this location and longfin eel (At Risk-Declining) is known from nearby streams. Part of this site is subject to an anticipated future plan change for greenfields development.

Both Ecological Sites largely occur on private land and adjacent land uses include residential suburbs, pasture, exotic scrub and exotic trees including eucalyptus and pine. Parts of both Ecological Sites, including areas on the subject properties (Figure 5), occur on Land Environments where less than 10% of indigenous cover remains (also known as Acutely Threatened Land Environments). Much of the remainder of both Ecological Sites occurs on land environments with 20-30% indigenous cover left (At Risk land environments).

---

1 Freshwater fish threat classifications as per Goodman *et al.* (2014).
2 Plant threat classifications as per de Lange *et al.* (2013).
3 Bird threat classifications as per Roberston *et al.* (2017).
4 Lizard threat classifications as per Hitchmough *et al.* (2016).

Kelson Bush has been identified as a Key Native Ecosystem site by GWRC. Pest mammals are managed in the indigenous vegetation on and surrounding the lots of interest. Pest plants are an issue for both Ecological Sites and include old man's beard (*Clematis vitalba*), Himalayan honeysuckle (*Leycesteria formosa*), wilding cherry (*Prunus* sp.), wilding pine (*Pinus radiata*) and macrocarpa (*Cupressus macrocarpa*), and possibly the indigenous karaka (*Corynocarpus laevigatus*).

3.4 Protected natural areas

Areas of public land include:

- The adjacent lot and the accessways to the municipal water supply tank.
- The closest parts of Belmont Regional Park are 250 metres to the northwest.
- Liverton Road Scenic Reserve is about 380 metres to the southeast.
- Lindis Close Reserve is approximately 300 metres to the south of the lots of interest (Figure 6).

There are no areas of public land managed by Department of Conservation near the subject site. The closest Queen Elizabeth II covenant is about 575 metres to the northeast, along the eastern boundary of the Belmont Quarry (Figure 6).

4. GENERAL SITE OBSERVATIONS

4.1 Preliminary site visit

A preliminary site visit was undertaken to Lot 2 DP 87274 and Lot 1 DP 87274 on 19 September 2017 by staff from Cuttriss Consultants, Hutt City Council, and Wildlands to assess the ecological values within the proposed Ecological Site and how these might be affected by the proposed works (Figure 7).

The consensus was that the larger area of proposed fill, at the southern end of the site would significantly affect relatively intact indigenous vegetation and a good quality stream, and would therefore be inappropriate (Plate 1). Removal and filling of the 'finger' of the Ecological Site extending into Lot 2 DP 87274 could potentially be feasible if mitigation areas were available to compensate for the loss of an estimated 0.2 hectares of indigenous vegetation and habitat and about 18 metres of ephemeral stream and 75 metres of intermittent stream[1] (Plates 6 and 7 in Appendix 2).

A potential mitigation area was identified during the site visit: an area of impeded drainage caused by an historic landslide in the northeastern part of the site (Figure 8, Plates 8 to 11 in Appendix 2). The depth of the landslide debris is at least one metre, as estimated from fence posts with tops now just above the soil (Plate 8). Tributaries of the Liverton Road Stream (Figure 4) have cut through the landslide debris in various places, and wetland plant species are establishing (Plates 9 and 10).

[1] Initial estimates.

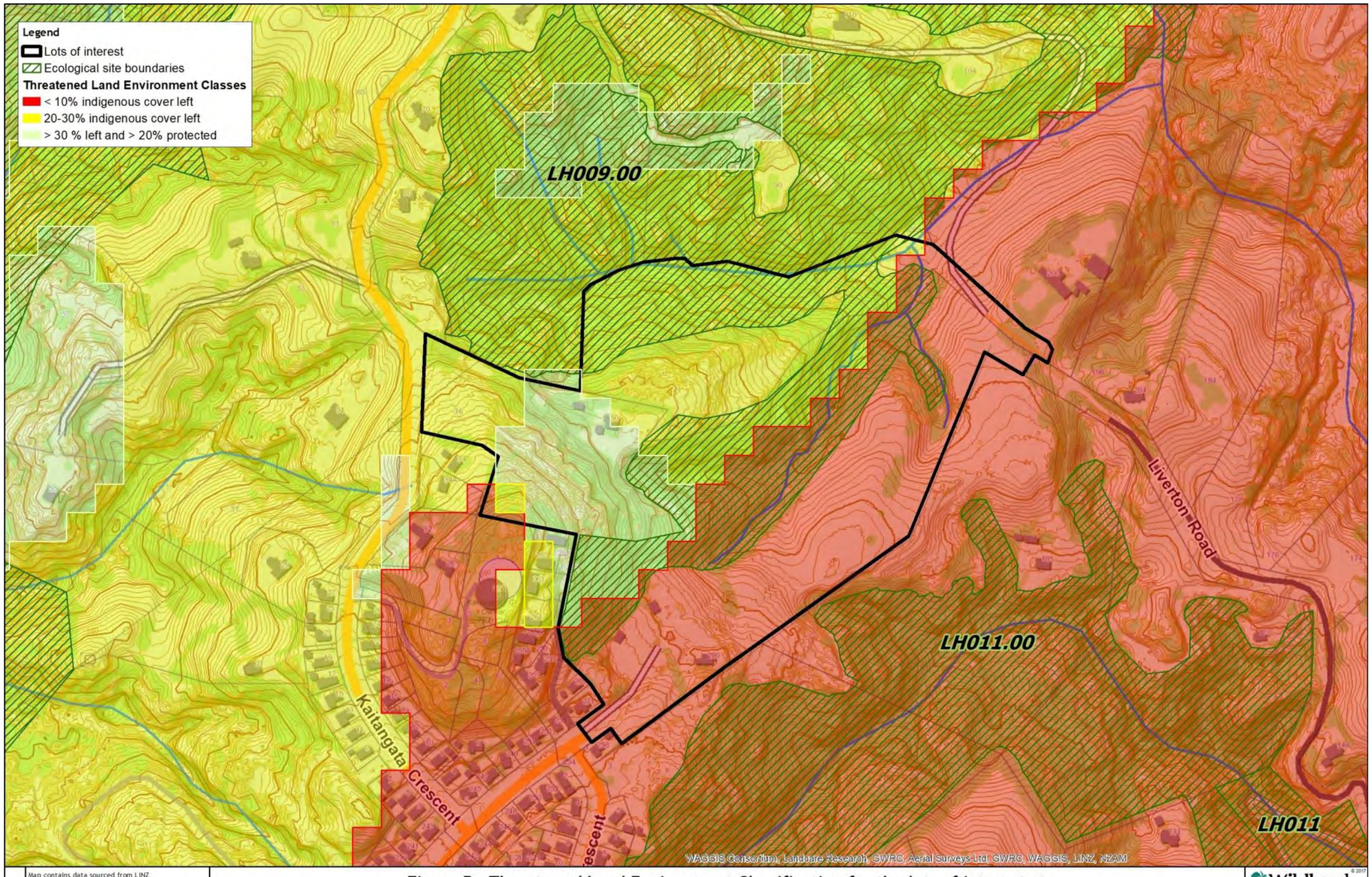

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Figure 5. Threatened Land Environment Classification for the lots of interest at 280 Major Drive and 51 Kaitangata Crescent, Kelson

0 50 100 m

Wildlands © 2017
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Scale: 1:3,000
Date: 29/11/2017
Cartographer: FN
Format: A3R

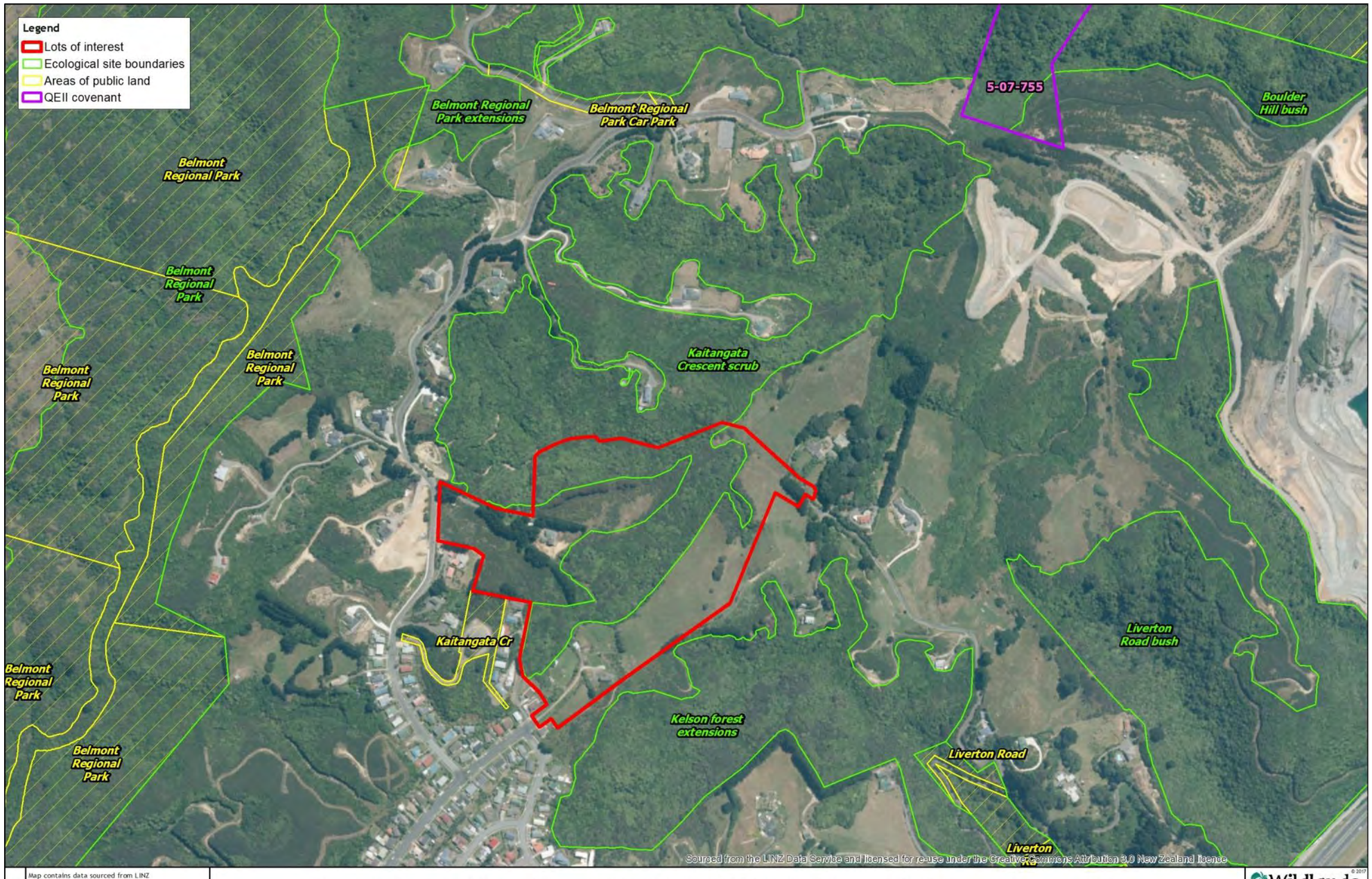

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Figure 6. Protected Natural Areas in the vicinity of 280 Major Drive and 51 Kaitangata Crescent, Kelson

0 200 400 m

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Scale: 1:5,000
Date: 29/11/2017
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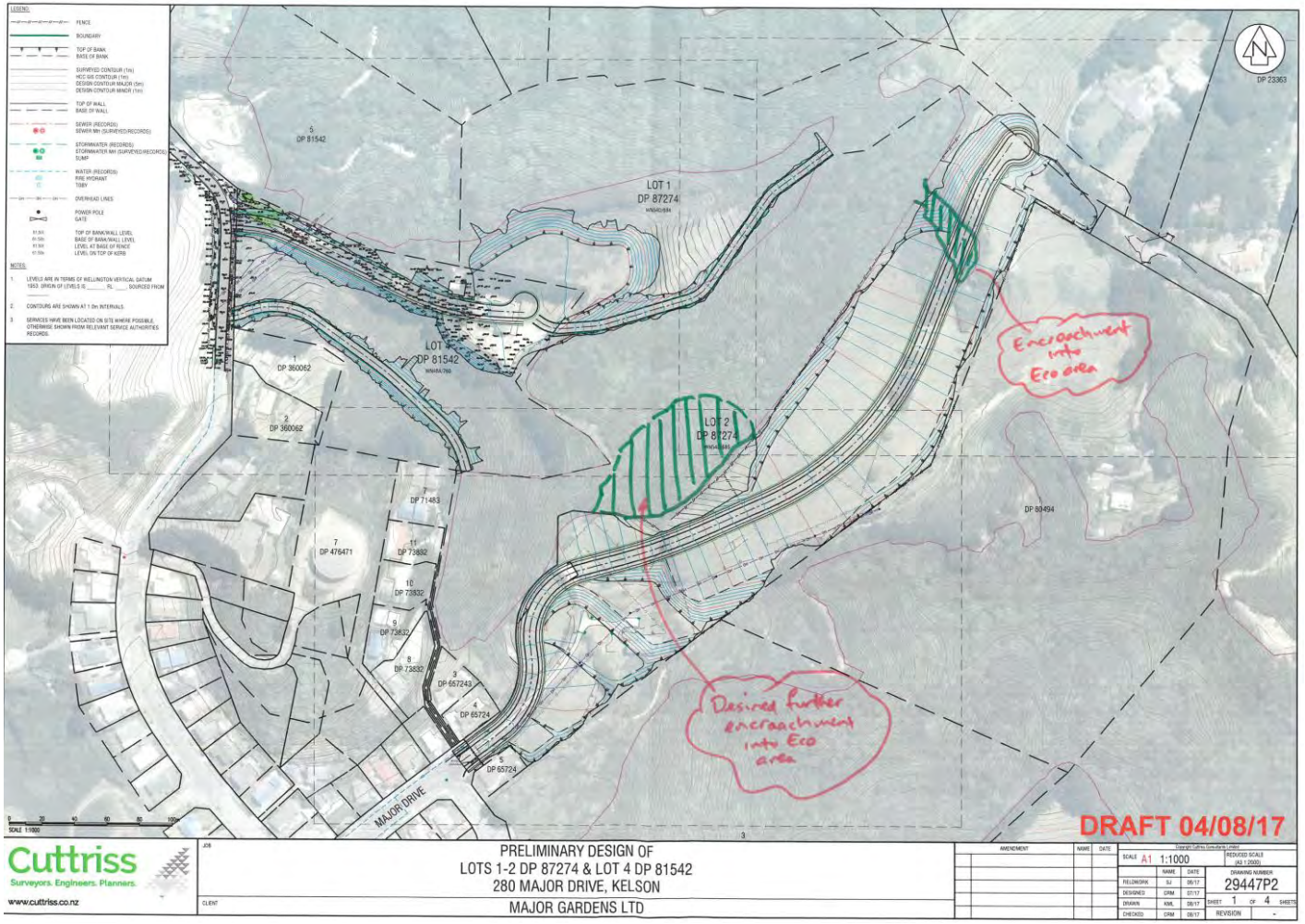

Figure 7: Proposed infilling relevant to the works proposed at 280 Major Drive, Kelson.

However, most of this impeded drainage area actually occurs on the neighbouring lot to the east and the indigenous revegetation opportunities within the lots may not be sufficient mitigate for the loss of vegetation and habitats. It was also not possible to quickly identify a nearby stream that would benefit from restoration works as most streams in the surrounding catchments appear to have good existing vegetation cover.

4.2 Follow-up visit

A second site visit was made on 15 November 2017 to map the vegetation types on the subject lots and to determine what, if any, restoration opportunities exist at the site.

5. TERRESTRIAL VEGETATION AND HABITAT TYPES

Sixteen vegetation and habitat types have been mapped within the area of interest (Figure 8). Vegetation types include three variations of māhoe forest, two types of wetland, six types of stands of exotic or non-local indigenous trees with varying amounts of understorey, gorse scrub or shrubland with varying amounts of indigenous shrubs, pasture grassland, and buildings and associated infrastructure.

1. Māhoe-kānuka-mamaku forest
2. Māhoe forest
3. Māhoe/gorse-bracken shrubland
4. *Carex geminata* wetland (blackberry)
5. Inundation wetland
6. Eucalyptus trees/ gorse scrub (indigenous shrubs)
7. Eucalyptus/ gorse shrubland
8. Eucalyptus
9. Tasmanian blackwood
10. *Pinus radiata* trees
11. Pōhutukawa trees
12. Gorse scrub (indigenous shrubs)
13. Gorse scrub
14. Gorse shrubland
15. Pasture grassland
16. Buildings, garden, accessways

Vegetation types are described in more detail below:

1. <u>Māhoe-kānuka-mamaku forest</u>

   Māhoe-kānuka-mamaku (*Cyathea medullaris*) forest with patē, five finger, large patches of flowering akakiore (New Zealand jasmine, *Parsonsia heterophylla*) with and understorey of kawakawa (*Piper excelsum* subsp. *excelsum*), kanono (*Coprosma grandifolia*), porokawhiri (pigeonwood, *Hedycarya arborea*), karamū (*Coprosma robusta*), makomako (wineberry, *Aristotelia serrata*), poroporo (*Solanum laciniatum*), rangiora (*Brachyglottis repanda*), and patches of *Selaginella kraussiana*. This forest type also contains a diverse range of fern

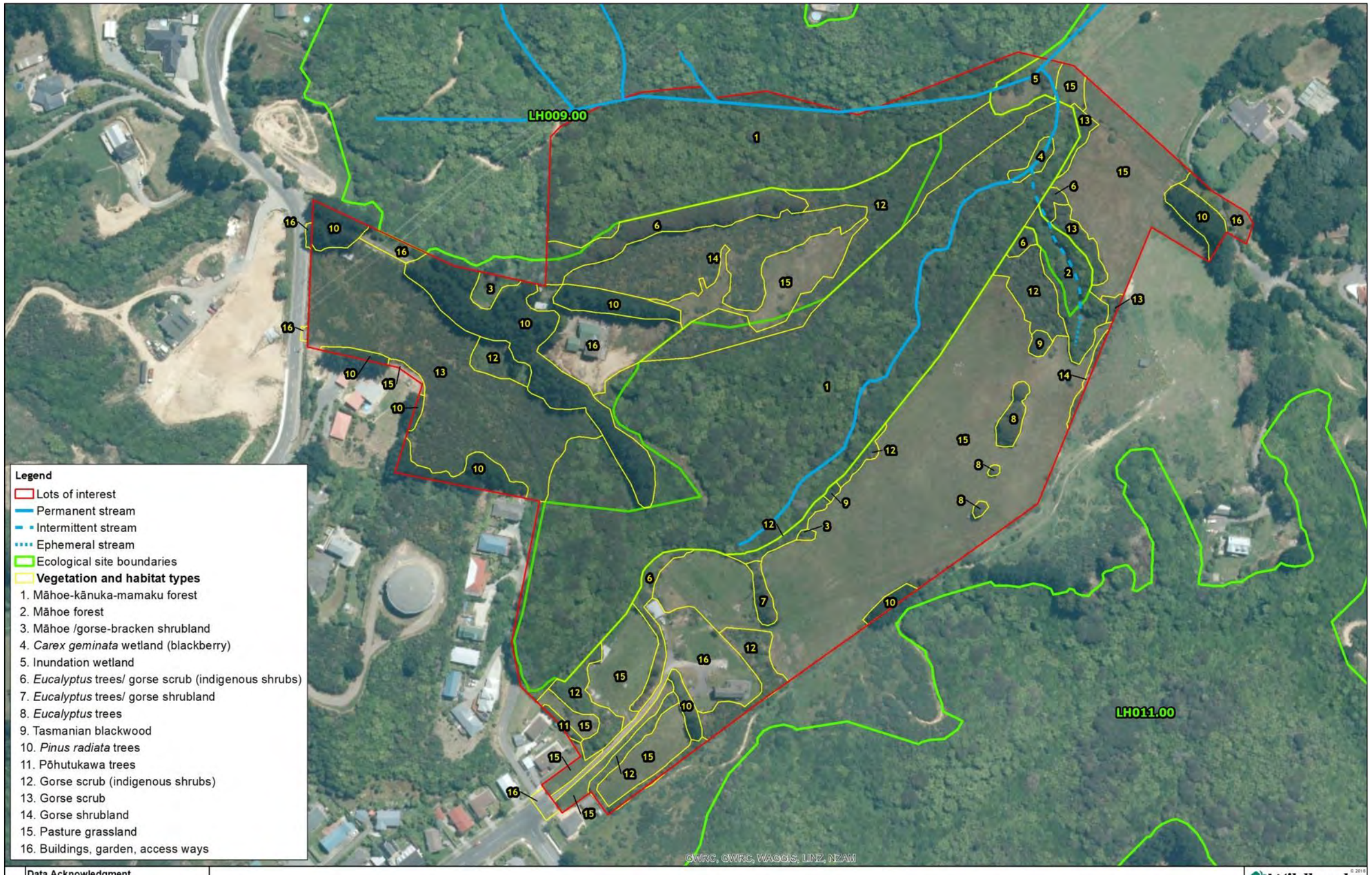

Figure 8. Vegetation and habitat types at 280 Major Drive and 51 Kaitangata Crescent, Kelson

species; four tree fern species including gully tree fern (*Cyathea cunninghamii*; regionally sparse) and a range of ground and epiphytic fern species associated with relatively dry hill slopes and damp stream-side gullies.

2. Māhoe forest

Māhoe-dominant forest, with occasional with five finger, mamaku, and pōhuehue, is confined to the outlier of the proposed Ecological Site LH009.00-Kaitangata Crescent scrub on Lot 2 DP 87274. The understorey has been grazed by horses and includes patē, ponga (silver fern, *Cyathea dealbata*), rārahu (bracken, *Pteridium esculentum*), kiwikiwi (*Cranfillia fluviatilis*), *Coprosma rhamnoides*, sickle spleenwort (*Asplenium polyodon*), hangehange (*Geniostoma ligustrifolium* var. *ligustrifolium*) bush lawyer (*Rubus cissoides*) as well as gorse, and foxglove (*Digitalis purpurea*). Other species include gully tree fern, gully fern (*Pneumatopteris pennigera*), whekī (*Dicksonia squarrosa*), *Hypolepis ambigua*, ring fern (*Paesia scaberula*), bush rice grass (*Microlaena avenacea*), meadow rice grass (*Microlaena stipoides*), and Yorkshire fog (*Holcus lanatus*). Wet areas along the intermittent stream mostly comprised monkey musk (*Erythranthe guttata*) with smaller areas of indigenous pūkio (*Carex secta*), *Hydrocotyle pterocarpa* and introduced one-rowed watercress (*Nasturtium microphyllum*) and soft rush (*Juncus effusus*) as well as creeping buttercup (*Ranunculus repens*), and lotus (*Lotus pedunculatus*).

3. Māhoe/gorse-bracken shrubland

A single māhoe tree with an understory of gorse, pōhuehue, bracken, and foxglove.

4. *Carex geminata* wetland (blackberry)

A small *Carex geminata* wetland occurs along this tributary of the Liverton Road Stream with occasional blackberry (*Rubus fruticosus* agg.) and more blackberry establishing around the margins.

5. Inundation wetland

The centre and wettest part of this relatively new wetland comprises monkey musk-rushland-with areas of *Carex geminata* and is surrounded by rank pasture grassland. The area is fringed by kānuka, mahoe, rangiora, and gorse with blackberry starting to establish.

6. Eucalyptus trees/gorse scrub (indigenous shrubs)

Planted Eucalyptus trees with an understorey of gorse scrub and occasional indigenous species, such as māhoe, pōhuehue, rangiora, and karamu. Also includes introduced broom (*Cytisus scoparius*), rank pasture grasses and occasional pōhutukawa (*Metrosideros excelsa*; indigenous but not local to Wellington).

7. Eucalyptus/gorse shrubland

   Planted Eucalyptus over relatively recent gorse shrubland lacking indigenous shrub species.

8. Eucalyptus

   Eucalyptus in pasture grassland.

9. Tasmanian blackwood

   Tasmanian blackwood planted along the fence, mainly in pasture, but some surrounded by gorse scrub or shrubland.

10. *Pinus radiata* trees

    Stands or single lines of pine (*Pinus radiata*) trees, generally with dense beds of pine-needles and very few plants in the understorey.

11. Pōhutukawa trees

    A line of pōhutukawa trees along the right-of-way to neighbouring properties. Includes an understorey of pampas (*Cortaderia selloana*), flax (*Phormium tenax*) and coprosma shrub species.

12. Gorse scrub (indigenous shrubs)

    Gorse scrub with occasional but varying indigenous shrub species in different parts of the site. In some areas the indigenous species comprise māhoe, mamaku, and pōhuehue, in others they are occasional kānuka, māhoe and five finger, and other areas have dense patches of pōhuehue.

13. Gorse scrub

    Gorse scrub without indigenous species in the canopy.

14. Gorse shrubland

    More recently established gorse that does not yet have a fully closed canopy and lacks indigenous shrub species in the canopy.

15. Pasture grassland

    The pasture grassland is generally cropped short by the horses that are on-site.

16. Buildings, garden, accessways

    There are various buildings throughout the site with associated gardens and accessways to various properties.

6. AQUATIC HABITAT

A perennial[1] tributary and an intermittent and ephemeral tributary[2] of the Liverton Road Stream occur within the lots of interest. The perennial tributary is in the gully between two of the proposed access roads and includes the larger arm of proposed Ecological Site LH009.00-Kaitangata Crescent Scrub (Figure 8). This larger arm is proposed to be retained in an unmodified state. The intermittent and ephemeral tributary run through an smaller arm of proposed Ecological Site LH009.00-Kaitangata Crescent Scrub that is proposed to be cleared and filled.

The ephemeral reach only flows after rain or when the ground is very saturated. Parts of the intermittent reach may not be visible above ground in dry periods, but the presence of monkey musk, pūkio, *Hydrocotyle pterocarpa,* one-rowed watercress, soft rush, and creeping buttercup, indicate that the area is wet to damp much of the time and channels indicate substantial water flow at times. Indigenous riparian vegetation covers the banks of the perennial tributary. Riparian vegetation along the intermittent/ephemeral reach comprises mixed indigenous and exotic species. Indigenous canopy (mainly māhoe or kānuka) provides full cover for both tributaries. Much of the upper catchment (upstream of the indigenous vegetation cover) for both tributaries currently has a cover of pasture.

The Liverton Road Stream is a tributary of the Hutt River, which has high aquatic values and fauna values. The Hutt River is included in the GWRC Proposed Natural Resources Plan as a river with significant indigenous ecosystems as habitat for six or more migratory indigenous fish species (Schedule F1) and includes important trout fishery rivers and spawning waters (Schedule I), the Hutt River mouth provides inanga spawning habitat (Schedule F1b), is a significant natural wetland (Schedule F3) and has significant indigenous biodiversity values in the coastal marine area (Schedule F4) (Greater Wellington Regional Council 2015)[3].

Sedimentation and contamination rates of the Hutt estuary are currently relatively low compared to other parts of the Wellington Harbour (Oliver and Conwell 2017). This is reflected in the significant bird and fish populations found there and indicates that these areas are worthy of the level of protection assigned in the Proposed Natural Resources Plan.

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1 Perennial streams have continuous flow in parts of its stream bed year-round during years of normal rainfall.

2 Intermittent streams normally cease flowing for weeks or months each year, or parts may flow underground, while ephemeral streams flow only for hours or days following rainfall.

3 As well as being of cultural significance (Schedule C4: Sites of significance to Taranaki Whānui ki te Upoko o te Ika a Maui), historic value (Schedule E5: Historic heritage freshwater sites), swimming and bathing values (Schedule H1: Regionally significant primary contact recreation water bodies), is a priority for water quality improvement (Schedule H2: Priorities for improvement of fresh and coastal water quality for contact recreation and Māori customary use), and provides drinking water (Schedule M1: Surface water community drinking water supply abstraction points) in the Natural Resources Plan.

7. FLORA

Thirty-eight indigenous and eighteen introduced plant species were recorded during the site visit (Appendix 1). The indigenous canopy trees are secondary succession species and range of indigenous tree ferns and vines are indicative of a late successional forest stage.

Plant species of environmental concern include Himalayan honeysuckle (*Leycesteria formosa*) and old man's beard (*Clematis vitalba*) plants of which were found within Vegetation Type 1 - māhoe-kānuka-mamaku forest. Blackberry (*Rubus fruticosus* agg.) is becoming problematical in Vegetation Type 4 - *Carex geminata* wetland (blackberry) and Type 5 - inundation wetland. Selaginella (*Selaginella kraussiana*) patches were present along the stream within the property and pampas (*Cortaderia selloana*) was seen near the wetlands and on neighbouring property.

8. FAUNA

8.1 Birds

Eleven bird species were recorded during the site visits on 19 September and 15 November 2017 (Table 1). Most of the species seen or heard are common indigenous or introduced bird species. Bellbird (*Anthornis melanura melanura*) was considered regionally sparse, but numbers are increasing throughout urban Wellington. eBird (2016) records for nearby forest areas include popokatea (whitehead; *Mohoua albicilla*; At Risk-Declining) and karearea (bush falcon; *Falco novaeseelandiae ferox*; At Risk-Recovering), both of species could also seasonally or occasionally use vegetation on the lots of interest.

Table 1: Birds seen or heard during site visits to 280 Major Drive and 51 Kaitangata Crescent, Kelson. Arranged by threat classification and scientific name.

Scientific Name	Common Name	Threat Classification[1]	Survey		
			19/09/17	15/11/2017	eBird 2016
Mohoua albicilla	Popokatea, whitehead	At Risk-Declining			✓
Falco novaeseelandiae ferox	Karearea, bush falcon	At Risk-Recovering			✓
Anthornis melanura melanura	Korimako, bellbird	regionally sparse	✓		✓
Chrysococcyx lucidus lucidus	Pipiwharaura, shining cuckoo	Not Threatened	✓	✓	
Circus approximans	Kahu, swamp harrier	Not Threatened	✓		
Gerygone igata	Kiroriro, grey warbler	Not Threatened	✓	✓	
Hemiphaga novaeseelandiae	Kererū	Not Threatened	✓	✓	✓
Prosthemadera novaeseelandiae novaeseelandiae	Tūī	Not Threatened	✓	✓	

[1] Bird threat rankings as per Robertson *et al.* (2017).

Scientific Name	Common Name	Threat Classification[1]	Survey		
			19/09/17	15/11/2017	eBird 2016
Rhipidura fuliginosa placabilis	Piwakawaka, fantail	Not Threatened	✓		✓
Tadorna variegata	Putangitangi, paradise shelduck	Not Threatened	✓		
Todiramphus sanctus vagans	Kotare, kingfisher	Not Threatened	✓	✓	
Vanellus miles	Spur-wing plover	Not Threatened	✓	✓	
Zosterops lateralis lateralis	Tauhou, silvereye	Not Threatened		✓	
Gymnorhina tibicen	Australasian magpie	Introduced and naturalised	✓	✓	
Passer domesticus	House sparrow	Introduced and naturalised		✓	
Platycercus elegans	Crimson rosella	Introduced and naturalised		✓	
Sturnus vulgaris	European starling (nesting)	Introduced and naturalised		✓	
Total Birds Observed			**11**	**11**	**5**

8.2 Lizards

No specific survey was undertaken for lizards and the information provided is based on a desktop assessment. Five lizard species - three geckoes and two skinks - have been reported nearby and habitat at the site is suitable for these species (Table 2). All three gecko species are likely to occur in kānuka, mamaku tree ferns, and secondary forest present at the site. Terrestrial skinks will be found in leaf litter and grassland at the site, potentially including pasture grassland. Pest control is being undertaken on adjoining land, which could mean that lizard numbers at the site are low to moderate.

It is likely that future development of the site will potentially affect at least small numbers of lizards of one or more species, which will trigger the need for a Wildlife Act Authority to disturb these species and their habitat.

A nearby subdivision (Kelson Heights) is required to undertake more detailed lizard surveys and also draft a Lizard Management Plan to outline methods for salvage and relocation of lizards should any lizards be located within the areas where vegetation is to be cleared.

Table 2: Lizard species likely to be present at 280 Major Drive and 51 Kaitangata Crescent, Kelson.

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Scientific Name	Common Name	Threat Classification[1]	Probability of Being On-Site
Naultinus punctatus	Barking gecko	At Risk-Declining	High (reported 300m from site)
Mokopirirakau "southern North Island"	Ngahere gecko	At Risk-Declining	High (reported 750m from site)
Woodworthia maculata	Raukawa gecko	Not Threatened	High (reported <2km from site)
Oligosoma polychroma	Northern grass skink	Not Threatened	High (reported <2km from site)
Oligosoma aeneum	Copper skink	Not Threatened	High (reported <3km from site)

[1] Lizard threat rankings as per Hitchmough *et al.* (2015) and species common name as per Bell (2014).

8.3 Aquatic species

It is unclear how the Liverton Road Stream connects to the Hutt River, or whether there are fish passage barriers that may prevent certain species from entering this waterway[1]. There are no records in the New Zealand Freshwater Database for the Liverton Road Stream. Dry Creek is a stream with similar features, to the Liverton Road Stream, two kilometres upstream along the Hutt River. Species recorded there include longfin eel (*Anguilla dieffenbachia*; At Risk-Declining), redfin bully (*Gobiomorphus huttoni*; At Risk-Declining), and shortfin eel (Anguilla australis; Not Threatened). Kōura (*Paranephrops* spp.; Not Threatened) may also occur in reaches with permanently or intermittently flowing water.

8.4 Bats

New Zealand bats are about the size of a mouse with wings. There are very few records in the Department of Conservation Bat Database (version 24 July 2017) for the Wellington Region. The database depends on people supplying results of surveys or sightings and neither has been supplied apart from those outlined below.

The nearest records of an 'unknown bat species' are from 1980:

- Wyndham Road, Pinehaven, Hutt Valley, which is approximately six kilometres to the east of the site.
- Te Marua - hillside above the Mangaroa River, which is approximately 19 kilometres to the northeast of the site.

These distances are within a potential bat home range and the records show that bats have been present in the wider area in the relatively recent past. It is possible that they are still present; most likely long-tailed bat (North Island) (*Chalinolobus tuberculatus* (North Island); Threatened- Nationally Vulnerable).

Bats roost in cavities in trees and under flaky bark and commonly use exotic tree species such as *Pinus radiata*.

9. POTENTIAL EFFECTS OF PROPOSED PLAN CHANGE

9.1 Overview

The proposed plan change will result in earthworks to create a subdivision and could result in effects related to:

- Vegetation clearance.
- Loss of waterways and decreased catchment permeability.
- Fish passage barriers.
- Reduced infiltration.

[1] Note that the Freshwater Fisheries Regulations 1983 require that works in the bed of any stream maintain or reinstate fish passage.

- Increased run-off coefficient.
- Downstream erosion and flooding.
- Sediment entering waterways.
- Loss of terrestrial and aquatic fauna and habitat.
- Weed introduction and spread.

The following sections address these issues.

9.2 Vegetation clearance

The total area of the lots of interest, plus the connections to adjacent roads, comprises 12.607 hectares, of which 5.008 hectares is indigenous vegetation (Table 3, Figure 9). The total area potentially affected by earthworks is 5.310 hectares, including 0.257 hectares of indigenous vegetation, 0.139 hectares of which is māhoe forest and māhoe-kānuka-mamaku forest within proposed Ecological Site LH009.00-Kaitangata Crescent scrub. Thus most of the indigenous vegetation is retained but there will be a small loss, including an 'arm' of the proposed Ecological Site.

Table 3: Area potentially affected by earthworks and which comprises indigenous vegetation and/or is included in proposed Ecological Site LH009.00-Kaitangata Crescent scrub.

Number on Figure	Vegetation/ Habitat Type	Total Area* (hectares)	Area Potentially Affected (hectares)	Within Ecological Sites and on Lots Of Interest	
				Total Area (hectares)	Area Potentially Affected (ha)
1	Māhoe-kānuka-mamaku forest	4.686	0.072	4.396	0.046
2	Māhoe forest	0.176	0.169	0.099	0.093
3	Māhoe/gorse-bracken shrubland	0.038	0.016		
4	*Carex geminata* wetland (blackberry)	0.027		0.027	
5	Inundation wetland	0.081			
6	Eucalyptus trees/ gorse scrub (indigenous shrubs)	0.323	0.14	0.016	0.002
7	Eucalyptus trees/ gorse shrubland	0.032	0.029		
8	Eucalyptus trees	0.05	0.05		
9	Tasmanian blackwood trees	0.021	0.019		
10	*Pinus radiata* trees	0.784	0.408		
11	Pōhutukawa trees	0.011			
12	Gorse scrub (indigenous shrubs)	1.015	0.529	0.247	0.11
13	Gorse scrub	1.051	0.313		
14	Gorse shrubland	0.481	0.28		
15	Pasture grassland	3.211	2.748	0.009	0.009
16	Buildings, garden, accessways	0.62	0.537		
	Total Area	**12.607**	**5.310**	**4.794**	**0.260**
	Total Indigenous	**5.008**	**0.257**	**4.522****	**0.139**

* Total area includes 0.024 hectares outside the bounds of the lots of interest where earthworks connect to 280 Major Drive and 51 Kaitangata Crescent, Kelson.

** Ecological Site is mapped on existing vegetation boundaries. In places this includes small areas of non-indigenous vegetation that buffer the ecological site such as gorse or pasture.

Earthworks and placement of fill alongside areas of indigenous vegetation, especially beside proposed Ecological Site LH009.00-Kaitangata Crescent scrub, has the potential to affect additional areas of vegetation through:

- Damage to or cutting through roots of indigenous vegetation, resulting in poor plant health or death. Fine roots that undertake most of the nutrient and water uptake extend well beyond the drip-line of vegetation (CCC 2017). Root damage also increases the risk of windthrow in storm events.
- Bark damage to trees, caused by construction machinery and vehicles. This can allow pathogens to establish in the wound and result in poor tree health or death.
- Soil and debris pushed or falling in to Ecological Sites from adjacent areas can cover and damage vegetation and habitats, including root zones (discussed further below).
- Soil compaction through parking or driving vehicles over roots.
- Storage of heavy equipment on the roots or sealing the soil (e.g. concrete or asphalt driveway) can result in reduced oxygen and water penetration of soil, and subsequent loss of plant vigour or death.
- Changing the level of soil by excavation or filling. Excavation can expose or cut through roots and destabilise trees, as already discussed above. Deposition of soil over or around vegetation can result in stem rot and plant death.
- Poisoning of roots, e.g. by washing equipment or fuel spillage, can result in plant health deterioration or death, and degradation and loss of vegetation and habitats.
- Removal of buffering vegetation, including exotic and weedy species, will increase edge effects which can include increased wind damage, forest interiors dry out due to increased air flow resulting in altered understorey assemblages, increased susceptibility to pest plant invasion of the forest interior, and possibly increased access by pest animals and domestic stock.
- Dust from earthworks and truck movements settling on foliage. This is generally a short-term effect and is resolved when it rains. Prolonged dry periods, or large amounts of dust can, however, reduce plant health.

The extent of these effects may be able to be largely avoided or mitigated with good site management and an appropriate development management plan.

9.3 Waterway loss and decreased catchment permeability

It is proposed to fill the gully that contains the intermittent/ephemeral tributary and to develop residential lots and access roads within the catchment of that stream and the nearby perennial, stream. About 72 metres of intermittent stream and about 17.5 metres of ephemeral stream would be lost.

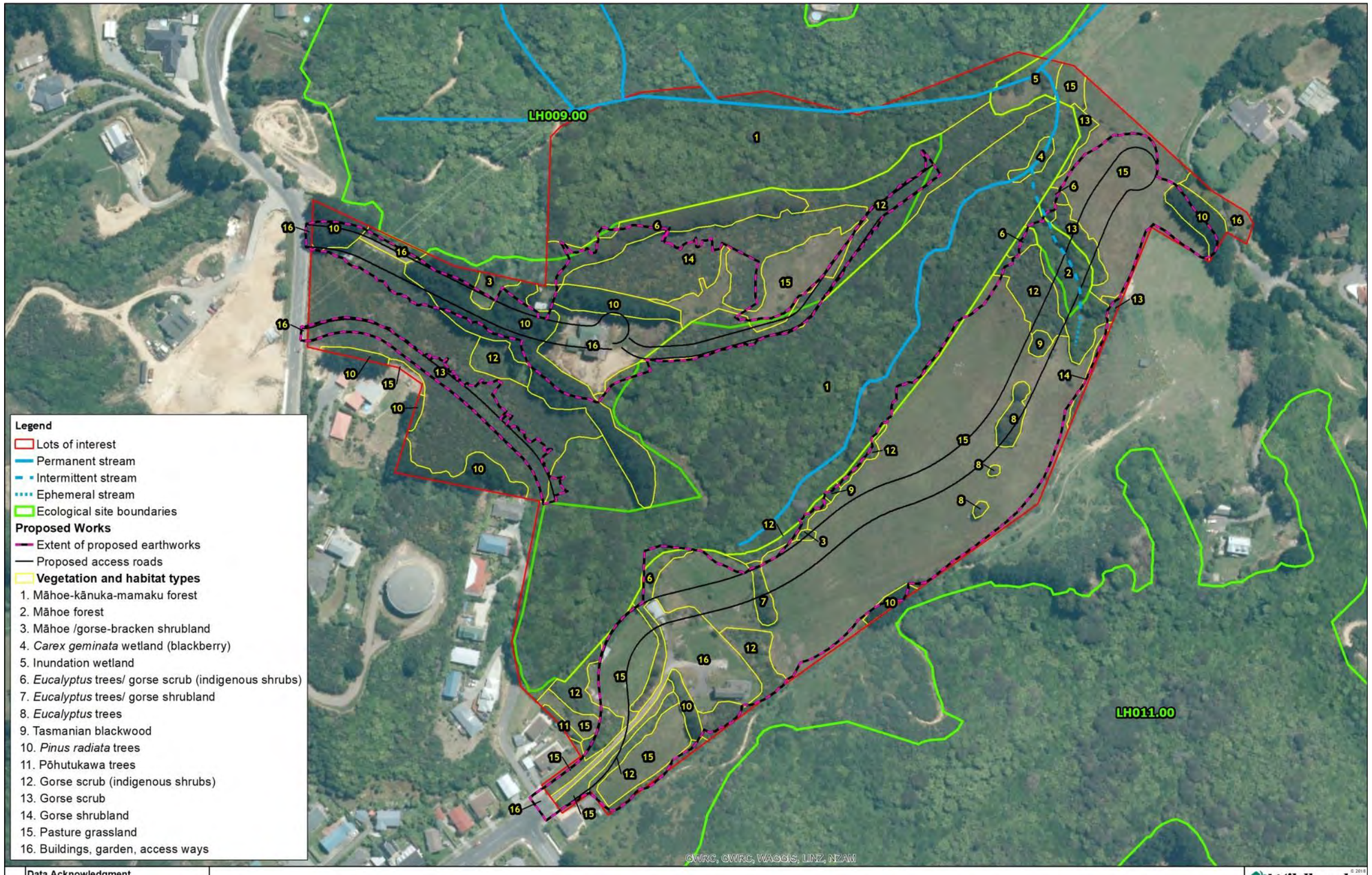

Figure 9. Potential effects on vegetation and habitat types at 280 Major Drive and 51 Kaitangata Crescent, Kelson

Headwater streams too small to appear on 1:50,000 scale topographic maps account for a high proportion of total stream length in the landscape. Such streams contribute significantly to regional biodiversity and yet are highly vulnerable to degradation due to land use changes (Storey 2010). Even where the stream flow is intermittent or surface water is reduced to a thin film, aquatic biodiversity may be high (Collier and Smith 2006).

Potential ecological effects on aquatic habitats include:

- Loss of catchment cover for streams.
- Reduced infiltration and groundwater recharge resulting in loss of flows in streams.
- Permanent reduction in the lengths of stream with perennial flows.
- Permanent increase in the length and duration of streamflow intermittency.
- Increased volume and velocity of stream flows during rainfall events with a greater than five years average return interval.
- Increased stream erosion during rainfall events with a greater than five years average return interval.
- Permanent loss of water quality in first order streams with cumulative downstream effects.
- Permanent loss of macroinvertebrate and fish diversity, and population size with cumulative downstream effects.

9.4 Fish passage barriers

The current design does not include any stream crossing or culverts. However, it is useful to know that where works are undertaken in a stream or culvert fish passage must be maintained or reinstated as per the requirements of the Freshwater Fisheries Regulations 1983.

9.5 Sediment entering waterways

Vegetation clearance and earthworks may result in increased amounts of sediment entering waterways including the Hutt River. Runoff from work sites may contain contaminants such as oils and fuels which could reach waterways. Sedimentation and pollution waterways can have detrimental effects on indigenous fish and birds.

9.6 Effects on surface water run-off

An increase in impervious surfaces (roads, roofs, driveways, etc) will result in reduced infiltration of rainwater. This means that there will be reduced groundwater recharge and a reduction in the volume of flow downstream in the catchment resulting in a permanent increase in the number and duration of periods when the streams run dry below the development. This contributes, in a very small way, to increased low flows in the Hutt River.

Roads, roofs, and driveways will mean that water from rain events will reach the stream channel more quickly and directly, flowing at a higher speed. This can cause increased erosion in previously natural waterways. Such water has often been heated by warm run-off surfaces to temperatures far higher than the stream receiving

environment and this, combined with an associated reduction in dissolved oxygen, can be lethal to aquatic fauna. Finally, sediment picked up from roof and road surfaces may carry toxic contaminants such as zinc and chrome, and run-off water may include pollutants such as paint, garden sprays or detergent. All of these will have cumulative downstream effects on aquatic habitat.

As the Parliamentary Commissioner for the Environment (2016) wrote: "Turning around the decline in water quality that is particularly evident in lakes and in lowland rivers and streams will be neither easy nor quick." In the past the environmental effects of land use change for small housing developments have been described as insignificant. However, the cumulative downstream effects of such development are becoming more evident, including increased levels of algae in the Hutt River (Perrie *et al.* 2012) and increased deposition of contaminated sediment at the Hutt River estuary (Oliver and Conwell 2017). To maintain or improve water quality, as required under the National Policy Statement on Freshwater (MfE 2017), these issues must be addressed at source.

9.7 Loss of fauna and fauna habitat

Lizards, Birds, and Invertebrates

Fauna such as lizards and invertebrates may be killed or injured during vegetation clearance. If vegetation clearance is undertaken during spring, then nesting birds may also be killed or injured.

Loss of this vegetation will also result in a minor loss of lizard, bird and invertebrate habitat. The vegetation is part of a vegetation corridor for fauna and especially birds, meaning that indigenous fauna may be temporarily displaced during works. Enlarging gaps between adjacent patches of vegetation could also create barriers to movement for less mobile species such as lizards and ground or tree dwelling invertebrates.

If lizards could be affected by land development this will trigger the need to apply for a Wildlife Act Authority permit (http://www.doc.govt.nz/get-involved/apply-for-permits/application-forms/) from the Department of Conservation under the Wildlife Act 1953. It is illegal to deliberately kill lizards or destroy their habitats without a permit (permits are required where indigenous lizards [regardless of species] and/or their habitats [regardless of area] are to be adversely affected by development). Permits are often granted, but there will be conditions to address mitigation of potential adverse effects.

Fish and Aquatic Invertebrates

The intermittent and ephemeral reaches of the stream will not provide year-round habitat for indigenous fish, although fish and koura may occur in the intermittent reaches during higher flows. As outlined above, these stream reaches can still support substantial invertebrate biodiversity, especially given the good canopy shading the stream. A fish survey, and a macroinvertebrate community survey, of the main stream reach adjacent to and below the proposed development would provide useful information on which to base further assessment of effects on aquatic communities;

including whether there are downstream mitigation opportunities (e.g. reducing fish passage barriers).

Bats

The species most likely to occur in vegetation at Kelson is the long-tailed bat (*Chalinolobus tuberculatus*) which is classified as 'Threatened-Nationally Critical' due to human-induced loss of habitat and the impacts of introduced predators (O'Donnel *et al.* 2017 in press). Long-tailed bats reproduce at a low rate (O'Donnell 2001), and the potential loss of individuals or their habitat is of conservation concern. There is a possibility, albeit very low, that central lesser short-tailed bats (*Mystacina tuberculata rhyacobia*; At Risk-Declining) may be present in the project area.

Most records of long-tailed bats in New Zealand are from indigenous forest, although exotic plantation forest is also now known to be an important habitat in some locations (Borkin and Parsons 2009). Activity of long-tailed bats in New Zealand rural landscapes tends to be associated with forest remnants and related edges (O'Donnell 2001), with foraging concentrated on linear landscape features such as forest edges (O'Donnell 2001).

Bats could, potentially, be affected by development works, through the removal of indigenous vegetation and any large indigenous or exotic trees used as roosting sites. Bats may roost under the bark of dead standing trees, or in hollow trees, including exotic species such as willows, pines and macrocarpa (Daniels 1982, Borkin and Parsons 2009, 2010). The loss of foraging habitat will be very minor and is unlikely to significantly affect foraging opportunities.

9.8 Weed introduction and spread

Earthworks may create opportunities for weed establishment. Plant propagules on machinery and in construction materials may spread or introduce new weed species to earthworks sites. These plants could subsequently invade the proposed Ecological Sites and compromise ecological values.

10. OPPORTUNITIES TO ADDRESS POTENTIAL ADVERSE EFFECTS

10.1 Overview

The following measures can be used to avoid, minimise, remedy, or mitigate potential adverse effects:

- Minimise clearance of indigenous vegetation.
- Minimise reclamation of waterways.
- Indigenous plantings and weed control.
- Incorporate a water sensitive urban design approach.
- Enhancement of other waterway reaches.
- Sediment and contaminant control management plan.

- Lizard management plan.
- Bat survey and management plan.
- Weed hygiene.

These matters are addressed below.

10.2 Minimise clearance of indigenous vegetation

If possible, re-align the proposed accessway so that it largely avoids the arm of the proposed Ecological Site LH009.00-Kaitangata Crescent scrub; that is move the accessway to the south west in the vicinity of LH009.00 and run it along the property boundary instead (Figure 10; Plate 12). This would reduce indigenous vegetation clearance, and impacts on the Ecological Site. It may not result in a significant reduction of sections if shared driveways and back-sections are included in the design.

The extent of earthworks and vegetation clearance should be clearly delineated on the site by means such as spray-paint on the ground or flagging tape on stakes or branches. Any special features that need to be retained (if any) such as specimen trees need to be fenced off using temporary fencing (e.g. stakes with ropes and flagging). These will help ensure that contractors are aware of the limits of the works and any sensitive features.

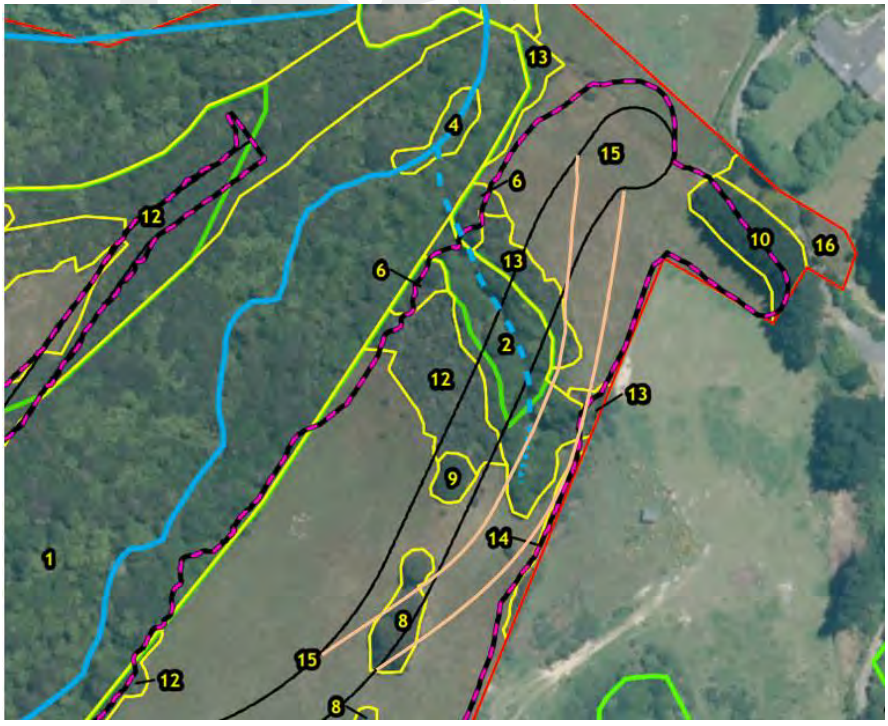

Figure 10: Pink lines illustrate an indicative and suggested re-alignment of the proposed access road to avoid proposed Ecological Site LH009.00-Kaitangata Crescent scrub and reduce impacts on indigenous vegetation and waterways.

10.3 Minimise infilling of waterways

If the accessway can be relocated as illustrated above then reclamation of waterways could potentially be restricted to the ephemeral reach of the stream and mostly avoid effects on the intermittent reaches. This would largely negate mitigation for the loss of stream habitat.

10.4 Indigenous plantings and weed control

In total including 0.257 hectares of indigenous vegetation would be cleared including 0.139 hectares within proposed Ecological Site LH009.00-Kaitangata Crescent scrub. A mitigation ratio of 3:1 has been proposed for regeneration forest for a number of other projects (e.g. Transmission Gully motorway, Huntly Bypass motorway, Fairview Subdivision) and such a ratio is likely to be relevant here also. Thus mitigation planting of up to 0.771 hectares, or 0.417 hectares if only considering the area within the proposed Ecological Site, may be required.

There are limited existing areas within the lots of interest that could be replanted or enhanced:

- 0.081 hectares of enhancement planting and weed control in the inundation wetland (Vegetation Type 5).
- 0.036 hectares of indigenous planting on the low-lying pasture grassland (Vegetation Type 15) adjacent to the inundation wetland.
- 0.027 hectares of weed control in the *Carex geminata* wetland (blackberry) (Vegetation Type 4) (total area of weed control would be less than 0.027 hectares).
- Potentially planting the fill faces with indigenous species, but the total area and suitability are yet to be confirmed, e.g. it may not be suitable to plant forest tree species as they could compromise fill face stability and/or shade future houses.

On this basis, there is currently insufficient area to undertake an adequate area of mitigation planting within the lots of interest.

Buffer planting along the exposed edges of indigenous vegetation will help to protect it from edge effects. This should be a double row, at one metre spacings, of low-growing, hardy, bushy and dense species that will quickly fill the exposed edge of the forest. Suitable species include: karamū (*Coprosma robusta*), *Coprosma rhamnoides*, māhoe, toetoe (*Austroderia toetoe*), tutu (*Coriaria arborea* var. *arborea*), and tauhinu (*Ozothamnus leptophyllus*).

10.5 Use a water-sensitive urban design approach

By using a water-sensitive approach to residential development stream flows can be stabilised, water quality in rivers, streams and harbours can be improved and we can protect or enhance ecological values. This can be achieved by the use of at-source stormwater management, filtering and conveyance design, bioretention, detention and

attenuation of run-off, and enhancement of the receiving environment (Wellington City Council no date, Auckland Council 2015).

10.6 Enhancement of waterway reaches

Ideally, enhancement of waterways would be undertaken within the Liverton Road Stream catchment or nearby catchments. To assess the potential effects of the proposed works and the potential ecological benefits a Stream Ecological Survey (SEV; Rowe *et al.* 2006) should be undertaken within the lots of interest and with the stream reach proposed as mitigation for the potential effect of the Liverton Road Stream. An SEV would allow the calculation of the length of stream to be restored or enhanced to mitigate for effects on the affected stream. The mimimum would be a 1:1 ratio and at least 72 metres of stream reach would therefore need to be restored.

There is no possibilty for restoration or enhancement of stream reaches within the lots of interest as all reaches already have good vegetation cover (mostly indigenous) and do not appear to contain fish passage barriers. It is also not possible to impose conditions on third parties to ensure that the potential effects within the lots of interest are adequately offset.

Nevertheless, it may be possible to reach agreement with one or more landowners to undertake mitigation. One possibility that could be explored is how the Liverton Road Stream connects to the Hutt River, and whether fish passage could be enhanced. There may be areas on the neighbouring properties downstream where additional indigenous planting or exotic weed control might result in a net benefit for the stream, but most of the stream appears to have a canopy.

There do not appear to be streams in the wider catchment that would benefit from restoration works as most streams in the surrounding catchments appear to have good existing vegetation cover.

10.7 Sediment and contaminant control management plan

A management plan should be produced that sets out how sediment will be captured and prevented from entering natural waterways during the various stages of the project. This should include the vegetation clearance and earthworks, but also once houses are constructed on site. The plan should identify how sediment and potential contaminants will be captured or otherwise dealt with at the implementation stage.

10.8 Lizard management plan

Areas of indigenous vegetation (and potentially areas of long grass or exotic shrubs) could support populations of indigenous skinks (generally ground-dwelling) and geckos (generally tree-dwelling). Artificial cover objects, pitfall traps, and spotlighting should be used prior to vegetation removal to rescue and relocate lizards to other parts of site that will not be affected by clearance or earthworks. Artificial cover objects will need to be placed in suitable (and safe to access) locations at least six months prior to vegetation clearance. Spotlighting and pitfall traps should be used in the week prior to vegetation clearance. Lizard handling permits will be required for this work, or a suitably qualified herpetologist with an appropriate permit could

undertake the work. Ideally this work would be outlined in a lizard management plan written and executed by an appropriately qualified herpetologist.

10.9 Bat survey and management plan

Six to 10 automatic echo-location bat boxes should be deployed for at least ten nights prior to any large trees being felled or vegetation clearance occurring, to ensure that no bats are roosting in these areas. Should bats be detected then an inspection of trees with suitable features, e.g. splits, cavities, dead trees etc, should be undertaken. Trees with such features should be checked by a qualified person with a bat handling permit (from the Department of Conservation) to ensure that no bats are residing in the trees immediately prior to felling.

An accidental bat discovery protocol should be included in the site plan that provides details what to do should bats be located (live, injured, or dead bats) after tree felling or vegetation clearance.

10.10 Weed hygiene

Ensure that all vehicles coming on to the site have been cleaned thoroughly to remove seeds and soil that could contain seeds. Ensure that fill and roading material imported from off-site are weed free. Ensure that areas of open soil are quickly hydro-seeded or otherwise covered to stop weeds from establishing.

11. MONITORING REQUIREMENTS

Monitoring of the extent of vegetation clearance should be undertaken to ensure that clearance is kept to a minimum and no more is cleared than is permitted, and that mitigation is provided for clearance above the permitted amount. In addition, a monitoring and management plan should be developed for all mitigation and any buffer planting areas to ensure that the plantings achieve the targets specified in the management plan.

If stream enhancement includes removing fish passage barriers then the aquatic communities in the mitigation reaches need to be monitored before and after fish passage modification to ensure that it has been successful. Other stream mitigation works (e.g. riparian planting, weed removal, etc) also need to be monitored for the duration specified in the site management plan to ensure that the desired outcome is achieved.

A list of environmental weeds and any actions to deal with these weeds on site should be included in the site management plan. At the conclusion of the works the site needs to be monitored to ensure that all environmental weeds have been dealt with as specified in the site management and that novel weeds have been eradicated.

Results of the monitoring should be provided to the relevant regulatory authorities.

12. CONCLUSIONS

The current proposed layout for the lots of interest avoids most of the indigenous vegetation on the site, including most of the proposed Ecological Sites LH009.00-Kaitangata Crescent scrub and all of adjacent Ecological Site LH011.00 Kelson forest extensions. The total area potentially affected by earthworks comprises 5.310 hectares. This includes 0.257 hectares of indigenous vegetation, 0.139 hectares of which is māhoe forest and māhoe-kānuka-mamaku forest within proposed Ecological Site LH009.00-Kaitangata Crescent Scrub. About 72 metres of intermittent stream and about 17.5 metres of ephemeral stream (the latter mostly outside the proposed Ecological Site) will also be lost.

There are few opportunities to undertake mitigation for the loss of indigenous vegetation within the lots of interest. There may be opportunities to address stormwater run-off effects. There are no opportunities to offset the loss of stream reach within the site. Options to avoid or reduce vegetation clearance and stream reclamation have been suggested, along with measures to reduce adverse effects on indigenous fauna and to avoid weed invasion. There may be opportunities for off-site mitigation in Belmont Regional Park where legal protection in perpetuity can be guaranteed.

ACKNOWLEDGMENTS

We'd like to thank Andrew Cumming (Hutt City Council) for initiating this project and Corinna Tessendorf (Hutt City Council) and Colin McElwain (Cuttriss) for useful on-site discussion. The occupiers of 280 Major Drive and 51 Kaitangata Crescent kindly provided permission to access the site.

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APPENDIX 1

VASCULAR PLANT SPECIES RECORDED AT 280 MAJOR DRIVE AND 51 KAITANGATA CRESCENT, KELSON

Scientific Name	Common Name	Threat Classification
Monocotelydonous trees and shrubs		
Cordyline australis	Cabbage tree	
Phormium tenax	Flax, harakeke	
Trees and shrubs		
Aristotelia serrata	Wineberry	
Brachyglottis repanda	Rangiora	
Coprosma grandifolia	Kanono	
Coprosma rhamnoides		
Coprosma robusta	Karamū	
Dysoxylum spectabile	Kohekohe	
Geniostoma ligustrifolium var. *ligustrifolium*	Hangehange	
Hedycarya arborea	Pigeonwood	
Kunzea robusta	Kānuka	
Melicytus ramiflorus	Māhoe	
Metrosideros excelsa	Pōhutukawa	
Piper excelsum subsp. *excelsum*	Kawakawa	
Pseudopanax arboreus	Five-finger	
Schefflera digitata	Patē	
Solanum laciniatum	Poroporo	
Vines		
Clematis paniculata	White clematis	
Parsonsia heterophylla	New Zealand jasmine	
Ferns		
Asplenium bulbiferum	Hen and chicken fern	
Asplenium flaccidum	Hanging spleenwort	
Asplenium polyodon	Sickle spleenwort	
Cranfillia fluviatilis	Kiwikiwi	
Cyathea cunninghamii	Gully tree fern	Regionally sparse
Cyathea dealbata	Silver fern	
Cyathea medullaris	Mamaku	
Dicksonia squarrosa	Wheki	
Hypolepis ambigua		
Microsorum pustulatum subsp. *pustulatum*	Hounds tongue	
Paesia scaberula	Ring fern	
Pneumatopteris pennigera	Gully fern	
Pteridium esculentum	Bracken	
Grasses, rushes and sedges		
Microlaena avenacea	Bush rice grass	
Microlaena stipoides	Meadow rice grass	
Austroderia toetoe	Toetoe	
Carex geminata	Rautahi	
Carex secta	Pukio	
Dicotyledonous herbs other than composites		
Hydrocotyle pterocarpa		

Scientific Name	Common Name	Threat Classification
INTRODUCED SPECIES		
Podocarps		
Pinus radiata	Radiata pine	
Cupressus macrocarpa	Macrocarpa	
Trees and shrubs		
Ulex europaeus	Gorse	
Leycesteria formosa	Himalayan honeysuckle	
Prunus sp.	Wilding cherry	
Cytisus scoparius	Broom	
Vines		
Clematis vitalba	Old man's beard	
Rubus fruticosus agg.	Blackberry	
Lycophytes (clubmosses, selaginella, quillworts)		
Selaginella kraussiana	Selaginella	
Grasses, rushes and sedges		
Cortaderia selloana	Pampas	
Holcus lanatus	Yorkshire fog	
Juncus conglomeratus	Soft rush	
Dicotyledonous herbs other than composites		
Digitalis purpurea	Foxglove	
Erythranthe guttata	Monkey musk	
Lotus pedunculatus	Lotus	
Nasturtium microphyllum	One-rowed watercress	
Ranunculus repens	Buttercup	

APPENDIX 2

SITE PHOTOGRAPHS

Plate 1: The proposed development avoids ~~clearing the~~ vegetation clearance and infilling of this permanent stream that runs parallel to the proposed accessways.

Plate 2: View from behind the residence on 280 Major Drive north across the māhoe-kānuka-mamaku forest in proposed Ecological Site LH009.00-Kaitangata Crescent scrub.

Plate 3: Permanent stream just upstream of the confluence with the intermittent stream in the arm of proposed Ecological Site LH009.00-Kaitangata Crescent scrub that could be affected by proposed works.

Plate 4: Boundary for proposed Ecological Site LH009.00-Kaitangata Crescent scrub follows the fence. Vegetation to the left of the fence is likely to be removed as part of the subdivision.

Plate 5: The change from ephemeral stream to intermittent stream reach is approximately where the vegetation changes from pasture grassland to leaf litter.

Plate 6: During the wet season some reaches of the intermittent stream are reasonably well defined.

Plate 7: Along other reaches, species such as monkey musk obscure the intermittent stream channel.

Plate 8: Fence posts (arrowed) indicate the level of sediment that has infilled this basin. Exotic wetland species such as monkey musk have established along the incised stream channels

Plate 9: Deeply-incised stream within the inundation wetland within the site.

Plate 10: Vegetation in the inundation wetland mainly comprises introduced monkey musk and soft rush, but areas of indigenous rautahi (*Carex geminata*) have also established.

Plate 11: Most of the inundation wetland lies on the neighbouring property. With permission from the landowners this area might be able to be included in a mitigation package.

Plate 12: The current proposal would fill this gully and remove the māhoe and gorse within the property. The main accessway would be constructed on the closest ridge. The suggested alternative alignment of the accessway would be closer the existing track on the other side of the gully.

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Appendix 3b – Stormwater Assessment & further Ecological Assessment – Morphum Environmental

Engineers & Consultants

Memorandum

Date: 9th April 9, 2019
To: Fly Building Ltd (c/o Sam Gifford)
From: Stu Farrant (Morphum Environmental)
Reviewed by: Kiran Parmar
Released by: Mark Lowe

Subject: Ecological Assessment for a Proposed Private Plan Change: 280 Major Drive and 51 Kaitangata Crescent, Kelson

Introduction

Morphum Environmental Ltd (Morphum) was engaged by Fly Building Ltd to prepare an Ecological Assessment in relation to a proposed private plan change at 280 Major Drive, 204 Liverton Road and 50 Kaitangata Crescent, Kelson. Fly Building Ltd aims to develop land at Lot 2 DP 87274 (7.2 hectares), Lot 1 DP 87274 (3.2 hectares) and Lot 4 DP 81542 (2.2 hectares).

Currently, Lot 1 and 2 are zoned as Rural Residential and Lot 4 is zoned as Hill Residential. The Hutt City Council (HCC) has proposed a Significant Natural Area (SNA) overlay which falls within Lots 1 and 2 (DP 87274) (Kaitangata Crescent Scrub – LH009.00 (24.7 hectares). HCC has also advised that works within the SNA should, ideally, be avoided.

Fly Building Ltd propose to rezone Lot 4 (Kaitangata Crescent) from Hill Residential Activity Area to a higher density, General Residential Activity zoning and a small section of General Recreation Activity Area. Lots 1 and 2 (being 204 Liverton Road and 280 Major Drive) are also proposed to be partly rezoned to General Residential Activity Area, with most of the area proposed draft SNA areas to be rezoned to General Recreation Activity Area.

An Assessment of Potential Ecological Effects was undertaken by by Wildlands Consultants[1]. The Wildlands' report discusses the actual and potential effects of the proposed plan change (and associated earthworks, subdivision, land use and streamworks). The Wildlands report also provided recommendations to avoid and mitigate these effects.

The Wildlands' report concluded that the proposed plan change, and indicative lot layout would largely avoid indigenous vegetation on the site. However, there would be a loss of approximately 0.25 hectares of indigenous vegetation including approximately 0.14 hectares associated with the Kaitangata Crescent

[1] Wildlands (2018). Assessment of Potential Ecological Effects of a Proposed Plan Change for the Major Gardens Property, Kelson, Lower Hut

Scrub SNA. Additionally, approximately 72 meters of intermittent stream and approximately 17.5 meters of ephemeral stream would be lost.

Subsequent to the Wildlands report HCC have revised the SNA boundary in line with on ground field validation and the proposed re-zoning and development is now fully contained outside of the SNA (*Figure 1*). This memorandum t5herefore still addresses the earlier points raised by Wildlands with clarifications related to the amended SNA boundary and other potential impacts which should be considered as part of the proposed plan change.

This memorandum largely concurs with the findings and recommendations of the Wildlands report and therefore it is intended the two documents are interpreted in conjunction with each other.

This memorandum outlines the actual and potential ecological effects of the proposed plan change and provides recommendations to avoid and mitigate these effects. While potential effects associated with potential future earthworks and subdivision of the site are briefly mentioned, recommendations to avoid, mitigate or offset these impacts are only discussed at a high-level until specific development details and layout are finalised. It is noted that stormwater will need to be managed to meet Regional and Local Council requirements for water quality and hydrology. This is likely to require the integration of stormwater treatment devices with retention/detention to protect the downstream receiving environments including tributaries and the main stem of the Hutt River.

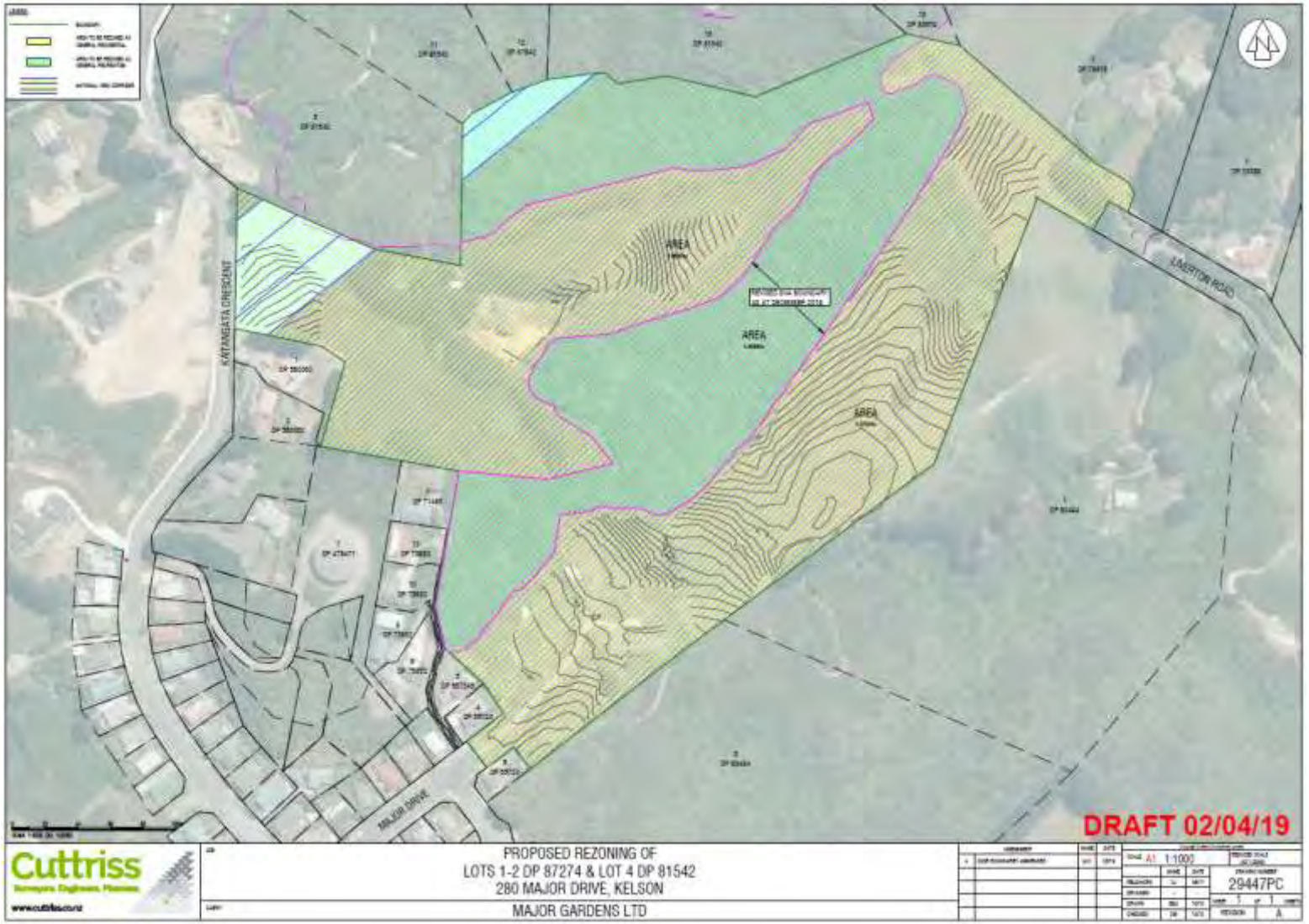

Figure 1Proposed Rezoning at 280 Major Drive and 51 Kaitangata Crescent, Kelson. Map supplied by Cuttriss, 2019

1. Background

A site survey conducted by Wildlands (with input from Cuttriss Consultants and Hutt City Council) which identified the current site conditions, potential impacts and remediation options. These findings are summarised below.

Proposed Significant Natural Area

The site includes, and is adjacent to, the draft SNA Kaitangata Crescent Scrub – LH009.00 (24.6 hectares). The SNA is dominated by mahoe-mixed broadleaved scrub with kanuka, kohekohe, cabbage trees and tree ferns. Small areas of gorse shrubland are also present.

The boundary of the SNA has been revised since the initial proposed SNA mapping which was the basis of the wildlands Report. The indicative development layout (and re-zoning) has also been revised in repose to a range of considerations. Based on these amendments the current indicative development layout does not extend into the draft SNA.

Aquatic habitat

The headwaters of unnamed tributaries of the Hutt River lie within the site. The streams, collectively referred to as Liverton Road Stream and tributaries, include perennial, intermittent and ephemeral watercourses. The perennial tributary is situated in a gully within the larger arm of the proposed SNA. The area is proposed to be retained and protected in an unmodified state. The intermittent and ephemeral tributaries run through a smaller finger of land (to the north east of lot 2 DP87274) which was previously within the boundary of the proposed SNA. The amended SNA boundary excludes this gully. Whilst this gully is now no longer within the SNA it is proposed that development does not result in infilling in this gully to retain the existing stream and wetland habitat.

The Liverton Road Stream is a tributary of the Hutt River, which has high aquatic and fauna values. The Hutt River is included in the GWRC Proposed Natural Resources Plan as a river with significant indigenous ecosystems. The effects of the proposed plan change, and subsequent earthworks on the streams within the site need to be considered in the context of the downstream receiving environments.

Flora

Land cover types on the site at 280 Major Drive and 51 Kaitangata Crescent, Kelson include three variations of mahoe forest, two types of wetland, six types of stands of exotic or non-local indigenous trees with varying amounts of understorey, gorse scrub or shrubland with varying amounts of indigenous shrubs, pastoral grassland and buildings.

A mixture of indigenous and introduced plant species were recorded during the Wildlands site visit. The indigenous canopy trees are secondary succession species, with tree ferns and vines indicative of late successional forest communities with little anthropogenic disturbance. Large areas of the site (including the majority of the proposed SNA have been fenced for stock exclusion over a long period with resultant regeneration. These existing fence lines therefore provide a reasonable well-defined demarcation between degraded pasture and the SNA.

The Wildlands report also identified introduced plant species of environmental concern, including Himalayan honeysuckle, old man's beard, blackberry and pampas. There are also a number of large exotic trees including various Eucalyptus species, Blackwood and Wattle.

For a detailed description of the ecological types and domain in the Wellington Region, refer to the Wildlands report (2018).

Fauna

Bird surveys identified common indigenous or introduced bird species such as fantail and silvereye. In addition, at risk, declining native species such as whitehead, and bush falcon were also recorded.

A desktop assessment of potential lizard populations was undertaken. The Wildlands' report identified five lizard species – three geckoes and two skinks, which have a high probability of being on site. These species have been recorded in similar habitat types less than 2 km from the Major Gardens site. Whilst they are likely to be predominantly within the proposed SNA areas their range may extend to areas beyond these which will require appropriate management at the time of development.

There are no records in the New Zealand Freshwater Database for aquatic species in the Liverton Road Stream. Wildlands indicate species such as longfin eel, redfin bully and shortfin eel may be present in these watercourses. An assessment was not made of potential barriers to fish passage downstream of the site although it is considered likely that climbing species such as banded kokupu and koaro will have access to the tributary streams which contain good quality habitat. Koura are also expected to be present given the condition of habitat.

No bat surveys were conducted in the site. However, bats roost in cavities in trees and under flaky bark and commonly use exotic species such as pine which are found on site.

The ecological impact of changes to habitat types and availability on fauna in the site and surrounding SNA should be considered at the resource consent phase.

2. Potential effects of proposed plan change

Wildlands (2018) considered the potential effects of the proposed plan change and associated earthworks, subdivision, land use and streamworks to be:

- Vegetation clearance.
- Loss of waterways and decreased catchment permeability.
- Fish passage barriers.
- Reduced infiltration.
- Increased run-off coefficient.
- Downstream erosion and flooding.
- Sediment entering waterways.
- Loss of terrestrial and aquatic fauna and habitat.
- Weed introduction and spread.

The memorandum broadly concurs with the above potential impacts; however, it is noted that since the Wildlands report, amendments to the indicative development layout have avoided the loss of waterways , loss of aquatic fauna and fish passage barriers. It is considered remaining impacts can be appropriately mitigated through the design of the proposed development. It is also noted that the proposed plan change does not directly impact the perennial and intermittent streams within the SNA.

This memorandum addresses these potential effects of the proposed plan change under the following headings;

1. Potential reclamation of a watercourse located South-West in Lot 2 DP 87274.
2. Potential impacts on removing buffer vegetation around regenerating forest
3. Ecological values and opportunities in the gully in Lot 2
4. Impacts associated with the increased residential density afforded through the rezoning, including:
    - Impacts on the freshwater receiving environment due increased impervious surfaces and associated stormwater related effects
    - Disturbance and edge effects on the proposed SNA resulting from increased residential density, including potential increased populations of pets and increased vectors for weed establishment though garden waste.

1. Potential reclamation of a watercourse located South-West in Lot 2 DP 87274.

The watercourse located north of the residential dwelling on 280 Major Drive has not been previously assessed in the Wildlands' report. The watercourse is also not mapped on the draft maps provided by Cuttriss (2018). It is uncertain whether the watercourse is a natural, modified watercourse or an artificial channel created downstream of the outfall at 280 Major Drive. It appears to maintain baseflow which could indicate that it intercepts shallow groundwater which may have previously contributed to distributed seeps at the head of the tributary.

Morphum recommends preserving open watercourses in the development area, and watercourses are only piped or culverted where no other practical alternative exists. Where such modification of the watercourse is necessary, the adverse effects can be reduced by minimising culvert length. It appears that the existing watercourse *South-West in Lot 2 DP 87274* would be well suited to be integrated into the development offering potential to enhance the ecological values within the development open space. This can be considered at subsequent design stage.

2. Potential impacts on removing buffer vegetation around regenerating forest in SNA due to re-zoning in Lot 1 DP87274.

A site visit by Morphum was undertaken in 2018 to visually assess the potential for adverse impacts on the proposed SNA. Subsequent to this visit, the SNA boundary was amended by HCC such that the previous potential encroachment no longer occurs (*Figure 1*). These site investigations also concluded that vegetation outside of the SNA which is to be cleared in the Southern extent of Lot 1 DP87274 is gorse-dominated scrub, with relatively low ecological significance.

However, the removal of any buffering vegetation, including exotic and weedy species, can increase edge effects. Edge effects include increased wind damage, modified light and temperature regimes, increased susceptibility to pest plant invasion and increased access by pest animals.

It is anticipated that edge effects on the native vegetation in the SNA will be minimal due to the existing contours in the landscape and the position of the proposed road. The gorse dominated vegetation proposed to be cleared is situated on a ridge, whilst the native vegetation within the draft SNA is situated along a steep gradient, generally also protected from wind damage. It is recommended that edge effects are minimised by enhancement planting along the boundary of the SNA and the proposed development area in Lot 1 DP87274. The enhancement planting should include eco-sourced native species suitable for the Hutt Valley.

As recommended by Wildlands, any enhancement buffer planting should include a double row, one metre spacings, of low growing, hardy, bushy and dense species that will quickly fill the exposed edge of the forest. Suitable species include karamu (*Coprosma robusta*), mahoe (*Coprosma rhamnoides*), toetoe (*Austroderia toetoe*), tutu (*Coriaria arborea*) and tauhinu (*Ozothamnus leptophyllus*).

3. Ecological values and opportunities in the gully in Lot 2 DP87274 previously included within SNA (anticipated impacts associated with residential land use).

Subsequent to an initial site visit by Morphum in 2018, the SNA boundary was amended by HCC and no longer includes the gully within Lot 2 DP87274. Morphum consider the watercourse within the gulley in Lot 2 DP87274 to exhibit wetland characteristics afforded to impoundment resulting from a

possible historical farm crossing and stock pugging at the base of the gully. The lower extent of this gully therefore provides opportunities for enhancement which we believe could be integrated with management of site generated runoff in terms of water quality treatment (possibly in upper section of gully above extent of intermittent flow) and attenuation to support objectives for 'hydraulic neutrality'. This could provide a robust integrated solution which reflects the existing natural template and protects existing ecological values whilst also reducing the risk of downstream impacts from water quantity (scour) and quality.

Morphum recommends utilising a lot and roading layout design which minimises disturbance to the gulley. In particular, we would recommend that no infilling of the intermittent reach occurs which commences close to the upper extent of existing vegetation. We believe this can be achieved with a restricted road across the head as proposed in the current indicative layout. Retention of the lower intermittent section of watercourse may be balanced by integrating stormwater treatment (raingarden) into the upper gully designed to mitigate impacts from post development stormwater whilst connecting the community with the existing ecological and amenity values. Alternatives to locate stormwater treatment elsewhere in the development could also be considered but could be less efficient due to levels and pipe alignments to capture runoff from all of the developed areas. As highlighted by Wildlands, there are no opportunities to offset the loss of watercourse within the site.

4. Impacts associated with the increased residential density afforded though the rezoning Increased impervious areas and associated effects on the receiving environment.

The Regional Freshwater Plan for the Wellington Region (2014) includes an objective to "encourage the treatment of stormwater discharges to reduce the adverse effects of such discharges on the receiving water body for the treatment of stormwater discharges" (5.2.14). While policy 4.8.3 of the Proposed Natural Resources Plan seeks that the adverse effects of stormwater discharges are to be minimised, taking a source control and treatment train approach to new activities and land uses, and implementing water sensitive urban design in new subdivision and development. Furthermore, the National Policy Statement for Freshwater Management (NPS-FM, 2017), directs regional councils to maintain water quality in high value rivers and streams and enhance water quality in degraded rivers and streams.

The increased residential density afforded by the proposed rezoning (400 m^2 lots) and increased allowance for impervious area (up to 70% imperviousness) will result in increased effects on the receiving environment above the existing baseline. This will include development related contaminants (heavy metals, nutrients and sediments), physical characteristics (increased temperature, PH and dissolved oxygen) and modified flow in small frequent rain events. Unless appropriately managed these development, impacts have the potential to cause significant adverse effects on downstream aquatic life. These can be managed through the following proposed rule framework:

Expert assessment shall be undertaken and provided with any subdivision application. This report shall identify the following:

(i) The existing ecological values of the onsite waterbodies (and their downstream receiving environments);

(ii) The stormwater runoff rates for the onsite waterbodies (and their downstream receiving environments) to maintain ecological values (including for smaller frequent events like the 1 in 1 year and 1 in 2 year rainfall events);

(iii) The acceptable level of contaminants in the stormwater to maintain the ecological values of the onsite waterbodies (and their downstream receiving environments);

(iv) The engineering practices (for example, bio-retention devices and detention tanks) required to treat and control all stormwater runoff to ensure that the identified ecological values are appropriately protected and the stormwater runoff rates and treatment identified in the points above are achieved.

It is noted that the gulley within Lot 2 DP 87274 appears to provide a suitable location within the existing typography to integrate stormwater detention and water quality treatment to improve the ecological outcomes for the receiving environments by reducing potential erosion and contaminants entering the downstream receiving environment. This could be further considered at sub division stage.

An inundation wetland on the North-East boundary of the SNA proposed to be re-zoned as general recreational was identified by Wildlands as a potential location for a modified stormwater treatment wetland. The Wildlands' site visit showed that the wetland is comprised of monkey-musk-rushland with areas of *Carex geminata* and is surrounded by rank pasture grassland. This extends onto the adjoining property title and is expected to support a range of ecological values in its existing state.

However, it is recommended that modification to the habitat types in the SNA are minimised and that works to make the existing wetland suitable to support stormwater management are incompatible with

the intent of the SNA. Further, the existing wetland is located online to the perennial streams within the SNA. An online stormwater wetland is likely to provide limited treatment function and have adverse effects on the downstream receiving stream reaches. In addition, effects such as vegetation removal associated with access and construction/maintenance of the wetland should be considered.

The Wildlands report highlights the inundation wetland as an area for mitigating vegetation loss elsewhere in the site, as a result of the proposed plan change. The Wildlands report recommends 0.08 hectares of enhancement planting and weed control in the wetland, with an additional 0.04 hectares of indigenous planting on the low-lying pasture grassland adjacent to the wetland. This recommendation was completed during the consenting stage process. While this mitigation planting is supported to provide ecological enhancement, it will not address ongoing post development stormwater management. Regardless this is a detail for a future subdivision application of the site and can be dealt with more appropriately through the consenting frame work which exists under both the General Residential and General Recreation Activity Area frameworks proposed.

Summary and recommendations

1. Based on Morphum's review of available information and site investigations it is considered that the site is suited to residential development assuming appropriate mitigation measures are in place. This reflects the intent to exclude development from the identified proposed SNA areas and the un-named perennial tributary. The revised SNA boundary is supported.
2. Options to avoid development within the gully in Lot 2 DP 87274 have been developed to retain and protect the lower intermittent section. It is noted that the upper portion of gully is well suited to dedicated stormwater treatment for water quality and quantity.
3. Options to deliver site wide stormwater management are sought which address contaminants, modified flow, peak flows (hydraulic neutrality) and physical characteristics. This could include a mix of lot scale solutions (such as rainwater tanks) and distributed public devices (raingardens). These shall provide stormwater treatment prior to discharge to the environment. These provisions are well covered in the proposed rules framework proposed by the applicant.
4. Early consideration is given to construction phase erosion and sediment control including limiting earthworks to reduce mobilisation, comprehensive ESCP and phased implementation of devices such as raingardens to control potential impacts during building phase.

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Appendix 4 – Landscape and Visual Assessment

280 Major Drive
Proposed Plan Change
LANDSCAPE & VISUAL ASSESSMENT

Prepared for Kelson Heights Ltd by
DRAKEFORD WILLIAMS LTD
March 2019

1.0 Background

Drakeford Williams Ltd has been engaged by Fly Building Ltd to prepare a landscape and visual effects assessment for the proposed 280 Major Drive Plan Change from *Rural Residential* and *Hill Residential* to General *Residential and General Recreation*.

An initial site survey was undertaken on 21 March 2018 and further field work for the visual assessment on 28 June 2018.

1.1 Documentation referred to includes:

- Cuttriss Plans 29447P2 dated 16-04-18 (Draft)
  - Sheet 1: Proposed rezoning
  - Sheet 2: Indicative Subdivision
- Draft Assessment of potential ecological effects of a proposed plan change for the Major Gardens property, Kelson, Lower Hutt. Wildlands January 2018
- Hutt City Landscape Evaluation: Draft Technical Assessment. Boffa Miskell Limited for Hutt City Council. Revision B, December 2016

2.0 The site

The Application site is located on the lower slopes of the Western Hutt hills, at the northern end of Major Drive, the main road servicing the suburb of Kelson. It comprises 3 separate properties at 280 Major Drive, 50 Kaitangata Crescent and 204 Liverton Road that together total 12.58ha. Properties at Major Drive and Kaitangata Crescent have established dwellings on them, while Liverton Road is an undeveloped, unoccupied site.

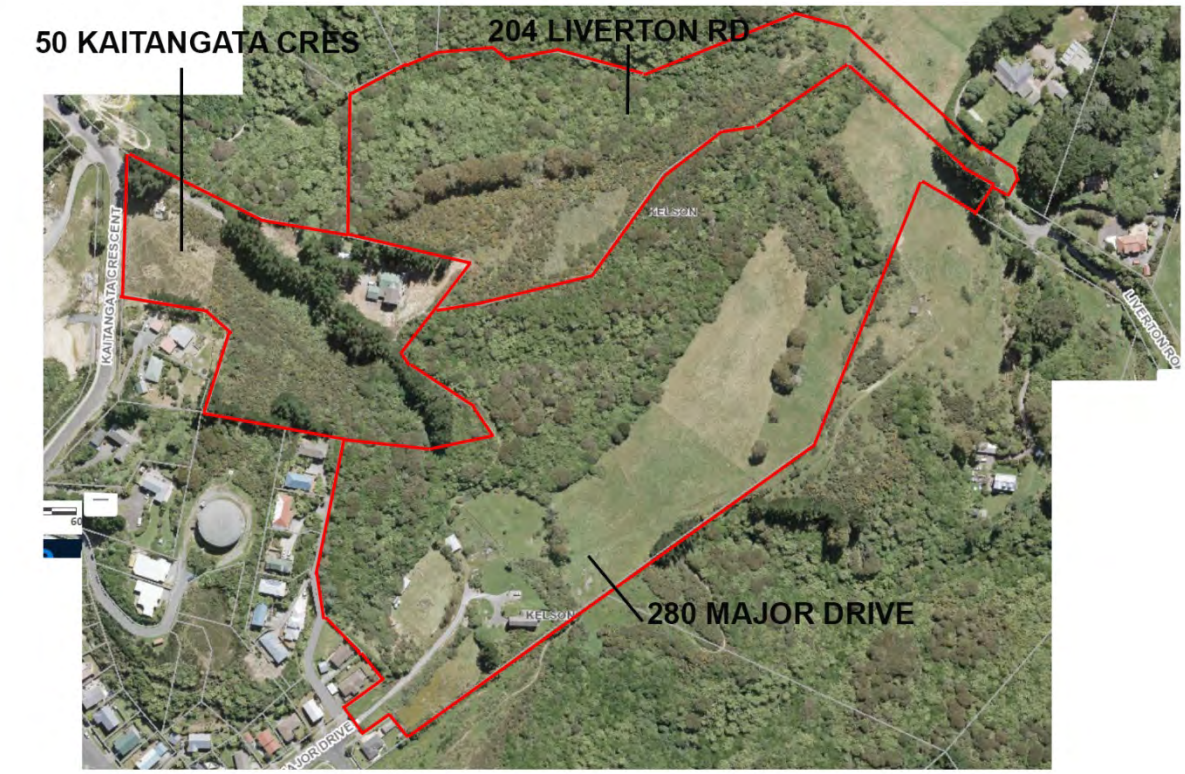

Figure 1: The 3 properties that form the application site (NTS).

The 280 Major Drive property is a natural extension of Major Drive and the entry driveway is located between neighbouring Residential zoned properties. Otherwise the remainder of the site is bounded by large lot rural residential development. While the site itself is zoned a mix of Hill Residential and Rural Residential, from a landscape perspective the landform, land cover and orientation of the two zones are similar. It appears that the different zoning is the result of historic town planning processes rather than a reflection of their inherent landscape and topographic qualities.

2.1 *Wider Landscape context*

The lower slopes of the Belmont Hills are described in the Hutt Landscape Study:

The Belmont Hills character area includes the rounded hilltops and slopes above the Wellington Fault escarpment, adjacent to the lower reaches of Te Awa Kairangi/Hutt River. The hills with their distinctive flat tops form part of a central plateau separating Wellington Harbour and the Hutt Valley from Porirua Harbour.

Much of this character area is part of the Belmont Regional Park, the first park in New Zealand to combine land for recreation, conservation and farming purposes. In pre-European times this would have been covered in podocarp forest. However, the elevated and open hilltops are now in pasture and grazed primarily by sheep. In the lower and more sheltered slopes and gullies, broadleaf indigenous hardwoods are present, although there are also large sections of gorse and broom and some pine plantations, particularly in the area to the east of Haywards Hill Road (SH58).[1]

2.2 *Local landscape context*

The west facing slopes of the Belmont Hills are folded into a series of ridge and valley systems. The site is located on the western side of a broad valley, contained by the Kaitangata Crescent ridgeline to the north and west, the Outram Grove ridgeline to the southwest and the Belmont Quarry ridgeline to the east. It drains into the Liverton Road stream, one of several smaller stream and gully systems in the catchment that run down to SH2 at the foot of the hills, and that drain into the Hutt River. Belmont Quarry, which began sometime between 1970s and 1980s extends along a low ridge running up from the Hutt River. By 2013 the north/western areas of the quarry had been retired and revegetated, and the quarry now has started expansion further west towards Liverton Road.

Figure 3 below illustrates the local landscape context: Belmont Hills and Belmont Regional Park on the higher hill slopes; suburban Kelson at the end of Major Drive to the west; the wide arc of Kaitangata Crescent with its rural residential development; Belmont Quarry to the east; and with the land draining down to SH2 and the Hutt River.

[1] Hutt Landscape Study. Boffa Miskell April 2012.

Figure 3: The site (red outline) in its wider context (NTS).

Based on Hutt City aerial imagery, the Belmont Hills were grazed in the 1940s and in Kelson at least, until the mid-1950s. An aerial from 1941 shows the site and its environs largely in grass or in the process of being cleared for grazing, but with the stream and bush areas on the steeper slopes above the stream between 280 Major Drive and 204 Liverton Road retaining some form of scrub/bush cover. There is an established homestead screened by shelterbelts on the property at 200 Liverton Road. *Refer Figure 4 below.*

Figure 4: Site landscape and context 1941. HCC aerial.

There are no aerials on the HCC website for the 1950's but by 1977 earthworks for residential subdivision on Outram Grove, Drummond Crescent and Tarras Grove were underway. *Refer Figure 5 below.*

Figure 5: Site landscape and context 1977. HCC aerial.

Over the following 20 years, subdivision extended north along Kaitangata Drive. There is on-going revegetation on fenced off/protected areas on both the Liverton Road and the Major Drive properties (within what is now proposed as the Kaitangata Crescent Scrub SNA) as well as revegetation on the proposed Kelson Forest Extensions SNA south of 280 Major Drive. *Refer Figure 6 below.*

Figure 6: Site landscape and context 1994. HCC aerial.

Subdivision for large lot lifestyle blocks up Kaitangata Crescent began in the early 2000s, and by 2008 there was a clear pattern on the hill slopes of residential use, with small paddocks of grazing on the flatter, accessible slopes, with steeper hillsides and gullies fenced off and left to revegetate. *Refer Figures 7 and 8 below.*

Figure 7: Site landscape and context 2002. HCC aerial.

Figure 8: Site landscape and context 2008. HCC aerial.

In summary, the 70 years of aerial photography illustrate a clear pattern of changing land use on the site and its wider valley context, from a pastoral landscape to a rural residential landscape. The most versatile and accessible areas of land are in pasture or homestead sites, and the steeper hillsides and gullies have been fenced and left to revegetate naturally.

2.3 *The site landscape*

In broad terms, the site landform has two flat northwest running spurs, with associated gully systems between them. The proposed Significant Natural Area (**SNA**) clearly delineates the steeper gully landforms and the most valued vegetation and streams. The spurs are grazed (280 Major Drive) or form part of the homestead site (50 Kaitangata Crescent), with the remainder in rank grass and gorse.

Figure 9: Updated draft SNA, November 2018. HCC gis.

2.4 *Site Visibility and Views*

Wider views

The site is relatively contained within a shallow valley, which is backdropped by the Belmont Hills and Belmont Regional Park in wider views from Hutt City to the west. The east facing slopes above Kaitangata Crescent are screened in views from the floor of Hutt Valley by intervening landform, namely the reservoir knoll on Benhar Close. The steep west facing slopes are visible from the floor of Hutt Valley, although the flatter tops of the spurs are screened by vegetation within the site and on site boundaries.

Belmont Regional Park
There are limited views into the site from Belmont Regional Park, namely the east facing slope above Kaitangata Crescent, with the closest track being 700m from the site.

Public Roads
There are no views into the site from the road on Major Drive. Drivers on Kaitangata Crescent have views of the east facing slopes above the road, particularly for traffic heading down towards Major Drive.

Closer views from adjoining properties and dwellings
Residents at 34 and 34A Kaitangata Crescent have views into the site partially screened by existing vegetation on the joint boundary.

The house at 90 Kaitangata Crescent is located in bush. The upper dormers and roof are visible from the Major Drive spur, with potential views back into the site some 180m distant.

There are direct views into the site for residents at 256 Major Drive that backs onto the Major Drive spur. Residents of 257-271 Major Drive and 3-25 Drummond Crescent look down and over site. However the lifestyle property at 29 Drummond Crescent house sits below the site with intervening bush cover screening views to the north towards the site.

Dwellings on the larger Liverton Road properties have established vegetation around the homestead site. The Major Drive spur is screened in views from the dwelling at 200 Liverton Road, but residents potentially have views to the northwest up towards the Kaitangata spur, which is 160m away. Similarly residents at 198 and 199 Liverton Road have potential viewshafts to south and southwest to the upper Kaitangata spur site some 225m distant.

Mid ground views from dwellings
Residents of life style properties west of Kaitangata Crescent have views to the east facing slopes of the Kaitangata spur. Properties include 29 Kaitangata Crescent 160m from the site boundary, 51 Kaitangata Crescent 70m from the site boundary but set below the road, 51 Kaitangata Crescent 330m from the site boundary and 57 Kaitangata Crescent 320m from the site boundary. These dwellings are all located west of the site, with views orientated to the west and north.

The upper levels of dwellings at 104 and 110 Kaitangata Crescent lie directly north of the site and are visible from the Major Drive spur. They are respectively 260m and 216m distant from the site.

Distant views from dwellings
A number of properties at the northern end of Kaitangata Crescent potentially have views to the site although it is likely that topography and retained vegetation in SNAs screen the Kaitangata spur and only the more distant Major Drive spur is visible.

There are potential views into the site from Hill Residential zoned properties including 120, 130, 138, 160 and 180 Kaitangata Crescent, which are 250-400m from the site.

The wider site is visible from more elevated but distant properties on Kaitangata Crescent such as 81E Kaitangata Crescent that is located 700-800m from the site.

2.5 *Wider residential context - character and amenity*

As described in *2.2 Local Landscape Context*, the site is located in a pocket of rural landscape, between existing residential Kelson to the south and Belmont Quarry to the north. On-going revegetation on the steeper hillsides and within gullies has changed the landscape character; what was once a pastoral landscape is now a bush landscape divided by smaller areas of lifestyle development in the form of paddocks and homestead sites surrounded by shelter and amenity plantings. The pattern of landuse and landcover has created a landscape with high amenity values, with bush cover on the steep, visible slopes dominating houses and grazed paddocks on the more accessible slopes.

3.0 Statutory Context

The Application site is part Hill Residential and part Rural Residential; 50 Kaitangata Crescent is zoned Hill Residential. Properties at 280 Major Drive and 204 Liverton Road are zoned Rural Residential.

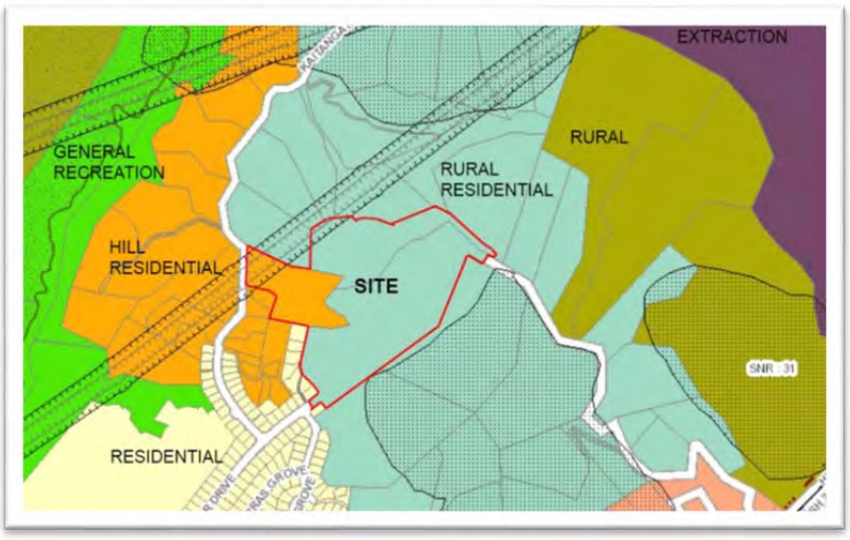

Figure 10: Site zoning. Site outlined in red

3.1 Outstanding and Special Amenity landscape values

Policies 25 and 27 in the Greater Wellington RPS require that the region's outstanding natural features and landscapes (ONFs and ONLs), and special amenity landscapes (SALs) be identified in district and regional plans. Hutt City currently does not identify ONFLs or SALs in its district plan. Council commissioned landscape architects and landscape planners from Boffa Miskell Consultants to carry out an evaluation of Lower Hutt's landscapes. The evaluation has been undertaken but remains in draft form.

No ONFLs or SALs have been identified within the Major Drive site Hutt City draft Technical Assessment identifies the Belmont Hills that backdrop the site as a SAL.

In November 2018 Council decided not to promote a change to the District Plan but to proceed with a non-regulatory approach for the identification and protection of significant areas including areas of significant indigenous vegetation and significant habitats of indigenous fauna, outstanding natural features and landscapes, and areas with high natural character values in the coastal environment.

Given the lack of District Plan direction, the site has been assessed against the criteria set out in Policies 25 and 27 of the RPS. Refer Appendix 1 for the detailed assessment.

In summary, the site is considered too small to be a landscape. It has no significant geological, topographical and natural process components. While a considerable part of the site contains areas of native vegetation that have acknowledged ecological attributes, its sensory and shared values are not so high as to assess it or the landscape it sits in as an outstanding natural landscape or special amenity landscape.

3.2 Hill Residential Activity Area Zone

4.1 Intent

Hill Residential zoning anticipates residential development on sites with difficult topography, limited access and/or established bush cover so long as the activity maintains the character and visual amenity of the wider landscape and avoids adverse effects on visual amenity values.

The policies in particular focus on maintaining citywide amenity values by reducing the density of built development on the higher and more visible hill slopes that form an undeveloped skyline and a green hill backdrop to local residential development in views from the floor of the Hutt Valley. They also aim to limit bulk earthworks on the more highly visible hill slopes and to ensure that earthworks reflect natural landforms and are sympathetic to the natural topography.

4.2 The development form that could result under existing Hill Residential zoning

Over and above the usual General Residential rules and conditions, the District Plan achieves the objectives and policies of the Hill Residential zoning through a minimum net site area, controls on the location of accessory buildings and criteria for assessing the effects of site earthworks on visual amenity and landscape values. The objective is to create low density development that is characterised by more the predominance of established vegetation and site landform than by the prominence of the built development and associated earthworks.

The development form could include:

- large lots over 1000sqm with boundaries that respond to the landform. This would potentially include lots with an irregular form and layout;
- bulk earthworks for roading;

- small scale earthworks to form building platforms for individual dwellings or possibly for clusters of lots;
- cut and fill batters graded to replicate existing landform, at gradients that can be topsoiled and replanted;
- and retention of site vegetation on areas that have not been earthworked including established forest, mahoe gorse scrub or gorse shrub grassland. This vegetation possibly could be incorporated into residential lots with the potential to protect it through conditions.

3.3 Rural Residential Activity Area Zone

5.1 Intent

Rural Residential zoning provides for a mix of residential and small scale rural activities as long as the character and amenity values of the area are maintained, and the intrinsic values of ecosystems are protected. The policies acknowledge that rural residential developments generally occur in close proximity to urban development but note that the greatest point of difference between Rural Residential and Residential zones is the scale and intensity of the pattern of subdivision.

The objective is to create low density development where lot sizes allow for appropriate landscaping and screening to mitigate adverse visual effects of built development and activities on the amenity of adjoining properties and wider rural residential landscape character values.

The Plan acknowledges that allowing for rural residential development adjacent to urban environments may result in urban expansion with Objective 8A 1.1.2:

To retain land as rural residential, recognising that it may be appropriate to utilise the land for urban expansion in the future if demand justifies this.

5.2 The development form that could result under existing Rural Residential zoning

The District Plan achieves the objectives and policies of the Rural Residential zoning through a minimum requirements for sites, large minimum yard requirements and controls on the location and size of buildings in order to maintain the character and amenity values of rural residential areas for other rural residential residents.

The development form could include:

- large lots over 2ha, substantially larger than those in urban residential environments but also significantly smaller than in the Rural General Activity Area;
- Generous yard requirements
  (i) Principal Building 10.0m.
  (ii) Accessory Building 5.0m.

(iii) For all buildings and structures 20m minimum set back from water bodies, where the average width of the water body is greater than 3.0m measured from natural bank to natural bank; or 3.0m minimum set back from water bodies, where the average width of the water body is less than 3.0m measured from natural bank to natural bank.

- Maximum site coverage of 450sqm;
- Earthworks consistent with Rules in the General Residential zone. Earthworks designed to be sympathetic to the natural topography and to reflect local landforms by protecting significant escarpments, steep hillside areas, and preventing erosion and slips.
- Commercial forestry providing that there is amenity planting on the road boundary, and setbacks from side boundaries to mitigate adverse effects of shading.

3.4 General Residential and General Recreational Activity Areas

6.1 Intent

The General Recreation zoning promotes residential development that maintains and enhances the amenity values and residential character of Hutt City. It allows for the development of single dwellings across a range of housing styles including some higher density cross-lease, semi-detached and some multi-unit development.

The intent of the objectives and policies is to ensure residential development that is compatible with the surrounding development and does not diminish the existing sense of place and amenity values.

There are fewer restrictions on earthworks in the General Residential zone than in the Hill Residential zone, although 14I 1.1 notes: '*Where any earthworks proposed exceed specific requirements, consideration will be given to the maintenance and enhancement of visual amenity values, and any historical or cultural significance of the site concerned. Consideration will also be given to any rehabilitation measures which can be undertaken to mitigate adverse effects upon the environment.'*

General Residential objectives and policies allow development on hill slopes providing that the earthworks are shaped and revegetated in a manner that avoids unnecessary scarring of the landscape and mitigates adverse effects on the character and amenity of both the existing and the proposed residential development.

6.2 The development form that could result under General Residential and General Recreation zoning

With regard to the recreational zoning, relevant Objectives and Policies 7A1.1.1 AND 7A 1.1.2 in the General Recreation Activity Area focus on the potential for adverse effects of recreation activities on landscape values and on adjoining residential amenity values.

Based on the relevant objectives and policies, residential development in the General Residential and Recreation zoning allows for a subdivision where:

- Biophysical effects are avoided, remedied or mitigated. This means, for example, that waterways and associated riparian vegetation will be retained where practicable but can be removed if the effects can be mitigated through sensitive stormwater systems and off-set planting outside the site;
- Minimum lot sizes of 400sqm and 35% site coverage allow for large scale removal of site vegetation
- Lot size and site coverage controls anticipate earthworks for roading and to establish building platforms, providing that the remaining unbuilt earthworked areas are rehabilitated or replanted to reduce their visual impact. The bulk earthworks can create a highly geometric landform of large scale building platforms separated by grass covered batters. Effects on landscape values have the potential to be high;
- Large cut or fill batters are high visual impact initially but will be partially screened by intervening buildings when seen in distant views from elevated properties. Visual effects are mitigated by the establishment of 'green' grass cover on the exposed batter faces, with batters left to naturally revegetate over time;
- Rules for residential density and controls on recession planes, yards and building dimensions limit potential effects on the visual amenity of adjoining residential properties, although provide no guarantees on maintaining the degree of visual separation provided by the existing landform and vegetation. Consequently the development is characterised by the dominance of built development over natural landscape elements;
- Active recreation areas are allowed for but are required to be small scale or removed from existing and proposed properties to avoid adverse effects on residential amenity.

6.0 Landscape and visual effects resulting from the three potential development forms

6.1 Hill Residential

Based on the relevant objectives and policies, residential development in the Hill Residential zoning could provide for a subdivision where:

- Biophysical effects are minimised by controls on earthworks and the removal of significant vegetation, and the requirement for earthworks that are low visual impact and/or can be revegetated to look more natural;
- Large lot sizes and site coverage controls encourage the retention of site vegetation, and provide opportunities for further large scale planting within the lots:
- Low density development reduces the visual impact of the overall built development including the houses, accessory buildings and driveways, when seen in distant views into the site.
- Effects on the character and amenity of the surrounding residential area are mitigated by controls on the height, scale and density of built development,

which in turn ensures that established vegetation and site landform has visual prominence over the built development and earthworks.

- Effects on the amenity of adjoining properties in particular are mitigated by policies that manage the siting of built development and the clearance of vegetation along the residential boundary.

On a site this size, subdivision would be limited to a maximum 12 lots. However due to the site topography and bush cover (even without the potential SNA overlay) all building platforms, roading and infrastructure would be limited to the flatter and more accessible Kaitangata and Major Drive spurs.

Biophysical effects

- Large scale Earthworks for road access across spur
- Limited earthworks for individual building platforms
- Bush cover and streams (SNA) undisturbed

Effects on landscape character

Low density residential development, but concentrated on the spurs

Effects on visual amenity

- Visible built development from adjoining properties 34 and 34A Kaitangata, 1/ 265, 269,271 and 256 Major Drive although lots are large enough for new residents to plant for shelter, amenity and screening.
- Medium visibility built development in distant views, but dwellings seen within a wider bush context.

6.2 Rural Residential

Based on the relevant objectives and policies, residential development in the Rural Residential zoning could provide for a subdivision where:

- Large lot sizes and site coverage controls encourage the retention of site vegetation, and provide opportunities for further large scale planting within the lots. However there are limited controls re the removal of existing site vegetation, unless it has some other form of protection, such as the SNA overlay:
- Low density development reduces the visual impact of the overall built development including the houses, accessory buildings and driveways, when seen in distant views into the site.
- Effects on the character and amenity of the surrounding residential area are mitigated by controls on the height, scale and density of built development.
- Effects on the amenity of adjoining properties in particular are mitigated by policies that manage the siting of built development along the residential boundary.

On a site this size, subdivision would be limited to a maximum 6 lots. Theoretically there would be fewer limitations on vegetation removal and earthworks, and it would be possible to build house sites within the bush canopy, and leave the more

accessible parts of the site in pasture or outdoor living. However the potential SNA overlay would limit roading earthworks and the location of building platforms.

Biophysical effects

- Moderate scale Earthworks for road access across spur
- Earthworks for individual building platforms
- Bush cover and streams (SNA) undisturbed

Effects on landscape character

Very low density residential development on the spurs

Effects on visual amenity

- Visible built development from adjoining properties 34 and 34A Kaitangata, 1/ 265, 269,271 and 256 Major Drive although lots are large enough for new residents to plant for shelter, amenity, woodlots and screening if desired, or to graze a few sheep or cattle.
- Low visibility built development in distant views but dwellings seen within a wider bush context.

6.3 General Residential and General Recreation

The development form that could result under the proposed General Residential and General Recreation zoning could include:

- residential development with the majority of lots 400m² and above;
- minimum front and side yards and recession planes apply;
- vegetation removal across most of the site, although existing landcover is mainly pasture, gorse, scrub and shelterbelt plantings;
- bulk earthworks for roading through the site to provide appropriate connectivity for the dwellings and for infrastructure;
- earthworks across the remainder of the site for built development, acknowledging that the spur landforms proposed for Residential zoning are on more gentle gradients than the proposed General Recreation zone;
- potential for a more geometric landform with large building platforms, separated by cut or fill batters;
- exposed earthworks hydroseeded or revegetated where they adjoin SNA /Recreation zone.

Given the site topography and the proposed zoning, subdivision on a site this size theoretically could result in 70-80 lots, replicating existing residential development on adjoining streets.

Biophysical effects

- Moderate scale Earthworks for road access across spur
- Large scale earthworks for building platforms
- Bush cover and streams (SNA) will be relatively undisturbed

Effects on landscape character

- Medium density residential development on the spurs
- Lower density development on the sides of spurs, such as the east facing slopes above Kaitangata Crescent

Effects on visual amenity

- Visible built development from adjoining properties 34 and 34A Kaitangata, 1/ 265, 269,271 and 256 Major Drive
- Medium to low visibility built development in distant views. Residential development is concentrated in two defined areas, but dwellings are seen within a wider bush context and because of the local topography will be viewed as a single row of houses rather than a series of houses stacked up the hillside

6.4 Summary

Over time, the pattern of land use on the site has resulted in native restoration on the steep and inaccessible slopes and grazing on the flatter tops and sides of the spurs. The outcome is that whether the site is zoned Hill Residential, Rural Residential or General Residential, the native bush cover will be 'protected'. Residential development will be limited to the non-vegetated, more accessible slopes, which are less visible in views into the site from surrounding properties than the steeper bush clad slopes.

7.0 Proposed Plan Change alignment with the local and wider environment

The site landform at 280 Major Drive is folded into rolling to moderately steep spur and gully slopes that in turn have directed land use and vegetation patterns. In short, the potential SNA area effectively has been defined by the topography. It is proposed that this area or rather the majority of the area is zoned General Recreation. The land has high landscape values, with vegetation and wetland areas that make it inappropriate for any activity other than passive recreation. It will form the backdrop for residential development, providing for passive recreation, visual amenity and retaining the landscape character values of the wider rural, hill residential and rural residential landscape.

The development form associated with the General Residential Activity Area is in keeping with the local and wider environment for the following reasons:

Site location within a residential landscape context

General Residential zoned land is located in Kelson, at the end of Major Drive, and bounded by Residential zoned lots and 2 relatively small Hill Residential lots along the western boundary. In other words, the site sits within a residential landscape and access to the site is through local streets lined with residential development.

Location of Recreation zone

The development form allows for a General Recreation zone that encompasses the steeper, vegetated hill slopes. Its northern and southern boundary aligns with the boundary of proposed SNAs. The formation of a zone with contiguous vegetation and vegetation values is appropriate in this location.

Site landform and topography

The site is characteristic of the Kelson landscape with the landform folded into rolling spur and gully slopes. The proposed residential land avoids the steeper hill slopes and gullies, which will minimise effects on existing streams and native bush cover.

While large scale earthworks will be required for residential development, it is possible to mitigate the effects of earthworks through revegetation of exposed areas, particularly those fill batters adjoining existing bush. Given the topography, it is unlikely that more engineered cut faces will be visible from outside the site and they too can be grassed and left to naturally revegetate over time.

Pattern of development

The topography and form of the site will require a linear development pattern. It is unlikely that there will be more than a single row of houses either side of the road. They will be viewed as a row of houses, backdropped by vegetation and with vegetation in the foreground, rather than a mass of built development stepping up the hillside.

At a wider scale, the General Residential rules anticipate built development in terms of front yards, building height and maximum site coverage that is comparable to existing Kelson development. The outcome is a similar pattern of residential development, albeit at a slightly denser scale with smaller lots and potentially larger houses, given current day expectations for internal garages.

Connectivity

The General Residential development form allows for a new road along the Kaitangata spur that extends the existing 50 Kaitangata Crescent driveway. It also allows for the extension of existing Major Drive road. This provides access to land at the end of Liverton Road which is otherwise unavailable for subdivision due to the winding nature of Liverton Road, and the requirement for a rural buffer between residential development and Belmont Quarry.

8.0 Conclusion

There are negligible effects on the wider Belmont and Hutt environment. The site is backdropped by the Belmont Hills, and at a local scale residential development will be backdropped by existing bush cover on the steeper General Recreation zoned slopes.

Rural residents to the north, east and south of the site are buffered from built development by landform and existing bush cover, which reduces the potential for adverse effects on the visual amenity values of the hillside environment and on existing residential character and amenity.

The proposed General Recreation zoning provides an opportunity to maintain the landscape and amenity values of the most valued areas of wetland and vegetation.

While the development form is characterised by the dominance of built development over natural landscape elements, the residential zone rules limit potential effects on the visual amenity of adjoining residential properties. In limited close and midground views from properties in Drummond Street, Major Drive, the development will be perceived as an extension of the existing suburban housing area. In more distant views from rural residential properties to the north and east, there will be change in land use to a more intense form of residential development, but one compatible with Kelson and with limited impact on their existing rural amenity. From a landscape and visual perspective the General Residential Activity Area zoning is appropriate for this site.

APPENDIX 1: Outstanding Natural Features and Landscapes & Special Amenity Landscapes

The 2013 Regional Policy Statement for the Wellington Region provides the following direction for ONFLs and SALs.

Policy 25: Identifying outstanding natural features and landscapes – district and regional plans
District and regional plans shall identify outstanding natural features and landscapes having determined that the natural feature or landscape is:
(a) exceptional or out of the ordinary; and
(b) that its natural components dominate over the influence of human activity, after undertaking a landscape evaluation process, taking into account the factors listed below.

Policy 27: Identifying special amenity landscapes – district and regional plans
District and regional plans may identify special amenity landscapes which are distinctive, widely recognised and highly valued by the community for their contribution to the amenity and quality of the environment of the district, city or region. Any special amenity landscape evaluation process carried out to inform the identification of any such special amenity landscapes shall take into account the factors listed in policy 25.

For the purposes of clarification, special amenity landscapes when compared to outstanding natural landscapes will have, when assessed under the factors listed in Policy 25:
(a) highly valued, but not clearly exceptional landscape values, in an area where the **natural components** of landscape character dominate; or
(b) highly valued, including exceptional landscape values, in an area where the modification of landscape by **human activity** is a dominant influence on landscape character.

New Zealand Institute of Landscape Architects (NZILA) best practise recommends using a robust and consistent rating scale for assessing the magnitude and importance of conditions, change or effects. The following seven point scale has been used for the following assessment

Extreme	Very high	High	Moderate	Low	Very low	Negligible

Natural science factors (a) Natural science values: these values relate to the geological, ecological, topographical and natural process components of the natural feature or landscape:	**Evaluation**	**Relative significance**
(i) Representativeness: the combination of natural components that form the feature or landscape strongly typifies the character of an area.	The site topography is typical of the ridge and valley systems that run along the lower slopes of the western Belmont Hills. Apart from the Belmont Quarry site, the landform is relatively unmodified. The hill slopes were grazed until the 1950s but as farming has been replaced by rural residential and residential development, many of the steeper slopes have revegetated. In this valley system, large water courses are largely intact, although smaller ephemeral creeks have been compromised by land use activities.	VH
(ii) Research and education	The site is not used for natural science research and education.	L
(iii) Rarity: the feature or landscape is unique or rare within the district or region, and few comparable examples exist.	The site sits on the lower slopes of the Belmont Hills. The ridge and gully landform is not unique but is characteristic of most Wellington hills and ranges.	L
(iv) Ecosystem functioning: the presence of healthy ecosystems is clearly evident	Part of the site falls within a proposed Ecological site (Kaitangata Crescent scrub) with relatively	H

in the feature or landscape.	intact vegetation and a good quality stream covers almost 40% of the development site. The eastern site boundary is close to a second proposed ecological site (Kelson Forest extensions).	
Sensory factors (b) Aesthetic values: these values relate to scenic perceptions of the feature or landscape:		**Relative significance**
(i) Coherence: the patterns of land cover and land use are in harmony with the underlying natural pattern of landform and there are no significant discordant elements of land cover or land use.	Natural patterns of landcover have been disrupted by grazing and built development but what remains reflects the underlying landform – where the smaller gully systems and steep slopes have been left to revegetate.	M-L
(ii) Vividness: the feature or landscape is visually striking and is widely recognised within the local and wider community for its memorable and sometimes iconic qualities.	The site landform is part of a larger landscape. It has no features that elevate the landscape and make it special or iconic to the wider community, other than its unbuilt/undeveloped character.	L
(iii) Naturalness: the feature or landscape appears largely unmodified by human activity and the patterns of landform and land cover appear to be largely the result of intact and healthy natural systems.	The majority of the vegetation communities on the site are nationally and locally common.	L
(c) Expressiveness (legibility): the feature or landscape clearly shows the formative processes that led to its existing character.	The small creek and gully systems are a remnant of the original landscape. While they demonstrate the underlying landform, their size and location limits their capability to display formative processes.	M
(d) Transient values: the consistent and noticeable occurrence of transient natural events, such as seasonal change in vegetation or in wildlife movement, contributes to the character of the feature or landscape.	There are no notable or even noticeable transient natural events.	L
Shared or recognised factors		
(e) Shared and recognised values: the feature or landscape is widely known and is highly valued for its contribution to local identity within the immediate and wider community.	The site forms part of and is adjacent to areas of bush remnants that are proposed ecological sites.	H
(f) Tangata whenua values: Māori values inherent in the feature or landscape add to the feature or landscape being recognised as a special place.	No specific tangata whenua values have been noted for this site.	L
(g) Historical associations: knowledge of historic events that occurred in and around the feature or landscape is widely held and substantially influences and adds to the value the community attaches to the natural feature or landscape.	No specific historical associations have been noted for this site.	L
Overall	**While a considerable part of the site has recognised ecological attributes, its sensory and shared values are not so high as to assess it or the landscape it sits in as an outstanding natural landscape or special amenity landscape.**	

APPENDIX 2: Potentially affected properties

Address	Lot size msq	Zoned	Next to proposed General Residential	Views into proposed General Residential	Viewing distance (closest)
34A Kaitangata Cres	1778	Hill Residential	Yes	View to lots on boundaries although shelterbelt on north boundary provides some screening.	15m
34 Kaitangata Cres	2062	Hill Residential	Yes	Potential views although vegetation on boundaries provides some screening.	15m
32 Kaitangata Cres	3060	Hill Residential	Yes – touches at corner	No	
60 Kaitangata Cres	20395	Rural Residential	No	No	
70 Kaitangata Cres	21135	Rural Residential	No	No	
80 Kaitangata Cres	21445	Rural Residential	No	No	
90 Kaitangata Cres	22600	Rural Residential	No	Potential from upper level.	180m
104 Kaitangata Cres	24370	Rural Residential	No	Potential from upper level.	260m
110 Kaitangata Cres	21885	Rural Residential	No	Potential from upper level.	216m
138 Kaitangata Crescent	20035	Rural Residential	No	Views to site	440
160 Kaitangata Crescent	20588	Rural Residential	No	Views to site	450
180 Kaitangata Crescent	25235	Rural Residential	No	Views to site	260
29 Kaitangata Crescent	3923	Hill Residential	No	Potential views to east facing slope of Kaitangata spur.	160m
51Kaitangata Crescent	16528	Hill Residential	No	Potential views to east facing slope of Kaitangata spur.	70m
57 Kaitangata Crescent	16040	Hill Residential	No	Potential views to east facing slope of Kaitangata spur.	320m
1-2/265 Major Drive	C960	General Residential	Yes	Dwellings not visible from Major Drive spur but potential views to Kaitangata spur	45m
263 Major Drive	966	General Residential	No	Dwellings not visible from Major Drive spur. Potential views to Kaitangata spur	50m
1-2/261 Major Drive	C960	General Residential	No	Dwellings not visible from Major Drive spur. Potential views to Kaitangata spur	88m
1-2/259 Major Drive	C960	General Residential	No	Dwellings not visible from Major Drive spur. Potential views to Kaitangata spur	100m
257/257A Major Drive	C960	General Residential	No	Dwellings not visible from Major Drive spur. Potential views to Kaitangata spur	128m

269 Major Drive	706	General Residential	Yes	View to lot on back boundary	15m
271 Major Drive	653	General Residential	Yes	View to lot on back boundary	15m
256 Major Drive	556	General Residential	Yes	View to lot on back boundary	15m
199 Liverton Road	57450	Rural Residential	Yes	Screened by vegetation around house. Potential viewshaft to Kaitangata spur	225
198 Liverton Road	20326	Rural Residential	Yes	Screened by vegetation around house. Potential viewshaft to Kaitangata spur	225
200 Liverton Road	40490	Rural Residential	Yes	Screened from Major Drive spur. Potential viewshaft to Kaitangata spur	150m
5 Drummond Crescent	623	General Residential	No	Views down to Major Drive spur and potentially up to Kaitangata spur.	70m
7 Drummond Crescent	559	General Residential	No	Views down to Major Drive spur and potentially up to Kaitangata spur.	96m
9 Drummond Crescent	552	General Residential	No	Views down to Major Drive spur and potentially up to Kaitangata spur.	117m
11 Drummond Crescent	549	General Residential	No	Views down to Major Drive spur and potentially up to Kaitangata spur.	142m
13 Drummond Crescent	555	General Residential	No	Views down to Major Drive spur and potentially up to Kaitangata spur.	156m
15 Drummond Crescent	509	General Residential	No	Views down to Major Drive spur and potentially up to Kaitangata spur.	176m
17 Drummond Crescent	649	General Residential	No	Views down to Major Drive spur and potentially up to Kaitangata spur.	188m
19 Drummond Crescent	631	General Residential	No	Views down to Major Drive spur and potentially up to Kaitangata spur.	195m
21 Drummond Crescent	874	General Residential	No	Views down to Major Drive spur and potentially up to Kaitangata spur.	200m
23A Drummond Crescent	627	General Residential	No	Views down to Major Drive spur and potentially up to Kaitangata spur.	200m
23B Drummond Crescent	539	General Residential	No	Views down to Major Drive spur and potentially up to Kaitangata spur.	200m

APPENDIX 2: Potentially affected properties

HCC gis aerial with street numbers of potentially affected properties

Appendix 5 – Geotechnical Assessment

ABUILD™
Consulting Engineers Ltd
Geotechnical and Civil Engineers

GEOTECHNICAL INVESTIGATION
PROPOSED PLAN CHANGE
280 MAJOR DRIVE, KELSON
LOWER HUTT

For:
FLY Building Limited

OUR REF 11640
July 2018
REV A

GEOTECHNICAL INVESTIGATION
PROPOSED PLAN CHANGE
280 MAJOR DRIVE, KELSON
LOWER HUTT

Prepared by:

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Reviewed by:
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BE(Hons)(Civil) NZCE(Civil)
MIPENZ
Director

July 30, 2018

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CONTENTS **Page #**

Attachments:

Appendix A:
Site Investigation Location Plan 11640-S1A
Test Pit/Probe Logs TP1/P1 - TP6/P6

Appendix B
Earthworks Specification

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1.0 INTRODUCTION

This report outlines a geotechnical assessment and our findings of the suitability of the site for proposed residential development. The assessment is to support a proposed plan change. In this regard the suitability of the land is based on identifying and mitigating any land hazard with respect to Section 106 of the Resource Management Act 1991.

The investigation has been undertaken at the request of Sam Gifford of SG Planning. A signed and returned copy of a Shortform Agreement sets out the terms of conditions and the planned scope of work that was described in ABUILD™ Consulting Engineers Limited's proposal letter dated May 13, 2018.

To assist us with the investigation we were provided with an aerial photograph of the site obtained from the Hutt City Council database.

2.0 INVESTIGATION

The assessment was carried out on June 21, 2018 under the direction of a geotechnical engineer from our office and comprised the following:

- The putting down of six (6) test pits (TP1 to TP6) to depths of between 2.7 and 4.0 metres below existing ground levels using an 8-tonne excavator operated by K & D Contractors Limited. The undrained shear strength of fine grained soils encountered in the test pit walls were measured using a handheld shear vane and the results presented on the logs.

- The putting down of five (5) penetrometer probes (P1 to P5) to depths of between 0.6 and 2.6 metres below existing ground levels to aid in characterisation of soil strength.

- An engineering geologic walkover reconnaissance.

The test pit and probe locations are shown on the 'Site Investigation Location Plan', drawing 11640-S1A presented in Appendix A together with the test pit logs. (The probe results are shown side-by-side on the test pit logs for easy reference.) We have compiled a generic earthworks specification and this is presented in Appendix B.

To support our site investigation a desktop study was carried out comprising a review of available online aerial photography dated 1941 to 2017 and the 1:50,000 scale geological map of the Wellington area.

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3.0 SITE CONDITIONS

The property comprises an approximately 7.2 ha block of steep to moderately steep hillside topography that generally extends to the northeast of an existing residence at No. 280 Major Drive which is located on a platform near the western boundary and accessed by a metalled driveway which branches off the eastern end of Major Drive.

The site slopes, occupying the northern half of the property, are typically covered in native bush and abut an approximately 40 to 75 metre wide strip of rolling hillside topography that has been cleared and grassed for paddocks that extends to northeast of the existing dwelling between the existing ends of Major Drive and Liverton Road.

The paddocks are accessed by a farm track that traverses the southern boundary of the property and generally comprise gently to moderately steep sloping hillside topography below the north side of the track with profiles of 7° to 20° to the horizontal.

To the north of the cleared paddocks the hillside rolls over moderately steeply into a densely bushed northeast trending gully feature with a shallow stream in its base. A smaller, northeast trending tributary bushed gully feature with side slopes of approximately 20° to 30° to the horizontal bisects the rear paddocks in the northeast end of the site.

Below the downhill side of the farm track, the land rolls away onto moderately steep to steep densely bushed hillsides that slope below the southern boundary with profiles up to approximately 30° to the horizontal.

4.0 GEOLOGICAL SETTING AND FAULTING

The generalised geology for the site has been obtained from the 1:50,000 scale geological map of the Wellington area (Begg & Mazengarb, 1996). The geological map indicates that the site comprises minor loess and colluvium overlying an erosional surface of bedded sandstone and mudstone [Raikawa Terrane, informally known as Wellington Belt Greywacke rock].

The closest active fault to the site and source of the design earthquake is the northeast trending Wellington Fault which is inferred as passing approximately 900 metres to the southeast of the site at the base of the hills.

The Wellington Fault is a Class 1 active strike slip fault with an estimated magnitude of 7.6 (± 0.3) and a mean horizontal displacement of 3.5 to 5.0 metres (Begg & Mazengarb, 1996). Vertical displacements are estimated to be significantly less. The activity on the fault has been described by GNS as having a recurrence interval of

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770 - 900 years, an elapsed time since the last earthquake of between 170 - 370 years and a perceived 11 percent probability of rupture in the next 100 years (Rhoades et. al., 2010).

5.0 SUBSOIL CONDITIONS

The testing has shown that the site is typically mantled by a thin topsoil layer overlying fine grained yellow brown to orange brown stained clayey silt soils inferred as being loess.

The shear vane and probe testing indicates the fine grained site soils are typically very stiff below a variable though shallow depth of topsoil. Based on the probes, the penetration resistance typically increases with depth, however, based on the shear vane testing some marginal strength stiff/very stiff soils were encountered at depths up to 1.1 metres below ground surface.

Highly weathered greywacke rock was observed exposed in the southern bank of the stream traversing the hillside to the north of the main body of the site and completely weathered silty sandstone was encountered beneath the topsoil in test pit TP1 put down at the top of the hillside in the uphill, western end of the site.

Completely to highly weathered silty sandstone was encountered at typical depths of between 2.0 to 2.4 metres below ground surface in test pits TP2 and TP4 to TP6, however in TP3, the fine grained soils encountered extended to the full exploration depth of 4.2 metres.

No groundwater or significant seepage was encountered during our investigation although site soils are typically poorly drained and moist and some perched conditions may be encountered. Some wet/ponded surface water areas on gently sloping land on top of the hillsides at TP1 and TP6 locations and within the tributary gully base were observed.

6.0 SITE STABILITY ASSESSMENT

Based on our walkover reconnaissance of the site we were unable to detect any topographical evidence of deep-seated instability, either active or incipient, that may otherwise preclude or limit development.

Qualitative analyses of slope stability using a nomograph prepared by Hoek and Bray (1981) of the hillside and cut batter profiles formed in rock at the site are considered likely to produce acceptable factors of safety for dry slopes under static ground conditions and in this context the site is considered suitable for residential development.

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Hutt City Council aerial photographs available online dated 1941 – 2017 indicate that no major changes to site conditions have occurred and the site slopes have remained overall intact for the past several decades.

We observed evidence of small slips/slumps and dispersed creep movement within near surface soils over the steep bushed hillslopes and gully slopes of the site. These features are a common occurrence on steep slopes in the region and generally indicate marginal stability of the overlying thin surface soils under existing conditions.

These subsoils may be prone to instability following heavy rainfall and earthquake shaking, which may result in minor surface slumping and small slips, especially following any removal of the vegetation.

Provided earthworks construction ensures that safe batter slopes are formed or retained, and development takes into account potential shallow seated instability within near surface soils on steep hillside slopes and ensures appropriate setback distances are established, the potential for instability to adversely affect the development should be suitably low.

Appropriate mitigation measures for the proposed subdivision are discussed in the following sections.

7.0 ENGINEERING DISCUSSION AND RECOMMENDATIONS

7.1 General

Opinions and recommendations contained herein are based on six (6) test pits, five (5) Scala probes and observations made on site. Inferences about the nature of the subsoil away from the points explored are made but it must be appreciated that actual conditions may vary from the assumed profile.

7.2 Suitability of Development

There is a perceived low risk of deep seated instability under static ground conditions and in this context the site is suitable for development. Any development is likely to be subject to engineering conditions and constraints detailed herein. We consider the main engineering considerations related to any site development are:

1. slope stability
2. earthworks
3. foundations

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These aspects are discussed in the following sections together with roading, drainage and erosion.

7.3 Slope Stability

Site stability is perceived to be in a state of equilibrium stability with the existing site conditions having existed for some considerable time. Slope stability as related to the steep vegetated slopes in the northern part of the site and the gully features in the southern half of the site may be compromised by cutting, surcharging slopes by filling, and on removal of vegetation. The formation of safe cut batter slopes is required to ensure that ongoing stability is preserved and enhanced as appropriate.

7.4 Earthworks

7.4.1 General

Earthworks will likely be required to achieve design levels for any development over the undulating site.

Earthworks may be required in the southern half of the site and less likely over the northern steep vegetated slopes where any regrading may potentially undermine slope stability. This constraint does not rule out development on the northern steeper slopes but would require careful planning and engineering in order to preserve slope stability. Aspects of cutting and filling are discussed as follows.

7.4.2 Cutting

Prudent and economic earthworks would likely depend in part on a balanced cut to fill operation.

Based on our assessment of the site, we consider that a typical short term safe batter slope up to 3.0 metres high may be formed at a profile of 50° to the horizontal in competent, very stiff to hard loess and residual soils and completely weathered, weak greywacke rock, reducing to profiles of 40° to the horizontal for long term slopes. Alternatively permanent retaining is an option where oversteep cuts are required.

All batter slopes should be inspected by an experienced engineering geologist or geotechnical engineer to ensure that the degree of weathering and/or the presence of unfavourably orientated defects, does not compromise batter stability and the actual conditions are in accordance with report assumptions. Where the batter slopes outlined above are unsuitable and the potential for erosion or instability presents a safety risk then they may be modified appropriately by a suitably qualified engineer.

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7.4.3 Filling

Based on the investigation, fill soils are likely to comprise both fine grained soils and weathered greywacke rock. The mix of these materials will depend on the location of the borrow areas and the depth of excavation required.

The placement and compaction of fill soils should be carried out in accordance with the criteria details in NZS 4431:1989 and comply with the requirements of the generic earthworks specification presented in Appendix B of this report.

The main engineering aspects associated with the placement and compaction of the filling are summarised as follows:

- Subgrade preparation shall comprise the removal of all vegetation and unsuitable soils including topsoil and any weak compressible soils.

- All subgrade soil shall be approved by an experienced engineer. The subgrade footprint shall be benched so that the fill can be keyed into natural ground for the purpose of enhancing stability of any filling.

- Subsoil drainage shall comprise the construction of subsoil drains and drainage blanket as appropriate to tap any areas of seepage. Subsoil drains should discharge all collected water into an approved source as appropriate.

- Fill soils must be brought to the best practical water content and compacted in thin layers not exceeding 300 mm loose thickness using specific compaction machinery.

- The standard of earthworks construction will be measured by specific in situ testing discussed in the attached earthworks specification.

- Compaction control criteria would initially be established by laboratory testing to assess the maximum dry density and optimum water content of the fill soils.

The use of fine grained soils as filling is not ideal unless the soil water content is within a specified range of optimum water content. Some difficulty and delay may be experienced using fine grained soils as filling, depending on moisture contents and time of year.

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7.5 Foundations

The type of foundations to support any dwellings within any proposed subdivision will depend on the type and strength of the subgrade soil. Foundations that are located completely on engineered fill or competent cut ground are expected to be nonspecific design in accordance with NZS 3604:2011.

Foundations for any dwelling that traverses both cut or fill ground will likely be specifically designed. Specific design of foundations that traverse both cut/fill soils will take into consideration the relative stiffnesses of the subgrade soils (both cut and fill) and be satisfied that the potential for differential settlement between the two subgrade soils is limited to within the tolerance levels for the type of dwellings proposed.

Where subdivided lots incorporate steeply sloping profiles, setback distances may be imposed whereby dwellings placed behind any setback line may be nonspecific design and any dwelling footprint or part thereof that is located forward of a setback line will likely be subject to specific design.

Site specific testing would be required on all lots in order to confirm the strength consistency of the subgrade soils and confirm the design assumptions.

7.6 Roading

A network of roading, and right of way (ROW) cul-de-sacs is likely to be required for any subdivided land. Subgrade soils for any roading alignments may traverse cut/fill soils depending on the extent of earthworks proposed.

Pavement construction thickness will be a function, in part, of material strength and stiffness and testing over a proposed roadway alignment would be used to assess soil strength and allow optimisation of pavement construction thickness.

All roading for any development should be graded and constructed with kerb and channel to collect and discharge stormwater runoff away from any sloping ground or allotments to suitable sumps at regular intervals or to the stormwater system for the proposed development. Sump spacings will be dependent on gradient and this aspect must be specifically designed.

7.7 Erosion and Drainage

During construction all stormwater from any earthworked surface should be channelled and not allowed to discharge onto sloping ground below or neighbouring allotments.

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After construction all stormwater from any roof, paved area or impermeable surface should be collected and piped away and not allowed to discharge down over sloping ground as this may trigger instability in site soils. We would recommend subsoil cut-off drains that intercept surface water and discharge into a piped system be installed behind building areas as a minimum.

The site soils are susceptible to strength loss if wetted. Vegetation cover should be maintained over sloping ground at the site to reduce erosion potential and the potential for slope instability. Sloping ground, including batter slopes, which are cleared of vegetation during construction should be hydroseeded or replanted to bind surface soils together and reduce erosion and slip potential.

We would recommend contouring and/or shallow dish channels be formed on slopes above building areas to redirect surface water away from any cut batter slopes.

8.0 IMPLICATIONS OF DEVELOPMENT

The implications of site development may be considered with respect to current legislation regarding identifying and mitigating any land hazard. With respect to the site the recommendations comply with the intent of *"avoiding, remedying or mitigating by rules, conditions or works"* with the main identified land hazard being the potential for slope instability.

9.0 CONCLUSIONS

The investigation has shown that:

- Land hazards have been identified in this report and mitigation measures recommended in order to comply with appropriate legislation for subdivision of land.

- The site is suitable for development and be under a perceived acceptably low risk with respect to deep seated instability under static ground conditions.

- Relatively economic development is likely restricted to the southern half of the site comprising rolling hillside topography. Development of this area is likely to comprise some earthworks to achieve design levels for each lot and associated roading networks.

- Development of the steep vegetated sloping area in the northern part of the site must ensure that slope stability is not compromised and to this end mitigation measures are likely required to preserve and enhance slope stability.

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- The site generally comprises a variable depth layer of competent fine grained loess soils overlying completely to highly weathered sandstone rock.

- There was no discernible evidence of deep seated or incipient slope instability that may otherwise preclude or limit development, however, the surface soils on steep bushed slopes are considered marginal with respect to existing shallow seated stability.

- Any earthworks construction should be carried out in accordance with the criteria given in the attached earthworks specification.

- Depending on the location of building platforms within subdivided lots, we would expect that foundations may comprise a mix of nonspecific design and specific design.

10.0 LIMITATIONS

This report has been prepared solely for you as our client with respect to the brief provided. Data or opinions contained in this report may not be used in other contexts or for any other purpose without our prior review and agreement.

11.0 REFERENCES

1. Begg JG & Mazengarb C, Geology of the Wellington Area, Institute of Geological and Nuclear Sciences Limited, 1996

2. Stevens GR, Rugged Landscape: The Geology of Central New Zealand, AH & AW Reed, Wellington, 1974

3. New Zealand Geotechnical Society Inc, Guidelines for the Field Description of Soils and Rocks for Engineering Purposes, December 2005.

4. Pender MJ, Friction and Cohesion Parameters for Highly and Completely Weathered Wellington Greywacke, Proc 3rd Australia-New Zealand Conference on Geomechanics, Wellington, pp 171-175, Vol 1, 1980

5. Slope Stability in Urban Development, DSIR and NZ Geomechanics Society, Jan 1977

Yours faithfully
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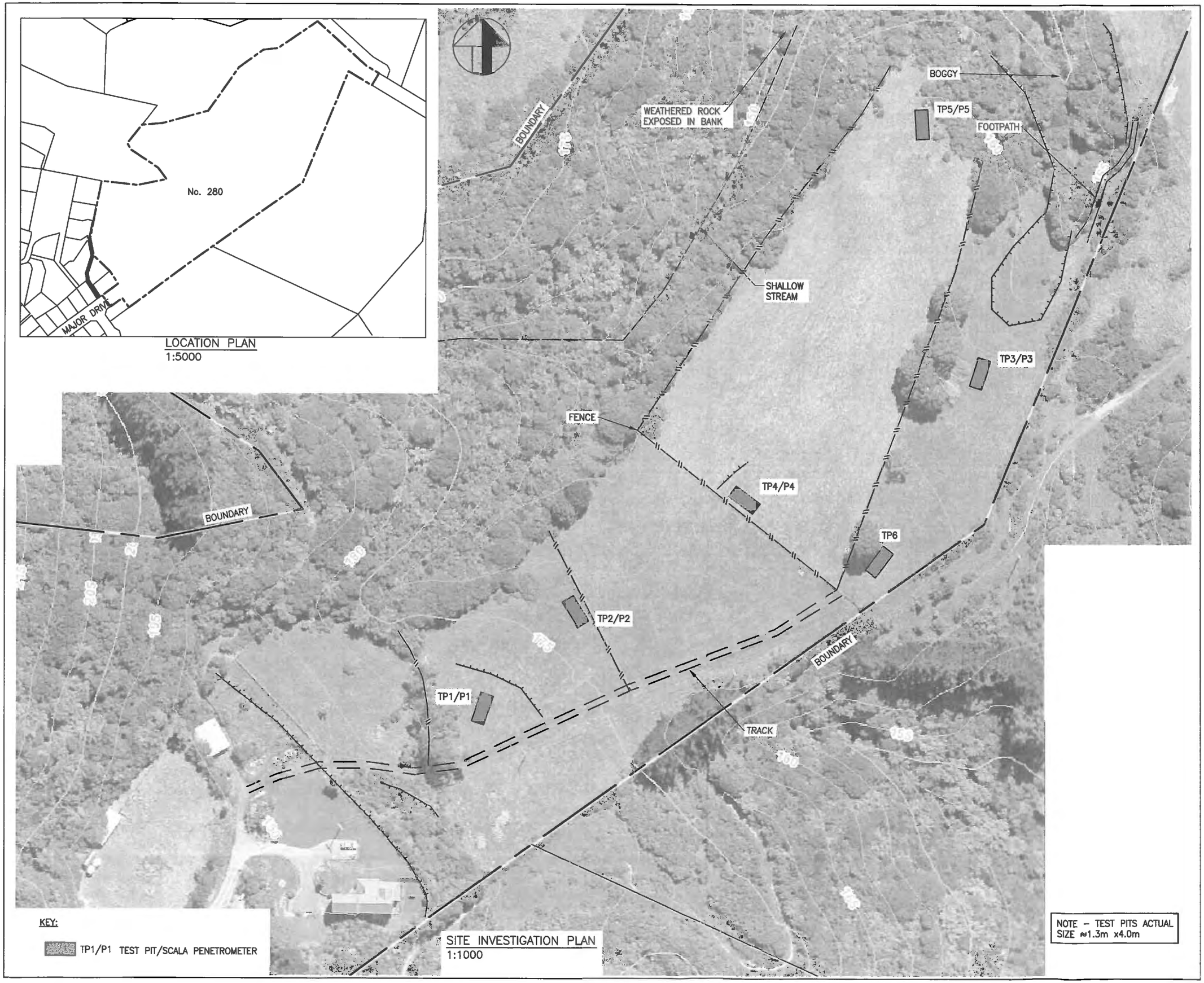
APPENDIX A

LOCATION PLAN
1:5000



KEY:

TP1/P1 TEST PIT/SCALA PENETROMETER

SITE INVESTIGATION PLAN
1:1000

NOTE – TEST PITS ACTUAL SIZE ≈1.3m x4.0m

NOTES:

1. DIMENSIONS AND LOCATIONS ARE APPROXIMATE ONLY.

2. AERIAL IMAGERY HAS BEEN OBTAINED FROM HUTT CITY COUNCIL UNDER THE CREATIVE COMMONS ATTRIBUTION 3.0.

Rev	Date	By	Reason	Approval

Job	GEOTECHNICAL ASSESSMENT
Job Address	280 Major Drive Kelson
Client	SG Planning
Owner	FLY Building Limited

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Drawn	GE
Checked	
Traced	
Scale	AS SHOWN AT A3
Date	2/07/2018

Sheet Title

SITE INVESTIGATION LOCATION PLAN

Job No	Sheet	Rev
11640	S1	A

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Johnsonville
WELLINGTON 6440

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INVESTIGATION LOG

Job No.:	11640
No.:	TP1
Sheet:	1 of 1
Date:	21/06/18

Client: Fly Building Limited	**Coordinates:** N/A	**Ground Level:** N/A
Project: Geotechnical Assessment	**Location:** 280 Major Drive, Kelson	

Geological Interpretation	Samples	Depth (m)	Legend	Hand Shear Vane (Corrected)	Scala Penetrometer (Blows / 100mm)	Water
[TOPSOIL] SILT; grey brown. Soft; wet with perched surface water.		0.0	TS		1	
[WELLINGTON BELT GREYWACKE ROCK] Completely weathered, yellow orange, Silty SANDSTONE. Very weak/easily excavated into silty sandy coarse gravel soil.		0.2		SV: 0.40m,SV1 132/71 kPa	4	
With pockets of more competent/blocky rock		0.4		SV: 0.60m,SV2 82/- kPa	10	
at 0.7m+, typically more competent		0.6		SV: 0.70m,SV3 UTP	14	
		0.8			18	
		1.0				
		1.2				
		1.4				
		1.6				
		1.8				
		2.0				
		2.2				
		2.4				
		2.6				
		2.8				
at 3.2m, becomes somewhat harder/more brittle but is still easily excavated, crushes in hands		3.0				
		3.2				
		3.4				
		3.6				
		3.8				
EOH:4.0m		4.0				
		4.2				
		4.4				

Groundwater Not Encountered

Remarks

Probe P1 put down at ground level adjacent to test pit.

No free groundwater or seepage within walls of test pit encountered.

Test pit backfilled with soil cuttings and trackrolled.

Water

- Standing Water Level
- Out flow
- In flow

Investigation Type

- [ ] Hand Auger
- [x] Test Pit

Length: 4m
Width: 1.3m

Contractor:	Rig/Plant Used:	Logged By:	Checked By:	Hole Depth:
K&D Contracting Ltd	8T Excavator	AT	RD	4.00 m

Printed: 29/06/2018 3:38:33 p.m.

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Johnsonville
WELLINGTON 6440

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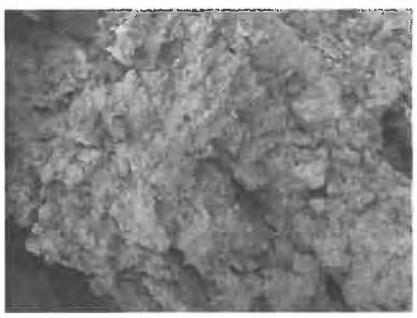
INVESTIGATION LOG

Job No.:	11640
No.:	TP2
Sheet:	1 of 1
Date:	21/06/18

Client: Fly Building Limited	**Coordinates:** N/A	**Ground Level:** N/A
Project: Geotechnical Assessment	**Location:** 280 Major Drive, Kelson	

Geological Interpretation	Depth (m)	Hand Shear Vane (Corrected)	Scala Penetrometer (Blows / 100mm)
[200 - 300 mm TOPSOIL] SILT; grey brown. Soft; wet.	0.2		1
[LOESS] Clayey SILT; yellow brown. Very stiff; moist.	0.4	SV: 0.40m,SV1 132/67 kPa	2
Some speckled red brown staining	0.6	SV: 0.60m,SV2 126/- kPa	2
at 0.9m, becomes light grey with orange brown staining	0.8	SV: 0.80m,SV3 107/- kPa	3
	1.0	SV: 0.90m,SV4 129/- kPa	2
	1.2	SV: 1.10m,SV5 117/- kPa	2
	1.4	SV: 1.30m,SV6 154/- kPa	2
at 1.7m, inferred hard to very hard	1.6	SV: 1.50m,SV7a 117/- kPa	3
	1.8	SV: 1.50m,SV7b 132/- kPa	3
	2.0	SV: 1.70m,SV8 189/- kPa	3
[WELLINGTON BELT GREYWACKE ROCK] Completely weathered, yellow orange, Silty SANDSTONE. Very weak/easily excavated into silty sandy coarse gravel soil	2.2		6
	2.4		5
	2.6		5
	2.8		7
EOH:3.0m	3.0		9
	3.2		8
	3.4		7
	3.6		11
	3.8		20
	4.0		
	4.2		
	4.4		

Water: Groundwater Not Encountered



Remarks

Probe P2 put down at ground level adjacent to test pit.

No free groundwater or seepage within walls of test pit encountered.

Test pit backfilled with soil cuttings and trackrolled.

Water

- Standing Water Level
- Out flow
- In flow

Investigation Type

- [ ] Hand Auger
- [x] Test Pit

Length: 4m
Width: 1.3m

Contractor:	Rig/Plant Used:	Logged By:	Checked By:	Hole Depth:
K&D Contracting Ltd	8T Excavator	AT	RD	3.00 m

Printed: 2/07/2018 11:35:54 a.m.

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INVESTIGATION LOG

Job No.:	11640
No.:	TP3
Sheet:	1 of 1
Date:	21/06/18

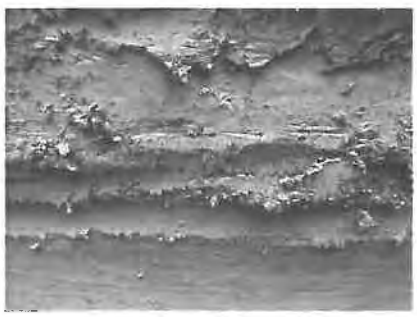
Client:	Coordinates:	Ground Level:
Fly Building Limited	N/A	N/A

Project:	Location:
Geotechnical Assessment	280 Major Drive, Kelson

Geological Interpretation	Depth (m)	Hand Shear Vane (Corrected)	Scala Penetrometer (Blows / 100mm)
[200mm TOPSOIL] SILT; grey brown. Soft; wet.	TS		
[LOESS] Clayey SILT; yellow brown. Stiff to very stiff; moist. Relatively homogenous.	0.2	SV: 0.30m,SV1 176/82 kPa	1
Very stiff	0.4	SV: 0.40m,SV1a 89/- kPa	3, 2, 2, 2
	0.6	SV: 0.40m,SV1b 101/- kPa	3, 3
	0.8	SV: 0.50m,SV2 UTP	2
	1.0	SV: 0.70m,SV3 123/- kPa	3, 3
Slightly harder/drier at 1.1m	1.2	SV: 0.90m,SV4 107/- kPa	5, 6
from 1.1 - 1.3m, thin (30mm) layer of red brown, IRON PAN/IRON CEMENTED SILT	1.4	SV: 1.10m,SV5 132/- kPa	9, 8
with speckled red brown staining below	1.6	SV: 1.20m,SV6 168/- kPa	9, 9
~1.8 - 2.2m, with dark brown staining	1.8		11, 13, 18
becomes orange brown with trace seepage	2.0		
~2.6m, becomes brownish with dark brown staining	2.2		
	2.4		
	2.6		
	2.8		
	3.0		
	3.2		
	3.4		
	3.6		
	3.8		
EOH:4.2m	4.0		
	4.2		
	4.4		

Scala Penetrometer (Blows / 100mm): 2 4 6 8 10 12 14 16 18

Water: Groundwater Not Encountered



Remarks

Probe P3 put down at ground level adjacent to test pit.

No free groundwater or seepage within walls of test pit encountered.

Test pit backfilled with soil cuttings and trackrolled.

Water

- ▼ Standing Water Level
- ◁ Out flow
- ▷ Out flow

Investigation Type

- ☐ Hand Auger
- ☑ Test Pit

Length: 3.5m
Width: 1.3m

Contractor:	Rig/Plant Used:	Logged By:	Checked By:	Hole Depth:
K&D Contracting Ltd	8T Excavator	AT	RD	4.20 m

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Geotechnical and Civil Engineers

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Johnsonville
WELLINGTON 6440

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INVESTIGATION LOG

Job No.: 11640
No.: TP4
Sheet: 1 of 1
Date: 21/06/18

Client: Fly Building Limited
Coordinates: N/A
Ground Level: N/A
Project: Geotechnical Assessment
Location: 280 Major Drive, Kelson

Geological Interpretation	Samples	Depth (m)	Legend	Hand Shear Vane (Corrected)	Scala Penetrometer (Blows / 100mm)	Water
[200mm TOPSOIL] SILT; grey brown. Soft; wet.		0.0	TS		1	
[LOESS] Clayey SILT; yellow brown. Very stiff; moist. Relatively homogenous.		0.2		SV: 0.30m,SV1 150/- kPa	2	
		0.4		SV: 0.50m,SV2 157/- kPa	2	
		0.6		SV: 0.60m,SV3 139/- kPa	1	
		0.8		SV: 0.70m,SV4 168/- kPa	2	
at 0.9m, becomes slightly orange brown with trace dark brown speckled staining		1.0		SV: 0.90m,SV5 132/- kPa	3	
		1.2		SV: 1.10m,SV6 101/- kPa	2	
		1.4		SV: 1.30m,SV7 117/- kPa	3	
		1.6		SV: 1.60m,SV8 150/- kPa	3	
		1.8			3	
		2.0			4	
		2.2			4	
[WELLINGTON BELT GREYWACKE ROCK] Highly weathered, light grey with orange brown and dark brown staining, Silty SANDSTONE. Very weak/easily excavated into silty sandy coarse gravel soil.		2.4			5	
Rock interface dips from 2.3 to 3.3m depth in downhill direction (northwest) across test pit		2.6			5	
		2.8			4	
		3.0			6	
		3.2			4	
		3.4			5	
EOH:3.6m		3.6			5	
		3.8			4	
		4.0			5	
		4.2			5	
		4.4			7	
					11	
					15	

Scala Penetrometer (Blows / 100mm) scale: 2 4 6 8 10 12 14 16 18

Groundwater Not Encountered

Remarks

Probe P4 put down at ground level adjacent to test pit.

No free groundwater or seepage within walls of test pit encountered.

Test pit backfilled with soil cuttings and trackrolled.

Water

- ▼ Standing Water Level
- ◁ Out flow
- ▷ In flow

Investigation Type

- ☐ Hand Auger
- ☑ Test Pit

Length: 3.5m
Width: 1.3m

Contractor:	Rig/Plant Used:	Logged By:	Checked By:	Hole Depth:
K&D Contracting Ltd	8T Excavator	AT	RD	3.60 m

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INVESTIGATION LOG

Job No.:	11640
No.:	TP5
Sheet:	1 of 1
Date:	21/06/18

Client: Fly Building Limited	**Coordinates:** N/A	**Ground Level:** N/A
Project: Geotechnical Assessment	**Location:** 280 Major Drive, Kelson	

Geological Interpretation	Depth (m)	Legend	Hand Shear Vane (Corrected)	Scala Penetrometer (Blows / 100mm)	Water
[150-200mm TOPSOIL] SILT; grey brown. Soft; wet.	0.0	TS			Groundwater Not Encountered
[LOESS] Clayey SILT; yellow brown. Very stiff; moist.	0.2		SV: 0.30m,SV1 114/- kPa	1	
	0.4		SV: 0.40m,SV2 172/- kPa	1	
	0.6		SV: 0.60m,SV3 129/- kPa	3	
at 0.8m, becomes light grey with orange brown staining	0.8		SV: 0.80m,SV4 200+ kPa	2	
	1.0		SV: 1.00m,SV5 101/- kPa	3	
	1.2		SV: 1.20m,SV6 200+ kPa	3	
at 1.4m, thin (~30mm) IRON PAN/IRON CEMENTED SILT layer	1.4			4	
orange brown with speckled dark brown staining	1.6			4	
	1.8			5	
	2.0			5	
	2.2			8	
[WELLINGTON BELT GREYWACKE ROCK] Completely to highly weathered, orange brown Silty SANDSTONE. Very weak/easily excavated into silty sandy coarse gravel soil.	2.4			14	
Rock interface dips from 2.4 to 2.9m depth in downhill direction (northwest) across test pit	2.6				
	2.8				
	3.0				
EOH:3.4m	3.2				
	3.4				
	3.6				
	3.8				
	4.0				
	4.2				
	4.4				

Remarks

Probe P5 put down at ground level adjacent to test pit.

No free groundwater or seepage within walls of test pit encountered.

Test pit backfilled with soil cuttings and trackrolled.

Water

- ▼ Standing Water Level
- ◁ Out flow
- ▷ In flow

Investigation Type

- ☐ Hand Auger
- ☑ Test Pit

Length: 3.5m
Width: 1.3m

Contractor:	Rig/Plant Used:	Logged By:	Checked By:	Hole Depth:
K&D Contracting Ltd	8T Excavator	AT	RD	3.40 m

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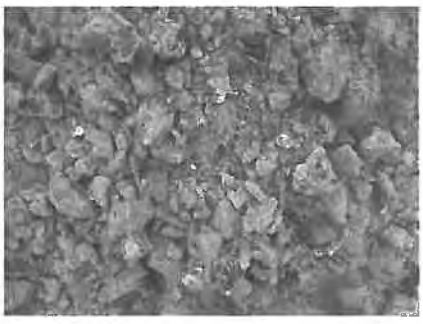
INVESTIGATION LOG

Job No.: 11640
No.: TP6
Sheet: 1 of 1
Date: 21/07/18

Client:	Coordinates:	Ground Level (m):
Fly Building Limited	N/A	N/A

Project:	Location:
Geotechnical Assessment	280 Major Drive, Kelson

Geological Interpretation	Samples	Depth (m)	Legend	Hand Shear Vane (Corrected)	Water
[200mm TOPSOIL] SILT; grey brown. Soft; wet.		0.2	TS	SV: 0.30m,SV1 150/- kPa	Groundwater Not Encountered
[LOESS] Clayey SILT; yellow brown. Very stiff; moist. Relatively homogenous.		0.4		SV: 0.40m,SV2 132/- kPa	
		0.6		SV: 0.60m,SV3 101/- kPa	
		0.8		SV: 0.70m,SV4 117/- kPa	
		1.0		SV: 0.80m,SV5 180/- kPa	
		1.2		SV: 1.10m,SV6 147/- kPa	
		1.4		SV: 1.20m,SV7 82/- kPa	
[WELLINGTON BELT GREYWACKE ROCK] Completely weathered, orange brown Silty SANDSTONE. Very weak/easily excavated into silty sandy coarse gravel soil.		1.6			
Rock interface dips from 2.0 to 2.4m depth in downhill direction (northwest) across test pit		1.8			
EOH:2.7m		2.0			
		2.2			
		2.4			
		2.6			
		2.8			
		3.0			
		3.2			
		3.4			
		3.6			
		3.8			
		4.0			
		4.2			
		4.4			



Remarks

No free groundwater or seepage within walls of test pit encountered.

Test pit backfilled with soil cuttings and trackrolled.

Water

- ▼ Standing Water Level
- ◁ Out flow
- ▷ In flow

Investigation Type

- ☐ Hand Auger
- ☑ Test Pit

Contractor:	Rig/Plant Used:	Logged By:	Checked By:	Hole Depth:
K&D Contracting Ltd	8T Excavator	AT	RD	2.70 m

Printed: 2/07/2018 12:20:57 p.m.

APPENDIX B

GENERIC SPECIFICATION FOR EARTHWORKS CONSTRUCTION

280 MAJOR DRIVE, KELSON, LOWER HUTT

For:

FLY BUILDING LIMITED

OUR REF 11640
July 2018
Rev A

1.0 GENERAL

This specification should be read in conjunction with ABUILD™ Consulting Engineers Limited's geotechnical report dated July 2018.

The Contractor shall make their own assessment of the site and satisfy themselves as to the ground conditions and suitable access to carry out the work.

1.1 METHODOLOGY

Prior to any earthworks a written construction methodology and programme shall be provided by the contractor and approved by the Engineer.

2.0 CLEARING AND PREPARATION

The Contractor shall remove all vegetation from the site of earthworks, and shall clear all obstructions from the site of the earthworks. Clearing shall mean the removal of all growth (other than grass and weeds), extraction of stumps and other items remaining above the surface of the ground, and the complete disposal of all items.

Unsuitable materials shall be removed off site and disposed of at a suitable disposal site.

Prior to filling existing sloping ground shall be excavated to form benches and ensure proper keying of the fill and adjacent ground as appropriate. The benches shall be nominally flat with widths to suit the earthworks equipment and grades to ensure adequate control of the surface water.

3.0 EARTHWORKS TOLERANCES

All cut and fill work shall be carried out to the lines and levels as shown on the drawings, or as directed by the Engineer.

4.0 DRAINAGE AND EROSION CONTROL

Earthworks shall be carried out during periods of fine weather. The fill area shall be graded during construction so that it does not pond surface water. Temporary drain(s) shall be provided as necessary to ensure the effective removal of stormwater from areas of operation.

It shall be the Contractor's responsibility to take every measure necessary during construction to prevent the discharge of silt or debris into any adjoining property or natural waterway in accordance with consent conditions.

Silt fences will be installed as required in order to minimise sediment runoff. All erosion and sediment control shall be undertaken in accordance with Council's requirements.

Any fill material which has become too wet or soft shall be removed and dried out prior to recompaction, or replaced with suitable fill material subject to approval by the Engineer. Prior to the start of filling operations all smooth surfaces shall be scarified to prevent layering of the fill.

5.0 DUST CONTROL

The Contractor shall carry out the earthworks in a manner that prevents excessive dust being raised near or blown over neighbouring properties and buildings. The Contractor shall keep the site sufficiently damp using an appropriate method in order to meet these requirements.

6.0 FILL SOILS

Rock soils which are locally excavated shall be broken into pieces less than 80 mm in size and mixed with silt soils where possible to produce a cohesive well mixed fill material.

The existing bunded soils comprising silt soil may be re-used as fill provided the soil is free of compressible clay and organic soil/material. Careful control of soil moisture content will be required and wet or saturated soil shall not be used as fill material.

Any wet or saturated fill material shall be spread out and dried to a suitable moisture content before placement and compaction, or alternatively removed off site and disposed of as appropriate.

The Engineer shall inspect any locally derived soil which is to be used as fill prior to placement of this fill material.

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7.0 PLACEMENT AND COMPACTION

7.1 General

Before any fill is placed the Contractor shall notify the Engineer so that an inspection of the fill area can be carried out to ensure that ground preparation has been carried out in accordance with this specification and the Engineer's instructions.

Fill material shall be brought to an appropriate moisture content prior to compaction by drying and/or blending as is necessary. Fill shall be broken up into lumps which are less than 80 mm in size, and shall be spread uniformly in layers which are no greater than 250 mm depth. Each layer of fill shall be compacted to the minimum strength and density requirements listed below.

The Contractor shall preserve and maintain all earthworks, including partly completed earthworks, and make good any earthworks which have deteriorated below the specified standards for whatever reason.

The Contractor shall exclude all organic matter from fills.

The surface of filled areas shall be sealed with appropriate plant when rain is impending. No water shall be allowed to discharge or pond on top of filled areas. Prior to the recommencement of the filling operation any saturated soil exposed in the top layer of the fill shall be removed and dried out prior to recompaction.

7.2 Control of Water Content

When soil is to be dried the Contractor shall disc the soil and allow it to dry uniformly to its full depth.

When the soil is to be wetted, this shall be done with sprinkling equipment ensuring uniform and controlled distribution of water in conjunction with blading and discing.

Where wet and dry fill is blended to achieve a suitable average moisture content, the blended fill must be mixed thoroughly by discing.

Careful control of soil moisture content will be required to ensure that the inferred fine grained soil used as filling does not pump or weave during compaction.

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Compacted fill which does not meet specified requirements or has deteriorated through excessive drying or wetting shall be excavated, conditioned and recompacted if suitable, or removed off site and disposed of.

7.3 Equipment

Specialised compaction machinery shall be used for compacting fill material.

The Contractor shall employ sufficient compaction equipment to achieve the specified compaction.

Equipment used in transportation and spreading will not be permitted as compaction equipment.

Each layer of fill shall be compacted over the entire layer area with a uniform degree of compactive effort.

8.0 FILL COMPACTION

The maximum dry density and optimum water content will be determined by the methods specified in NZS 4402: 1986, tests 4.1.1 (NZ Standard Compaction for Cohesive Material) and 4.1.3 (NZ Vibrating Hammer Compaction for Non-cohesive Material).

For Air Voids calculation, the solid density of soil particles will be determined by the methods specified in NZS 4402: 1986, tests 2.7.

The compaction requirements for fill materials shall be as follows

i) Cohesive and non-cohesive material:

- The average relative compaction shall not be less than 95% of the Maximum Dry Density as determined by sample testing.
- The average Moisture Content shall be within the range of -4% to +2% of the Optimum established by sample testing as appropriate.
- Average Vane strength of 2 tests shall not be less than 110 kPa, with a minimum individual allowable of 100 kPa.
- Air Voids shall not exceed 10%.

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9.0 TESTING

9.1 General

The Engineer may carry out check tests of compaction at any time.

Where field tests indicate that the specified standard of compaction has not been achieved, the Engineer may order the work to cease and/or removal of the fill.

9.2 Compaction Trials

The Engineer may request that the Contractor demonstrate the adequacy of the equipment to be used by spreading and compacting the filling.

9.3 Testing Procedure

The Contractor shall be responsible for ensuring that the specified compaction parameters are achieved and shall carry out such testing as is needed to ensure the consistent quality of the fill.

The tests described and defined in this specification will be used to determine the classification and compaction standards of fill materials.

The Contractor shall interrupt or divert his operations as necessary to permit the Engineer to conduct any verification tests required with complete safety.

Depending on material type, verification and control testing may be taken from:

Test:	Test Method:
Air Voids	NZS 4402: 1986 (Part 1, Preliminary & General)
Vane Shear	NZ Geomechanics Society "Guideline for Hand Held Shear Vane Test" August 2001
Insitu Density	NZS 4402: 1985 Test 5.1.1 (Sand Replacement) or NZS 4407: 1991 Test 4.2.1 and 4.2.1 (Nuclear Moisture Density Gauges)
Water Content	NZS 4402: 1986, Test 2.1
Scala Penetrometer Probe	NZS 4402: 1986, Test 6.5.2

Notes:

- If Nuclear Moisture Density methods are adopted, the units shall be calibrated as per NZS 4407: 1991, Tests 4.2.3 and 4.2.4.

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- The Moisture Content directly derived from the Nuclear Moisture Density Gauge will be accepted provided that the accuracy is verified through comparative testing using the above "standard" method, and if necessary a Moisture Correction developed for the NDM applicable to each material type and condition.

9.4 Test Frequency

The frequency of testing will depend on the consistency of fill operations and materials used, but the testing rate will be generally in accordance with the Engineer's requirements.

The Contractor shall interrupt his operations as necessary to permit the Engineer to safely carry out control tests on the fill as required.

The frequency of testing shall be as deemed appropriate by the Engineer. The Contractor shall advise the Engineer at appropriate stages during construction in order to enable verification and control testing to be carried out

10.0 SUBSOIL DRAINS

Subsoil drainage shall be installed as appropriate and as approved by the Engineer.

11.0 PRESERVATION AND MAINTENANCE

The Contractor shall preserve and maintain all earthworks, including partly completed earthworks and make good at no cost to the client any earthworks which have deteriorated below the specified standards for whatever reason.

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Appendix 6 – Traffic Assessment

Harriet Fraser Traffic Engineering & Transportation Planning

PO Box 40170
Upper Hutt
5140
P 04 526 2979
M 027 668 5872
E harriet@harrietfraser.co.nz

18 March 2019

Sam Gifford
SG Planning

Copy via email: sam@sgp.co.nz

Dear Sam

Proposed Plan Change, 280 Major Drive, Kelson, Lower Hutt
Transportation Assessment

Further to your request, I am pleased to provide below a transportation assessment for the proposed plan change involving the rezoning of 280 Major Drive, 50 Kaitangata Crescent and 204 Liverton Road in Kelson from Hill Residential and Rural Residential Activity Areas to General Residential Activity Area. The assessment that follows includes a review of the existing local transportation characteristics and a summary of the potential traffic effects associated with the development of the site for residential purposes under the proposed General Residential Activity Area zoning.

In summary the findings of the assessment show that the proposed rezoning would allow for the site to be developed for residential purposes in a manner which is consistent with the District Plan traffic and transportation related objectives and policies.

1. Background

The extent of the site is shown in Drawing No. 2944SK1 prepared by Cuttriss Consultants. As shown within the detail of the Drawing No. 29447P2 there is the potential for around 49 complying residential lots to accessed from an extension to Major Drive and for around 24 residential lots to be accessed from two accesses onto Kaitangata Crescent. The area of the proposed site is currently undeveloped apart from a single residential property accessed from Kaitangata Crescent and a dwelling on 280 Major Drive.

A nearby area of land, at 64 Waipounamu Drive, has recently be rezoned to General Residential Activity Area. This land is also currently undeveloped and it is anticipated that it could accommodate some 163 houses with vehicle access to both Kaitangata Crescent and Waipounamu Drive.

2. Existing Traffic Environment

Kaitangata Crescent, Waipounamu Drive, and Major Drive to the north of Kaitangata Crescent are classified as Access Roads in the road hierarchy as included in the District Plan and as such have the primary function of accommodating slow moving vehicles, delivery of goods, servicing, access to car parks and providing for pedestrians. To the south of Kaitangata Crescent and through to State Highway 2, Major Drive is classified as a Secondary and then a Primary Collector in the road hierarchy as included in the District Plan and as such have both an access and a through traffic carrying function. There is a 50km/h speed limit on Kaitangata Crescent, Waipounamu Drive and Major Drive.

Traffic count data for Major Drive which has been collected by Council over recent years is summarised in Table 1.

Count Location on Major Drive	Daily Traffic Volume (vpd)	Year of Count
North of Kaitangata Crescent	859	2012
Between Becks Close & Invercargill Drive	2,042	2012
South of Waipounamu Drive	3,973	2009
Just before State Highway 2	5,948	2013

Table 1: Major Drive Traffic Counts HCC

A Council count from August 2012 shows Waipounamu Drive immediately to the north of Major Drive carrying 1,100 vehicles per day. With an estimated 186 houses accessed via Waipounamu Road, the existing daily trip generation rate is 5.9 vehicle movements per household. The hourly data from the same count shows existing weekday morning, weekday evening and peak hour Saturday trip generation rates of 0.55, 0.75 and 0.55 vehicle movements per household per hour respectively.

The traffic flows on Major Drive at the intersection with State Highway 2 were counted in October 2016 and the turning movements at the intersection between Kaitangata Crescent and Major Drive were counted in September 2018. The results are shown in Tables 2 and 3.

Traffic Movement	Weekday 7.15-8.15am	Weekday 5.00-6.00pm	Saturday 11.45am-12.45pm
Kaitangata Crescent			
Left	2	1	6
Right	42	16	13
Major Drive (N)			
Right	0	1	1
Through	66	25	40
Major Drive (S)			
Through	11	69	44
Left	7	45	25
Total	128	157	129

Table 2: Kaitangata Crescent Intersection with Major Drive (vph)

Time Period	Towards SH2 (vph)	Left in from SH2 (vph)	Right in from SH2 (vph)	Total (vph)
Weekday 8.00-9.00am	435	64	103	602
Weekday 5.00-6.00pm	170	223	266	659
Saturday 11.30am-12.30pm	266	109	130	505

Table 3: Major Drive Traffic Counts at SH2 (October 2016)

There are bus stops on Major Drive immediately to the north of the intersection with Kaitangata Crescent. There are bus services every half hour throughout the day to Waterloo train station and central Lower Hutt.

The cross-section of Kaitangata Crescent close to Major Drive is described below and shown in Photo 1:

Kaitangata Crescent (from north to south)

- 1.3m wide footpath within 4.3m wide berm;
- 10m wide carriageway; and
- 1.3m wide footpath within 4.3m wide berm.

Photo 1: Looking along Kaitangata Crescent towards Major Drive

The cross-section of Kaitangata Crescent further towards the proposed accesses has a width of around 6m between the edge lines. There is a footpath along the western side of the road that terminates prior to the proposed accesses. Photo 2 shows the cross-section in the vicinity of the two access points.

Photo 2: Looking North Along Kaitangata Crescent

To the north of Kaitangata Crescent, Major Drive has a carriageway width of 11.0m kerb-to-kerb with berms and a 1.4m wide footpath along each side as shown in Photo 3. This cross-section continues up to the site of the proposed plan change.

Photo 3: Looking North Along Major Drive from Kaitangata Crescent

There are sightlines in excess of 100m in each direction from Kaitangata Crescent along Major Drive. From the existing northern access onto Kaitangata Crescent there are sight lines of around 77m to the north and 140m to the south. There are sight lines of around 97m to the north and 75m to the south from the edge of the carriageway in the vicinity of the proposed southern access.

A search of the NZTA crash database for the length of Kaitangata Crescent from Major Drive to the northern proposed access and for the length of Major Drive to the north of Kaitangata Crescent shows that there have been three non-injury crashes reported on the first 500m section of Kaitangata Crescent during the most recent five year period. There were no reported crashes at the intersection with Major Drive or on Major Drive to the north of Kaitangata Crescent. The three crashes on Kaitangata Crescent can be summarised as follows:

- a crash 130m north of Major Drive involving a northbound car losing control turning right with the crash factors including alcohol test above limit or test refused;
- a crash 200m north of Major Drive involving a southbound car hitting a manoeuvring vehicle. The crash factors included lost control, wrong pedal/ foot slipped; and
- a crash 470m north of Major Drive involving a northbound car losing control turning left. The crash factors include lost control under braking, new driver/ under instruction.

As such, given the nature of the reported accidents and in particular that they were non-injury and two were single vehicle incidents there are no particular underlying safety concerns.

3. District Plan Transportation Requirements

The proposed plan change involves the rezoning of the site to General Residential Activity Area. Issues, objectives, policies and rules included in the District Plan which have an influence on transportation matters within the General Residential Area and would apply to this site include:

4A General Residential Activity Area

Rule 4A 2.1.1 Permitted Activities – Conditions

(b) Minimum Yard Requirements:

For all buildings on the net site area:

Front Yard 3.0m

All Other Yards 1.0m

Provided that:

(i) In the case of a vacant site, or in the case of the erection of an additional dwelling unit on a site any garage or carport (whether it be part of the dwelling, attached to the dwelling or separate from the dwelling) must be a minimum distance of 5 metres from the front boundary if it has vehicular access directly from the street.

(ii) In the case of a vacant site, or in the case of the erection of an additional dwelling unit on a site where a garage or carport (whether it be part of the dwelling or separate from the dwelling) is parallel to the street, and the vehicle has the ability to turn on the site and drive off the site in a forward direction, such a set back is not required, and the normal front yard restriction shall apply.

(iii) In all cases, for Through Sites and Corner Sites all road frontages shall be treated as front yards.

***(n) General Rules**: Compliance with all matters in the General Rules – see Chapter 14.*

11 Subdivision

11.1.2 Engineering Standards

Objective 11.1.2

To ensure that utilities provided to service the subdivision protect the environment and that there are no adverse effects on the health and safety of residents and occupier.

Policy 11.1.2 (a)

To ensure that utilities provided comply with specified performance standards relating to such matters as access, street lighting, stormwater, water supply, wastewater, gas, telephone, electricity and earthworks.

The Rules in Section 11.2.2.1 include provisions for Engineering Design as follows:

- access and road design;
- footpath provision; and
- street lighting provision.

Issues, Objectives and Policies included in Section 14A Transport of the District Plan which have relevance to the proposal being considered are:

Issue 14A 2.1
A safe, efficient, resilient, multi-modal transport network that is well integrated with land use and development is essential for both sustainable development and social and economic wellbeing.

Issue 14A 2.2
The construction, operation and maintenance of the transport network can have adverse effects on the surrounding environment, including noise, vibration and visual effects.

Issue 14A 2.4
Land use and development can adversely affect the safety and efficiency of the transport network through the generation of additional traffic.

Issue 14A 2.5
Land use and development can adversely affect the safety and efficiency of the transport network through inappropriate design of on-site transport facilities (vehicle access, parking, manoeuvring and loading facilities).

Objective 14A 3.1
A safe, efficient, resilient and well-connected transport network that is integrated with land use patterns, meets local, regional and national transport needs, facilitates and enables urban growth and economic development, and provides for all modes of transport.

Objective 14A 3.2
Adverse effects from the construction, maintenance and development of the transport network on the adjacent environment are managed.

Objective 14A 3.4
Adverse effects on the safety and efficiency of the transport network from land use and development that generate high volumes of traffic are managed.

Objective 14A 3.5
Adverse effects on the safety and efficiency of the transport network from on-site transport facilities (vehicle access, parking, manoeuvring and loading facilities) are managed.

Policy 14A 4.1
Additions and upgrades to the transport network should seek to improve connectivity across all modes and be designed to meet industry standards that ensure the safety, efficiency and resilience of the transport network are maintained.

Policy 14A 4.2
Land use, subdivision and development should not cause significant adverse effects on the connectivity, accessibility and safety of the transport network, and, where appropriate, should:

- *seek to improve connectivity within and between communities; and*
- *enable walking, cycling and access to public transport.*

Policy 14A 4.3
The transport network should be located and designed to avoid, remedy or mitigate adverse effects on the adjacent environment.

Policy 14A 4.5
Any activity that is a High Trip Generator must be assessed on a case by case basis. Adverse effects of High Trip Generators on the safety and efficiency of the transport network should be managed through the design and location of land use, subdivision or development.

Policy 14A 4.6
Vehicle access, parking, manoeuvring and loading facilities should be designed to standards that ensure they do not compromise the safety and efficiency of the transport network.

Policy 14A 4.7
The transport network, land use, subdivision and development should provide for all transport modes.

The following standards included in Section 14A Transport Appendix Transport 1 – Standards would apply to the proposed site at the resource consent stage:

(i) a residential subdivision enabling more than 60 dwelling houses is a restricted discretionary activity with discretion restricted to the effects of the activity on the transport network including impacts on on-street parking (Rule 14A 5.1(b))
(ii) all roads must be designed and constructed in accordance with NZS 4404:2010 Land Development and Subdivision Infrastructure (14A Standard 1(b))
(iii) service lanes, private ways, pedestrian accessways and walkways must be designed and constructed in accordance with Section 3 of NZS 4404:2010 Land Development and Subdivision Infrastructure except that for the provisions included in the following table: (14A Standard 1(c))

No. of Potential Dwellings	Legal Width	Formation Width
1	3m	No specific requirements
2	3m	No specific requirements
3	4m	3m carriageway
4-6	6m	5m carriageway
7-10	7m	5m carriageway plus 1m footpath

(iv) no more than two separate crossings for any front site. The total width of such crossings must not exceed 50% of the road frontage (14A Standard 2(a))
(v) separation distance of at least 1m between crossings measured at the kerb/ carriageway edge (14A Standard 2(a))
(vi) site access must be designed and constructed in accordance with Section 3 of AS/NZS 2890.1:2004 Parking facilities Part 1: Off-street car parking (14A Standard 2(a))
(vii) where a vehicle access serves three or more dwellings, it must have a minimum width of 4 metres to allow for fire service vehicles (14A Standard 2(a))
(viii) separation distance of 10m between an access and an intersection with an Access Road, increasing to 15m to an intersection with a Secondary Collector Road (14A Standard 2(b))
(ix) sufficient area must be provided for vehicles to stand, queue and make all necessary manoeuvres without using the public road reserve, and without using the area provided for parking, servicing, loading or storage purposes (14A Standard 2(c))
(x) sufficient area must be provided to allow vehicles to enter and exit the site in a forward direction except where the access is to a single dwelling and accesses an Access, Secondary Collector or Primary Collector Road (14A Standard 2(c))
(xi) one parking space per dwelling (14A Standard 4(a))
(xii) car parking spaces must be provided on site (14A Standard 4(c))
(xiii) car parking spaces must comply with the requirements of AS/NZS 2890.1:2004 (14A Standard 4(d))

Section 3 of AS/NZS 2890.1:2004 includes the following with regard to access provisions:

(i) access from frontage roads shall be formed in such a way as to be clearly recognized by road users as either an access driveway or as an intersection (3.1.1)
(ii) driveway width of 3.0 to 5.5m(3.2.1)
(iii) minimum sight distance along frontage road from 2.5m back from kerb of 45m with desirable minimum of 69m (3.2.4(a))
(iv) provision of 2.5m long by 2m wide pedestrian visibility triangle on exiting side of two-way driveway or on both sides of exiting one-way driveway (3.2.4(b))
(v) maximum grades for driveways of:

- 1 in 6 (16.7%) along length
- 1 in 20 (5%) across property line
- 1 in 40 (2.5%) across footpath (2.6.2 & 3.3(d))

The District Plan includes the following in Chapter 8 Rural Residential Activity Area regarding Liverton Road:

8A 1.1.3 Liverton Road

Issue

The narrow formation and twisty alignment of Liverton Road mean that it is inappropriate to allow further subdivision or new activities which result in an increase in traffic volumes using the road.

Objective

To recognise that it is not appropriate for there to be further growth in the number of vehicles using Liverton Road.

Policy

(a)To require subdivisions creating the opportunity for further dwellings or new activities that will generate traffic movements to use alternative routes to Liverton Road.

Explanation and Reasons

Liverton Road is a narrow and twisty route. At the lower end it is in a gorge but towards the top opens out onto land with flatter topography. Due to the poor condition of the road it is inappropriate for there to be further subdivision or new activities which will place greater traffic volumes on the road. The land which is suitable for further rural residential development can be accessed from Major Drive, Kelson, a route which can accommodate growth in traffic volumes.

The key transportation matters for consideration at this plan change stage is ensuring that safe connections can be achieved to the existing road network and that there is sufficient capacity within the local road network to accommodate the additional traffic activity. With regard to Liverton Road it will be necessary to ensure that the provisions in 8A 1.1.3 Liverton Road also apply to land that will be rezoned as part of the proposed plan change.

4. Traffic Effects – Residential Development with Proposed Zoning

With regard to traffic generation it is necessary to include consideration of the traffic effects with the recently rezoned but as yet undeveloped site at 64 Waipounamu Drive as well as the site of the proposed plan change.

The concept plan developed by Cuttriss Consultants showed that up to some 163 additional residential lots could reasonably be accommodated on the site at 89 Waipounamu Drive with the now approved zoning. At the time of the plan change it was anticipated that traffic associated with around 90 houses would access Major drive via Kaitangata Crescent with the balance travelling via Waipounamu Drive.

Tables 4 and 5 show the forecast local traffic activity based on the recorded trip generation rates for Waipounamu Drive. The weekday evening peak data has been used being the busiest of the traffic peaks.

	Through Traffic	Turning Traffic
Existing	94	63
89 Waipounamu Drive	+0	+ 90hh*0.75vph=+68
280 Major Drive		
Major Drive	+49hh*0.75vph=+37	+0
Kaitangata Crescent	+0	+ 24hh*0.75vph=+18
Forecast Total	131	149

Table 4: Kaitangata Crescent Intersection with Major Drive (vph)

	Through Traffic	Turning Traffic
Existing	254	130
89 Waipounamu Drive	+90hh*0.75vph=+68	+ 73hh*0.75vph=+55
280 Major Drive		
Major Drive	+49hh*0.75vph=+37	+0
Kaitangata Crescent	+ 24hh*0.75vph=+18	+0
Forecast Total	377	185

Table 5: Waipounamu Drive Intersection with Major Drive (vph)

The key off-site traffic effects associated with the proposed plan change are the additional vehicle movements through each of the Major Drive intersections with Kaitangata Crescent, Waipounamu Drive and SH2. With regard to the intersections with Kaitangata Crescent and Waipounamu Drive, Austroads Guide to Traffic Management Part 3 : Traffic Studies and Analysis (2009) includes the following guidance with regard to assessing the capacity of unsignalised intersections.

6.1.1 Unsignalised Intersections with Minor Roads

At unsignalised intersections with minor roads where there are relatively low volumes of cross and turning traffic, capacity considerations are usually not significant, and capacity analysis is unnecessary. Table 6.1 sets out details of intersection volumes below which capacity analysis is unnecessary.

Table 6.1: Intersection volumes below which capacity analysis is unnecessary

Type of road	***Light cross and turning volumes Maximum design hour volumes Vehicles per hour (two-way)***		
Two-lane major road	*400*	*500*	*650*
Cross road	*250*	*200*	*100*

On this basis, both the intersections can be expected to continue to perform satisfactorily.

With regard to the intersection of Major Drive and SH2, Table 6 shows the forecast additional traffic activity at the intersection based on existing turning patterns and the conservative assumption that all vehicle movements are to and from locations outside the suburb.

Time Period	Major Drive Towards SH2 (vph)	Left in from SH2 (vph)	Right in from SH2 (vph)	Total (vph) (trip generation rate)
Weekday 8.00-9.00am				
89 Waipounamu Drive	75	10	15	100
280 Major Drive	33	5	7	45
Combined	108	15	22	145 (0.61)
Weekday 5.00-6.00pm				
89 Waipounamu Drive	39	38	46	123
280 Major Drive	17	17	21	55
Combined	56	55	67	178 (0.75)
Saturday 11.30am-12.30pm				
89 Waipounamu Drive	46	20	24	90
280 Major Drive	20	9	11	40
Combined	66	29	35	130 (0.55)

Table 6 : Forecast Additional Traffic Activity on Major Drive at SH2

With up to 140s cycle times at the signals, the combined additional traffic would result in around an additional one or two vehicles on each approach during each cycle at peak hours except on the Major Drive approach which would have on average up to four additional vehicles during the weekday morning peak. Given the small amount of additional traffic activity per cycle of the signals plus there being three traffic lanes at the Major Drive stop line, the additional traffic activity is not expected to be discernible from day to day fluctuations in traffic flows.

As such, the forecast traffic effects associated with the proposed zone change can be safely and efficiently accommodated at the local intersections.

With regard to the connections between the site of the proposed plan change and the frontage local road network, Drawing No.29447P2 shows the existing road reserve width of Major Drive reducing from 20m to 16m into and through the site. Based on the provisions of NZS4404: 2010 a road reserve width of 16m can be expected to deliver a carriageway formation capable of accommodating up to at least 200 houses or 2,000 vehicle movements per day.

The southern of the proposed accesses onto Kaitangata Crescent is anticipated to serve some eight lots. As such the District Plan requirement is to provide an access with a legal width of 7m. An access with a legal width of 7m can be accommodated. At resource consent stage particular care will be needed with regard to achieving the necessary sight lines at a distance of 2.5m back from the edge of the Kaitangata Crescent frontage traffic lane. Some grading of the land to each side of the proposed driveway will be needed.

The northern of the proposed accesses onto Kaitangata Crescent is anticipated to serve 16 lots with an initial section of public road and then two rights of way. The road section is shown with an indicative legal width of at least 15m and the rights of way with a 6m width. The indicative road width can readily meet the standards required in the District Plan. With each of the rights of way serving five lots, the 6m legal width meets the District Plan requirement.

With the potential for more pedestrian activity along Kaitangata Crescent it is recommended that at the resource consent stage the existing footpath is extended to opposite the northernmost access to the subdivision.

5. Summary and Conclusion

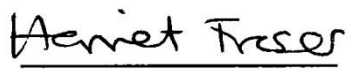
The findings of this transportation assessment can be summarised as follows:

- the site is currently undeveloped with little if any regular traffic activity;
- consideration has been given to the traffic associated with the development of the residentially zoned land at 89 Waipounamu Drive;
- the forecast traffic generations have been based on recorded local traffic generation rates;
- around one third of the anticipated lots are within a 400m walk of the bus stops on Major Drive. The bus service could be extended along Major Drive into the site but provision would need to be made for turning at the resource consent stage;
- the historic road safety record shows no crashes at the Major Drive intersection with Kaitangata Crescent or on Major Drive to the north of Kaitangata Crescent. The three reported crashes on Kaitangata Crescent were non-injury and involved single vehicles. There is no particular pattern of crashes within the local road network;
- it is recommended that at the resource consent stage the existing footpath on Kaitangata Crescent is extended to opposite to the northernmost access to the subdivision;
- the forecast additional traffic activity can be readily accommodated at each of the Major Drive intersections with Kaitangata Crescent, Waipounamu Drive and SH2; and
- it is recommended that the existing provisions included in Section 8A 1.1.3 for Liverton Road are also applied to the rezoned land.

Accordingly the site can be rezoned to General Residential Activity Area and developed for residential purposes with the development meeting the transportation related objectives, policies and rules of the District Plan.

Please do not hesitate to be in touch should you require clarification of any of the above.

Yours faithfully



Harriet Fraser

Appendix 7 - Pre-notification Consultation Correspondence

Jouvelle Gee

From: Sam Gifford <sam@sgp.co.nz>
Sent: Tuesday, 11 June 2019 2:32 PM
To: Jouvelle Gee
Cc: James Beban
Subject: FW: Initial Consultation - Private Plan in Kelson, Lower Hutt
Attachments: Ngati Toa.pdf

From: Sam Gifford <sam@sgp.co.nz>
Sent: Thursday, October 18, 2018 10:20 AM
To: turi.hippolite@ngatitoa.iwi.nz
Subject: Re: Initial Consultation - Private Plan in Kelson, Lower Hutt

Kia ora Turi

Just following up on my previous email from earlier in the year (my apologies for not following up sooner). We are progressing into the s32 report at present, so thought it was good opportunity to again pause and reconnect with key stakeholders. As per below, and the attached planset, set we are seeking to rezone the application site at 280 Major Drive, 54 Kaitangata Crescent and 204 Liverton Road. We are keen to seek any feedback Ngati Toa might have on the proposed private plan change.

I appreciate you are pretty busy dealing with all the various other PC's on the go around the region so would be happy to meet with you to discuss if that's easier.

Look forward to hearing from you.

Kind Regards,
Sam

--
Sam Gifford
SG Planning Ltd
Phone: 0275362869
Email: sam@sgp.co.nz
Web: www.sgp.co.nz - under development

From: Sam Gifford <sam@sgp.co.nz>
Sent: Tuesday, May 1, 2018 10:25 PM
To: turi.hippolite@ngatitoa.iwi.nz
Subject: Initial Consultation - Private Plan in Kelson, Lower Hutt

Kia ora Turi,

Just touching base regarding another plan change James Beban and I are working on together. Things are in the early stages but attached is the initial documentation we are circulating to key stakeholders regarding the private plan change

in Kelson, Lower Hutt. Similar to the approach we had for the recent Waipounamu Drive plan change, once we have expert reports prepared etc we would be more than happy to provide you with them and meet if required to further discuss the content and the plan change.

In the interim if you have any feedback, questions or wish to discuss the future application in more detail please don't hesitate to contact James Beban of Urban Edge Planning (james@uep.co.nz) or myself.

Kind Regards,
Sam

--
Sam Gifford
SG Planning Ltd
Phone: 0275362869
Email: sam@sgp.co.nz
Web: http://www.sgp.co.nz – under development

Port Nicholson Block Settlement Trust

Jouvelle Gee

From: Morrie Love <Morrie@ngahuru.maori.nz>
Sent: Monday, 7 May 2018 4:59 PM
To: sam@sgp.co.nz; james@uep.co.nz
Cc: kirsty@portnicholson.org.nz; Kara Dentice
Subject: RE: TAKIWA : Initial Consultation - Private Plan in Kelson, Lower Hutt

Kia ora korua

At first look I see no issues here for PNBST howvere I am aware there was an old temporary Pa site near this site but it is hard to find that precise location. Otherwise I see no issues

Regards

Morrie

Sent from Mail for Windows 10

From: Taranaki Whānui Reception <Reception@portnicholson.org.nz>
Sent: Friday, May 4, 2018 3:18:53 PM
To: Morrie Love; kara.dentice@gmail.com; Holden Hohaia
Subject: TAKIWA : Initial Consultation - Private Plan in Kelson, Lower Hutt

For consideration and response.

Ngā mihi

TARANAKI WHĀNUI

Tramways Building
1-3 Thorndon Quay
Wellington 6011
PO Box 12164
Wellington 6144

Ph 04 472 3872 | Free Phone 0800 767 8642 | Fax 04 472 3874 | www.pnbst.maori.nz | Follow Us On Facebook!

From: Sam Gifford [mailto:sam@sgp.co.nz]
Sent: Friday, May 4, 2018 3:06 PM
To: Taranaki Whānui Reception <Reception@portnicholson.org.nz>
Subject: Initial Consultation - Private Plan in Kelson, Lower Hutt

Kia ora

Please find attached initial consultation documentation for a private plan change in Kelson, Lower Hutt. If you can you please pass this email onto Morrie Love that would be much appreciated, unfortunately I don't have his Port Nicholson email address.

If there are any questions arising on review of the documentation or wish to discuss the future application in more detail please don't hesitate to contact James Beban of Urban Edge Planning (james@uep.co.nz) or myself.

Kind Regards,
Sam

--
Sam Gifford
SG Planning Ltd
Phone: 0275362869
Email: sam@sgp.co.nz
Web: www.sgp.co.nz - under development

Te Atiawa

Jouvelle Gee

From: Sam Gifford <sam@sgp.co.nz>
Sent: Tuesday, 11 June 2019 2:33 PM
To: Jouvelle Gee
Cc: James Beban
Subject: FW: FW: FYI Te Runanga o Te Atiawa
Attachments: Te Atiawa.pdf

From: Sam Gifford <sam@sgp.co.nz>
Sent: Thursday, October 18, 2018 10:30 AM
To: 'Marama Puketapu' <marama@atiawa.com>
Subject: RE: FW: FYI Te Runanga o Te Atiawa

Kia ora Marama

That's not ideal, but all sorted now I take it? I think you're the right persons but if not hopefully you might be able to point me in the right direction for who would I best address consultation documents too within Te Atiawa? It's regarding a private plan change in Kelson, Lower Hutt to rezone an area of land as General Residential and General Recreation. I've attached the documentation I sent through originally. We are seeking input/feedback from Te Atiawa regarding the proposed rezoning.

Happy to meet with yourself or others to discuss if that is better too.

Kind Regards,
Sam

From: Marama Puketapu <marama@atiawa.com>
Sent: Wednesday, October 10, 2018 2:40 PM
To: Sam Gifford <sam@sgp.co.nz>
Subject: Re: FW: FYI Te Runanga o Te Atiawa

Hi Sam - its good you cant because our system here at work was hacked.

Good work on the reply though...Cheers

From: Sam Gifford <sam@sgp.co.nz>
Sent: Wednesday, 10 October 2018 12:39 PM
To: Marama Puketapu
Subject: Re: FW: FYI Te Runanga o Te Atiawa

Kia Ora Marama

I was just searching my inbox for any correspondence from Te Atiawa and for whatever reason, your email was quarantined by my security settings. So much so it won't let me open the link in your email. My apologies for the rather delayed reply but are you able to send me the document as a direct attachment as opposed to a link?

Kind Regards,
Sam

--
Sam Gifford
SG Planning
Phone: 0275362869
Email: sam@sgp.co.nz
Web: http://www.sgp.co.nz - coming soon

On Wed, Jun 27, 2018 at 9:26 AM Marama Puketapu <marama@atiawa.com> wrote:
Good day,

Please refer to the enclosed document shared by Marama Puketapu via Smartsheet for your reference

VIEW DOC HERE

Thank you
Naaku noa

Marama Puketapu
Whanau Ora Navigator
Te Runanga o Te Atiawa

New Zealand Transport Agency

Jouvelle Gee

From: Aaron Hudson <Aaron.Hudson@nzta.govt.nz>
Sent: Monday, 28 May 2018 2:50 PM
To: Sam Gifford
Cc: Amy Kearse
Subject: NZTA Ref: 918064 280 Major Drive Kelson Proposed Private Plan Change to Hutt City District Plan

Hi Sam,

Thank you for alerting the NZ Transport Agency to your proposed private plan change to the Hutt City District Plan. We note that you propose to rezone Lots 1-2 DP 87274 and Lot 4 DP 81542, 280 Major Drive, Kelson to enable 71 residential allotments.

Firstly apologies for the delay in responding to you. I've discussed this proposal briefly with the Transport Agency's Strategy, Policy and Planning team. As such I understand that the proposed residential development this private plan change proposes to generate is consistent with the growth projections the Transport Agency is aware through conversations with Hutt City Council. I also understand that the signalised interchange between State Highway 2 and Major Drive should have capacity for the proposed 71 dwellings.

However based on the scheme plans, one is that proposed lot 37 has frontage to Liverton Road. Given the limitations of Liverton Road, it is recommended that all access to the proposed lots is via Major Drive.

The Transport Agency is happy to discuss this matter further.

Kind Regards

Aaron Hudson / Planner
Consents & Approvals
System Design & Delivery
DDI 64 4 894 6230

From: Sam Gifford [mailto:sam@sgp.co.nz]
Sent: Tuesday, 1 May 2018 22:18
To: WLG Regional Office Planning
Subject: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi There,

Please find attached initial consultation documentation for a private plan change in Kelson, Lower Hutt.
If you have any feedback, questions or wish to discuss the future application in more detail please don't hesitate to contact James Beban of Urban Edge Planning (james@uep.co.nz) or myself.

Kind Regards,
Sam

--
Sam Gifford
SG Planning Ltd
Phone: 0275362869
Email: sam@sgp.co.nz

Web: http://www.sgp.co.nz – under development

Find the latest transport news, information, and advice on our website:
www.nzta.govt.nz

Transpower

Jouvelle Gee

From: Joanna Laurenson <joannal@4sight.co.nz>
Sent: Wednesday, 4 July 2018 4:36 PM
To: sam@sgp.co.nz
Subject: RE: Private Plan Change - Major Drive, Kelson
Attachments: 2018 06 27 - site plan -280 Major Drive PPC.PDF

Kia ora Sam,

Hope all is going well. Just following up to see how you and Urban Edge are getting on with the resource consent application.

I've reviewed the plans you have provided and made our colleagues in Transpower aware of the upcoming proposed plan change. As you finalise your plans, Transpower would like to receive the following information:

- the final practical buildable areas within any residential lot traversed by HAY-MLG-B,
- the separation distance between HAY-MLG-B and the proposed road and private right of way,
- clarification that the no build corridor will extend within the new road (and the location of any street lights and other structures within the new road),
- construction details including dust management, the location of stockpiles and any controls relating to the operation of heavy machinery/mobile plant around HAY-MLG-B,
- clarification around any restrictions on materials for future land uses within the National Grid corridor, such as fencing,
- clarification around whether the indicated 'no build area' includes the setbacks requirement of NZECP34, and
- clarification that any future residential landscaping or street trees will comply with the Electricity (Hazards from Trees) Regulations 2003.

Look forward to hearing from you.

Ngā mihi,
Joanna Laurenson on behalf of Transpower,

Joanna Laurenson
Intermediate Planning and Policy Consultant

Mobile: 027 203 0043

4SIGHT CONSULTING

Level 6, Aviation House
12 Johnston Street
PO Box 25356, Featherston Street, Wellington 6146
4Sight.Consulting LinkedIn

From: Sam Gifford [mailto:sam@sgp.co.nz]
Sent: Monday, 18 June 2018 2:26 PM
To: Rebecca Eng <Rebecca.Eng@transpower.co.nz>; Jenna McFarlane <Jenna.McFarlane@transpower.co.nz>
Subject: Private Plan Change - Major Drive, Kelson

Hi Rebecca and Jenna

I'm 100% sure who exactly at Transpower to address preliminary plan change consultation to. However, given James and myself engaged with yourselves regarding the recent plan change at Waipounamu Drive, Lower Hutt I figured we would head in your direction again.

Please find attached a cover letter regarding another private plan change. Also attached are several preliminary plans for the proposed rezoning and an indicative complying development yield, with regard to lot layout under the proposed zoning. You will note we learnt from last time and at the outset we have shown the existence of the high voltage transmission corridor, which intersects the north-western aspect of the site. Again it is proposed to retain this overlay and the provisions which relate to its existence without any change to what is currently in the Plan.

Upon your review of the attached documents, if you wish to discuss the proposal in its initial form please don't hesitate to contact James Beban or myself.

Kind Regards,
Sam

--
Sam Gifford
SG Planning Ltd
Phone: 0275362869
Email: sam@sgp.co.nz
Web: www.sgp.co.nz - under development

Winstone Aggregates

Jouvelle Gee

From: Tyler Sharratt (Winstone Aggregates) <Tyler.Sharratt@winstoneaggregates.co.nz>
Sent: Wednesday, 14 November 2018 11:08 AM
To: Sam Gifford
Subject: RE: Initial Consultation - Private Plan in Kelson, Lower Hutt
Attachments: Rp 001 r01 20170477 SA Cottle Block Extension (Noise Assessment).pdf

Hi Sam,

I've discussed this with Dan Mcgregor and I have also attached a Noise Report we had commissioned from Marshall Day. Both of us agree that the worst case scenario shows no impact over 50dBA at the closest receivers notional boundary. Therefore, we are recommending that we support the plan change. The manager isn't in the office at present, but once he gives the sign off, I'll let you know.

Cheers,
Tyler

From: Tyler Sharratt (Winstone Aggregates)
Sent: Wednesday, 7 November 2018 09:21
To: 'Sam Gifford' <sam@sgp.co.nz>
Subject: RE: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Sam,

Great stuff. Yes, we are more than happy to support the Plan Change in principle and I'll have a chat with the team to see if we have grounds to propose either a distance trigger or some type of performance standard. Although the southern elevation of the subdivision will be approx 500m from our closest site, the topography kind of works against us here, so that's whats driving our caution.

I'll have a chat to the team and get back to you soon.

Cheers,
Tyler

From: Sam Gifford [mailto:sam@sgp.co.nz]
Sent: Tuesday, 6 November 2018 12:02
To: Tyler Sharratt (Winstone Aggregates) <Tyler.Sharratt@winstoneaggregates.co.nz>
Subject: RE: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Tyler

Apologies for dragging the chain on coming back to you. Definitely familiar with reverse sensitivity or no complaints covenants, however generally more so during subdivision of land and not at a plan changes/rezoning stage unless the whole site warrants a rule or measure to be inserted into the District Plan.

Given layout of any future subdivision of the site is yet to be finalised (and its being done by Cuttriss, not UEP or myself) it's a bit difficult for me to say with great certainty what the future layout might look like. If there is a particular distance from the quarry at which your concerns are addressed, the client would be happy to agree to a no complaints or reverse sensitivity covenant being registered on the titles of any future allotments within this distance. Or is the potential for

reverse sensitivity such that you think a particular rule or performance standard should be inserted into the Plan for all the areas proposed to be rezoned to General Residential Activity Area.

Feel free to give me a bell to discuss if its easier.

Kind Regards,
Sam

--
Sam Gifford
SG Planning Ltd
Phone: 0275362869
Email: sam@sgp.co.nz
Web: www.sgp.co.nz - under development

From: Tyler Sharratt (Winstone Aggregates) <Tyler.Sharratt@winstoneaggregates.co.nz>
Sent: Thursday, October 25, 2018 4:59 PM
To: Sam Gifford <sam@sgp.co.nz>
Subject: Re: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Sam
I've had a chat with my colleagues and we are slightly concerned about the proximity of the closest two potential lots and any reverse sensitivity issues that may occur. Are you familiar with the tool of a no complaints covenant?

Cheers
Tyler

Sent from my Samsung Galaxy smartphone.

-------- Original message --------
From: Sam Gifford <sam@sgp.co.nz>
Date: 25/10/18 7:55 AM (GMT+12:00)
To: "Tyler Sharratt (Winstone Aggregates)" <Tyler.Sharratt@winstoneaggregates.co.nz>
Subject: RE: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Tyler

Just following up with you, post giving that clarification. We are progressing discussions with Hutt City Council next week, so would be keen to know any thoughts/concerns Winstones have so we can think about how we might be able to address these prior.

If you could let me know that would be much appreciated.

Cheers,
Sam

From: Sam Gifford <sam@sgp.co.nz>
Sent: Wednesday, October 10, 2018 4:24 PM

To: 'Tyler Sharratt (Winstone Aggregates)' <Tyler.Sharratt@winstoneaggregates.co.nz>
Subject: RE: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Tyler

Closest residential allotment would be approx. 400m from the toe of the fill batter (as shown on the HCC GIS). I've added a circle on the proposed zoning plan so you can see it, although it doesn't show the quarry on the same plan sorry.

Cheers,
Sam

From: Tyler Sharratt (Winstone Aggregates) <Tyler.Sharratt@winstoneaggregates.co.nz>
Sent: Wednesday, October 10, 2018 3:30 PM
To: Sam Gifford <sam@sgp.co.nz>
Subject: RE: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Sam,

Are you able to indicate on the plan where the closest proposed residential lot is likely to be?

Cheers,
Tyler

From: Sam Gifford [mailto:sam@sgp.co.nz]
Sent: Tuesday, 9 October 2018 16:01
To: Tyler Sharratt (Winstone Aggregates) <Tyler.Sharratt@winstoneaggregates.co.nz>
Subject: RE: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Tyler

Apologies for not being in touch again sooner. Our landscape and ecological experts have returned their draft reports and the extent of the zoning as originally proposed remains unchanged (we don't need to alter it to account for ecological or landscape reasons). So now that things are tracking forward again with greater certainty we would like to seek any comment from Winstones at this point. For ease of reference I've attached the plan showing the proposed zoning for the application site.

Happy to discuss the proposal in further detail, please don't hesitate to touch base with me if you have any questions.

Kind Regards,
Sam

--
Sam Gifford
SG Planning Ltd
Phone: 0275362869
Email: sam@sgp.co.nz
Web: www.sgp.co.nz - under development

From: Tyler Sharratt (Winstone Aggregates) <Tyler.Sharratt@gbcwinstone.co.nz>
Sent: Monday, July 2, 2018 3:03 PM
To: Sam Gifford <sam@sgp.co.nz>
Subject: RE: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Sam,

No update as of yet. We will probably hold off until you have firmed up your proposal.

Cheers,

Tyler

GBCWINSTONE
Golden Bay Cement
WINSTONE AGGREGATES
WINSTONE TRANSPORT

TYLER SHARRATT
Resource Management Planner

MOB: +64 27 202 9453
www.gbcwinstone.co.nz
A Division of Fletcher Concrete and Infrastructure Limited

From: Sam Gifford [mailto:sam@sgp.co.nz]
Sent: Friday, 15 June 2018 10:17
To: Tyler Sharratt (GBC Winstone) <Tyler.Sharratt@gbcwinstone.co.nz>
Subject: RE: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Tyler

Just wanting to touch base with you quickly. Have you have had any response or feedback from your acoustic engineer or the engineer in charge of Belmont Quarry regarding the proposed plan change? If not then no trouble. We are looking to get the wider project team in the next couple of weeks to work through the indicative plans, making changes or tweaks as necessary. If we need to respond to any initial concerns from the quarry then being able to address these at the same time would be ideal.

Kind Regards,
Sam

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Sam Gifford
SG Planning Ltd
Phone: 0275362869
Email: sam@sgp.co.nz
Web: www.sgp.co.nz - under development

From: Tyler Sharratt (GBC Winstone) <Tyler.Sharratt@gbcwinstone.co.nz>
Sent: Friday, May 11, 2018 9:38 AM

To: sam@sgp.co.nz
Subject: FW: Initial Consultation - Private Plan in Kelson, Lower Hutt

Hi Sam,

Dan has passed this on to me, so I'll be your contact going forward.

Thanks for sending us the proposal documents. The main concerns for us are the typical reverse sensitivity issues common to quarrying activities – namely noise and visual amenity. What I will do is chat with our consultant Marshall Day, to see what noise levels would be at the nominal boundary of the closest Lot. I will also have a chat to the Engineer in charge of Belmont Quarry development, to see if he has any insights of whether any planned works conflict with your proposal. I will let you know when I have all the above information.

If you could send through any further information/reports as and when you have them, that would be much appreciated.

Thanks and I'll be in touch again soon.

Cheers,

Tyler

GBCWINSTONE
Golden Bay Cement
WINSTONE AGGREGATES
WINSTONE TRANSPORT

TYLER SHARRATT
Resource Management Planner

MOB: +64 27 202 9453
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A Division of Fletcher Concrete and Infrastructure Limited

From: Sam Gifford [mailto:sam@sgp.co.nz]
Sent: Friday, 4 May 2018 11:20
To: Dan Mcgregor (GBC Winstone) <Dan.McGregor@gbcwinstone.co.nz>
Cc: james@uep.co.nz
Subject: Initial Consultation - Private Plan in Kelson, Lower Hutt

Kia ora Dan,

As very briefly discussed, please find attached preliminary consultation documentation we are circulating to key stakeholders. AT this stage we are seeking informal feedback regarding a proposed private plan change at Kelson, Lower Hutt. Given the proximity of Winstone's quarry to the application site we think it prudent to have some early dialogue about what's happening in the neighborhood.

If you or your team have any feedback, questions or wish to discuss the future application in more detail please don't hesitate to contact James Beban of Urban Edge Planning (cc'd into this email) or myself.

Kind Regards,

Sam

--
Sam Gifford
SG Planning Ltd
Phone: 0275362869
Email: sam@sgp.co.nz
Web: www.sgp.co.nz - under development

Wellington City Council

Jouvelle Gee

From: John McSweeney <John.McSweeney@wcc.govt.nz>
Sent: Friday, 31 August 2018 11:55 AM
To: Sam Gifford
Cc: 'Susan Jones'
Subject: RE: Private plan change consultation - Kelson, Lower Hutt

Hi Sam,

Thanks for this consultation material. WCC has no comments to make at this stage.

regards

John McSweeney
Place Planning Manager | City Design and Place Planning | Library, Level 2 | Wellington City Council
P 04 803 8557 | M 021 247 8557 | F
E John.McSweeney@wcc.govt.nz | W Wellington.govt.nz |

From: Sam Gifford [mailto:sam@sgp.co.nz]
Sent: Friday, 31 August 2018 11:37 a.m.
To: John McSweeney
Cc: 'Susan Jones'
Subject: Private plan change consultation - Kelson, Lower Hutt

Hi John

Please find attached initial consultation documentation for a private plan change in Kelson, Lower Hutt. At this stage we are engaging with key stakeholders and clause 3 parties.

Upon review of the documentation, if you have any questions or wish to discuss the future application in more detail please don't hesitate to contact Susan Jones of Urban Edge Planning (susan@uep.co.nz) or myself.

Kind Regards,
Sam

--
Sam Gifford
SG Planning Ltd
Phone: 0275362869

Email: sam@sgp.co.nz
Web: www.sgp.co.nz - under development

Greater Wellington Regional Council

Jouvelle Gee

From: Lucy Harper <Lucy.Harper@gw.govt.nz>
Sent: Tuesday, 10 July 2018 4:06 PM
To: sam@sgp.co.nz
Subject: Biodiversity comments Kelson plan change AEE.docx
Attachments: Biodiversity comments Kelson plan change AEE.docx

HI Sam
Thanks you for coming and talking to us at this stage of the Kelson project development.

Tarryn Wyman from our Biodiversity Department has assessed the AEE which you provided. Generally the assessment identifies the main biodiversity aspects of the site recommends a preferred development option which maintains those values.

However as she points out, if the development does not retain existing vegetation and stream habitat, further assessment would be required to fully determine the values of those areas. This would allow an assessment of mitigation options, but as we discussed at our meeting, loss of stream habitat is strongly discouraged in the proposed Natural Resources Plan and a consent is a non-complying activity.

I look forward to working with you further on the development.

Regards

Lucy Harper | Team Leader, Environmental Policy

GREATER WELLINGTON REGIONAL COUNCIL

Te Pane Matua Taiao

34 Chapel St | PO Box 41, Masterton 5840

T: 06 826 1529 | M: 027 451 6487

greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Talao

MEMO

TO	Lucy Harper
COPIED TO	Ali Caddy
FROM	Tarryn Wyman
DATE	5 July 2018

Proposed Private Plan Change – Kelson, Lower Hutt

The Environmental Policy department asked the Biodiversity department for comments on the Assessment of Ecological Effects (AEE)[1] for a proposed private plan change to the *Hutt City District Plan*. This memo details our response.

The proposed plan change involves a site that is currently zoned 'Rural Residential Activity Area' and the applicant, SG Planning Ltd, is seeking to modify the zoning to a mix of 'General Residential Activity Area' and 'General Recreation Activity Area'. Greater Wellington Regional Council has been asked for initial views and feedback on the preparation of their plan change. We believe the applicant should be commended for involving stakeholders early in this process.

The AEE for the proposed plan change gives details of a preliminary site survey to look at potential effects and mitigation opportunities relating to the subdivision, a second site survey to assess the ecological features of the site, and a desktop analysis. The AEE notes that a second, more comprehensive AEE for the proposed subdivision will be produced, if required.

We have considered the information provided in the AEE and evaluated its conclusions against the direction provided by the Resource Management Act 1991 (RMA), the *Regional Policy Statement for the Wellington Region*[2] (RPS), and the Environment Institute of Australia and New Zealand *Guidelines for Ecological Impact Assessment in New Zealand*[3] (the EIANZ Guidelines).

We support the findings of the AEE, including the option identified to avoid clearing indigenous vegetation and the loss of stream habitat. Should this option not be observed, we recommend that further ecological surveying will be necessary to assess the full range of taxa found at the site, as well as further assessment of mitigation options to sufficiently mitigate for any adverse effects. A more comprehensive AEE could address this.

1 Wildlands (Jan 2018) *Assessment of Potential Ecological Effects of a Proposed Plan Change for the Major Gardens Property, Kelson, Lower Hutt,* http://ourspace.gw.govt.nz/ws/biodiv/adv/4480a%20Plan%20change%20280%20Major%20Drive%2020180207%20-%20Wildlands.pdf
2 GWRC (2013) *Regional policy statement for the Wellington region*, http://www.gw.govt.nz/assets/Plans--Publications/Regional-Policy-Statement/Regional-Policy-Statement-full-document.pdf
3 Environment Institute of Australia and New Zealand (2015) *Ecological Impact Assessment (EcIA): EIANZ guidelines for use in New Zealand: terrestrial and freshwater ecosystems, 2nd Edition,* https://www.eianz.org/document/item/4447

Policy context

Objective 16 of the RPS intends that areas with significant indigenous biodiversity values be maintained and restored to a healthy functioning state. To achieve this, the following policies in the RPS need to be applied:

- Policy 23 provides criteria to identify ecosystems and habitats with significant indigenous biodiversity values
- Policy 24 requires that district plans include policies, rules and methods to protect ecosystems and habitats with significant indigenous biodiversity values from inappropriate subdivision, use and development
- Policy 47 is to be considered until such time as policies 23 and 24 have been implemented through the relevant district plan. It states that when considering an application for a plan change, a determination shall be made as to whether an activity may affect areas with significant indigenous biodiversity values (determined by the criteria in Policy 23). It also lists matters to take into regard when considering whether an activity is inappropriate. These include: the maintenance of ecological connections; avoiding the incremental loss of indigenous ecosystems; providing habitat for indigenous species; remedying or mitigating the adverse effects on indigenous biodiversity values; and the need to take a precautionary approach when assessing adverse effects

Identification of significant indigenous biodiversity values

The AEE recognises two important ecological features of the site:

- Ecological sites - The site is located within an ecological site identified by Hutt City Council ('Kaitangata Crescent scrub') and is adjacent to a second ecological site ('Kelson Forest Extensions'). These sites have been identified as significant ecosystems under the criteria of Policy 23. Kaitangata Crescent scrub is dominated by māhoe-mixed broadleaved forest and is part of a series of forest areas on the western hills of the Hutt Valley that provide habitat for indigenous species and linkages between habitats for mobile indigenous species such as birds

- Streams - An intermittent and ephemeral tributary of the Liverton Road Stream runs through a small arm of the Kaitangata Crescent Scrub ecological site. This area of the ecological site is proposed to be cleared and filled. The Liverton Road Stream is a tributary of the Te Awa Kairangi/Hutt River, which has high aquatic values and fauna values, and is recognised as significant in the *Proposed Natural Resources Plan for the Wellington Region*

Consideration of AEE findings

We support the measures identified in the AEE to address potential adverse effects of the plan change. In particular, we strongly support the option identified in the AEE to re-align the proposed access way so that it avoids the arm of the Kaitangata Crescent scrub ecological site, thereby

reducing indigenous vegetation clearance and impacts on the ecological site. Importantly, this option would also avoid infilling of waterways and the consequent loss of stream habitat. The AEE notes that insufficient area is available to undertake adequate mitigation planting within the lots of interest, and no opportunities to offset a loss of stream reach within the site. This reinforces the importance of avoiding clearance of the Kaitangata Crescent Scrub ecological site.

If clearance of the Kaitangata Crescent Scrub ecological site is not avoided, we recommend further ecological surveying is necessary to ensure adverse effects are appropriately mitigated. This is detailed further in the following section.

Ecological surveying

The EIANZ Guidelines outline the process needed for an appropriate AEE in New Zealand in line with Schedule 4 (Assessment of effects on the environment) of the RMA. The EIANZ Guidelines describe the typical process needed to describe the existing environment of a potential impact site. This includes breaking the biodiversity on site down into sub-categories for consideration, including vegetation, birds, bats, lizards, invertebrates and fish. The EIANZ Guidelines note that "in most cases, existing information will not be sufficient to support a reliable assessment of ecological impacts, and additional biological surveys will be required" (p. 55).

Overall, we believe that the survey of existing vegetation on the site is thorough and appropriate to the scale and nature of the development. However, we suggest that the survey of fauna at the site should be more comprehensive (as the assessment was mostly informed by a desktop analysis), particularly if clearance of the Kaitangata Crescent Scrub ecological site is not avoided. While bird species seen while traversing the site were noted, no other surveys for fauna were undertaken.

We recommend that the applicant provide more detailed information on the full range of taxa found at the site through further surveys, particularly in relation to:

- Birds - We suggest that a bird survey is necessary to determine which bird species use this site as core habitat, particularly threatened indigenous species
- Lizards - The AEE notes that several species of lizards may be present on site, including the 'at risk-declining' barking gecko and ngahere gecko. A survey for lizards is therefore necessary to determine the risks to these taxa
- Freshwater fish - The AEE notes that the 'at risk-declining' longfin eel and redfin bully are likely to occur on site. If any loss of stream habitat is to occur, a survey for freshwater fish will be necessary to determine the risks to these taxa
- Bats - The AEE notes that 'threatened-nationally vulnerable' long-tailed bat may occur on site. We suggest that the applicant should consider commissioning a survey for bats at this site

Management of adverse effects

As noted above, our preference is for the development to avoid indigenous vegetation clearance and the loss of stream habitat. We make the following recommendations that should be scaled appropriately depending on the level of adverse impact the development will have:

- In general, we would encourage the developers to use a best-practice urban design that works with the constraints and attributes of the site, and avoids ecological areas, steep slopes, indigenous vegetation and waterways
- We recommend that the edges of native forest be protected through the provision of a buffer zone around the ecological areas. Ideally, the ecological areas will be protected from future development through a covenant or similar provision
- Stream reclamation and piping should be avoided and fish passage maintained. Any negative effects on aquatic life, such as from sedimentation, should be avoided
- A stream ecological survey of the main stream reach (both adjacent to and below the proposed development) would provide useful information to further assess the development's potential effects on aquatic communities. This could incorporate an assessment of downstream mitigation opportunities (eg, for reducing barriers to fish passage)
- As noted in the AEE, there are few opportunities to undertake mitigation within the lots of interest, and no opportunities to offset the loss of stream reach within the site. Therefore, further assessment of mitigation options is required to sufficiently mitigate for any loss of vegetation and habitats. A more comprehensive AEE could address this

Please contact me if you would like to discuss any of the suggestions raised in this memo.

Kind regards,

Tarryn Wyman
Biodiversity Advisor
DD: 8304027
tarryn.wyman@gw.govt.nz

Appendix: Relevant policies from the Regional Policy Statement for the Wellington Region, 2013

Policy 23: Identifying indigenous ecosystems and habitats with significant indigenous biodiversity values – district and regional plans

District and regional plans shall identify and evaluate indigenous ecosystems and habitats with significant indigenous biodiversity values; these ecosystems and habitats will be considered significant if they meet one or more of the following criteria:

(a) Representativeness: the ecosystems or habitats that are typical and characteristic examples of the full range of the original or current natural diversity of ecosystem and habitat types in a district or in the region, and:

(i) are no longer commonplace (less than about 30% remaining); or

(ii) are poorly represented in existing protected areas (less than about 20% legally protected).

(b) Rarity: the ecosystem or habitat has biological or physical features that are scarce or threatened in a local, regional or national context. This can include individual species, rare and distinctive biological communities and physical features that are unusual or rare.

(c) Diversity: the ecosystem or habitat has a natural diversity of ecological units, ecosystems, species and physical features within an area.

(d) Ecological context of an area: the ecosystem or habitat:

(i) enhances connectivity or otherwise buffers representative, rare or diverse indigenous ecosystems and habitats; or

(ii) provides seasonal or core habitat for protected or threatened indigenous species.

(e) Tangata whenua values: the ecosystem or habitat contains characteristics of special spiritual, historical or cultural significance to tangata whenua, identified in accordance with tikanga Māori.

Policy 24: Protecting indigenous ecosystems and habitats with significant indigenous biodiversity values – district and regional plans

District and regional plans shall include policies, rules and methods to protect indigenous ecosystems and habitats with significant indigenous biodiversity values from inappropriate subdivision, use and development.

Policy 47: Managing effects on indigenous ecosystems and habitats with significant indigenous biodiversity values – consideration

When considering an application for a resource consent, notice of requirement, or a change, variation or review of a district or regional plan, a determination shall be made as to whether an activity may affect indigenous ecosystems and habitats with significant indigenous biodiversity values, and in determining whether the proposed activity is inappropriate particular regard shall be given to:

(a) maintaining connections within, or corridors between, habitats of indigenous flora and fauna, and/or enhancing the connectivity between fragmented indigenous habitats;

(b) providing adequate buffering around areas of significant indigenous ecosystems and habitats from other land uses;

(c) managing wetlands for the purpose of aquatic ecosystem health;

(d) avoiding the cumulative adverse effects of the incremental loss of indigenous ecosystems and habitats;

(e) providing seasonal or core habitat for indigenous species;

(f) protecting the life supporting capacity of indigenous ecosystems and habitats;

(g) remedying or mitigating adverse effects on the indigenous biodiversity values where avoiding adverse effects is not practicably achievable; and

(h) the need for a precautionary approach when assessing the potential for adverse effects on indigenous ecosystems and habitats.

Part 6: Submission Form

RMA FORM 5

Submission on publicly notified Proposed District Plan Change

Clause 6 of the First Schedule, Resource Management Act 1991

To: Chief Executive, Hutt City Council

1. **This is a submission from:**

Full Name	*Last* *First*	
Company/Organisation		
Contact *if different*		
Address	*Number* *Street*	
	Suburb	
	City *Postcode*	
Address for Service *if different*	*Postal Address*	*Courier Address*
Phone	*Home*	*Work*
	Mobile	
Email		

2. This is a **submission** on the following proposed change to the City of Lower Hutt District Plan:

Proposed District Plan Change No: ☐

Title of Proposed District Plan Change: ☐

3.a I ☐ **could** ☐ **could not** gain an advantage in trade competition through this submission

(Please tick one)

3.b *If you could gain an advantage in trade competition through this submission:*

I ☐ **am** ☐ **am not** directly affected by an effect of the subject matter of that submission that–

(a) adversely affects the environment; and

(b) does not relate to trade competition or the effects of trade competition.

(Please tick one)

Note: If you are a person who could gain an advantage in trade competition through the submission, your right to make a submission may be limited by clause 6(4) of Part 1 of Schedule 1 of the Resource Management Act 1991.

4. The specific provisions of the proposal that my submission relates to are:

Please give details:

(Please use additional pages if you wish)

5. My submission is:

Please include whether you support or oppose the specific provisions or wish to have them amended; and reasons for your views:

(Please use additional pages if you wish)

6. I seek the following decision from Hutt City Council:

Please give precise details:

(Please use additional pages if you wish)

7. I ☐ **wish** ☐ **do not wish** to be heard in support of my submission

(Please tick one)

8. If others make a similar submission,

I ☐ **will** ☐ **will not** consider presenting a joint case with them at the hearing.

(Please tick one)

Signature of submitter
(or person authorised to sign on behalf of submitter)

	Date

A signature is not required if you make your submission by electronic means

Personal information provided by you in your submission will be used to enable Hutt City Council to administer the submission process and will be made public. You have the right under the Privacy Act 1993 to obtain access to and to request correction of any personal information held by the Council concerning you.