

26 August 2022

Our ref: 773-WLGGE225406AE

Upper Hutt City Council
 838-842 Fergusson Drive
 Upper Hutt Central
 Upper Hutt

Attention: Nick Tait

Dear Nick,

High Slope Hazard Update

Introduction

Upper Hutt City Council (UHCC) requested Tetra Tech Coffey (NZ) Ltd to reassess some areas currently mapped as high slope hazard as outlined in Tetra Tech Coffey's VA01 dated 18th July 2022. This is part of the geotechnical hazard assessment of the input into Plan Change 47 – Natural Hazard (PC47) and Plan Change 50 – Rural and Residential Chapters Review (PC50). More details about this can be found in the following reports:

- “Upper Hutt City Council Residential & Rural Chapter Review” Coffey Services NZ Ltd, reference 773-WLGGE225406AB rev 6 dated 12 October 2020
- “UHCC PC50 Revised Slope Hazard Mapping Around Proposed High and Medium Density Sites” Tetra Tech Coffey (NZ) Ltd, reference 773-WLGGE225406AD-AA, dated 7 October 2021

Areas of high slope hazard has been classified as those areas where slopes are greater than 26 degrees. River and stream banks are excluded from the high slope hazard as UHCC has already nominated setbacks adjacent to stream banks. Where small streams are present at the base of a larger change in topography, the large slope has been included as a high slope hazard as the streams are likely secondary to the slope. Where possible, the stream channel and banks have been removed from the high slope hazard.

Updated Hazard Maps

The slope hazard mapping is an area wide assessment. The requested areas were assessed in more detailed based on a deskstudy approach including looking at the contours, geomorphology and geology of the areas. The areas reassessed are listed in Table 1 below.

Table 1: Areas where the high slope hazard was reviewed.

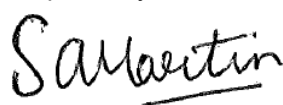
#	Area	Update	Comments
1	Wyndham Road, Pinehaven	No change	A step in the topography 15-20m high that represents a slope hazard.
2	Park Street	Updated the extent of the high hazard area.	Refined the edge of the high slope hazard area to better follow the contours in this area.

3	Cruickshank Road to Fergusson Drive	Revised the extent of the high slope hazard	Most of this feature is a step 5-10m high that represents a slope hazard. A small stream runs near the base of this step at the south of this high slope hazard area. This section has been removed from the high slope hazard area. The northern end of this high slope area relates to the Hutt River bank and has been removed from the high slope hazard area.
4	Clearwater Terrace, Emerald Hill	Revised the extent of the high slope hazard	A step in the topography 5- 20m high. This is likely an old river terrace. Minor revision of the western branch of this high slope hazard area to better reflect contours.
5	Sunstone Crescent	Revised the extent of the high slope hazard	A step in the topography 10-20m high. The edges of this high slope hazard area have been refined at more detail to better reflect the contours.
6	Parkes Line Road, Maymourn	Revised the extent of the high slope hazard	A hill feature 15-25m high. A stream runs along the western side of this feature. The north-western branch of this area is a stream bank and has been removed.
7	Parkes Line Road - west	Removed from the high slope hazard layer	Stream bank feature.
8	Katherine Mansfield Drive – south-west	Updated high slope hazard area so it is now south of Katherine Mansfield Drive	Refined the edge of the high slope hazard area to better follow the contours in this area
9	Katherine Mansfield Drive - north-east	Removed areas mapped as peat from the high slope hazard area	The peat hazard and high slope hazard areas have been reviewed in more detail and no longer overlap.

Pdf maps showing the updates to these areas are attached as well as the updated GIS high slope hazard overlay.


For and on behalf of Tetra Tech Coffey (NZ) Ltd

Prepared by



Sarah Martin
MSc (Geology)
Engineering Geologist

Reviewed by



David Sullivan
BSc, MBA, CPEng
Principal Engineering Geologist/Geotechnical Engineer

Cc James Beban (Urban Edge Planning)

Attachments

Figures 1 – 8 Update of High Slope Hazard Area

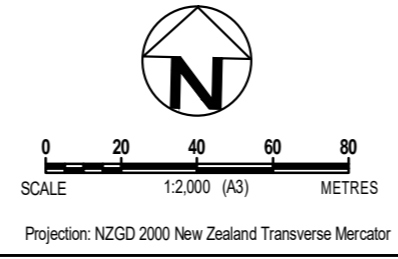
Vector map of the updated high slope hazard area

Please note: This report must be read in the context of the attached limitations.



MXD ref: 225406AE_02_ParkStreet_1

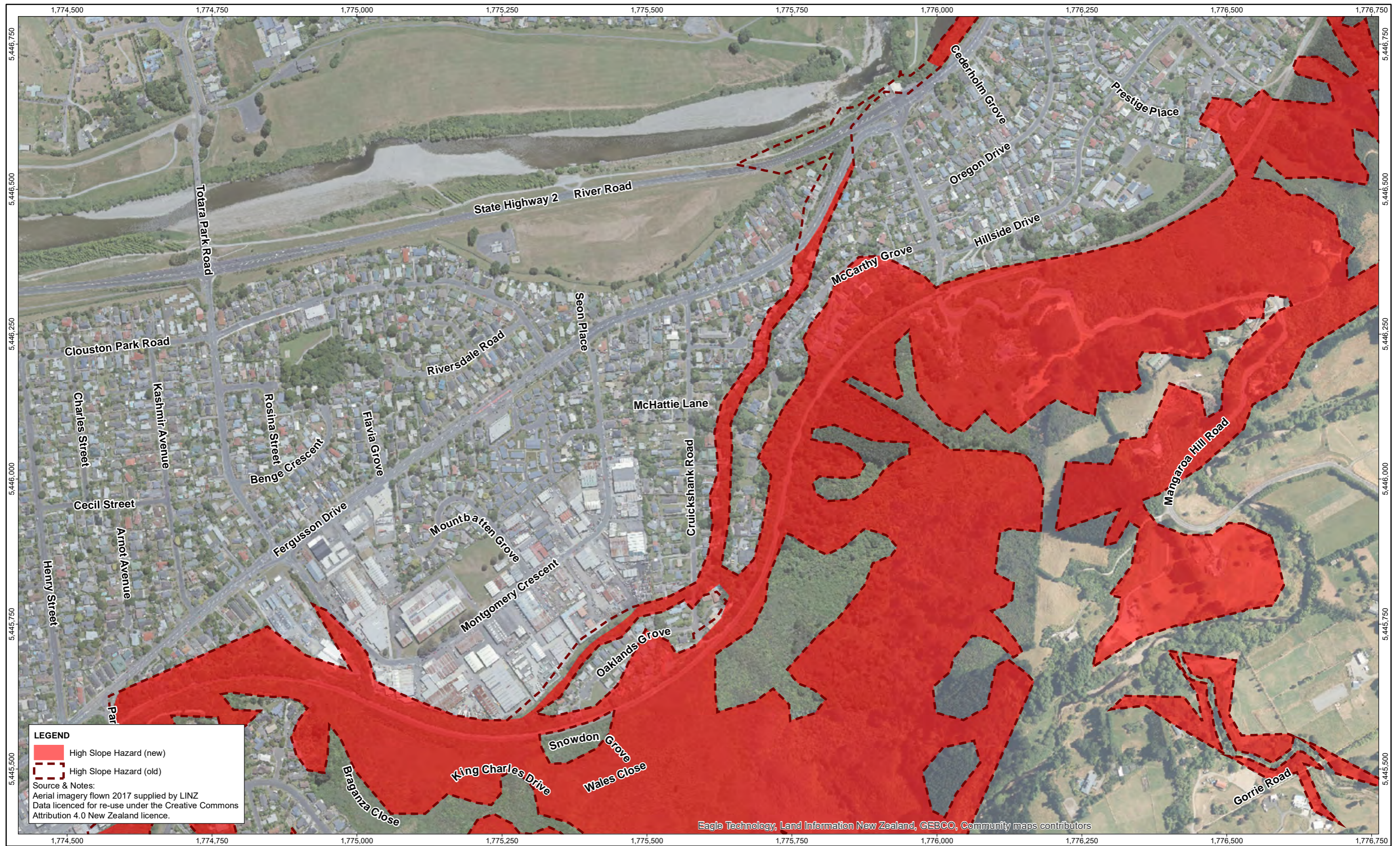
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A	ORIGINAL ISSUE	RZ	SM	24.08.22



drawn	RZ
approved	SM
date	25.08.2022
scale	AS SHOWN
original size	A3



client:	UPPER HUTT CITY COUNCIL		
project:	MANGAROA PEAT EXTENT		
title:	SLOPE HAZARD UPDATE - PARK STREET		
project no:	773-WLGGE225406AE	figure no:	02
rev:	A		



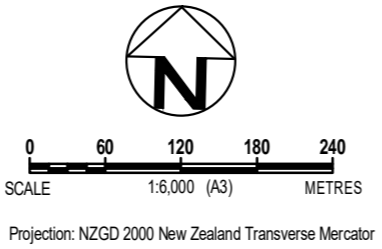
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LEGEND

- High Slope Hazard (new)
- High Slope Hazard (old)

Source & Notes:
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no.	description	drawn	approved	date
A	ORIGINAL ISSUE	RZ	SM	24.08.22

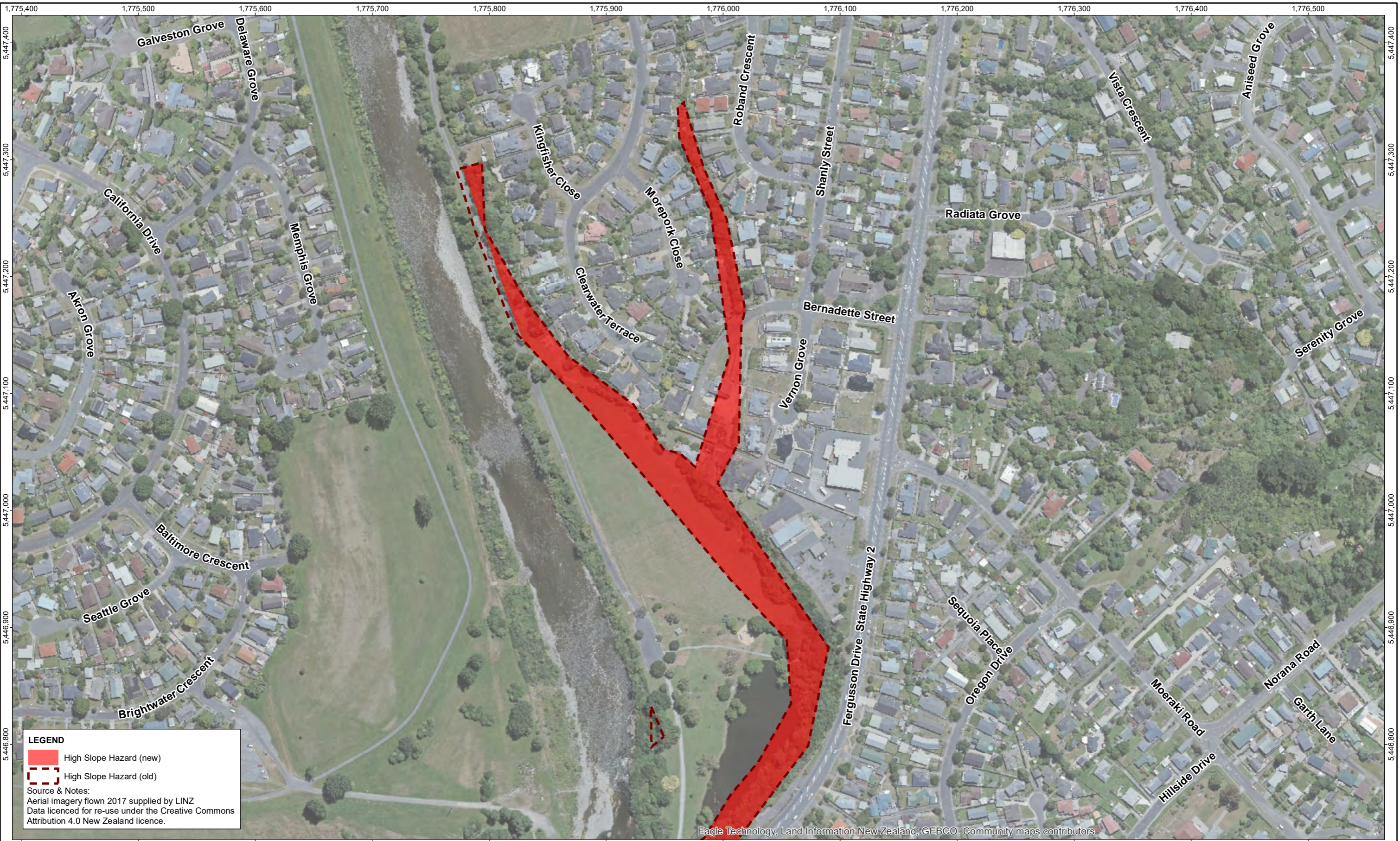


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approved	SM
date	25.08.2022
scale	AS SHOWN
original size	A3

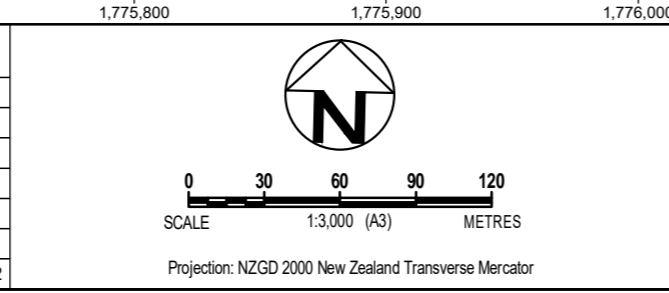


client:	UPPER HUTT CITY COUNCIL		
project:	MANGAROA PEAT EXTENT		
title:	SLOPE HAZARD UPDATE - CRUICKSHANK RD		
project no:	773-WLGGE225406AE	figure no:	03
rev:	A		

MKD ref: 225406AE_02_CruickshankRd_1



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	RZ	SM	24.08.22

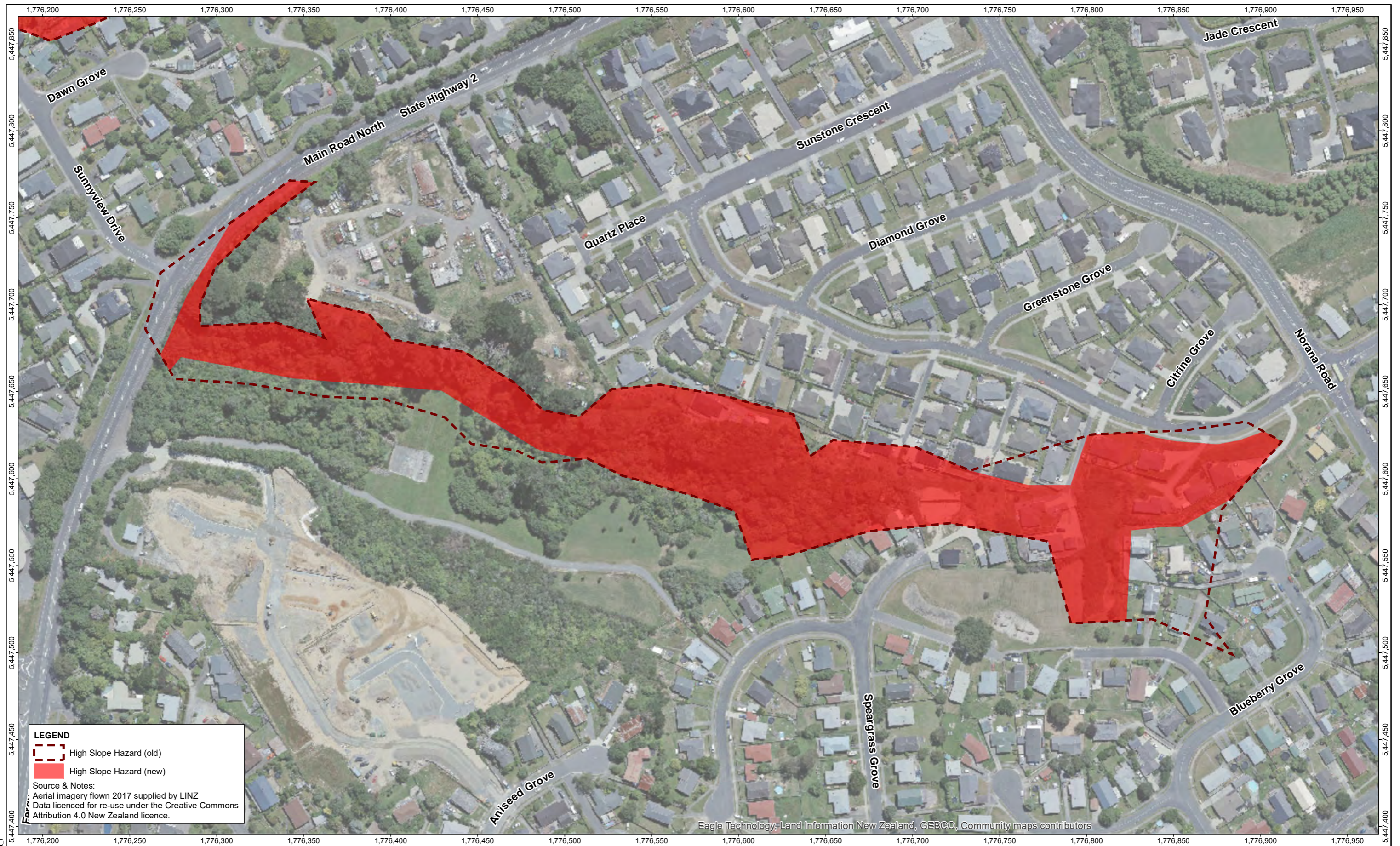


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approved	SM
date	25.08.2022
scale	AS SHOWN
original size	A3



client:	UPPER HUTT CITY COUNCIL		
project:	MANGAROA PEAT EXTENT		
title:	SLOPE HAZARD UPDATE - CLEARWATER TERRACE		
project no:	773-WLGGE225406AE	figure no:	04
rev:	A		

MXD ref: 225406AE_02_ClearwaterTerrace_1

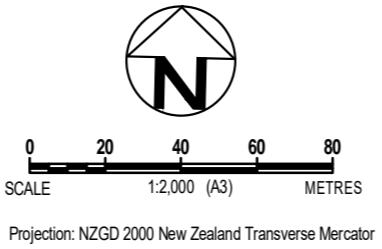


LEGEND
 [Dashed red outline] High Slope Hazard (old)
 [Red fill] High Slope Hazard (new)
 Source & Notes:
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MXD ref: 225406AE_02_SunstoneCrescent_1

revision	no.	description	drawn	approved	date
A		ORIGINAL ISSUE	RZ	SM	24.08.22



drawn	RZ
approved	SM
date	25.08.2022
scale	AS SHOWN
original size	A3



client:	UPPER HUTT CITY COUNCIL		
project:	MANGAROA PEAT EXTENT		
title:	SLOPE HAZARD UPDATE - SUNSTONE CRESCENT		
project no:	773-WLGGE225406AE	figure no:	05
rev:	A		

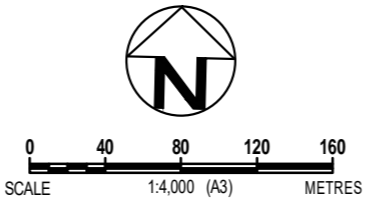


LEGEND
 [Dashed red line] High Slope Hazard (old)
 [Solid red area] High Slope Hazard (new)
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MXD ref: 225406AE_02_Maymourn_1

revision	no.	description	drawn	approved	date
A	1	ORIGINAL ISSUE	RZ	SM	24.08.22



Projection: NZGD 2000 New Zealand Transverse Mercator


drawn	RZ
approved	SM
date	25.08.2022
scale	AS SHOWN
original size	A3



client:	UPPER HUTT CITY COUNCIL		
project:	MANGAROA PEAT EXTENT		
title:	SLOPE HAZARD UPDATE - PARKES LINE RD MAYMOURN		
project no:	773-WLGGE225406AE	figure no:	06
rev:	A		



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	RZ	SM	24.08.22



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Projection: NZGD 2000 New Zealand Transverse Mercator

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approved	SM
date	25.08.2022
scale	AS SHOWN
original size	A3



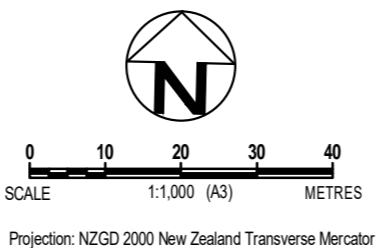
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project:	MANGAROA PEAT EXTENT		
title:	SLOPE HAZARD UPDATE - PARKES LINE RD		
project no:	773-WLGGE225406AE	figure no:	07
rev:	A		

MXD ref: 225406AE_02_ParkesLine_1



MXD ref: 225406AE_02_KatherineMansfieldDrive_1

no.	description	drawn	approved	date
A	ORIGINAL ISSUE	RZ	SM	24.08.22



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approved	SM
date	25.08.2022
scale	AS SHOWN
original size	A3



client:	UPPER HUTT CITY COUNCIL		
project:	MANGAROA PEAT EXTENT		
title:	SLOPE HAZARD UPDATE - KATHERINE MANSFIELD DRIVE SW		
project no:	773-WLGGE225406AE	figure no:	08
rev:	A		

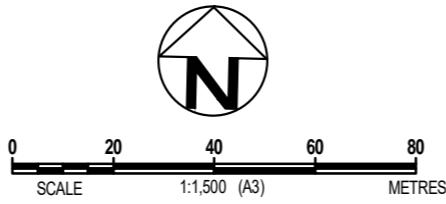


LEGEND
 High Slope Hazard (new)
 High Slope Hazard (old)
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MXD ref: 225406AE_02_KatherineMansfieldDrive_2_1

no.	description	drawn	approved	date
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date	25.08.2022
scale	AS SHOWN
original size	A3



client:	UPPER HUTT CITY COUNCIL		
project:	MANGAROA PEAT EXTENT		
title:	SLOPE HAZARD UPDATE - KATHERINE MANSFIELD DRIVE NE		
project no:	773-WLGGE225406AE	figure no:	09
rev:	A		