#### IN THE ENVIRONMENT COURT CHRISTCHURCH REGISTRY

#### I MUA I TE KOOTI TAIAO I ŌTAUTAHI ROHE

**ENV** 

**Under** the Resource Management Act 1991

**In the matter** of an appeal under pursuant to clause 14(1) of the First Schedule

of the Act

Between WENDY CAMPBELL

**Appellant** 

And DUNEDIN CITY COUNCIL

Respondent

#### NOTICE OF APPEAL ON BEHALF OF WENDY CAMPBELL

21 March 2023

**Duncan Cotterill** 

Solicitor acting: Katherine Forward/Derek McLachlan PO Box 827, Nelson 7040

Phone +64 3 546 6223 Fax +64 3 546 6033 Katherine.Forward@duncancotterill.com derek.mclachlan@duncancotterill.com

- To: The Registrar

  Environment Court

  Christchurch Registry
- 1 Wendy Campbell ('the Appellant') appeals against a decision of the Dunedin City Council on the following matter:
  - 1.1 Variation 2 to the Second-Generation Dunedin City District Plan ('The Decision').
- 2 The Appellant filed an original submission ('S228')
- The Appellant received notice of the Decision on 8 February 2023.
- 4 The Decision was made by the Dunedin City Council.
- The Appellant is not a trade competitor for the purposes of section 308D of the Resource Management Act 1991 ('The Act').
- The parts of the Decision the Appellant is appealing are:
  - 6.1 the Decision of the Variation 2 Additional Housing Capacity
    Second Decision Report: Greenfields Rezoning Sites by the
    Hearings Panel, in particular the Decision to reject rezoning at 42A
    Lambert Road, 25 McMeakin Road, 45 McMeakin Road, 55
    McMeakin Road, and part 188 North Taieri Road. This land forms the requested site Council identifies as Requested Site 14 (**RS14**).
- 7 The Appellant owns the land at 45 McMeakin Road and part 188 North Taieri Road which forms part of RS14.
- 8 The reasons for the appeal are as follows:
  - 8.1 The Decision does not give effect to the purpose of Variation 2 which is to enable the Dunedin City Council to meet its residential capacity obligations under the National Policy Statement Urban Development, updated May 2022 ('NPS-UD'). The Decision unreasonably limits the extent to which Variation 2 can give effect to the NPS-UD, and section 75(3) of the Act;

1

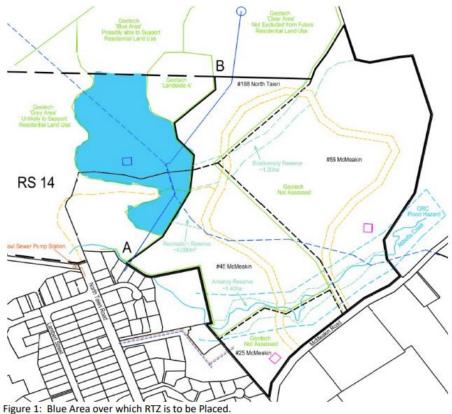
- 8.2 The Decision fails to give effect to the NPS-UD, in particular policy 2 and policy 8 NPS-UD;
- 8.3 The Decision places too much weight on Council's Housing Capacity Assessment ('**HBA**'). The Decision does not acknowledge deficiencies in methodology, assumptions, and accuracy of the HBA;
- 8.4 The Decision places too much weight on supplementary processes such as the Future Development Strategy to give effect to obligations within the NPS-UD;
- 8.5 The Decision is inconsistent with Objective 2.2.4 2GP. The proposal would promote a 'compact city';
- 8.6 The Decision is inconsistent with Objective 2.6.1 2GP. The Decision does not provide adequate housing choices that will meet the needs of people and communities and future generations for a range of dwelling types and locations;
- 8.7 The Decision is inconsistent with Objective 2.6.2 2GP. The Decision fails to ensure sufficient, feasible development capacity. The Decision fails to respond to the significant demand for housing, and shortfall of housing capacity available;
- 8.8 The Decision fails to give adequate regard to the realities of developing land and the long lead times associated with this. This will exacerbate shortfalls in the future;
- 8.9 The Decision erred when it found that the rezoning of the site does not meet the criteria within Policy 2.6.2.1 2GP;
  - 8.9.1 The Decision fails to acknowledge that technical solutions are available in relation to water supply, wastewater, and stormwater.
  - 8.9.2 The Decision places too much weight on providing detailed roading designs at rezoning phase. The Decision fails to acknowledge that technical solutions are available and that an Integrated Transport Assessment would be necessary at the time of subdivision.

- 8.9.3 The site is not identified within a mapped 2GP hazard overlay. The Decision places too much weight on the historical Abbotsford landslips and does not recognise that detailed technical assessments would be required at the time of development. The evidence available demonstrates that large portions of the site can be developed without complication.
- 8.9.4 The Decision places too much weight on the existence of the Mt Grand Raw Water Reservoir Dam Break Hazard Zone.
- 8.9.5 The Decision was incorrect when it held that mitigation measures would not be sufficient to mitigate the adverse effects on rural character.
- 8.9.6 The Decision places too much weight on potential adverse amenity effects, such as air and noise pollution, shading, and loss of privacy.
- 8.10 The Decision has erred in its interpretation and application of the National Policy Statement on Highly Productive Land 2022 (NPS-HPL);
  - 8.10.1 The Decision was incorrect when it held that the exemptions within clause 3.5(7) NPS-HPL do not apply.
  - 8.10.2 The Decision was incorrect when it held that the site did not meet the criteria within clause 3.6 NPS-HPL.
- 8.11 The Decision does not give effect to the purpose or Part 2 of the Act.
- 9 The Appellant seeks the following relief:
  - 9.1 The land within RS14 and identified on the Structure Plan is zoned General Residential 1 (attached as **Appendix A**).
  - 9.2 A Residential Transition Overlay Zone (Low Density Residential) over that part of 45 McMeakin Road and 188 North Taieri Road within RS14 outside of the Structure Plan area but within the area shown as blue in **Figure 1** below. The structure plan area is to the right of the

3

line notated A – B. Release of Residential Transition Overlay Zone is subject to:

- 9.2.1 geotechnical investigations including subsurface finding that this area is suitable for the proposed subdivision design; and
- 9.2.2 funding of the necessary upgrades to North Taieri Road are included in the 10-year plan.



rigure 1. Blue Area over willcii K12 is to be riaceu.

Figure 1 – Residential Transition Overlay

- 9.3 All other relief required to give effect to the Appellants' original submissions, and any further relief the Court considers appropriate as a consequence of relief granted under this appeal; and
- 9.4 Costs
- 10 Attached are the following documents to this notice:
  - 10.1 A copy of original submission made by:
    - 10.1.1 Wendy Campbell (Appendix B1 and Appendix B2).

- 10.2 A copy of the relevant parts of the decision:
  - 10.2.1 Broad Matters raised (Appendix C1);
  - 10.2.2 Site specific submissions (Appendix C2); and
  - 10.2.3 Interpretation of the NPS-HPL (Appendix C3).
- 10.3 A list of names and addresses of persons to be served with a copy of this notice (**Appendix D**).

Dated 21 March 2023

K Forward / D McLachlan

Solicitor for the appellant

This document is filed by Derek McLachlan and Katherine Forward of Duncan Cotterill, solicitor for the appellant.

The address for service of the appellant is:

Duncan Cotterill 197 Bridge Street Nelson 7010

Documents for service on the appellant may be:

- Left at the address for service.
- Posted to the solicitor at PO Box 827, Nelson 7040
- Emailed to the solicitor at <u>derek.mclachlan@duncancancotterill.com</u> or <u>Katherine.forward@duncancotterill.com</u>

Please direct enquiries to:

Katherine Forward/Derek McLachlan

**Duncan Cotterill** 

Tel +64 3 546 6223

Email Katherine.Forward@duncancotterill.com

derek.mclachlan@duncancotterill.com

16298320\_2

6

#### ADVICE TO RECIPIENTS OF COPY OF NOTICE OF APPEAL

#### How to become a party to proceedings

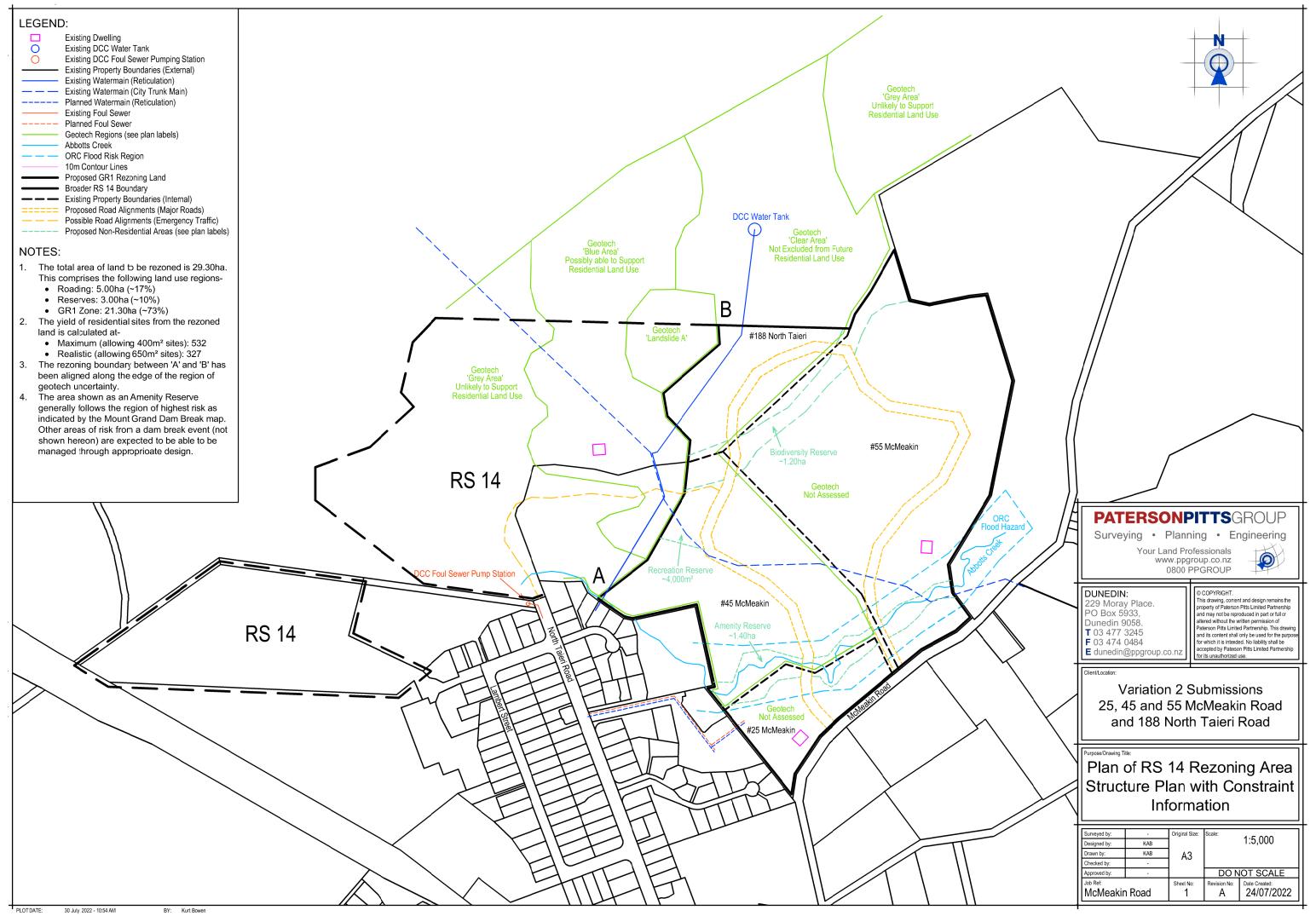
If you wish to be a party to the appeal, you must lodge a notice in form 33 with the Environment Court within 15 working days after the period for lodging a notice of appeal ends.

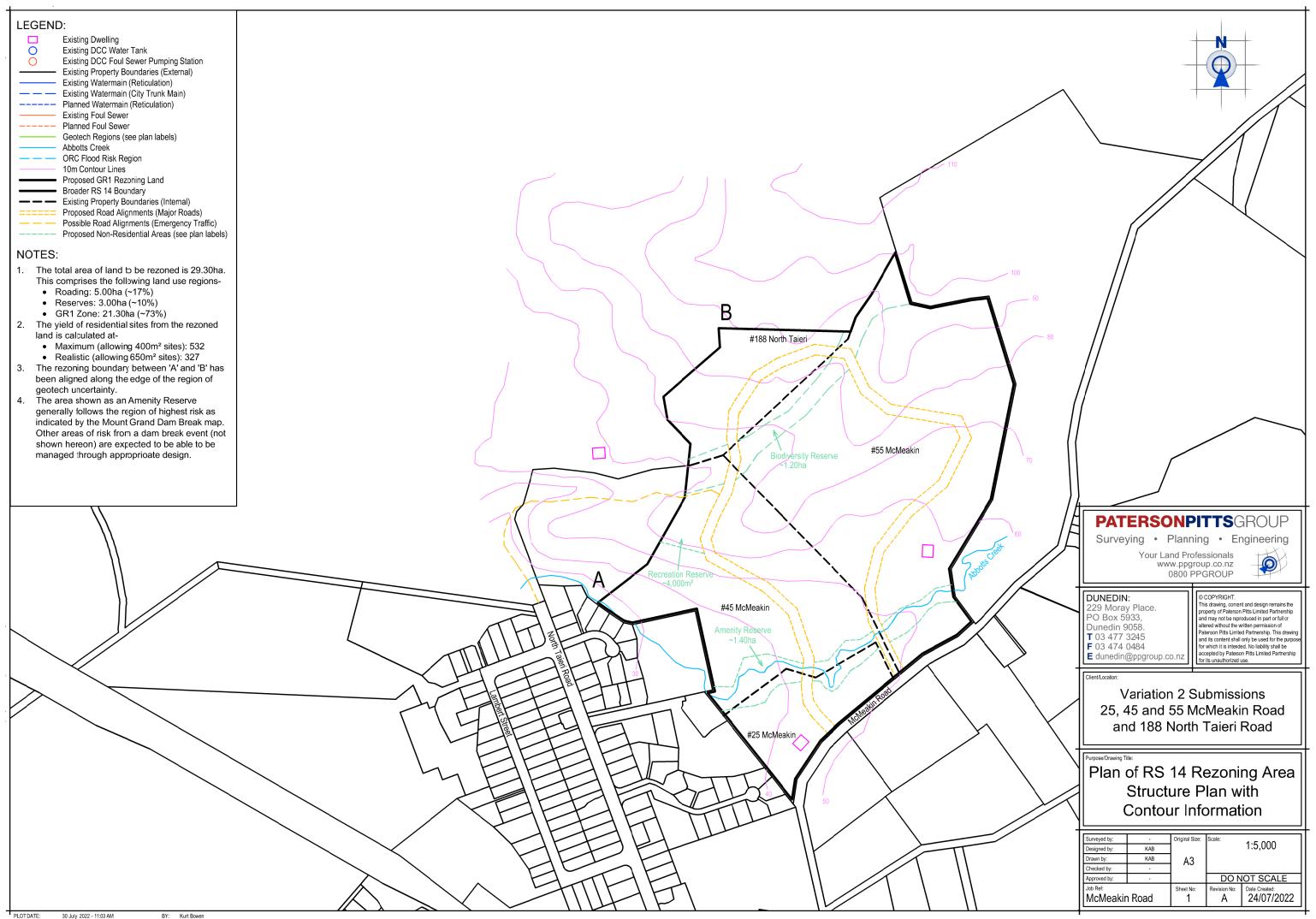
You may apply to the Environment Court under section 281 of the Resource Management Act 1991 for a waiver of the above timing requirements (see form 38).

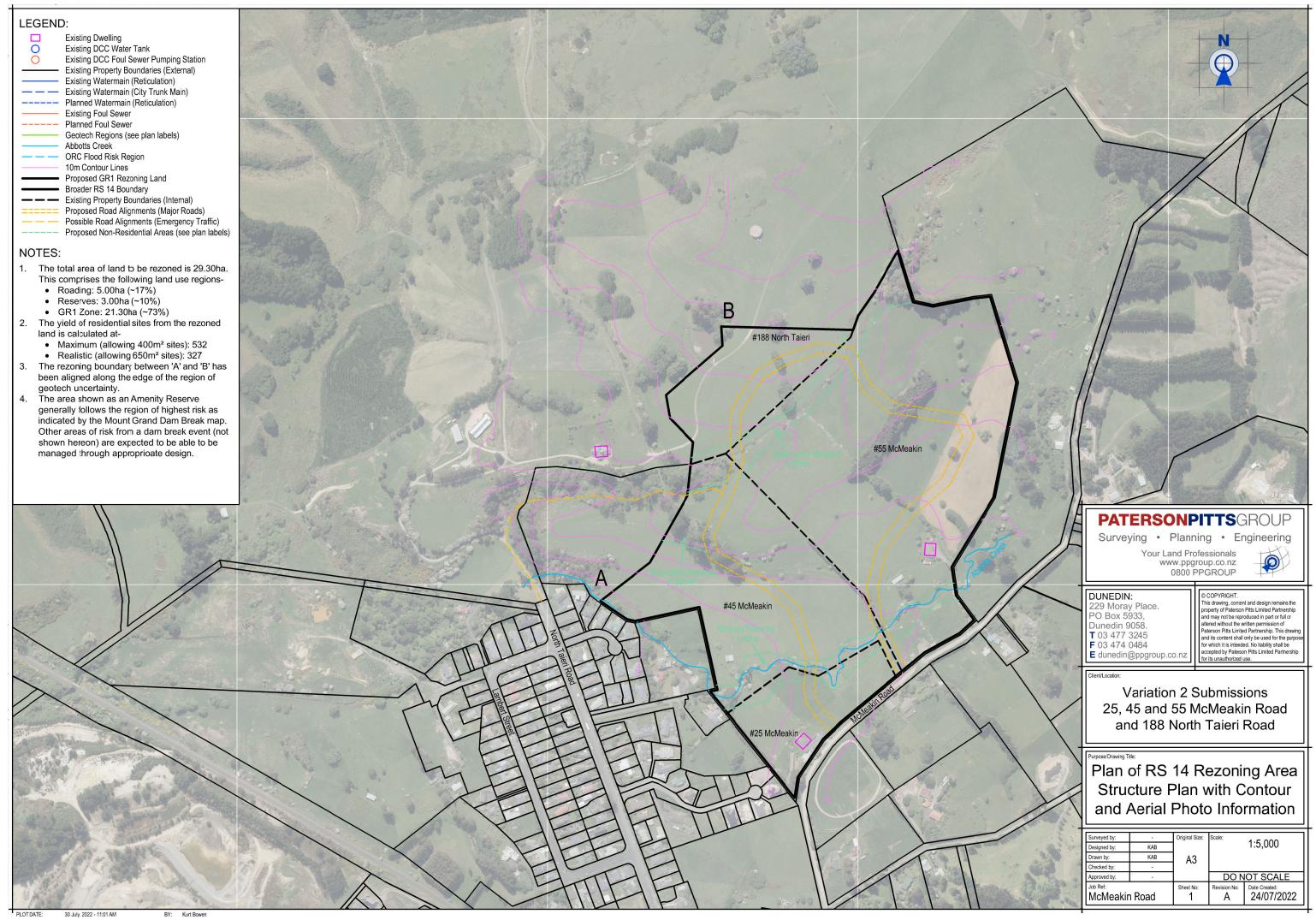
Your right to be a party to the proceedings in the Court may be limited by the trade competition provisions in section 274(1) and Part 11A of the Resource Management Act 1991.

#### **Advice**

If you have any questions about this notice, contact the Environment Court in Auckland, Wellington, or Christchurch.







#### Michaela Groenewegen

From:

Emma Peters <sweepconsultancy@gmail.com> on behalf of emma

< Emma@sweepconsultancy.co.nz>

Sent:

Friday, 12 March 2021 09:52 a.m.

To:

**District Plan Submissions** 

Subject:

Re: Submission of Wendy Campbell - 188 Taieri Road North

**Attachments:** 

Corrected Variation 2 Submission Notes - Wendy Campbell - 188 North Taieri

Road.pdf

Follow Up Flag:

Follow up

Flag Status:

Flagged

Categories:

Roxy

Hi,

Please find attached a corrected version of the submission notes - changes include completion of sentence at last bullet point under submission point 1 and removal of reference to change area GF01 in bullet points under submission point 2.

Please delete the previous version from your records and make the attached version of the submission notes available for further submissions.

Cheers,

Emma Peters Consultant Sweep Consultancy Limited P.O. Box 5724 Dunedin 9054 Phone 0274822214 <a href="https://www.sweepconsultancy.co.nz">www.sweepconsultancy.co.nz</a>

On 5/03/2021 12:15 am, emma wrote:

Hi,

Apologies I had not attached the submission notes to the email below - attached now.

Cheers,

Emma Peters Consultant Sweep Consultancy Limited P.O. Box 5724 Dunedin 9054 Phone 0274822214 <a href="https://www.sweepconsultancy.co.nz">www.sweepconsultancy.co.nz</a>

On 4/03/2021 11:48 pm, emma wrote:

Hi,

Please find attached the following documents forming the submission of Wendy Campbell in relation to the residential rezone of part of 188 Taieri Road North pursuant to a structure plan:

- Completed Form 5;
- Submission Notes;
- Table 1;
- Geotech Report and
- Structure Plan.

#### Cheers,

Emma Peters Consultant Sweep Consultancy Limited P.O. Box 5724 Dunedin 9054 Phone 0274822214 <a href="https://www.sweepconsultancy.co.nz">www.sweepconsultancy.co.nz</a>

### VARIATION 2 - ADDITIONAL HOUSING CAPACITY



#### **SUBMISSION FORM 5**

CLAUSE 6 OF FIRST SCHEDULE, RESOURCE MANAGEMENT ACT 1991

This is a submission on Variation 2 to the Second Generation Dunedin City District Plan (2GP). Your submission must be lodged with the Dunedin City Council by midnight on 4 March 2021. All parts of the form must be completed.

#### Privacy

Please note that submissions are public. Your name, organisation, contact details and submission will be included in papers that are available to the media and the public, including publication on the DCC website, and will be used for processes associated with Variation 2. This information may also be used for statistical and reporting purposes. If you would like a copy of the personal information we hold about you, or to have the information corrected, please contact us at dcc@dcc.govt.nz or 03 477 4000.

#### Make your submission

Online: www.dunedin.govt.nz/2GP-variation-2 | Email: districtplansubmissions@dcc.govt.nz

Post to: Submission on Variation 2, Dunedin City Council, PO Box 5045, Dunedin 9054

Deliver to: Customer Services Agency, Dunedin City Council, Ground Floor, 50 The Octagon, Dunedin

Submitter details (You must supply a postal and/or electronic address for service)

Submine	details (for must supply a postal and/or electronic address for service)	
First name:	Wendy	
Last name:	Campbell	
Organisation	(if applicable):	
	on/agent (if different to submitter): EMMU Veters, Consultant,	Sweep Consultancy Lt
Postal addres	s for service: N.U. Nox 5724	
Suburb:		
City/town:	Dunedin.	Postcode: 9054
Email addres	: emma e sweep consultancy - co.nz	

#### Trade competition

Please note: If you are a person who could gain an advantage in trade competition through your submission, your right to make a submission may be limited by clause 6(4), Schedule 1 of the Resource Management Act.

I could gain an advantage in trade competition through this submission:

Yes No

If you answered yes, you could gain an advantage in trade competition through this submissio, n please select an answer:

Yes No

My submission relates to an effect that I am directly affected by and that:

a. adversely affects the environment; and

b. does not relate to trade competition or the effects of trade competition.

#### Submission

Submissions on Variation 2 can only be made on the provisions or mapping, which are proposed to change or alternatives that are clearly within the scope of the 'purpose of the proposals', as stated in the Section 32 report. Submissions on other aspects of the 2GP are not allowed as part of this process.

You must indicate which parts of the variation your submission relates to. You can do this by either:

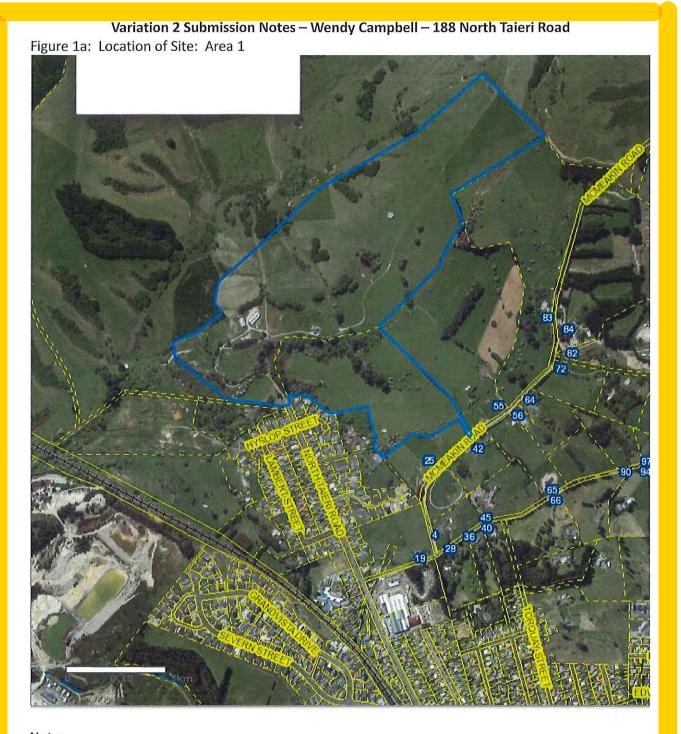
- making a submission on the Variation Change ID (in which case we will treat your submission as applying to all changes related to that change topic or alternatives within the scope of the purpose of that proposal); or
- · on specific provisions that are being amended.



#### The specific aspects of Variation 2 that my submission relates to are:

Variation 2 change ID (please see accompanying Variation 2 – Summary of Changes document or find the list on www.dunedin.govt.nz/2GP-variation-2)

Residential recone of (aver 1'41 (aver 2) of 188 North Taier, Road For example: D2 in accordance with the Structure plan of application of a Structure plan mapped avea Provision name and number, or address and map layer name (where submitting on a specific proposed amendment):
All provisions relating to New Development Mapped Avens For example: Rule 15.5.2 Density or zoning of 123 street name.
My submission seeks the following decision from the Council: (Please give precise details, such as what you would like us to retain or remove, or suggest amended wording.)  Accept the change
Accept the change with amendments outlined below ger attached submission notes  Reject the change
If the change is not rejected, amend as outlined below
see attached submission notes
Reasons for my views (you may attach supporting documents):  If you wish to make multiple submissions, you can use the submission table on page 3 or attach additional pages.
See attached submission notes
Hearings  Do you wish to speak in support of your submission at a hearing: Yes No  If others make a similar submission, would you consider presenting a joint case at a hearing: Yes No
Signature: W. Emma Peters, Consultant, Sweep Consultancy Date: 4/3/21



#### Note:

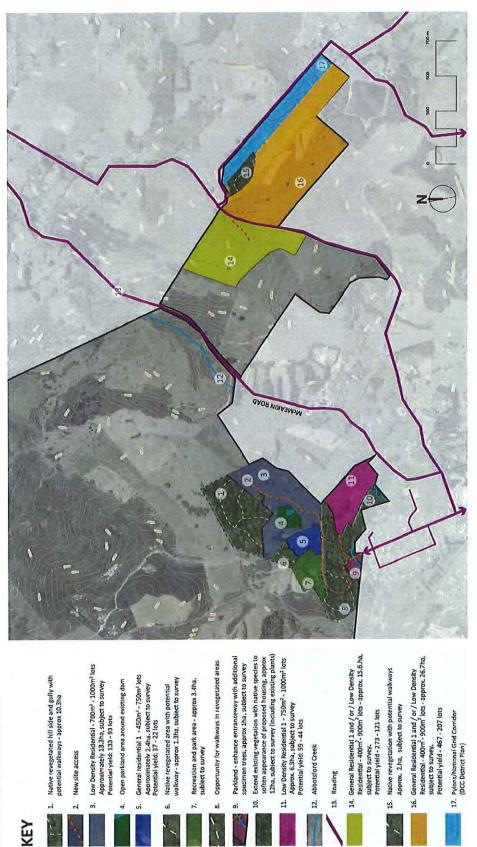
• Area 1 has been adjusted for geotechnical reasons and true extent of site in this area is shown in the structure plan (see Figure 2 below).

This mapped area is in scope only as it relates to the area mapped for rejected site RS014 (see Appendix 4 of the Section 32 Report for extent). The additional area is out of scope.



This entire mapped area is out of scope.

Figure 2: Structure Plan for Site



## **188 NORTH TAIERI ROAD**

LANDSCAPE PROPOSAL

DATE: 03-03-21 SCALE @A1: 1:6000 DWG: 002 REVISION #: A





## Notes:

Given the scale of the rezone, development will be staged over a course of time providing a contiuous stream of residential capacity in this locale for a reasonable period of time.



Figure 3: 3 waters Infrastructure in Proximty to Areas 1 and 2.

#### Submission:

The proposal makes provision for varying types of housing, recreational uses, good transportation links as well as providing for ecological enhancement.

1. Rezone two parts of 188 North Taieri Road in Accordance with the Structure Plan and

Apply a Structure Plan Mapped Area

Only in scope as it relates to the area mapped for rejected site RS014 - see Appendix 4 of the Section 32 Report.

#### Reasons:

- Experienced severe shortage of residential capacity in Dunedin, including in this locale, meaning Council cannot satisfy the short through to long term demand with sufficient capacity to meet Council's obligations pursuant to NPS-UD 2020. Rezoning this site residential helps Council meet its obligations pursuant to NPS-UD 2020 by ensuring available capacity to the market demand. The structure plan also provides the opportunity to acehieve other policy objectives such as conservation and ecological enhancement in an 'ecologically threatened' landsacpe.
- Area 1 rezone meets rezoning criteria specified in 2GP (see 2.6.2.1) in particular, it
  provides a logical extension of the Abbortsford valley community over an area which is
  close to infrastructure, services, a school and public amenities. The rezone will ensure that
  this community continues to grow in resilience.
- Area 2 rezone meets the rezoning criteria specified in 2GP (see 2.6.2.1) in particular, it
  provides the opportunity for lower cost housing on fairly flat land with good sun aspect.
- The proposal has landscape support see attached landscape figures and report.
- Provides for flexibility of development in this locale for which there is experienced high
  demand for more residential capacity. Provides an opportunity to provide a residential
  community with recreation and conservation / ecological gains.
- The scale of this proposal provides the ability to tackle any infrastructure issues via
  agreement between Council and the site developer. If Council considers that more land
  needs to be released for residential capacity in this area, the submitter is open to making
  more land available for residential development.
- 2. Do not put a New Development Mapped Area over the Site and Instead use a Structure Plan Mapped Area

#### Reasons:

 Provision of infrastructure is adequately governed by existing subdivision and land use performance standards in the 2GP and the subdivison and development process.

- The application of the Structure Plan Mapped Area provides the opportunity for Council to attach performance standards necessary to achieve desired outcomes for this specific site (e.g. attentuation onsite of stormwater and / or wastewater at time of subdivision if found to be necessary on assessment of infrastructure capacity). This is a more appropriate methodology than applying the NDMA to the residential rezone sites.
- The NDMA provisions will, in this case, act as an impediment to development.

In the alternative, the submitter requests changes to the NDMA provisions as set out in Table 1 of these submission notes. Table 1 contains the NDMA related provisions, issues and potential solutions.

On the submission form the submitter states that their submission relates to "All provisions relating to New Development Mapped Area". In the event that Table 1 is not a complete list of all such provisions, the submitter reserves the right to make comment in evidence on any other NDMA related provisions which are found to be missing from Table 1.

#### KEY







Low Density Residential - 700m2 - 1000m2 lots New site access



Open parkland area around existing dam Approximately 13.3ha, subject to survey Potential yield: 133 - 93 lots



Native revegetated area with potential walkway - approx 1.3ha, subject to survey Approximately 2.4ha, subject to survey Potential yield: 37 - 22 lots



Recreation and park area - approx 3.4ha,



Opportunity for walkways in revegetated areas



Parkland - enhance entranceway with additional specimen trees, approx 1ha. subject to survey



Extend existing vegetation with native species to soften appearance of proposed housing, approx 12ha, subject to survey (including existing plants) Low Density Residential 1 - 750m2 - 1000m2 lots ij

Approx. 6.3ha, subject to survey

Potential yield: 59 - 44 lots



12. Abbotsford Creek





General Residential 1 and / or / Low Density Residential - 400m² - 900m² lots - approx. 15.6.ha, Potential yield - 273 - 121 lots subject to survey.



Native revegetation with potential walkways Approx. 2.ha, subject to survey 15.

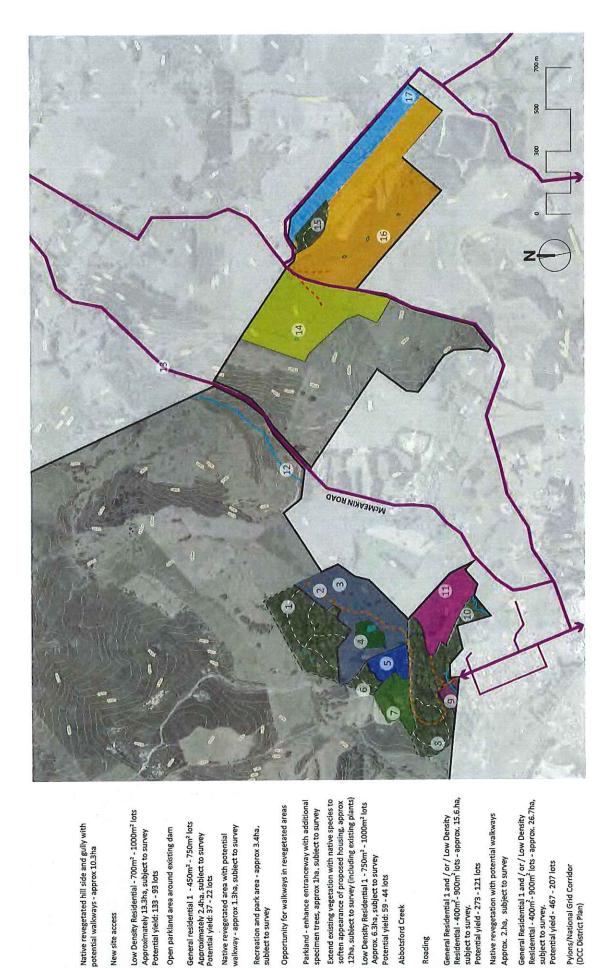


16.

Pylons/National Grid Corridor (DCC District Plan)







# **188 NORTH TAIERI ROAD**

DATE: 03-03-21 DWG: 002

SCALE @A1: 1:6000 REVISION #: A

# LANDSCAPE PROPOSAL









GeoSolve Ref: 210116 2 March 2021

Wendy Campbell 188 North Taieri Road Abbotsford Dunedin 9018

#### Preliminary Geotechnical Assessment 188 North Taieri Road, Abbotsford, Dunedin

Dear Wendy,

In accordance with our Agreement dated 22 February 2021 we have undertaken a preliminary engineering geological appraisal of the above property. Our appraisal has comprised a site inspection and desktop review of existing information, relating mainly to natural hazards and coal mining hazard.

#### Potential Development

We understand that you are seeking to re-zone two areas of the above property from their existing rural land use to residential land use, i.e.

- Area 1 is under consideration for potential rezoning to General Residential 1 land use (minimum lot size 500m²).
- Area 2 is under consideration for potential rezoning to Large Lot Residential 1 or Large Lot Residential 2 land use (minimum lot size 2,000m<sup>2</sup> and 3,500 m<sup>2</sup> respectively).

We understand that the potential rezoning has already been considered by Dunedin City Council (DCC) for inclusion in notification of Variation 2 of the 2GP, however we understand that the property was not shortlisted for notification based on concerns about natural hazards on the property.

The existing property comprises approximately 511 ha of rural land (Rural Industry: Stock Finishing). The property appears to have a long history of rural and industrial land use including coal mining, sand/clay quarrying, farming and is currently used as a farm. The land is generally gently to moderately-sloping with localised steep areas.

This report summarises a desktop review of readily available Council hazard mapping and a preliminary site inspection by an engineering geologist. Not all areas of the property have been mapped or assessed and the intent at this stage is to provide broad comment on any potential constraints to residential land use from the geotechnical viewpoint, based on general visual observations and preliminary interpretation only.







Areas 1 and 2 are shown in Figures A & B below and in Figures 1 and 2 (appended). We have defined areas that are <u>unlikely to be suitable for residential land use</u> (shown in grey) and areas that are <u>possibly suitable for residential land use</u> (shown in blue and subject to further detailed checks). All other areas appear to be relatively straightforward for residential development.

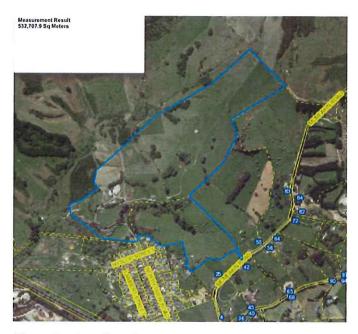


Figure A - Location of Area 1



Figure B - Location of Area 2

#### **Geological Setting**

The geology of the Dunedin area is dominated by volcanic rock types of basaltic to andesitic composition that were intruded through pre-existing marine sediments during Miocene times. Extensive volcanism at that time produced lava flows and bedded volcanoclastic materials were widely distributed by eruptions. The generalised stratigraphic profile comprises schist at depth, overlain by a Cretaceous to Tertiary-age sequence; initially by thin non-marine sediments and then a thick accumulation of marine sediments including sandstones and mudstones. The volcanic rock types cross-cut these sediments where vents were present and extensively mantle them where lava flows or volcanic ejecta were deposited.

Area 1 is shown on published geological maps to be underlain predominantly by two rock types, the Taratu Formation and the Abbotsford Formation. The approximate mapped extents of these rock types is shown on Figure 1 appended. The Taratu Formation is a coalbearing terrestrial sedimentary rock type and the Abbotsford Formation is a fine-grained marine siltstone.

Area 2 is shown on published geological maps to be underlain predominantly by three rock types, the Caversham Sandstone, Burnside Mudstone and the Dunedin Volcanic Group.

Overburden soils are likely to be a combination of colluvium, loess and possibly ancient landslide debris. Some relatively deep railway cuttings in Area 1 expose colluvium or debris with boulders of volcanic rock, suggesting relatively deep colluvium at least locally.

Two minor faults are mapped on Area 1, however these have not been mapped as active faults by GNS Science Ltd.

#### Landslide Hazard

The property generally contains numerous recognised landslides (mapped by GNS Science Ltd), however Areas 1 and 2 are notable for being largely free of landslides, with only small areas of mapped landslide, as follows:

Area 1 coincides with three landslides, referred to here as Landslides A, B & C.

Area 2 coincides with two landslides, referred to here as Landslides D & E.

- Landslide A (contained within Area 1) is located near a dammed pond and an area where
  trees have been planted to assist with slope stability. GNS Science Ltd has mapped this as
  likely certainty, probably prehistoric with unknown activity, unknown last movement and low
  sensitivity. A note indicates that a dam has been constructed across landslide debris.
- Landslide B (contained within Area 1) is located towards the north-east extents of Area 1 and is mapped as definite certainty, probably prehistoric with unknown activity, unknown last movement and low sensitivity.
- Landslide C (contained within Area 1) is a small area of the lateral scarp region of a much larger landslide that lies to the north of Area 1. This is mapped as likely certainty, prehistoric with unknown activity, unknown last movement and low sensitivity.

- Landslide D (contained within Area 2) affects Mt Grand Road and also neighbouring
  property, partly coinciding with Area 2. This is mapped as possible certainty, prehistoric, with
  unknown activity, unknown last movement and low sensitivity. Visual inspection confirms
  upslope scarps, downslope debris with ponds and tree plantings, as well as some cracking
  damage to the surface of Mt Grand Road. This may indicate that the landslide is periodically
  active, however it occupies only a small part of Area 2.
- Landslide E (contained within Area 2) is a large landslide feature, with the head area
  coinciding with the western corner of Area 2. The landslide is likely to be formed within
  Burnside Mudstone, a rock type which is known to host several other major landslides in the
  Dunedin area. This landslide is mapped as definite certainty, prehistoric with unknown
  activity, unknown last movement and medium sensitivity.

We do not recommend residential development over the above areas of mapped landslide and a sufficient setback should be nominated (based on detailed subsurface investigations). Provisional setbacks are indicated on Figures 1 and 2 for the purposes of preliminary planning but these may be overly conservative (subject to confirmation by subsurface investigations). Development within these areas may be possible in the future, but would require extensive geotechnical investigations, slope stability analysis and possibly stabilisation works (e.g. deep drainage, significant earthworks).

Part of Area 2 coincides with Burnside Mudstone which is well known for being susceptible to major landslide activity in some settings. Landslide E appears to be hosted by this rock type and care will be required if residential activity is to be established over this rock type. We recommend confirmatory subsurface investigations to more fully evaluate the extents and characteristics of the Burnside Mudstone over the area shown in blue on Figure 2.

Area 2 also contains a geological contact that is well known in the Dunedin area as a source of spring flow and possible triggering of landslide activity, i.e. the contact between low permeability Caversham Sandstone and overlying fractured volcanic rock. Rainwater infiltration through the fractures within the volcanic rock can lead to a perched groundwater table forming on the much less permeable upper surface of the Caversham Sandstone and spring flows often emerge where the stratigraphic contact daylights with the ground surface. We noted extensive areas of wet surficial soils along part of the Abbotts Hill Rd walking track and some areas of clear spring flow defined by growth of sedges etc. Landslide D coincides with this stratigraphic contact and is likely to have been triggered by soil saturation resulting from these types of spring flows. An important design consideration for subdivision in this setting will be to ensure that adequate drainage is in place to prevent saturation of proposed residential subgrades. This can usually be accomplished by capturing and diverting the groundwater flows using deep subsoil cut-off drains.

In general the areas underlain by Dunedin Volcanic Group and Caversham Sandstone are likely to be straightforward for residential development (subject to test pitting investigations) and we note that very few landslides are developed over these rock types on site, with the exception of Landslide D where adverse groundwater conditions are likely at the contact zone only, as discussed above. The areas of the site underlain by Abbotsford Formation and Burnside Mudstone could potentially be more susceptible to slope

instability, however we note that most areas of this rock type are on relatively gentle slopes with no apparent indicators of increased vulnerability to landsliding. Large areas of residential activity have already been successfully established on these rock types (e.g. in Abbotsford and Green Island). The Taratu Formation is only mapped over the western extents of Area 1, however as discussed below, this area coincides with underground coal workings and for that reason is unlikely to be suitable for residential land use. The above rock types are likely to be overlain by variable overburden soils that may comprise colluvium, slopewash, loess and some localised ancient landslide debris.

Further investigation of landslide hazard will be required for any subdivision within Areas 1 and 2, however it is notable that the landslide areas are limited in extent and unlikely to widely influence the majority of Areas 1 and 2. Test pitting and trenching is likely to be suitable for further investigations, however some drilling may be required locally.

In addition, the north-eastern extents of Area 1 includes an area of land that is in close proximity to landslides and should be investigated further to ensure that it is suitable for residential use (eastern-most blue are on Figure 1). It should be noted that the exact location of the landslides and any setbacks required should be determined by detailed geotechnical investigations at the subdivision consent stage.

#### Coal Mine Hazard

The property is not shown on the DCC 2GP mapping as lying within any formally defined land stability hazard zone with respect to historic coal mining activity, however general hazard maps provided by DCC show that underground coal mining has previously occurred on a minor area of the property. Compilation of historical mine records and mapping by DSIR (A.R. Mutch 1982) has defined an area of mine workings within Area 1, as shown on Figure C below and Figure 1 (appended). This includes annotation of features such as adits and shafts. Isopach mapping indicates that the main worked coal seam was up to 4 m thick, however there are no obvious data regarding the depth of the workings in this area. Detailed mine maps held by the landowner have been supplied which show that significant underground workings are likely to be present, however geo-referencing has not been carried out at this stage. There is a note that some entrances may lie outside the areas defined.

Areas known to be underlain by underground mine workings can present a hazard of surface subsidence resulting from collapse of voids at depth and crown holes that can propagate to the surface. Collapse of mined voids in such situations could occur under static conditions (e.g. from decay of props and roof support capping timbers) however the risk will likely be greater during earthquake. Any structures could therefore be at risk of damage in this setting and safety concerns could apply if voids are present. It is possible that most mine workings have already collapsed as the mining began in the late 1800s and significant decay of timber supports could be expected since that time. Areas of collapse are often evident as depressions at surface and the soils under these areas can be disturbed by bulking.

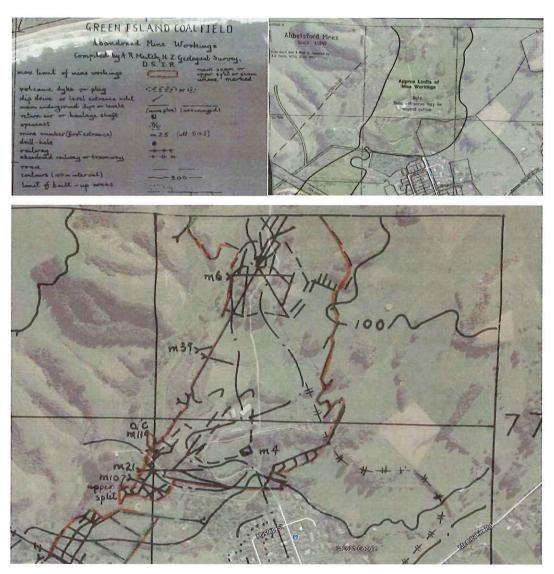


Figure C — Compilation of historical coal mine records by DSIR, 1982 over part of Area 1 including farm sheds and existing dwelling.

Council are likely to be reluctant to grant consent for close residential subdivision in an area where an undefined coal mine subsidence risk has been identified. For unrestricted development without specific foundation design requirements, detailed site drilling would need to be carried out to identify an absence of voids and confirm that unsuitable bulked soils in loose condition are not present. This is unlikely to be fully successful and would in any case be very costly. It may be possible to obtain and research full historical records of the mining activity, however this may not enable reduction of the area currently considered to be underlain by workings. It may however enable the eastern extents of the mined area to be understood in greater detail with definition of a safe building area.

The eastern extents are expected to be deepest and the coal bearing rock type (Taratu Formation) is overlain by Abbotsford Mudstone in this area. Precedent performance appears positive as no subsidence features were noted here. This deeper mined area appears to have no evidence of previous crown hole collapse features based on review of existing and early (1942 and 1947) aerial photography. In addition, the existing dwelling lies within the hazard zone and hence residential activity has previously been considered possible within the overall mined area.

It may therefore be possible to demonstrate that overburden thickness above the coal seam is sufficiently thick to mitigate the potential for crown hole collapses reaching the surface. Crown-hole subsidence is most likely to occur in areas where the coal to overburden thickness ratio is less than 1:10. Based on preliminary assessment of topography and the average dip angle of regional sedimentary bedding, the eastern-most extents of the mined area may be up to 100 m deep assuming that the seam was followed from surface. Assuming a coal seam thickness of 4 m, it is likely that the coal to overburden thickness ratio will be less than 1:10 over much of the coal mine hazard zone and hence high potential for crown hole collapse features at surface is only likely to apply to part of the site. These areas are possibly suitable for residential land use and are provisionally shown on Figure 1 (western blue area), however detailed research of coal mine records, further analysis, cross section preparation and some drilling investigations will be required to fully confirm suitability within this area.

We can provide further detailed investigations and analysis if the area of coal mining is to be considered for residential use.

#### Liquefaction Hazard

The site has been mapped in a 2014 liquefaction hazard assessment<sup>1</sup> as belonging to Domain A, which is predominantly underlain by rock or firm sediments; in this domain there is little or no likelihood of damaging liquefaction occurring.

Consequently, no liquefaction hazard is expected to apply to Areas 1 and 2, however full confirmation generally requires some subsurface investigation

#### **Active Fault Hazard**

Dunedin has traditionally been considered to have lower than average seismic activity when compared to other areas in New Zealand, however nearby active faults are known and strong shaking is certain to occur periodically.

Cook et al $^2$  states that the earthquake hazard in Dunedin is dominated by relatively infrequent moderate to large earthquakes (magnitude up to  $M_w$  7.5) in eastern Otago, and

<sup>&</sup>lt;sup>1</sup> Barrell, D.J.A., Glassey, P.J., Cox, S.C., Smith Lyttle, B. (2014). Assessment of liquefaction hazards in the Dunedin City district. GNS Science Consultancy Report 2014/068. 68p.

<sup>&</sup>lt;sup>2</sup> Cook, DRL, McCahon, IF and Yetton, MD (1993). The Earthquake Hazard in Dunedin. Study funded by EQC, Research Project 91/56

large to very large earthquakes in the much more seismically active Fiordland and Westland regions.

The nearest active faults with demonstrated Late Quaternary movement history are the Green Island Fault and the Akatore Fault. The Green Island Fault is currently considered to be the cause of the 1974 earthquake that caused damage in Dunedin. It is mapped approximately 7 km to the south of the subject site.

Several faults have been recorded on the ORC Natural Hazards Database as potentially relevant to the subject site, i.e. the Dunstan North Fault, Dunstan South Fault, Alpine Fault and Akatore Fault.

The Dunstan Faults are distant from Dunedin and not expected to constrain residential development at this site.

The Akatore Fault is likely to be capable of generating magnitude 7.5 earthquakes in Dunedin. Published small-scale geological mapping indicates the Akatore Fault is at least 2.5 km to the south of the subject site and hence ground rupture damage is not relevant to this site. The Akatore Fault is indicated as 'active', with results from the latest investigations by GNS Science indicating at least part of the fault last ruptured 742 to 973 years ago. Its mapped (active) fault trace is truncated 11 km southwest of the site and its location at that point is concealed. Its continuation (mapped as inactive) passes approximately 50 m north of the subject site. A recent paleoseismic study of the Akatore fault found that three recent ruptures of this fault occurring in the past 15,000 years (two of which occurred in the past 1,300 years) were preceded by a minimum 110,000 year period of quiescence, suggesting this fault exhibits strong aperiodicity of earthquake occurrence. The authors suggest it is prudent to assume that the relatively high rates of recent fault activity will continue, with an estimated recurrence interval of 450-5110 years.

Other known faults that have some potential to cause strong shaking in Dunedin are the Titri Fault and the North Taieri Fault, located roughly 1.5 km and 7 km northwest of the site, respectively.

Strong ground shaking throughout the South Island is likely to be associated with a rupture of the Alpine Fault, located along the West Coast of South Island. There is a high probability an earthquake with an expected magnitude of over 7.5 will occur along the Alpine Fault within the next 50 years.

Average return periods for shaking intensity are: MM 7 = 100 years, MM 8 = 450 years and MM 9 = 2,500 years. The most recent major earthquake to affect Dunedin occurred in 1974 and produced damage consistent with MM 7 intensity.

A risk of seismic activity has been identified for the region as a whole and appropriate allowance should be made for seismic loading during detailed design of the proposed development, but there are no site-specific constraints.

March 2021

#### Flood Hazard

Flood hazard assessment is beyond the scope of this report, however we note from the ORC Natural Hazards Database, that there may be some minor flood hazard associated with the lowest lying area of the site, shown in Figure D. A hydrologist can advise further on any mitigation required, however simple adoption of minimum floor levels may be appropriate if required.



Figure D - Potential area of flood hazard.

#### Previous Land Use Considerations

We have not carried out a full review of historical land use or LIM reports etc, however we note that parts of the property have been used for various industrial and extractive industry land use.

As described above, part of Area 1 has been utilised for coal mining and a sand quarry was also located elsewhere on the property. A railway line has operated on the property for the purposes of coal and sand extraction. The remains of the railway are visible as a series of cuttings and embankments that cross part of Area 1. Some remnants of sand processing structures are also visible within Area 1. It is likely that some fill has been placed locally as part of these activities and some minor localised slope instability is associated with these fills. These industrial activities are of unknown scale, however, appear to be largely contained within the area underlain by former coal mines.

Area 2 does not appear to have been used for major industrial activity, however we understand from the landowner that a former owner carried out trenching for the purposes of waste burial from freezing works industry. The full extent of the trenching/burial is not confirmed, however these trenches are clearly visible over parts of Area 2 (see Figure 2 appended). The areas indicated on Figure 2 may need earthworks treatment or specific foundation design for residential use.

A water race has also been noted within Area 1.

Consequently, previous land use may result in some localised geotechnical considerations for subdivision design and these can be advised in greater detail following detailed subsurface investigations at the subdivision planning stage.

#### Summary of Geotechnical Considerations for Residential Land Use

- We recommend that at least part of the area underlain by former coal workings should be excluded from residential land use as there is a risk of surface subsidence and bulked soils over parts of Area 1. This area is shown provisionally on Figure 1, based on existing hazard mapping, however further research into the mining history may enable refining of the boundary of the workings. It may also be possible that areas of the deepest workings (shown in blue on Figure 1) could potentially be suitable for residential land use, as discussed above. However, further research and investigations will be required to confirm suitable areas. We can provide further detailed investigations and analysis if the area of known coal mining is to be considered further for residential use.
- The areas of the five landslides described above should also be provisionally excluded from residential land use, with adequate setbacks defined. Other minor areas may also be susceptible to slope instability. Such areas are likely to be relatively limited areas but could include steep slopes, fill slopes and setback areas at the toe and crest of the known landslides. These details can be advised further during standard geotechnical investigations at the subdivision stage, when conceptual scheme plans are available. Development within these areas may be possible in the future, but would require extensive geotechnical investigations, slope stability analysis and possibly stabilisation works (e.g. deep drainage, significant earthworks).
- Further research will be required to determine the full extent of soil disturbance from trenching and freezing works offal burial activities within Area 2. The areas of the most obvious trenches indicate that considerable settlement of the backfill has occurred and that the trenches are likely to be underlain by soft uncontrolled fill and organic soil types. Such soils are unsuitable for standard foundations, however if trenching depths are relatively shallow, then it may be possible to remediate the areas with earthworks (cut and fill). Piling of structures may also be possible, however the trenched areas are likely to be prone to ongoing differential settlement which would be generally disruptive to pavements and yard areas. Further investigations will be required to advise on options.
- Groundwater control is likely to be necessary for parts of the site, particularly Area 2
  where there is a geological contact between Caversham Sandstone and overlying
  fractured volcanic rock as discussed above. An important design consideration for
  subdivision in this setting will be to ensure that adequate drainage is in place to
  prevent saturation of proposed downslope residential subgrades. This can usually

GeoSolve Ref: 210116

March 2021

- be accomplished by capturing and diverting the groundwater flows using simple deep subsoil cut-off drains, perhaps directed to existing watercourses.
- Figures 1 and 2 and the discussion above indicates that much of the area being
  considered for rezone is likely to be appropriate for residential land use. The areas
  of landslides and former coal mines will likely need to be specifically excluded from
  residential use (unless demonstrated to be suitable) or otherwise utilised for other
  purposes such as reserves.
- Standard subsurface investigations will be required to confirm geotechnical requirements for any subdivision and residential land use within Areas 1 and 2.
   Specific objectives of these investigations will include investigations to determine appropriate setbacks, further checks to confirm limitations related to coal mines, characterisation of the Burnside Mudstone, determination of the extent of trenching in Area 2 and investigation of groundwater conditions in Area 2.
- Further investigation of landslide hazard will be required for any subdivision within
  Areas 1 and 2, however it is notable that the landslide areas are limited in extent and
  unlikely to widely influence the majority of Areas 1 and 2. Test pitting and trenching
  is likely to be suitable for further investigations, however some drilling may be
  required locally. Geometric design of any future subdivision earthworks should be
  carried out by a land development specialist with consideration of existing
  watercourses.
- Soil contamination inputs are beyond the scope of this report, however industries such as coal mining, quarrying and burial of waste can result in contamination which could be further assessed by environmental engineer.
- We note that there are major Council-owned water services pipes on the property as well as a concrete reservoir. We assume that these can be adequately managed via appropriate easements. Care will be required to ensure that potential leakage from buried pipes is adequately managed to prevent soil saturation and potential instability.

#### **Applicability**

This report has been prepared for the benefit of Wendy Campbell with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement.

We have not carried out any subsurface investigations at this early stage. This report is intended to provide preliminary comment on likely geotechnical issues at the rezoning application phase only.

Yours faithfully,

Mulas \_ S

Mark Walrond

Senior Engineering Geologist

Reviewed for GeoSolve by: Colin Macdiarmid, Senior Geotechnical Engineer

GeoSolve Limited

Appended: Figures 1 and 2

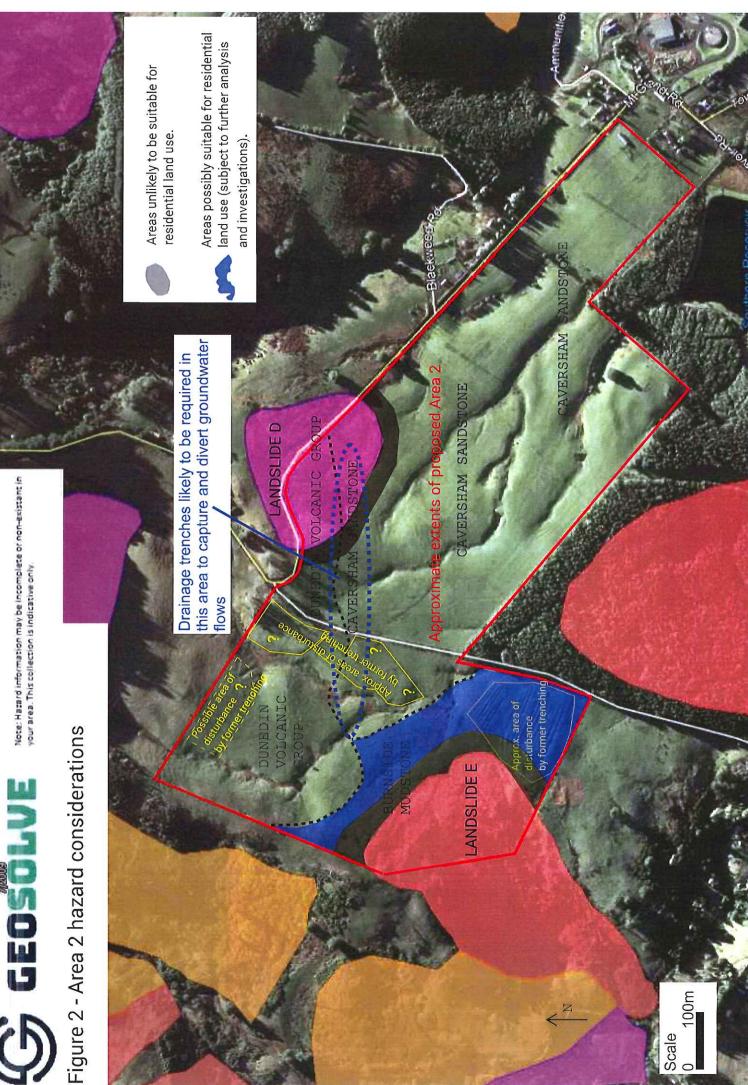


Table 1: NDMA Issues and Potential Mechanisms For Solutions

<b>Notified Pol</b>	icy / Rule		Issue	Potential Solutions
 X policies and a	assessment rules for subdivision	creation, and essential community facilities in Dunedin through:  in a new development mapped area that require consideration of the need for	NDMA where land is in multiple ownership and development is likely to occur over time and potentially without co-operation between	is, over so many lots /
Delete Polcy 2.6. Objective 12.2.X	1.6.b owth areas are developed in a way	hat achieves the Plan's strategic directions for, {Change D4} cultural well-being (Objective 2.3.3); {Change D4}	Iandowners?  S32 report talks about 'large greenfield areas' [see para 296], however, many of the 'large greenfield areas' in NDMA are in multiple	AND / OR Specify what greenspace etc is required as a minimum for which NDMAs.
Policy 12.2.X.1  Rule 12.X.2.5.c	access to outdoor recreation of	w development mapped area where it will provide or otherwise ensure good pportunities (including playgrounds) and, where possible, opportunities for tacks within and between different residential developments and connecting to the see. (Change D4)	ownership.	
<b>f</b>	ent of restricted discretionary ac	Guidance on the assessment of resource consents		

5. In a new c. Provision of recreation Relevant objectives and policies: development spaces (Change D4) i. Objective 12.2.X mapped area: ii. The subdivision provides or otherwise ensures good access to All subdivision outdoor recreation opportunities (including playgrounds) and, where activities possible, opportunities for offroad cycling and walking tracks within (Change D1) and between different residential developments and connecting to community facilities and services (Policy 12.2.X.1). (Change D4) Conditions that may be imposed include: iii. Location, size and shape of recreation reserves, including a minimum length of road frontage. iv. A requirement to vest recreation spaces in DCC as DCC reserve. v. Public amenities to be included in a recreation reserve. vi. A requirement for the recreation space to be developed prior to

#### Rule 15.11.5.Y

15.11.5 Assessment of restricted discretionary activities in an overlay zone, mapped area, heritage precinct or affecting a scheduled heritage item

Activity Matters of discretion Guidance on the assessment of resource consents

...

Y In a new development mapped area.

• All subdivision activities (Change D1 & Change F2-2)

c. Provision of recreation spaces (Change D4)

vesting in DCC (Change D4)

See Rule 12.X (Change D4)

Notified FOI	icy / Rule	Issue	<b>Potential Solutions</b>
CHANGE D5  Delete Policies 2.2.2.5.b and 2.2.5.3.a and replace with new clause in Policy 2.2.2.X.a  Policy 2.2.2.X to be added {Change D5 & Change E4}		No issues.	N/A
Encourage improve a use of policie subdivisions b encouraging values; c rules that req the outdoor li d rules that res  Objective 12.2.X	nents to the environmental performance of new housing by, (Change E4) s and assessment rules for subdivision, including in new development mapped areas, that encourage to be designed to maximise the potential for passive solar design in housing; (Change D5) new medium density housing in parts of the city that have old housing stock that is not protected for its heritage uire outdoor living space to be on the sunny side of buildings, and requiring principal living areas to connect to ving space, and trict height in relation to boundary to facilitate access to sunlight in outdoor areas (Change E4)  & Policy 12.2.X.3		
c. <u>environmen</u>	tal performance and energy resilience (Objective 2.2.2); {Change D5}		
Policy 12.2.X.3	Only allow subdivision in a new development mapped area where the subdivision layout and orientation provides for houses to be designed with good solar access to living areas and outdoor living spaces. (Change D5)		
Rule 12.X.2.5.a			
12.X.2 Assessm	ent of restricted discretionary activities in a Transition Overlay Zone or mapped area		

development grapped area:	a. Whether <u>subdivision</u> design <u>supports</u> energyefficient housing (Change D5)		orientation provides for houses to be coess to living areas and outdoor living hange D5)
Rule 15.11.5.Y  15.11.5 Assessment of res scheduled heritage item	tricted discretionary ac	tivities in an overlay zone, mapped a	area, heritage precinct or affecting a
Activity		Matters of discretion	Guidance on the assessment of resource consents
Y In a new development  • All subdivision activi  Change F2-2}		a. Whether subdivision design supports energy-efficient housing {Change D5}	See Rule 12.X (Change D5)

Notified Poli	cy / Rule		Issue	<b>Potential Solutions</b>
CHANGE D6 Objective 12.2.X a	and Policy 12.2.X.2		What is the threshold for 'significant natural environment values'?	Provide a definition for this term.
	prowth areas are developed in a way the biodiversity (Objective 2.2.3); {Change of the control o	ge D6)  development mapped area where the subdivision is designed to ensure nent will protect, and where necessary restore, any waterways, areas of and habitats of indigenous fauna, or other areas with significant natural	CHVIIOIIIICHE VAIACS :	
Rule 12.X.2.5.d  12.X.2 Assessme	environment values. (Change Do	ties in a Transition Overlay Zone or mapped area  Guidance on the assessment of resource consents		
	d. Whether subdivision design maintains or enhances areas with significant natural environment values (Change D6)	Relevant objectives and policies:  i. Objective 12.2 X  ii. The subdivision is designed to ensure any future land use and development will protect, and where necessary restore, any waterways, areas of important indigenous vegetation and habitats of indigenous fauna, or other areas with significant natural environment values (Policy 12.2 X.2). (Change D6).  Conditions that may be imposed include.  iii. A requirement to protect areas through reserve status or other legal mechanisms.  iv. A requirement to undertake conservation activity. (Change D6).		

Rule 15.11.5.Y		
15.11.5 Assessment of restricted discretionary scheduled heritage item	y activities in an overlay zone, mapped ar	ea, heritage precinct or affecting a
Activity	Matters of discretion	Guidance on the assessment of resource consents
Y In a new development mapped area:  • All subdivision activities (Change D1 & Change F2-2)	d. Whether subdivision design maintains or enhances areas with significant natural environment values (Change D6)	See Rule 12.X (Change D6)

Notified Policy	/ Rule		Issue	<b>Potential Solutions</b>
CHANGE D7 Objective 12.2.X {Change D1}			What is the thresh for the requirement?	old Include a trigger (i.e number of lots / size of development area).
Future residential growt	h areas are developed in a w	ay that achieves the Plan	egic directions for: {Change D1}	AND / OR
d, form and structu	re of the environment (Object	tive 2.4.1); {Change D7}	What constitutes 'adequate' area?	an Provide guidance on what constitutes 'adequate' area
Policy 12.2.X.4	7.54			of amenity planting an public amenities.
aı		uding but not limited to st	nere the <u>subdivision</u> will provide adequate es) and <u>public amenities to ensure an</u>	
12 X 2 Assessment of	f restricted discretionary act	ivities in a Transition Ove	ne or manned area	
<u>Activity</u>	f restricted discretionary act	Guidance on the assess		
Activity	1 1000	Guidance on the assess  Relevant objectives and i. Objective 12.2.X ii. The subdivision pro (including but not life ensure an attractive	dequate areas of amenity planting street trees) and public amenities to nitial environment (Policy 12.2.X.4).	
5. In a new development mapped area.  • All subdivision activities (Change D1)	Matters of discretion  b. Provision for amenity planting and public amenities (Change D7).	Relevant objectives and i. Objective 12.2.X ii. The subdivision pro- (including but not linensure an attractive  Conditions that may be iii. Requirements for second (Change DT)	dequate areas of amenity planting street trees) and public amenities to ntial environment (Policy 12.2.X.4).	

In a new development mapped area.  • All subdivision activities {Change D1 & Change F2-2}	b. Provision for amenity planting and public amenities (Change D7)	See Rule 12 X (Change D7)	

Notified Policy / Rule	Issue	Potential Solutions
CHANGE D8 Policy 2.7.1.2	Rule 12.X.2 – general assessment guidance iv.3	Delete.
Ensure areas of new urban development provide for public infrastructure networks that represent the least possible long term cost to the public through:	This assessment has already been undertaken in rezoning	
Zpolicies and assessment rules for new development mapped areas that encourage efficient use of land as a way to maximise the cost effectiveness of public infrastructure delivery. (Change D8)	of the land (including placement of Transition overlay zone or mapped	
Objective 12.2.X {Change D1}  Future residential growth areas are developed in a way that achieves the Plan's strategic directions for: {Change D1}	area).	
e. a compact and accessible city (Objective 2.2.4); and (Change D8)  f. efficient public infrastructure (Objective 2.7.1). (Change D8)		
Policy 12.2.X.5		
Policy 12.2.X.5 Only allow subdivision in a new development mapped area where the subdivision design ensures the efficient use of land, while also achieving the other elements of Objective 12.2.X. (Change D8)		
Rule 12.X.2.5.e		
12.X.2 Assessment of restricted discretionary activities in a Transition Overlay Zone or mapped area		

5. In a new development mapped area.

• All subdivision

activities (Change D1) e. Whether subdivision design supports efficient use of land (Change D8).

Relevant objectives and policies:

- i. Objective 12.2.X
- The subdivision design ensures the efficient use of land, while also achieving the other elements of Objective 12.2.X (Policy 12.2.X.5), (Change D8).

#### General assessment guidance:

- iii. Council will generally require subdivision in a NDMA to enable the maximum development capacity allowed under the rules and as can be achieved while still achieving the other objectives and policies of the Plan (e.g. as many sites suitable for residential development as practicable or through other means of maximising development capacity), (Change D8)
- iv. Where a <u>subdivision</u> proposes a residential yield less than what is allowed by the zoning and where this is not required to achieve other plan objectives or policies. Council will consider.
  - how this might affect the affordability and efficient delivery of public infrastructure.
  - how this might affect the ability to provide a reasonable amount of affordable housing in the development; and
  - 3. the potential cumulative effects of inefficient development on loss of rural land. (Change D8)

#### Rule 15.11.5.Y

15.11.5 Assessment of restricted discretionary activities in an overlay zone, mapped area, heritage precinct or affecting a scheduled heritage item

Activity Matters of discretion Guidance on the assessment of resource consents

•••

In a new development mapped area:
 All subdivision activities (Change D1 &

Change F2-2)

e. Whether subdivision design supports efficient use of land (Change D8) See Rule 12.X (Change D8)

Notified Po	licy / Rule	Issue	<b>Potential Solutions</b>
Enable and encou	7 - to be added {Change F2-2}  rage on-site low impact design stormwater management through policies and assessment rules that require stormwater management ment mapped areas. (Change F2-2)	with NDMA being in multiple ownership – for	infrastructure in a NDM/ with multiple owners vest that infrastructure in DCC
Delete Policy 2 Policy 2.7.1.2.X Ensure areas of the public through	new urban development provide for public infrastructure networks that represent the least possible long term cost to	2. Requirement to install infrastructure prior to obtaining subdivision consent (see Policy 9.2.1.Y and Note	DCC pays that developer fo the infrastructure (less the developer's pro rata share and DCC claws-back the cos of that infrastructure vi- development contribution
X policies and F2-2)	assessment rules that require on-site stormwater management in the new development mapped area; {Change	9.3.7.AAA.a). The proper development process is for resource consent to be obtained prior to development cont as the other land wi NDMA comes online AND	as the other land within tha NDMA comes online. AND
Policy 9.2.1.Y		that all matters can be assessed together. Focus	
	opment and subdivision activities maintain or enhance the efficiency and affordability of public water supply, stormwater infrastructure.	should be on the design of infrastructre at this stage of the consent /	easements in NDMA fo
		development process.	Delete from Rule 9.9.X.3.0
Policy 9.2.1.Y	Only allow subdivision activities in a new development mapped area where:  a an on-site stormwater management system that is designed for the whole NDMA and is installed in full or in planned stages prior to development will ensure there is no increase in the pre-development peak stormwater discharge rate from the site into the stormwater public infrastructure (at any point), or  b where this is not practicable, any adverse effects from an increase in discharge on the stormwater public infrastructure are no more than minor. (Change F2-2)	3. Limiting the extent of Rule 9.5.3.Z. written approval owners of land w new development area unless they	submitted along with the written approval of all owners of land within the new development mapped area unless they are the applicant/s'.
Policy 9.2.1.X			2. Delete requirement fo
Policy 9.2.1.X	Require development in a new development mapped area that creates impermeable surfaces to be connected to the integrated communal on-site stormwater management system that meets Policy 9.2.1.Y. (Change F2-2)		infrastructure to be installed prior to subdivision consent
			3. Add the words 'within the subject new developmen

#### Rule 9.3.7.AA

### 937 AA Stormwater (Change F2-2)

- a. In a new development mapped area, all development that creates an impermeable surface must
  - I. connect to a communal stormwater management system that services the new development mapped area. except:
    - prior to the communal stormwater management system being installed, any development that creates less than 60m² of impermeable surface is exempt from this standard.
- b. Activities that contravene this performance standard are restricted discretionary activities. (Change F2-2)

#### **Note 9.3.7.AAA**

#### Note 9.3.7.AAA - General advice and other requirements outside of the District Plan (Change F2-2)

- a. In a new development mapped area, Policy 9.2.1.Y requires installation of a communal stormwater management system prior to development as part of the assessment of a <u>subdivision</u> consent. The requirements for <u>stormwater management</u> are set out in the Special Information Requirements Rule 9.9.X, (Change F2-2)
- Clause E1 Surface Water of the New Zealand Building Code (Building Regulations 1992, Schedule 1) contains
  requirements regarding buildings and sitework in relation to managing surface water and effects on other property.
- c. Development that will divert surface water may require resource consent under the Otago Regional Plan: Water
- d. Discharge of stormwater to any Otago Regional Council scheduled drain or overland flow path is managed by the Otago Regional Council Flood Protection Management Bylaw 2012.
- e. If development affects the flow of surface water, this effect is also subject to the common law principle of natural servitude.
- f. Part 4 of the Dunedin Code of Subdivision and Development 2010 ("Code of Subdivision") requires that design and construction of stormwater systems be undertaken in accordance with NZS 4404:2004 (now replaced by NZS 4404:2010), except as amended by the Code of Subdivision. This includes a requirement that stormwater systems be provided so that any new development results in an insignificant increase of runoff wherever possible (Clause 4.2.8).
- g. For further information on connections to the public stormwater network and for assistance with design requirements for stormwater management systems, please contact DCC 3 Waters on 03 477 4000 at the earliest opportunity, (Change F2-4)

mapped area' to the end of the sentence at Rule 9.5.3.Z.a.

# Performance standard Matters of discretion Guidance on the assessment of resource consents In a new development efficiency of stormwater management and effects Relevant objectives and policies: i. Objective 9.2.1 ii. Require development in a new development mapped area that

of stormwater from future

development

# General assessment guidance

 iv. Council will consider how stormwater will be managed and may require a stormwater management plan to be submitted with the application (see Special Information Requirement - Rule 9.9.X). (Change F2-2)

creates impermeable surfaces to be connected to the integrated

communal on-site stormwater management system that

meets Policy 9.2.1.Y (Policy 9.2.1.X), (Change F2-2)

#### Conditions that may be imposed include:

- A requirement for easements, covenants, consent notices, or bonds to ensure future development will be in accordance with a stormwater management plan.
- vi. A requirement for on-site stormwater management, such as the installation of detention devices, in accordance with the approved stormwater management plan. (Change F2-2)

#### Rule 9.6.2.X

· Service

connections -

(Change F2-2)

(Rule 9.3.7 AA)

Activity	Matters of discretion	Guidance for the assessment of resource consents

<u>X</u> .	In a new
	development
	mapped area:
	<ul> <li>All subdivision</li> </ul>
	activities
	(Change F2-2)

a Effectiveness and efficiency of stormwater management and effects of stormwater from future development Relevant objectives and policies (in addition to those outlined in 9.6.2.2 above):

- i. Objective 9.2.1.
- ii. Only allow subdivision activities in a new development mapped area where:
  - an on-site stormwater management system that is designed for the whole NDMA and is installed in full or in planned stages prior to development will ensure there is no increase in the predevelopment peak stormwater discharge rate from the site into the stormwater public infrastructure (at any point); or
  - where this is not practicable, any adverse effects from an increase in discharge on the stormwater public infrastructure are no more than minor (Policy 9.2.1.Y), (Change F2-2)

#### Special Information Requirement Rule 9.9.X

#### 9.9.X Stormwater management plans

 Application for <u>subdivision</u> in a <u>new development mapped area</u> must include a <u>proposed stormwater management plan that</u> demonstrates how Policy 9.2.1.Y will be achieved, unless such a <u>plan has already been approved as part of an earlier</u> <u>subdivision</u>. (Change F2-2)

•••

- 3. Stormwater management plans must:
  - a. be prepared by a chartered engineer or other suitably qualified person;
  - b. be of a level of detail commensurate with the scale of the activity, complexity of stormwater management issues, and potential for adverse effects from stormwater, (Change F2-2 & Change F2-3)
  - c. for a new development mapped area (NDMA), address the whole NDMA area, and be submitted along with the written approval of all owners of land within the new development mapped area unless they are the applicant/s. (Change F2-2)
  - d. assess pre-development flows and post-development flows, generally based on the following rainfall events;
    - i. for primary infrastructure, a 10% annual exceedance probability (AEP) for the critical storm duration for the NDMA and the critical storm duration and the catchment upstream of the point of discharge, and
    - for secondary flow paths, a 1% AEP for the critical storm duration for the NDMA and the critical storm duration for the
      catchment upstream of the point of discharge;
    - iii. for the purposes of this requirement, 'critical storm duration' means the duration of rainfall event likely to cause the highest peak flows or water levels;

- lv. for the purposes of this requirement, 'primary infrastructure' includes both open and closed conduits designed to contain the flows generated by the 10% AEP rainfall event;
- v for the purposes of this requirement, 'secondary flow paths' means the flow path over which surface water will flow if the primary flow path becomes overloaded or inoperative and consists of overland flow paths with sufficient capacity to transfer the flows generated by rainfall events up to 1% AEP, Secondary flow paths should be aligned with natural flow paths and located on public land where possible. If located in private property, 1% AEP secondary flows should be through primary infrastructure unless protected by an easement;
- e assess the difference between pre-development flows and post-development flows, taking into account the maximum impermeable surfaces permitted in the underlying zone and any proposed roading or accessways for the subdivision area (or in a new development mapped area, for the entire NDMA);
- specify the design and location of any on-site stormwater management systems to accommodate the calculated difference in flows;
- g, where relevant, specify the design and location of secondary flow paths;
- h. specify any upgrades to stormwater public infrastructure, or other infrastructure, that will be used to add capacity where it is required;
- the stormwater management system design should allow for stormwater quality treatment to reduce potential contaminants that the site and development may generate.
- j areas requiring stormwater quality treatment include trafficked areas such as roads, driveways and carparks. Roof and building areas should not require stormwater quality treatment providing they are constructed with inert building products which avoid exposed metal surfaces.
- k. stormwater quality treatment devices shall target the removal of 75% total suspended solids (TSS) on a long-term average basis and consider the avoidance or minimisation of thermal loading effects;
- I, the stormwater management design should consider the use of low impact design features, for example,
  - i. grassed/landscaped swales and other vegetation areas;
  - ii. infiltration trenches/bioretention systems;
  - iii. storage ponds/wetlands/sediment ponds;
  - iv. rainwater tanks harvesting and reuse;
  - v. rain gardens, green roofs; or
  - vi. porous surface treatments;

- where low impact design features are inadequate to address stormwater discharge in a way that meets Policy 9.2.1.Y.
   consider the use of detention tanks;
- n. for larger subdivisions, the design should incorporate consideration of how stormwater management areas can be integrated into reserves and recreation spaces;
- o for larger subdivisions, the design proposal should demonstrate how the integrity of the stormwater mitigation and management measures will not be compromised during and after subdivision (for example, avoiding premature contamination of devices during the construction of houses and ensuring that open drains that form part of the system will not be blocked or aftered). (Change F2-2 & Change F2-3)

#### Rule 15.3.4.1 Development Activity Status Table

1. Performance standards that apply to all development activities

- Natural Hazards Performance
   Standards
- b. Maximum building site coverage and impermeable surfaces
- c. Setback from scheduled tree
- d. Structure plan mapped area performance standards (where relevant)

Y Service connections - stormwater (in a new development mapped area) (Change F2-2)

#### Rule 15.6.X

15.6.X Service Connections - Stormwater - to be added {Change F2-2}

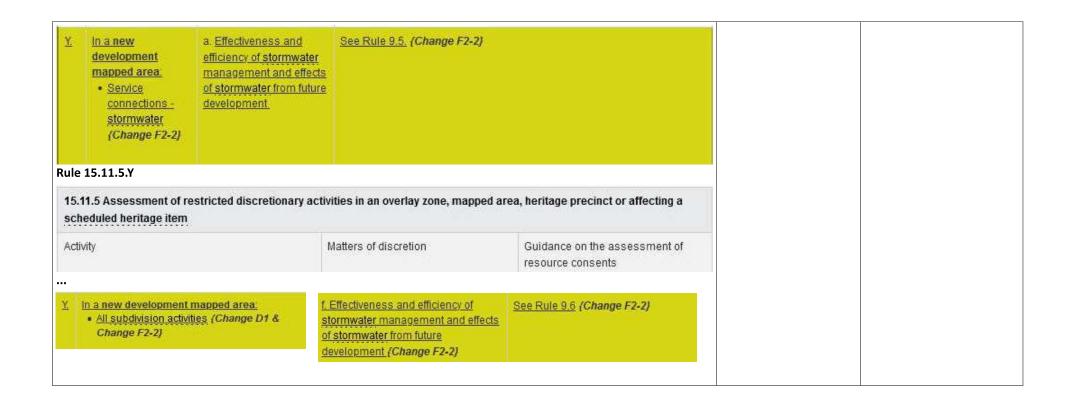
In a new development mapped area, all development that creates an impermeable surface must comply with Rule 9.3.7 AA. (Change F2-2)

#### Rule 15.10.4.Y

#### 15.10.4 Assessment of development performance standard contraventions

Performance standard Matters of discretion Guidance on the assessment of resource consents

•••



#### **Notified Policy / Rule Potential Solutions** Issue 1. Potential difficulties 1. Provide a claw-back **CHANGE F3-2** with NDMA being in mechanism whereby when Policy 2.7.1.2.Y multiple ownership – for the developer of Ensure areas of new urban development provide for public infrastructure networks that represent the least possible long term cost to example, if there is / are infrastructure in a NDMA reluctant or recalcitrant with multiple owners vests the public through: owner(s) within the that infrastructure in DCC, NDMA. DCC pays that developer for policies and assessment rules that require wastewater detention for specified sites in the new development mapped area to the infrastructure (less the allow urban expansion while ensuring any impacts on the wastewater public infrastructure network are no more than minor. developer's pro rata share) (Change F3-2) and DCC claws-back the cost of that infrastructure vis development contributions Policy 9.2.1.BB as the other land within that NDMA comes online. Policy 9.2.1.BB Require subdivision, multi-unit development or supported living facilities in specified new development mapped areas to provide or connect to a communal wastewater detention system that ensures that all AND wastewater from the future development of the entire new development mapped area does not exceed the Provide mechanism capacity of the wastewater public infrastructure network. (Change F3-2) whereby the DCC can compulsorily acquire easements in NDMA for new Note 9.3.7.ZA General Advice infrastructure. b. In new development mapped areas specified in Rule 9.6.2.Y, immediate connections to the wastewater public infrastructure network will not be available due to network capacity constraints. In these cases, subdivision consent may be refused even if this standard is met where an on-site communal wastewater detention system that serves 50 or more residential units is yet to be approved as a solution to capacity constraints. (Change F3-2) Rule 9.6.2.Y 9.6.2 Assessment of restricted discretionary activities Activity Matters of discretion Guidance for the assessment of resource consents

- In the following new development mapped areas, all subdivision activities multi-unit development development and supported living facilities: (Change F3-2]
  - a. Effectiveness and efficiency of wastewater management and effects of wastewater from future
  - Kaikorai Valley Road (Change IN07)
  - · Selwyn Street (Change RTZ2)
  - Wattie Fox Lane (Change RTZ1)

Relevant objectives and policies (in addition to those outlined in 9.6.2.2 and 9.6.2.X above):

- i. Objective 9.2.1.
- ii. Require subdivision, multi-unit development or supported living facilities in specified new development mapped areas to provide or connect to a communal wastewater detention system that ensures that all wastewater from the future development of the entire new development mapped area does not exceed the capacity of the wastewater public infrastructure network (Policy 9.2.1.BB). (Change F3-21

#### General assessment guidance:

- iii. The identified new development mapped areas are serviced for wastewater but new connections to the network will not be allowed (and consequentially any multi-unit development, supported living facility or subdivision that will lead to development that will require a connection will likely be declined) until capacity constraints are resolved or a communal on-site wastewater detention system that is designed for and associated with subdivision and/or development of 50 or more residential units is integrated into the public network and vested in the DCC. After installation of the system, all activities that create wastewater will be required to connect to the system until it is no longer required.
- iv. In assessing the appropriateness of a proposed communal on-site wastewater detention system. Council will consider the proposed wastewater management plan submitted with the application (see Special Information Requirement - Rule 9.9.Y). (Change F3-2)

#### Conditions that may be imposed:

- v. A requirement for the communal on-site wastewater detention system to be installed prior to certification of the survey plan pursuant to section 223 of the RMA.
- vi. A requirement for the communal on-site wastewater detention system to be vested in the DCC, along with a site containing it which is of a minimum 500m2 in area and suitable for residential development.
- vii. A requirement for necessary easements and a fixed maintenance or defect period agreement to be in place prior to vesting the communal on-site wastewater detention system and associated land. (Change F3-21

#### **Rule 9.9.Y**

#### 9.9 Y Wastewater management plans

- 1. Any application for subdivision, multi-unit development or supported living facilities in a new development mapped area specified in Rule 9.6.2.Y must include a proposed wastewater management plan that ensures that all wastewater from the future development of the entire new development mapped area does not exceed the capacity of the wastewater public infrastructure network via the use of a communal wastewater detention system, unless such a system has already been approved for the site and will be connected to.
- 2. The wastewater management plan must be prepared by a chartered engineer and meet the following requirements:
  - a. Specify the design and location of one or more communal wastewater detention systems to detain wastewater from the entire new development mapped area.
  - b. The communal wastewater detention systems must;
    - have the capacity to detain wastewater for a 24-hour period, prior to releasing to the wastewater via a connection to the
      wastewater public infrastructure network. The volume of wastewater to be detained will be calculated with reference to
      Part 5 of the Dunedin Code of Subdivision and Development 2010 ("Code of Subdivision");
    - ii. be compatible with DCC's Supervisory Control and Data Acquisition (SCADA) system;
    - iii. have a minimum 20 year expected life for all electrical / mechanical components and a minimum 50 year expected life for all civil components;
    - iv where practicable, be located such that all flow goes to one communal wastewater detention system with no pumping.
    - v. have components and materials that comply with the DCC's 3-Waters Approved Product and Manufacturers List and Part 5 of the Dunedin Code of Subdivision and Development 2010 ("Code of Subdivision").
- The wastewater management plan must be submitted along with the written approval of all landowners within the new development mapped area unless they are the applicant/s. (Change F3-2)

#### **Notified Policy / Rule Potential Solutions** Issue Limit the extent of Policy Delete the words 'on **CHANGE F2-6** 9.2.1.AA and related adjoining or nearby sites Policy 9.2.1.AA lower order provisions that are zoned for urban Policy 9.2.1.AA Only allow subdivision in a new development mapped area where any new public or private 3-waters to provision of capacity development and insert the infrastructure is designed to connect to, and provide capacity for, future urban development on adjoining or of infrastructure within words 'within the subject nearby sites that are zoned for urban development, where necessary, (Change F2-6) specific new new development mapped the development mapped area' before 'where necessary'. area. Rule 9.5.3.Z AND Similarly in Rule 9.5.3.Z.a.iii 9.5.3 Assessment of performance standard contraventions delete the words 'on Performance standard Matters of discretion Guidance on the assessment of resource consents adjoining or nearby sites that are zoned for urban In a new a. Effectiveness and iii. Only allow subdivision in a new development mapped area where development' and insert the development efficiency of stormwater words 'within the subject any new public or private 3-waters infrastructure is designed to management and effects mapped area: new development mapped connect to, and provide capacity for, future urban development on of stormwater from future Service area' before 'where development adjoining or nearby sites that are zoned for urban development. connections necessary'. stormwater where necessary (Policy 9.2.1 AA). (Change F2-6) (Rule 9.3.7.AA) AND (Change F2-2) Similarly in Rule 9.6.2.X.a.iii delete the words 'on Rule 9.6.2.X adjoining or nearby sites that are zoned for urban 9.6.2 Assessment of restricted discretionary activities development' and insert the words 'within the subject Matters of discretion Guidance for the assessment of resource consents Activity new development mapped area' before 'where necessary'. iii. Only allow subdivision in a new development mapped area where any In a new a. Effectiveness and new public or private 3-waters infrastructure is designed to connect to, efficiency of stormwater development and provide capacity for, future urban development on adjoining or management and effects mapped area: nearby sites that are zoned for urban development, where necessary of stormwater from future All subdivision

(Policy 9.2.1.AA). (Change F2-6)

activities

(Change F2-2)

development

# **KEY**



1. Native revegetated hill side and gully with potential walkways - approx 10.3ha



2. New site access



 Low Density Residential - 700m² - 1000m² lots Approximately 13.3ha, subject to survey Potential yield: 133 - 93 lots



Open parkland area around existing dam



General residential 1 - 450m<sup>2</sup> - 750m<sup>2</sup> lots Approximately 2.4ha, subject to survey Potential yield: 37 - 22 lots



 Native revegetated area with potential walkway - approx 1.3ha, subject to survey



Recreation and park area - approx 3.4ha, subject to survey



. Opportunity for walkways in revegetated areas



9. Parkland - enhance entranceway with additional specimen trees, approx 1ha, subject to survey



 Extend existing vegetation with native species to soften appearance of proposed housing, approx 12ha, subject to survey (including existing plants)



 Low Density Residential 1 - 750m<sup>2</sup> - 1000m<sup>2</sup> lots Approx. 6.3ha, subject to survey Potential yield: 59 - 44 lots



12. Abbotsford Creek



13. Roadin



14. General Residential 1 and / or / Low Density Residential - 400m² - 900m² lots - approx. 15.6.ha, subject to survey. Potential yield - 273 - 121 lots



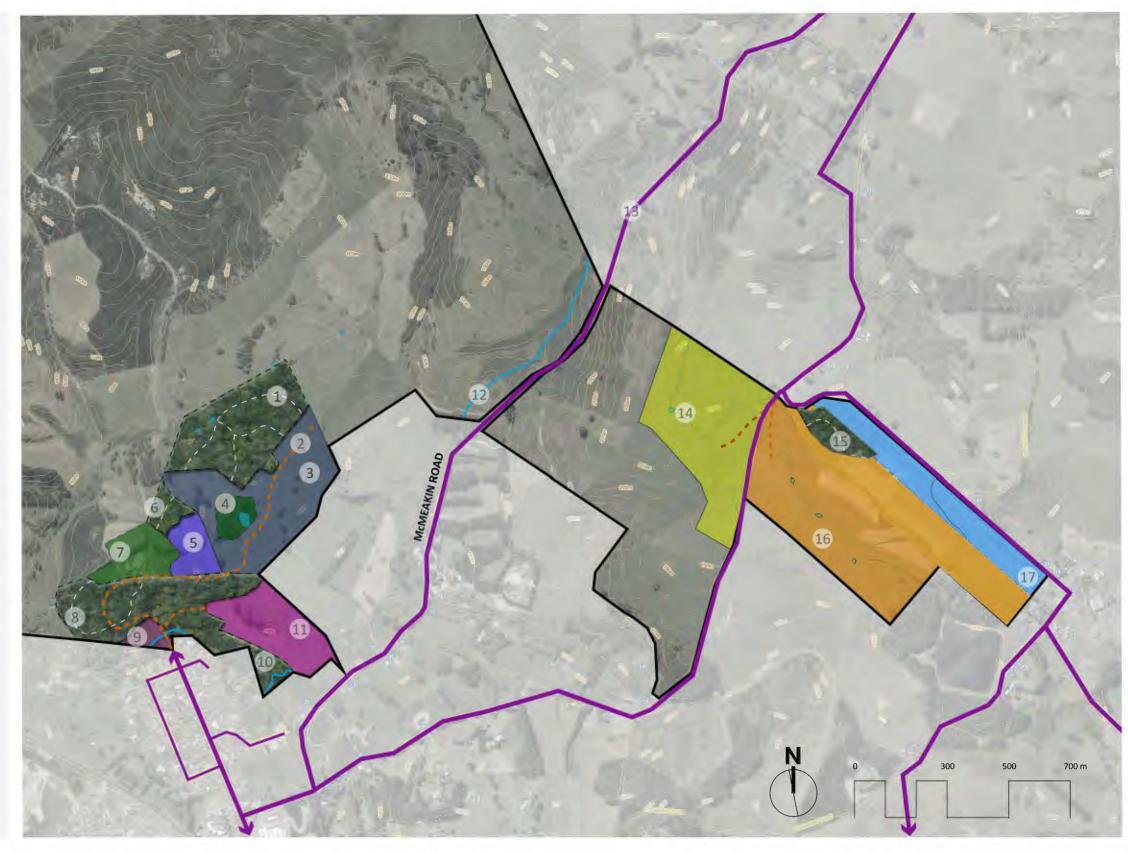
15. Native revegetation with potential walkways Approx. 2.ha, subject to survey



 General Residential 1 and / or / Low Density Residential - 400m<sup>2</sup> - 900m<sup>2</sup> lots - approx. 26.7ha, subject to survey.
 Potential yield - 467 - 207 lots



17. Pylons/National Grid Corridor (DCC District Plan)







# **188 NORTH TAIERI ROAD**

DATE: 03-03-21 SCALE @A1: 1:6000 DWG: 002 REVISION #: A

# LANDSCAPE PROPOSAL









GeoSolve Ref: 210116 2 March 2021

Wendy Campbell 188 North Taieri Road Abbotsford Dunedin 9018

# Preliminary Geotechnical Assessment 188 North Taieri Road, Abbotsford, Dunedin

Dear Wendy,

In accordance with our Agreement dated 22 February 2021 we have undertaken a preliminary engineering geological appraisal of the above property. Our appraisal has comprised a site inspection and desktop review of existing information, relating mainly to natural hazards and coal mining hazard.

# Potential Development

We understand that you are seeking to re-zone two areas of the above property from their existing rural land use to residential land use, i.e.

- Area 1 is under consideration for potential rezoning to General Residential 1 land use (minimum lot size 500m<sup>2</sup>).
- Area 2 is under consideration for potential rezoning to Large Lot Residential 1 or Large Lot Residential 2 land use (minimum lot size 2,000m<sup>2</sup> and 3,500 m<sup>2</sup> respectively).

We understand that the potential rezoning has already been considered by Dunedin City Council (DCC) for inclusion in notification of Variation 2 of the 2GP, however we understand that the property was not shortlisted for notification based on concerns about natural hazards on the property.

The existing property comprises approximately 511 ha of rural land (Rural Industry: Stock Finishing). The property appears to have a long history of rural and industrial land use including coal mining, sand/clay quarrying, farming and is currently used as a farm. The land is generally gently to moderately-sloping with localised steep areas.

This report summarises a desktop review of readily available Council hazard mapping and a preliminary site inspection by an engineering geologist. Not all areas of the property have been mapped or assessed and the intent at this stage is to provide broad comment on any potential constraints to residential land use from the geotechnical viewpoint, based on general visual observations and preliminary interpretation only.





Areas 1 and 2 are shown in Figures A & B below and in Figures 1 and 2 (appended). We have defined areas that are <u>unlikely to be suitable for residential land use</u> (shown in grey) and areas that are <u>possibly suitable for residential land use</u> (shown in blue and subject to further detailed checks). All other areas appear to be relatively straightforward for residential development.

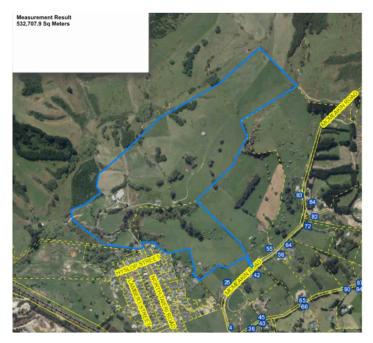


Figure A – Location of Area 1

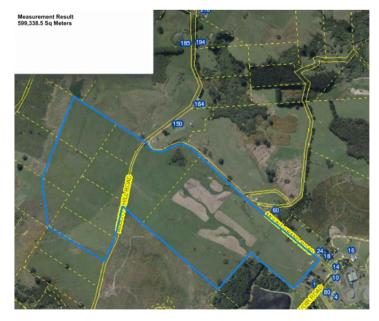


Figure B — Location of Area 2

# **Geological Setting**

The geology of the Dunedin area is dominated by volcanic rock types of basaltic to andesitic composition that were intruded through pre-existing marine sediments during Miocene times. Extensive volcanism at that time produced lava flows and bedded volcanoclastic materials were widely distributed by eruptions. The generalised stratigraphic profile comprises schist at depth, overlain by a Cretaceous to Tertiary-age sequence; initially by thin non-marine sediments and then a thick accumulation of marine sediments including sandstones and mudstones. The volcanic rock types cross-cut these sediments where vents were present and extensively mantle them where lava flows or volcanic ejecta were deposited.

Area 1 is shown on published geological maps to be underlain predominantly by two rock types, the Taratu Formation and the Abbotsford Formation. The approximate mapped extents of these rock types is shown on Figure 1 appended. The Taratu Formation is a coalbearing terrestrial sedimentary rock type and the Abbotsford Formation is a fine-grained marine siltstone.

Area 2 is shown on published geological maps to be underlain predominantly by three rock types, the Caversham Sandstone, Burnside Mudstone and the Dunedin Volcanic Group.

Overburden soils are likely to be a combination of colluvium, loess and possibly ancient landslide debris. Some relatively deep railway cuttings in Area 1 expose colluvium or debris with boulders of volcanic rock, suggesting relatively deep colluvium at least locally.

Two minor faults are mapped on Area 1, however these have not been mapped as active faults by GNS Science Ltd.

#### Landslide Hazard

The property generally contains numerous recognised landslides (mapped by GNS Science Ltd), however Areas 1 and 2 are notable for being largely free of landslides, with only small areas of mapped landslide, as follows:

Area 1 coincides with three landslides, referred to here as Landslides A, B & C.

Area 2 coincides with two landslides, referred to here as Landslides D & E.

- Landslide A (contained within Area 1) is located near a dammed pond and an area where
  trees have been planted to assist with slope stability. GNS Science Ltd has mapped this as
  likely certainty, probably prehistoric with unknown activity, unknown last movement and low
  sensitivity. A note indicates that a dam has been constructed across landslide debris.
- Landslide B (contained within Area 1) is located towards the north-east extents of Area 1 and is mapped as definite certainty, probably prehistoric with unknown activity, unknown last movement and low sensitivity.
- Landslide C (contained within Area 1) is a small area of the lateral scarp region of a much larger landslide that lies to the north of Area 1. This is mapped as likely certainty, prehistoric with unknown activity, unknown last movement and low sensitivity.

- Landslide D (contained within Area 2) affects Mt Grand Road and also neighbouring
  property, partly coinciding with Area 2. This is mapped as possible certainty, prehistoric, with
  unknown activity, unknown last movement and low sensitivity. Visual inspection confirms
  upslope scarps, downslope debris with ponds and tree plantings, as well as some cracking
  damage to the surface of Mt Grand Road. This may indicate that the landslide is periodically
  active, however it occupies only a small part of Area 2.
- Landslide E (contained within Area 2) is a large landslide feature, with the head area
  coinciding with the western corner of Area 2. The landslide is likely to be formed within
  Burnside Mudstone, a rock type which is known to host several other major landslides in the
  Dunedin area. This landslide is mapped as definite certainty, prehistoric with unknown
  activity, unknown last movement and medium sensitivity.

We do not recommend residential development over the above areas of mapped landslide and a sufficient setback should be nominated (based on detailed subsurface investigations). Provisional setbacks are indicated on Figures 1 and 2 for the purposes of preliminary planning but these may be overly conservative (subject to confirmation by subsurface investigations). Development within these areas may be possible in the future, but would require extensive geotechnical investigations, slope stability analysis and possibly stabilisation works (e.g. deep drainage, significant earthworks).

Part of Area 2 coincides with Burnside Mudstone which is well known for being susceptible to major landslide activity in some settings. Landslide E appears to be hosted by this rock type and care will be required if residential activity is to be established over this rock type. We recommend confirmatory subsurface investigations to more fully evaluate the extents and characteristics of the Burnside Mudstone over the area shown in blue on Figure 2.

Area 2 also contains a geological contact that is well known in the Dunedin area as a source of spring flow and possible triggering of landslide activity, i.e. the contact between low permeability Caversham Sandstone and overlying fractured volcanic rock. Rainwater infiltration through the fractures within the volcanic rock can lead to a perched groundwater table forming on the much less permeable upper surface of the Caversham Sandstone and spring flows often emerge where the stratigraphic contact daylights with the ground surface. We noted extensive areas of wet surficial soils along part of the Abbotts Hill Rd walking track and some areas of clear spring flow defined by growth of sedges etc. Landslide D coincides with this stratigraphic contact and is likely to have been triggered by soil saturation resulting from these types of spring flows. An important design consideration for subdivision in this setting will be to ensure that adequate drainage is in place to prevent saturation of proposed residential subgrades. This can usually be accomplished by capturing and diverting the groundwater flows using deep subsoil cut-off drains.

In general the areas underlain by Dunedin Volcanic Group and Caversham Sandstone are likely to be straightforward for residential development (subject to test pitting investigations) and we note that very few landslides are developed over these rock types on site, with the exception of Landslide D where adverse groundwater conditions are likely at the contact zone only, as discussed above. The areas of the site underlain by Abbotsford Formation and Burnside Mudstone could potentially be more susceptible to slope

GeoSolve Ref: 210116

March 2021

GeoSolve Ref: 210116

March 2021

instability, however we note that most areas of this rock type are on relatively gentle slopes with no apparent indicators of increased vulnerability to landsliding. Large areas of residential activity have already been successfully established on these rock types (e.g. in Abbotsford and Green Island). The Taratu Formation is only mapped over the western extents of Area 1, however as discussed below, this area coincides with underground coal workings and for that reason is unlikely to be suitable for residential land use. The above rock types are likely to be overlain by variable overburden soils that may comprise colluvium, slopewash, loess and some localised ancient landslide debris.

Further investigation of landslide hazard will be required for any subdivision within Areas 1 and 2, however it is notable that the landslide areas are limited in extent and unlikely to widely influence the majority of Areas 1 and 2. Test pitting and trenching is likely to be suitable for further investigations, however some drilling may be required locally.

In addition, the north-eastern extents of Area 1 includes an area of land that is in close proximity to landslides and should be investigated further to ensure that it is suitable for residential use (eastern-most blue are on Figure 1). It should be noted that the exact location of the landslides and any setbacks required should be determined by detailed geotechnical investigations at the subdivision consent stage.

#### Coal Mine Hazard

The property is not shown on the DCC 2GP mapping as lying within any formally defined land stability hazard zone with respect to historic coal mining activity, however general hazard maps provided by DCC show that underground coal mining has previously occurred on a minor area of the property. Compilation of historical mine records and mapping by DSIR (A.R. Mutch 1982) has defined an area of mine workings within Area 1, as shown on Figure C below and Figure 1 (appended). This includes annotation of features such as adits and shafts. Isopach mapping indicates that the main worked coal seam was up to 4 m thick, however there are no obvious data regarding the depth of the workings in this area. Detailed mine maps held by the landowner have been supplied which show that significant underground workings are likely to be present, however geo-referencing has not been carried out at this stage. There is a note that some entrances may lie outside the areas defined.

Areas known to be underlain by underground mine workings can present a hazard of surface subsidence resulting from collapse of voids at depth and crown holes that can propagate to the surface. Collapse of mined voids in such situations could occur under static conditions (e.g. from decay of props and roof support capping timbers) however the risk will likely be greater during earthquake. Any structures could therefore be at risk of damage in this setting and safety concerns could apply if voids are present. It is possible that most mine workings have already collapsed as the mining began in the late 1800s and significant decay of timber supports could be expected since that time. Areas of collapse are often evident as depressions at surface and the soils under these areas can be disturbed by bulking.

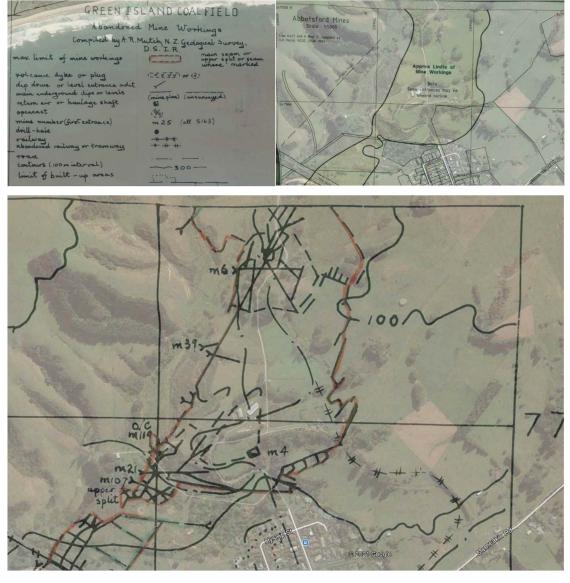


Figure C — Compilation of historical coal mine records by DSIR, 1982 over part of Area 1 including farm sheds and existing dwelling.

Council are likely to be reluctant to grant consent for close residential subdivision in an area where an undefined coal mine subsidence risk has been identified. For unrestricted development without specific foundation design requirements, detailed site drilling would need to be carried out to identify an absence of voids and confirm that unsuitable bulked soils in loose condition are not present. This is unlikely to be fully successful and would in any case be very costly. It may be possible to obtain and research full historical records of the mining activity, however this may not enable reduction of the area currently considered to be underlain by workings. It may however enable the eastern extents of the mined area to be understood in greater detail with definition of a safe building area.

The eastern extents are expected to be deepest and the coal bearing rock type (Taratu Formation) is overlain by Abbotsford Mudstone in this area. Precedent performance appears positive as no subsidence features were noted here. This deeper mined area appears to have no evidence of previous crown hole collapse features based on review of existing and early (1942 and 1947) aerial photography. In addition, the existing dwelling lies within the hazard zone and hence residential activity has previously been considered possible within the overall mined area.

It may therefore be possible to demonstrate that overburden thickness above the coal seam is sufficiently thick to mitigate the potential for crown hole collapses reaching the surface. Crown-hole subsidence is most likely to occur in areas where the coal to overburden thickness ratio is less than 1:10. Based on preliminary assessment of topography and the average dip angle of regional sedimentary bedding, the eastern-most extents of the mined area may be up to 100 m deep assuming that the seam was followed from surface. Assuming a coal seam thickness of 4 m, it is likely that the coal to overburden thickness ratio will be less than 1:10 over much of the coal mine hazard zone and hence high potential for crown hole collapse features at surface is only likely to apply to part of the site. These areas are possibly suitable for residential land use and are provisionally shown on Figure 1 (western blue area), however detailed research of coal mine records, further analysis, cross section preparation and some drilling investigations will be required to fully confirm suitability within this area.

We can provide further detailed investigations and analysis if the area of coal mining is to be considered for residential use.

# Liquefaction Hazard

The site has been mapped in a 2014 liquefaction hazard assessment<sup>1</sup> as belonging to Domain A, which is predominantly underlain by rock or firm sediments; in this domain there is little or no likelihood of damaging liquefaction occurring.

Consequently, no liquefaction hazard is expected to apply to Areas 1 and 2, however full confirmation generally requires some subsurface investigation

#### **Active Fault Hazard**

Dunedin has traditionally been considered to have lower than average seismic activity when compared to other areas in New Zealand, however nearby active faults are known and strong shaking is certain to occur periodically.

Cook et al $^2$  states that the earthquake hazard in Dunedin is dominated by relatively infrequent moderate to large earthquakes (magnitude up to  $M_w$  7.5) in eastern Otago, and

Preliminary Geotechnical Assessment 188 North Taieri Road, Abbotsford, Dunedin

<sup>&</sup>lt;sup>1</sup> Barrell, D.J.A., Glassey, P.J., Cox, S.C., Smith Lyttle, B. (2014). Assessment of liquefaction hazards in the Dunedin City district. GNS Science Consultancy Report 2014/068. 68p.

<sup>&</sup>lt;sup>2</sup> Cook, DRL, McCahon, IF and Yetton, MD (1993). The Earthquake Hazard in Dunedin. Study funded by EQC, Research Project 91/56.

GeoSolve Ref: 210116

March 2021

large to very large earthquakes in the much more seismically active Fiordland and Westland regions.

The nearest active faults with demonstrated Late Quaternary movement history are the Green Island Fault and the Akatore Fault. The Green Island Fault is currently considered to be the cause of the 1974 earthquake that caused damage in Dunedin. It is mapped approximately 7 km to the south of the subject site.

Several faults have been recorded on the ORC Natural Hazards Database as potentially relevant to the subject site, i.e. the Dunstan North Fault, Dunstan South Fault, Alpine Fault and Akatore Fault.

The Dunstan Faults are distant from Dunedin and not expected to constrain residential development at this site.

The Akatore Fault is likely to be capable of generating magnitude 7.5 earthquakes in Dunedin. Published small-scale geological mapping indicates the Akatore Fault is at least 2.5 km to the south of the subject site and hence ground rupture damage is not relevant to this site. The Akatore Fault is indicated as 'active', with results from the latest investigations by GNS Science indicating at least part of the fault last ruptured 742 to 973 years ago. Its mapped (active) fault trace is truncated 11 km southwest of the site and its location at that point is concealed. Its continuation (mapped as inactive) passes approximately 50 m north of the subject site. A recent paleoseismic study of the Akatore fault found that three recent ruptures of this fault occurring in the past 15,000 years (two of which occurred in the past 1,300 years) were preceded by a minimum 110,000 year period of quiescence, suggesting this fault exhibits strong aperiodicity of earthquake occurrence. The authors suggest it is prudent to assume that the relatively high rates of recent fault activity will continue, with an estimated recurrence interval of 450-5110 years.

Other known faults that have some potential to cause strong shaking in Dunedin are the Titri Fault and the North Taieri Fault, located roughly 1.5 km and 7 km northwest of the site, respectively.

Strong ground shaking throughout the South Island is likely to be associated with a rupture of the Alpine Fault, located along the West Coast of South Island. There is a high probability an earthquake with an expected magnitude of over 7.5 will occur along the Alpine Fault within the next 50 years.

Average return periods for shaking intensity are: MM 7 = 100 years, MM 8 = 450 years and MM 9 = 2,500 years. The most recent major earthquake to affect Dunedin occurred in 1974 and produced damage consistent with MM 7 intensity.

A risk of seismic activity has been identified for the region as a whole and appropriate allowance should be made for seismic loading during detailed design of the proposed development, but there are no site-specific constraints.

#### Flood Hazard

Flood hazard assessment is beyond the scope of this report, however we note from the ORC Natural Hazards Database, that there may be some minor flood hazard associated with the lowest lying area of the site, shown in Figure D. A hydrologist can advise further on any mitigation required, however simple adoption of minimum floor levels may be appropriate if required.



Figure D - Potential area of flood hazard.

#### **Previous Land Use Considerations**

We have not carried out a full review of historical land use or LIM reports etc, however we note that parts of the property have been used for various industrial and extractive industry land use.

As described above, part of Area 1 has been utilised for coal mining and a sand quarry was also located elsewhere on the property. A railway line has operated on the property for the purposes of coal and sand extraction. The remains of the railway are visible as a series of cuttings and embankments that cross part of Area 1. Some remnants of sand processing structures are also visible within Area 1. It is likely that some fill has been placed locally as part of these activities and some minor localised slope instability is associated with these fills. These industrial activities are of unknown scale, however, appear to be largely contained within the area underlain by former coal mines.

Area 2 does not appear to have been used for major industrial activity, however we understand from the landowner that a former owner carried out trenching for the purposes of waste burial from freezing works industry. The full extent of the trenching/burial is not confirmed, however these trenches are clearly visible over parts of Area 2 (see Figure 2 appended). The areas indicated on Figure 2 may need earthworks treatment or specific foundation design for residential use.

A water race has also been noted within Area 1.

Consequently, previous land use may result in some localised geotechnical considerations for subdivision design and these can be advised in greater detail following detailed subsurface investigations at the subdivision planning stage.

# Summary of Geotechnical Considerations for Residential Land Use

- We recommend that at least part of the area underlain by former coal workings should be excluded from residential land use as there is a risk of surface subsidence and bulked soils over parts of Area 1. This area is shown provisionally on Figure 1, based on existing hazard mapping, however further research into the mining history may enable refining of the boundary of the workings. It may also be possible that areas of the deepest workings (shown in blue on Figure 1) could potentially be suitable for residential land use, as discussed above. However, further research and investigations will be required to confirm suitable areas. We can provide further detailed investigations and analysis if the area of known coal mining is to be considered further for residential use.
- The areas of the five landslides described above should also be provisionally excluded from residential land use, with adequate setbacks defined. Other minor areas may also be susceptible to slope instability. Such areas are likely to be relatively limited areas but could include steep slopes, fill slopes and setback areas at the toe and crest of the known landslides. These details can be advised further during standard geotechnical investigations at the subdivision stage, when conceptual scheme plans are available. Development within these areas may be possible in the future, but would require extensive geotechnical investigations, slope stability analysis and possibly stabilisation works (e.g. deep drainage, significant earthworks).
- Further research will be required to determine the full extent of soil disturbance from trenching and freezing works offal burial activities within Area 2. The areas of the most obvious trenches indicate that considerable settlement of the backfill has occurred and that the trenches are likely to be underlain by soft uncontrolled fill and organic soil types. Such soils are unsuitable for standard foundations, however if trenching depths are relatively shallow, then it may be possible to remediate the areas with earthworks (cut and fill). Piling of structures may also be possible, however the trenched areas are likely to be prone to ongoing differential settlement which would be generally disruptive to pavements and yard areas. Further investigations will be required to advise on options.
- Groundwater control is likely to be necessary for parts of the site, particularly Area 2
  where there is a geological contact between Caversham Sandstone and overlying
  fractured volcanic rock as discussed above. An important design consideration for
  subdivision in this setting will be to ensure that adequate drainage is in place to
  prevent saturation of proposed downslope residential subgrades. This can usually

GeoSolve Ref: 210116

March 2021

- be accomplished by capturing and diverting the groundwater flows using simple deep subsoil cut-off drains, perhaps directed to existing watercourses.
- Figures 1 and 2 and the discussion above indicates that much of the area being
  considered for rezone is likely to be appropriate for residential land use. The areas
  of landslides and former coal mines will likely need to be specifically excluded from
  residential use (unless demonstrated to be suitable) or otherwise utilised for other
  purposes such as reserves.
- Standard subsurface investigations will be required to confirm geotechnical requirements for any subdivision and residential land use within Areas 1 and 2.
   Specific objectives of these investigations will include investigations to determine appropriate setbacks, further checks to confirm limitations related to coal mines, characterisation of the Burnside Mudstone, determination of the extent of trenching in Area 2 and investigation of groundwater conditions in Area 2.
- Further investigation of landslide hazard will be required for any subdivision within
  Areas 1 and 2, however it is notable that the landslide areas are limited in extent and
  unlikely to widely influence the majority of Areas 1 and 2. Test pitting and trenching
  is likely to be suitable for further investigations, however some drilling may be
  required locally. Geometric design of any future subdivision earthworks should be
  carried out by a land development specialist with consideration of existing
  watercourses.
- Soil contamination inputs are beyond the scope of this report, however industries such as coal mining, quarrying and burial of waste can result in contamination which could be further assessed by environmental engineer.
- We note that there are major Council-owned water services pipes on the property as well as a concrete reservoir. We assume that these can be adequately managed via appropriate easements. Care will be required to ensure that potential leakage from buried pipes is adequately managed to prevent soil saturation and potential instability.

GeoSolve Ref: 210116

March 2021

# **Applicability**

This report has been prepared for the benefit of Wendy Campbell with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement.

We have not carried out any subsurface investigations at this early stage. This report is intended to provide preliminary comment on likely geotechnical issues at the rezoning application phase only.

Yours faithfully,

Malan S

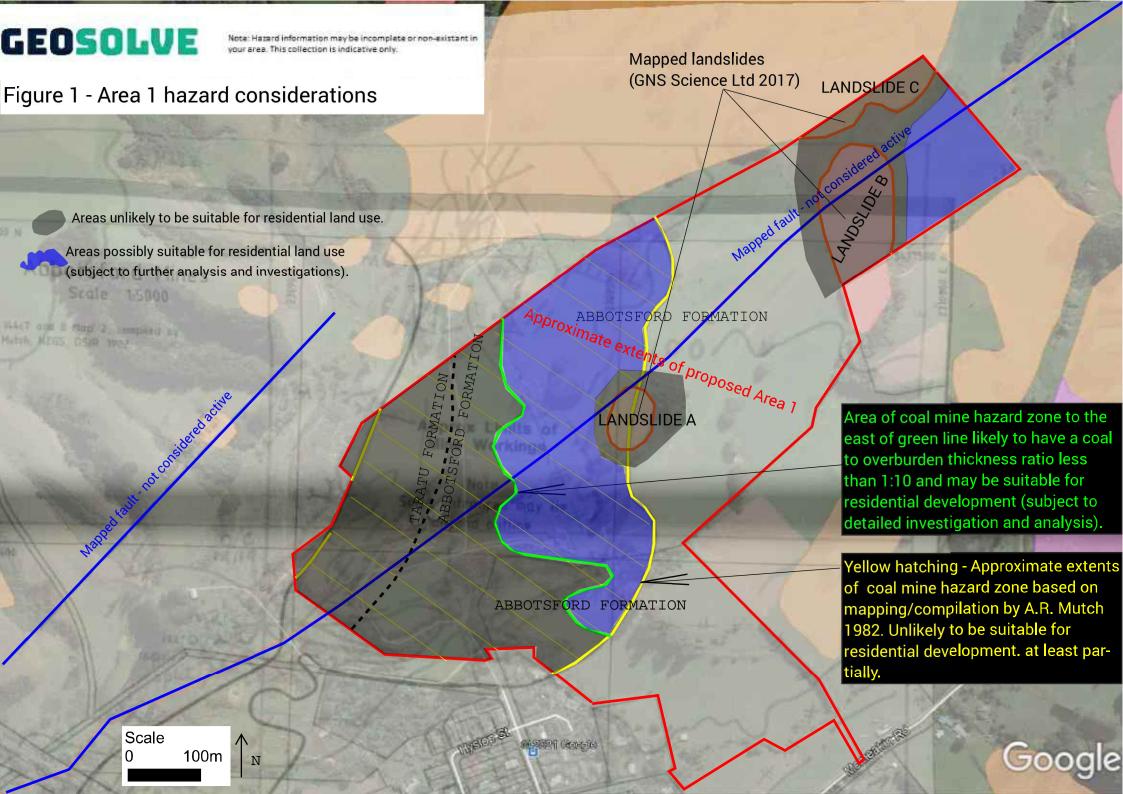
Mark Walrond

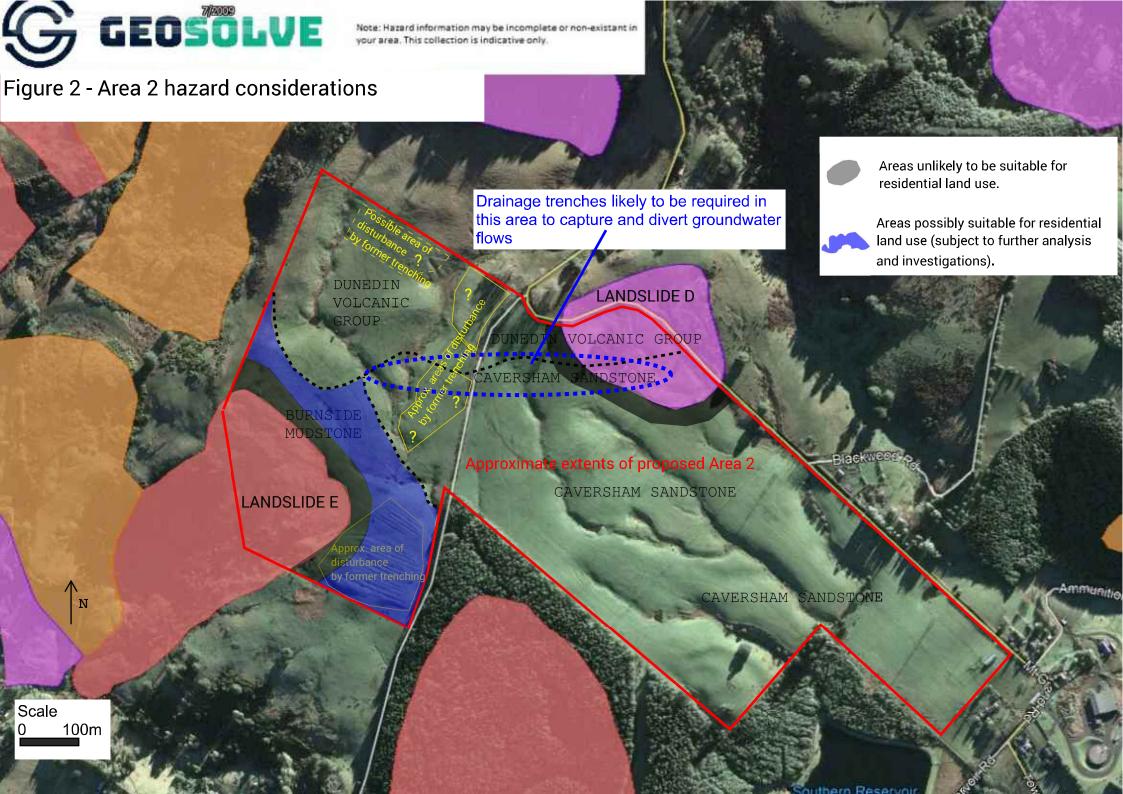
Senior Engineering Geologist

Reviewed for GeoSolve by: Colin Macdiarmid, Senior Geotechnical Engineer

GeoSolve Limited

Appended: Figures 1 and 2





# 2 DECISIONS ON SUBMISSIONS

## 2.1 Broad matters raised in regard to greenfield rezoning

67. We start by discussing several over-arching issues that have relevance to our decisions on rezoning. During the course of Hearing 4 the Panel posed a number of questions of legal counsel and witnesses on these broad issues. Our conclusions on these matters, having considered the legal submissions and expert evidence, provide context to the site-specific decisions outlined later in the decision report.

## 2.1.1 Relationship between the NPS-UD and Variation 2

## 2.1.1.1 Is the intent of Variation 2 to achieve compliance with the NPS-UD?

- 68. We received legal submissions from Mr McLachlan on behalf of *CC Otago Limited* arguing that the purpose of Variation 2 is to achieve compliance with the NPS-UD 2020, in particular to ensure there is at least sufficient housing capacity to meet demand over the short, medium and long terms. This argument was made in the context of disputing the methodology and accuracy of DCC's housing and business capacity assessment (HBA). Mr McLachlan argued that where there is uncertainty or volatility in the capacity provided, we should err on the side of caution and ensure that Variation 2 provides at least sufficient development capacity. Mr Page, for *Gladstone Family Trust*, submitted that Variation 2 is "effectively a response to the housing capacity assessment" and that the NPS-UD Policy 8 obliges councils to take advantage of development opportunities as they arise.
- As Mr Garbett correctly pointed out in his legal submissions in reply, we had considered the purpose of Variation 2 in our decision on scope<sup>2</sup>. Our conclusion in that decision is that Variation 2 is a series of limited plan review topics and proposals, not all of which are concerned with housing capacity or implementing the NPS-UD. We note that our decision on scope was challenged through a section 357 process but was upheld by an independent Commissioner and was not thereafter appealed by any parties to Variation 2. We therefore maintain our view that Variation 2 does not have an overarching purpose of achieving compliance with the NPS-UD. The NPS-UD requires that a strategic approach is taken to growth planning. Variation 2 will provide some 'easy wins' in terms of additional housing capacity, but it is only part of a wider process, including a Future Development Strategy (FDS), that is necessary to give effect to the NPS-UD.
- 70. Mr Garbett argued that it is not the responsibility of the Panel to ensure that all capacity requirements are met through the options available through Variation 2. Instead, our role is to assess the appropriateness, or not, of the particular sites put forward (including sites requested through submissions).
- 71. We agree with Mr Garbett's assessment. In our view, the overall responsibility for compliance with NPS-UD remains with the Council not with this hearings panel which has a narrower mandate. The Variation 2 proposals before us are intended to provide extra housing capacity in identified locations and will contribute to giving effect to the NPS-UD. However, it is not necessary for us to zone sites that we consider do not meet the 2GP's policies (in particular Policy 2.6.2.1) simply to ensure additional capacity is provided.

<sup>&</sup>lt;sup>2</sup> Out of Scope Decision Report, 31 May 2021. <u>Variation-2-Out-of-Scope-Decision-Report-31-May-2021.pdf</u> (<u>dunedin.govt.nz</u>)

#### 2.1.1.2 Does the purpose of NPS need to be met at a township level?

- 72. Related to the above, Mr McLachlan for *CC Otago Limited*, argued that there was a demand for additional housing in Outram, and therefore (by implication) Variation 2 should rezone additional capacity within that settlement. Ms Peters, representing submitters in Outram and Allanton, made a similar argument in relation to Policy 2.6.2.1.a, which is that rezoning is necessary to ensure provision of at least sufficient housing capacity to meet expected demand over the short and medium term. She considered that there is demand for housing in both Allanton and Outram, and therefore the criterion in 2.6.2.1.a is met for requested sites in those locations (that is, capacity should be provided to at least meet demand). Similar arguments were advanced by other submitters in relation to sites at Allanton and Brighton.
- 73. Mr Garbett's view was that the NPS-UD does not require each centre to fully implement the NPS-UD. We understand that to mean that there is no requirement to provide capacity in each individual suburb, settlement or township. Mr Stocker drew our attention to guidance produced by Ministry for the Environment (MfE) on implementing undertaking housing capacity assessments that "local authorities have discretion to choose how locations are identified for clauses 3.24 and 3.25"<sup>3</sup>. He also noted guidance prepared on implementing the NPS-UD clearly states a preference for analysis at a catchment scale<sup>4</sup>. This guidance notes that:

To ensure the analysis remains manageable, it may make sense to aggregate area units into a more general classification of locations, for example, central business district, inner city suburbs, peripheral suburbs and areas with high amenity (such as beachside property). These general categories may be more useful than individual suburbs, given that households are mobile within urban areas and will accept tradeoffs between similar types of suburbs. This will show the revealed preferences of these household sub-groups for different types of housing at different types of locations (such as inner city suburbs or peripheral suburbs), given current market conditions.

- 74. He also noted the Dunedin's Housing and Business Development Capacity Assessment (HBA) was scored highly, in an independent review commissioned by MfE and undertaken by Principal Economics and Urban Economics, for using "rigorous methods to explore the range of demands for types, locations and price points to the extent relevant in the urban market".
- 75. We confirm here that we accept and agree with Mr Stocker's evidence on the requirements of the NPS-UD and Mr Garbett's submission on this matter. We find there is no requirement so ensure that the NPS-UD is given effect to at a fine-grained scale. To do so would be impractical. We are satisfied that the various catchments assessed in the HBA are appropriate for the purposes of giving effect to the NPS-UD. This is corroborated by the independent review of the assessment. Consequently, we find that even if we were to accept that there is demand for additional capacity within a specific township, there is (a) no requirement under the NPS-UD to provide capacity in that township, and (b) no requirement to provide it through Variation 2.

<sup>&</sup>lt;sup>3</sup> Guidance on Housing and Business Development Capacity Assessments (HBAs) under the National Policy Statement on Urban Development (Ministry for the Environment, 2020), page 21

<sup>&</sup>lt;sup>4</sup> National Policy Statement on Urban Development Capacity: Guide on Evidence and Monitoring (Ministry of Business, Innovation and Employment and the Ministry for the Environment, 2017), page 33

## 2.1.1.3 Is the methodology for assessing capacity appropriate?

- 76. As noted above evidence and legal submissions were presented on behalf of submitters seeking rezoning of sites in Outram and Brighton, one aspect being that the HBA was inaccurate. These criticisms are broadly as follows:
  - there is no consideration of the impact of the new rule implemented through this Panel's decisions on an earlier hearing regarding demolition of pre-1940s houses;
  - there were issues with the modelled zoned capacity of sites in relation to (for example) historic rubbish tips, steep slopes, access and encumbrances;
  - disagreement over assumptions used to determine feasible capacity; and
  - the method used to assess realisable capacity (that is, capacity that is reasonably expected to be realised), adds volatility and increases the margin of error on the capacity estimates.

## 2.1.1.4 Impact of demolition rule for 1940s houses

- 77. Our first decision on Variation 2 (intensification) required that proposals for demolition of pre-1940s houses will require resource consent. An assessment must be made of the building, and if it is found to meet the criteria for scheduling of heritage buildings, the application for demolition must be assessed against Policy 13.2.1.7, which is a directive 'avoid' policy.
- 78. Ms Peters gave evidence that this will mean some 1940s houses will now have to be retained and that the consequent reduction in development capacity for these sites was not accounted for within the HBA.
- 79. Since the hearing, the Environment Court has considered an appeal on these provisions that raised the matter of scope. The Court decision is that the submission (and matters raised within) we relied on to add these provisions was beyond the scope of Variation 2 and therefore directed the provisions be removed from the plan. The issue raised by Ms Peters therefore no longer arises, and this will therefore have no impact on the available development capacity.

# 2.1.1.5 Issues with the modelled zoned capacity of sites in relation to site-specific factors

- 80. Ms Peters outlined that, during mediation on 2GP appeals to rezone sites to residential, a finer grained analysis of larger sites (that could provide six or more residential units) revealed issues with various site-specific factors. The implication is that the realisable capacity on some or all of these sites would be lower than modelled. Ms Peters stated that repeated requests had been made of Council staff to obtain site specific capacity data for checking by the submitter's experts; however, this had not been provided.
- 81. Mr Stocker's response was that he had not seen the analysis referred to by Mrs Peters and so couldn't comment on the specific issues raised. He remained confident in the results of the Council's assessment, noting it was supported by the favourable review undertaken on behalf of MfE. As outlined above, the estimate of realisable capacity was described in the review as rigorous, and a 'high' score was given.

- 82. He advised us that site specific data is not made publicly available as this could provide a commercial benefit to those receiving it, and could also potentially breach privacy requirements. He said that property level outputs are not intended for use individually, but are aggregated into suburb (or larger) scale. These aggregated results are considered accurate.
- 83. The Panel considers the favourable review given by MfE to the HBA is a relevant consideration. We also accept Mr Stocker's explanation in relation to the accuracy of model results at a property-specific level, compared to a catchment level, which is their primary use. While Ms Peters has previously identified such discrepancies at a specific property-level, this is to be expected and is not of concern in relation to our reliance on the broader level model results.

# 2.1.1.6 Disagreement over assumptions used in the 2021 HBA to determine feasible capacity

- 84. Mr Osborne, appearing on behalf of *CC Otago Limited*, confirmed he had reviewed the HBA and, while noting that overall the modelling was appropriate and well done, took issue with assumptions used to determine long term housing capacity. In particular, the assumptions made in the 2021 HBA based on Dunedin's long-term projections of annual increases in land values, property improvement values, and construction and development costs significantly increased long-term capacity. Mr Osborne disagreed with the reasoning for making these assumptions, as it relies on house prices increasing in order to increase capacity. This modelling approach is inconsistent with the city's ability to provide for future growth that is both feasible and affordable.
- Mr Stocker disputed that the predicted increase in long-term capacity in the 2021 HBA was primarily due to the use of long-term economic trends, as he considered other factors are also significant. He said that 77% of the predicted long-term capacity is currently feasible, and does not rely on future economic trends such as house price changes. In addition, long term trends, such as an increase in house prices, were conservative compared to the higher house price increases over recent years (between 1996 and 2019). He further noted that these assumptions are only applied to long-term capacity, which is not required to be provided in the District Plan under the NPS-UD.
- We accept Mr Stocker's explanation as to the use of long-term projections in determining capacity over the long-term, and importantly, agree that capacity over this period is not required to be provided in the District Plan, and is a more relevant consideration to the development of an FDS. If the assumptions in the HBA are wrong in relation to long-term capacity, this will have no impact on what must be provided. We also note our discussion above, that the purpose of Variation 2 is not to fully implement the NPS-UD, rather it is only one part of its implementation.

## 2.1.1.7 Assessment of realisable capacity

- 87. Mr Osborne challenged the estimation of feasible capacity in the HBA as it relies on only two years of data. He said that this adds additional volatility into the capacity estimates, and that assuming a take-up rate that is 20% lower than that modelled would result in a feasible capacity of 1800 fewer dwellings over the long term.
- 88. Mr Stocker emphasised that the 2022 update to the HBA had revised the annual probability for development (i.e. the take up rates). Whilst he acknowledged the uncertainty of using

- only two years' worth of data, he also noted that take up rates could increase as well as decrease, and that over the medium term, this is likely to average out. He explained take up will continue to be monitored and used to inform future HBAs.
- 89. While we acknowledge Mr Osborne's concerns the Panel is satisfied with and accepts Mr Stocker's responses. Overall we consider the assessment of realisable capacity is adequate and can be relied upon for the purpose of determining the planning response in Variation 2.

# 2.1.2 Assessment against Policy 2.6.2.1

## 2.1.2.1 A broad judgement or meeting a majority of criteria?

- 90. Policy 2.6.2.1 outlines the criteria for rezoning sites to residential, against which all residential rezoning are to be assessed.
- 91. A number of submitters discussed the assessment of sites against Policy 2.6.2.1, and discussion arose in relation to whether all of the criteria within the policy must be met, and whether there was a hierarchy. For example, Mr Page, counsel for Gladstone Family Trust, noted that:

"It is not realistic to expect all criteria to be met in every site and no hierarchy is set out in the criteria. What is required is a balancing exercise by the Panel."

- 92. A similar view was expressed by Ms Peters. While there appeared to be general agreement that we must consider and weigh up all criteria, we enquired at the hearing whether there were any 'knock-out' criteria that must always be met for zoning to occur.
- 93. Ms Christmas addressed this matter in her evidence in reply, noting that Policy 2.6.2.1 draws together relevant (usually strategic) objectives that must be considered, and that the policy does not require that 'a majority' of the criteria must be met. The wording of the policy is:

'Identify areas for residential zoning based on the following criteria...'

- 94. Her evidence was that the various criteria in Policy 2.6.2.1 sit under the over-riding approach outlined in Objective 2.6.1, which is to zone land 'in the most appropriate locations' while 'sustainably managing urban expansion in a way that maintains a compact city with resilient townships'.
- 95. Ms Christmas considered that the weight given to the various criteria referenced within Policy 2.6.2.1(d) must be considered in the context of the situation. She agreed with Mr Garbett's legal submissions that a relevant consideration is how directive the wording of the objectives and policies that are referenced in Policy 2.6.2.1 is. However, she also considered that some criteria should generally be given strong weight for other reasons. For example, she argued that significant weight should be given to the effective and efficient provision of infrastructure, due to its emphasis in the NPS-UD, which directs that that capacity must be assessed in terms of the degree to which it is infrastructure ready. Furthermore, if 3 waters servicing is not available or managed ineffectively, significant environmental and health and safety issues can result.
- 96. Ms Christmas also considered management of natural hazards should also be given significant weight due to the implications for health and safety and because most natural hazards are predicted to worsen over time due to climate change.

- 97. Finally, she considered that compact city and resilient townships criteria are particularly important due the 'overall urban form outcome' in the Spatial Plan, its alignment with Policy 1 clauses (c) and (e) of the NPS-UD, and the overall 'direction of travel' in national direction in terms of intensification of existing urban areas, and the increasing concern and need to reduce carbon emissions and prepare for climate change.
- 98. Ms Christmas' evidence was that a broad judgement approach should be taken, but there should be an expectation of an overall positive alignment with the Plan's strategic objectives.
- 99. We agree that a broad judgement approach should be taken. However, we consider that some criteria will in most or many cases be more critical than others, for example the provision of infrastructure. Our finding is that each assessment must consider relevant site factors, and so the specific assessment (in terms of what is given most weight) may vary from site to site. We have reflected this in our individual site conclusions below.

# 2.1.2.2 Question over whether some criteria should be or have been treated as 'knock-out' criteria?

- 100. On a related topic, we also observed at the hearing that, for some site assessments carried out by the reporting officers, the initial assessment of some of the rejected sites appeared incomplete and appeared to stop after some 'knock out' criteria were assessed as not being met. We asked the reporting officers to confirm if that was the case.
- 101. In her Reply Report, Ms Christmas provided some context by explaining the process by which Variation 2 had evolved. The greenfields part of the investigation for Variation 2 involved an initial 'traffic light' assessment of the entire city, where areas were scored at a high level on a range of criteria reflecting the criteria in Policy 2.6.2.1 (for example distance from centres, presence of a significant landscape overlay). However, DCC also sought suggestions for suitable sites from the development community, particularly planners, developers and surveyors.
- 102. These suggested sites were first subject to a high level 'screening' level of assessment against a few key criteria (for example hazard risk, known infrastructure issues, known significant landscape or biodiversity values). If sites did not pass these screening criteria they were rejected. In addition to the key criteria, a further key consideration was that the site would provide a reasonable return in terms of additional housing capacity (e.g. rural residential proposals were discarded).
- 103. Ms Christmas noted that use of key criteria to screen a large set of options is a pragmatic approach in order to focus time and resources on sites that are most likely to be appropriate, given the time and cost involved in undertaking a comprehensive assessment. She noted that for many plan changes, options that are rejected at a screening stage are not included as alternative options for the purposes of a section 32 evaluation. However, in the case of Variation 2, even sites that were rejected through the screening stage (and by virtue of that, not subject to a comprehensive assessment) were included in the section 32 report and were therefore open to submissions.
- 104. We consider that process was appropriate, but re-iterate our conclusions on the previous topic, i.e. that a broad judgement approach should be taken but some criteria will in most or many cases be more critical than others.

## 2.1.2.3 What factors make a compact city?

105. Policy 2.6.2.1.d.xi, which is concerned with maintaining a compact city and resilient townships, references Objective 2.2.4. This states that:

Dunedin stays a compact and accessible city with resilient townships based on sustainably managed urban expansion. Urban expansion only occurs if required and in the most appropriate form and locations.

- 106. Mr Morrissey, in his section 42A report, noted in relation to a number of sites that this policy was not met as they were disconnected from existing residential zoned land. Evidence was provided by Ms Peters in relation to one of these sites (RS212) that disconnection from residentially zoned land does not provide sufficient reason not to rezone a site, as the 'gap' might ultimately be rezoned as residential. We were not convinced by that argument as to the theoretical location of new development in un-zoned areas. We also note that the compact city objective was not addressed properly, or at all, by submitters for the majority of requested sites. The issue also arose in relation to site GF01 (Scroggs Hill), where we questioned whether this site met the compact city objective, and how should that be assessed.
- 107. In her evidence in reply, Ms Christmas noted that the term 'compact city' comes from the Spatial Plan, which was undertaken, in part, to guide the development of the 2GP. A 'compact and accessible city' is described as one that supports public transport and active transport modes due to its density, diversity and distribution of land use, and the design of its built form. She noted this was consistent with Policy 1(c) of the NPS-UD, which identifies well-functioning urban environments as including (amongst other things) good accessibility between housing, jobs and community services.
- 108. Ms Christmas considered that a determination of sustainably managed urban expansion involves consideration of the ability to walk and use public transport to access services and amenities. Zoning decisions that achieve this will focus on land close to centres, other community facilities and services and public transport routes, and minimise walking times where possible, and will provide for efficient land development (as outlined in Policy 2.2.4.1). This compact urban form provides multiple benefits, including providing for efficient provision of infrastructure, minimising vehicle use (and therefore reducing traffic and carbon emissions), and can also contribute to reducing loss of productive rural land, rural amenity, biodiversity and significant natural values.
- 109. While not addressing whether new residentially zoned areas must be connected to existing zoned areas, she did note that in her view a compact city would not be achieved by zoning patches of residential development, and in particular large lot development (as addressed further in section 2.1.4 of this decision report), that are disconnected from existing urban centres. Her evidence was that this development pattern (represented, for example, by sites RS109 and RS212 at Riccarton Road East, and RS157 at Blackhead Road) does not meet this objective.
- 110. We acknowledge the significance of this policy criterion, given its importance for providing well-functioning urban centres, as outlined in the NPS-UD, and with consideration for climate change and the need to manage carbon emissions.
- 111. Consequently, we agree that new residential land should provide for efficient land use (as outlined in Policy 2.2.4.1), and provide for walking and cycling transport options. In general,

we are of the view that this necessitates that new zoned land adjoining existing zoning. However, we acknowledge there may be circumstances where a compact city form may be attained without this always being met, if for example an area for growth is identified in a strategic planning document (FDS) and development occurs out of sequence but otherwise can be supported by planned infrastructure.

112. We have taken this approach in our decisions below, in many cases rejecting those sites that do not reflect this outcome, including those proposed for large lot zoning where there is no strong reason for this (noting the criteria in Policy 2.2.4.1), and those isolated and disconnected or with poor access to existing centres.

## 2.1.2.4 Consideration of resilient townships

- 113. Submitters in relation to sites at Outram, Allanton and Brighton were critical of the approach taken in assessing sites against Policy 2.6.2.1.d.xi. They argued that a 'Dunedin-centric' approach had been taken and that the 'resilient townships' aspect of the policy had been overlooked. This argument was particularly advanced by Ms Peters, and also in legal submissions by Mr McLachlan for *CC Otago Limited*. Mr McLachlan's submissions focussed on Outram, which he argued is a rural centre as identified on the 2GP planning maps. He argued that housing is encouraged in rural centres under Policy 2.2.4.2. He did note that where development is not proposed in the 'centre' there is a greater policy hurdle to overcome in relation to providing for increased development.
- 114. Mr McLachlan also addressed the relevance of the Spatial Plan in regard to determining where growth should occur, arguing that this is an outdated document, pre-dating the 2GP and the NPS-UD and that little weight should be placed on it.
- 115. Ms Peters noted that Dunedin is primarily a rural district, and that rural townships are required to provide housing for those who work in these areas. She said this was supported by the evidence of Mr Osborne on travel trends of those living with the Momona Statistical Area 2 (which includes Outram). This shows that 40% of people living within SA2 stay within it for work or study, and a further 22% commute to Mosgiel. Mr Osborne noted that given the higher proportion of retired residents in Outram relative to the wider Momona area, the travel data may overstate the travel trends for Outram specifically. Almost one third of Outram's workforce travels to Dunedin for employment. In summary, Ms Peters considered that growth must be provided for in townships to support rural areas.
- 116. With respect to the sites proposed at Outram, Ms Christmas noted that assessment against Objective 2.2.4 reflected the focus on the transport-related aspects of maintaining a compact city (and a 'well-functioning urban environment'). She noted that development in this location is further from the main sources of work and high schools at Dunedin and Mosgiel, and currently cannot access public transport, meaning more housing in this location will result in additional traffic and related carbon emissions.
- 117. However, she acknowledged that little attention has been given in the assessments to whether resilience of the various townships may be maintained or improved by allowing further development. This was due to the inherent difficulty in demonstrating how change may maintain or improve resilience (except in its meaning in relation to natural hazards).
- 118. She noted that townships are not defined or identified in the 2GP, however the Introduction to Section 15 Residential Zones states:

#### 5.1.1.7 Township and Settlement

The Township and Settlement Zone applies to areas beyond the main urban areas of Dunedin and Mosgiel and includes areas that were once independent settlements, such as Port Chalmers and Portobello. It includes larger residential townships supported by a commercial centre and smaller residential settlements that are not attached to a commercial centre. ...

#### 119. The Spatial Plan defines townships as:

Townships – are the outlying residential settlements that have a centre and a range of community facilities and services. Townships include Mosgiel, Waikouaiti, Port Chalmers, Waitati, Middlemarch, Outram, Brighton, and Portobello.

- 120. On this basis, she concluded that Brighton and Outram (which both have commercial centre zones) are townships, but that Allanton is not a township.
- 121. She also noted that 'resilience' is also not defined in the 2GP, but may include factors such as community and commercial services to support residents, having sufficient business land and activity to provide employment (and services) for residents, and avoiding hazards or having sufficient land available for people to move away from hazards.
- 122. In her view resilience, and the factors necessary to maintain it, is difficult to determine and an increase in population may not directly lead to an increase in resilience. She noted that no evidence was presented by submitters that additional zoned capacity is required to maintain or achieve resilient townships.
- 123. Her evidence was that the FDS process is the most appropriate means to determine whether additional housing or business land capacity is needed to maintain or improve resilience.
- 124. We agree that the resilience of townships is an important aspect of Policy 2.6.2.1.d.xi, but note that we did not receive any substantive evidence that would support, or refute, the need for additional housing capacity to achieve or maintain resilience. In the absence of this, we cannot conclude that this is a reason that should be determinative, or be given significant weight, in providing additional capacity in locations that do not meet other important criteria for assessment. This is reflected in our decisions on individual sites below. We note the evidence that this matter will be further addressed through the FDS process, currently underway.
- 125. We further agree with Ms Christmas that Allanton is not a township as identified through the relevant planning documents, including in the Spatial Plan. This aspect of 2.6.2.1.dxi therefore does not apply.

## 2.1.3 Is residential zoning appropriate in an SNL?

- 126. Several submitters sought residential zoning for sites that are affected by a mapped Significant Natural Landscape (SNL) or Outstanding Natural Landscape (ONL) overlay zone, including RS161, RS165, RS168, RS206 and an extension to GF11.
- 127. The appropriateness of zoning these residential was addressed in the section 42A report at 4.3, where Mr Morrissey noted that a key attribute of such areas is naturalness and that urban use is incompatible with this. He highlighted Policy 2.6.2.1.d.iv, which states:

"Achieving [protection of ONLs and SNLs] includes generally avoiding the application of new residential zoning in ONF, ONL and SNL overlay zone."

- 128. We heard legal submissions and evidence on this in relation to a number of sites. Mr Page, for *Fletcher Glass*, submitted that the 2GP provisions in Section 10 Natural Environment, and the overriding strategic provision, Objective 2.4.4 and policies 2.4.4.1 and 2.4.4.2, apply in all zones, and they therefore provide protection of these values if a site is zoned residential. He argued that the 2GP contemplates management of SNL values in relation to development through design controls, and that (in the case of the North Road/Watts Road site for example RS206/RS206a/RS077) effects on the SNL can be managed through controls on built form and vegetation.
- 129. Ms Peters, in evidence relating to site RS151 (147 St Leonards Drive), noted that in her assessment the term 'generally avoid' in Policy 2.6.2.1.d.iv is not a total prohibition on residential zoning in a landscape overlay, instead it implies that in certain, perhaps very limited, circumstances, it can be applied.
- 130. A similar argument was made by Mr Bowen in relation to site RS161 (210 Signal Hill Road). His view was that carefully considered applications, particularly where are significant positive effects, may not be contrary to this policy.
- 131. The Panel acknowledges that the 'generally avoid' policy framework means there is not a blanket prohibition on development within areas affected by these overlays. However we consider it sets a very high bar and requires a considerable level of assessment to establish that a particular proposal will not conflict with this fairy strong policy. We also note that some sites had only a small portion affected by an SNL. Mr Morrissey's evidence was that the SNL overlay could be removed where it overlapped with the proposed residential rezoning. We discuss these situations in relation to those specific sites later in this decision.

#### 2.1.4 When is large lot residential zoning appropriate?

- 132. Submissions on a number of sites requested that they are zoned to Large Lot Residential, rather than General Residential 1 or Township and Settlement zoning. In addition, in response to issues raised by submitters or in the section 42A report, some landowners sought that their site be zoned to a less dense zoning than originally requested, usually Large Lot Residential 1 or 2 rather than General Residential 1. As we understand the submissions and evidence, this approach was generally to avoid or address concerns on matters raised in the section 42A report such as effects on provision of 3 waters infrastructure, landscape values, rural amenity, neighbouring properties and traffic volumes, by reducing the overall development potential of each site.
- 133. While we understand the rationale for this approach, this focusses our attention on Policy 2.2.4.1, which is to:

Prioritise the efficient use of existing urban land over urban expansion by: ...

b. ensuring that land is used efficiently and zoned at a standard or medium density (General Residential 1, General Residential 2, Inner City Residential, Low Density, or Township and Settlement), except if: hazards; slope; the need for on-site stormwater storage; the need to protect important biodiversity, water bodies, landscape or natural character values; or other factors make a standard density of residential development inappropriate; in which case, a

large lot zoning or a **structure plan mapped area** should be used as appropriate.

- 134. Ms Christmas, in her evidence in reply, addressed the use of Large Lot zoning for the purposes of on-site servicing where 3 waters servicing is not available. She noted that the need for on-site servicing is not a reason listed in Policy 2.2.4.1 to make provision for Large Lot zoning. Instead, a Residential Transition Overlay zone could be applied, with residential use at an appropriate density once servicing is available. Ms Christmas also raised the concern that Large Lot zoning is not an efficient use of the land if it can potentially support denser development in the future. Rezoning to Large Lot potentially locks in an inefficient development pattern that prohibits intensification or upzoning in the future.
- 135. While we address the site-specific issues raised in relation to each site below, our general view is that, through Variation 2, General Residential 1 density is preferred and that strong (on-going) reasons are necessary to justify a less dense zoning. Where GR1 is not possible now but may be possible in the future (for example due to servicing constraints), our view is that Large Lot Residential zoning is not appropriate, as an interim approach. This is due to the difficulties of ensuring that denser zoning occurs in the future. We think there is too much risk that once an area is developed, intensification will be slow or challenging to implement (in terms of upgrading or adding infrastructure that would be needed for the future density). We agree it is far better to design and develop an area at the higher density from the beginning.
- 136. We note that Ms Christmas recommended that an RTZ overlay could be applied to land that has been assessed as appropriate to zone for residential land but where programmed infrastructure upgrades are not yet available. In general this is preferable to implementing Large Lot Residential zoning as part of Variation 2.

## 2.1.5 Is there an expectation that rural-zoned land should be productive?

- 137. Several submitters made the case that their rural land was not providing an economic return, and therefore residential zoning was a more appropriate zoning. We note, for the most part, this information was an ecdotal and not supported by economic evidence.
- 138. Ms Christmas addressed this in her Reply Report, advising that the principal functions of the rural environment are both to provide for productive rural activities and to provide ecosystem services. There is no expectation that all rural zoned land will achieve an economic return sufficient to provide a sole income for one or more landowners, and many small rural properties only provide supplementary income.
- 139. However, these properties may still be important collectively for the overall rural economy, for example by growing feed sources for more intensive farming operations or supporting contractors that service small rural food producers. Some rural land may have no economic return but may provide invaluable ecosystems services or act to protect values important to communities (for example outstanding or significant modified pastoral landscapes).
- 140. We agree with Ms Christmas' assessment and do not consider that current low productivity or lack of adequate economic return is sufficient reason to rezone a site to residential especially where the evidence is that other key criteria for rezoning are not able to be achieved.

# 2.1.6 Are urban design controls appropriate?

- 141. We received evidence on several requested sites for residential zoning on the basis that adverse visual and rural character effects could be mitigated by urban design controls, such as height limits, green space and reflectivity of cladding and roofs. Evidence on this basis was received from Mr Forsyth, landscape expert, for a number of submitters and was also addressed by Mr McKinlay for DCC. Urban design controls were also requested by submitters or further submitters, often nearby landowners and residents.
- 142. This matter was addressed both in the section 42A report and by Ms Christmas in reply. Mr Morrissey noted that the 2GP does not currently provide for additional design controls within residential areas. His view was that in general such controls are not appropriate as they tend to focus on preserving the amenity of a small number of neighbours. He suggested that if zoning is dependent upon these controls to protect wider landscape amenity values, a decision must be made up front as to whether it is appropriate to rezone these areas. He also noted that if we were to include such controls they would need to be supported by additional policy and assessment guidance being added to the Plan provisions and that work had not been done.
- 143. Ms Christmas agreed with that evidence and further noted that a section 32 assessment must consider the administrative costs of such provisions, including enforcement, compared to the benefits. These administrative costs are partly ratepayer funded. Where the benefit is localised to a small number of neighbours, it is unlikely to exceed the costs, and is an inefficient approach to management.
- 144. We have reflected on the evidence of the reporting officers, and record that we agree with it in principle. As a general proposition, if an area is to be rezoned for residential development, the effects should be such that bespoke types of urban design controls will not be necessary. We have applied this reasoning when considering individual sites.

# 2.1.7 Impacts of urbanisation and pets on wildlife

- 145. A number of submitters on various greenfield sites raised concerns that an increase in residential activity would result in an increase in pets (most notably cats), which would have a negative impact on indigenous fauna in the area. Submitters also raised broader concerns relating to the impacts of urbanisation, including loss of green space, impacts to indigenous flora and fauna, and effects development could have on various community groups working to protect and enhance biodiversity. Several of these submitters were focussed on development in Dunedin's North East Valley.
- 146. We received evidence on this matter from Mr Kelvin Lloyd, Wildland Consultants, as part of the section 42A report. Mr Lloyd's evidence agreed that increased residential development could increase the density of cats, and therefore predation on and disturbance of indigenous fauna. Mr Lloyd recommended that consideration could be given to prohibiting keeping cats on future residences within the sites, or allowing cats only in secure areas that do not allow roaming.
- 147. In his opening statement, Mr Morrissey discussed this matter further. He noted that while it would be theoretically possible to include rules preventing or managing pets within a residential area, there is no existing policy framework in the 2GP to manage this. He noted that the majority of Council rules relating to pets across the country are implemented by bylaws. He also noted that some new subdivisions around the country have banned cats by

way of a consent notice on titles. Mr Morrissey advised that if we did wish to restrict pet ownership in greenfield areas, we would need to be satisfied that such a measure achieved section 32 of the RMA. Section 32 requires us to assess various options to ensure that the proposal is the most appropriate method to achieve the plan's objectives. The relevant Objective is 2.2.3 - protection of significant biodiversity.

- 148. After considering the advice received on this matter, we do not consider it appropriate to apply restrictions on pet or cat ownership in any of the greenfield sites through this variation. This would be out of step with management in existing zoned areas, and with no clear reason to have differing management regimes within urbanised parts of the City.
- 149. If DCC wish to consider restrictions on pet ownership, this is a matter that would best be addressed through a dedicated regulation review (considering both bylaw and plan method options) that involves appropriate community consultation and cost-benefit analysis.

# 2.2 Broad submissions on greenfield rezoning

150. This section of the report deals with the broad submissions, which are addressed in section 5.1 of the section 42A report for Hearing 4.

# 2.2.1 Submissions regarding structure plan mapped area vegetation clearance rules

- 151. This section addresses the submissions covered in section 5.1.1 of the section 42A report.
- 152. The *Dunedin City Council (S187.029, S187.030, S187.031)* sought to amend Change GF08 (Main South Road), Change GF10 (Honeystone Street) and RTZ2 (Selwyn Street) to amend the proposed vegetation clearance rules in the following structure plan mapped area performance standards:
  - Rule 15.8.AB for GF08;
  - Rule 15.8.AA for GF10; and
  - Rule 15.8.AC for RTZ2.
- 153. The amendments proposed are to remove the exception relating to the maintenance of fences for all three structure plans, and to amend the wording for GF08 and GF10 so that protection applies to all vegetation within 5m of water bodies and not just indigenous vegetation. The changes proposed are to improve clarity, promote consistency with similar provisions in the rest of the plan and correct errors in the proposed drafting.
- 154. The *ORC (FS184.535)* opposed the *DCC (S187.031)* submission and sought not to amend Change RTZ2 because it considered that the proposed stormwater management provisions of Variation 2 are not appropriate for the Lindsay Creek catchment.
- 155. *Tim Hyland (FS241.3)* supported *the DCC (S187.031)* submission as he considered that changes to Rule 15.8.AC would better protect biodiversity.
- 156. In the section 42A report, Mr Morrissey considered that the amendments proposed by the DCC will result in clearer and more appropriate vegetation clearance rules. He recommended that, if changes GF08, GF10, and RTZ2 are adopted, the amendments proposed should also be adopted.

#### 2.2.1.1 Decision and reasons

- 157. For the reasons given by the Reporting Officer, we accept the submissions by the *Dunedin City Council (\$187.029, \$187.030)* to amend the vegetation clearance rules in the following structure plan mapped area performance standards: Rule 15.8 AB for GF08 and Rule 15.8 AA for GF10. These changes are shown in Appendix 1 with the reference 'Change GF08/ \$187.029' and Change GF10/\$187.030' respectively.
- 158. We reject the submission by the *Dunedin City Council (\$187.031)* to amend the proposed vegetation clearance rules in the structure plan mapped area performance standards for RTZ2 (Rule 15.8.AC), as our decision is not to rezone RTZ2 (see section 2.3.11.2).

# 2.2.2 General submissions on greenfield rezoning

- 159. This section addresses the submissions covered in section 5.1.2 and 5.1.3 of the section 42A report.
- 160. A number of submissions were received in general support of the greenfield rezoning aspects of Variation 2. For example, *Mark Geddes (S128.011)* supported rezoning greenfield areas to General Residential 1, *Waka Kotahi (NZ Transport Agency)* generally submitted in favour of Variation 2 and *Bill Morrison (S13.001)* also generally sought to retain all changes made in Variation 2. We note that the *ORC* opposed in part the majority of these original submissions, unless the amendments sought in the *ORC* submission were made. The *ORC* submission covered a broad range of topics, but in relation to the greenfield rezoning sites generally raised concerns relating to water quality, wastewater management, stormwater management, and hazards.
- 161. A number of submissions were received that opposed all new greenfield zoning for a variety of reasons. For example, *Ken Barton (S23.001)* submitted to remove all changes which extend residential zoning over greenfield land.
- 162. Other submissions were received (e.g. *Liz Angelo (S176.001)*) that supported the notified greenfield sites provided a number of criteria are met. We note that the *ORC* supported some of these submissions in part.
- 163. We note that none of the submitters appeared at the hearing to present evidence specifically on these broad submissions. However, we acknowledge these broad submissions and the arguments made by these submitters, which have been considered in our decisions on individual sites.

#### 2.2.3 Application of NDMAs and associated infrastructure controls

164. This section addresses the submissions covered in section 5.1.4 of the section 42A report.

## 2.2.3.1 Submissions to remove the NDMA from greenfield rezoning sites

165. Paterson Pitts Group (S206.013), Terramark Limited (S220.004), Survey & Spatial New Zealand (STSNZ) Coastal Otago Branch (S282.012), and Kurt Bowen (S300.006) sought that the new development mapped area be removed from all greenfield rezoning sites or, if not removed, amendments are made to require the DCC to undertake a complete infrastructure modelling programme and change the new development mapped area provisions to specifically address identified constraints. These submissions were all opposed in part by the

- ORC (FS184) as it considered the relief sought conflicted with the ORC's submission on the stormwater provision changes in Variation 2.
- 166. A large number of submitters sought to remove the infrastructure controls from all new greenfield areas, until the stormwater management plan provisions can be amended into a workable arrangement. These submissions were opposed also by the ORC (FS184).
- 167. A decision on the infrastructure aspects of the new development mapped area provisions with respect to stormwater was covered in Part C.4.4 of our first decision. Additionally, a decision on submission points that sought the removal of new development mapped areas from existing residential land was made in part C.4.9 of our first decision. These requests were rejected as we did not consider that the new development mapped area provisions were a significant hurdle for developers to overcome and were necessary to address potential environmental effects and achieve the 2GP's objectives.

#### 2.2.3.1.1 Decision and reasons

- 168. We accept the reasoning in the section 42A report on this broad matter and accordingly reject the submissions that sought the removal of the new development mapped area requirements from greenfield areas. We agree that the NDMA provisions are appropriate to ensure that design and layout of subdivisions is undertaken appropriately and will achieve the Plan's strategic directions. In particular, the policies and assessment matters in relation to stormwater management that apply in NDMA areas, will ensure that stormwater is appropriately managed. This approach is consistent with our decision in part C.4.9 of our first decision.
- 169. We note that a number of submissions to remove NDMAs from specific sites were also received. Our decisions on those submissions are outlined in the individual site-specific sections of this decision.

#### 2.2.3.2 Submission to add an NDMA to new greenfield residential rezoning sites

- 170. The *DCC (S187.017)* sought to apply a new development mapped area to any greenfield residential rezoning site added to the 2GP since notification of Variation 2 through the resolution of rezoning appeals.
- 171. The submission sought to ensure that all new greenfield areas are treated in a similar way and appropriate management of effects occurs. Some rezoning appeals were settled prior to us making decisions on the new development mapped area provisions, and so application of a new development mapped area was not possible.
- 172. This submission was opposed by the ORC (FS184.546).
- 173. Mr Morrissey provided a list of sites which had been rezoned since notification of the 2GP in the section 42A report. This was updated in Appendix 2 of his Reply, and consequential changes that may be required to the existing structure plans for some of the appeal sites should the *DCC* submission be accepted, were noted. These amendments were to delete provisions relating to stormwater management, and were recommended to ensure there is no duplication between the existing structure plan provisions and the new development mapped area provisions.

- 174. The final list of appeal sites Mr Morrissey recommended a new development mapped area be applied to were:
  - 49 and 55A Riccarton Road East, East Taieri;
  - 27 Inglis Street and Part 58 Ayr Street, Mosgiel;
  - Part 636 North Road, Dunedin;
  - 457 Highcliff Road, Dunedin;
  - Part 135/145 Doctors Point Road, Waitati; and
  - 41 Soper Road and 20-21 Henderson Street.

#### 2.2.3.2.1 Decision and reasons

- 175. We accept the submission from the *DCC (S187.017)* and apply an NDMA to the sites above. In making this decision, we note that we were concerned at the broad nature of the DCC submission which taken literally would apply to unspecified sites. We requested prior to the commencement of Hearing 4, as part of Minute 12, that DCC might like to address us on the legal ramifications of that submission. Mr Garbett, counsel for DCC, considered that it is necessary to specify to which sites the submission applies, and we note that Mr Morrissey had since provided a list of sites as set out above. We accept Mr Garbett's advice that in terms of jurisdiction it is appropriate and valid to consider the merits of this submission as it relates to those sites. Consequently, we have applied an NDMA to the sites listed above.
- 176. We also note that as a consequential change, we have included these sites in Appendix 12C. This lists all sites to which an NDMA applies and was included in the Plan through our first decision on Variation 2.
- 177. In relation to Mr Morrissey's consequential changes, we are concerned that removing the structure plan provisions from the sites suggested might mean that, should an appeal be received on the application of the NDMA, these sites may have no appropriate rules in place until the appeal is resolved. Therefore, our decision is not to remove this content from the structure plans. We are satisfied that the structure plan rules identified, and the NDMA provisions, are not in conflict. We are therefore satisfied that this will not create any issues when subdivision and development consents are applied for.
- 178. These changes are shown in Appendix 2 with the reference 'Change NDMA/S187.017'.

# 2.2.4 3 waters infrastructure availability

- 179. This section addresses the submission covered in section 5.1.5 of the section 42A report.
- 180. Cameron Grindlay (S60.005) submitted in support of Variation 2, subject to 3 waters infrastructure being adequately funded so that it is able to support existing and new development. This submission was opposed by the ORC (FS184.101).
- 181. Mr Morrissey recommended accepting the submission from *Mr Grindlay*, as he advised that 3 waters servicing has been considered as part of assessing a site's suitability for rezoning. He also noted that the 10 year plan includes funding for all costs associated with extending 3 waters servicing to the sites notified for rezoning in the section 32 report, and the majority of funding required for existing network upgrades across the city.

#### 2.2.4.1 Decision and reasons

182. We accept in part the submission by *Cameron Grindlay (S60.005)*. We acknowledge Mr Morrissey's evidence that 3 waters servicing has been considered as part of assessing a site's suitability for rezoning and that budgetary provision has apparently been made to extend 3 waters servicing the sites notified (with the 'majority' of funding required for existing network upgrades). We do not consider this submission can be wholly accepted because the Panel can make no decisions as to Council funding of public infrastructure.

## 2.2.5 Public transport and roading network

- 183. This section addresses the submissions covered in section 5.1.6 of the section 42A report.
- 184. Peter Dowden (S122.004) and the Bus Users Support Group Otepoti/Te Roopu Tautoko Kaieke Pahi ki Otepoti (S125.005) sought that new greenfield zoning is only undertaken where new dwellings will be within 800m of a bus stop or 1200m of a high frequency bus stop. Mr Morrissey noted in the section 42A report that if a site can meet these distances it is classified as 'OK' in the site assessment sheets. A further submission from the ORC (FS184.479, FS184.482) supported both of these original submissions.
- 185. Waka Kotahi (NZ Transport Agency) (S235.001) supported the approach of 'filling gaps' across a wider area, as it reduces impacts on the roading infrastructure at specific points or locations.

#### 2.2.5.1 Reporting Officer's recommendation

- 186. Mr Morrissey recommended rejecting the submissions from *Peter Dowden (S122.004)* and the *Bus Users Support Group Otepoti/Te Roopu Tautoko Kaieke Pahi ki Otepoti (S125.005)*, commenting that access to public transport is considered alongside the other criteria identified in Policy 2.6.2.1. He noted most, but not all, of the sites recommended for rezoned had 'OK' or better access to public transportation. He also advised that similar submissions were received from both submitters relating to public transport in intensification areas, and were dealt with in Part A.2.8 of our first decision report, where they were rejected.
- 187. Mr Morrissey recommended accepting the submission from *Waka Kotahi (S235.001)* and noted that a large number of proposed rezoning sites are relatively small areas, located close to, or within, existing residential developed areas.

#### 2.2.5.2 Decision and reasons

- 188. We reject the submissions from *Peter Dowden (S122.004)* and the *Bus Users Support Group Otepoti/Te Roopu Tautoko Kaieke Pahi ki Otepoti (S125.005)*. The reasons for this are the same as outlined in our first decision report, primarily that the DCC does not have direct control over public transport networks in Dunedin and so cannot guarantee how these might change in the future (for the better or worse).
- 189. We also agree with Mr Morrissey that this is but one factor for consideration in the assessment of rezoning a site and should not be used as a 'knock out blow'.
- 190. We accept the submission from *Waka Kotahi (S235.001)* for the reasons given in the submission.

# 2.2.6 High class soils

- 191. This section addresses the submissions covered in section 5.1.7 of the section 42A report.
- 192. Brian Miller (S110.003) submitted opposing rezoning of any sites containing high class soils or productive land. The submission was supported by a further submission from the ORC (FS184.481).

# 2.2.6.1 Reporting Officer's recommendation

193. In the section 42A report, Mr Morrissey noted that where sites have high class soils or LUC 1-3 land this is noted in the discussion for each individual site and the impact of this is considered along with other relevant considerations under Policy 2.6.2.1. Mr Morrissey said that, in some situations, the loss of high class soils must be balanced against the need to meet residential growth demand. Overall, he recommended that *Mr Miller's* submission was rejected.

#### 2.2.6.2 Decision and reasons

- 194. We accept in part the submission from *Brian Miller (S110.003)*. In relation to high class soils. We consider this request is too broad to be accepted completely, and we note the presence of high class soils is a factor that has been considered (where relevant) when making a decision on rezoning.
- 195. In relation to productive land, we note that the National Policy Statement on Highly Productive Land (NPS-HPL) came into effect on 17 October 2022. This was after Mr Morrissey made the above recommendation in the section 42A report. We discuss the impact of the NPS-HPL on our decision in section 3 below. We note that under the NPS-HPL, residential rezoning of highly productive land is restricted in all but very limited circumstances.

#### 2.2.7 Other infrastructure

- 196. This section addresses the submissions covered in section 5.1.8 of the section 42A report.
- 197. Transpower New Zealand Limited (S28.001) submitted in support of the notified rezoning sites, but sought they are not located closer to the National Grid. A further submission from the ORC (FS184.75) opposed this submission on the grounds it conflicted with their position on stormwater provisions.
- 198. Transpower New Zealand provided a tabled statement at the hearing, where it confirmed its support of the recommendations given in the section 42A report and did not wish to be heard further in relation to its submission<sup>5</sup>.

#### 2.2.7.1 Reporting Officer's recommendation

199. In the section 42A report, Mr Morrissey noted that some minor extensions are proposed to some of the originally notified sites but that none of these extensions are located within the National Grid Subdivision Corridor Mapped Area. In addition, he also advised that for the

<sup>&</sup>lt;sup>5</sup> Letter from Transpower, 12 August 2022. <u>Tabled letter from Transpower New Zealand (dunedin.govt.nz)</u>

Requested Sites he had engaged with Transpower and confirmed that none of the sites are near the National Grid.

#### 2.2.7.2 Decision and reasons

200. We accept in part the submission from *Transpower New Zealand (S28.001)*, and we note their support of the notified rezoning sites.

# 2.2.8 Provision of green space

- 201. This section addresses the submission discussed in section 5.1.9 of the section 42A report.
- 202. John and Christine Burton (S8.002) submitted in support of changes to increase the density of housing within Dunedin, including new greenfield zoning, provided green spaces are maintained. A further submission from the ORC (FS184.75) opposed this submission on the grounds that it conflicts with their position on stormwater provisions.
- 203. We also note here the submission made by *Yolanda van Heezik (S82)* in relation to a number of specific sites. This submission sought, broadly, to retain biodiversity areas including gardens and landscaping, within new development. We note that in our first decision we made a number of amendments (see 'Change A2 Alt 3 IN-LANDSCAPE/S82.004 and others') in response to *Ms van Heezik's* submission, including requiring minimum landscaping for new General Residential 2 areas.
- 204. Mr Morrissey advised in the section 42A report that rezoning sites to General Residential 1 density or lower did not justify the same minimum landscaping requirements as applied General Residential 2 areas. He stated this was because General Residential 1 areas are less built up and more likely to have garden areas and trees relative to the higher density General Residential 2 areas.

## 2.2.8.1 Decision and reasons

- 205. We accept in part the submission from *John and Christine Burton (S8.002)* and note that our decision on individual sites is contained within the next section of our decision report.
- 206. With respect to the submission from *Ms van Heezik*, we agree with the Reporting Officer that sites being rezoned to General Residential 1 have less need for minimum landscaping requirements than for General Residential 2 sites and that it is not necessary or appropriate to apply the minimum landscaping requirements to sites being rezoned to a General Residential 1 or lower density. We therefore reject *Ms Van Heezik's* submission as it relates to these sites, which are GF02, GF06, and GF07. We note that this submission also applies to GF08, but given this site is being rezoned to General Residential 2, we address her submission as it may be applied to that particular site in the individual site section.

#### 2.2.9 Miscellaneous submissions

- 207. This section addresses the submissions covered in section 5.1.10 of the section 42A report.
- 208. The *Dunedin City Council (S187.008)* made a general submission to consider the need for additional Plan provisions to better manage any adverse effects identified through submissions. This request was considered by the Panel as appropriate by way of general application for us when considering submissions on proposals in Variation 2.

209. *Michael McQueen (S252.003)* sought to retain the current General Residential 1 zoning of 96 Somerville Street. We note as the zoning of 96 Somerville Street is not being reviewed through Variation 2, this submission is out of scope. In any case no decision on this submission is required as it doesn't seek a change to the existing zoning.

## 2.3 Sites

210. This section of the report deals with site-specific submissions, which are addressed in sections 5.2 – 5.4 of the section 42A report for Hearing 4. Sites are grouped by geographic area.

# 2.3.1 Abbotsford

#### 2.3.1.1 Freeman Close and Lambert Street, Abbotsford (RS14)

- 211. RS14 is located north of Abbotsford, at the end of North Taieri Road. RS14 comprises two discrete parts, a smaller (6.6ha) area to the west (42A Lambert Street) and a larger area (48ha) to the east (consisting of 25 McMeakin Road, 45 Mc McMeakin Road, 55 McMeakin Road, and part 188 North Taieri Road). Both sites are adjacent to existing residentially zoned land, and a small part of the western site lies adjacent to the main railway line. The Dunedin Airport Flight Fan overlays the majority of RS14. If the entirety of RS14 was to be rezoned to General Residential 1, Mr Morrissey advised that the site would have an estimated feasible capacity of 761 dwellings.
- 212. The section 32 report notes the site was originally rejected for inclusion in Variation 2 as there were significant natural hazard risks identified.

#### 2.3.1.1.1 Submissions received

- 213. Bill Hamilton (\$298.001) submitted to rezone 25 McMeakin Road to General Residential 1.
- 214. Alan David and David Eric Geeves & Nicola Jane Algie (\$302.001) submitted to rezone 55 McMeakin Road to General Residential 1.
- 215. *Nash and Ross Ltd (Steve Ross) (S281.001)* submitted to rezone 42 Lambert Street (now 42A Lambert Street) to General Residential 1.
- 216. Wendy Campbell (S228.003) submitted to rezone 45 McMeakin Road and part of 188 North Taieri Road to a mixture of residential zones in accordance with a proposed structure plan.
- 217. Several further submitters supported one or more of the submissions seeking rezoning. Reasons given by these further submitters included that rezoning would enable more housing, the majority of services are in place, and that the land is well suited for residential use.
- 218. A large number of further submitters opposed one or more of the submissions seeking rezoning. These further submissions outlined concerns relating 3 waters, transport and traffic safety, natural hazards, loss of rural character, loss of amenity, impacts to biodiversity, lack of infrastructure and servicing in Abbotsford, the potential for reverse sensitivity, and general concerns regarding additional population growth.

209. *Michael McQueen (S252.003)* sought to retain the current General Residential 1 zoning of 96 Somerville Street. We note as the zoning of 96 Somerville Street is not being reviewed through Variation 2, this submission is out of scope. In any case no decision on this submission is required as it doesn't seek a change to the existing zoning.

## 2.3 Sites

210. This section of the report deals with site-specific submissions, which are addressed in sections 5.2 – 5.4 of the section 42A report for Hearing 4. Sites are grouped by geographic area.

# 2.3.1 Abbotsford

#### 2.3.1.1 Freeman Close and Lambert Street, Abbotsford (RS14)

- 211. RS14 is located north of Abbotsford, at the end of North Taieri Road. RS14 comprises two discrete parts, a smaller (6.6ha) area to the west (42A Lambert Street) and a larger area (48ha) to the east (consisting of 25 McMeakin Road, 45 Mc McMeakin Road, 55 McMeakin Road, and part 188 North Taieri Road). Both sites are adjacent to existing residentially zoned land, and a small part of the western site lies adjacent to the main railway line. The Dunedin Airport Flight Fan overlays the majority of RS14. If the entirety of RS14 was to be rezoned to General Residential 1, Mr Morrissey advised that the site would have an estimated feasible capacity of 761 dwellings.
- 212. The section 32 report notes the site was originally rejected for inclusion in Variation 2 as there were significant natural hazard risks identified.

#### 2.3.1.1.1 Submissions received

- 213. Bill Hamilton (\$298.001) submitted to rezone 25 McMeakin Road to General Residential 1.
- 214. Alan David and David Eric Geeves & Nicola Jane Algie (\$302.001) submitted to rezone 55 McMeakin Road to General Residential 1.
- 215. *Nash and Ross Ltd (Steve Ross) (S281.001)* submitted to rezone 42 Lambert Street (now 42A Lambert Street) to General Residential 1.
- 216. Wendy Campbell (S228.003) submitted to rezone 45 McMeakin Road and part of 188 North Taieri Road to a mixture of residential zones in accordance with a proposed structure plan.
- 217. Several further submitters supported one or more of the submissions seeking rezoning. Reasons given by these further submitters included that rezoning would enable more housing, the majority of services are in place, and that the land is well suited for residential use.
- 218. A large number of further submitters opposed one or more of the submissions seeking rezoning. These further submissions outlined concerns relating 3 waters, transport and traffic safety, natural hazards, loss of rural character, loss of amenity, impacts to biodiversity, lack of infrastructure and servicing in Abbotsford, the potential for reverse sensitivity, and general concerns regarding additional population growth.

#### 2.3.1.1.2 Submitters' response to the section 42A report

- 219. All four of the original submitters seeking rezoning appeared, or were represented, at the hearing.
- 220. Mr Kurt Bowen appeared on behalf of *Nash and Ross Ltd (Steve Ross)*, in relation to 42A Lambert Street. He also appeared and presented evidence on behalf of *Alan David and David Eric Geeves & Nicola Jane Algie* and *Bill Hamilton*, who sought to rezone 25 and 55 McMeakin Road.
- 221. Mr Bowen presented two possible structure plans for our consideration. The first of these considered a broad area of new General Residential 1 zoning which spans the properties at 25, 45 and 55 McMeakin Road along with part of 188 North Taieri Road (i.e. this would also cover part of *Ms Campbell's* site). This would have a realistic yield of 327 sites. The second structure plan considered a much smaller extent of General Residential 1 zoning that covers all of 25 McMeakin Road, and a portion of the property at 55 McMeakin Road. The anticipated realistic development yield from that is 35 sites.
- 222. Ms Peters appeared on behalf of *Wendy Campbell*. She supported the larger of the two structure plans outlined above, being the one covering the properties at 25, 45 and 55 McMeakin Road along with part of 188 North Taieri Road. In addition, she said *Ms Campbell* seeks that a Residential Transition Overlay Zone (RTZ) releasing to Low Density Residential Zone is applied to a separate part of 188 North Taieri Road. This RTZ would have a custom release rule requiring positive geotechnical investigations to be conducted, and the funding of the necessary upgrades to North Taieri Road being included in the DCC's 10 year plan.
- 223. Mr Gerard Hyland and Mr Brent Irving both appeared on behalf of the Dunedin Tunnels Trail Trust and supported the proposed rezoning of *Ms Campbell's* land. They noted that the Trust is currently in the process of negotiating an easement for access to *Ms Campbell's* land for the trail.
- 224. Five further submitters spoke at the hearing, all in opposition to the proposed rezoning. These were Jennifer Robinson, Roger Bailey (The Bailey Family Trust), John Rawling, Gerald Finn, and Elizabeth Lukeman. Their evidence is discussed in relation to the topics outlined below.

#### 2.3.1.1.3 3 waters

## Potable water supply

- 225. DCC 3 Waters provided an assessment of the site in the section 42A report. In terms of water supply, they advised there is inadequate capacity and significant upstream network upgrades would be required to resolve these, over a medium to long term timeframe. Pumping would be necessary at higher elevation areas.
- 226. Ms Peters considered that issues relating to potable water supply could be dealt with under the new development mapped area provisions, along with structure plan provisions if necessary.
- 227. Mr Bowen, on behalf of *Nash and Ross Ltd (Steve Ross)*, commented that it appears to be relatively straight-forward to extend the existing watermain network into 42A Lambert Street.

- 228. In relation to 55 and 25 McMeakin Road, Mr Bowen commented that the servicing of this land for water supply and firefighting appears straight forward. If the broader rezoning area were to be implemented, there may also be a need to provide additional water storage volume at the DCC tank, but this is considered feasible as part of the future development.
- 229. Mr Oliver and Mr Saunders reviewed the submitters' evidence relating to potable water supply and maintained their original position that rezoning is not supported. They agreed that the extension of water supply into 42A Lambert Street appears relatively straight forward. In terms of the submitters' smaller structure plan proposal (covering 25 and 55 McMeakin Road), while this would address concerns regarding water pressure, a significant portion of these two properties are within the high hazard areas of the Mt Grand Raw Water Reservoir Dam Break Hazard Zone and rezoning in this area is not supported.

## **Wastewater**

- 230. DCC 3 Waters provided an assessment of the site in the section 42A report. Wastewater pumping would be required to service some areas and pump station capacity would probably need to be increased. Some downstream network upgrades would be required.
- 231. Ms Peters considered that issues relating to wastewater could be dealt with under the new development mapped area provisions, along with structure plan provisions if necessary.
- 232. Mr Bowen, on behalf of *Nash and Ross Ltd (Steve Ross)*, acknowledged that wastewater pumping would be required for 42A Lambert Street, given the site is located approximately 7m below the existing pumping station.
- 233. In relation to 55 and 25 McMeakin Road, Mr Bowen acknowledged that upgrades to the existing foul drainage network pumping station may be required, but considered that this was achievable.
- 234. Mr Oliver and Mr Saunders reviewed the submitters' evidence relating to potable water supply and maintained their original position that rezoning is not supported. In particular they highlighted that the rezoning 42A Lambert Street is not supported due to the need for wastewater pumping.

#### **Stormwater**

- 235. At the hearing, a number of the further submitters raised issues relating to stormwater and flooding. *Jennifer Robinson* said that development could damage existing properties, particularly with respect to stormwater run-off. *John Rawling* also raised concerns relating to the flooding of Abbots Creek, and that this flood risk will be elevated through further development.
- 236. The 3 Waters evidence as set out in the section 42A report was also concerned with downstream flooding. They advised that neighbouring properties have repeatedly contacted the DCC and raised concerns about flooding, particularly as it relates to increasing development in the catchment. DCC 3 Waters advised that while stormwater would need to be managed in accordance with the new development mapped area requirements, there is still significant risk to downstream landowners if watercourses are not properly maintained.
- 237. Ms Peters, on behalf of *Wendy Campbell*, anticipated that a new development mapped area, in conjunction with structure plan performance standards, could manage stormwater issues. She noted that on-site stormwater detention should be required via structure plan controls.

- 238. Mr Bowen, on behalf of *Nash and Ross Ltd (Steve Ross)*, said that some on-site stormwater detention would be required, either by way of individual site tanks, or through a communal stormwater detention pond. In relation to 55 and 25 McMeakin Road, he agreed that on-site stormwater detention is very likely, but considered this could also be provided by either on-site tanks or via a communal stormwater detention pond.
- 239. Mr Oliver and Mr Saunders responded to the evidence provided by submitters and maintained their original position that rezoning is not supported. They further outlined that there is still a significant risk to downstream landowners if watercourses are not properly maintained. The use of individual on-site storage tanks for stormwater management is a cause for concern, and likewise the potential for the raising of land (at 25 and 55 McMeakin Road) to mitigate flood risks is also of concern as it may result in the displacement of flood water that would otherwise have occupied the space taken by the raised land, and can increase the flood hazard and risk in other locations.

#### 2.3.1.1.4 Transportation

- 240. Multiple further submitters raised issues relating to access and transportation. *Jennifer Robinson* spoke at the hearing and noted that a widerthoroughfare is needed on North Taieri Road. *Gerald Finn* also discussed issues with North Taieri Road, and in particular concerns about the impacts to Abbotsford School. *Roger Bailey (The Bailey Family Trust)* spoke at the hearing and raised concerns relating to transportation and the suitability of the proposed access into 42A Lambert Street which runs past his house.
- 241. DCC Transport's assessment in the section 42A report was that, since the site is located at the end of North Taieri Road, a large proportion of traffic would be required to travel the full length of the road when entering and leaving the site, and further assessment of the impact on downstream intersections was required. However, it was anticipated that the level of development is likely to create unacceptable pressure on North Taieri Road and the wider transport network. A development of this scale would require construction of additional connection points to other parts of the transport network. DCC Transport also noted that it is unlikely that the structural integrity of North Taieri Road would be able to accommodate the additional traffic loading. Overall, rezoning was not supported from a transportation perspective.
- 242. Mr Bowen discussed transportation related to 42A Lambert Street. He highlighted that rezoning this site alone would result in a far lower number of sites compared to if the entirety of RS14 were to be rezoned. He considered that the additional traffic generated would be minor, and any upgrades required minor in nature.
- 243. For 55 and 25 McMeakin Road, Mr Bowen considered that if the smaller structure plan option was adopted, the adverse effects are likely to be minor. If the larger structure plan option were adopted, Mr Bowen proposed construction of a new section of road as an extension to Abbotts Hill Road in order to provide a secondary connection point. This road would link the Abbotsford and Brockville communities. A plan outlining this was attached to the submission and Mr Bowen considered that that the costs of this were likely to be feasible.
- 244. Ms Peters, on behalf of *Wendy Campbell*, also supported the proposed upgrading of Abbotts Hill Road and also noted that an Integrated Transport Assessment would be necessary at the time of subdivision.

245. In his response to submitter evidence, Mr Watson of DCC Transport considered that both the site specific/local issues identified in the original transport assessment, along with the wider concerns, remain. All of the proposals would still result in a considerable increase in traffic using North Taieri Road, and therefore the downstream effects on the network and related junctions would remain, and haven't been adequately addressed in the submitters' evidence. Mr Watson questioned how practical and achievable the proposed Abbotts Hill Road extension would be to implement. He noted that such an extension would require significant engineering works, and without detailed information being provided including the effects of the proposed link roads provision on connectivity (including the traffic flows between Abbotsford and Brockville), the proposal was not supported. Consequently, Mr Watson was unable to support the proposed rezoning. He also noted that if the sites were to be developed, this would need to be done comprehensively and not in a piecemeal way.

## 2.3.1.1.5 Hazards

- 246. A key issue relating to the site is hazards. The section 42A report outlined that, while there are no mapped 2GP hazard overlays, the site is located north and west of the historic Abbotsford landslides and was assessed by Stantec as having high level hazards associated with slope instability and a precedent for land instability within similar geology and slope angles nearby. There are also several medium level hazards associated with stormwater.
- 247. At the hearing, *Roger Bailey (The Bailey Family Trust), Gerald Finn,* and *Elizabeth Lukeman* all discussed hazards, and specifically raised concerns about the insufficient hazard information provided to date, along with the area's extensive history of mining.
- 248. *Ms Campbell* provided a report from GeoSolve as part of her submission. Stantec reviewed this report and, overall, advised us that the original assessment that the site is high risk is still appropriate, and significant subsurface investigations would be required for development of the site.
- 249. Mr Bowen considered that the hazard issues on 42A Lambert Street are less pronounced than in other parts of the wider RS14, and that flooding risk is an issue that can be addressed at the time of future development.
- 250. In relation to 55 and 25 McMeakin Road, Mr Bowen noted, based on the geotechnical assessment from GeoSolve for *Ms Campbell*, that while the assessment doesn't cover the properties in question, the submitters have inferred that these areas are sound from a ground stability perspective. Mr Bowen noted that it is reasonable that DCC requires further geotechnical investigation as part of any future resource consent application process. With respect to the flood hazard, Mr Bowen noted that the proposed structure plan has designed an 'amenity reserve' area to cover these areas of hazard.
- 251. Ms Peters, on behalf of *Wendy Campbell*, clarified that large areas (identified in light grey) identified in the geotechnical assessment "...appear to be relatively straightforward for residential development...". Ms Peters suggested that structure plan provisions would require further geotechnical investigations at the subdivision design stage.
- 252. In response, Mr Paterson of Stantec commented that the properties at 25, 45, and 55 McMeakin Road appear suitable for the proposed rezoning from a hazards perspective, although further investigations are likely to be required via the resource consent process. However, Mr Paterson did not consider that 42A Lambert Street is suitable for rezoning based on historic mining hazards. Mr Paterson noted that the GeoSolve report did not

address 42A Lambert Street, and that the statement from Mr Bowen that "... the hazard issues on this part of RS14 are considerably less pronounced..." appears to be unsubstantiated and there is no engineering assessment provided to support this. Mr Paterson considered that in the absence of a site specific assessment, and inferring mining extents from the GeoSolve report, it is possible that the site of 42A Lambert Street is situated in the worst part of the mining hazard area.

253. DCC 3 Waters also advised that the eastern and south-western sides of the site are within the Mt Grand Raw Water Reservoir Dam Break Hazard Zone. Future development should either be avoided in this area, or mitigation would be required.

## 2.3.1.1.6 Rural character and landscape

- 254. *Elizabeth Lukeman* attended the hearing and outlined her concerns relating to loss of the character of Abbotsford.
- 255. Mr McKinlay assessed the proposed rezoning and considered that the effects of rezoning on rural character values would be variable, depending on the area being considered, but range from low up to high. There would likely be some visual amenity effects on nearby properties.
- 256. Ms Peters and Mr Bowen generally agreed with Mr McKinlay. Ms Peters also outlined proposed structure plan performance standards to control built form with respect to height, gross floor area, colours and materials.
- 257. Mr McKinlay considered that the design controls proposed for 45 McMeakin Road and 188 North Taieri Road would not be sufficient to mitigate the adverse effects on rural character. With respect 55 McMeakin Road, he considered that for the larger rezoning proposal there will result in high adverse effects on existing rural character values along with adverse visual amenity effects. With respect to the smaller rezoning proposal, adverse effects on wider rural character values would be in the low to moderate range. With respect to 25 McMeakin Road, adverse effects on visual amenity and rural character values are likely to be lower.

## 2.3.1.1.7 Amenity

- 258. Several submitters raised concerns regarding general loss of amenity, including air and noise pollution, shading, and loss of privacy. *Elizabeth Lukeman* attended the hearing and spoke to some of these concerns.
- 259. In the section 42A report, Mr Morrissey acknowledged there would be impacts to existing residents, particularly during construction. He commented that existing 2GP performance standards would help manage disruption in the same way as for any areas being developed for housing.
- 260. The section 42A report also indicates that, should rezoning proceed, DCC Parks and Recreation recommend a recreation reserve of at least 5,000m<sup>2</sup> in area be provided within RS14.

#### 2.3.1.1.8 Biodiversity

261. Several further submitters were opposed to the rezoning on the grounds of impacts on biodiversity, particularly in relation to native birds and loss of habitat in the area. *Elizabeth Lukeman* attended the hearing and raised concerns regarding the potential impacts to native biodiversity.

262. Mr Morrissey advised that a desktop assessment of vegetation cover had not identified any significant indigenous vegetation on the site. While he acknowledged it is likely that some native birds reside in the area, he did not expect the site to provide a significant habitat, and overall considered the biodiversity values at the site to be low.

#### 2.3.1.1.9 Other issues

263. Further submitters raised a number of additional concerns as outlined in the section 42A report. We note the responses to these issues from Mr Morrissey, and that in general, Mr Morrissey did not consider the additional issues are sufficient reason to reject the rezoning.

## 2.3.1.1.10 Rural productivity

- 264. The site is classed as Land Use Capability Class (LUC) 3. We note that, while not an issue that further submitters specifically raised for this site, part way through out deliberations the National Policy Statement for Highly Productive Land (NPS-HPL) was released and came into effect. Mr Morrissey, in his response to Minutes 15, 16 and 17 from the Panel, advised that 98% of this area covered by the submitters requests meets the interim definition of highly productive land (HPL).
- 265. Due to the timing of the NPS-HPL, and for the sake of clarity, we have chosen to undertake an analysis of the NPS as a separate part of our decision and to focus on whether the consideration of it changes any of our conclusions and decisions. This analysis is given in section 3 of this decision. We note that the analysis in that section has not materially changed our overall decision on the rezoning of this site.

## 2.3.1.1.11 Reporting Officer's recommendation

- 266. In his Reply, Mr Morrissey noted the significant amount of evidence provided by the submitters in respect to this site. However, he did not consider that the proposed rezoning either of the site as a whole, or when considering the separate submission area, was consistent with Policy 2.6.2.1. This was primarily based on the transport and 3 waters evidence received, as well as hazard issues in relation to 42A Lambert Street.
- 267. With respect to Ms Peters' proposal for an RTZ over part of 188 North Taieri Road, he reemphasised the concerns identified by Mr Watson, Mr Oliver, and Mr Saunders. In particular, he noted that Mr Watson's concerns with North Taieri Road remained, and he also noted that issues in relation to servicing the site for the 3 waters remain and, on balance, he did not support the proposal for an RTZ.

#### 2.3.1.1.12 Decision and reasons

- 268. We reject the submissions of Bill Hamilton (S298.001), Alan David and David Eric Geeves & Nicola Jane Algie (S302.001), Nash and Ross Ltd (Steve Ross) (S281.001), and Wendy Campbell (S228.003) to rezone RS14. Consequently we also reject the further submissions in support of the submissions seeking rezoning. Our reasons for rejecting the submissions are based on several of the issues that were canvassed at the hearing which collectively lead us to conclude that these sites, in this area, are not an appropriate option for providing for future residential growth, noting that we are also not persuaded that further growth is required in this area.
- 269. We adopt the evidence of Mr Watson that North Taieri Road is unlikely to be able to accommodate the additional traffic loading. We also accept his evidence that an alternative

access into this site will be required, given the large number of proposed lots. We note that Mr Bowen and Ms Peters suggested that to address this a connection could be provided along the paper road end of Abbotts Hill Road. However, there was limited cost or feasibility evidence presented for this option and we are not convinced that the proposed Abbotts Hill Road formation is feasible.

- 270. We consider it possible that a significantly smaller area of rezoning may have fewer transportation issues. However, we heard no specific expert evidence to support that conclusion The only expert transportation evidence we had before us urged us to be cautious about the transportation effects of rezoning any of this land.
- 271. At a more strategic level, we consider the proposed upgrade to Abbotts Hill Road of the scale proposed would be a significant undertaking and would have broad public interest. In our view this would take the rezoning requests outside of the ambit of an 'easy wins' variation as there may be much higher level effects on the broader community that have not been considered, and natural justice requires that an open process is followed. We consider that proposals of this scale are more appropriately considered through a Future Development Strategy (FDS) if this area were to be considered as being required for future growth.
- 272. We agree with the evidence from Mr Paterson, that rezoning 42A Lambert Street is not supported by the available evidence on hazards. Rezoning an area with a high natural hazards assessment is contrary to Policy 2.6.2.1.d.viii. For the other areas of the RS14 site, we accept Mr Paterson's evidence that these can be supported from a hazards perspective.
- 273. We adopt the evidence from Mr Oliver and Mr Saunders that significant water supply upgrades would be required to service this area, and that pumping would be required, which is contrary to DCC's goals of reducing the carbon footprint of the 3 waters network. We also agree with Mr Oliver and Mr Saunders regarding stormwater flooding risk, and their ongoing concerns relating to development in the high hazard area of the Mt Grand Raw Water Reservoir Flood Area. We accept the evidence of Mr Oliver and Mr Saunders that rezoning the site, both in part and as a whole, is not supported from a 3 Waters perspective.
- 274. With respect to rural productivity and the cumulative loss of productive rural land, which was a broad issue raised by Mr Miller and discussed in section 2.2.6, we note the NPS-HPL requires much greater attention to this issue, and we discuss this in section 3. This has not materially changed our decision with respect to the rezoning of this site however.
- 275. With respect to Ms Peters' proposal to apply an RTZ to part of 188 North Taieri Road, we understand that further investigations into hazards matters is not something that an RTZ can be used for, and further given that we find the site inappropriate for rezoning, an RTZ is inappropriate.
- 276. Overall, it is our view that the site, both as a whole and also in its various parts, does not satisfy or align well with the criteria outlined in Policy 2.6.2.1 and is therefore not appropriate to rezone to residential as part of this process.

#### 2.3.2 Allanton

## 2.3.2.1 Part 774 Allanton - Waihola Rd, Allanton (RS195)

277. This section addresses the submissions covered in section 5.4.18 of the section 42A report.

- (c) the environmental, social, cultural and economic benefits of rezoning outweigh the environmental, social, cultural and economic costs associated with the loss of highly productive land for land-based primary production, taking into account both tangible and intangible values.
- (5) Territorial authorities must take measures to ensure that the spatial extent of any urban zone covering highly productive land is the minimum necessary to provide the required development capacity while achieving a well-functioning urban environment.
- 1497. We note that Dunedin City is currently a Tier 2 territorial authority.

# 3.3 Interpretation of the NPS-HPL

- 1498. On 30 September 2022, we issued Minute 17 to all Hearing 4 submitters. In this Minute, we asked the DCC to provide a legal submission to address which sites it assesses as being affected by the NPS-HPL. That was duly provided, and we also received the DCC reporting officer's advice on which of the sites requested for rezoning are affected by the NPS-HPL.
- 1499. Minute 17 also invited submitters to respond to the DCC's legal submission. The responses are addressed below.

## 3.3.1 Legal submissions

1500. The legal submissions we received covered a full spectrum of opinions, however the primary legal question on which we received submissions was the interpretation of clause 3.5(7) to the sites in question. The initial legal submissions we received are summarised below.

# Dunedin City Council

- 1501. The DCC's legal opinion was that, firstly, the transitional provisions of the NPS-HPL mean that it applies to land that is zoned Rural and Rural Residential and contains LUC 1, 2 or 3 land. We record that there seemed to be no disagreement from the parties on this.
- 1502. The DCC legal opinion was that, secondly, the deeming provision does not apply to land identified for "future urban development" or that is subject to a Council initiated plan change to rezone it from general rural to urban or rural lifestyle. In that regard, Dunedin does not yet have a Future Development Strategy in place, and Variation 2 cannot be considered to be strategic planning document based on the relevant definitions.
- 1503. However, thirdly, the DCC advice went on to say that Variation 2 is exempted by clause 3.5(7)a by virtue of it being a Council initiated plan change. Fourthly, the advice was that the exemption does not extend to land put forward in submissions which Council has not adopted or initiated (i.e. as part of proposed Variation 2 as notified).
- 1504. The consequence of the DCC legal advice is that where submitters have sought to rezone further areas of rural land that is deemed to be highly productive by the NPS-HPL than the NPS provisions should be considered by the Panel in relation to that land when evaluating whether, in response to submissions, to rezone the land.

#### **Gladstone Family Trust**

1505. The legal submissions for Gladstone Family Trust agreed with DCC's submission that Variation 2 is a Council initiated plan change. However, it disagreed with the argument that submitters' sites were not part of the variation. The submission was that, regardless of whether the land has been identified by DCC or by submitters, it is before the Panel because it is in scope of Variation 2. Reasons were provided as to why the submitters' sites could be considered part of the variation including that the variation process, which has been a Schedule 1 RMA process, can change the zoning of that land.

#### CC Otago Limited, Peter Doherty & Outram Developments Limited

- 1506. The legal submissions from CC Otago Limited, Peter Doherty & Outram Developments Limited agreed with the DCC submissions that Variation 2 is not a Future Development Strategy or strategic planning document as defined. However, it fundamentally disagreed with the DCC's position arguing that the 'site' advanced for rezoning by these submitters is currently subject to the Variation 2 process which has been initiated by DCC, and that it has been determined that the site is within the scope of Variation 2.
- 1507. It was also argued that it is artificial to read clause 3.5(7)(b)(ii) to be limited only to sites as identified within the 'notified version' of plan change, whereas the clause does not limit itself in this way. To limit its scope in this way to only the notified version of the plan change would be inconsistent with the treatment of 'notification' as a procedural step within Schedule 1 of the Act. The important factor is said to be that 'at the date of commencement' there were live submissions seeking rezoning of the Site from rural to urban.

#### Otago Regional Council

- 1508. The legal submission for Otago Regional Council was that it agrees the NPS-HPL does not apply to land proposed by the DCC in Variation 2 for rezoning, but that it does apply to those parts of the submitters' sites which contain highly productive land as those sites were not promoted by DCC in Variation 2 for rezoning. Further it emphasised there is an obligation to implement the NPS provisions rather than to treat them as relevant, or strong, "considerations".
- 1509. Mr Logan for Otago Regional Council also raised a matter at the reconvened hearing that differed from his written submissions. He essentially questioned whether Variation 2 was a 'plan change' in terms of the NPS. This is further addressed below.

#### <u>Further legal submissions</u>

- 1510. Following the hearing reconvened on 21 October 2022, and in response to Minute 20, further legal submissions were received, which are briefly summarised for the following parties as follows:
- 1511. Otago Regional Council— there is no definition in the RMA of 'plan change', and in studying other relevant definitions the argument was made that the 2GP is not a 'plan'; it is not an operative plan approved by DCC under Schedule 1 of the RMA; and Variation 2 is an alteration under Clause 16A of the First Schedule to a proposed plan (the 2GP). Therefore the exception in clause 3.5(7)(b)(ii) does not apply because there is a 'Variation' and not a 'plan change'.
- 1512. Gladstone Family Trust to emphasise that clause 3.5(7)(b)(iii) sets out alternatives, i.e. that it may be either "a council initiated or an adopted" plan change. In that context, adoption does not relate to a Council resolution in relation to a particular proposal, and instead it

identifies that the plan change must be "Council driven" to qualify. The submission was further that the enquiry is about the status of the land on the NPS commencement date, on 17 October 2022, at which date the submissions had been lodged and were being considered as part of Variation 2.

- 1513. This further legal submission was also that Variation 2 is a 'plan change' for the purposes of the NPS-HPL. It noted that whilst that term is not defined the provisions of the 2GP became operative under section 86F and as such they became part of a single operative plan to satisfy subsection (b) of the definition of 'district plan' in the RMA. Further, under Clause 16A a variation is treated as a change in the Schedule 1 process.
- 1514. CC Otago Limited, Peter Doherty & Outram Developments Limited to emphasise that all sites that are identified within Appendix 4 of the section 32 report are 'subject' to Variation 2. In this way there are no 'rogue sites' sought by submitters, and any unmeritorious sites have also been addressed through the Commissioners' decision on scope. This further legal submission also made references to the definition of 'operative' and the need to carry out a dynamic assessment of whether the plan has become 'operative' or not. In essence, it agreed with the Gladstone Family Trust arguments with respect to Variation 2 being able to be considered as a plan change.
- 1515. Dunedin City Council the revised legal advice was in essence to agree with ORC's further legal submissions to the effect that Variation 2 has the status of a variation and is not treated as a plan change as defined. This was based on the NPS identifying that where terms are not defined in the NPS the definitions in the RMA apply unless otherwise specified. In that sense the 2GP has not yet been approved by DCC under clause 17, Schedule 1. It was submitted that all of the sites covered by LUC 1-3 that have a rural zoning need to be assessed against the NPS-HPL (i.e. including the sites notified by DCC in Variation 2).

# Independent legal advice to the Panel

- 1516. The Panel received legal advice from Simpson Grierson, following its review of all the legal submissions and further submissions summarised above.
- 1517. That advice was as follows:
  - (a) The purpose of clause 3.5(7) supports the interpretation that Variation 2 is a 'plan change';
  - (b) The Schedule 1 provisions support the interpretation that a variation is part of a plan change; and
  - (c) The exception in clause 3.5(7)(b)(iii) does not apply to land identified in submissions, as submissions do not have any legal effect and they do not (substantively) form part of the plan change initiated by the Council.

#### 3.3.1.1 Determination on legal submissions

1518. We acknowledge there was a wide range of legal advice received and note also that, even during the course of us hearing, some of the counsel changed their views and presented different opinions to us as part of the further submission process. The matter therefore may be considered somewhat complex due in no small part to the NPS provisions being very new and untested at the time of our deliberations.

- 1519. As advised in our Minute 21, issued on 7 November 2022, having considered all the legal submissions we favoured the advice prepared by Simpson Grierson. Having reconsidered the updated legal submissions, that is still our view. In essence, the Panel favours the advice which applies a broad and holistic approach to determine the purpose of all of the relevant legal provisions and essentially applies what we consider is a common sense approach to it all.
- 1520. To confirm, our determination is that we favour the following interpretation:
  - (a) Variation 2 is a 'plan change' as referred to in clause 3.5(7) of the NPS-HPL, and therefore that clause will apply; and
  - (b) The sites requested for rezoning by way of submissions (that were not proposed for rezoning in the notified version of Variation 2) do not fall within the exception in clause 3.5(7) of the NPS-HPL.
- 1521. Based on this interpretation, it is our view that the sites in Table 2 below contain highly productive land (HPL), and therefore that the NPS-HPL applies to them. These are the sites identified by Mr Morrissey<sup>18</sup> that contain land that is LUC 1, 2 or 3, are rural-zoned, and were not proposed to be rezoned to residential in the notified Variation 2 (that is, they were proposed for rezoning through submissions).

Table 2 - Sites affected by the NPS-HPL

Address	Site ID	Site Area (m²)	Area of HPL (m²)	Percentage of site with HPL
Freeman Cl, Lambert St, Abbotsford	RS14	545,850	537,427	98%
119 Riccarton Road West	RS109	17,924	17,924	100%
RS153: 77, 121 Chain Hills Road, part 100 Irwin Logan Drive, 3-20 Jocelyn Way, 38 and 40-43 Irwin Logan Drive, 25-27 Pinfold Place	RS153	653,000	127,553	20%
91 and 103 Formby Street, Outram	RS154	42,798	40,977	96%
155 Scroggs Hill Road	RS160	640,968	1,586	0.2%
85 Formby Street, Outram	RS175	59,965	58,996	98%
774 Allanton-Waihola Road	RS195	551,874	539,213	98%
489 East Taieri-Allanton Road, Allanton	RS200	86,102	70,722	82%
170 Riccarton Road West	RS212	83,477	83,477	100%

<sup>&</sup>lt;sup>18</sup> Reporting Officer's Reply on Minute 15, 16, and 17 from the Panel. 6 October 2022. Reporting-Officers-Reply-on-Minute-15\_16\_17.pdf (dunedin.govt.nz)

#### 3.3.2 Other submissions received on the NPS-HPL

- 1522. We note that several other submitters provided responses to Minute 17 which were not legal submissions. While not specifically requested by us, we briefly note those responses here.
- 1523. *Ms Alice Maley, Mr Christopher Girling, Ms Margaret Henry,* and *Susan and Donald Broad* all submitted in support of the NPS-HPL, and specifically its relevance to the two RS sites located in Outram (RS175 and RS154). All these submitters considered that the Outram sites should not be rezoned, due to conflict with the new NPS-HPL.
- 1524. We also note that the tenor of those responses generally reflects evidence provided by the submitters in the September hearing.

# 3.3.3 Is rezoning of the HPL sites consistent with the NPS?

- 1525. Ms Christmas provided a section 42A Addendum report on 15 November 2022, addressing the relevant considerations of the NPS-HPL for those affected sites identified in the Table above. She explained that Policy5 requires that urban rezoning of HPL (that is, zoning land to Residential) must be avoided, unless the NPS-HPL provides otherwise. Clause 3.6 outlines the tests that must be met to allow urban rezoning of HPL. This contains three clauses, a, b and c, which must <u>all</u> be met to allow rezoning to occur. Clause 3.6 is outlined above (in section 3.2 of this Decision Report).
- 1526. In relation to clause 3.6(1)(a), Ms Christmas stated that there is sufficient housing capacity over the short, medium, and long term, based on evidence provided by Mr Stocker. This showed, based on an update of the modelling undertaken for the Housing Capacity Assessment 2021 (HBA), that there is sufficient housing capacity across the city as a whole for the short, medium and long term, as well as in the individual 'catchments' in which the sites fall (we discuss the use of catchments in the HBA in section 2.1.1 earlier in this report). Consequently, Ms Christmas' opinion was that none of the sites can pass clause 3.6(1)(a).
- 1527. In relation to clause 3.6(1)(b), Ms Christmas considered it highly likely that there are other reasonably practicable and feasible options for providing additional development capacity that achieves a well-functioning urban environment, rather than needing to rezone the RS sites in question. She noted Mr Morrissey's assessment of the relevant RS sites (as part of the main hearing) and highlighted that he had not recommended any of them for rezoning due to various conflicts with Policy 2.6.2.1, including conflict with the compact and accessible objective, distance from centres, facilities and public transportation, and hazard issues. In her view, clause 3.6(1)(b) is not met for the sites in question.
- 1528. In relation to clause 3.6(1)(c), Ms Christmas noted that no cost-benefit analysis has been undertaken for most of the sites. We note that an assessment of RS14 was included in the Section 32 Assessment reporting, and an economic cost/benefit assessment was supplied for RS212 during the hearing. Ms Christmas noted that all the other sites have issues (costs) associated with them and were not recommended for rezoning by Mr Morrissey. Without more information and analysis, she did not consider it was possible to conclude that the benefits of rezoning outweigh the costs, and clause 3.6(1)(c) is therefore also unable to be met for any of these sites.
- 1529. Overall, Ms Christmas concluded that none of the sites met the criteria in 3.6(1) and therefore, as required by the NPS-HPL, rezoning should be avoided.

- 1530. Ms Christmas also provided additional comment on the sites that partially contain HPL. Her view was that while the NPS-HPL does not preclude rezoning the non-HPL parts of the site, to do so would generally result in a poor planning outcome (e.g. an isolated piece of residential-zoned land) and in all cases, rezoning of the entire site had not been recommended by Mr Morrissey.
- 1531. The ORC provided a statement<sup>19</sup> that they agreed with and supported the evidence of Ms Christmas.
- 1532. Mr Kurt Bowen and Ms Emma Peters also provided planning evidence on behalf of a number of submitters. Both repeated concerns raised previously about the accuracy of the HBA. In particular, the inability for the submitters to have been able to review the modelling undertaken and that the model relies on house prices increasing. They stated that any doubts about the HBA assumptions and its conclusions must be read in favour of the view that more land is required to give effect to the NPS-UD. They also disputed the use of catchments as representing the 'same locality and market' in terms of clause 3.6(1)(b). It was noted that some catchments are very large and, for example, that for the 'Outer Urban' catchment, Port Chalmers could not realistically be considered to be in the same locality as Brighton. They also made note that the sites in question represented the only option for providing additional capacity in that particular geographic location, and therefore can satisfy clause 3.6(1)(b).
- 1533. Mr Bowen identified that clause 3.10 of the NPS-HPL may provide a pathway to enable 'use' or 'development' of the land, outside of clause 3.6. Both Mr Bowen and Ms Peters identified site specific matters, for example property size, existing consents for residential dwelling, flooding risk and slope that in their opinion reduced the primary productivity potential of the sites. Some of this repeated or drew on evidence received in the September hearing.
- 1534. In her Reply, Ms Christmas called on Mr Stocker to address matters relating to the HBA. Mr Stocker provided an overview of the HBA, and reiterated his earlier statements that there is a surplus of capacity. He also spoke to his earlier evidence which outlined the information that had been provided to the submitters to enable their consultants to understand the model and the reasons for not releasing the requested site specific information to the public. These being matters related to potential privacy breaches, commercial competitiveness advantage and reiterating that site level information may not be accurate as the model works to create accuracy by aggregating data (the 'overs and unders') to be accurate at the aggregate level. He also reiterated that the external peer review of that work had been positive and had commented favourably on the transparency of the model, and the position on release being aligned to that of other councils.
- 1535. Ms Christmas then discussed the use of catchments. She noted clause 3.6(3) of the NPS identified that "in the same locality and market" means in or in close to a location where demand has been identified through a housing and business assessment. Whilst the HBA uses catchments to identify capacity, she acknowledged that we could take a narrower view of locality, provided we had regard to Mr Stocker's comments that demand on a scale smaller than catchment size is very difficult to determine, and there is no requirement in the NPS for Urban Development (NPS-UD) to provide for capacity at a fine-grained scale.
- 1536. Ms Christmas and Mr Stocker also discussed the results of the DCC's housing demand study which, based on a statistically representative sample, did not indicate people take a narrow

<sup>&</sup>lt;sup>19</sup> Otago Regional Council, letter dated 22 November 2022. Otago-Regional-Council.pdf (dunedin.govt.nz)

view of where they would choose to live (i.e. down to the individual settlement scale as suggested by Ms Peters) but rather the results indicate people are often flexible in terms of location. Mr Stocker gave the raw results provided from the residents from Outram that were surveyed to illustrate this. They also discussed that affordability rather than location may be a reason why some people choose to live in outer locations such as Allanton.

- 1537. Finally, Ms Christmas drew our attention to the requirements of clause 3.6(1)(b) and noted it requires that "there are no other reasonably practicable and feasible options for providing at least sufficient development capacity within the same locality and market while achieving a well-functioning urban environment". She emphasised that the assessment of alternatives is not limited to those in play through Variation 2 and that this requires an assessment of alternatives in the broader sense, for which there was no evidence provided by submitters
- 1538. She also emphasised the need to undertake an assessment against the criteria of a "well-functioning urban environment" and drew our attention to Mr Morrisey's assessment against the 2GP strategic directions which have several overlaps with these criteria. She noted that failure to meet those criteria formed part of the basis for his recommendation to not rezone these rejected sites. Ms Christmas considered it was likely there would be alternatives in the same locality and market (for example in Mosgiel) that better met these criteria if additional capacity was required.
- 1539. With respect to Mr Bowen's suggestion about the use of clause 3.10, Ms Christmas stated this clause is not relevant as it explicitly relates to situations where subdivision, use and development is not otherwise enabled under clauses 3.7, 3.8 or 3.9. It does not relate to urban rezoning (i.e. the focus of Hearing 4), which is governed by clause 3.6.

## 3.4 Evidence in relation to submitters' sites that have HPL

- 1540. Ms Peters provided evidence relating to the two sites located in Allanton (RS195 and RS200), Mosgiel (RS212, RS153), and the two Outram sites (RS154 and RS175). In all cases, she considered that each component of clause 3.6(1) can be met. She discussed clause 3.6(1)(a) for all the sites and raised perceived issues with the HBA as outlined above. She considered that clause 3.6(1)(b) is also satisfied for the sites, and there is no other development capacity within the 'same locality and market' for the various sites. She also noted the high demand for the various areas, and in some cases limited alternative options for providing capacity in the area. For all sites, she noted they had limited potential for primary production, and that they could also satisfy clause 3.6(1)(c).
- 1541. Ms Peters also provided evidence relating to RS160 (Scroggs Hill). She highlighted the very small area of HPL within this site and noted that, should the site be rezoned, the small area of HPL would be included in a record of title with an identified building platform situated outside of that small area to ensure that no residential activity occurs on the HPL land.
- 1542. Mr Bowen provided evidence relating to RS109 (Riccarton Road, Mosgiel). He stated the site is of such a small size (1.74ha) that it is unable to be used effectively in primary production, which should be a relevant consideration under the NPS-HPL. On questioning Mr Bowen explained this site may not meet the other relevant criteria for assessment under the NPS provisions.
- 1543. Mr Bowen provided evidence relating to RS14 (Abbotsford) and noted this was also provided on behalf of Ms Peters. He also discussed the Property Economics and Beca report, which included an assessment of RS14, and noted that rezoning this site was assessed as having a

- 'lower impact' based on relative economic costs. He lastly noted that one of the component land parcels of RS14 is of a small size (2.66ha), and stated consideration on the application of the NPS-HPL should be given to sites like this, of a limited site area.
- 1544. In her Reply, Ms Christmas responded directly to a number of the site-specific points made by Mr Bowen and Ms Peters. Overall, she maintained her original recommendations that residential rezoning of any of the NPL parts of the relevant sites is contrary to the NPS-HPL.

#### 3.5 Conclusions on evidence

- 1545. Overall, we agree with and accept the evidence of Ms Christmas on the application of the relevant provisions of the NPS-HPL to the RS sites in question. We agree with Ms Christmas that the NPS-HPL directs that the residential rezoning of any part of a site that constitutes HPL is to be avoided unless all three criteria in clause 3.6(1) apply. We accept Mr Stocker's evidence, consistent with our conclusions in section 2.1.1 above, that there is sufficient residential capacity within Dunedin for the short and medium terms considering both the City as a whole, and in relation to the specific catchments into which the HPL sites fall. Consequently, it is our view that 3.6(1)(a) is not met for any of the RS sites.
- 1546. We consider the concems expressed from submitters regarding the veracity of the model are unfounded, noting in particular the favourable response from the peer review by Ministry for the Environment. In addition, we acknowledge the large area of some of the catchments, but we accept the evidence of Ms Christmas and Mr Stocker on this, as summarised above.
- 1547. On this basis, we do not need to consider clauses 3.6(1)(b) and (c). However, for completeness, we also agree with Ms Christmas' assertion that it is highly likely that there are other reasonably practicable and feasible alternative options for providing housing capacity within the same locality and market. We note there is a surplus in the outer urban, Mosgiel and outer suburbs catchments.
- 1548. We do not accept Ms Peters' argument that the Outram and Allanton sites are the only options for providing additional capacity in those localities and markets. We are cognisant of the requirement that our decisions must achieve a well-functioning environment. We consider that Mosgiel provides a reasonably practicable alternative option which better meets the well-functioning environment test, if additional capacity was needed (which from the DCC evidence it is not). Any evidence raised by the submitters to counter that appeared largely anecdotal and not rigorously assessed. Similarly, we consider that the same response could be applied to the other sites on the periphery of Mosgiel (e.g. RS109, RS212, RS153), i.e. Mosgiel itself provides a reasonably practicable alternative option.
- 1549. We agree that clause 3.10 is not relevant for decisions on residential rezoning, and that it does not provide a valid alternative pathway for the urban rezoning of highly productive land. It may be the case that this clause provides a pathway for subsequent resource consent processes, but we note Ms Christmas advised that it would likely to require a non-complying activity process for developing rural zoned sites. We have therefore not considered Mr Bowen's assessment of RS14 in terms of clause 3.10 any further.
- 1550. In relation to sites that are only partially affected by HPL, we have considered whether it is appropriate to rezone the non-HPL parts. For this, we have returned to our original assessment of these sites (see section 2.3 decisions on individual sites). We have heard

nothing that changes these conclusions - that in all cases, zoning is inconsistent with Policy 2.6.2.1 and is not appropriate.

# 3.6 Impacts on decisions

- 1551. As outlined previously, our decisions outlined in section 2.3 of this report were made separately without applying any assessment of the NPS-HPL.
- 1552. However, in order to give effect to the NPS-HPL we have outlined in this section how the NPS-HPL affects those decisions already outlined in section 2.3.
- 1553. Firstly, we note that for all of the RS sites affected by the NPS-HPL (RS14, RS109, RS153, RS154, RS160, RS175, RS195, RS200, RS212), our decision in section 2.3 is to reject the submissions seeking rezoning as we do not consider the sites are suitable for residential zoning when assessed against the relevant (non-NPS-HPL) criteria.
- 1554. We have subsequently concluded that rezoning the HPL parts of these sites is also contrary to the NPS-HPL provisions, and to zone them would not be consistent with s75(3), the requirement for a district plan to give effect to any national policy statement.

Appendix D – Table of Submitters				
Submission reference	Name	Contact		
S298	Bill Hamilton	andrew.robinson@ppgroup.co.nz		
FS124	John Michael Rawling (Wylde Willow Garden)	132 North Taieri Road, Abbotsford.		
FS148	Laurence Potter	laurencepotter1@gmail.com		
FS168	Melinda Stevenson-Wright	miindee@hotmail.com		
FS173	Mervyn Hancock	mervhancock@hotmail.com		
FS184	Otago Regional Council	warren.hanley@orc.govt.nz		
FS206	Rodger Reid	robynalan.r@xtra.co.nz		
FS229	Steve Ross (Nash and Ross Limited)	andrew.robinson@ppgroup.co.nz		
FS255	Brian Benn (Benn Family Trust)	darryl@terramark.co.nz		
FS60	Dallas Roff	dallasroff@hotmail.com		
FS82	Donald Paterson	donpaterson177@gmail.com		
FS85	Elizabeth Hancock	Imhanco@hotmail.com		
FS88	Erica Betts	ericab@outlook.co.nz		
FS94	Gerald Finn	gjmickfinn@xtra.co.nz		
FS187	Patti Napier	patti.napier@gmail.com		
FS4	Alec Weavers	alecweavers@hotmail.com		
S281	Nash and Ross Limited (Steve Ross)	andrew.robinson@ppgroup.co.nz		

FS207	Roger Bailey (The Bailey Family Trust)	robyn.bailey.58@gmail.com
FS102	Hayden Scorringe	dunedinsupermoto@xtra.co.nz
FS106	Hugh Anderson	hugha2@gmail.com
FS114	James Macaulay	emacaulay5@gmail.com
FS116	Jennifer Robinson	jrobharvey7@gmail.com
FS129	Karena Taunoa	mike@ond.co.nz
FS137	Kelly Adie	brycekellya@gmail.com
FS229	Steve Ross (Nash and Ross Limited)	andrew.robinson@ppgroup.co.nz
FS33	Brenda Rae	tamzin_nz@yahoo.com
FS40	Bryce James van de Water	activefabricatingltd@gmail.com
FS71	David Johnston	d.johns@xtra.co.nz
FS74	Debbie van de Water	debin@xtra.co.nz
FS78	Dianne Galvin	dianne.galvin@otago.ac.nz
FS84	Elisabeth Lukeman	lizzy.lukeman@otago.ac.nz
FS95	Glen Graeme McLean	mike@ond.co.nz
FS97	Graeme and Natalie Williamson	gjwilliamson00@gmail.com
S302	Alan David and David Eric Geeves and Nicola Jane Algie	andrew.robinson@ppgroup.co.nz