**TO:** The Hearing Administrator, Lynley Scott, <u>DP.Hearings@qldc.govt.nz</u>

#### BEFORE AN INDEPENDENT HEARING PANEL APPOINTED BY QUEENSTOWN LAKES DISTRICT COUNCIL

UNDER THE	Resource Manag	ement Act 1991 (" <b>Act</b>	")
IN THE MATTER OF	District Plan ( accordance with	e proposed Queensto Te Pūtahi Ladies Part 5 of Schedule ement Act 1991 (" <b>Var</b>	Mile) in 1 to the
BETWEEN	GLENPANEL ("GDL")	DEVELOPMENT	LIMITED
	Submitter		
AND	QUEENSTOWN ("QLDC")	LAKES DISTRICT	COUNCIL

Proponent of the Variation

#### STATEMENT OF EVIDENCE OF WERNER MURRAY ON BEHALF OF GDL DATED: 25 OCTOBER 2023

Before a Hearing Panel: David Allen (Chair), & Commissioners Gillian Crowcroft, Hoani Langsbury, Judith Makinson and Ian Munro

#### Introduction, qualifications and experience

- My full name is Werner Murray. I am a Principal Planner at The Property Group, based in Queenstown. I have been engaged by Glenpanel Development Limited (GDL) to provide evidence in support of its primary and further submissions on the Proposed Queenstown Lakes Proposed District Plan: Te Pūtahi Ladies Mile Variation.
- 2. I hold the qualification of Bachelor of Arts (Geography) from the University of Otago and a Graduate Diploma of Urban and Regional Planning from the University of New England. I have 16 years' experience in planning and resource management, and I also hold New Zealand Planning Institute full membership. I am a Certified Commissioner (Chair Certificate) under the Ministry for the Environment's 'Making Good Decisions' course.

- 3. I am a Principal Planner at The Property Group where I have worked since 6 January 2020.
- 4. My recent project work has included advising on several master planned subdivision proposals, including undertaking environmental effects assessments for both rural and urban subdivisions, preparing consent applications, consultation with affected and interested parties and appearing at Council hearings. In addition, I have also been involved in a number of large-scale projects in the district that have dealt with the amenity effects, and reverse sensitivity effects of change in land use in rural areas.
- 5. I am a commissioner for Gore District Council and have the delegation to make planning decisions on its behalf.
- Prior to joining The Property Group, I was employed at the Queenstown Lakes District Council (Council or QLDC) from November 2017 to January 2020, where I held role of Principal Planner.
- 7. In my role at QLDC, I oversaw the resource consent technical planning processing for all resource consents and worked on numerous consent applications in the QLDC urban areas, as well as for sites within the Outstanding Natural Landscape and Rural Character Landscape areas. I also led the planning strategy for all the QLDC Environment Court Appeals.
- 8. I am familiar with the site, and surrounding environs.

# Code of Conduct

9. I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023 and confirm that I have complied with it in preparing this evidence. I confirm that the issues addressed in this evidence are within my area of expertise, except where I have indicated that I am relying on others' opinions. I have not omitted material facts known to me that might alter or detract from my evidence.

## Scope of evidence

- I have prepared evidence in relation to planning matters in support of the submission of the Glenpanel Development Limited (GDL), a submitter on the Te Pūtahi Ladies Mile Variation (Variation). My evidence includes:
  - (a) involvement in the Variation and GDL's submission;
  - (b) a summary of the principal issues;
  - (c) Issues raised by the Variation relevant to my expertise;
  - (d) Council section 42A report and expert evidence;
  - (e) matters raised by other Submitters;
  - (f) my conclusions and recommendations;
  - (g) a section 32AA assessment in Appendix 1; and
  - (h) a detailed assessment of relevant objectives and policies in Appendix 2.

## My background involvement in the GDL submission

- 11. My role in relation to GDL's submission on the Variation has been to provide independent expert advice and assessment in relation to planning matters. I have been involved in considering a wide variety of options for development over the GDL's site including considerations under the Covid Fast-track Act.
- 12. While I consider that the Variation as notified reflects a strong concept which I support, its execution is only adequate. For the reasons I identify in this statement, I consider that acceptance of GDL's relief will ensure that the Variation is far more effective, and better meets the relevant higher order requirements, as well as the relevant objectives and policies of the QLDC planning documents.
- 13. In preparing this statement of evidence I have considered the following documents:
  - (a) The National Policy Statement on Urban Development 2020 (NPS-UD);
  - (b) Queenstown Lakes District Proposed District Plan Section 32Evaluation Report, Implementing Policy 5 of the National Policy

Statement on Urban Development Urban Intensification Variation;

- (c) The Ladies Mile Te Putahi masterplan establishment report dated February 2020;
- (d) The TPLM masterplan consultation documentation;
- (e) The TPLM variation (and associated documents including the section 32 evaluation report);
- (f) The Queenstown Lakes District housing development capacity assessment 2021;
- (g) QLDC Proposed District Plan character 3 and 4; and
- Joint Witness Statement of Landscape Experts on 21.22.1
   PA ONF Peninsula Hill and 21.22.6 PA ONF Slope Hill, dated 4 October 2023;
- Joint Witness Statement of Landscape Experts in relation to Slope Hill ONF, dated 18 October 2023;
- (h) Evidence of Mr Mark Tylden GDL, dated 20 October 2023; and
- Section 42A report on the TPLM Variation prepared by Mr Jeff Brown, dated 29 September 2023 and associated appendices (including all supporting expert evidence).

## Summary of Principal Issues

- 14. My evidence is focused on:
  - (a) The challenges to the delivery higher density residential housing in Flint's Park.
  - (b) The significance of the Homestead Precinct for Flint's Park and the wider Te Pūtahi ladies Mile Masterplan area (the Masterplan) concessions sought (including increased height), and;
  - (c) Development along, and in the ONF, and the rationale for concessions sought.
  - (d) Roading layout and transport triggers the rationale for concessions sought.

## Anticipated Medium Density Residential Outcomes

- 15. GDL expresses general support for the provisions of the Masterplan Development Regulations (**MDR**) but highlights the challenges posed by the requirement for a relatively high MDR spectrum (40–48 dwellings per hectare), particularly its impact on housing typologies, affordability, and the creation of a "well-functioning urban environment."
- 16. GDL acknowledges the challenge of delivering commercially viable higher density residential environments, even in Queenstown, and highlights the importance of factors such as amenity, access to public transport, open space, and urban services to attract and sustain demand for more intensive development. I rely on the evidence of Mr Weir and Mr Thompson in relation to development that is feasible in the Queenstown market, although my own observations are supported by their evidence .
- 17. Mr Wier is of the opinion that increasing the density towards the upper end of the range sought by the TPLM Variation will severely degrade streetscape amenity and functioning. Mr Weir suggests that the provision of more intensive typologies is best suited where amenity is the highest, around the Glenpanel Homestead and associated grounds.
- 18. Mr Weir has looked more closely at the development statistics since receiving the Council's evidence and the lodgement of this submission and revised his density recommendations. He has said that a density range from 33-54dph (over a gross developable area) would be achievable. I adopt this evidence and recommend that the provisions referring to density in the medium density precinct be amended to <u>30</u> <u>Dwellings per hectare of gross developable area</u>. I also consider that Mr Thompson also makes valid points about lots sizes and, should this be a concern to the Panel, then it may be appropriate to establish maximum lot sizes within the subdivision provisions.

## Increasing height around the Glenpanel Homestead

19. A key factor in optimising the Homestead Precinct concept is the provision of additional building height to 17m (refer to page 2 in Graphic Attachment prepared by Mr Weir). This not only helps deliver a residential density which is commercially viable, but it also acts as a landmark in

support of the Homestead itself. In short Mr Weir is of the opinion that the homestead needs to thrive and can be part of unlocking the potential of the Homestead precinct. Mr Thompson echoes this thesis by stating:

"A small expansion to the local centre would, most notably, enable additional residential units above the retail and commercial spaces. This would have several economic benefits. Most notably, it would allow additional high-density housing that allows the development to achieve the minimum density requirement."

20. Mr Weir describes his view of the homestead and grounds from an urban design perspective which includes taking into account the heritage assessment that formed part of the TPLM. Mr Milne further assess the impacts on the setting of the Homestead as follows:

"In my opinion, in the context of the TPLM Variation, the historic values ascribed to the wider setting of the Glenpanel Homestead will be highly altered due to the anticipated development of Ladies Mile as a result of the TPLM Variation. Therefore, it is the historic values ascribed to the immediate setting of the Glenpanel Homestead that will be most sensitive to any increase in building height".

21. I accept this view and, in my opinion, support the increase in the height limit to be more commensurate with the adjoining high-density zone to the east of the GDL land, to a building height to 17 metres. I adopt the evidence of Mr Weir, Mr Thompson, and Mr Mile's evidence as the counterbalance to the evidence that Mr Miller has put forward. I am however of the opinion the concerns that Mr Miller raises about protecting the values of the Homestead could be addressed by adding the Homestead building and heritage matters to the matters of discretion at 49.5.41.4. This would complement Policy 49.2.4.2. which is designed to protect the heritage values of the Homestead. Taking Mr Weir and Mr Thompson's views into account, sensitive development in the Glenpanel precinct would add to the value of the Homestead rather than detract from it, creating a highly legible, attractive and vibrant node.

#### **Urban Development - Water reservoirs on Slope Hill**

- 22. The Te Pūtahi Ladies Mile Zone is being advanced hand in hand with an extension of the Urban Growth Boundary (**UGB**). In terms of the scheme of the strategic objectives and policies, the location of a UGB should likely be resolved first, before the particular zoning, precinct and rules to apply within it. However, it may make little difference when both are advanced contemporaneously. This submission is seeking to re-align the Urban Growth Boundary to a more logical, and appropriate edge, to better enable the extent of development of critical infrastructure that will support the eastern corridor into the future, as well as some additional development in an extended Glenpanel Precinct.
- 23. Slope Hill is subject to an Outstanding Natural Feature (ONF) overlay, the specific features and values of which are being identified in the Priority Area Landscape Schedules (PA). Glenpanel are seeking an extension of the Urban Growth Boundary (UGB) to include an area above where water reservoirs might be located (423 RL).
- 24. Urban Growth Boundary is defined in the District Plan as: "a boundary shown on the District Plan web mapping application <u>which provides for</u> <u>and contains existing and future urban development</u> within an urban area."
- 25. The reason for requesting the inclusion of the water reservoirs onto the UGB is to provide a planning pathway for consenting reservoirs which are despite being classified as a utility are by definition also urban development1. Urban development is to be avoided outside the UGB, and so the current TPLM provisions do not provide a consent pathway for such activities, no matter how necessary. This appears to be an oversight under the TPLM provisions as proposed.
- 26. When development is located within the ONL/F, any proposal needs to be considered against Chapter 6 of the District Plan. Managing Activities

<sup>&</sup>lt;sup>1</sup> Urban Development means: development which is not of a rural character and is differentiated from rural development by its scale, intensity, visual character and the dominance of built structures. Urban development may also be characterised by a reliance on reticulated services such as water supply, wastewater and stormwater and by its cumulative generation of traffic. For the avoidance of doubt, a resort development in an otherwise rural area does not constitute urban development, nor does the provision of regionally significant infrastructure within rural areas.

on Outstanding Natural Features and in Outstanding Natural Landscapes addressed in policies 6.3.3.6, and especially 6.3.3.7, give a policy pathway to establishing regionally significant infrastructure in the ONL/F. However, reservoirs are not regionally significant infrastructure, as they do not include treatment, and so they are instead "just" a utility and "urban development" neither of which have a policy pathway through chapter 6.

- 27. It is proposed to move the UGB up above the reservoirs, to allow the reservoirs in a future consent application to be considered under Chapter4. More specifically:
  - 4.2.2B which states:

Objective - Urban development within Urban Growth Boundaries that maintains and enhances the environment and rural amenity and protects Outstanding Natural Landscapes and Outstanding Natural Features, and areas supporting significant indigenous flora and fauna.

4.2.2.1(a) which states:

Integrate urban development with existing or proposed infrastructure so that: Urban development is serviced by infrastructure of sufficient capacity;

28. This approach is similar to the approach taken on Peninsula Hill where the UGB and the ONL overlap.

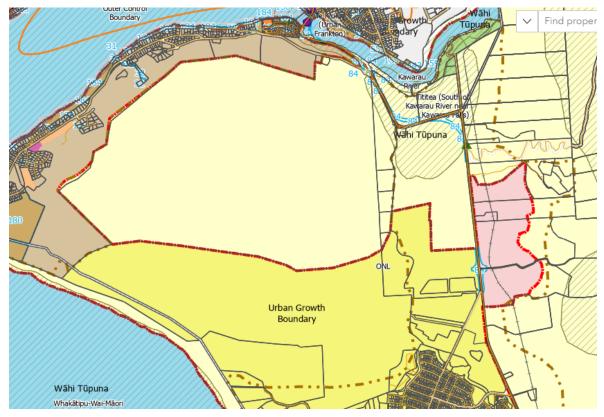


Figure 1: source QLDC GIS: UGB (red dashed line); ONL (brown dashed line)

- 29. It is also understood that Mr Milne, Mr Compton-Moen and Ms Gilbert have had expert conferencing and a JWS has been produced. The JWS concluded that there was general agreement that the water tanks may be able to be absorbed on the Glenpanel site with potential effects either avoided or mitigated through location and site design measures. It was acknowledged this would need to be tested by way of a detailed landscape assessment.
- 30. The proposal to move the UGB above the 423 RL will mean that a future resource consent or designation could be applied for to install the tanks and the appropriate site design measures would be considered at that time; so moving the UGB simply means that a policy impediment will be removed within the higher order chapters of the PDP, which currently provides a "hard" policy against such activities, even if they would not adversely impact on the values of the ONF.

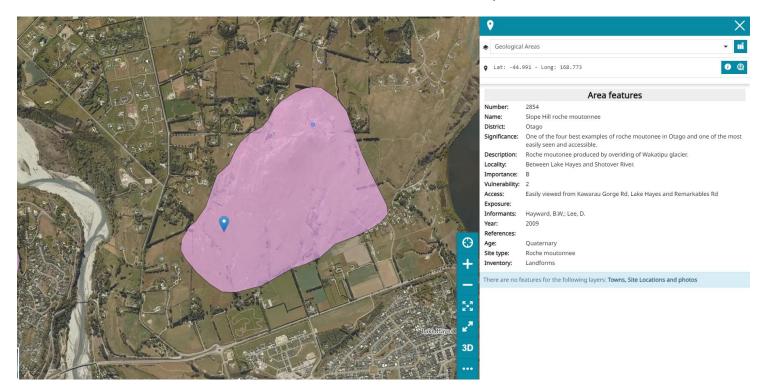
# Urban Development – Medium Density Zone and Glenpanel Precent Toe of Slope Hill

- 31. GDL is also requesting the toe of Slope Hill be made available for some development. Mr Weir has assessed the value of development on and around the toe of Slope Hill from a place making perspective, including allowing for view shafts and the value of addressing the interface between urban and rural (ONF) land uses.
- 32. Mr Mile discusses the location of the ONF and refers to the New Zealand Geopreservation Inventory, and where the ONF is defined on the mapping tool that is available from the New Zealand Geopreservation Inventory.
- 33. I adopt this evidence in lieu of any evidence from a geologist/geo heritage specialist to the contrary. My opinion also draws from the explanations provided in the *Best Practice guide: Outstanding Natural Features What are they and how should they be identified. How their significance might be assessed and documented*<sup>2</sup>. This guide was released in 2019, after the PDP released its first ONF/L provisions so it is safe to say that the guidance set out by the Geoscience Society of New Zealand was not incorporated into the thinking at the time the PDP was written.
- 34. Notably the guide states that:

"Additionally, <u>not all listed sites are suited or necessarily</u> <u>need to be scheduled as ONFs</u>. Thus, the assessor will need to carefully assess which sites in the inventory should be considered for ONF status. All will meet the outstanding level at the regional/local level at a minimum. If the assessor has a geoscience background, they may know of additional geoscience sites or know colleagues who have worked in the area and may nominate additional sites for consideration."

<sup>&</sup>lt;sup>2</sup> Best Practice guide: Outstanding Natural Features – GSNZ Miscellaneous Publication: Geoscience Society of New Zealand, June 2019, Geoscience Society of New Zealand Miscellaneous Publication No. 154, ISSN 2230-4495

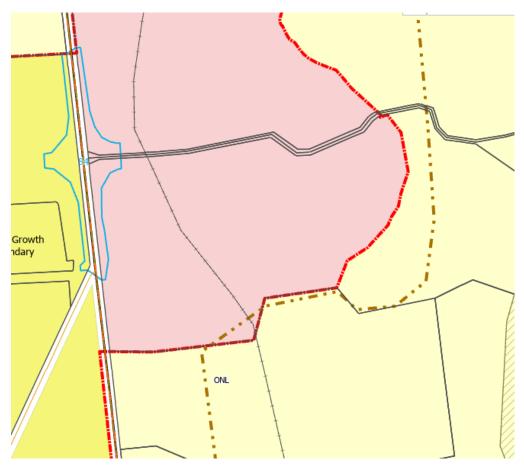
35. In this instance I am of the opinion, despite Ms Gilbert's assertion that the ONF has been settled and that it follows the outstanding natural feature (Roche moutonnée), that it appears that the line that the QLDC has chosen to represent the ONF is arbitrary. If that is the case, then there can be no impediment to moving the ONF line to align with the ONF as mapped by the New Zealand Geopreservation Inventory to more accurately represent the *feature* it is supposed to identify. Below is a screen shot from the Geoscience Society of New Zealand GIS



**Figure 2:** source New Zealand Geopreservation Inventory (Importance B: of national scientific, aesthetic or educational value; (Vulnerability 2: vulnerable to significant damage by human-related activities

- 36. Further Mr Mile concludes that buildings along the toe of Slope Hill in the discrete locations proposed by the amended zoning would not adversely impact Slope Hill.
- 37. Mr Mile also notes that he is not certain that the zoning needs to extend and the ONF boundary be amended in that location, but that may make more sense from a planning perspective. Firstly, it is not uncommon in the district to have ONL/F<sup>3</sup> overlapping with a zone. In addition to the

<sup>&</sup>lt;sup>3</sup> It has been established that according to New Zealand Geopreservation Inventory, the "toe" of Slope Hill is not ONF from a geosience perspective



Jacks Point example already provided, below is another example of this in the Coneburn Industrial Zone:

Figure 3: source QLDC GIS: UGB (red dashed line); ONL (brown dashed line)

It is also worth looking at the ONF on Mount Iron which is also a Roche Moutonnée that is identified in the Geoscience Society of New Zealand GIS. The QLDC ONF line does not follow the feature at all to the north or allows some development on the feature to the west.

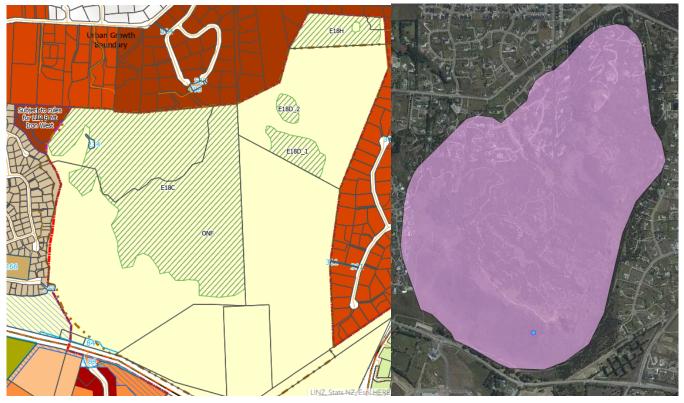


Figure 4: QLDC ONF Line Mt Iron (left); and Geoscience Society of New Zealand GIS (right)

38. Note that Morven Hill is the same with development along Sicilian Lane carved out of the ONL and the Roche Moutonnée. Interestingly Morven Hill is classified as an ONL in the QLDC PDP despite its classification by the New Zealand Geopreservation Inventory as one of four best and most readily visible and accessible Roche Moutonnée in Central Otago.

## Most appropriate location for the ONF

- 39. The New Zealand Geopreservation Inventory does not classify the toe of the hill as part of the Natural Feature that is of national scientific, aesthetic or educational value, it may be appropriate in this instance to move the ONF line as part of the SPP process.
- 40. As can be seen from the analysis above often the ONF/L lines are drawn along practical boundaries and does not necessarily reflect and accurate depiction of where in the case of an ONF is.
- 41. In terms of the most appropriate location of the ONF line, I am of the opinion that a pragmatic approach be taken that takes into account the spatial context of the feature and also has landscape input into the

decision and for this reason I adopt Mr Milne's factual recommendation of where the ONF line should be drawn. I am also of the opinion that the overlay that protects the trees around the homestead could be expanded to further contribute to the amenity along the toe of slope hill, as shown in Figure 5 below this will contribute towards a transition between the urban development of the MDZ and the Glenpanel Zone



*Figure 5:* Sketch of actual locations of trees this has been shown graphically shown on Drawing 300 which is attached.

42. It may be that Rule 27.7.25 be expanded to not only include the impact of development on existing established trees identified on the Structure Plan, but also makes provision for native planting in the areas shown above. This is already covered in 27.9.8.1(ii)(d) which states:

> "the retention of mature existing vegetation, including those identified as "Existing Trees to be retained" on the Structure Plan and other specimen trees where possible, and the introduction of indigenous vegetation (preferably that naturally occurs and/or previously occurred in the area), to contribute to the character and amenity of the future development";

43. Moving the ONF line to the location requested by this submission would mean that the ONF line in the neighbouring properties would not match the proposed line. I am of the opinion that a consequential amendment could be made in order to effectively smooth out the ONF on the neighbouring properties.

- 44. Doing so would allow for rezoning and a limited amount of additional development along the toe of the Hill to help establish a landscaped interface and public pedestrian amenity along Slope Hill along the toe of Hill essentially establishing a 'transition zone' as described by Mr Weir and shown in the graphic attachments.
- 45. From a planning and legal perspective, development within ONF's is not precluded it simply has far higher planning threshold to pass. It is my understanding from the recent Port of Otago case<sup>4</sup> that if issues are known and evidence exists that tension will be created later, in this instance the water reservoirs outside the UGB, and development on the toe of Slope Hill, then it is best to address those tensions at the plan stage, rather than essentially kick the can down the road to resource consent. Here we have the opportunity within jurisdiction (as I understand it), to address matters relating to the ONF that will if resolved result in efficient land use (i.e., land that is not considered to be ONF can be returned to the development pool) to better give effect to the NPS-UD.
- 46. In relation to the Ongoing ONL Priority Areas, I consider that the TPLM SPP is clearly focused on the Ladies Mile, and in particular GDL's land. A fine-grained assessment has been undertaken in relation to the ONF on this land. This is a lawful process and a plan change and the PA process is running in tandem to the TPLM Variation and is able to incorporate any changes that are made in this forum.
- 47. I adopt Mr. Weir's view that by incorporating the lower slopes of Slope Hill into the Masterplan area (as well as an extension of the UGB) and enabling a very limited amount of development, this would likely:
  - (a) Protect and enable the ecological enhancement of the gullies;
  - (b) Secure public access onto, and up Slope Hill;

<sup>4</sup> 

Port Otago Limited v Environmental Defence Society Incorporated [2023] NZSC 112.

- (c) Enable replanting of marginal farm land into native forest and plantings within the gullies; and
- (d) Accommodate critical infrastructure (such as the Water Reservoirs) to support the Masterplan urban development.

## Transport and transport triggers

48. Mr. Bartlett has assessed the roading and transport triggers and summarized the issues into four categories outlined below.

## Location of Key Roads within the Variation:

- 49. The GDL land is situated in Sub-area B of the Variation, and it includes the Collector Type A road running east to west through the site. This road's current intended placement is not, however, connected to any existing legal road or public access, making the development of the GDL land dependent on the development of adjacent land to the east or west for public access. This reliance on the development of the Collector Type A road by others, the timing of which is uncertain, raises concerns about the feasibility of access to the GDL land.
- 50. Should this rigid format continue into the approved variation it makes development very difficult, costly, and inefficient especially once time to undertake road stoppages and new access agreements with developers who may not be ready to develop yet is taken into account. These provisions are highly inefficient, as development applications that do not comply with this element of the structure plan are non-complying.

## Reliance on Bus Infrastructure to Drive Modal Shift:

51. The success of the proposed public transport bus network is critical to achieving mode shift targets outlined in the Transport Strategy. However, existing modeling indicates that these targets are difficult to attain without substantial investments and measures within the transport system, which may not be guaranteed due to funding uncertainties. The reliance on State Highway 6 for both private vehicle and public transport infrastructure creates a continued dependency on the highway. To reduce trip generation and alleviate this dependence, alternative methods such as high-quality communication networks, flexible live/work

dwellings, local convenience shopping, and office spaces within the TPLM development are suggested. The concern is that residential areas may develop ahead of essential commercial and community facilities, which could exacerbate the reliance on external transport solutions.

52. This risk can be mitigated by including provisions that envisage/allow for alternative modes of transport. For instance, greenways were proposed in the Flint's Park application that went to the EPA under the Covid Fast-Track Consenting Act. These greenways could not only incorporate stormwater (in an integrated manner) but also active travel and potentially alternative transport solutions like Ohmio<sup>5</sup> or Whoosh<sup>6</sup>.

## Timing of Major Transport Infrastructure Ahead of Development:

53. The Variation Zone provisions require specific transport infrastructure, including bus stops on State Highway 6 and pedestrian cycle crossings, to be provided ahead of development. These elements are positioned to the west of the SH6 Lower Shotover roundabout, some distance from the GDL land and the proposed Flint's Park residential development. The need for access to land owned by others for these facilities could hinder the required infrastructure's delivery and impact development possibilities. Consultation with authorities has indicated that necessary transport infrastructure may be achieved without adhering to the Variation's requirements, thus making it possible for developments like Flint's Park to proceed without strict reliance on the Structure Plan requirements.

## Reliance on the Structure Plan to Achieve Transport Outcomes:

54. While the Structure Plan envisions the development of the Collector Type A road through other adjacent land parcels to the east and west, its rigid adherence could limit overall development in the TPLM area. It is noted that GDL's Flint's Park residential development could proceed with direct access from State Highway 6, which has been identified as a feasible option in consultation with transportation authorities, potentially achieving the Transport Strategy's objectives without being tied to the Structure Plan's requirements.

<sup>&</sup>lt;sup>5</sup> Ohmio: https://ohmio.com/

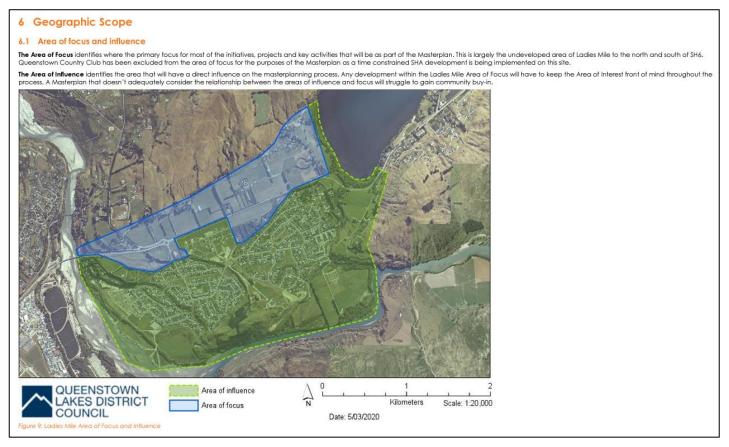
<sup>&</sup>lt;sup>6</sup> Whoosh® - Introducing a new transportation solution.: https://whoosh.solutions

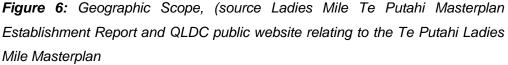
#### Stormwater

- 55. Mr. Ladbroke has considered Stormwater in great detail as part of an application for land use and subdivision (Flint's Park) that went to the EPA under the Covid Fast-Track Consenting Act.
- 56. The initial TPLM Masterplan proposed an integrated stormwater system with two primary stormwater devices, but this concept was subsequently removed from the notified TPLM Variation, shifting the responsibility for stormwater management to developers. The removal of the centralized system was attributed to challenges arising from the large number of landowners and differing development timelines, with the added complexity of funding limitations for land acquisition by the Council. Flint's Park had originally planned a distributed approach for stormwater disposal with multiple smaller devices, but the Council requested fewer devices for operational and maintenance reasons. The Flint's Park Stormwater Concept Design has demonstrated the feasibility of consolidating devices into four corridors along roads with green space (greenway). There is also the possibility of further consolidation into a central area running East to West, with a secondary alignment in the same vicinity running North-South, though the final size and location decisions are recommended to be deferred to the Detailed Design stage.
- 57. The decision to remove the centralized stormwater system aligns with the practical challenges of coordinating numerous landowners and their development schedules. The concept of consolidating stormwater chambers into specific areas along road corridors with green space seems workable, and the possibility of a more integrated system in general alignment with neighboring properties could enhance stormwater management efficiency. The specific details, however, are better left to the Detailed Design phase to allow for fine-tuning based on the practical needs and conditions of the development.

## Key Focus Area

58. Figure 6 below shows what QLDC called the key focus area when in literature that went out in public consultation, including in the Ladies Mile Te Putahi Masterplan Establishment Report<sup>7</sup>.





59. The Area of Focus identifies where the primary focus for most of the initiatives, projects and key activities that will be as part of the Masterplan. This is largely the undeveloped area of Ladies Mile to the north and south of SH6. Queenstown Country Club has been excluded from the area of focus for the purposes of the Masterplan as a time constrained SHA development is being implemented on this site.

<sup>&</sup>lt;sup>7</sup> <u>3a-ladies-mile-establishment-rationale-report-c.pdf (qldc.govt.nz)</u>,

- 60. Attachment 1 includes Plan 302 that shows what could be seen as a transition area, and also the original **study area** that was notified on the Council Lets Talk public consultation page that stated: *The area marked in blue below is the key focus area, however there is a much wider area of influence that must be considered to ensure the Masterplan and Plan Variation delivers the best outcomes for the community.*
- 61. Moving the ONF boundary to the location proposed is within the area of focus.

## **Conclusions and recommendations**

- 62. Overall, I consider that the proposal will:
  - (a) Largely promote the sustainable management of natural and physical resources by enabling future occupiers to provide for their social and economic well-being through establishment of much needed homes housing, supported by the infrastructure that is envisaged as part of the TPLM plan variation, while at the same time avoiding, remedying and mitigating adverse effects on the environment.
  - (b) in its current form risk not being able to deliver these outcomes, as there may be on consent pathway for the water tanks required to service the entire development; and
  - (c) without inclusion of the additional development areas on the toe of the slope at the submitter's site, and the other sitespecific relief sought, will not best or most appropriately achieve the purpose.

DATED this 25th day of October 2023

Werner Murray

## APPENDICES

Attachment 1 – Plans

- Plan 300 Shows the relief sought.
- Plan 301 Shows a magnified version of the GDL land and also a transition area between the urban (zoned as MDR and Glenpanel Precinct) and rural land to the ONF.
- Plan 302 Shows what could be seen as a transition area but also shows the original <u>study area</u>.

Attachment 2 - Section 32AA report

Attachment 3 - Best Practice guide: Outstanding Natural Features What are they and how should they be identified. How their significance might be assessed and documented



REV	ISSUE	DATE
A	Client Issue	25/10/2023

#### LEGEND

- Subject Site (~12.4ha)
- Te Putahi Ladies Mile (TPLM) Area
- |||||| Contours (5m)
- Open Space Recreation Area
- °°°° Existing Trees Overlay
- Roche Moutonnée Geological Feature
- --- Proposed Urban Growth Boundary
- --- Current ONF Delineation
- Proposed ONF Delineation
- Slope Hill Gullies \_.\_\_
- Medium Density Residential Zone (MDRZ)
- Glenpanel Homestead Precinct
- Primary Infrastructure Corridors
- Landscape Buffer
- TPLM Commercial Area
- Previously Developed Areas within TPLM
- Memorial Garden
- Gateway Feature  $\alpha$



## TITLE Roche Moutonnée

SCALE (A3) 1:5,000	0 20	50	100
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PROJECT Flints Park SPP

CLIENT Glenpanel LP

JOB NO 2201-003-08 Client Issue

STATUS

DRAWING NO 300

REVISION А

DATE 25/10/23





REV	ISSUE	DATE
A	Client Issue	25/10/2023

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- Glenpanel Homestead Precinct
- Primary Infrastructure Corridors
- Landscape Buffer



SCALE (A3) 1:2,500

NORTH  $(\Box)$ 

PROJECT Flints Park SPP

CLIENT Glenpanel LP

JOB NO 2201-003-08 Client Issue

STATUS

DRAWING NO REVISION 301

А

DATE 25/10/23





as and dimensions shown are indicative only. All co. st verify all angles, dimensions, layouts, site measur lodgement, marketing, fabrication, or construction.

these drawings is the property of Saddleback Pl

REV	ISSUE	DATE
A	Client Issue	25/10/2023

#### LEGEND

- Subject Site (~12.4ha)
- Te Putahi Ladies Mile (TPLM) Area
- |||||| Contours *(5m)*
- Open Space Recreation Area
- °°°° Existing Trees Overlay
- Roche Moutonnée Geological Feature
- --- Proposed Urban Growth Boundary
- --- Current ONF Delineation
- ---- Proposed ONF Delineation
- \_\_\_\_ Slope Hill Gullies
- Medium Density Residential Zone (MDRZ)
- Glenpanel Homestead Precinct
- Primary Infrastructure Corridors
- Landscape Buffer
- Initial TPLM Study Area



SCALE (A3) 1:2,500

NORTH  $(\top)$ 

PROJECT Flints Park SPP

CLIENT Glenpanel LP

JOB NO 2201-003-08 Client Issue

STATUS

DRAWING NO REVISION 302

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DATE 25/10/23







## APPENDIX 1 – S32 AA ASSESSMENT

## Table 1: Option 1 - Expansion of Urban Growth Boundary (UGB) to accommodate water tanks

Effectiveness and efficiency	<ul> <li>Option 1 provides a more efficient and effective means of serving the proposed urban development and therefore of achieving key strategic objectives and policies including but not limited to 4.2.2, and 4.2.2.1 to achieve key TPLM Objectives including 49.2.2 and 49.2.7. Specifically, the extension of the UGB to allow for a consenting pathway for water servicing will facilitate a well-functioning urban development and environment through efficient and effective servicing.</li> <li>Option 1 provides a more efficient and effective means of achieving the NPS-UD key Objectives and Policies (included but not limited to Objectives 1, 2 and 3, and Policies 1(a)(i), (b), (c), (d), 3(d), 6(c-d)). Specifically, by allowing a consenting pathway for feasible water servicing of the proposed urban development, in turn supports a well-functioning urban environment, improved affordability and achieves density targets.</li> </ul>
Costs/Benefits	<ul> <li>Subject to a further landscape assessment (via resource consent process) there is general agreement that water tanks may be absorbed into the proposed location.<sup>1</sup></li> <li>The proposed location is likely to have a no more than a minor effect on the values of the receiving landscape- Water reservoirs to be clustered amongst other built elements and located within a less vulnerable location of the slope.<sup>2</sup></li> <li>Consenting pathway enabled, with future resource consent or designation still required, to give comfort and ability to Council, to manage and mitigate effects.</li> <li>Option 1 would enable policy support for the water tank infrastructure within the higher order chapters of the PDP, as opposed to avoidance policies.</li> </ul>

<sup>&</sup>lt;sup>1</sup> Statement of Evidence Tony Douglas Milne (Paragraph 16)

<sup>&</sup>lt;sup>2</sup> Statement of Evidence Tony Douglas Milne (Paragraph 21, 53)

	<ul> <li>Option 1 would accommodate critical infrastructure required (such as the Water Reservoirs) to support the Masterplan urban development.<sup>3</sup></li> <li>Amended UGB will facilitate the TPLM variation area through consolidated and visually recessive infrastructure<sup>4</sup></li> <li>Could suggest a potential for increased urban development, however the zoning remains the same and therefore resource consent is required.</li> </ul>
Risk of acting or not acting	<ul> <li>The risk of not acting is that failing to extend the UGB, may result in:</li> <li>servicing difficulties and expensive alternative solutions,</li> <li>intensification or redevelopment opportunities that are unnecessarily prevented due to the complexity of navigating the rule framework (lack of consenting pathway) to establish the tanks on the hillside.</li> </ul>
Decision about most appropriate action	The recommended spatial amendment (to the UGB) is considered more appropriate in achieving strategic objectives of the PDP, the TPLM variation and high order policy such as NPS-UD, than the notified version of the TPLM spatial boundaries.

# Table 2: Option 2 - Extension of Zone Boundary, consequent reduction in ONF and extension of UGB

Effectiveness and	
efficiency	on 2 is a more efficient and effective means of achieving key A Zone Objectives (including but not limited to 49.2.2, 49.2.3, .6, 49.2.7) - The proposal would enable some additional mixed sing typologies near public and active transit, promoting rdable homes and anticipating increased residential activity near Commercial Precinct for improved productivity and local job ortunities. e efficient and effective means of achieving NPS-UD key ctives and Policies (including but not limited to Objectives 1, 2 3, and Policies 1(a)(i), (b), (c), (d), 3(d), 6(c-d)). Specifically, eased residential density through the relief sought which orts: Well-functioning urban environment Improved affordability Housing variety Density targets Competitive market

<sup>3</sup> Statement of Evidence Bruce Chales Weir (Paragraph 40) <sup>4</sup> Statement of Evidence Tony Douglas Milne (Paragraph 22)



	<ul> <li>Improved housing, employment, community services and open space accessibility</li> <li>Densities of urban form commensurate with the level of commercial and community services.</li> </ul>
Costs/Benefits	<ul> <li>Benefits:</li> <li>Additional capacity is enabled, providing for a change in housing preferences over time and thereby improving housing choice and affordability.</li> <li>More intensive development located in higher amenity locales, with access to public transport, open space, and urban services<sup>5</sup></li> <li>Attractive medium density living - equidistance between rapid transit nodes, close to public and active transport, Waka Kotahi approved entrance, elevated outlook, proximity to homestead gardens.<sup>6</sup></li> <li>Transition area displaying a greater level of modification and avoids the more values upper slopes of Slope Hill.<sup>7</sup></li> <li>Continued protection of the mid to upper slopes of the ONF and a ONF boundary tied to a less arbitrary contour or feature<sup>8</sup></li> <li>Proposed development would maintain ONF values: <ul> <li>Low to moderate landscape effects and ability to absorb future development.</li> <li>Upper slope values maintained.</li> <li>Situated at the foot of Slope Hill can be visually absorbed subject to design.</li> <li>Limited visibility – not expected to detract from visual amenity values.</li> <li>Consenting pathway can ensure effects are minimised and mitigated.</li> <li>Aims to maintain and enhance the environment and rural amenity.<sup>9</sup></li> </ul> </li> <li>The utilisation of greater density and the more efficient land use, allows for lower residential site costs, greater infrastructure efficiency (lower marginal costs) and utilisation, improved amenity and greater access to employment and service opportunities.</li> </ul>
	00313.

- <sup>5</sup> Statement of Evidence Bruce Charles Weir (Paragraph 24, 28-29)
- <sup>6</sup> Statement of Evidence Bruce Charles Weir (Paragraph 31)
- <sup>7</sup> Statement of Evidence of Tony Douglas Milne (Paragraphs 35 36)
- <sup>8</sup> Statement of Evidence Tony Douglas Mile (Paragraphs 37 39 and 56)
- <sup>9</sup> Statement of Evidence Tony Douglas Mile (Paragraphs 55-56)



	<ul> <li>As the UGB is not extended to include the water tanks, this servicing option does not have a consenting pathway and thereby the development loses a servicing opportunity.</li> <li>The increased spatial extent will result in a greater degree of change to the character of the existing rural environment. This may result in a cost to rural amenity and character, however when weighed with the change brought about by the TPLM in general, and the location of the tow of the slope, the change is not considered to have an adverse effect on rural amenity and character of the ONF.</li> </ul>
Risk of acting or not acting	<ul> <li>The appropriateness of adopting the relief sought must be considered in the context of the direction set out in higher order policy documents, in particular the NPS-UD.</li> <li>The risk of not acting is that failing to extend the UGB, the TPLM zone provisions and reduce the ONF, may preclude intensification or redevelopment opportunities or are unnecessarily prevented from occurring due to the complexity of navigating the rule framework (or lack of consenting pathway) and maps in the District Plan.</li> <li>Failing to act could reduce housing variety outcomes intended through Policy 1 of the NPS-UD. Specifically, risk that higher density housing will not be taken up by the market and higher amenity medium density options are required to achieve a well-functioning urban environment<sup>10</sup></li> </ul>
Decision about more appropriate action	• The recommended spatial amendments are therefore considered to be a more appropriate in achieving strategic objectives of the PDP and the TPLM variation than the notified version of the TPLM spatial boundaries.

# Table 3: Option 3: Combination of Options 1 and 2

Effectiveness and	
efficiency	<ul> <li>More efficient and effective means of achieving key TPLM Zone</li> </ul>
	Objectives (including but not limited to 49.2.2, 49.2.3, 49.2.6, 49.2.7) -
	The proposal would enable additional mixed housing typologies near
	public and active transit, promoting affordable homes and
	anticipating increased residential activity near the Commercial
	Precinct for improved productivity and local job opportunities.



	<ul> <li>More efficient and effective means of achieving NPS-UD key Objectives and Policies (included but not limited to Objectives 1, 2 and 3, and Policies 1(a)(i), (b), (c), (d), 3(d), 6(c-d)). Specifically increased residential density through the relief sought, supports:         <ul> <li>Well-functioning urban environment</li> <li>Improved affordability</li> <li>Housing variety</li> <li>Density targets</li> <li>Competitive market</li> <li>Improved housing, employment, community services and open space accessibility</li> <li>Densities of urban form commensurate with the level of commercial and community services.</li> </ul> </li> </ul>
Costs/Benefits	Benefits:
Costs/Benefits	<ul> <li>Additional capacity is enabled, providing for a change in housing preferences over time and thereby improving housing choice and affordability.</li> <li>More intensive development located in higher amenity locales, with access to public transport, open space, and urban services</li> <li>Attractive medium density living - equidistance between rapid transit nodes, close to public and active transport, Waka Kotahi approved entrance, elevated outlook, proximity to homestead gardens.</li> <li>Transition area displaying a greater level of modification and avoids the more valuable upper slopes of Slope Hill.</li> <li>Continued protection of the mid to upper slopes of the ONF and an ONF boundary tied to a less arbitrary contour or feature</li> <li>Proposed development wouldn't detract from ONF values as: <ul> <li>Upper slope values are maintained.</li> <li>Low to moderate landscape effects and ability to absorb future development.</li> <li>Situated at the foot of Slope Hill can be visually absorbed subject to design.</li> <li>Limited visibility – not expected to detract from visual amenity values.</li> <li>Consenting pathway can ensure effects are minimised and mitigated.</li> <li>Aims to maintain and enhance the environment and rural amenity.</li> </ul> </li> <li>The utilisation of greater density and the more efficient land use, allows for lower residential site costs, greater infrastructure efficiency (lower marginal costs) and utilisation, improved amenity and greater access to employment and service opportunities.</li> <li>Subject to a detailed landscape assessment there is general agreement that water tanks may be absorbed into the proposed location.</li> <li>Proposed location likely to have a no more than a minor effect on the values of the receiving landscape- Water reservoirs to be clustered amongst other built elements and located within a less vulnerable location of the slope.</li> </ul>
	designation still required to manage and mitigate effects. Giving oversight and comfort to Council.



	<ul> <li>Option 1 would enable policy support for the water tanks within the higher order chapters of the PDP, as opposed to avoidance policies.</li> <li>Option 1 would enable the critical infrastructure (such as the Water Reservoirs) required to support the Masterplan urban development.</li> <li>Amended UGB will facilitate the TPLM variation area through consolidated and visually recessive infrastructure.</li> <li>Costs:</li> </ul>
	• The increased spatial extent will result in a greater degree of change to the character of the existing rural environment. This may result in a cost to rural amenity and character, however when weighed with the change brought about by the TPLM in general, and the location of the tow of the slope, the change is not considered to have an adverse effect on rural amenity and character of the ONF.
Risk of acting or not acting	<ul> <li>The appropriateness of adopting the relief sought must be considered in the context of the direction set out in higher order policy documents, in particular the NPS-UD.</li> <li>The risk of not acting is that failing to extend the UGB, the TPLM zone provisions and reduce the ONF, may result in intensification or redevelopment opportunities are not taken up or are unnecessarily prevented from occurring due to the complexity of navigating the rule framework (or lack of consenting pathway) and maps in the District Plan.</li> <li>It could result in an ad hoc uptake of rural lifestyle development reducing connectivity and enabling a fragmented TPLM development with the urban areas of Frankton and Queenstown.</li> <li>Failing to act could reduce housing variety outcomes intended through Policy 1 of the NPS-UD. Specifically, risk that higher density housing will not be taken up by the market and higher amenity medium density options are required to achieve a well-functioning urban environment.</li> <li>Not acting may result in servicing difficulties and expensive alternative solutions, such that intensification or redevelopment opportunities are unnecessarily prevented from occurring, due to the complexity of navigating the rule framework (or lack of consenting pathway).</li> </ul>
Decision about more appropriate action	• The recommended spatial amendments are considered to be more appropriate in achieving strategic objectives of the PDP and the TPLM variation than the notified version of the TPLM spatial boundaries.

## Table 4: Status Quo- As Notified

Effectiveness and efficiency	<ul> <li>May not give effect to higher order documents (NPSUD), due to risk that current area may not achieve the level of high-density uptake hoped for, meaning density goals may not be reached.</li> <li>May not give effect to PDP strategic objectives (specifically chapters 3 and 4) or TPLM Zone Objectives, as subject to required uptake.</li> <li>Current ONF justification may not give effect to Part 2 section 6(b) or QLDC PDP Objective 6.3.1, through insufficient evidentiary support to</li> </ul>
	justify the ONF mapping. The ONF identification appears to be based



Costs/Benefits	<ul> <li>on inclusion within the New Zealand Geopreservation Inventory. However, the guidance provided from Geoscience Society New Zealand advises that inclusion within the inventory is not sufficient and further geoscience expert input is required to warrant identification as an ONF<sup>1112</sup></li> <li>Will result in a lessoned degree of change to the character of the existing rural environment, albeit already a significant change from the existing environment.</li> </ul>
Risk of acting or not acting	<ul> <li>Risk of status quo (not acting)</li> <li>The risk of not acting is that intensification or redevelopment opportunities are not taken up or are unnecessarily prevented from occurring due to the complexity of navigating the rule framework and maps in the District Plan.</li> <li>Insufficient land to achieve objective of minimum density requirements.</li> <li>Risk of underperformance in housing supply</li> <li>Risk of a failure to deliver a commercially viable public transport system with an insufficient residential catchment.</li> <li>Inclusion of arbitrary ONF line, without sufficient supporting evidence may question validity of overlay.<sup>13</sup></li> </ul>
Decision about more appropriate action	<ul> <li>The proposed UGB and ONF boundaries may not achieve the objectives of the variation or the strategic direction of the QLDC PDP along with higher order legislation such as the NPSUD.</li> </ul>

## Summary: Recommended Option One (1)

Option 3 is a more effective and efficient way to achieve the PDP strategic and TPLM objectives and policies and NPS-UD objectives. Option 3 facilitates the provision of mixed housing near public and active transport routes, promotes affordability, and increased residential density. The relief sought enhances urban functionality, affordability, housing variety, and access to services, aligning with commercial and community levels. Option 3 enables additional capacity in higher amenity areas and seeks to promote attractive medium density living with various amenities and proximity to transportation nodes. This strategy aims to lower residential site costs, improve infrastructure efficiency, enhance amenity, and create more employment and service opportunities. Option 3 will allow for the water reservoirs to be located within an efficient location enabling servicing of the wider TPLM development whilst maintaining landscape values associated with Slope Hill.

<sup>11</sup> Best Practice Guide: Outstanding Natural Features – GSNZ Miscellaneous Publication (Section 5.1)

<sup>12</sup> Statement of Evidence Tony Douglas Milne (Paragraph 57)

<sup>13</sup> Statement of Evidence Tony Douglas Milne (Paragraphs 37 -39)



The ONF overlay as notified, lacks evidentiary support to justify inclusion as a geoheritage feature and supports an arbitrary natural feature overlay, that risks failing to give effect to Part 2, Section 6 of the RMA. The proposed relief offered by Option 3 will enable an ONF more in line with that indicated through the Geopreservation inventory whilst supporting a well-functioning urban environment.



Best Practice guide: Outstanding Natural Features What are they and how should they be identified. How their significance might be assessed and documented ?



Example of a small landform ONF, Maungaraho dike, Kaipara District

Geoscience Society of New Zealand

June 2019

Geoscience Society of New Zealand Miscellaneous Publication No. 154

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Best Practice guide: Outstanding Natural Features - GSNZ Miscellaneous Publication

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A small geological exposure, South Bream Tail columnar-jointed dacite, Kaipara District



Example of a vulnerable geological exposure on the underside of a large overhanging boulder - Avoca trace fossils, Kaipara District. Photo 0.6 m across

### 1. Summary

After analysis of the wording and content of the Resource Management Act (RMA) and prior legislation it replaced, it is proposed that for the purposes of implementation of the RMA, an 'Outstanding Natural Feature' be defined as *a natural landform, physical system, or exposure of geological material that has outstanding geoscience, scenic/aesthetic, tourism, recreational, community and/or educational values or rarity. A natural landform feature is a distinct and clearly legible entity that is generally smaller than a 'natural landscape', which usually has a broader range of physical, ecological, cultural and perceptual values.* 

The following criteria are proposed to be used to assess (possibly score) and document the values of potential outstanding natural features to determine whether they should be considered outstanding in the region or district under investigation. **Primary criteria**: Geoscience significance; Rarity; Scenic/aesthetic values; Tourism and/or Recreational values; Community values; Educational values. **Additional criteria**: State of preservation and/or naturalness; Visual legibility; Memorability; Prominence of views; Representative geoscience values; Research potential; Group values; Geohistorical values; Historic and/or archaeological values; Ecological values; Indigenous cultural values.

To aid local authorities (both district and regional) in the management of the diversity of outstanding natural features with different levels of robustness and fragility, it is proposed that features be placed in one of the following categories: Large landforms; Small, vulnerable landforms; Dynamic landforms and natural physical systems; Large exposures of geological material; Small, vulnerable exposures of geological material; Caves; Volcanic cones.



Small vulnerable landform with high tourism values - Putangirua Pinnacles, Wairarapa

## **2. Introduction**

The protection of outstanding natural features (ONFs) from inappropriate subdivision, use and development is a matter of national importance - Section 6(b) of the Resource Management Act 1991

Twenty-eight years later there is still no agreed definition of what an ONF is, or how it might be identified, assessed and documented. This discussion document is intended to be the first step towards developing a Best Practice Guide for these matters, hopefully with support from the New Zealand earth science community (as represented by their professional societies) and the New Zealand Institute of Landscape Architects. It also categorises ONFs on the basis of size, robustness and character to assist in protecting their differing values. Small and vulnerable features that can easily be damaged or destroyed by only minor works require stricter controls on permitted activities, whereas large and robust features that can accommodate most activities without any significant damage or loss can have controls that are more relaxed.



Large landform – Silver Range sandstone strike ridge, Hawkes Bay Region. Photo: Egon Eberle.

Best Practice guide: Outstanding Natural Features - GSNZ Miscellaneous Publication



A small landform ONF, Devils Boots, Tasman District

# 3. Background

### 3.1. Resource Management Act and National Coastal Policy Statement wording

Protection of outstanding natural features (ONFs) is a matter of national importance according to Section 6(b) of the Resource Management Act 1991. They are to be protected "from inappropriate subdivision, use and development".

This is reinforced in Policy 15 of the New Zealand Coastal Policy Statement (2010), which states:

### "Policy 15 Natural features and natural landscapes

To protect the natural features and natural landscapes (including seascapes) of the coastal environment from inappropriate subdivision, use, and development:

- (a) avoid adverse effects of activities on outstanding natural features and outstanding natural landscapes in the coastal environment; and
- (b) avoid significant adverse effects and avoid, remedy, or mitigate other adverse effects of activities on other natural features and natural landscapes in the coastal environment; including by:
- (c) identifying and assessing the natural features and natural landscapes of the coastal environment of the region or district, at minimum by land typing, soil characterisation and landscape characterisation and having regard to:
  - (i) natural science factors, including geological, topographical, ecological and dynamic components;
  - (ii) the presence of water including in seas, lakes, rivers and streams;
  - (iii)legibility or expressiveness how obviously the feature or landscape demonstrates its formative processes;
  - (iv) aesthetic values including memorability and naturalness;
  - (v) vegetation (native and exotic)"

# 4. What is an Outstanding Natural Feature ?

The Resource Management Act (1991) does not provide a definition of either a Natural Feature nor an Outstanding Natural Feature. So what does it mean? To tease out a meaning we need to look at the legislation that predated the RMA and what other categories of the natural environment are covered by the RMA itself and therefore what is left over is presumably what was meant by a natural feature.

### 4.1 Legislation protecting natural features prior to the RMA (1991)

Prior to the passing of the RMA, there was a number of different acts all of which contributed to protecting New Zealand's natural environment. The main goal of the RMA was "to promote the sustainable management of natural and physical resources". Another goal was to combine the existing legislation that was addressing this in a piece-meal way into a single act.

Hayward (1987) reviewed the existing legal situation at the time with respect to geological, geomorphological and landscape features:

### **Reserves Act, 1977**

This provided "for the preservation and management for the benefit and enjoyment of the public, areas of New Zealand possessing ... natural, scenic, ... geological, scientific, educational, community or other special features of value; ensuring ... the preservation of representative samples of natural ecosystems and landscape which in the aggregate originally gave New Zealand its own recognisable character."

#### National Parks Act, 1980.

"The provisions of this Act shall have effect for the purpose of preserving in perpetuity ... areas of New Zealand that contain scenery of such distinctive value, ... natural features so beautiful, unique or scientifically important that their preservation is in the national interest."



Eastern Beach Anticline, a scheduled ONF (small vulnerable geological exposure) in Auckland Unitary Plan.

### Queen Elizabeth II National Trust Act, 1977.

This established the Trust with a function to encourage and promote the provision, protection and enhancement of open space for the benefit and enjoyment of the people of New Zealand. Open space is defined as "Any area ... that serves to preserve or to facilitate the preservation of any landscape of aesthetic, ... scenic or scientific ... interest or value."

### Forest Amendment Act, 1976

This stated that the Forest Service had responsibility for the balanced use of all State forest land, having regard for (among other things) the protection of the land and vegetation for ... scenic, aesthetic and scientific values.

### **Town and Country Planning Act, 1977**

This required local bodies to prepare District Schemes and gave them the power to designate for protection areas of landscape or scientific value.

Taken together the above legislation provided for the specific protection of natural abiotic physical features for their scientific (geological), scenic (beauty), aesthetic, educational and landscape values. The National Parks Act specifically used the term "natural features" "so beautiful, unique or scientifically important." These wordings give us good guidance as to what was meant by the term Outstanding Natural Feature in the RMA which replaced some of these acts.



Muriwai pillow lavas – an internationally significant geological feature, scheduled as an ONF in the Auckland Unitary Plan.

## 4.2. Teasing out the meaning from the RMA itself

The Purposes and Principles of the RMA Clause 6 Matters of National Importance lists all the things that should be protected, including ONFs. Clearly if a class of item is listed in clauses 6a-g then it was considered not to be included in the definition of an ONF.

"6. Matters of national importance

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:

(b) the protection of **outstanding natural features** and landscapes from inappropriate subdivision, use, and development:

(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

(d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:

(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:

(f) the protection of historic heritage from inappropriate subdivision, use, and development:

(g) the protection of protected customary rights:

(h) the management of significant risks from natural hazards."

The above subclauses specifically provide for (among other things) the protection from inappropriate subdivision, use and development of: the natural character of the coastal environment, wetlands, lakes and rivers; significant indigenous vegetation and habitats; historic heritage, outstanding natural features and landscapes.

Of these the RMA does provide a definition of historic heritage:

"historic heritage - (a) means those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, deriving from any of the following qualities:

(i) archaeological: (ii) architectural: (iii) cultural: (iv) historic: (v) scientific: (vi) technological; and

(b) includes-

(i) historic sites, structures, places, and areas; and

(ii) archaeological sites; and

(iii) sites of significance to Māori, including waahi tapu; and

(iv) surroundings associated with the natural and physical resources".

Thus by elimination of all the other named categories of heritage, natural features must primarily refer to physical (abiotic) features whose major values are neither biotic, historic (human history), cultural nor landscape-related. This leaves physical features that have high geological (including landform) or scenic values and this is generally how they have been applied in most regional policy statements and district

schemes prepared under the RMA over the past 25 years. E.g. Auckland City Council District Scheme, Auckland Unitary Plan, Whangarei District Plan, Hurunui District Plan

The Department of Conservation's NZCPS 2010 Guidance Note Policy 15 Natural features and natural landscapes, p. 12,

(https://www.doc.govt.nz/globalassets/documents/conservation/marine-and-coastal/coastal-management/guidance/policy-15.pdf) gives an opinion on what constitutes a natural feature of the coastal environment –

"include those resources that are the result of natural processes, particularly those reflecting a particular geology, topography, geomorphology, hydrology, ecology or other physical attribute that creates a natural feature or combination of natural features."

The DOC Guidance Note (p. 12) also defines Landscapes: "Landscape means the natural and physical attributes of land together with air and water which change over time and is made known by people's evolving perceptions and associations."

The Environment Foundation defines Natural Features as:

"discrete landforms or biophysical entities, such as a volcanic cone or wetland. These are "(usually smaller) components of landscapes", "a distinctive or characteristic part of a [landscape]" or a part of multiple landscapes like a major river corridor. The Geoscience Society has identified and categorised geological sites and landforms in New Zealand that are of international, national, or regional importance. Similarly, wetlands and other such features – which combine geomorphological characteristics with ecological and habitat values – are often identified through the RAMSAR Convention and other forms of international and national recognition. As a result, features are often important in terms of scientific knowledge and public education about natural processes, and frequently (but not always) are landmarks that contribute to the character and values of a locality." [http://www.environmentguide.org.nz/issues/landscape/what-are-features/]



A vulnerable landform ONF – Cape Turakirae raised beach ridges, Wellington Best Practice guide: Outstanding Natural Features – GSNZ Miscellaneous Publication

### 4.3 What does natural mean?

In the context of the RMA, a natural feature is clearly one that was made by nature, and excludes those that have been made by humans. It would not exclude natural features that may have had some modification by humans but the extent of the modification might need to be considered before a feature was still considered to be predominantly made by nature.

Natural features therefore refer to:

1. Natural landforms;

Natural physical systems/processes - like rivers, springs, geothermal systems;
 Geological exposures of natural rock – these may be natural exposures, such as cliffs or tidal platforms, or man-made exposures of natural rock, such as road-cuttings and excavations.



This road cut is an exposure of natural rock of national scientific importance as it contains the richest Late Pleistocene fossil fauna in New Zealand. Te Piki Shellbed, Gisborne District.

### 4.4 What does outstanding mean?

The DOC Guidance Note (p. 15) also gives an opinion on what constitutes an outstanding natural feature and landscape:

"Practice and case law provide guidance on the meaning and application of 'outstanding' when assessing and evaluating natural features and natural landscapes. The rank of 'outstanding' relates to an area's pre-eminence or exceptional nature, relative to the scale of assessment."

The NZ Institute of Landscape Architects Best Practice Note definition (<u>https://nzila.co.nz/media/uploads/2017\_01/nzila\_ldas\_v3\_1.pdf;</u> p. 5) states

"Outstanding Natural Landscape is a natural landscape that is particularly notable at local, district, regional or national scale". This definition of 'outstanding' can also be applied to outstanding natural features. Natural features can also be notable at the international level. The New Zealand Geopreservation Inventory for example ranks 210 geological features (including landforms) in New Zealand as being of international significance.

#### Therefore:

A natural feature may be judged "outstanding" at different levels: outstanding locally, regionally, nationally or internationally. The judgement may be made on aesthetic (scenic) or scientific grounds.

### 4.5 Recommended definition of an Outstanding Natural Feature

For the purposes of the RMA we suggest that "an 'Outstanding Natural Feature' is a natural landform, physical system, or exposure of geological material that has outstanding geoscience, scenic/aesthetic, tourism, recreational, community and/or educational values or rarity. A natural landform feature is a distinct and clearly legible entity that is generally smaller than a landscape, which usually has a broader range of physical, ecological, cultural and perceptual values."



Waikawau Valley karst is a scenically- and scientifically-valued ONF, Waikato District

# **5.** Criteria for identifying, assessing and documenting ONFs

### 5.1 Getting started and where to find information on potential ONFs

### 5.1.1. New Zealand Geopreservation Inventory

For geoscientifically significant sites, the primary reference should likely be the New Zealand Geopreservation Inventory site at:

#### https://services.main.net.nz/geopreservation/

This database attempts to list, document and map as many as possible of the scientifically and educationally significant geological and landform sites in New Zealand. The database is owned by the Geoscience Society of New Zealand and people are encouraged to use it for free but may not sell the intellectual data contained in it. Compilation of the Inventory began in 1983 well before the RMA was passed. It attempts to be a complete list of sites of geoscience significance, is periodically updated but clearly it will never be fully comprehensive.

Additionally, not all listed sites are suited or necessarily need to be scheduled as ONFs. Thus, the assessor will need to carefully assess which sites in the inventory should be considered for ONF status. All will meet the outstanding level at the regional/local level at a minimum. If the assessor has a geoscience background, they may know of additional geoscience sites or know colleagues who have worked in the area and may nominate additional sites for consideration.

### 5.1.2. LINZ topographic maps and Google Earth

The NZ Geopreservation Inventory does not attempt to be a comprehensive list of landform sites that have outstanding aesthetic and scenic values or are of high value for tourism, recreation or to the community. Thus, the assessor may find it useful to conduct a desktop search of google earth and LINZ contour maps that can provide clues that there are some unusual or prominent small landforms that could be considered for ONF status. These may also be named features or indicated by symbols on the maps e.g. named waterfalls, caves, springs, etc.

#### 5.1.3 Drive the roads

It may be necessary to drive some of the roads in the district looking for small scale landforms that are outside proposed Outstanding Natural Landscapes that are visually and scenically prominent or are labelled on road signs for tourists to visit.

#### 5.1.4 Local input

It may be useful to ask local communities and iwi or their representatives to suggest potential landform ONFs that they know are much loved.



A small landform with high scenic and community values scheduled as an ONF is the largest waterfall in Auckland City – Oakley Creek waterfall.

### 5.2 Assessment criteria

The following criteria are recommended for use in identifying potential Outstanding Natural Features (ONFs) and assessing whether they are Outstanding and documenting their values. Because of the adopted definition of an outstanding natural feature, the criteria are divided into primary and additional. To be an outstanding natural feature (as used by the RMA) a feature or site must be outstanding in at least one of the primary criteria. The additional criteria are used to supplement the assessment of value of each site.

### PRIMARY CRITERIA

- (a) **Geoscience significance** the extent to which the landform, feature or geological site contributes to the understanding of the geology or evolution of the biota in the District, Region, New Zealand or the Earth;
- (b) **Rarity** the rarity or unique nature of the feature, physical process or geological exposure within the District or Region, and few comparable examples exist;
- (c) **Scenic/aesthetic values** extent of public appreciation of a natural feature's visuallystriking scenic beauty, or iconicism;
- (d) **Tourism and/or recreational values** extent of a feature's use or potential use for tourism or recreation because of the feature's natural attributes;
- (e) Community values extent of the community's association with a natural feature which is widely known and highly valued for its contribution to local identity within its community;
- (f) Educational values the existing or potential value of the feature for public education;

### ADDITIONAL CRITERIA

### Geoscience values

- (g) **Representative values** the extent to which the feature is an outstanding representative example of the natural landforms, natural physical processes or geological features that strongly typify the character of an area.
- (h) **Research potential** of the feature to provide additional understanding of the geological or biotic history;
- (i) **Group values** the relative contribution of the feature to a recognisable group of features within the area (e.g. volcanoes, limestone caves, glaciers, hot springs);
- (j) **Geohistorical value** the extent to which a feature is associated with an historically important natural event (e.g. earthquake, tsunami), geologically-related industry, or historically-important individual involved in geoscience research;
- (k) State of preservation and/or naturalness of the feature including degree of natural degradation of values by weathering or erosion, as well as degree of modification by humans;

### Perceptual values

- (I) Prominence of views to and from the feature;
- (m) Visual legibility of the feature in the surrounding landscape how clearly the feature's values can be seen;
- (n) **Memorability** of the feature, because of its striking visual character and setting that make such an impact on the senses that it becomes unforgettable;

### Other values

- (o) Ecological value of the biota, including vegetation, associated with the feature;
- (p) Historic or archaeological values associated with the feature;
- (q) **Indigenous cultural values** the importance of the feature or site to Mana Whenua (most appropriately undertaken by local iwi).

\* Note that if a potential feature has high historical, archeological, ecological or indigenous cultural values then it should be assessed and protected under these categories in a District Plan independently of this ONF evaluation.

Each of the criteria (a-q) should be considered and where appropriate documented for every recommended ONF. Additional options that have been adopted by some councils and that focus the comparison between sites include: providing a weighted score for each criterion (5.3) justified by a statement of the values, or merely ticking the box instead of providing a score but still justifying the tick level with a statement.

5.3.	Example	of an	ONF	assessment sheet
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ONF Name	
Feature type	A Large Landform, B. Small Landform, C. Dynamic Landform D. Large exposure, E. Small exposure, F. Cave, V. Volcanic cones
DESCRIPTION OF FEATURE	
Primary Values:	
a. Geoscience significance b. Rarity c. Scenic/aesthetic d. Tourism and/or recreational e. Community f. Educational	
Additional Values:	
Geoscience Values:g. Representative valuesh. Research potentiali. Group valuesj. Geohistoricalk. State of preservationand/or naturalnessPerceptual ValuesI. Prominence of viewsm. Legibilityn. MemorabilityOther Valueso. Ecological valuesp. Historic/archaeologicalq. Indigenous culturalvalues	
OVERALL EVALUATION	Generally, the feature qualifies in terms of outstanding-ness as a consequence of: a. b. c. d. Summary comment

### 5.4 Example of an ONF Scoring Assessment Sheet

Several councils have opted to give weighted scores for each of the assessment criteria. The primary criteria are weighted to give them greater significance than the secondary criteria. The scores given for all criteria for each potential ONF are summed and the resulting total for each site gives an indication of the perceived significance of each site.

It has been found that scoring focusses the assessor's mind to considering more objectively the relative value of a potential feature under each criterion and the documentation must then justify each score. The total score may or may not play a role in determining whether a potential ONF reaches the level of Outstanding, depending upon the view of the District planners and whether outstanding is being considered at the regional, district or local level.

Here is a suggested <u>weighted</u> scoring scheme (based on schemes used by Auckland City Council – Inner Gulf Islands District Plan and Waitomo and Kaipara draft District plans.

#### Geoheritage values assessment:

	Significance level/ Values assessment GEOSCIENCE CRITERIA	International/ Superlative	National/ Excellent	Regional/ Very good	District/ Good	Local/ Moderate
а	Geoscience significance*	64	32	16	8	4
b	Rarity*	64	32	16	8	4
С	Aesthetic/scenic values*	64	32	16	8	4
d	Tourism/recreational values*	32	16	8	4	2
е	Community values*	32	16	8	4	2
f	Educational values*		16	8	4	2
	ADDITIONAL CRITERIA					
	Geoscience values					
g	Representative values			8	4	2
h	Research potential			8	4	2
i	Group values			8	4	2
j	Geohistorical values		16	8	4	2
k	State of preservation/naturalness		8	4	2	1
	Perception values					
I.	Views to and from the feature		16	8	4	2
m	Visual legibility		8	4	2	1
Ν	Memorability		8	4	2	1
	Other values					
ο	Ecological values		8	4	2	1
р	Historical or archaeological values		8	4	2	1
q	Indigenous cultural values		8	4	2	1

#### Total score:

**Feature Category:** A Large Landform, B. Small Landform, C. Natural system, D. Large exposure, E. Small exposure, F. Cave



A small geological site with high educational and scientific values – an erratic boulder transported and left behind by a large glacier. New Zealand's smallest scientific reserve, Te Anau.

# 6. Categories of outstanding natural features

### 6.1 Feature categories

ONFs can be large and robust or small and vulnerable, they can be underground (caves) or dependent on continuation of processes beyond the limit of the feature (e.g. active sand dunes, geothermal features). To assist management and decision-making for such a diverse range of features, it is recommended that ONFs be categorised by type to provide an indication of the kind of values that make them significant, how susceptible to damage they may be from various activities, and how better to manage potential risks to their values. The categories described below are more or less the same as in the Auckland Unitary Plan, the Northland Regional Plan and the draft Waitomo District Plan.

### A. Large landforms

These are prominent landforms that are sufficiently large and robust to withstand small-scale earthworks or constructions without significant impact. The prime values of such features may relate to the underlying geology which tells of the history of their formation or to their value to the community for their scenic/aesthetic/tourism/recreational/educational values. Major building construction, large scale earthworks (e.g., quarry or significant road cuttings) or planting and harvesting of commercial exotic forest can significantly detract from the integrity or hide these prominent landforms.



A. Example of a robust large landform – Houto conical hill, Kaipara District. Best Practice guide: Outstanding Natural Features – GSNZ Miscellaneous Publication

#### B. Small, vulnerable landforms

Small landforms or other features that could be damaged or destroyed by relatively smallscale earthworks or constructions. The values of these often spectacular, localised landforms relate to their visual and aesthetic appeal and/or geoscientific interest or educational values. Most earthworks, buildings, constructions or commercial forest plantings would adversely impact on the visual and aesthetic appeal or scientific value of these vulnerable features.



B. Example of a vulnerable landform – Te Wairoa soda spring and travertine mound, Whangarei District.



**B.** Example of a vulnerable landform – Labyrinth Rocks limestone karst, Tasman District.

#### C. Dynamic landforms and natural systems

These are landforms, features or systems that rely on the continuation of natural physical processes in and beyond the feature for their continued existence. Because of this, these dynamic landforms or features are not only susceptible to direct damage, but to more distant actions that may impact the continuation of the natural processes (e.g. sand or shell supply; dune stabilisation; soil erosion in catchments; water extraction; river modifications). Permanent earthworks, building construction, commercial exotic forest plantings, or other actions could adversely affect the functioning and appearance of these features.



C. Example of a dynamic landform - Pouto sand dunes, Kaipara District.



C. Example of part of a natural physical system - Te Waikoropupu Springs, Tasman District

#### D. Large exposures of geological material

Outstanding natural features include rock formations and the details that can be seen in or extracted from these rocks. These details can only be seen where rock is visible at the surface either in natural or man-made exposures or cuttings. This category includes exposures of rock that are sufficiently large and robust that small-scale earthworks or road widening will have no significant adverse impact and in most cases will improve the visibility or freshness of features in the rocks. The values of these sites relate to the natural geological features that can be seen within the rocks and the information they contain about the history of their formation, the geological origins of the district or the fossil history of the biota of New Zealand. Large-scale earthworks, construction of buildings, vegetation plantings, grass seeding or constructions of retaining walls or erosion barriers could adversely impact the visual, educational or scientific values of these exposures.



D. Example of a robust exposure of geological material – Cape Kidnappers cliff section, Hawkes Bay Region.

#### E. Small, vulnerable exposures of geological material

These are small, natural or man-made exposures that could be damaged or destroyed by small-scale earthworks or construction. Their prime values relate to the information they contain about the history of their geological formation or the fossil biota of New Zealand. Most earthworks, building constructions, vegetation plantings, grass hydroseeding or constructions of walls or erosion barriers are likely to adversely impact the visual, scientific or educational values of these exposures. Periodic vegetation clearance may improve their values.



E. Example of a vulnerable geological exposure – Mangawhai Heads halloysite, Kaipara District.



E. Example of a vulnerable geological exposure – Rangihaeata fossil forest, Tasman District.

Best Practice guide: Outstanding Natural Features - GSNZ Miscellaneous Publication

This category includes limestone caves, lava caves and sea caves and their entrances, which may, depending upon their depth underground, be susceptible to damage from significant earthworks constructions or quarrying above them, or from changes in their catchments that may fill them with eroded soil or starve them of water flow.



F. Example of a limestone cave with outstanding speleothems – Nile River caves, West Coast, Buller District.



F. Example of a cave with high recreational values - Ruakuri Cave, Waitomo District.

#### V. Volcanic cones

This category has been separated out from larger robust landforms at the request of Auckland and Northland Regional Councils because they perceive enhanced public values attached to their local volcanoes. This category includes moderately small volcanic cones, such as scoria cones, tuff cones, volcanic domes, and small shield volcanoes that are sufficiently robust to withstand small-scale, localised earthworks or constructions without significant impact. They derive their values from their distinctive usually conical form and prominence in the wider landscape setting. Structures in prominent positions, significant permanent earthworks such as farm roads across steep slopes, and rectangular exotic forest plantings can detract from or compromise these natural features, particularly where they protrude significantly into the skyline, alter the cone form or disguise the underlying landform.



V. Example of a volcanic cone - Crater Hill, Auckland City.



V. Example of a volcanic cone – Whatatiri Shield Volcano, Whangarei District.

Best Practice guide: Outstanding Natural Features – GSNZ Miscellaneous Publication

### 6.2 Example of activity table that relates to categories of ONF

This activity table is derived from the Auckland Unitary Plan, the operative Hauraki Gulf Islands District Plan and the proposed change to the Whangarei District Plan. It applies to ONFs outside the Coastal Environment. The table relates to resource consent requirements for land use and development on ONFs. It provides an indication of the sort of controls that the author believes would be necessary to adequately protect these ONFs as required by the RMA. There are minor differences between all these plans in the listed activities and permission levels indicated and the below example is a compromise between them.

Activity	А	В	С	D	E	F	V
Construction							
Buildings and structures	D	NC	NC	NC	NC	RD	NC
Earthworks							
Removal, fill, modification of more than 5 cu m	D	Pr	D	D	Pr	D	D
Removal, fill, modification of less than 5 cu m	Р	RD	RD	D	NC	RD	RD
Rural							
Grazing of sheep and goats	Р	RD	RD	Р	RD	Р	Р
Grazing of other stock	Р	RD	RD	Р	RD	Р	RD
Quarries of any sort	Pr	Pr	Pr	D	Pr	Pr	Pr
Forestry	RD	Pr	D	D	Pr	D	Pr
Conservation planting	Р	RD	D	NC	NC	Р	RD
Fences - post and wire	Р	Р	RD	Р	RD	Р	Р
Fences - except post and wire	RD	D	NC	D	NC	Р	RD
Utilities							
Minor infrastructure upgrading	Р	RD	D	RD	NC	RD	RD

Table 1: Activity table – Outstanding natural features overlay - Land use and development \*A-V = feature categories of 6.1

P = permitted

RD = restricted discretionary

D = discretionary

NC = non-compliant

Pr = prohibited

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### Criteria for allowing discretionary activities

The council will consider the relevant assessment criteria below for the discretionary activities listed above:

- 1. Whether the nature, form and extent of the proposed works or activity adversely affects the ONF for which the item was scheduled:
  - a. whether the activity will result in increased erosion of the ONF;
  - b. for grazing applications, whether the proposed stocking intensity will result in increased compaction or erosion of the ONF, or will result in changes to the vegetation on site in ways that will affect the values for which the ONF is scheduled e.g. grazing effects on dune vegetation resulting in changes to the nature and form of the dunes;
  - c. for fencing applications, whether the proposed fence requires ground disturbance or earthworks that will affect the values for which the ONF is scheduled;
  - d. whether the activity will interfere with natural processes (e.g. forestry or vegetation planting effects the natural dynamic supply of sand to wind-blown dunes or groundwater to caves).
- 2. Whether the proposed works or activity will cause adverse visual effects or adversely affect visual appreciation of the ONF.
- 3. The degree to which the ONF has already been modified so that further modification will not cause significant additional loss of the identified values.
- 4. The extent to which the modification is necessary.
- 5. The purpose of the proposed works or activity and whether it has specific connections or relevance to the scheduled ONF.
- 6. What alternative methods and locations are available to the applicant for carrying out the work or activities that do not affect a scheduled ONF.
- 7. The extent to which the proposed works will protect the ONF from further damage, such as erosion protection, or remediate it from previous damage. This excludes potential damage from the activity for which consent is sought.
- 8. In the case of the subdivisions, the extent to which the resultant sites can be developed without affecting the values for which the ONF is scheduled.



Baylys Beach fossil forest in sand dune-lignite sequence ONF, Kaipara District

Best Practice guide: Outstanding Natural Features – GSNZ Miscellaneous Publication

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### SELECTED BIBLIOGRAPHY

Hayward, B.W. 1987. Geological, Geomorphological and Landscape Features. *Protected Natural Areas in New Zealand: A review of the current situation.*, pp 10-14. Royal Society of New Zealand.

Hayward, B.W.; Vaughan, E.; McConchie, J. 1988. *Landforms and Geological Features, A case for preservation.* Nature Conservation Council.

Hayward, B.W. 1989. Earth Science Conservation in New Zealand. *Earth Science Conservation 26*: 4-6.

Hayward, B.W. 1996. *Precious Land: Protecting New Zealand's landforms and geological features.* Geological Society of New Zealand Guidebook 12. Hayward, B.W. 2006. New Zealand Geopreservation Inventory on-line. *Geological Constant Cons* 

Society of New Zealand Newsletter 140: 39-41. Kenny, J.A.; Hayward, B.W. 2010. *Karst in Stone. Karst landscapes in New Zealand: A case for protection.* Geological Society of New Zealand Guidebook 15.

Kenny, J.A.; Hayward, B.W. 2013. On the edge: Celebrating the diversity of New Zealand's coastal landforms. *Geoscience Society of New Zealand Guidebook 17*: 48 pp.

Geoscience Society of New Zealand. New Zealand Geopreservation Inventory. https://services.main.net.nz/geopreservation/



Small, vulnerable geological exposure of fossil whale bones of high educational and scientific value, Anatini, Waitaki District