

BEFORE THE QUEENSTOWN LAKES DISTRICT COUNCIL HEARINGS PANEL

UNDER

the Resource Management Act 1991

IN THE MATTER

of the review of parts of the Queenstown Lakes District Council's District Plan under the First Schedule of the Act

AND

IN THE MATTER

of submissions and further submissions by
REMARKABLES PARK LIMITED AND
QUEENSTOWN PARK LIMITED

**STATEMENT OF EVIDENCE OF SIMON HERBERT BEALE ON BEHALF OF
REMARKABLES PARK LIMITED AND QUEENSTOWN PARK LIMITED**

(ECOLOGY)

STREAM 13 REZONING HEARINGS

9 June 2017

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1. QUALIFICATIONS AND EXPERIENCE

- 1.1 My full name is Simon Herbert Beale. I am a Director of Beale Consultants Limited, an independent ecology and planning consultancy.
- 1.2 I hold a Bachelor of Science in Zoology from the University of Otago and a Bachelor of Forestry Science from the University of Canterbury. I am a member of the New Zealand Ecological Society and the Environment Institute of Australia and New Zealand and a full member of the New Zealand Planning Institute. I am a Certified Environmental Practitioner and currently the New Zealand representative on the Board of Certified Environmental Practitioners.
- 1.3 I was previously employed by MWH New Zealand in these roles for 22 years and more recently with Opus International Consultants Limited. Much of my experience is in undertaking ecological assessments for infrastructure projects, including tourism developments.
- 1.4 I have policy experience relating to the development of biodiversity provisions for Regional Policy Statements and District Plans. The most recent of these assignments was co-authoring the drafting of the biodiversity provisions for the proposed Regional Policy Statement for Southland, including attendance at a hearing and at Council deliberations.
- 1.5 I have a good understanding of the ecology of the proposed Queenstown Park Special Zone (**QPSZ**) based on various site visits. These were conducted initially on behalf of the former landowner Stephen Laing in relation to an upgrade of the existing farm road and more recently on behalf of Queenstown Park Limited (**QPL**) in relation to the QPSZ. Separate site visits conducted for QPL in relation to land affected by the proposed gondola, the SNAs and the proposed development pods (the **Site**).
- 1.6 In preparing this evidence I have read the Ecological Assessment of the Site prepared by Dawn Palmer from Natural Solutions for Nature Limited, the tenure review report prepared by Knight Frank Limited and significant natural area assessments prepared by the Queenstown Lakes District Council (**QLDC**) in relation to the proposed SNAs.

2. CODE OF CONDUCT

- 2.1 I have read and am familiar with the Code of Conduct for Expert Witnesses in the current Environment Court Practice Note (2014), have complied with it, and will follow the Code when presenting evidence to the Council. I also confirm that the matters addressed in this statement of evidence are within my area of expertise, except when relying on the opinion or evidence of other witnesses. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

3. SUMMARY OF EVIDENCE

- 3.1 Despite the significant modifications to the indigenous vegetation cover since human settlement, dryland plant communities and habitats of ecological value persist on the Site. These are associated with extensive areas of grey shrubland and the numerous cliff faces and rocky outcrops mostly contained within the Rastus Burn and Owen Creek catchments.
- 3.2 The distinctive landforms and extensive areas of shrubland and tussockland contribute significantly to the scenic and recreational appeal of the Site.
- 3.3 A large proportion of shrubland on the Site is contained within SNAs.
- 3.4 The PDP provides for grazing in SNAs as a permitted activity. Cattle grazing is considered to have an adverse effect on shrublands. Sheep grazing however may be beneficial to SNAs and other area of indigenous vegetation cover in controlling invasive herbaceous weed species.
- 3.5 Development of activity areas and a Gondola on the Site present opportunities to maintain and enhance ecosystem health and indigenous biodiversity through active planting programmes and pest and weed Management programmes.
- 3.6 The proposed provisions to the QPSZ including a Comprehensive Development Plan involve a range of ecological maintenance and enhancement measures within the activity areas and across the balance of the Site including the Gondola corridor.
- 3.7 The QPSZ provisions are better than in the PDP provisions in bringing about positive ecological outcomes because:

- (a) They include provisions to implement ecological maintenance and enhancement measures including management of invasive plant/weed species, extensive indigenous plantings and advocacy measures aimed at promoting the ecology of the Site; and
- (b) They better protect the SNAs by prohibiting cattle grazing whereas the PDP allows for grazing in the Rural Zone as a permitted activity including SNAs; and
- (c) They provide for grazing limits on the land above 600m between the Owen Creek and Rastus Burn.

4. ECOLOGICAL CONTEXT

- 4.1 The Site is located on the south side of the Kowarau River and encompasses a series of broad river terraces, alluvial fans and steep mountainous country situated on the northern flanks of the Remarkables Range. The Site lies within the Remarkables Ecological District and encompasses dryland environments, i.e. areas of naturally low rainfall. According to the Department of Conservation, drylands are New Zealand's least protected and most threatened ecosystems, and contain about half of the most threatened plant species in New Zealand.
- 4.2 The Site spans a wide altitudinal range from approximately 320 metres above sea level (**m a.s.l.**) by the Kowarau River to approximately 1200 m a.s.l where the Site abuts the Remarkables Conservation Area. The topography contrasts sharply between a series of terraces and alluvial fans on improved country near the Kowarau River where the proposed development pods would be situated and adjoining steep to very steep hillslopes associated with the northern flanks of the Remarkables Range. The hillslopes are intersected by the steep sided catchments of the Rastus Burn, Owen Creek and an unnamed tributary of the Kowarau River (approximately 700 to 800m west of Owen Creek and Rastus Burn) containing numerous bluffs and rocky outcrops. The hillslopes and lower to mid reaches of the Rastus Burn, Owen Creek and the unnamed tributary make up the bulk of the balance of the Site outside of the development pods and include the uphill corridor for a proposed gondola. The varied topography and wide altitudinal and climatic gradients provide for a diverse range of vegetation types and range of habitats that support varied assemblages of indigenous vegetation and fauna.

- 4.3 Polynesian fires and pastoral activities of Europeans have resulted in a significant modification of the vegetation cover across the property. In pre-settlement times the prevailing cover on the hill slopes was mountain and silver beech forest while short tussock grassland and shrubland would have prevailed in the drier river terraces and fans. Today the vegetation across the Site features a mosaic of pasture, short tussock grassland and extensive areas of shrubland.
- 4.4 The threatened environment classification shows that the terraces and fans and lower hillslopes lie within acutely and chronically threatened land environment where the extent of indigenous vegetation cover remaining is less than 20%. Indigenous shrubland and short tussock grassland on the higher elevation land environments is greater than 30% in extent but less than 3% of this cover is legally protected nationally. An explanation of the threatened environment classification is **attached** and marked “**A**”.
- 4.5 The land within the proposed development pods is improved and unimproved pasture, with some of the terraces utilised for fodder production.

5. TERRESTRIAL ECOLOGY VALUES IN THE PROPOSED QPSZ

- 5.1 Despite the significant modification to the indigenous vegetation cover since human settlement, dryland vegetation and habitats of ecological value persist across large parts of the Site. These are:
- (a) Extensive areas of shrubland dominated by matagouri (*Discaria toumatou*) and mingimingi (*Coprosma propinqua*) that occur in the low to mid altitude reaches of the Rastus Burn and Owen Creek catchments and within the catchment of an unnamed tributary of the Kawarau River;
 - (b) Short or fescue tussock grassland that occurs on the steep hill and gully slopes; and
 - (c) Specialist plants restricted to cliff faces and rocky outcrops within the Rastus Burn and Owen Creek catchments and at the eastern extremity of the Site.
- 5.2 Shrubland on the Site generally occurs on the steeper terrain where woody succession has occurred following cessation of burning, primarily driven by marginal returns for farming.

- 5.3 A large proportion of the shrubland is located in four SNAs. Three are within or adjacent to the Owen Creek catchment and one is within the Rastus Burn catchment. The SNAs were selected by ecologists contracted by the QLDC following aerial observations and evaluations using the significance assessment criteria contained in Appendix 5 of the Operative District Plan.
- 5.4 Criteria underlying the selection of these areas is their degree of representativeness as excellent examples of shrubland within the Remarkables Ecological District, their large size and extent of closed canopy, the diversity of plant species associated with the constituent riparian and hillside plant communities and the relatively uninterrupted sequence of shrubland communities which extend over a wide altitudinal range.
- 5.5 Grey shrublands and the numerous cliffs and rocky outcrops contain important habitats, which support diverse and abundant populations of indigenous flora including the distinctive tree daisy's (*Olearia* spp) and stands of regionally rare kowhai (*Sophora microphylla*) and diverse assemblages of invertebrates, lizards and avifauna. The cliffs and rocky outcrops are naturally uncommon ecosystems.
- 5.6 Grey shrublands provide habitat for a variety of species of exotic and native passerines (perching birds) which are important prey species for New Zealand (Eastern) Falcon which has a threat classification of At Risk – Recovering.
- 5.7 The cliff faces and rocky outcrops in the Owen Creek catchment and at the eastern extremity of the Site are likely to support populations of the Kawarau cress (*Lepidium sisymbrioides* subsp. *Kawarau*) that has a threat classification of Nationally Endangered.
- 5.8 The shrublands are important in terms of the ecological services they provide, most notably in reducing erosion and in maintaining water quality.
- 5.9 Some intervening terrace risers within the larger development pods (RV3 and RR2) support scattered stands of matagouri and mingimingi of varying age but lack structural diversity. The understorey to these stands is open due to the effects of grazing with a ground cover dominated by rank exotic pasture grasses and herbs.

6. THREATS TO TERRESTRIAL ECOLOGY VALUES FROM FARMING ACTIVITIES

- 6.1 The clearance or modification of the indigenous vegetation during the development of the Site for farming yielded productive areas of pasture but also created suitable conditions for the establishment of exotic weed species, many invasive in nature. Indigenous shrublands are prone to exotic weed invasions.
- 6.2 The vegetation cover that exists today on the Site includes a strong representation of exotic woody weeds species such as sweet briar, hawthorn and buddleja as components of the shrubland especially on the more modified lower country while herbaceous weeds such as hawkweed, Scotch thistle gorse, dock and wire weed are locally common on unimproved pasture, to the riparian margin
- 6.3 Farming activities such as fire, grazing and tracking can accelerate the spread of weeds if not properly managed, adversely affecting indigenous vegetation and the productive capacity of pasture.
- 6.4 I understand QPL are well aware of the risks that fire and tracking pose to indigenous vegetation on the Site and have no intention of pursuing fire as a control mechanism and will take great care with any tracking undertaken in the hill country.
- 6.5 Cattle pose a threat to shrublands through trampling which can lead to opening up of areas of shrubland to weed invasion. The adverse effects caused by cattle can be cumulative if cattle grazing occurs on an ongoing basis. By comparison grazing by merino sheep is considered to have a low impact on shrublands in the SNAs and other areas with predominant indigenous vegetation cover and may be beneficial in terms of controlling some invasive herbaceous weed species.
- 6.6 In the absence of weed control as part of the land management regime, the health of the shrublands will deteriorate and their function, including capacity to regenerate will decline in the face of increasing competition from exotic weeds.
- 6.7 A diversified approach to management of the Site involving non-farming activities as proposed by QPL are in my opinion more likely to protect, maintain or enhance areas of ecological value such as the SNA and align better with the provisions of the PDP concerning protection and maintenance of ecosystem health and indigenous biodiversity. The QPSZ provides for such activities, as discussed below.

7. RECREATIONAL APPEAL OF INDIGENOUS VEGETATION

- 7.1 The distinctive and rugged landforms and existence of extensive areas of grey shrubland and tussockland contribute significantly to the scenic and recreational appeal of the Site. Within the confines of the Rastus Burn and Owen Creek catchments for example, the shrubland enhances the degree of naturalness and sense of remoteness. Such areas on the Site provide opportunities for low impact recreational and commercial activities.
- 7.2 Low impact activities include mountain biking, walking and glamping are advantageous ecologically as they involve the construction of narrow trails (typically around 1.5 metres in width) or can involve the placement of waratahs as route markers. Narrower trails are preferable to farm tracks as they are easier to align around areas of high ecological value and sensitivity including sites where threatened or rare plants are located. The extent of clearance of indigenous vegetation and earthworks require during construction of a recreational trail is considerably less than is required for a farm access track. Narrower trails are easier to rehabilitate.
- 7.3 There are examples of Sites bordering the Wakatipu Basin where farming occurs in tandem with a range of tourism ventures. These ventures take advantage of the scenery afforded by the indigenous vegetation cover in combination with diverse landforms. They include Ben Lomond's high country horse treks, Queenstown Hill Site's quad bike adventures and Glenroy Site's safari hunting ventures.

8. ECOLOGICAL OPPORTUNITIES AND OUTCOMES SOUGHT

- 8.1 Within the proposed QPSZ there are three areas where opportunities exist to maintain and/or enhance ecosystem health and indigenous biodiversity as well as promote the ecological values of the indigenous vegetation and habitats they provide for indigenous fauna. These are:
- (a) the development areas or pods on the lower terraces near the Kawarau River;
 - (b) the gondola corridor; and

(c) the balance land outside of the development areas and the gondola corridor.

8.2 The open areas of shrubland on the terrace risers within the rural visitor (RV3) and rural residential pod (RR2) present an opportunity to enhance these areas through inter-planting of the shrubland with a mixture of shrubs and tree species including kowhai, lancewood and cabbage trees which occur locally in the Remarkables Ecological District plus exotics plantings. Planting of the same mix of native shrubs and trees is recommended within the rural residential pods. Once establishing and self-sustaining these plantings would provide an extensive area of indigenous vegetation cover across these areas enhancing indigenous biodiversity values and habitat quality for invertebrates, lizards and birds. These plantings would improve the linkage or connectivity between these activity areas and the more extensive areas of shrubland on the hillslopes as wildlife corridors, including the SNAs. I note that the areas of shrubland within and adjoining the development pods are located within land environments where there is less than 20% indigenous vegetation cover remaining at a national scale.

The Gondola Corridor

8.3 Development of the gondola will result in some localised clearance of indigenous shrubland and tussockland vegetation to accommodate the pylons and establishment of tracks for construction access where these pass through areas of shrubland, albeit these are outside of the SNAs. I understand it is the intention of QPL to utilise the construction tracks for walking and mountain biking following reinstatement of the construction track margins through active plantings and to develop other trails linking to the tracks in the gondola corridor. These tracks will provide access to the mid to lower reaches of the Rastus Burn. Importantly the Gondola proposal and the associated trails will allow the public access to the SNA in the Rastus Burn and other areas of ecological interest including the riparian areas. QPL propose to install interpretation panels along the trails and at a certain vantage points, which will include information on the ecological values of the shrublands and tussocklands, including the fauna they support and their contribution to the nation's biodiversity. Provision of access in conjunction with interpretative signs would not only add to the recreational appeal of these areas but assist in raising public awareness of the ecological values of shrublands and tussocklands.

The Balance Land

- 8.4 Opportunities to maintain the ecological health of the SNAs and adjoining areas of indigenous vegetation, including habitat quality for indigenous fauna outside of the activity areas and Gondola corridor is best achieved through animal pest and weed management programmes. Success would be measured through monitoring of representative treatment areas to encourage indigenous species diversity associated with grey shrublands is maintained and regeneration and succession processes are occurring. Achieving this outcome requires ongoing investment.
- 8.5 Management programmes to minimise pests such as possums, hares and rabbits will reduce browse pressure and the spread and dispersal of weed seeds. Pest control is likely to assist in the protection of palatable plants including national and regionally rare plants such as the Kawarau cress and kowhai and areas proposed for enhancement plantings.

9. PLANNING FRAMEWORK

- 9.1 This section of my evidence addresses the relevant PDP provisions contained in the Rural and Indigenous Vegetation and Biodiversity Chapters that are recommended for inclusion in the QPSZ provisions from an ecological standpoint.
- 9.2 The provisions recommended for the proposed QPSZ as set out in Annexure A to the evidence of Mr Serjeant present an opportunity to maintain, protect and/or enhance indigenous biodiversity values across the Site.

Rural Chapter

- 9.3 Policies in the PDP [Notified 21.2.1.1, 21.2.1.6] give due regard to protecting, maintaining and enhancing indigenous biodiversity and ecosystem services and avoidance of cumulative impacts on ecosystem services and nature conservation values. I support the inclusion of these provisions in the QPSZ provisions. Policy [Notified 21.2.1.8] would also be included.
- 9.4 Policies [Redraft 21.5, page 51, Notified 21.2.10.1 - 21.2.10.3] give recognition to the benefits of revenue producing activities such as commercial recreation or visitor accommodation citing their potential to enhance or enable landscape values, rural

amenity and indigenous biodiversity values. I support the inclusion of these policies in the QPSZ provisions.

- 9.5 A rule specifying stock units per hectare on the SNAs and on the land above 600 metres above sea level between the Owen Creek and Rastus Burn SNA's is recommended. Alison Dewes in her evidence at paragraphs 6.5 and 6.6 recommends limiting SNA grazing to <1 stock units per hectare with no cattle grazing and limiting grazing above 600 metres and between the SNAs to an average of less than 3 stock units per hectare in line with best management practice. I support this grazing regime.

Indigenous Vegetation and Biodiversity Chapter

- 9.6 The inclusion of the provisions in Chapter 33 – Indigenous Vegetation and Biodiversity as recommended by Mr Serjeant are supported. These are:
- (a) Objective [Notified 33.2.1] and policies [Notified 33.2.1.1 - 33.2.1.9];
 - (b) Objective [Notified 33.2.2] and policies [Notified 33.2.2.1 - 33.2.2.3];
 - (c) Policy [Notified 3.2.2.3] would be amended by qualifying that small-scale tracks on the hill country would be up to 1.5 metres in width;
 - (d) Objective [Notified 33.2.3] and policies [Notified 33.2.3.1 - 33.2.3.7]; and
 - (e) Rules concerning clearance of indigenous vegetation and activities within SNAs as listed under Tables 2 and 3 plus the exemptions [Notified 33.3.4.1 - 33.3.4.3].

Recommended QPSZ Provisions

- 9.7 The inclusion of a Comprehensive Development Plan (**CDP**) as a specific rule in the QPSZ provisions as recommended by Mr Serjeant is supported. The CDP provides for planting with focus on indigenous plant communities. The commitments contained in the CDP will in my opinion achieve outcomes that will maintain and enhance the ecological values on the Site. These align with the opportunities and outcomes outlined in Section 8 of my evidence.

9.8 On the basis of my concerns about the effects of cattle grazing on shrublands as noted in Paragraph 6.5, and further to Alison Dewes' evidence to exclude cattle from SNAs, I recommend a rule avoiding grazing of cattle within the SNA's.

10. SECTION 42A REPORT

10.1 I refer to paragraph 26.16 of the report and reference the author makes to a comment by QPL concerning the SNAs and the impediment they pose. I understand this comment was made in relation to farming operations but it is my understanding that this is no longer being pursued. The SNAs identified on the Site are natural attractions in my opinion that will enhance opportunities for commercial recreational activities consistent with the intent and purpose of the QPSZ provisions.

11. STATEMENT OF EVIDENCE OF GLENN DAVIS

11.1 Mr Davis states at paragraph 5.59 of his evidence that the lack of detail proposed for the "*balance area of the Special Zone provides scope for a wide range of activities...*" While I understand Mr Davis concerns, these range of potentially detrimental activities as implied will not be realised as it is the intention of QPL as stated in expert evidence that the activities in the balance area will be consistent with the indigenous vegetation clearance rules which allow for small scale activities such as tracking for commercial activities. These rules as provided in the PDP are recommended for inclusion in the QPSZ provisions.

11.2 With respect to the Gondola proposal Mr Davis comments that the development footprint within the proposed corridor will have minimal effect on the ecology of the Site.

12. CONCLUSIONS

12.1 Queenstown Park Site is a changing environment and invasive weeds are increasingly posing a threat to the SNAs and other areas of the property.

12.2 Cattle grazing pose a threat to the SNAs.

12.3 The proposed gondola and low impact recreational activities anticipated in the QPSZ in combination with appropriate mitigation controls are compatible with the protection

of the values inherent to the SNAs and other areas of indigenous vegetation, including maintenance of ecosystem health and indigenous biodiversity.

- 12.4 The proposed QPSZ provisions include amended policies [Notified 21.2.10.1-21.2.10.3] of the PDP, which underscore the importance of diversification of farms and encouragement of revenue producing activities in terms of enabling not just landscape values but also ecology values in the longer term.
- 12.5 The inclusion of the provisions in the Indigenous Vegetation and Biodiversity Chapter in the QPSZ provisions are recommended as they provide a practical framework that allows for small scale activities including commercial activities that will protect and enhance SNAs and other areas of indigenous biodiversity. The provisions include an exemption in the indigenous vegetation clearance rules where this clearance involves construction of walkways up to 1.5 metres in width provided that it does not involve the clearance of threatened plant species listed in section 33.7 or any trees greater than a height of 4 metres.
- 12.6 The recommended QPSZ provisions include a Rule requiring development of an a Comprehensive Development Plan involving a range of ecological maintenance and enhancement measures for the Activity Areas and the balance of the Site. Implementation of the measures set out in the Rule will achieve ecological outcomes that the PDP provisions alone are unlikely to achieve.
- 12.7 The recommended QPSZ provisions are better for achieving positive ecological outcomes than the PDP provisions because:
- (a) They require QPL to commit up front to ecological maintenance and enhancement measures including control of invasive plant/weed species, extensive indigenous plantings and advocacy measures aimed at promoting the ecology of the Site; and
 - (b) they better protect the SNAs by prohibiting cattle grazing whereas the PDP allows for grazing in the Rural Zone as a permitted activity including SNAs.

Simon Beale

9 June 2017

ATTACHMENT A: THREATENED ENVIRONMENT CLASSIFICATION

The Threatened Environment Classification (**TEC**) is a combination of three national databases, which combine this information into a simple and practical GIS tool to provide national scale background information on New Zealand's land environments.¹

It shows how much native (indigenous) vegetation remains within land environments, and how past vegetation loss and legal protection are distributed across New Zealand's landscape. The TEC uses indigenous vegetation as a surrogate for indigenous biodiversity. This includes indigenous ecosystems, habitats and communities: the indigenous species, subspecies and varieties that are supported by indigenous vegetation, and their genetic diversity. The TEC is most appropriately applied to help identify places that are priorities for formal protection against clearance and/or incompatible land-uses, and for ecological restoration to restore lost species, linkages and buffers. The TEC is a combination of three national databases: Land Environments New Zealand (**LENZ**), classes of the 4th Land Cover Database (LCDB4, based on 2012 satellite imagery) and the protected areas network (version 2012, reflecting areas legally protected for the purpose of natural heritage protection).²

¹ <http://www.landcareresearch.co.nz/resources/maps-satellites/threatened-environment-classification>

² <http://ourenvironment.scinfo.org.nz/-Threatened> Environments