Before Queenstown Lakes District Council

In the matter of The Resource Management Act 1991

And The Queenstown Lakes District proposed District Plan -

Rezoning Hearing Topic 12 – Upper Clutha mapping

STATEMENT OF EVIDENCE OF JUDITH ROPER-LINDSAY FOR

Glendhu Bay Trustees Limited (#583)

Dated 4 April 2017

Solicitors:

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Introduction

- My name is Dr Judith Roper-Lindsay. I am a self-employed ecological consultant. I specialise in ecological impact assessment processes, with an emphasis on the incorporation of biodiversity and ecological values into planning, policy and project development.
- I have been asked by Boffa Miskell Ltd on behalf of Glendhu Trustees Ltd to provide evidence in support of their submission on the Queenstown Lakes District Plan review, and associated request for rezoning of the Glendhu Station Zone. In particular, I have been asked to evaluate its request to:
 - (a) Rezone an area currently zoned Rural to a new zone called the Glendhu Station Zone.

Qualifications and Experience

- I have the following qualifications: A BSc (Ecology) and PhD (Plant community ecology) from the University of Durham, England. I am a Fellow of the Environment Institute of Australia and New Zealand (EIANZ) and a member of the Chartered Institute of Ecology and Environmental Management (CIEEM) (UK). I am a Certified Environmental Practitioner (CEnvP). I received the EIANZ's "Environmental Practitioner of the Year 2016" award.
- I have worked as an ecological practitioner in New Zealand since 1981, initially with the former Ministry of Works and Development and later as a consultant with Boffa Miskell Ltd. Throughout the period I have provided ecological advice to all aspects of project planning, design, construction and operation for a range of urban, peri-urban and rural projects.
- Since January 2015 I have been a member of the Waimakariri Water Zone Committee operating under the Canterbury Water Management Strategy, and sit on its Lowland waterways and Biodiversity sub-committee.
- I have had an active interest in the implementation of section 6(c) of the RMA since its inception. In 1998 I was co-author of the draft report prepared for the Ministry for the Environment proposing criteria to define "significance" under the RMA, which triggered strong debate amongst ecologists and led to the refining of criteria and their application over the intervening 19 years.
- In 1999-2000 I was a member of the Ministerial Advisory Committee which made recommendations on the protection of biodiversity on private land.
- In 2006, advised the Banks Peninsula District Council on provisions in its District Plan in relation to identification of significant natural areas and took part in successful Environment Court-directed mediation with stakeholders on this.

- I took part in a workshop in December 2010 involving ecologists and planners to discuss the proposed Appendix 4 criteria in the Proposed Canterbury Regional Policy Statement. I provided information on the significance criteria in the PRPS to the combined Territorial Local Authorities and provided evidence at the PRPS hearings on behalf of Meridian Energy Ltd and Trustpower Ltd.
- I have followed the development of biodiversity offsetting in New Zealand closely. In 2010 I co-authored a "think-piece" for the Department of Conservation as part of the government's Biodiversity Offsets Programme (BOP) which investigated the feasibility of biodiversity offsetting in New Zealand. I was a member of the Ecologists' Working Group which advised DOC on development of Guidance on the topic.
- In August 2014 I was invited to be a member of the "Botanists' Group" set up by CCC to provide advice on the Sites of Ecological Significance process and selection. I attended three meetings of the Group in August, September and October 2014. The Group was disbanded in February 2015.
- Recently I was the editor and lead contributor to a publication produced by the EIANZ entitled "Ecological Impact Assessment. Guidelines for use in New Zealand: terrestrial and freshwater ecosystems". This publication received the Documentation Award at the Resource Management Law Association's 2015 Conference.
- I am also an experienced recreational golfer, having played in the UK, USA, Europe and the Pacific as well as various parts of New Zealand. I have served on Rangiora Ladies Golf Committee and have a good understanding of the maintenance and operation of golf courses.
- I have also worked with golf course designers and constructors to protect existing biodiversity values, and incorporate new biodiversity features and their management into the courses at Millbrook, Clearwater, Pegasus and the proposed Whisper Creek (Styx River). I am currently working with the design and consenting teams contracted by Fulton Hogan and Templeton Golf Club to develop a new Marquee course near Christchurch.
- In relation to this I presented evidence on behalf of Fulton Hogan on the ecological management benefits of rezoning quarry and open space land at Templeton Golf Course to the Commissioners' Hearing Panel for the Christchurch City Recovery Plan. The rezoning request was successful.
- I was involved in the Parkins Bay project on occasions from August 2005. In June 2006 I advised on, and reviewed, a report on ecological factors carried out by my then colleague Dr Erik van Eyndhoven at Boffa Miskell Ltd as part of the resource study for Glendhu and Cattle Flat Stations.
- 17 Following these investigations, Darby Partners developed conceptual proposals for a golf course and accommodation adjacent to Parkins Bay. In June 2007, I was asked to

- review the draft Revegetation Strategy prepared by Darby Partners and I presented evidence to the Council hearing on the outcomes of that review.
- In 2009, I worked with Brett Thomson of Darby Partners Limited and Mr John Baker to revise the draft Re-vegetation Strategy for submission in evidence presented at the Environment Court hearing in 2009. This document became the basis for the conditions relating to the Revegetation Strategy set by the Environment Court in April 2012 and for the Revegetation Strategy certified by QLDC on 23 February 2016.
- I have read and understood the Code of Conduct for expert witnesses (Section 7, Practice Note 2014). I confirm that I complied with it in preparation of this evidence. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

Scope of Evidence

20 In my evidence I will:

- (a) Comment on the current state of the area proposed to be rezoned in ecological terms, including the activities carried out under the approved resource consent, consent conditions and certified Revegetation Strategy (23 February 2016);
- (b) Consider whether the proposed Zone provisions for the Glendhu Station Zone encompass the conditions of the resource consent relevant to biodiversity value, and the objectives and detailed proposals of the certified Revegetation Strategy 23 February 2016;
- (c) Comment on the potential ecological effects of including all the visitor accommodation /residential units in a single residential activity area as set out in Brett Thomson's evidence and on any management actions needed;
- (d) Comment on the potential ecological effects of the OS/F, FH and C activity areas, and on any management actions needed;
- (e) Consider whether the proposed Zone provisions in relation to biodiversity are consistent with the provisions of the proposed Chapter 33 – Indigenous Vegetation and Biodiversity;
- (f) Comment on the evidence of Glenn Davis as part of the Council's s42A reports;
- (g) Comment on the further submission of Mr John May
- In preparing my evidence I have examined the Parkins Bay Plans approved by the Environment Court; the Revegetation Documents prepared for specific stages of

revegetation; and the associated Plans for Certification approved by QLDC. I have also read:

- (a) The proposed Glendhu Station Zone;
- (b) The proposed District Plan Chapter 33 Indigenous Vegetation and Biodiversity;
- (c) Craig Barr/ Council Right of Reply on Chapter 33 proposals 3 June 2016;
- (d) Rural Chapter 21;
- (e) Revegetation Strategy 23 February 2016 as certified by Council;
- (f) Environment Court Conditions April 2012;
- (g) Glendhu/Cattle Flat Resource Study 2006, prepared by Boffa Miskell Ltd;
- (h) Motatapu-Mt Soho Conservation Plan 2004; prepared by Boffa Miskell Ltd;
- Glendhu Station Conservation Resources Report; not dated, circa 2007; prepared by Department of Conservation.
- I visited the site most recently in March 2017 accompanied by Haley Farmer, the landscape architect who has overseen revegetation and associated management since January 2016. She has provided me with plans and planting information from Darby Partners' records.

Glendhu Station Zone – existing environment

- The Glendhu Station Zone is located adjacent to the small southern arm of Lake Wanaka in the area known as West Wanaka. At the Zone's northern end, the Wanaka-Mount Aspiring Road separates the moderate to steep farmland of Glendhu Station including the Rocky Mountain area above Diamond Lake, from the small isolated mountain of which the Glendhu Bluff is part; lower terraces and the lakeshore on which tourism, golf and small-scale developments are consented; and higher terraces and hill slopes on which farming activities will continue.
- The zone is bounded by the Matukituki River, the Motatapu River and the Fern Burn; and its southern boundary is the Alpha Burn. The Wanaka Mount Aspiring Road runs through the zone on the flats from east to west. The landforms and landscape features are described by Ms Pflüger in her evidence.
- The ecological patterns of the proposed Glendhu Station Zone reflect the patterns of soil types, climate, microclimate, land use and ecological history of the area. A strong feature of the northern part of the Zone is the dissected *roche moutonee* landform. To the south the glacial terraces and slopes predominate.

- The farm has been grazed by sheep and cattle and subject to a range of standard farming practices for 150 years. In the 2007-2009 period (when the consenting process for this development was undertaken) the whole site now proposed as a Special Zone was open, grazed pasture with only scattered plants of matagouri (*Discaria toumatou*), short tussock and sweet briar visible. The rocky area at the north, adjacent to Glendhu Bluffs Conservation Area was heavily grazed and only lightly vegetated, with one stand of older kanuka (*Kunzea ericoides*) also present. Overall the site had low ecological values due to the lack of indigenous vegetation to support indigenous fauna.
- 27 The farming values were recognised during the tenure review process for Glendhu Station when the areas of highest conservation value the Glendhu Bluffs and Diamond Lake were excluded from freeholding. Glendhu Bluffs Conservation Area supports a diverse indigenous broadleaf forest flora in which species such as kohuhu (*Pittosporum tenuifolium*), broadleaf (*Griselinia littoralis*), wineberry (*Aristotelia serrata*) and *Olearia* and *Coprosma spp.* are found.
- The zone today remains dominated by exotic species pastoral grasses, ruderal weeds such as thistles and sweet briar, and traditional farm and riverbank plantings such as pine, fir and willows.
- Stock have been removed from the consented development area subject to the consent over the last two years. Stock have been excluded from all the area south-east of and including the Gully/wetland planting since June 2015; and from the entire property south of the road since February 2016. A small number of animals occasionally graze land to the north-west of the Gully/wetland, over the *roche mountonee*.
- In the short time since the removal of stock there has been noticeable regrowth of shrub vegetation, both indigenous and exotic. Matagouri and sweet briar (*Rosa rubinginosa*) bushes are now larger and more prominent across the lower parts of the site. Even with occasional grazing, kanuka, together with occasional kohuhu plants grow on the rocky promontory (*roche mountonee*). The most extensive native plant cover at locations across the whole site is of bracken fern (*Pteridium esculentum*) which appears to be responding quickly following the removal of grazing. This is a feature of much of the land alongside the Wanaka-Mt Aspiring Road and the southern side of Lake Wanaka where grazing has been removed or become less intense.
- The cluster of more mature kanuka on the *roche moutonee* seen in the mid-2000s remains, but there is little evidence of new growth beneath it yet. These areas were preferred shelter areas for stock, so little regeneration could occur while heavy grazing continued. However, I observed a few younger plants near the current access track during my March visit. A small wetland area occupies a lower dip in the promontory. This too supports a mix of native and exotic herbs and grasses.

- Extensive planting of mixed shrubland and wetland species was carried out along the western gully between March and June 2016. This work was certified by Council in accordance with Condition 6 in July 2017. 22,150 plants have been planted comprising:
 - (a) Grey Shrubland: 5,276
 - (b) Riparian Margins/ Wetland: 6,066
 - (c) Mixed Shrubland: 10,808
- All planted areas are irrigated and different ground preparation and treatment methods have been trialled. Rabbit and hare control is carried out.
- On my site visit I visited these replanting areas and saw healthy plants with little indication of damage by rabbits or hares. Although I did not audit the numbers of plants planted, it was clear to me that a large number of plants in each category have been planted. This means that already the diversity of indigenous species on the site has increased.
- An area of kanuka was planted in spring 2005 to trial spacings, watering regimes and plant and animal pest control methods. The plantings were very successful and today the kanuka plants are reaching 3 4 metres in height.
- The <u>lake shore</u> appears to have changed little since the Revegetation Strategy 23 February 2016 was drafted. A 20m+ wide Marginal Strip separates the proposed golf course from the shoreline. Willows, poplars with scattered kanuka occur here, with clumps of marginal rushes and sedges.
- Around <u>Fern Burn</u> and the McRae family homes and farm buildings, there is a mix of typical, modified, rural habitats willows, poplars and conifers dominate over gardens and open paddocks, while willows line much of the stream side. To the south (in the proposed Camping Activity Area) there are farmed paddocks with shelterbelts and scattered pine trees.
- I have not carried out an intensive ecological assessment of the site for the purposes of this evidence. Instead I have based my evaluation on inventories and reports published over the last 10 to 14 years (for example, the Cattle Flat Resource Study), my own visits to the West Wanaka area made since the 1980s and the site since 2007, evidence presented by a range of witnesses at the Parkins Bay Council and Environment Court hearings and the Environment Court decision (particularly in relation to revegetation.)
- In general terms, and as confirmed from my more recent site visit, ecological processes, particularly vegetation succession, are highly modified across the proposed Zone. Indigenous plant and animal species are low in number and diversity and dominated by species that are resilient and widespread in the area. Indigenous plants are scattered across the pastoral landscape so that there are few, if any, areas of intact vegetation

- communities. Waterways are modified by catchment-wide and riparian land-uses. The ecological health of the site is still compromised.
- In 2007 and 2009 when I visited the area in relation to the original revegetation proposals, it was my opinion that the existing ecological values of the site were low.
- Noticeable changes have already occurred. There is increased cover of indigenous vegetation but this still remains a small proportion of the Zone area and is unlikely to have had more than a minor influence on indigenous fauna or wider terrestrial and aquatic ecological values. I still consider ecological values overall to be low.
- Removal of stock from the area, natural regeneration and establishment of revegetation species, will contribute to higher values eventually. The cover of indigenous vegetation, particularly bracken fern, has increased and regeneration of kanuka is occurring at the north end of the site. As indigenous vegetation cover continues to increase through both active planting and natural regeneration I consider that ecological values will improve.
- The certified Revegetation Strategy (attached as appendix 1) proposes that in total approximately 9.0 ha will be planted with locally sourced indigenous plants, which will be managed for at least ten years to ensure their survival and healthy growth. Unwanted stock will be permanently excluded, pests will be managed and weeds controlled. This should result in a corridor of indigenous vegetation linking the indigenous vegetation to the north through Glendhu Bluffs and Emerald Bluffs to regrowth further east towards Wanaka township.
- The Conditions of the Environment Court decision set out clear requirements for the establishment of covenants to implement the Revegetation Strategy, including pest and weed control; and to protect indigenous vegetation on properties in the R Activity Area. The covenants reinforce the objectives of revegetation sought in the Environment Court decision and contribute to long-term biodiversity enhancement in the area.
- The proposed FH and C Activity Areas extend over highly modified land which currently supports very low ecological values. The area proposed as Farm Homestead Activity Area is currently occupied by houses, farm buildings and other farming infrastructure amid rough grassland with tall pines and other exotic trees. It shares a small boundary with the Golf Course along Fern Burn and is crossed by the Motatapu Road. The area proposed as Camping Activity Area is entirely in paddocks, with areas of old, established shelter belts. The farmed land has a distinct boundary along the south-east boundary where the land slopes to the Alpha Burn. Old willows line the banks here.

Relationship between the Revegetation Strategy and the Glendhu Station Zone provisions

The provisions for the Special Zone, as presented in Mr Ferguson's evidence (amended provisions attached to that evidence), address the intent and content of the Revegetation Strategy in a number of sections:

- (a) 44.2 Zone Purpose
- (b) Policy 44.3.1.5
- (c) Rules Activities: 44.5.2 (c) Buildings; 44.5.3 (b) (iii) Mining; 44.5.4 Activities in Activity Areas R, G and LS; 44.5.9 Revegetation; 44.5.10.1 Structure Plan Activities
- (d) Rules Standards: 44.6.2 Earthworks standards; 44.6.5 Vegetation standards
- I have reviewed the Revegetation Strategy and these provisions to assess whether the intent of Condition 6 of the approved resource consent and the associated certified Revegetation Strategy would be met through the provisions in the proposed new Zone.
- It should be noted that the purpose of revegetation as discussed and consented through the Parkins Bay applications and consenting; as set out in the certified "Revegetation Strategy"; and as provided for in the proposed Zone provisions, is two-fold.
 - (a) Firstly, revegetation is to be undertaken to screen buildings on the site. Ms Pflüger addresses this aspect in her evidence. This is generally referred to as "mitigation revegetation" in the Environment Court documentation, including the Conditions, and was intended to be mitigation of visual effects and not related to adverse ecological effects.
 - (b) Secondly, natural regeneration and active revegetation using appropriate indigenous species are to provide an indigenous vegetation cover that can form a foundation for improvement of biodiversity values across the development site and, in the longer term, across a wider area. On the ground this vegetation includes areas planted primarily for "mitigation revegetation", as well as those planted to increase the cover of indigenous vegetation across the site, to provide riparian protection for gullies and waterways, and to improve slope stability. The regeneration areas were covered primarily by way of removal of stock and fencing.
- Regeneration is an important component of the Strategy in some areas that are now encompassed by the OS/F activity area. Removal of grazing from this farm land has already allowed regeneration to occur. Bracken fern is more widespread, and kanuka regrowth is evident. I understand that the stock route and fencing in general are covered by the conditions of the consent and would both become requirements for inclusion in the revegetation strategy under rule 44.5.4.

Zone Purpose and Objectives and Revegetation Strategy Objectives

The Revegetation Strategy was written to provide guidance on achieving the objectives of the revegetation programme at this site which was set out in Condition 6 of consent RM070044:

- a. To provide a vegetation cover framework of Kanuka and other appropriate native species in the short term, which can be become the basis for biodiversity enhancement as the project develops;
- b. To provide screening for residential buildings for viewers from the road and lake, in accordance with attached plans and Revegetation Strategy;
- c. To reflect the underlying of landform and soils in the native vegetation cover of the site:
- d. To achieve eventual revegetation of the Gully shown on Parkins Bay Plan B dated 12 April 2012 with a mix of locally sourced species including Totara;
- e. To achieve eventual revegetation of the Moraine Slope shown on Parkins Bay Plan B dated 12 April 2012;
- f. To ensure that the "rough" areas of the Golf Course, being the vegetated areas not required to be mowed or otherwise maintained, regenerate naturally (excluding noxious weeds)
- g. To link with other re-vegetated areas outside the site.
- "Protection, maintenance and enhancement of indigenous biodiversity" is recognised as an issue that can be managed by the Zone (44.1), while The Zone Purpose (44.2) and Objective (44.3.1) include "biodiversity enhancement" as one of the environmental benefits that will be provided.
- The areas to which paragraphs 50 a-g relate lie within the Activity Areas Golf (G), Lake Shore (LS), Residences (R), and Open Space Farm (OS/F). At the moment, the Camping (C) and Farm Homestead (FH) are not covered by the Revegetation Strategy since they were not considered at the time of the consent application.
- In clause 44.2, the Zone Purpose, revegetation with indigenous species is noted as a feature of each of the Golf, Lake Shore, Residences and Open Space Farm activity areas. In my opinion this reflects the overall intent of Condition 6 and the Revegetation Strategy in recognising the importance of increasing the cover, and eventually the habitat quality, of indigenous vegetation across the site.
- The Camping and Farm Homestead activity areas are relatively small and focus on small scale developments within an already heavily modified rural setting. Large introduced trees dominate areas of paddocks and rural infrastructure. While additional planting of indigenous vegetation by the landowners would be beneficial, in my opinion it is not necessary for the Zone provisions to require this through rules for either mitigation or environmental compensation relating to ecological values.

Revegetation Strategy Content

- All the Strategy Objectives set out in 50 a-g of my evidence are repeated in Zone Rule 44.5.4. This rule requires resource consent applications for all activities, except buildings, in the Residential (R), Golf Course (G), and Lake Shore (LS) Activity Areas to include a Revegetation Strategy.
- I understand that in this way Council will be able to require the Revegetation Strategy be linked to any new consents in a manner that is consistent with Condition 6 of the resource consent and the certified Revegetation Strategy. In my opinion, this is an

appropriate way to ensure that the Revegetation Strategy is updated to reflect changing conditions. The biodiversity aspects of the application will be subject to the Council's consideration when considering an application.

Revegetation Strategy Staging and Condition 5

- 57 Environment Court decision April 2012 Condition 5 sets out 3 Stages for development and revegetation. In relation to revegetation the key points in practice are:
 - (a) Stage 1. At least 12 months prior to construction of Visitor Accommodation (at 10 identified units in proposed Activity Area R) 2 ha of mitigation revegetation planting has to be undertaken. I understand that this work was carried out by Darby Partners in March-June 2016.
 - (b) Stage 1. Prior to the construction of those 10 units, Council has to certify that the revegetation has been successful to a standard set out in the Revegetation Strategy. I understand that this certification was obtained in July 2016.
 - (c) Stage 2. Within 24 months of the completion of Stage 1, 6 ha mitigation revegetation planting has to be undertaken.
 - (d) Stage 2. 12 months after planting, Council has to certify that the 6 ha revegetation has been successful.
 - (e) Stage 3. Within 24 months of completion of Stage 2, the remaining area of revegetation planting has to be undertaken.
 - (f) Stage 3. Council has to certify that this planting has been successful and plants have an average height of 3 metres. Condition 8 states that this height has to be reached before the last 12 units are constructed.
- I understand that these Staging provisions in relation to revegetation are not incorporated into the proposed Zone provisions. In relation to achieving the biodiversity enhancement objectives set out in Condition 6 and the Revegetation Strategy I do not consider it necessary to undertake revegetation work in stages linked to site development. A long term outcome for vegetation cover at this site, reflected in the proposed Zone objective and first Revegetation Strategy objective (as certified), is to replace much of the existing pastoral land cover with indigenous vegetation cover. Eventually, this will develop into a more diverse mix of species, will attract and support indigenous animals and provide a link with other areas of indigenous habitat in the West Wanaka area.
- In my opinion, it is more important in the "bigger picture" that the planting is completed and heathy plant cover established, than whether specific areas are planted at specific times related to the development.

I note that under Condition 6, the Revegetation Strategy may be altered "to add new material, to reflect increased knowledge o to represent best practice methodology" and it may be appropriate to modify it to clarify the differences and similarities between mitigation and biodiversity outcomes and methods.

Modified R Activity Area

- As set out in Brett Thomson's evidence, the proposal as submitted has been changed to encompass the "pods" of Visitor Accommodation / Residential units into a single Residential (R) Activity Area. It is also proposed that 8 new residential / visitor accommodation units be located within this R Activity Area, amongst the 42 consented units. These 8 units were in the original application for Parkins Bay, but refused consent.
- I have considered whether the cumulative potential effects of activities within the revised R Activity Area warrant additional management activities, particularly in terms of revegetation.
- The extended area (between "pods" as submitted) is currently covered mainly in pastoral grassland, with some growth of bracken fern and scattered matagouri plants essentially the same as the consented Residential / Visitor Accommodation development area. Provision through proposed rule 44.5.4 for consent for any activities in the R Activity area, other than buildings, will trigger the requirement for a Revegetation Strategy as discussed above.
- Following the initial Council decision to refuse consent for 8 units the original revegetation planting was retained. These additional 8 residential / visitor accommodation units within this Activity Area will now be integrated into the mitigation revegetation considered in the Environment Court decision. The plans approved by the Court provided for mitigation planting in areas that did not have homesites and I understand that this was in part due to the anticipation that further homesites could be considered in the future. I do not consider that these additional 8 homesites would necessitate any further mitigation or environmental compensation beyond that already provided for through the revegetation strategy approach.
- I consider that the consented Revegetation Strategy and approved plans (as certified by QLDC, 29 July 2016) provide for a good framework of indigenous vegetation cover that can be established and maintained through this development. The mitigation planting areas within the proposed enlarged R Activity Area have low ecological values currently, and any potential adverse effects on them from development can be appropriately managed through the proposed plan provisions. No further modification to the Revegetation Strategy will be needed, as it was designed to accommodate 50 sites originally.

Potential Ecological Effects of the FH, C and OS/F Activity Areas FH and C Activity Areas

- Proposed Rule 44.4.1 identifies the link between provisions within the proposed Glendhu Station Zone and other District Wide Chapters, including Chapter 33 Indigenous Vegetation and Biodiversity. That relationship means that the rules within Chapter 33 would apply to any land use activities undertaken in accordance with the proposed new Zone.
- I understand that small-scale rural, tourism or recreation activities are anticipated in the FH Activity Area and normal activities associated with the existing campground are anticipated in the Camping Activity Area. I also understand that for any other developments or activities, resource consents will need to be applied for. In the FH Activity Area, applications will be considered as Restricted Discretionary. In the Camping Activity Area, applications will be considered as Controlled.
- I have not identified specific ecological values in the Fern Burn or Alpha Burn but note that under the proposed Zone provisions, there would be a 20m setback from all waterways. This provides for protection of any ecological values they may support. Any potential effects through take or discharge of water from these waterways would be addressed through Regional rules.
- Land in these two activity areas outside this 20m setback has very low ecological value, and I consider that the case by case assessment as part of a resource consent application will provide for assessment of effects and any mitigation required.
- If "ecological protection measures" were to be added to the matters over which Council exercises discretion I consider that this would ensure that any unanticipated effects on ecological matters could be considered when a resource consent in the FH or C Activity Area is sought.
- The Revegetation Strategy does not currently address the Farm Homestead (FH) and Camping (C) activity areas since they were not included in the original consent application. In my opinion it would be of benefit to biodiversity values in the Zone and to the West Wanaka area to extend the Strategy to this area. The wider rezoning proposal offers an opportunity to extend the objectives of the Revegetation Strategy to the whole Zone and integrate a wide range of land uses and biodiversity enhancement actions under a unified approach. I consider that revegetation within the FH and C Activity Areas would be an additional biodiversity benefit rather than a mitigation requirement.
- If indigenous revegetation were to take place within the FH and/or C Activity Areas, I would suggest that the priority areas be within the 20 metre setbacks proposed on the riparian edges of Fern and Alpha Burns, The exact land to be planted would require consideration of physical factors such as bank shape and slope, and flood patterns as well as adjacent land use activities. Species choice could be consistent with the "Gully" planting in the main area covered by the Revegetation Strategy.

OS/F Activity Area

- Under the proposed Zone, rules for the OS/F activity area will align with those for the Rural Zone, including those for indigenous vegetation clearance and associated biodiversity protection set out in Chapter 33. I discuss this further in the next section of my evidence.
- Activities currently proposed in this activity area are those carried out under the Revegetation Strategy, focussing on protection and enhancement of biodiversity. The Zone provisions also provide for small farm buildings to be Permitted Activities. Any other activities would require an assessment of effects on ecological values through the provisions of the proposed Zone.
- I consider that the proposed Zone provisions would ensure that potential ecological effects and mitigation would be addressed through the consenting process.

Consistency of proposed Zone provisions with proposed Chapter 33 Indigenous Vegetation and Ecosystems

- I have considered the Purpose, Objectives and Policies of proposed Chapter 33 and in this section of my evidence comment on the consistency of the provisions of the proposed Glendhu Special Zone. I have also considered the Revised Chapter 33 set out in Council's Right of Reply dated 3 June 2017.
- 77 The Purpose of Chapter 33 is to enable Council to maintain indigenous biodiversity, and to provide for Significant Natural Areas (as identified under s6 (c)). The chapter applies district wide.
- Objective 33.2.1 seeks to protect, maintain and enhance indigenous biodiversity. Policies relevant to Glendhu Station Special Zone, relate to:
 - (a) identifying and protecting those areas within the District that meet specified criteria and can be considered Significant Natural Areas (SNAs);
 - (b) managing indigenous vegetation clearance to ensure that indigenous biodiversity values are protected, maintained, or enhanced;
 - (c) identifying rare or threatened species;
 - (d) recognising farming activities and efficient land and resource uses
 - (e) encouraging the rehabilitation of indigenous vegetation communities
- The majority of land in the proposed Glendhu Station Zone will lie in the Open Space/Farming (O/F) Activity Area and the proposed rules for this Activity Area align with the Rural Zone rules. These provide for protection of indigenous ecosystem values through controls on earthworks and farming activities.

- Activities within the R, LS and G Activity Areas have been consented, and management of indigenous vegetation provided for, including enhancing biodiversity. The Environment Court accepted evidence on biodiversity values and effects, and set down conditions to avoid, remedy and mitigate those effects, predominantly through the Revegetation Strategy. The Revegetation Strategy is incorporated into the proposed Special Zone provisions. Further, initial planting has already taken place, pest control in ongoing, and earthworks have been carried out in a way that avoids (and thus maintains) areas (or in some cases single plants) of indigenous vegetation. Long term covenants will protect indigenous biodiversity.
- I consider that the provisions for the proposed Special Zone, supported by actions on the ground, are consistent with Objective 33.2.1.
- Objective 33.2.2 seeks to protect and enhance Significant Natural Areas. The Proposed District Plan does not identify any area meeting SNA criteria within the proposed Glendhu Station Zone.
- Objective 33.2.3 seeks to maintain indigenous biodiversity values while providing for land use and development. The proposed Objective 44.3.1 for the Glendhu Station Zone is consistent with this objective. The certified Revegetation Strategy sets out specific actions that are consistent with the Chapter 33 policies which seek to protect existing indigenous vegetation and increase the overall biodiversity values on the R, G and LS Activity Areas.
- The balance of the site (within the OS/F Activity Area) will be subject to the District-wide indigenous vegetation clearance rules under Chapter 33. This will provide for a case-by-case review of any proposed land use activity and an assessment of effects on indigenous vegetation. This allows for consideration of the dynamic state of vegetation and the changing patterns and types of land-use in the wider area, and the particular proposal at the time.
- Objective 33.2.4 relates to alpine environments. The Zone does not contain land in the alpine environment.
- In my opinion, the proposed Zone provisions are consistent with the Objectives and Policies of Chapter 33 as proposed, and as revised through Council's Right of Reply 3 June 2017.

Evidence of Glenn Davis

In his evidence for Council Glenn Davis, at paragraph 75, sets out six concerns about the re-zoning proposal.

- (a) He notes that a revegetation strategy was not provided with the submission. As set out earlier, the Environment Court Condition 6 required the preparation of a Revegetation Strategy covering specific matters. This Strategy was prepared in 2016 and certified by Council on 23 February 2016. The initial works and planting have been carried out, and these were certified by Council in July 2016. That Revegetation Strategy is linked to the specifically consented works and not the rezoning, but would appropriately form the basis of a Revegetation Strategy under the Zone rules.
- The provisions outlined in the submission and evidence of Mr Ferguson indicate that for any new activities in the Residential, Golf or Lake Shore activity areas, the Revegetation Strategy will be required to be revised and consented to ensure that the wider objectives continue to be addressed.
- Related to this, he notes (para 7.25 (b)) that information about areas of native vegetation in each activity area is not included in the submission. The proposed Activity areas R, G and LS, encompass an area for which native vegetation cover was considered when the Environment Court approved resource consent. The additional area of land to be included in the proposed Zone as OS/F will be subject to District wide vegetation clearance rules. Should a consent be sought for clearance, then an assessment of native vegetation cover suggested by Mr Davis would be required.
- As set out earlier, activity areas FH and C have very low ecological values, given their historic and existing land uses. The investigations for Tenure Review did not identify areas of ecological value in these areas, while proposed setbacks will protect adjacent waterways, extending benefits beyond the site to the Lake.
- 92 At paragraph 7.25 (c) Mr Davis notes concern about the lack of consideration of indigenous biodiversity in identification of:
 - (a) Conservation Landscape Protection Areas;
 - (b) Glendhu Hill Wetland Landscape Protection Areas:
 - (c) Southern Tributary Landscape Protection Area;
 - (d) Moraine Slope Landscape Protection Area.
- I have investigated the source of information on which these areas were defined, and note that these primarily appear to be based on the landscape features described.
- Area (a) encompasses land already identified as having conservation value (for example as a QEII covenant or identified through Tenure Review). These are shown on the "Parkins Bay Plan Glendhu Station Concept Master Landuse Plan." This is one of a series approved by the Environment Court in April 2012.

- Areas b, c, and d are identified on Plan B, also in the series approved by the Environment Court in April 2012. The areas shown were surveyed and drawn up to meet the Conditions and outcomes sought by the Court, in particular Condition 41 w, x, y and z relating to fencing and water quality. These areas are identified as a response to the resource consent decision and not directly to ecological values.
- At paragraph 7.25 (d) Mr Davis notes the reference to Gully Revegetation Area which is not shown on the Structure Plan. This is corrected in Mr Ferguson's evidence. The reference to Gully Revegetation Area is removed. This is a term used in the Revegetation Strategy and was included in error in these provisions.
- At paragraph 7.25 (e) Mr Davis notes that the provisions on public access (44.6.1 (b)) do not address indigenous biodiversity values and seeks Council discretion on this matter. I understand that routes within the consented development area were set by the Environment Court decision. However, it would be appropriate for indigenous biodiversity values to be considered in specific route design and formation.
- 98 Proposed rule 44.6.1 (b) addresses public access and, I understand, is taken directly from the conditions of consent on the Environment Court decision. It does not seem to be relevant to biodiversity matters.
- Parthworks clearance to create the tracks is addressed under rule 44.6.2 and indigenous vegetation clearance to create the tracks would deal with under Chapter 33 rules if required. Also Rules 44.6.2 (b) in relation to earthworks, is based largely on the underlying rural zone rules and so is consistent with what could be expected to occur in this area.
- 100 Finally at paragraph 7.2.5 (f) Mr Davis requests that Council's discretion be extended to effects on indigenous biodiversity. I understand that this has been added in the revised Provisions set out in Mr Ferguson's evidence.
- Overall, I consider that Mr Davis' concerns about "lack of ecological assessment" are addressed by:
 - (a) Activities in the central part of the Zone having been considered and consented through the Environment Court;
 - (b) Provisions for any additional consents within this area to update the Revegetation Strategy and for this to be approved by Council;
 - (c) Application of District wide indigenous vegetation clearance rules applying to the balance of the Zone; and
 - (d) Corrections of omissions or errors being made through Mr Ferguson's evidence.

Submission and Further Submission by John May

- Mr John May is concerned that there is uncertainty about the potential adverse effects of activities provided for across the Zone and their mitigation, including environmental compensation.
- 103 Since Mr May states that he accepts the Court's decision about activities that are now encompassed by Activity Areas R, G and LS, I assume that his concerns are around potential activities in the balance of the Zone.
- As noted earlier, activities in OS/F, FH and C that were not included in the consent process will be covered by District-wide rules depending on the proposed activity. This includes indigenous vegetation clearance rules.
- 105 I consider that these rules, together with Council discretion over biodiversity matters, provide for full assessment of proposed activities and management of impacts on ecological values.

Conclusions

- 106 It is my opinion that the proposed Glendhu Station Zone provides an opportunity to protect and manage indigenous biodiversity on Glendhu Station by:
 - (a) Allowing for integrated vegetation management across a range of activities seeking biodiversity enhancement alongside farming, recreation, landscape and amenity outcomes:
 - (b) Implementing the Revegetation Strategy which meets the conditions of the Environment Court decision in relation to Residential (R), Golf (G) Lakeshore (LS) and OS/F activity areas;
 - (c) Providing for indigenous biodiversity enhancement through focusing on outcomes, rather than staging;
 - (d) Extending the same regeneration and revegetation principles to new zones FH and
 C by protecting waterways; and thus extending the biodiversity enhancement opportunities;
 - (e) Extending the Zone to encompass the wider OS/F activity areas (that is, the grazed lands comprising the rest of Glendhu Station) while adopting Rural Zone provisions to enable opportunities for good biodiversity management to occur across a large area.
- It is also my opinion that the decision by the Environment Court anticipated the potential adverse effects on biodiversity values within the development area when granting consent, and accepted that the Revegetation Strategy provided an approach that would mitigate these effects while enhancing biodiversity.

- The Environment Court Condition 5 sets out stages for development which encompass revegetation with objectives addressing both mitigation of effects on landscape amenity and on biodiversity enhancement. The long term objectives for biodiversity set out in the decision and the Conditions, and repeated in the proposed Zone Objective, are to achieve indigenous vegetation cover and enhance biodiversity. In my opinion, this long term objective can be achieved through implementation of the Revegetation Strategy, without the stringent staging directives set out in Condition 5.
- I consider that the activity areas FH and C which are not included in the Revegetation Strategy support very low ecological values. Any potential adverse effects of anticipated activities on the Fern Burn and Alpha Burn can be mitigated through provision of riparian setbacks. All other activities will require a resource consent through which unanticipated effects can be assessed.
- Biodiversity enhancement is already being undertaken through implementation of the consent. Grazing has been removed from a large area and there is evidence that natural regeneration of indigenous vegetation has started. This has been supplemented by extensive planting in accordance with the Strategy in areas which will not be affected by earthworks.
- Long term management of weeds across the site, including the natural regeneration areas will be needed and this will be provided for. Together with covenants to protect indigenous vegetation and carry out pest control will contribute to good biodiversity outcomes.
- Natural regeneration and assisted revegetation and habitat restoration are occurring in the West Wanaka area in response to farming, recreation and rural life-style changes. In my opinion this Zone would provide an opportunity to contribute to wider biodiversity protection and enhancement.

Dated this 4th day of April 2017

Judith Lindsay-Roper

Attachment 1 - Parkins Bay Golf Course - Revegetation Strategy 23 February 2016