

**MEMORANDUM**

**TO:** Department of Conservation  
**ATTN:** Chris Visser and Stewart Genery  
**FROM:** Mitchell Partnerships Limited on behalf of Riverstone Holdings Limited  
**DATE:** 21 October 2011  
**RE: APPLICANT'S RESPONSE TO THE DRAFT DETERMINATION REPORT  
– COMMENTS**

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Thank you for your email of 28 July 2011 and various discussions relating to conditions, information requirements and management plans for the Riverstone Holding Limited's (RHL) concession application. We have reviewed your comments and have provided a response to those matters which may be outstanding or which required a further response from RHL. In addition, we have taken the opportunity to review the draft conditions and draft management plans, to ensure consistency and meaning are clear. As a result, we have made minor amendments to the conditions and each of the management plans, and attach each showing our requested changes.

The following documents are attached as appendices:

- Appendix A** Route Selection Criteria
- Appendix B** Clearance Limitation Areas
- Appendix C** Implementation Protocol
- Appendix D** Construction Management Plan
- Appendix E** Vegetation and Habitat Management Plan
- Appendix F** Recreation Users Management Plan
- Appendix G** Operational Management Plan
- Appendix H** Revised Conditions

**We firstly respond to the matters raised in your email of 28 July 2011:**

**Route Selection Criteria**

You advised that DOC's technical advisor had made some suggested changes to the Route Selection Criteria proposed. In particular, these changes related to beech tree height in the ecological criteria clause (refer condition 5.1). The project ecologist Dr Gary Bramley has reviewed the changes suggested by the Advisor, and has made some suggested changes to the Vegetation and Habitat Management Plan and conditions as a result. Dr Bramley's response is attached as **Appendix A**. Please note the suggested amendments to condition 5.1 in light of this response.

### **Clearance Limitation Areas**

You have asked that we provide detail as to how the intended clearance areas have been calculated. The clearance figures presented by RHL were estimated by Opus International Consultants (Opus) using the information that has been developed for the construction methodology (with inputs from other advisors including ecological) to date. The spreadsheet and accompanying dimension sketch attached as **Appendix B** illustrates how these figures have been derived.

### **Helicopter Landings**

You have requested details regarding likely helicopter movements during construction and on an on-going basis for assessment purposes. Opus has advised that the construction methodology does not generally involve access by air, but that from time to time helicopter use may be required and may be an essential part of the project. In such circumstances helicopters might be used for:

- Establishment of survey control early on in project. Once the track is established however there should really be no requirement to fly;
- Monitoring during construction – potentially to check on progress, take photos, vegetation monitoring, monitoring of effects;
- Possible heli-logging of large trees during clearing of the route to minimise/avoid collateral damage;
- Construction of structures in environmentally sensitive or topographically challenging sites;
- Emergency access.

Based on the above, Opus has advised that a rough estimate is that the survey control could take approximately one month, with 2 to 3 flights necessary each day. Thereafter it may be that 2 to 3 flights would be occurring once a week (for half a day maximum usage – one in, one out) during the construction phase. The use of helicopter for emergency is unable to be estimated; however it is of course not anticipated and would only be required in the event of a serious accident.

In terms of effects the use of the helicopter is within an area that is relatively remote, and therefore reduces the effects of noise on people and communities. The use of helicopters for components of the construction will also seek to reduce the adverse effects arising on terrestrial ecology values within the area. Helicopter use will minimise any requirement for additional access tracks, and the removal of vegetation by helicopters in environmentally sensitive areas is a preferred methodology in terms of reducing effects on ecological values overall. In addition noise associated with the temporary use of helicopters will be managed in accordance with the construction noise standard. This will be provided for as part of the Construction Management Plan. Overall it is considered that the use of helicopters will be temporary and as such any adverse effects will not be significant.

The use of helicopters once the monorail is operational will be minimal. The circumstances of such use will likely be limited to emergency access, and where it may be necessary for maintenance purposes to access via helicopter. Prior to the monorail becoming operational, a helicopter protocol would be submitted for approval. We have suggested amended conditions to reflect this.

### **Recreation Users Management Plan**

We note your comment that the Recreation Users Management Plan does not currently reflect the revised Kiwiburn location for the monorail. We agree that this could be potentially misleading so we have removed the figure which is now outdated, and included reference to the new Kiwiburn terminus location within the plan text. Please find the updated Management Plan attached as **Appendix F**. This plan also provides reference to a bridge across the Mararoa River for mountain biker users.

# **APPENDIX A**

Route Selection Criteria

6 September 2011

Our Ref: 6674

Mitchell Partnerships Ltd  
PO Box 489  
**DUNEDIN**

**Attention:** Louise Robertson

Dear Louise

**RE: RIVERSTONE HOLDINGS CONCESSION CONDITIONS WITH RESPECT TO  
BEECH FOREST CLEARANCE**

**1. INTRODUCTION**

Thank you for forwarding the response from the Department of Conservation Technical Support staff regarding the proposed condition with respect to the height of beech trees in the 'ecological criteria' clause for the Riverstone Holdings Ltd concession application and the accompanying email correspondence.

**2. PROPOSED CONDITION**

I have reviewed the email correspondence and I agree with Mr Edwards' opinion that non forest ecosystems are more important than forested ones along much of the route, but I do not consider that this matter needs to be formalised in the conditions since the final route selection will likely be a trade off between various competing ecological and other factors in any event, and the final route selection will be undertaken with input from a suitably qualified ecologist with input from the Department, which will help ensure ecological matters are given due consideration. Furthermore I don't consider that the 3 ha canopy continuum threshold Mr Edwards proposes is useful because, particularly in the case of red beech, there are tall mature trees which provide valuable habitat, but would not comprise a continuous monospecific canopy of sufficient size to meet this threshold.

In our initial surveys the tree height was estimated, rather than measured with a clinometer, so I would be happy to reduce the proposed height threshold 5 m as Mr Edwards suggests, allowing for the possibility that we may have systematically overestimated individual tree heights. Rather than adopt an area-based constraint I suggest we adopt diameter at breast height as the other criterion for determining maturity. Accordingly I propose the following wording:

- 5.1 In selecting the final location for the structures, land disturbance and vegetation disturbance provided for by this concession (in accordance with the Implementation Protocol required by condition 2.1(d), and presented as part of the Final Design Specifications required by condition 3.1(a)(i)), the Concessionaire shall have particular regard to protecting the following habitats and buffering them from the construction of the concession activities to the extent that is practicable:
- (a) Short tussock grasslands
  - (b) Wetlands;
  - (c) Bog pine shrubland;
  - (d) Matagouri shrubland, or other divaricating shrubland;
  - (e) Red tussock grasslands;
  - (f) Threatened plant species such as *Alepis flavida*.
  - (g) **Mature** red beech forest (with heights exceeding **25 m and diameters exceeding 55 cm**);
  - (h) **Mature** mountain beech or silver beech forest (with heights exceeding **20 m and diameters exceeding 45 cm**);
  - (i) Regenerating shrublands and forest edges
  - (j) Fertile, well drained flood plains (Environment L1.1c) covered with indigenous vegetation;

Based on data collected from our earlier plots along the route I am confident that this would be inclusive of at least the largest 20% of trees, and perhaps more. The use of the term 'and' implies that trees would need to be **both** tall and large in girth (i.e. not tall **or** large in girth) to meet this threshold, which should ensure that priority is given to the most valuable (and presumably older) specimens in the nearest vicinity of the selected route.

### 3. CONCLUDING COMMENT

I trust that this is sufficiently clear. Please do not hesitate to contact me if I can be of further assistance.

Yours sincerely,  
**MITCHELL PARTNERSHIPS LIMITED**

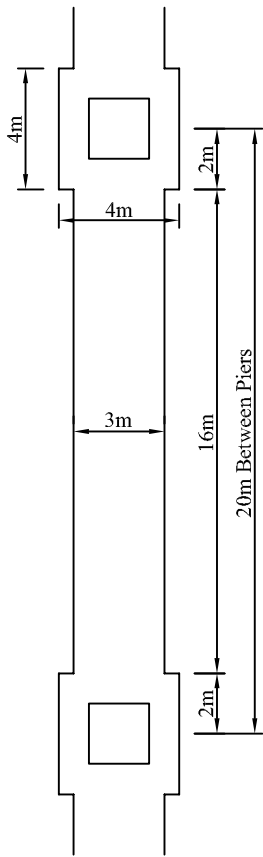


**DR G N BRAMLEY**

Email: [gary.bramley@mitchellpartnerships.co.nz](mailto:gary.bramley@mitchellpartnerships.co.nz)

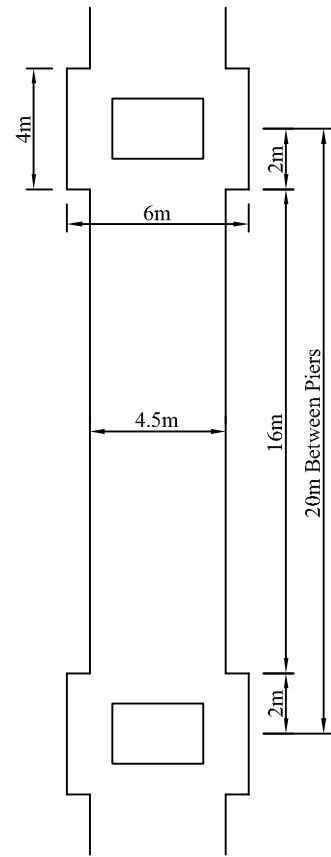
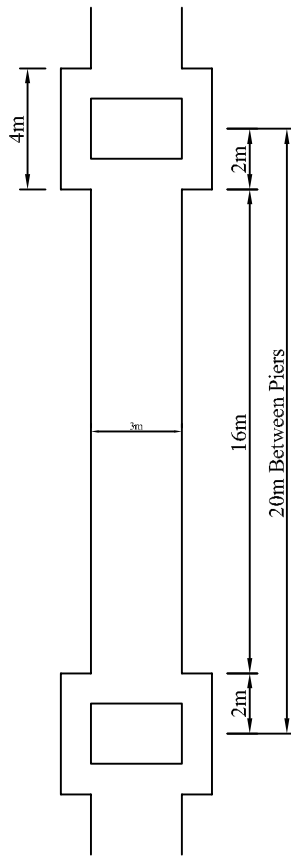
# **APPENDIX B**

Clearance Limitation Areas



Wide Width Percentage =  $(2+2)/20 = 20\%$

Narrow Width Percentage =  $16/20 = 80\%$

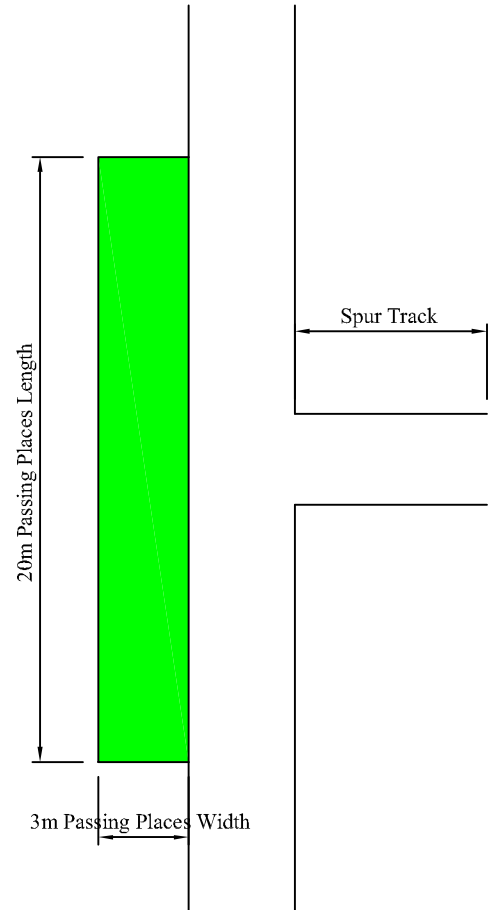
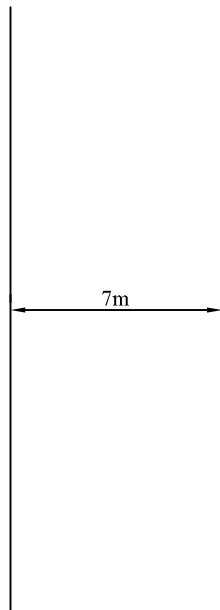
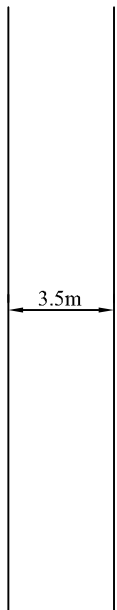


MONORAIL TRACK @  
FLAT AREA

MONORAIL TRACK @  
SWAMPY AREA &  
DEEP GULLY

MONORAIL TRACK @  
SIDE SLOPE AREA

## FLE - TYPICAL DIMENSIONS FOR FOOTPRINT CALCULATION



MOUNTAIN BIKE TRACK  
@ FLAT AREA

MOUNTAIN BIKE TRACK  
@ SIDE SLOPE AREA

TYPICAL PLAN AREA  
OF PASSING PLACES





# **APPENDIX C**

## Implementation Protocol

# **APPENDIX D**

## Construction Management Plan

# **APPENDIX E**

## Vegetation and Habitat Management Plan

# **APPENDIX F**

## Recreation Users Management Plan

# **APPENDIX G**

## Operational Management Plan

# **APPENDIX H**

Revised Conditions