

**Before an Independent Hearing Commissioner appointed by Whangarei District Council**

**In the matter** of the Resource Management Act 1991

**And**

**In the matter** of a Resource Consent Application by GBC Winstone for  
overburden disposal at Otaika

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**Statement of Evidence of Michael Ian Farrow**

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## **Statement of Evidence of Michael Ian Farrow**

### **1. Introduction**

- 1.1 My full name is Michael Ian Farrow.
- 1.2 I am the Principal of Littoralis Landscape Architecture, a Whangarei-based office. My professional experience spans over 25 years, where I have been engaged by local authorities, central government departments and private clients in New Zealand and offshore. I hold diplomas in Horticulture and Landscape Technology from Lincoln College (as it then was), a Bachelor of Science from Auckland University, and a postgraduate Diploma of Landscape Architecture from Lincoln University. I am a registered member of the New Zealand Institute of Landscape Architects and a former executive committee member of that body.
- 1.3 I led the region-wide landscape assessment for the recently operative Regional Policy Statement for Northland and then applied that work to Whangarei District's PC114 (for which hearings have recently concluded), where I was involved in verification, contributing to proposed plan provisions and preparing updated guidelines for Outstanding Natural Landscapes across the District.
- 1.4 My experience in leading the landscape components of infrastructure projects in New Zealand includes undertaking assessments of landscape and visual effects, consulting with the public and stakeholders, drafting designation or consent conditions, the preparation of landscape concept / detailed documentation and overseeing implementation. Those developments include a range of quarrying, landfill, roads, railways, telecommunication and coastal management projects. I have also undertaken numerous peer reviews during the course of my career.
- 1.5 Although this matter is not before the Environment Court, I confirm that I have read the Environment Court's Code of Conduct for Expert Witnesses and I undertake to comply with that Code. I verify that I address matters within my area of expertise in this statement and that I have undertaken sufficient research and analysis to form the views and opinions that are expressed in my evidence. I confirm that I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

### **Scope of Evidence**

- 1.6 I have been asked by Whangarei District Council (WDC) to undertake a review of the landscape and visual-related aspects of the proposal, to consider submissions as they may apply to my area of expertise, and to provide evidence reporting my findings and recommendations.
- 1.7 The application is for the disposal of a substantial volume of overburden material that GBC Winstone needs to remove to access an underlying resource of greywacke as it extends its Otaika Quarry). A neighbouring parcel of land commonly known as the Pegram Block, which is accessed from Quarry Road, is where the overburden is proposed to be placed (**the Site**).
- 1.8 In responding to WDC's brief, I have walked over most parts of the Site, visited the roads within Acacia Park and Smeaton Drive suburbs, along with other publicly accessible areas defined as being within the visual catchment for the proposal. In so doing, I have made a point of positioning myself in the various viewpoint locations utilised by Boffa Miskell.
- 1.9 I have also scrutinised the Boffa Miskell Landscape and Visual Effects Assessment<sup>1</sup> (**the Assessment**) dated 22 May 2017 in detail, along with the covering Application and Assessment of Environmental Effects<sup>2</sup> (**the AEE**) and examined all of the submissions received in response to notification of the application. More recently, I have received and considered a memorandum dated 9 March 2018 from Mr Evans of Boffa Miskell to GBC Winstone in relation to potential landscape and visual impacts upon the Ruarangi Block.
- 1.10 My evidence addresses the following:
- (i) Adequacy and suitability of the landscape and visual assessment reporting prepared by Boffa Miskell.
  - (ii) Comments upon submissions.
  - (iii) Potential conditions of consent.

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<sup>1</sup> Boffa Miskell Limited 2017. *Overburden Placement, Pegram Block, Otaika Quarry, Whangarei: Landscape and Visual Effects Assessment*. Prepared for GBC Winstone Limited

<sup>2</sup> Boffa Miskell Limited 2017. *Otaika Quarry – Proposed Overburden Disposal Area: Application for Land Use Consent and Assessment of Environmental Effects*. Prepared for GBC Winstone Limited

## 2. Boffa Miskell Assessment

- 2.1 The Assessment consists of a body of reporting supported by a large volume of A3 colour attachments that inform that reporting. It is broken into two component parts. The first is devoted to describing the Site in terms of its location, context and characteristics, along with a description of the proposal, high level statutory considerations, including an outline of some permitted baseline scenarios, and some comment upon the amenity values currently offered by the Site relative to those that would result from the proposal.
- 2.2 Concluding the first part of the Assessment is an outline of the methodology utilised, including a seven-point scale of magnitude that effects are to be gauged by, and a commentary upon the mitigation measures proposed that includes consideration of overburden form, watercourse rehabilitation, and tree planting.
- 2.3 Part B of the Assessment is devoted to describing and quantifying landscape and visual effects. An introduction to the topic usefully includes a tabular summary of influential factors in terms of higher or lower levels of significance. The Assessment then moves on to describe Biophysical Effects, Landscape Character Effects (including a tabular summary), and Visual Effects.
- 2.4 When addressing the latter, a number of viewpoints are identified and a description of potential effects from each is provided. Those location by location assessments are informed by photographs taken from each viewpoint that are contained in the Attachments – as is the convention. Accompanying those viewpoint photographs are a sequence of simulations that highlight the presence of various phases of enabling and overburden placement works, largely in contrasting solid colour but with a photo-realistic image of each over a series of six sheets per viewpoint. Table 5 in the Assessment then summarises the level of visual effects predicted for each viewing audience, breaking those into 3 phases of enabling, general works (overburden placement), and completion, with an expected duration for each.
- 2.5 In its Conclusions, the Assessment provides a summary about the nature of effects overall, including consideration of the progressive phases of the proposal.
- 2.6 The volume of Attachments is comprehensive and detailed. It includes aerial images of the Site and its context, various plans of the proposed works, cross

sections through well-selected alignments to illustrate the profiles of various phases of the proposed works, and plans showing the position of viewpoints / simulations.

- 2.7 A very helpful Figure 4 models the “Zones of Theoretical Visibility” (ZTV) applying. A hierarchy of coloured fill used in the ZTV drawing indicates the extent of the proposed works that can be witnessed from within that “zone”, such that orange highlights the greatest exposure to the proposed modified area. The fact that this model is based upon ground contour alone means that it doesn’t account for the screening effect of existing vegetation or buildings, which brings an inherent measure of conservatism that is probably helpful in circumstances where none of the vegetation is subject to protection under the Whangarei District Plan. It is unclear whether the ZTV is informed by detailed, LIDAR level contours, but even if it is based upon wider interval contour information, it offers a useful insight that aligns with my observations as I moved around the area surrounding the Site whilst undertaking fieldwork.
- 2.8 The remaining body of the Attachments is assigned to the viewpoint/simulation imagery that has been described previously.
- 2.9 It is my opinion that the content and detail of the Assessment is broadly in accordance with what is to be expected to inform an application of this nature. As such it is generally consistent with best-practise models, such as the NZILA guidelines for the preparation of landscape assessments and for visual simulations. It has also provided me with a very clear understanding of the proposal in my review role.
- 2.10 An area which may be considered deficient is that the Assessment doesn’t contain a section or graphics addressing “landscape characterisation”, in which the character of the site and its wider setting are aggregated and described, typically in terms of character zones. That omission hasn’t, however, compromised my understanding of the setting or Site.
- 2.11 Another matter worthy of comment emerges at 5.16 of the Assessment, where it is stated that the existing GBC Winstone quarry is part of views from dwellings in the Acacia Park subdivision. My fieldwork, and indeed Figures 19-60 (inclusive) of the Assessment Attachments, confirms that the spur in the southern sector of the Pegram Block (in effect a relic landform that has been left by the adjacent quarrying) serves to shield all but the most elevated of

residences in the Acacia Park and northern Smeaton Drive neighbourhoods. In effect, the quarry has dug itself into a valley head, resulting in its exposure being directed more to the south and east than to the north and north east.

- 2.12 This point is important, because the visual disruption established by the existing quarry has the potential to precondition inward views to the further disturbance of the proposed overburden disposal works *where* those existing and proposed activities can be seen in tandem. In locations where the quarry can't presently be seen but the overburden disposal works have the potential figure prominently – such as from most of Acacia Park – the proposal represents a discrete impact within a predominantly rural outlook currently experienced from those properties.
- 2.13 Notwithstanding the preceding point of clarification, I consider that the tabulated summary of visual effects found on page 30 of the Assessment accurately represents the level of impact that can be predicted in relation to the viewpoints selected. It should be noted that the *viewpoints* are often representative of a cluster of dwellings, so the defined effects are not necessarily limited solely to the address identified in the left column of Table 5. I am also of the opinion that the viewpoints have been appropriately identified to represent the wider viewing audiences and those most affected.
- 2.14 Of note, when scrutinising Table 5 of the Assessment, is the duration of effects, with viewpoints that are assessed as having effects in the range of high to very high (the highest end of the effects magnitude spectrum) extending over a period of between 25 and 30 years. I shall return to this topic when discussing proposed mitigation and the phasing of the works.
- 2.15 In terms of landscape character effects, I agree with the findings set out in Table 2 of the Assessment, observing that the duration of the proposed overburden placement operation sees the operational phase of the works – when effects are at their highest – extending over a considerable period.
- 2.16 Similarly, I consider that the biophysical effects defined in paragraphs 9.11-9.15 inclusive are accurately reported and realistically assessed in terms of their magnitude.
- 3.17 In relation to the Ruarangi Block, I am of the opinion that the finding of no adverse landscape or visual effects resulting from the Pegram OBDA, as

reported by in Mr Evan's memorandum to GBC Winstone of 9 March, is well-founded.

- 3.18 In turning to the mitigation measures proposed, I concur with the overall approach to place overburden in the western half of the site where that the resulting, created landform would effectively "build out" from the natural, elevated terrain of that part of the Pegram Block, and in the process serve to contain the works at least partially away from adjacent residential areas.
- 3.19 When scrutinising the cross sections (Figs. 12, 13 and 14) of the created landform, I note that these do not reflect the text of the Assessment, which speaks of integrating the shape and character of the overburden disposal area into the landscape (para 7.8). In my opinion, the supplied cross sections indicate a rather artificial form, with stepped faces and an abrupt fill crest as a transition to the flattened crown to the fill profile. Comparison with Figure 11, which shows the proposed topography in contour form, suggests that the cross sections are based upon cruder data and not accurately representative of the intended outcome. I emphasise this matter in relation to possible conditions of consent, which need to be clear about the landform expected.
- 3.20 Having earlier noted the substantial period when effects would be at their highest upon the Acacia Park neighbourhood, I wonder whether there is scope for the enabling and Phase 1 overburden placement to be targeted towards the northern margin of the works area so that they form an oversize bund that can be finalised and planted to allow continuing works to then occur in the southern lee of that created landform. If practicable, this approach might foreshorten the duration of the highest adverse effects being inflicted upon those properties to the north in particular.
- 3.21 A proposed planted strip of willows (*Salix matsudana* x *S. alba*) and blackwood wattles (*Acacia melanoxylon*) seen in Figure 16 appears to be in contradiction to the more fluid, natural patterns of vegetation that typify the rolling countryside of the Site and more elevated terrain to the west. It also seems to be a rather blunt tool for creating a quick visual screen and one whose 20-25m mature scale has the potential to entirely dominate the adjacent homes in a relatively short time. Practical considerations such as the heavy seasonal leaf drop of willows located to the prevailing upwind of the gutters and gardens of these residential titles, and the fact that the screening properties of the willows would be largely lost during their deciduous period, are further potential issues. The management of the ground under those proposed trees, which appears to be

neither planted nor grazed, is another consideration in an area that hosts abundant perennial weed species such as privet, flannel weed, gorse and a host of others. Collectively, these aspects suggest that the proposed screening belt warrants further refinement.

3.22 The conclusions of the Assessment provide what I consider to be a reasonable summary of the effects of the proposal. However, I also have a sense that these have been crafted to somewhat suppress perceptions of the underlying findings of high and very high adverse visual effects upon portions of the Acacia Park neighbourhood, along with the duration of those effects, that are more explicitly contained in the preceding Table 5. In my opinion – and as largely conveyed in Table 5 of the Assessment, the following properties would be subject to high to very high adverse visual effects for the majority of the proposed duration of overburden placement works:

- 1, 3, 5, 6, 7 and 11 Grove Lane
- 25, 29, 31, 33, 35, 41, 43, 45, 46-48 and 52 Acacia Drive
- 2-4 and 10 Wattle Lane

2.23 Turning to the AEE overall, I note that section 3.1 of the wider assessment of environmental effects (p4) comments about the inadequacy of an existing overburden disposal area on the northern section of the quarry's consented footprint and issues with overburden storage compromising future resource access to the north of the current extraction footprint. A matter that appears mute is whether there is scope to backfill those areas where the aggregate has already been fully extracted, perhaps to the south, and to thereby reduced the volumes and effects related to using the Pegram Block.

### **3. Submissions**

3.1 Many of the opposing submissions received in response to limited notification highlight concern about impacts upon views, rural outlook, and visual amenity, amongst a range of other matters.

3.2 Although the Assessment couches such topics under slightly different terminology, my cross-checking confirms that the visual and landscape impact issues raised by submissions have been adequately addressed by the Assessment.

3.3 Another matter raised by a number of submitters is that the Assessment has not identified all of the potentially affected properties within Acacia Park. Unfortunately, those submissions do not identify the allegedly omitted properties. There are two strands to my response to this item of submission. The first is that the Assessment is based upon representative viewpoints, as is typically the case, so that unless any of the purported omissions are positioned to have a dramatically different view of the Site, the potential visual effects of the proposal have been addressed by the Assessment. A second strand to my response relates to my advice to Mr Hartstone about those properties that should be notified in relation to the application. When providing Mr Hartstone with that advice, I made a point of identifying all nearby properties in the Acacia Park / Smeatons Drive neighbourhoods that would have any potential to witness the Pegram Block. Accordingly, I am confident that those who may be able to see the proposed works from homes in those areas will have had the opportunity to submit upon the application.

#### **4. Potential Conditions of Consent**

4.1 This portion of my evidence continues my presumption that the Commissioners may choose to either decline or approve the application. I offer the following comments in the event that the latter outcome emerges. I also note that Mr Hartstone has comprehensively reconfigured the draft conditions proposed within the application, but has deliberately done so without incorporating potential amendments from Council's expert witnesses.

4.2 In relation to potential conditions, my evidence records that there are some aspects of the documentation contained within the Assessment that require further resolution – namely the format and composition of the vegetative screening belt proposed for the southern margin of the Acacia Park neighbourhood, and the completed landform profiles indicated by the cross sections of Figures 12-14 of the Assessment. I anticipate that the applicant is likely to provide a response to these matters through evidence or at the hearing, which may in turn shape potential conditions. In the interim, it is my opinion that the conditions should not provide for those two aspects of the proposal to proceed as currently documented by the application, and that refinement to the satisfaction of Whangarei District Council is warranted.

- 4.3 In terms of a potential Overburden Management Plan, I recommend that there also be a requirement for a sequence of Phase Management Plans, which are to be prepared and approved in advance of each phase of establishment and overburden placement works and that they document the scope, programme and finishing of each phase. A subsequent clause might then set out the requirements for each Phase Management Plan (as has been done for other forms of management plans).
- 4.4 Phase Management Plans will need to cover the majority of the matters addressed by other conditions provided under Section 5.15, to allow them to provide an integrated approach to the implementation of each phase. In particular, I suggest that conditions should explicitly set out an expectation that the timeframe within which the Site is being disturbed by works and when it is grassed and generally rehabilitated should be compressed to the greatest extent practicable, thereby reducing the duration of each phase of impact upon affected parties.
- 4.5 I concur with the general intent for the preparation of a Landscape Rehabilitation Plan.
- 4.6 I also consider that there needs to be a requirement to provide a programme for landscape related works (possibly linked to phases of overburden works rather than dates), and that conventional consent conditions relating to planting works, such as seasonal limits, stipulating plant species, grades, ecological sourcing (where appropriate), staking, mulching, loss replacement and such other matters that are typically found in such large scale, long term site rehabilitation undertakings, are also required.

## **5. Conclusions**

- 5.1 Subject to some relatively minor observations contained in the body of my evidence, I consider that the Assessment follows an acceptable methodology and is suitably comprehensive in its scope. I concur with the findings of the Assessment, particularly as these are summarised in Tables 2 and 5, and those related to subsequent consideration of the Ruarangi Block. It is my impression, however, that the magnitude and duration of adverse visual effects upon some viewing audiences is underplayed by the conclusions of the Assessment.

- 5.2 Overall, I am of the opinion that the format and rehabilitation of the proposed works is well-resolved when considered within the volume parameters that the Applicant seeks to achieve and the underlying natural contour of the Site, subject to some refinements that I have set out in the body of my evidence.
- 5.3 Notwithstanding that opinion about the proposal as presented, it would appear that scope for other avenues of overburden disposal that may either avoid or reduce the volume requirements upon the Pegram Block have not been fully explored. If they have, that full consideration of alternatives is not clearly conveyed in the AEE. My primary questioning about alternatives revolves around the scope to manage the extraction of material from the quarry in a way to allows overburden to be progressively backfilled into those areas where the resource has been exhausted in practicable terms.
- 5.4 As a result of my digestion of the Assessment and my own informal analysis after visiting the Site and surrounding potentially affected areas – in visual and landscape terms – I consider that the effects of the proposal upon the wider visual catchment of the proposal are relatively contained. In my opinion, the landscape-related impacts of the proposal are particularly focussed upon those who live in the south western sector of Acacia Park, to the west of the midpoint of Wattle Lane, where adverse visual effects in the range of high to very high will endure over a period of decades.

**Mike Farrow**  
**15 March 2018**