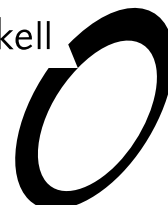


11 May 2023

Grey District Council
c/o Mark Geddes
Perspective Planning Limited

Email: mark@perspective.net.nz

Boffa Miskell



Dear Mark

Barrytown Mineral Sands Mining Project: Resource Consent Application

Following on from our recent correspondence, this letter sets out the findings of my desktop review of the following information pertaining to the above project:

- *Naomi Crawford, Glasson Huxtable Landscape Architects (April 2023) Barrytown Mineral Sands Mining Project: Landscape and visual Assessment of Effects ('Assessment' and 'Graphic Supplement')*.

The Project site ('Site') is located at 3261 Coast Road, within the Grey District on the West Coast of New Zealand. I understand this resource consent application seeks to mine and recontour approximately 63 ha. of the larger 115 ha. Site. I have not yet visited the Site nor undertaken a comprehensive review of this existing or any previous applications, as part of completing my peer review. I understand this application supersedes all previous assessment work.

The proposed mining of mineral sands will entail excavation of up to 9 metres below existing ground level and entail construction of a central drain and holding ponds comprising a Clean Water Facility (CWF) and Mine Water Facility (MWF). During operation, a 4.5 m stockpile bund and stockpile area is proposed through the centre of the Site, running parallel with and approximately 360 metres from Coast Road (SH6). The processing facilities comprise of amenity and office blocks, carparking for approximately 50 vehicles and an "L" shaped processing plant which reaches a height of 15 metres above ground level to the south of the central stockpile bund. The use of recessive colours for all buildings within the site has been recommended. A new internal access road connects the proposed processing plant with SH6 along the Site's southern boundary.

In the event consent is granted and before mining commences, a permanent 1.8m high and partially planted bund is proposed to be constructed along the eastern roadside boundary of the Site. The margins of Collins Creek, the southern margin of part of the Northern Drain and areas along the western boundary adjoining the active coastline and coastal lagoon are proposed to be planted before mining commences, as well as the southern end of the stockpile bund once formed. Further native planting is proposed along the north-east boundary to be determined in consultation with both sets of adjacent landowners to the north of the Site.

It is understood that rehabilitation of the mine is proposed to occur progressively and use overburden and topsoil, including material comprising the central stockpile bund to return the Site

to pastoral grass with improved provision for drainage, albeit at a lower elevation anticipated following extraction activity. The proposed processing plant is to be retained and repurposed to support farming activity following rehabilitation. The proposed CWF is to be converted to support permanent wetland planting.

It is understood that the proposed mine is located within the Coastal Environment in accordance with the New Zealand Coastal Policy Statement (NZCPS) Policy 1 and for the purpose of addressing NZCPS Policies 13, 14 and 15. The Site is zoned Rural in the Operative Grey District Plan (GDP) and requires a discretionary activity resource consent. It avoids any areas identified as having high or outstanding natural character or any Outstanding Natural Features and Landscapes. The Site is zoned Mineral Extraction zone in the Proposed Te Tai o Poutini Plan (TTTP).

This high-level review outlines my desktop findings of the Assessment and identifies areas I consider further information is required. A site visit is anticipated to occur as part of a full peer review, at which time I will take the opportunity to consider the nature and magnitude of identified landscape, visual and natural character effects.

Methodology

The Assessment identifies adherence to best practice guidance as outlined in Tuia Pito Ora New Zealand Institute of Landscape Architects', *Te Tangi a Te Manu – Aotearoa New Zealand Landscape Assessment Guidelines* (NZILA, 2022). Further information on the method employed is contained within Appendix 1 of the Assessment. Whilst references to methodology within the Assessment conforms with current guidelines, I have identified several areas which I consider remain unclear or deficient in terms of adherence to best practice within the Assessment.

Description of the Proposal

I consider the description of the proposal provided within the Assessment is generally adequate to enable landscape and visual effects to be assessed. Section 11 of the Assessment sets out clear recommendations informing the proposed Landscape Mitigation Plan which covers periods before, during and post mining. The proposed Landscape Mitigation Plan is included with the Graphic Supplement and supported with cross sections and plant pallets, which include growth rates of proposed planting, to assist understanding of the scale and nature of the proposal and associated landscape mitigation, prior to and during the proposed mining operation.

Long Section 3 in the Graphic Supplement provides the only apparent topographical information within the Assessment to support proposed dimensions above and below existing ground level. The Assessment should clarify how the existing ground level upon which the proposed activity will occur shall be confirmed prior to and during the proposed activity, and how it is to be subsequently developed during progressive rehabilitation. It is acknowledged that further topographical understanding of the existing landform may be provided elsewhere within the application and which I have not yet been directed to or had the opportunity to review.

Identify or provide an elevation plan (or Digital Elevation Model) which confirms the existing and proposed site levels relating to the proposed mining activity.

It is unclear from the Assessment whether the Ore Stockpile Area is limited to a height of 4.5 metres adjacent to the 4.5-metre-high Stockpile Bund. The height and form of stockpiles anticipated in this area should be clarified.

Confirm the maximum height and form of the Ore Stockpile Area and assess any potential increase in effects where above the adjoining 4.5m stockpile bund.

Description of Landscape Characteristics and Values

The Assessment provides a reasonably concise description of the landscape focussing on physical landscape factors covering landform, landcover and land use. These factors have been considered at three separate scales which encompass the Project Site, Intermediate Context and Wider Context in Section 4 of the Assessment.

Appendix 1 of the Assessment refers to interpreting the character and values of the landscape across relevant physical, sensory and associative landscape attributes as outlined within Te tangi a te Manu. Based on the analysis of physical landscape factors as described in the Assessment, it is unclear the extent to which the Assessment has identified and considered other relevant landscape factors across perceptual and associative landscape attributes (noting some analysis of European and Māori History is noted in Section 4.2). It is acknowledged that landscape effects derive from changes in the physical landscape, however the extent to which all relevant landscape attributes have been assessed (or where there may be an absence of such analysis) is unclear.

Specifically, I consider the Assessment should outline how factors across all landscape attributes have informed an understanding of landscape character. It is appreciated that an assessment of landscape characteristics and values may continue to require input from others at this stage, including both tāngata whenua / tāngata tiriti values and perspectives as set out in Appendix 1 of the Assessment alongside notification and ongoing engagement with affected parties.

An analysis of landscape character should enable an understanding of how relevant landscape characteristics and values have been considered and 'brought together' within the Assessment. This should ensure all relevant perceptual, associative, and physical landscape attributes are addressed as part of understanding landscape effects and may include recognising any omissions or gaps in understanding at this stage. This understanding is particularly relevant in terms of informing the basis through which the level of landscape character effects has been summarised in Section 9.3 of the Assessment.

Clarify the extent to which relevant landscape attributes have been assessed. This should explain and consider how relevant factors across all physical, perceptual and associative landscape attributes have contributed to an understanding of the overall landscape character and its values. Highlight any reliance on third parties, omissions and gaps.

Defining the Coastal Environment

In defining the extent of the Coastal Environment in Section 7, the Assessment refers the reader to Section 4.2: Intermediate Context of Barrytown and Surrounds¹. Section 4.2 explicitly refers to the 'Barrytown Flats' but includes reference to both "the skyline above the Paparoa Ranges to the east" and "the thin stretch of coastal plain reaches just 1.5 kilometres wide between the coast and the ranges". It does not clarify the inland extent of the coastal environment.

Footnote 39 of the Assessment², refers to the extent of the coastal environment being mapped in the TTPP which is included in the Graphic Supplement. This extends east of and above SH6 at distance and beyond distances of approximately 4.5km from the coastal marine area. It is therefore unclear whether this is agreed given the Assessment goes on to note limited consideration has

¹ Naomi Crawford, Glasson Huxtable Landscape Architects (April 2023), pages 8-10.

² Ibid, page 30.

been given to the TTPP as this is not yet operational³. The Assessment does not identify any equivalent delineation of the Coastal Environment, including within the Operative Plan.

Delineation of the coastal environment influences the statutory context and relevant matters to be assessed, including matters highlighted on page 31 of the Assessment, which state:

- *Will the Project cause adverse effects on the natural character of the Barrytown Flats area and Pakiroa Beach coastal environment?*
- *Will the Project cause adverse effects on the natural features or landscape of the Barrytown Flats area and Pakiroa Beach coastal environment?*
- *If there are any adverse effects, will any of those be significant?*
- *Are there any adverse cumulative effects?*

Based on the above, it remains unclear whether the coastal environment in the vicinity of the Site is considered to encompass the Barrytown Hills which the Assessment identifies as an Outstanding Natural Landscape and for which adverse effects need to be avoided as per Policy 15(1) of the NZCPS. Whilst effects on the Barrytown Hills are assessed as “very limited”⁴, it is unclear the extent to which this has been assessed in the context of the coastal environment, including high or outstanding natural character and a recognised Outstanding Natural Landscape.

Provide a clear delineation of the inland extent of the coastal environment as understood for the purpose of the Assessment.

Assessment of Coastal Natural Character

The Assessment recognises that preservation of natural character is a matter of national importance within the coastal environment (RMA, s6a). In describing what constitutes “natural character”, the Assessment recognises that this is not the same as natural features and landscapes or amenity values⁵. However, the Assessment does not provide an analysis of matters which are considered relevant when assessing effects on coastal natural character.

The Assessment states that the NZCPS makes suggestions that “landscapes, seascapes, spiritual, historical, and cultural places” are elements that contribute to natural character. Whilst “restoring cultural landscape features” is identified with respect to NZCPS Policy 14: Restoration of natural character, such matters are not included within NZCPS Policy 13: Preservation of natural character⁶. The Assessment also identifies that natural character forms a relevant factor relating to amenity values for this location⁷.

The Assessment does not consider natural character within the adjoining Coastal Marine Area (CMA), except for noting a relatively low level of development pressure for new activities and potential for further resource use and development⁸.

To ensure effects on coastal natural character have been adequately addressed, the Assessment should clarify the interpretation of natural character used and the method used to inform this aspect of assessment, including the assessment of relevant natural character attributes or factors which have potential to be impacted by the proposal. This is necessary to understand the existing and

³ Ibid, page 37.

⁴ Ibid, page 28.

⁵ Ibid, page 37.

⁶ These matters are addressed under NZCPS Policy 15: Natural features and natural landscapes.

⁷ Naomi Crawford, Glasson Huxtable Landscape Architects (April 2023), page 29.

⁸ Ibid, page 33.

consequent, anticipated levels of natural character as part of ensuring natural character will be preserved in accordance with NZCPS Policy 13 and restored in accordance with NZCPS Policy 14.

Define how natural character has been interpreted and provide an assessment of the existing and consequent natural character which will result from the proposal, including opportunities for restoration.

Assessment of Landscape Character Effects

As described in the description of the existing landscape identified above, the Assessment addresses landscape effects in terms of landform, landcover and land use. Whilst levels of landscape character effects are provided, the Assessment does not provide any explicit rationale which considers the combined landscape characteristics and values which contribute to landscape character and expands on the physical factors addressed. Such analysis and rationale for identified landscape character effects is necessary to support the summary findings on Page 45 of the Assessment which conclude the proposal will result “*in a low level of effect (minor) on landscape character, during the Project and a very low level of effect (minor) on landscape character in the longer term*”.

Provide further rationale that outlines how relevant landscape attributes have been assessed and support the finding that landscape character effects will be minor during the proposed activity and following rehabilitation.

Assessment of Visual Effects

The Visual Effects section of the Assessment does not reference the numbering used to indicate viewpoints or cross sections included within the Graphic Supplement, therefore making cross checking relevant material more difficult.

Provide cross references to photograph and cross section numbering used in the Graphic Supplement within the Assessment.

The panorama photographs included within the Graphic Supplement each refer to a “124° primary field of view extent” along the top. It is not clear whether this refers to the overall width of the photograph or two dashed lines drawn on each photograph. If the latter, the breadth of view shown generally appears much narrower than a 124° field of view. Such field of view is also not consistent with the use of a single frame photo with a 50mm lens as suggested below each image. It is assumed that single framed photos taken with a 50mm lens have been stitched together and cropped as part of preparing the Graphic Supplement, however this process is not described to the extent which can be verified.


Clarify the compilation of panorama photographs and field of view shown in each image which conform to standard reading distances as noted below photographs provided within the Graphic Supplement.

Assessment of Private Views

The table overleaf summarises the level of visual effect as identified in the Assessment. Footnote 53 of the Assessment notes the author has not visited private property and conclusions have been drawn from visiting outside property boundaries and from analysing desktop research. The Assessment acknowledges site visits onto private properties (with landowner permission) may be required in due course. I agree. I have not peer reviewed the levels of effect as identified at this

stage but have noted where at least minor effects have been identified for the purpose of my initial review.

Address	Landowner / Occupier	Short term visual effects	Once the Project is completed
3323 SH6 LOT 2 DP 3375	S. Langridge & R. Wildbore	low (less than minor)	very low (less than minor)
3323 SH6 LOT 3 DP 3375	R. Langridge & D. Van Den Berg	low to moderate (minor)	very low (less than minor)
3316 SH6 LOT 2 DP 3403	R. Mirza & S. Hillerby	low (minor)	very low (less than minor)
3261 SH6 LOT 2 DP 412689	B. O'neil & J. Costello	NOT STATED	NOT STATED
RS 6674	C. Cowan	NOT STATED	NOT STATED
3195 SH6 LOT 1 DP 3574	G. & G. Langridge	low to moderate (minor)	very low (less than minor)
3172 SH6 RS 5327	M. Morgan & M. Radford	very low (less than minor)	NOT STATED

 Minor Visual Effects
- Triggering notification of affected persons under RMA s.95E

For two private views, the Assessment has not stated levels of visual effect on the assumption written approval is forthcoming. In the absence of such written approval, effects cannot be disregarded.

Seek to supplement the Assessment with an assessment of residential visual amenity from within affected persons properties (where given permission to access from the landowner). This should include the preparation of suitable graphic and / or visual material which support identified visual effects. An assessment of visual effects should also be undertaken from properties where written approval has not been provided (3261 SH6, LOT 2 DP 412689 and RS 6674).

Conclusions and Recommendations

Whilst aspects of the Assessment are comprehensive and reasonably clear, I consider it is deficient in some areas which require further clarification and analysis to inform an understanding of landscape, natural character and visual effects. Such matters include confirmation of the extent of the coastal environment within the vicinity of the Site and ensuring effects on natural character and natural landscapes, including on the adjacent Barrytown Hills and Coastal Marine Area, have been adequately addressed.

Whilst effects on physical landscape factors have been largely addressed, I consider there is some uncertainty in terms of setting out the analysis which supports identified natural character, landscape character and visual effects. Cross referencing and confirmation of viewing parameters would facilitate greater reliance and ease of use of the Graphic Supplement.

A list of further information requests I consider reasonably necessary to understand the nature of the development and its effects on the environment is set out below:

1. *Identify or provide an elevation plan (or Digital Elevation Model) which confirms the existing and proposed site levels relating to the proposed mining activity.*

2. *Confirm the maximum height of the Ore Stockpile Area and assess any potential increase in effects where above the adjoining 4.5m stockpile bund.*
3. *Clarify the extent to which relevant landscape attributes have been assessed. This should explain and consider how relevant factors across all physical, perceptual and associative landscape attributes have contributed to an understanding of the overall landscape character and its values. Highlight any reliance on third parties, omissions and gaps.*
4. *Provide a clear delineation of the inland extent of the coastal environment as understood for the purpose of the Assessment.*
5. *Define how natural character has been interpreted and provide an assessment of the existing and consequent natural character which will result from the proposal, including opportunities for restoration.*
6. *Provide further rationale that outlines how relevant landscape attributes have been assessed and support the finding that landscape character effects will be minor during the proposed activity and following rehabilitation.*
7. *Provide cross references to photograph and cross section numbering used in the Graphic Supplement within the Assessment.*
8. *Clarify the compilation of panorama photographs and field of view shown in each image which conform to standard reading distances as noted below photographs provided within the Graphic Supplement.*
9. *Seek to supplement the Assessment with an assessment of residential visual amenity from within affected persons properties (where given permission to access from the landowner). This should include the preparation of suitable graphic and / or visual material which support identified visual effects. An assessment of visual effects should also be undertaken from properties where written approval has not been provided (3261 SH6, LOT 2 DP 412689 and RS 6674).*

Yours sincerely

BOFFA MISKELL LTD



Rhys Girvan

Senior Principal: Landscape Planner