

BEFORE THE HEARING PANEL

IN THE MATTER of the Resource
Management Act 1991

AND

IN THE MATTER of the applications by
Energy Bay Limited to the Tararua District
Council (202.2022.136.1) for resource
consents to establish and operate a solar
farm at 410 Mangamaire Road, Pahiatua.

REPORT TO THE COMMISSIONER

MR ROB VAN VOORTHUYSEN

SECTION 42A REPORT OF SHANNON BRAY – LANDSCAPE & VISUAL EFFECTS

9 AUGUST 2023

A. INTRODUCTION

Qualifications and Experience

1. My name is Shannon Bray. I am a director and landscape architect at Wayfinder Landscape Planning & Strategy Ltd (Wayfinder).
2. I hold a Bachelor of Landscape Architecture with Honours from Lincoln University. I am a registered fellow and past president of the New Zealand Institute of Landscape Architects (NZILA).
3. I have over 20 years experience as a landscape architect, with a specialisation in landscape assessment. I have prepared landscape and visual effects assessments for a wide variety of energy development proposals throughout New Zealand, many of which have been in rural landscapes. These include involvement in 7 current solar farm proposals (one which has been granted consent in Hawke's Bay), and over 14 wind farm proposals. My work across these projects has included representing developers (applicants), Council, community (submitters), and as a Commissioner.
4. I have also prepared assessments and evidence for a variety of telecommunication utilities and roading infrastructure projects (including several Projects of National Significance) throughout New Zealand.
5. I have previously presented expert evidence at council hearings, before the Environment Court, and at Boards of Inquiry. I am a registered Independent Commissioner.
6. I have been involved with this project since October 2022 when the Tararua District Council has engaged me to provide Landscape and Visual Effects advice. However, prior to the formal lodging I met with the applicant's landscape architect (online) to discuss the general aspects of the proposal. I understood this meeting to be informal only and no written minutes were recorded.
7. I prepared a preliminary memorandum to the Council in October 2022. The purpose of this memorandum was to inform a s29 request for additional information, and it is my understanding that this preliminary memorandum was not released externally. After the receipt of additional information in March 2023, I updated this memorandum

into a formalised letter, providing a peer review of the application. This letter, attached, forms the basis of my evidence.

8. My peer review was desktop based. However, I have since visited the site and locality on two occasions, most comprehensively in April 2023, and more latterly in June 2023.
9. I have read and agree to comply with the Code of Conduct for Expert Witnesses as contained in the Environment Court's Consolidated Practice Note (2023). My qualifications are set out above. I confirm that the issues addressed in this brief of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

B. PEER REVIEW

10. My peer review is provided in a letter addressed to Aimee Charmley, Tararua District Council, dated 15 March 2023 (attached). I do not propose to replicate this review in my evidence, and request that this be adopted as my formal review of the application.
11. On this basis, I confirm the following conclusions:
 - That the potential landscape effects of the proposal prior to the full establishment of the flax shelterbelts will be **moderate**. This is *consistent* with the conclusion in the LAR, and can be translated to **more than minor** if the proposal is constructed within 4-5 years of the flax shelterbelt being planted.
 - That the potential landscape effects of the proposal following full establishment of the flax shelterbelt will be **low-moderate**. This is *consistent* with the upper rating within the LAR, and can be translated to **minor** once the shelterbelt reaches full height. I disagree with the applicant that landscape effects will continue to diminish below this rating as people become familiar with it.
 - The visual effects on properties D (391 Mangamaire Road), K (500 Mangamaire Road), L (wrapped around 500 Mangamaire Road) will be **moderate** to **moderate-high**, translating to more than minor.

- That the visual effects on other residential properties that have not provided an Affected Party Approval will be **low** to **very-low**, translating to **less than minor**.
- That the potential visual effects from public locations prior to the full establishment of the flax shelterbelts will be **moderate**. This is *not consistent* with the applicant's position which does not provide an assessment of visual effects prior to the full establishment of the shelterbelt. It can be translated to **more than minor** if the proposal is constructed within 4-5 years of the flax shelterbelt being planted.
- That the potential visual effects from public locations following full establishment of the flax shelterbelt will be **low-moderate**. This is *consistent* with the upper rating within the LAR, and can be translated to **minor** once the shelterbelt reaches full height. From distances further away, effects will be diminished.

12. I made the recommendation to Council that the application be notified as it will have more than minor effects on some neighbouring properties. As a result of the notification, submissions were received on the application, which are addressed below.

C. RESPONSE TO SUBMITTERS

Submitter 1: Abbe Hoare

13. This submitter does not raise any concerns related to landscape or visual effects.

Submitter 2: Amy Blackwell

14. This submitter raises a concern about glare from the solar panels. Assessing glare is a technical skill that I do not have expertise in. I understand that the Council has been unable to source an expert, and as such have requested additional information from the applicant in regard to this submission.

15. I agree with the submitter that shelter belts take time to establish, and address the relative effects of the proposal with and without screening in my conclusions, above.

Submitter 3: HiRock Ltd

16. This submitter does not raise any concerns related to landscape or visual effects.

Submitter 4: Patricia, Terrence & John Moore

17. This submitter raises concerns regarding glare, and I refer to my comments above in this regard.

18. In regard to the intention to build a house on the hill, I am of the understanding that Council have not received any applications for building consent for such a proposal. In my opinion it would be possible to design and build a house in a position that results in a **low** to **very-low** level of visual effects in regard to the solar farm (in accordance with my conclusions, above).

19. I understand the submitter's concerns about the screening vegetation potentially providing a habitat for pests. In this regard I recommend that the applicant provide to the Council a pest control plan.

Submitter 5: Ken & Steph Norman

20. This submitter raises concerns regarding glare, and I refer to my comments above in this regard.

21. In regard to the intention to build a house on the hill, I am of the understanding that Council have not received any applications for building consent for such a proposal. In my opinion it would be possible to design and build a house in a position that results in a **low** to **very-low** level of visual effects in regard to the solar farm (in accordance with my conclusions, above).

Submitter 6: Stewart Smith

22. In my original review I noted that this property was vacant and there could be a possibility that a future dwelling could be located directly opposite the site. However, I concluded that it would be likely such a dwelling would be orientated to the north, and could be relatively easily screened along the road boundary. I remain of the conclusion that the visual effects on this property would be **very-low**.

23. I note the request for additional signage, and refer to my original assessment that requests a signage plan from the applicant.

Submitter 7: Wayne Morris

24. I understand from Mr Bashford that this submitter has a property located at 154a Tutaekara Road, property F on my property map. I provide an assessment of the effects of this property in my peer review, and remain of the opinion that these will be **low**.

25. I understand that the submitter is opposed to the use of flax as a screening material. I do not consider it within my remit as peer reviewer to recommend alternative species – as I am of the opinion that the flax provides the necessary mitigation, and as I have noted in my review, there are examples of flax shelterbelts in the vicinity.

26. I have no opinion in regard to the retention of the old man pine stand, other than to note that the retention of this vegetation does not result in any change to the scale or nature of landscape or visual effects.

27. In regard to the flax providing a habitat for pests, I refer to my comments above regarding a pest management plan.

D. RECOMMENDATIONS

28. I note Mr Bashford has requested additional information from the applicant in regard to glint and glare, and support this request.

29. If consent is to be granted then I recommend that conditions are imposed that require:

- The submission of final plans that include a perimeter fence to be a typical “deer fence”, planted on the inside of the shelterbelt (such that the shelterbelt is directly adjacent to the road). The plans should also detail all signage to be installed.
- The establishment of planting prior to the construction of the solar farm, in order to ensure this becomes established and effective at screening as quickly as possible.

- The preparation and ongoing implementation of a pest management plan, with particular regard to animal pest species that may inhabit the screening/shelter belts.

SHANNON BRAY

Landscape Architect on behalf of Tararua District Council

9 August 2023

15 March 2023

Aimee Charmley
Team Leader Planning Services
Taranua District Council
aimee.charmley@tararua.govt.nz

Dear Aimee

**Re: Proposed Mangamaire Road Solar Farm by Energy Bay Ltd
Peer Review of Landscape Assessment Report by Rough Milne Mitchell Ltd**

Further to your instructions, I have undertaken a peer review of the proposed Solar Farm to be located at 410 Mangamaire Road, Pahitatuā, in regard to potential landscape and visual effects.

My review has principally considered the Landscape Assessment Report prepared by Rough Milne Mitchell Ltd (the “LAR”), dated 8th September 2022, but I have also considered commentary within the AEE prepared by Planz Consultants, dated 23rd September 2022. I have also reviewed the further information that was provided by the applicant, dated 20th February 2023.

I have undertaken this review in accordance with guidance published by the New Zealand Institute of Landscape Architects, Te Tangi a te Manu¹, specifically sections 6.57 to 6.63 that are relevant to Peer Reviews. My peer review has been a desktop review only, although I am familiar with the general area and have visited this part of the landscape previously for other project related work.

LAR Methodology

Section 1 of the LAR provides a detailed overview of the methodology adopted for the assessment, noting that it follows the ‘final draft’ of Te Tangi a te Manu – principally this is because the guidelines were formally published about the time that the LAR was completed. I can confirm that the published

¹ Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines, Tuia Pio Ora New Zealand Institute of Landscape Architects, July 2022.



version is the same as the final draft version, and that the author and both reviewers of the LAR are noted as contributing to the development of the guidelines.

The seven-point scale adopted is consistent with best practice, including the conversion to RMA terminology for the purposes of notification or non-complying activities.

It would have been useful to provide examples of how the rating scale is applied – this would help understand the parameters around the assessment process. As I will outline below, I have some concerns about the way in which the report assesses the types of effects, and how this relates to the scale used (in this peer review I have used the same seven-point rating scale as the LAR). Therefore, I will provide later in my report my own examples of how the rating scale can be applied.

The LAR notes that a site visit was undertaken by the author on the 9th of January, 2022.

Overall, I am of the opinion that the LAR has generally followed a best practice methodology, but I find that it becomes confused over the difference and assessment of landscape and visual effects. I will address this further below.

The Proposal

Section 2 of the LAR provides a thorough overview of the solar farm proposal, and it is supported by a detailed Graphical Attachment which contains plans and images. The intricacies of the proposal are clear, specifically the manner in which the panels will move to follow the sun, and how this potentially leads to variable effects. It would have been useful to more clearly identify the road names in the maps.

The graphical material is well structured and easy to follow, although it is a little confusing having photographic images both within the body of the document and also separately in an appendix. Nevertheless, the images are clear and helpful at illustrating the points discussed within the document.

I note that no visual simulations have been prepared, however, based on the assessment these would only provide images of the proposed screening, rather than any of the solar panels. In this instance, I consider there is enough discussion within the assessment to understand the level and nature of effects, and visual simulations are not necessary.

Overall, I consider that the author of the LAR has sufficient knowledge of the proposal to make an accurate assessment of effects.

Planning and Policy Provisions

Section 3 of the LAR provides a relatively detailed overview of the relevant planning provisions, specifically those within the Tararua District Plan (“the Plan”). It notes the rural zoning and that the



site is not identified as an Outstanding Natural Landscape, and various policies within the Plan that are relevant to the landscape effects assessment of a solar farm.

The LAR does not refer to other statutory policy which potentially has relevance, notably the National Policy Statement for Renewable Energy Generation (2011), the National Policy Statement on Electricity Transmission (2008), and National Environment Standards for Freshwater Regulations (2020). However, these are broadly covered in the AEE and the assessment provides enough of a commentary that responses to these statements can be easily inferred.

Overall, I consider that the author of the LAR has sufficient knowledge of the planning and policy basis under which the proposal will be assessed.

Existing Landscape

Section 4 of the LAR provides a very detailed overview of the existing landscape around the proposal. This initially provides a descriptive overview of the landscape character, but the landscape is then assessed at a deeper level in terms of its underlying values. It notes the high overall rural character values, contributed to by associated values of openness, expansiveness, lack of built form, natural character and legibility, and describes the site as part of a much larger “working landscape”.

I concur with this assessment. The site and surrounds epitomise the Waiararapa rural landscape, this being the green pastures, fenced paddocks, the presence of exotic vegetation, and the relatively low built density. Long, open views are common, although within the Mangatainoka valley I note that these are more often broken up by shelterbelts and the gently rolling topography.

Overall, I consider that the author of the LAR has sufficient knowledge of the site and locality, and its landscape values and sensitivities, to make an informed assessment of the proposal.

Assessment of Landscape and Visual Effects

Potential Issues

Section 5 of the LAR addresses potential landscape and visual effects of the proposal, beginning with an overview of the “Potential Issues”. I find this section a little misleading, as it is not an assessment per se, but rather an introductory statement or summary of potential effects.

Nevertheless, this section draws attention to what I consider are the key potential considerations in terms of landscape and visual effects, these being:

- ▶ Impacts on the open rural landscape values, which are identified to have very low absorption capacity;
- ▶ The potential “industrialisation” of the landscape;



- ▶ The introduction of built form and the impact of this on natural character values;
- ▶ Glint, glare and reflectivity (noting this is largely considered in another report by other experts);
- ▶ How to manage site security; and
- ▶ The proximity of 8 residential dwellings to the site.

I broadly agree that these are the key issues to be explored.

The assessment then goes on to outline that solar farms are relatively new activity within New Zealand, and as such the proposal may be considered by some as a positive outcome, or beneficial due to their nature as a source of renewable energy. I accept that this could be the case, however I also note that in more recent months there has been negative press about solar farms, especially on productive grazing land. I recommend that the somewhat uniqueness of the proposal should not be a matter that is factored into the assessment of actual effects.

I'm also not certain it is helpful to consider the panels to have a similar effect to an expanse of glasshouses. I can understand the similarities of form, when the panels are tilted, but the colouring and spacing of the panels is somewhat different to a row of glasshouses, plus also the function of glasshouses is evidently connected to primary production. As the LAR notes, there are no such expanses of glasshouses in the rural landscape anywhere in the vicinity of the site, and so it is not something that is familiar. Therefore, although glasshouses are generally considered to be a permitted activity under the Plan, in my opinion, it should not be directly inferred that this could be a baseline of effects for a solar farm.

Effects Assessment

The LAR considers landscape effects after the assessment of visual effects, however I usually find it more useful to consider these the other way around (as visual effects are a subset of landscape effects). I find that there is quite a degree of repetition in the report as a result of the way in which it has been structured. Also, I find the report somewhat confused between the two types of effects, even though it provides definitions.

My experience and understanding of Te Tangi a te Manu is that landscape effects, in essence, result in from a change in the character or value of a landscape. Thus, interpreting a seven-point scale in regard to landscape effects of a solar farm, a very-high rating (in my opinion) would represent a situation where a proposal would result in direct, extensive change to landform or land-cover (such as extensive land modification to create platforms for the panels), particularly within a landscape that has limited existing modifications. In addition, a very-high rating would be applied if the proposal fundamentally changed the underlying character of a place – for example introducing a strongly industrial or urban character to a rural landscape. A very-low rating would represent a situation where



a proposal would have only a small impact on landform or land-cover, was situated in a landscape that was already highly modified and relates to works that are generally in character with the existing landscape.

As the LAR identifies, visual effects are related to the way in which people view or visually experience the landscape. Interpreting the seven-point scale in terms of visual effects, a very-high rating would (in my opinion) represent a situation where the proposed solar farm would become the key, dominating element in the primary view from a particular viewpoint, likely in the foreground, making the appreciation of other aspects of the view difficult to achieve (that is, a viewer would find themselves always looking towards the solar farm and having to consciously look away). A very-low rating would represent a situation where the proposed solar farm might be partially visible from a particular viewpoint, but it would be subservient to other aspects of the view and likely partially (or largely) obscured by foreground elements (or could be obscured using vegetation on the site).

It's important to recognise that visual effects need to be considered in terms of the whole view – during an assessment process it is easy to focus solely on the proposed site only, and not consider views in other directions which may be more interesting or captivating.

Generally, visual effects are best described from key viewpoints, such as public roads or from private dwellings. This is not to say that visual effects are not experienced from privately owned farmland, but such effects are usually captured by the assessment of change to the landscape. In terms of visual amenity, effects from working parts of a farm should (in my opinion) be given a lower weighting than views from, say, a person's living room or outdoor living area.

Landscape Effects

The LAR identifies that the “absorption capacity” of the landscape is **low**. This means that any changes to the character of the landscape are likely to be easily noticed and not easily mitigated. I agree, the landscape has a generally open character with production based on grazing, with few built forms. Introducing structural forms will be at odds to the underlying character.

In my opinion, the proposal will result in a change in landscape character by introducing a large area of built forms. Whilst there are other built in the wider landscape, the solar farm will become a noticeable, eye-catching, and unique element of the wider landscape. As identified above, I don't consider it will look anything like rows of glasshouses, but I do accept that if glasshouses were present in the surrounding area (noting they are potentially permitted under the Plan), then the degree of change in landscape character would be reduced.

I also consider that such a change is not necessarily considered adverse or inappropriate. I agree with the LAR that the wider landscape is highly modified, used extensively used for primary production. The



built forms relate to the working environment, and electricity infrastructure in the form of the adjacent Transpower switchyard and various overhead lines.

I agree with the LAR that, at a conceptual level, the proposal represents an additional type of primary production activity that features built forms and electricity infrastructure. However, rather than using the land and soil for productive use, the proposal uses the sky and climate – a defining and integral element of this landscape – so, rather than farming food, the proposal farms energy.

And, much like surrounding activity, the solar farm specialises in its task, like the way paddocks and stock-lanes are carefully arranged, the solar farm is an optimised method of achieving the best yield from the site. These are not natural patterns; they represent ways in which people have manipulated the landscape resource to maximise productivity. The solar farm is, as its name suggests, a method of farming a resource.

The difference, of course, is that the solar farm will diminish the undeveloped nature of the site, introducing extensive built form. Whilst the site will continue to be grazed, ultimately the pastoral character will be impacted.

Further, although the farm itself appears to be large, it sits within a very expansive landscape, located in an area that is not heavily populated or widely traversed. The low height of the panels means, as the LAR identifies, that it is only likely to be visible from the road corridors and properties opposite or immediately adjacent. For the casual traveller, this represents a small portion – less than a minute – of a wider journey across the landscape that takes in other productive rural land-uses and outward views.

The perimeter deer fencing, and the flax shelterbelts will have a distinctly rural character. Although deer fencing is not common in the surrounding landscape, it does exist, and the construction of deer fencing is a permitted activity. As the LAR identifies, the flax shelterbelt is similar to others in the surrounding landscape. I make the observation from the Landscape Mitigation Plan that the proposed deer fence will be located inside the flax shelterbelt (that is the shelterbelt will be directly adjacent to the road). This is, in my opinion, the correct response, as this would be how a typical fence around a grazed property would be established. However, I recommend that this is confirmed, as installing the other way around (the shelterbelt inside the fence) is likely to increase the level of landscape effects.

The LAR report identifies that signage will need to be added to the fence, but does not identify the extent of such signage. Electrical hazard signage will, unfortunately, detract from the rural character (fences are not typically covered in signs) but it is understood that this is required. It is recommended that a signage plan be submitted for review prior to construction.



The opportunity to enhance the wetland is a positive landscape outcome. This will be fully fenced to prevent stock access to the waterway, with low-level riparian planting providing shade cover and habitat (tall trees can't be used as these will impact the efficiency of the solar panels).

Pulling all of these factors together, in my opinion the landscape effects (after full establishment of the flax shelterbelts) will be **low-moderate**. The farm represents a change in the activity and character of the site and will certainly be perceived as different and unique. It contains built form that will diminish the pastoral character of the site. However, it is located in an expansive, generally flat rural landscape that has been highly modified to achieve optimised production. At its core, it is no different to other farming activity, utilising the environmental resource as efficiently as possible, with the exception of the retention of grass under the panels to help retain a pastoral connection. The proposal also contains some positive landscape outcomes, including the wetland restoration.

I disagree with the LAR that landscape effects will diminish over time as people become familiar with it. The landscape effect remains, irrespective of whether it is accepted (or not) – the proposal has and will continue to result in a change to the underlying character of the landscape. Landscape effects will only diminish as a result of the establishment of the flax shelterbelt, which has a character similar to other shelterbelts in the wider area. The LAR does not appear to provide a timeframe around this establishment, noting only that it is to be planted “*within the first winter season once the resource consent has been approved and the security fence erected*”.

My assessment of the growth of similar shelterbelts in the Waiararapa landscape is that it will take approximately 4-5 years for the it to establish. On this basis, I consider that if the proposal is constructed within this time, then landscape effects are likely to be greater during this period, due to a greater extent of the solar farm being visible (and also its more industrial characteristics, the supporting brackets). In this regard, I concur with the LAR that landscape effects during this period will be **moderate**, reducing as the shelterbelt grows to **low-moderate**.

I disagree that beyond this landscape effects will continue to diminish (the LAR asserts they will eventually land at **low**). In my opinion, this can only be returned by future removal of the panels.

Visual Effects – Private Locations

There was some discrepancy between the original application AEE and the LAR in regard to properties for which approval has been received. The further information provided in February 2023 outlines that the information contained in Table 5 of the AEE is the correct list. However, there still appears to be discrepancy between this table and LINZ boundary data available on the Council website.

Therefore, I have prepared the attached map (appended to the end of this document) which shows the key properties around the proposed site. I have provided a reference to each site, matching



properties A to H included in the application, but adding I to T as properties that have been separately assessed or missed. The table below provides a summary of this data:

Plan Ref	Address	Title Number	Details	Approval	Applicant Rating
A	431 Mangamaire Road	Esp: B DP: 474038	Dwelling	Occupier	Low
B	431 Mangamaire Road	Esp: B DP: 474038	Dwelling	Occupier	Moderate to Low
C	410 Mangamaire Road	PtS: 150 Blk: XIV SD: MANGAHAO	Dwelling	Owner & Occupier (Site Owner)	N/A
D	391 Mangamaire Road	Lot: 1 DP: 85286	Dwelling	Occupier	Low
E	346 Mangamaire Road	Lot: 2 DP: 554906 & Sec 8 BLK XIV SD Mangahao	Dwelling	Owner & Occupier	N/A
F	154A Tutaekara Road	Lot: 2 DP: 411440	Dwelling	Occupier	Low
G	154 Tutaekara Road	Lot: 1 DP: 411440	Dwelling	Owner & Occupier	N/A
H	129 Tutaekara Road	PtS: 150 Blk: XIV SD: MANGAHAO	Dwelling	Owner & Occupier (Site Owner)	N/A
I	219 Pukewhai Road	Sec 107 Blk: XIV SD: MANGAHAO	Farm	None	Not Assessed
J	108 Pukewhai Road	N/A	Dwelling	None	Not Assessed
K	500 Mangamaire Road	Lot 1 DP546734	Dwelling	None	Less than Minor
L	No Address Wraps Around 500 Mangamaire Road	Lot 2 DP546734	Farm	None	Less than Minor
M	Dougherty's Road	Lot 2 DP67352	Farm	None	Less than Minor
N	239 Tutaekara Road	Lot 2 DP562953	Farm & Dwelling	None	Less than Minor



O	Foughys Road	Sec: 90 Blk: X SD: MANGAHAO	Vacant	None	Less than Minor
P	3 Foughys Road	Sec 90 BLK X SD Mangahao	Dwelling	None	Less than Minor
Q	187, 189, 205, 209, 223, 229 and others Tutaekara Road	Various	Dwellings	None	Less than Minor
R	Tutaekara Road	Sec 7 BLK XIV SD Mangahao (LINZ Reserve)	Vacant	None	Varies
S	126 Tutaekara Road	Lot 1 DP401244	Vacant	None	Less than Minor
T	226 Tutaekara Road	ML: MANGATAINOKA Sec: J2A2	Farm	None	Not Assessed

The properties at 431 Mangamaire Road (Properties A & B) are located opposite the site, and no owner approval has been obtained. However, both of these properties are largely screened from the road by vegetation that extends around all sides, and as such, visibility and visual effects of the solar farm is anticipated to be *low* to *very-low*.

410 Mangamaire Road and 129 Tutaekara Road (Properties C and H) are within the proposal site, and are not considered further.

391 Mangamaire Road (Property D) has open views towards the site, and the building is orientated in this direction. A double row of flax is proposed along the boundary of the site with this property, however views will be easily obtainable during the establishment of this flax, and also in the mornings and evenings when the 4.45m tilted angle of the solar panels is likely to be visible over the top. The arrangement of the panels means that it is unlikely there will be any glint or glare effects. In my opinion, the visual effects on this property will be *moderate*, reducing to *low-moderate* as the flax establishes.

346 Mangamaire Road (Property E) has provided written approval and effects are not considered.

154A Tutaekara Road (Property F) is located behind an established low-height shelterbelt located on the property, and is not immediately visible from the road. New flax planting will also be planted along the site boundary, resulting in the solar farm being difficult to see from the dwelling (noting this also appears to be orientated to the north). Therefore, I concur with the LAR that visual effects on this property will be *low*.

154 Tutaekara Road (Property G) has provided written approval and effects are not considered.



The properties on Puekwhai Road (Properties I & J) are located some way from the proposal and intervening vegetation restricts views towards the solar farm. Visual effects on these properties are considered to be **very-low**.

500 Mangamaire Road (Property K) is located near the northern boundary, and has open views across the neighbouring paddock to the site. No mitigation is offered, although it is accepted that permitted activity on the property surrounding may result in views being diminished. However, most of the surrounding landscape is open pasture, so it is more likely that this property will visually experience the solar in their northerly outlook. As a result, it is considered that the visual effects on this property will be **moderate-high**.

Property L contains no dwelling, but shares a boundary with the site. During farm operation there will be unrestricted views across the proposal. Any dwelling established on this property would have to install their own visual mitigation, on the northern boundary, to screen the proposal. As a result, it is considered that the visual effects of the proposal on this property will be **moderate-high**.

A series of properties wrap around the western and northern side of the proposal (Properties M, N, O, P & Q), however these are on the opposite side of the railway corridor, and are partially screened by intervening vegetation. There are few dwellings located within the bigger properties, and on the smaller properties views to the farm from established dwellings are largely restricted. It is therefore considered that the visual effects on this collection of properties will be **low** to **very-low**.

Property R is understood to be Government owned and is undeveloped. No assessment has been undertaken on this property.

126 Tutaekara Road (Property S) is an undeveloped property (Lot 1 DP 401244) that is located opposite the property identified as H on the General Arrangement plan. A driveway connects this property with another property further to the north (Lot 2 DP401244), which suggests that the wider property has been subdivided and that Lot 1 has yet to be developed. As it hasn't been developed, it is not possible to determine where a future dwelling may be constructed, however there is a possibility it could be located directly opposite the site, on the north-western portion of the site.

From this location views to the site will be to the south, towards a flax shelterbelt to be established along the road boundary. Observations of surrounding built form within the landscape suggests that most dwellings also install shelterbelts around their property from the southerly weather, and orientate the main living spaces to the north. As such, any new dwelling on this property could be relatively easily designed to be visually screened from the bulk of the proposal. As such, I consider the visual effects on this property will be **very-low**.

226 Tutaekara Road (Property T) is a large property that contains two farm sheds are located on the corner of Mangamaire and Tutaekuri Roads. From the layout of the property, I consider it unlikely that



a dwelling would be constructed in the section of land that extends through to Tutaekara Road. Therefore, visual effects on this property are considered to be **very-low**.

Visual Effects – Public Locations

The LAR indicates that the proposal will be highly visible from Tutaekura and Mangamaire Roads within 300m of the proposed site. It confirms that from both roads the site will be prominent as a viewer passes by, particularly along the section of Mangamaire Road where the farm will be on both sides of the road.

The key points I note from the assessment are that the solar farm will reduce longer views across the rural landscape, there will be some “yellow glare” for short periods of time (in the evenings), and that generally the visual catchment is restricted locally. I concur with these observations and consider that also viewers from public locations will typically be moving through the landscape. Views across the wider landscape are already restricted in places, by shelterbelts, amenity planting and buildings. Nevertheless, as the LAR outlines there will be visibility of the tilted panels over the top of the shelterbelt in the mornings and evenings.

However, whilst the length of time and extent of farm that are visible are both relatively low, for local people who travel the surrounding roads regularly the solar farm is likely to become somewhat of a localised landmark. Particularly in the early stages of its development, it will likely draw specific attention away from other aspects in the landscape that might have ordinarily been the viewer’s focus. In this regard, the farm will have a visual effect – it will alter how people view, and therefore appreciate the immediately surrounding landscape. This will largely be experienced by people who live or work in the immediate area, rather than casual passers-by.

The extent of change is again, outlined in the landscape effects section of this assessment, as it relates to the change in landscape character and the introduction of built form. To mitigate this change visually, the LAR recommends the establishment of a flax shelterbelt along the road boundaries, noting that there are other such shelterbelts in the wider area. As identified, I consider that this will take 4-5 years to fully establish, and until such time visual effects of the proposal will be **moderate**.

However, I concur with the conclusion in the LAR that from a public viewing experience the visual effects will reach a **low-moderate** rating once the shelterbelt reaches full height, particularly from Mangamaire Road which splits the site in two. From further away, visual effects will be **low**. These effects will predominantly be experienced by the immediate local community, rather than more distant travellers who are likely to be moving through the landscape less frequently and more quickly.



Conclusions

I have undertaken a peer review of the Landscape Assessment Report prepared by Rough Milne Mitchell Ltd, dated 8th September 2022. In undertaking this I have also considered the AEE, the graphical material, the Glint and Glare report, and provided my own assessment of effects where I consider these have not been provided by the reports. I note that my assessment is desktop only, based on my historical knowledge of the area and imagery available from Google Maps and Council GIS Aerial Photography.

Both my peer review and the LAR have been informed by Te Tangi a te Manu, guidelines for landscape assessment that have been published by the New Zealand Institute of Landscape Architects. A seven-point rating scale has been used.

I am of the opinion that the LAR provides a solid assessment of the existing landscape baseline and the policy context, and provides a good overview of the proposal itself. The graphical material is lacking in a few places, but overall is of sufficient quality and contains enough information to inform the assessment.

However, I find that the methodology for assessing landscape and visual effects is a little confused, and I note that there are some errors in the identification of private properties adjacent to the proposal. As such, there is at least one property that will be subject to visual effects that has not been assessed and has not, to my understanding, provided written approval to the development.

Therefore, I have undertaken my own assessment using the information available, and come to the following conclusions:

- ▶ That the potential landscape effects of the proposal prior to the full establishment of the flax shelterbelts will be **moderate**. This is *consistent* with the conclusion in the LAR, and can be translated to **more than minor** if the proposal is constructed within 4-5 years of the flax shelterbelt being planted.
- ▶ That the potential landscape effects of the proposal following full establishment of the flax shelterbelt will be **low-moderate**. This is *consistent* with the upper rating within the LAR, and can be translated to **minor** once the shelterbelt reaches full height. I disagree with the LAR that landscape effects will continue to diminish below this rating as people become familiar with it.
- ▶ The visual effects on properties D (391 Mangamaire Road), K (500 Mangamaire Road), L (wrapped around 500 Mangamaire Road) will be **moderate** to **moderate-high**, translating to more than minor.



- ▶ That the visual effects on other residential properties that have not provided an Affected Party Approval will be **low** to **very-low**, translating to **less than minor**. *The LAR has not provided an assessment of these other properties.*
- ▶ That the potential visual effects from public locations prior to the full establishment of the flax shelterbelts will be **moderate**. This is *not consistent* with the conclusion in the LAR which does not provide an assessment of visual effects prior to the full establishment of the shelterbelt. It can be translated to **more than minor** if the proposal is constructed within 4-5 years of the flax shelterbelt being planted.
- ▶ That the potential visual effects from public locations following full establishment of the flax shelterbelt will be **low-moderate**. This is *consistent* with the upper rating within the LAR, and can be translated to **minor** once the shelterbelt reaches full height. From distances further away, effects will be diminished.

The LAR reaches an overall conclusion that the effects of the proposal will be **low-moderate** to **low**, however this is not consistent with the ratings it provides within the body of the report, noting that it identifies **moderate** effects before the full establishment of the shelterbelts. On this basis, I do not consider that the conclusions reached in the report can be considered consistent, and based on my own assessment I consider that they should not be relied upon to inform an effects based decision.

Taking this into consideration, and based on my own assessment based on the information made available, my opinion is that both landscape and visual effects will be **moderate**, or **more than minor**, in the initial stages of the development. Once the shelterbelts have established, these will reduce to **low-moderate** to **low**, or **minor** at the most.

These ratings can be applied to each of the objectives and policies within the Plan that refer to the maintenance and enhancement of amenity values; and avoiding, remedying or mitigating the adverse environmental effects of infrastructure.

Notification

In my opinion, the proposal will have more than minor effects on three properties that have not given written approval. However, all the properties contained in the attached map (A to T) will experience the landscape change brought about by the proposal, both in terms of landscape effects and visual effects from public locations. It will change the landscape character of the locality, and likely change the way people associate with it and describe where they live to others.

As a result, in my opinion, all of the properties identified in the attached map are worthy of being notified of the proposal, as they are the most likely to experience the landscape and visual effects of the proposal. I would be supportive of limited notification to these owners and occupiers (with the



exception of those who have provided written approval) so they are given the opportunity to express their views on the landscape change to their locality that is proposed.

Recommendations

I make the following additional recommendations:

- ▶ That, should resource consent be granted, a condition is placed that requires the establishment of the flax shelterbelt as prior to the construction of any solar panels. It may also be worth investigating if a lead-time is provided to help with the provision of this mitigation, such as “at least 3 years” prior;
- ▶ That, should resource consent be granted, a condition is placed that requires the proposed perimeter deer fence to be installed on the inside of the flax shelterbelt such that the shelterbelt is directly adjacent to the road reserve; and

Aimee, should you require any further information in regard to this review, please do not hesitate to get in touch.

Yours sincerely

Shannon Bray

Registered Landscape Architect

