



## PEER REVIEW

**RESOURCE CONSENT GRANTED**

**Resource Consent No: RM220083**

**Date 6/7/2022**

**R Burns**

**Central Hawke's Bay District Council**

Landscape and Visual Effects Assessment as submitted with the application for a Resource Consent to establish a Solar Farm at Part Lot 9 DEEDS 203 and Lot 2 DP 311925, Plantation and Ongaonga Roads, Ongaonga, dated April 2022.

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TO\_KIM ANSTEY – THE PROPERTY GROUP [Consultant Planner to Hawkes Bay District Council]

DATE\_05 JUNE 2022

SUBJECT\_ RESOURCE CONSENT TO ESTABLISH A SOLAR FARM

CHBDC REFERENCE: RM220083

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Dear Kim

### 1. INTRODUCTION

- 1.1. My full name is Erin Natalie Griffith. I hold a Masters in Urban Design from Auckland University with First Class Honours and a Bachelors degree in Applied Science majoring in Landscape Management from Massey University.
- 1.2. On completing my tertiary education, I gained experience in Landscape related positions at Hastings District Council and Perth & Kinross Council (Scotland) prior to relocating to New Plymouth in 2008 and entering private practice. Since that time, I have worked in the resource management and planning space, specialising in planning and design for both private enterprise and Local Government. Particular emphasis over the last 14 years has been on preparing and reviewing Landscape and Visual Effects Assessments. I currently contract to New Plymouth District Council for matters relating to Landscape Peer Review when required but am also active in the industry in a private capacity. I am an Associate member of the New Zealand Planning Institute, a member of the New Zealand Association for Impact Assessment, and a member of the Urban Design Forum. As a matter of disclosure, my family originates from Ongaonga with my great grandmother, grandparents, great uncle, and aunty all having been laid to rest in the Forest Gate Cemetery.

### 1.3. PURPOSE OF THIS REPORT

- 1.4. Natural Capital have been engaged by Central Hawkes Bay District Council (**CHBDC**) via The Property Group (**TPG**) who are consultant planners to the Council in the processing of the above application.
- 1.5. The application's Landscape & Visual Effects Assessment (**LVEA**) has been reviewed to determine whether the information provided adequately enables a clear understanding of the landscape including rural character and general amenity values; and whether this understanding informs a complete assessment of likely and potential visual and landscape effects as a result of the proposal on the receiving environment and identified receptors.
- 1.6. The Peer Review follows the following process:
- Consent application familiarisation – AEE & LVEA and Graphic Appendix
  - Site visit
  - Review as to the adequacy of the following areas of assessment:
    - o Methodology
    - o Landscape Context and Receiving Environment
    - o View Catchment and Viewing Audience
    - o Landscape Effects
    - o Visual Effects
    - o Mitigation
- 1.3 A brief review of my agreement or otherwise is provided; subsequent comments / recommendations / queries are provided in each section. Where clarification or visual / graphic appendices are referenced, these are noted.

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## 2. SITE VISIT

- 2.1. A site visit took place on the afternoon of 30<sup>th</sup> May 2022 (raining), and the morning of 31<sup>st</sup> May 2022 (sunshine). The site was viewed from Ongaonga Road, Wakarara Road, SH50, Plantation Road, and from within the site. The locations of the photo montages provided in the LVEA graphic appendix were located and considered as was the site proposed for a rest stop/information hub. The existing irrigators were measured during this site visit to provide a physical visual comparison when considering photos, views, and visual simulations (photomontages).

## 3. REVIEW OF ASSESSMENT METHODOLOGY

*Whether the methodology used represents best practice in assessing the actual or potential landscape effects of the activity.*

- 3.1. The assessment is consistent with the revised New Zealand Institute of Landscape Architects Te Tāngi a te Manu - Aotearoa New Zealand Assessment Guidelines 2021.

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## 4. DESCRIPTION OF LANDSCAPE CONTEXT & RECEIVING ENVIRONMENT

*That the description of the existing environment, landscape and visual amenity values are adequately covered.*

- 4.1 The description of the broader landscape context matches my understanding of the area. It is described succinctly and thoughtfully. Care is taken to move from a landscape scale description down to a more local scale where the site and the adjoining land is the main focus including those features that underpin and cement a solid experiential foundation of the area. Useful demographic information is provided in a way that assists the reader to understand the landscape without it being overbearing. By this, I refer to the reference of census data which illustrates a usually resident population of less than 0.006 people per hectare across a catchment of 766km<sup>2</sup>.
- 4.2 With respect to the subject site, I note 'wetland', stream, and river are used within the LVEA. For clarification purposes, a 'river' in the RMA is defined as '*a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse.*' A 'wetland' is defined as '*permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions*'. Wetlands, and waterbodies that are deemed 'wide rivers', are subject to NPS-FM 2020, and the Resource Management (Stock Exclusion) Regulations 2020 legislation.
- 4.3 The LVEA notes the stream environment of the Kahahakuri Stream has a '*formed bed but has been heavily modified due to sustained grazing over a long period of time.*'(p6/7). I add that on review of both historical aerial imagery available from Retrolens and Google Earth, historical modification to the

stream alignment has been carried out at undefined dates, the latest alteration appearing between 2003 and 2004. See Images at the close of this report.

- 4.4 I am mindful of clause 70 within the NES-FW 2020 regarding fish passage and the upgrading of culverts and highlight that such works, if required, will need to ensure fish passage is maintained. I am unaware of any need to upgrade or alter the culvert, but acknowledge an unspecified number of cables will need to cross the waterbody in some form. It is my opinion that these matters can be managed appropriately through conditions of consent.
- 4.5 With respect to the Transpower Substation location, I add that the networks 110kV lines first enter the site from the junction of Ongaonga Road and Plantation Road. They also leave the site from the substation in a north-easterly direction toward the junction of Wakarara Road and Plantation Road. Another set of lower voltage lines bisect the site in the eastern corner extending from the substation across plantation road into a neighbouring property at around 185m along the site's eastern boundary. Although these elements are relatively immaterial to the assessment of landscape and visual effects, they add to the understanding of the context of the site and its relationship to the national grid. In terms of landscape amenity, powerlines, are generally considered to act as detractors to the appreciation of landscape amenity.

## 5. VIEWING CATCHMENT & VIEWING AUDIENCE

*That all key viewpoints are covered, and the actual or potential landscape and visual effects of the activity have been adequately considered.*

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- 5.1 A written description of the catchment is included on page 11/12 of the LVEA and this references photographs and visual simulations contained within the graphic appendix. Not illustrated as a specific viewing catchment, slide 22 provides a graphic representation of the potentially affected private residential dwellings in the receiving environment.
- 5.2 I agree with the statement on p11 that notes *"despite the wider landscape having a generally open landscape character, views of the site itself are relatively restricted. Views are possible from the immediately surrounding roads, and from properties that are either directly adjacent or are on the opposite side of the road. There may also be snapshots of the site in the wider, more expansive views – such as looking east from SH50 across to the low hill country."*
- 5.3 I also agree with the statement at the bottom of p14 where views from elevated, but distant locations are considered. I append to that statement that given the panels will have a height no greater than the horizontal and intermediary cross arms of the existing site irrigators, at 10km distant, it is highly likely the intervening shelterbelts will limit views of the site as well. Noting shelterbelts in the broader



landscape (and along the eastern side of Plantation Road) are often higher than the adjacent powerlines, these shelterbelts are likely in the order of 8-10m tall.

- 5.4 Consideration may be required through developed or detail design of the office block and vehicle circulation area to ensure required setbacks from Transpower pylons are incorporated into the design. Transpower's website provides information on this matter but my understanding is that they require 12m from any pylon, which creates a corridor of approximately 24m wide.<sup>1</sup>

## 6. POTENTIAL LANDSCAPE EFFECTS

*That all key actual or potential landscape effects of the activity have been adequately considered.*

- 6.1 **Landscape Character Change:** The discussion around Landscape Character Change is well developed and considered. Both actual and potential effects are outlined, as are the proposals overarching positive effects. The effect of change to the use of the landscape is confined to a relatively small area when considering the overall catchment. This includes consideration of the 'big-sky' feel of the landscape, its expansive flat and productive plains, and the compartmentalisation of the landscape by man-made and modified features such as linear roads, tall shelterbelts, and production horticulture. Further to this is the avoidance of high visibility from areas which hold a high degree of naturalness and/or distinctiveness.
- 6.2 The sensitivity of the landscape as a physical resource to change is highest around the stream environment, and lowest across the remainder of the site. I therefore conclude the proposal is adequately sited and includes a package of works to avoid adverse effects to the more sensitive parts of the site. Trenching for cables will be required in line with industry standards – information regarding trenching is not included in the application, but as this is subsurface it will be remediated and re-grassed post installation. Details around how cabling will cross the waterbody would be useful, but is unlikely to pose an issue for character and visual effects.
- 6.3 I agree with the conclusion of landscape effects that the proposal, on balance, will have a Low-Moderate effect. The solar farm *"represents a change in the activity and character of the site and will certainly be perceived as different and unique."* The receiving environment has been changed dramatically from its original state, streams realigned and modified, vegetation cleared, and non-native species introduced. At its core, the landscape is optimised to absorb change attributed to production as technology advances, markets shift, and mindsets realign to reducing adverse impacts on the

<sup>1</sup> Retrieved from: <https://www.transpower.co.nz/keeping-you-connected/landowners-and-developers/development-near-national-grid>

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biophysical components of the land. As stated in the LVEA, *“it is no different to other farming activity, utilising the environmental resource as efficiently as possible”*.

6.4 As outlined, the proposal will:

- Remove intensive land management that relies on high inputs (some well-known for its short supply) for its ongoing production (fertiliser, irrigation);
- Avoid significant landform change by locating panels on the more-or-less flat areas of land rather than within the stream bed;
- Avoid vertical dominance of the landscape as panels will sit more-or-less at the height of the intermediary cross bar support of the existing irrigator onsite;
- Avoid highly visible landscape character change by avoiding the use of limestone and ongoing use of chemical to maintain weed-free rows (avoiding overland flow runoff of such chemicals); Sheep grazing is proposed as the main form of grass management, retaining an element of grass-based production agriculture within the design;
- Avoid ongoing deterioration of the Kahahakuri Stream;
- Challenge expectations and understanding of productive management by farming solar energy as opposed to ground based production of horticulture, viticulture and/or agriculture;
- Positively impact on the biophysical and habitat value of the Kahahakuri Stream through retirement, revegetation, and restoration;
- Provide for the social and cultural wellbeing of the local community including an extended appreciation of the area and tourism opportunities. This includes reference to historically relevant stories in addition to educational opportunities around photovoltaics and sustainable technologies to the wider community. Primarily, these outcomes are based within the proposal to develop an information and viewing area on Wakarara Road near the eucalyptus grove. Discussions have also taken place with adjacent landowners on restoration of the stream environment (pers.comm)<sup>2</sup> either side of the subject site. Through osmosis and active management, such impacts could be extended to local schools and interested parties to visit and research the concepts at play.

6.5 It is noted that a hydro parcel owned by the Central Hawkes Bay District Council bisects the site but I am unable to find a title associated with it. To achieve the positive outcomes of the stream restoration a partnership agreement or other legal mechanism may need to be developed. Such matters are outside the expertise of this assessment.

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<sup>2</sup> Personal communication with applicant onsite – not part of the application but demonstrating intent and potential for flow on positive effects with the community and adjacent land owners.

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## 7. VISUAL EFFECTS

*Has the report described how the proposed development will change existing natural character values and visual quality and amenity values s7(c) & (f) of the RMA1991)?*

- 7.1 The site is viewed as a component part of a much broader landscape tapestry that stretches between the Ruahine Ranges to the west and Ruakawa range to the east. Bounded by roads and productive land to the west, the site is clearly visible from a number of public locations.
- 7.2 The photomontages in the graphic appendix help illustrate the expansiveness of the proposal from two distinct and stationary points of the public realm. I acknowledge they are only a tool and must be considered as such. Where the panels are shown horizontal as they are likely to be at midday, the images show solid grey beneath the panels. In reality, the depth perception of the site will be much greater and include views through and under the panels. These views may also include grass and sheep grazing or resting and changing shadow patterns that will assist with a three-dimensional appreciation of the installation. Views above the installation and over to the Ruahine Range will be maintained when looking west – these will not be obscured, nor will views in other directions to the large and dominant sky interspersed with tall shelterbelts as views extend back down to ground level.
- 7.3 A majority of views will be experienced while travelling, and depending on the time of day, weather, and aspect, views of the panels will evolve given their tracking arc.
- 7.4 For these reasons, and those provided in the LVEA, I agree the visual effect on the public realm will be no greater than Low-Moderate. The site will constitute a new and recognisable feature in the landscape, but the key components of the view that define the appreciation of character and visual amenity will be retained.

### 7.5 POTENTIALLY AFFECTED PRIVATE RECEPTORS

#### 7.5.1 75 Wakarara Road, 22 Fairfield Road, and Part Lot 4 DEEDS 203.

- 7.5.2 75 Wakarara Road has not been assessed as there are no residential dwellings on the property. Similarly 22 Fairfield Road, and the property at Part Lot 4 DEEDS 203 have an N/A rating because of this. 22 Fairfield and Part Lot 4 are connected to the site by way of one corner of the properties. Both titles are owned in conjunction with several adjacent parcels extending their land management influence beyond the bounds of these particular properties. 22 and Part Lot 4 are separated sufficiently from the site in my view to be attributed with 'negligible' to 'very low' visual effects.

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- 7.5.3 With respect to 75 Wakarara Road, I offer my considerations of the potential visual effect on this property given it is directly opposite the site's eastern boundary, and a dwelling (or 2) could be located here as a permitted activity.
- 7.5.4 The property is located directly opposite the site on the eastern side of Plantation Road. A dwelling could be located anywhere on the site as a permitted activity and therefore I am mindful of considering the site despite the land being a 'place of work' and therefore less reliant on its landscape context for amenity.
- 7.5.5 The existing access to the site is via Wakarara Road and a structure is located near the centre of the site. Powerlines traverse the site from its western boundary across to approximately 330m along the Wakarara road from the Plantation Road intersection.
- 7.5.6 Although possible to locate a dwelling directly opposite the subject site creating a situation where a dwelling may rely on the site, or part of it, for its primary amenity – such activities would have to occur in the future after consent of the solar farm was granted [in the case that it is granted] in full knowledge of the visual amenity of the solar installation.
- 7.5.7 In my opinion, a dwelling would be less likely to be constructed along Plantation Road than Wakarara Road due to:
- The proximity to Plantation Road and junctions with Ongaonga/Wakarara Roads
  - Being confined between powerlines and the road and being closer to the 110kV lines both in terms of proximity and due to the powerlines detracting from the visual amenity of the view,
  - The current access is from Wakarara Road, indicating that road and the land accessed from it has preferential factors in terms of accessing the site as a whole.
  - Adverse amenity effects such as noise, vibration, or shading will not be a bi-product of the installation.
  - Some visual associations could occur. However, views above and across the site to the Ruahine Range will be retained, as will the openness of the sky and broader landscape.
- 7.5.8 In the event that a dwelling was located along Plantation Road, there is both enough room on the subject site and 75 Wakarara Road to establish vegetation that would screen the solar array effectively without adversely impacting on views to the Ruahine Range, or shading the panels themselves. Therefore, I conclude the likely visual effect on 75 Wakarara Road is very low.

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7.5.9 Similarly, the applicant has likely carried out due diligence on the types of activities that could occur on 75 Wakarara Road. In my opinion, given the aspect of the site and proposed activity on the subject site, it is unlikely reverse sensitivity issues would occur between the sites.

7.5.10 The following table outlines my agreement or otherwise with the assessment on other potentially affected private parties.

	Wayfinder Assessment	Post Mitigation	Written Approval Received	Notes	Agreement/Disagreement
1483 Ongaonga Road	Very-Low				
593 Ongaonga Waipukurau Road	N/A		Written Approval is provided.	Must be disregarded	
1343 Ongaonga Road	Low-Moderate	Low		The Oaks proposed will extend an existing feature along the Ongaonga Road. Once mature, they will filter a majority of the installation.	Agree - noting 1343 only pertains to the individual property title Lot 1 <a href="#">DP 437766</a>
1411-1405 Ongaonga Road	Not assessed independently to the dwelling at 1343.	No dwelling on the site currently.	Written Approval is provided by current owner.		
22 Fairfield Road	N/A				
75 Wakarara Road	N/A				
1072 Ongaonga Road	N/A			The description of this property matches Part Lot 4 DEEDS 203.	
220 Plantation Road	Low-Moderate	Low	Written Approval is provided by current owner.	Must be disregarded	
288 Plantation Road	Very Low	Very Low			Agree
230 & 260 Wakarara Road	Low	Very Low		Detail of the performance standards around the planting proposed would be required through consent conditions (height, density, species, timing of planting)	Agree
266 Wakarara Road		Very Low			Agree
313 Wakarara Road	Low		Written Approval is provided by current owner.	Must be disregarded	

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19 Ngaruru Road	N/A	N/A	Written Approval is provided by current owner.	Must be disregarded	
Future Properties			Written Approval is provided by current owner.	Must be disregarded	

## 8. MITIGATION

*Has an appropriate strategy been identified or adopted in order to avoid, remedy or mitigate any unacceptable adverse effects on landscape values, natural character, and visual amenity?*

- 8.1. The mitigation measures provided with the application are appropriate and targeted. Specifically, those areas proposed to receive planting in order to assist with visual softening and filtering of views to the site do not propose to completely screen off the site from view. This strategy enables broader open space views to be enjoyed and the three dimensions of the longitudinal landscape to be retained – in other words, views through, over, and beyond the site will continue to be experienced despite the solar installation.
- 8.2. The row of oaks proposed to assist with filtering views from the dwelling at 1343 is specific and targeted to this property only. Although not necessary to reduce the level of visual effect on a holistic basis, it may be worth considering extending this row toward the dwelling at 1396 to form an avenue of sorts. Trees could be spaced to retain views of the installation beneath the oaks once they are sufficiently mature, but their inclusion may assist with the abrupt shift toward deer fencing and the solar installation as visitors and locals leave/approach the Ongaonga township. Such inclusion would be voluntary unless there are specific unresolved issues with the extent of the installation on the main view north from 1343 that would have become apparent had the dwelling been accessed at the time of assessing the site.
- 8.3. Vegetation at the corner of Plantation and Ongaonga Road to assist with filtering of views of the office complex and laydown areas is appropriate and targeted. In place of screening activity completely, specimen trees are proposed. This allows depth perception and a form of passive surveillance to occur. The only cautionary note relates to the relationship of specimen tree placement to the overhead powerlines and the Electricity (Hazards from Trees) Regulation 2003. Performance standards outlining the type, spacing, intended height, and location of trees would be required including the size at installation.
- 8.4. Similarly, planting to the areas opposite the Mr Apple site will require agreed performance standards.

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- 8.5. **Waterways:** As per Section 6a of the RMA “*the preservation of the natural character of the coastal environment (including the coastal marine area), **wetlands**, and lakes and **rivers and their margins**, and the protection of them from inappropriate subdivision, use, and development*; must be recognised by a consenting authority and provided for as matters of national importance.
- 8.6. The detail and extent of the stream restoration will be required as a condition of consent – with the stream environment taking precedence over panel installation. Landform / contour variation on the site is relatively obvious toward the western extent of the stream. A full planting plan inclusive of species schedule, numbers, sizes at installation, spacing, timing, maintenance schedule and fencing plan would be required. Taller species may be appropriate toward the western end of the site where the area widens and shading effects will not impact panel efficiency.
- 8.7. The public viewing area is well received and extends the proposal’s ability to connect with the local and tourist community. Developed design will need to take into consideration any real, or potential hazards posed by the existing Eucalypts if seating/rest areas are to be identified. Key stakeholders from the local community should be identified and involved with defining the content of any historical interpretation boards/installations.

Your sincerely



Erin Griffith  
Principal | MUrbDes

**natural  
capital.**

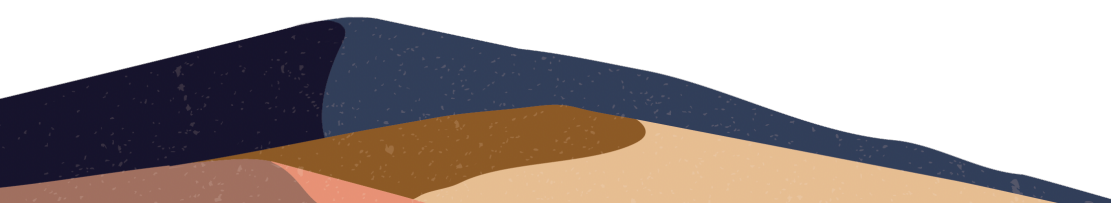
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Google Earth 2004



Google Earth 2003

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1964 Aerial Retrolens

