

BEFOR THE SELWYN DISTRICT COUNCIL

RC225180

In the matter of      the Resource Management Act 1991  
*Sections 88-120, Resource Management Act 1991*

Between                **Party**    KeaX Limited  
                                 Role    Applicant

And                    **Party**    Robyn Casey, Clark and Elizabeth Casey and Dave  
                                 and Donna Kewish ("Joint Submitters")  
                                 Role    Submitter

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EVIDENCE OF STEWART WILLIAM FLETCHER

Date 16 February 2023

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J M van der Wal  
Barrister  
40 Walker Street Chambers  
Christchurch  
Also at 14 Queen Street  
Blenheim

My name is **STEWART FLETCHER** of Christchurch and I operate my own planning consultancy (Fletcher Consulting & Planning). I have been requested by the submitters on resource consent RC225180 to assist them in support of their submissions in opposition to the proposed solar farm.

## **1 Qualifications**

1.1 I am a Consultant Planner and have been practicing as a Planner for approximately 25 years. I have a Bachelor of Resource Studies from Lincoln University and am a full member of the NZ Planning Institute.

1.2 I have worked in a number of planning roles and have been operating my own consultancy for the past 13 years.

## **2 Expert Witness Practice Note**

2.1 While not a Court hearing I note I have read, and agree to comply with, the Code of Conduct for Expert Witnesses as required by the Environment Court's Practice Note 2014. In providing my evidence all of the opinions provided are within my expertise and I have considered and I have not omitted to consider any material facts known to me which might alter or qualify the opinions I express.

## **3 Scope of Evidence**

3.1 A resource consent application has been lodged by KeaX Ltd to establish a solar farm at 115 and 150 Buckleys Road, 821 and 883 Hanmer Road, Leeston.

3.2 The application has been limited notified and six submissions have been submitted. The submissions are in opposition and I have been requested to assist submitters. In preparing this evidence I note that evidence has also been prepared regarding landscape, noise and contamination which I have reviewed in preparing this evidence.

3.3 There are several elements to the proposal which need to be considered and these matters can be generally separated into preliminary issues regarding the question of notification, the implications of the National Policy Statement for Highly Productive Land and then a wider assessment of the proposed activity. It is my opinion that the questions of notification and the national policy statement need to

be first considered and determined before considering the other matters for the proposal, accordingly my evidence follows the same order.

3.4 The purpose of this evidence is to both highlight and bring to the attention of the Hearings Commissioner what I consider to be the procedural issues with this resource consent application and the potential effects on the submitters and wider area.

3.5 In preparing this evidence I have reviewed the application, Council notification assessment, submissions, Council planning report and the evidence submitted by the applicant. In preparing my evidence I have also visited the site and submitters properties.

#### **4 Public Notification**

4.1 Following the lodgement of the resource consent application and the completion of any requests for further information, the Council-appointed planner, Jesse Aimer, prepared a report on whether the application should be processed on a publicly, limited or non-notified basis. A copy of that report is appended to my evidence as Appendix 1. The report was reviewed and adopted by Planning Manager Emma Larsen and signed off on 21 October. The report recommends that the application be processed on a limited notified basis and that the application be served on all affected persons who have not given written approval to the activity.

4.2 Section 95A of the Resource Management Act 1991 specifies the steps that must be undertaken in determining whether or not a resource consent application should be processed on a publicly notified basis. This includes as part of the third step (section 95A(8)(b)) whether the activity will have or is likely to have adverse effects on the environment that are more than minor. The fourth step (section 95A(9)) requires a determination as to whether special circumstances exist in relation to the application that warrant the application being publicly notified.

4.3 Section 95B of the Resource Management Act 1991 also specifies the steps that must be undertaken in determining whether a resource consent application should be processed on a limited notified basis. This includes step 3 (section 95B(8)) which requires the determination of whether a person is an affected person and step 4 (section 95B(10)) which requires the determination of whether special circumstances exist that warrant notification of the application on a limited notified

basis. I note that the identification of an affected person is based on there being at least a minor effect which is different from the test under section 95A where more than minor effects are determined.

4.4 While the assessment as to notification has been completed and we are now at a point whereby a determination as to approval is to be made, the notification process remains relevant. Section 104(3)(d) of the Resource Management Act 1991 specifies that a consent authority must not grant a resource consent if the application should have been notified and was not. The application of this provision is relevant both to the question of whether an application should have been publicly notified and whether specific parties should have been limited notified but were not.

4.5 The Council appointed processing planner has followed the steps specified in the Resource Management Act 1991 and the notification assessment has been made available. I have reviewed that assessment, together with the section 42A report, and it is my professional opinion that there have been errors made in the conclusions reached as to notification. On this basis the application of section 104(3)(d) is pertinent to the consideration of the application and it is respectfully suggested that the Hearings Commissioner needs to first determine whether a procedural issue has arisen that mandates that resource consent must not be granted.

4.6 The reasons for my determination that there are procedural complications are as follows:

***Highly Productive Land***

4.7 The impacts of a proposal on highly productive land have become heightened since the introduction of the National Policy Statement for Highly Productive Land 2022 which came into force on 17 October 2022. Objectives and Policies in the NPS-HPL include:

*Objective: Highly productive land is protected for use in land-based primary production, both now and for future generations.*

*Policy 1: Highly productive land is recognised as a resource with finite characteristics and longterm values for land-based primary production.*

*Policy 2: The identification and management of highly productive land is undertaken in an integrated way that considers the interactions with freshwater management and urban development.*

*Policy 3: Highly productive land is mapped and included in regional policy statements and district plans.*

*Policy 4: The use of highly productive land for land-based primary production is prioritised and supported.*

*Policy 5: The urban rezoning of highly productive land is avoided, except as provided in this National Policy Statement.*

*Policy 6: The rezoning and development of highly productive land as rural lifestyle is avoided, except as provided in this National Policy Statement.*

*Policy 7: The subdivision of highly productive land is avoided, except as provided in this National Policy Statement.*

*Policy 8: Highly productive land is protected from inappropriate use and development.*

*Policy 9: Reverse sensitivity effects are managed so as not to constrain land-based primary production activities on highly productive land.*

4.8 The assessment of effects within the notification determination considers the potential effects from a loss of productive soils at Paragraphs 99 and 100 and notes the following:

*Loss of productive soils*

*99. Based on mapping information available to Council the application site contains Land Use Capability Class 2 soils in the north and Class 3 in the south. The National Policy Statement for Highly Productive Land categorises Land Use Capability Classes 2 and 3 as being highly productive and requires this land to be protected from inappropriate use and development. The proposal would result in the conversion of a site used for*

*rural production purposes to one covered in solar panel infrastructure that has sheep grazing underneath and in between the panels. Whilst the grazing of sheep would still be supporting primary production, the productive potential of the land would be significantly reduced.*

*100. Although the area of the site is significant, I do not consider that the reduction in productive potential of the land constitutes a more than minor adverse effect. I note that, in contrast to other land uses, any productive loss will be temporary and reversible following the expiry of the 35-year term – meaning that the land could be used for more productive purposes once the solar array reaches its end of life.*

4.9 This compares to the assessment provided in the section 42A report which specifies the following:

*Loss of productive soils*

*132. The Joint Submission has raised concerns regarding the loss of the productive potential of the land at the site. Based on mapping information available to Council, the application site contains Land Use Capability (LUC) Class 2 soils in the north and Class 3 in the south.*

*133. The proposal would result in the conversion of a site used for rural production purposes to one covered in solar panel infrastructure that has sheep grazing underneath and in between the panels. Whilst the grazing of sheep would still be supporting primary production, the productive potential of the land would be reduced.*

*134. The applicant has proposed to incorporate the following condition on the resource consent:*

*101 The Consent Holder shall, within 12 months of the solar array reaching the end of its economic or operational life (not including periods when the solar array may not operate because of technical issues or maintenance/improvement works including the replacement of panels and other infrastructure), clear the site of all*

*panels, buildings/structures and cabling, and the land shall be returned to pastoral uses.*

*135. It is considered that such a condition would mitigate the duration of any loss of productive soils through the requirement to return the land to pastoral uses following the solar farm reaching the end of its life. However, given the applicant has sought an unlimited duration of consent, unless a duration is imposed on the consent, there is no certainty that the site will return to productive uses.*

*136. The significance of the impact of the proposal on highly productive land is addressed in more detail in the assessment of the National Policy Statement for Highly Productive Land provisions below. In the event that the NPS-HPL does not prevent a barrier to consent, conditions has been proposed to mitigate any effects of the proposal on the loss of productive soils.*

4.10 At paragraph 277, in assessing the proposal against the provisions of the NPS-HPL the following is stated (underline added):

*277 I consider that a requirement to continue using the land for sheep grazing through the life of the solar farm, and a requirement that the land return to productive uses following the end of life of the solar farm, assist in mitigating any loss of highly productive land. However, I note that the extent of this mitigation is relatively minor given that:*

- 1. It is not clear whether the use of sheep for grazing purposes at the site would fall into the definition of 'land based primary production'.*
- 2. The solar panels are also likely to significantly reduce the productive capacity of the land while the solar farm is in operation.*
- 3. There is no certainty as to when the solar farm will reach its end of life, given the applicant has sought no limit on the duration of any consent granted.*

4.11 It would appear the processing planner now considers that the potential effects of the proposed activity will include a significant effect on the productive capacity of the application site. Given the context or background of the situation whereby the use of highly productive land for primary production should be prioritised (policy 4 of the national policy statement) and that highly productive land should be protected from inappropriate use and development (policy 8 of the national policy statement) it is considered that a proposal which will significantly reduce the productive capacity of the site must be considered to have a more than minor effect on the environment.

#### ***Character and Amenity***

4.12 Resource consent is sought to establish a solar farm over a large area of approximately 250 hectares. The application site is bordered with a combination of public roads and private properties. It is readily recognised that the application includes measures to assist in reducing environmental effects but there appears to be a disconnect in that the change in use of the site represents a significant change in the amenity and character of the site and surrounding area.

4.13 The fact that it is proposed to progressively establish the solar farm while also progressively establishing landscaping etc means that the public, including local community, will be entirely aware of the change of use of the site and that the mitigation measures proposed will also significantly change the amenity and character of both the site and the local area.

4.14 The change in the use of the site from one of rural production to electricity generation will significantly change the amenity and character of the local area and the site will most likely become known in the community as a solar farm which is less consistent with the current amenity and character of the area.

4.15 Mr Paul Smith has commented that the proposal will have a moderate degree of adverse visual effects when seen from certain roads and these effects could be higher if glare is a factor. He also comments that the solar farm will change the perceptual values within the site as the character will change from a rural pastoral



character to a predominantly rural utility / semi-industrial character, with an underlying pastoral use.

4.16 I note that objectives and policies in the Operative and Proposed District Plans include:

- maintaining rural character
- avoiding significant adverse effects of activities on the amenity values of the rural area
- maintaining low levels of building density
- retaining a contrast to urban areas
- enabling a range of activities that: have a direct relationship with, or are dependent on, primary production, have a functional or operational need to locate in the rural area; represent an efficient use of natural and physical resources; and maintain or enhance the character and amenity values of the surrounding area.

4.17 The above provisions create an expectation or context for the appearance, nature and character of rural areas and reinforces the fact that the proposed activity will have a significant effect on the rural amenity and character of the area and that such an impact should be given significant consideration.

4.18 In undertaking the above it is considered that the amenity effects of glare and particularly noise need to be given significant consideration. I discuss the amenity related effects of noise later in my evidence but it is clear that the proposed activity will be audible from properties adjoining or adjacent to the site. In addition, this means that the activity will be audible from the adjoining roads where the public do walk, as noted during my site visit. It is therefore important, in considering the amenity related effects of the proposal, to include the noises of the activity which will contribute to the degradation of the rural environment.

#### ***Term of Consent***

4.19 In my review of the application, I note an element of confusion as to the duration for which resource consent is sought. The resource consent application

specifies that an unlimited duration is sought. It does also reference the establishment of a 35 year lease but, in assessing the resource consent application and its potential effects, the lease period is irrelevant as an unlimited duration is sought. The application must be assessed on the basis of an unlimited duration, as sought. The Council notification assessment specifies the following (paragraph 100 – Loss of Productive Soils):

*100. Although the area of the site is significant, I do not consider that the reduction in productive potential of the land constitutes a more than minor adverse effect. I note that, in contrast to other land uses, any productive loss will be temporary and reversible following the expiry of the 35-year term – meaning that the land could be used for more productive purposes once the solar array reaches its end of life.*

4.20 I have a different view as to what can be considered a temporary effect but regardless, a 35 year term is not sought for the resource consent application. This suggests that a different conclusion as to the scale of effects might have been reached if the application was processed on the basis of the duration actually sought.

4.21 I also note that even if the applicant was to address this issue now, such as amending the proposal to a 35 year term, the question is not about that. The question is when the application was assessed as to determining notification, it should have been assessed based on an unlimited duration and that assessment may have reached an alternative conclusion as to the question of notification.

#### ***Identification of Potentially Affected Parties***

4.22 Later in my evidence I discuss the proposed mitigation measures for the proposed activity and the impacts of these compared to the existing amenity and character of the local area. The point that I make is that the character and amenity of the area includes a combination of plantings (both as individual trees and shelter belts) and open spaces of various sizes / widths. The notification assessment considers that the establishment of thick hedge like plantings will mitigate the visual effects of the proposed activity but consideration also needs to be given to the effects of the “mitigation measures”. The semi open character of the site will be lost and for some neighbours the landscape they currently enjoy will be lost. This has not been considered as part of the notification assessment.

4.23 It is also respectfully considered that the notification assessment could have provided a significantly clearer understanding of those property owners who have provided written approval, those considered to be potentially affected who have not provided approval and the outline of the application site. This would have provided a far clearer picture of the number of properties adjacent to the site who were not considered to be potentially affected by the proposed activity.

4.24 In my opinion there are some properties that will experience higher levels of noise and the visual amenity and character of the area will also change. I note the notification assessment does not consider the amenity related effects from noise but beyond this I worry that the assessment may have also determined that some properties were not affected without any knowledge of the landowners intentions for the property. The resource consent application cannot rely on mitigation measures on someone else's property. For example, does a landowner intend to remove existing plantings but also do they consider a fully 'blocked' outlook to be detrimental to their amenity let alone the fact that they would be potentially driving past the application site everyday before turning into or out of their driveway experiencing an adjacent site that is fully enclosed and affording no rural outlook which is inconsistent with the amenity and character of the local area.

4.25 It is respectfully suggested that the hearings commissioner needs to assess whether all potentially affected persons have been identified and notified as part of the resource consent process. This should also be done so on the basis of the landscape assessment undertaken by Mr Paul Smith and the acoustic assessment undertaken by Mark Lewthwaite and their findings.

4.26 I note that another property I am also interested in is the Brookside Substation site at 414 Branch Drain Road (a designated site) and whether any consideration has been given to this site as part of the notification assessment, such as electricity related effects. It was not identified as potentially affected as part of the notification assessment.

4.27 When one considers the above concerns including what I would suggest is a loose assessment of potentially affected parties, combined with the submitters providing a petition containing numerous names (116) including most being in the local area, it is suggested that questions arise both as to whether the application

should have been processed on a publicly notified basis and whether all affected parties were identified as part of the assessment.

4.28 Finally, with regards to the question of notification, I am aware of the option of seeking a judicial review through the High Court. In my experience a judicial review has typically been sought after a resource consent has been granted, generally this is because that is when another party has become aware of the proposal and resource consent being granted. It would seem unusual to not address the issue of notification with the Hearings Commissioner at this stage given the option available in the Resource Management Act 1991 and the High Court might question why a situation was not addressed at the appropriate time when the issue became apparent.

4.29 For the above reasons it is respectfully suggested the application should have been publicly notified and there is the potential that other parties should have been considered as potentially affected. In accordance with section 104(3)(d) of the Resource Management Act 1991, Council as a consent authority must not grant a resource consent for the proposed activity.

## **5 National Policy Statement for Highly Productive Land**

5.1 Regarding the second preliminary matter, the National Policy Statement for Highly Productive Land (the policy statement) was released in 2022 and came into force on 17 October 2022. The policy statement highlights the importance of highly productive land and provides a framework for the assessment of various activities on land which is identified as LUC 1, 2 or 3, ie that land which is classified as highly productive.

5.2 The 42A report and evidence details the objective and various policies included within the policy statement. Needless to say, the importance of highly productive land has been significantly raised in importance through the introduction of the NPS and in doing so terms such as protection and avoidance are introduced. It would be fair to suggest that the policy statement has introduced a high bar which now has to be met in assessing proposals on highly productive land.

5.3 In assessing the proposal against the policy statement it is recognised that the proposal falls within the definition of a lifeline utility and consequently also falls within the definition for specified infrastructure. The impact of this is that the policy

statement includes some provision for such an activity to establish on highly productive land (Section 3.9).

5.4 Section 3.9 of the Policy Statement (Protecting highly productive land from inappropriate use and development) provides an exception for specified infrastructure to establish provided there is a functional or operational need for the use or development to be on the highly productive land.

5.5 The definitions for functional or operational need, as derived from the National Planning standings are as follows:

*“Functional Need:*

*means the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment.”*

*“Operational Need*

*means the need for a proposal or activity to traverse, locate or operate in a particular environment because of technical, logistical or operational characteristics or constraints.”*

5.6 It is understood that greater analysis of these two definitions will be provided in legal submissions on behalf of the submitters and that a key part of this is that there needs to be more than an operational advantage. There needs to be an operational need or requirement to establish within an area classified as highly productive land.

5.7 The applicants’ evidence provides an analysis of what they consider are the operational needs of the activity. In my opinion the key point, which makes the application site preferential for the activity is the location of the local substation at the corner of the site. As will be examined in legal submissions, whether this constitutes an operational need will need to be considered.

5.8 In considering the importance of proximity to a substation I note that the applicant has not provided any parameters as to whether the establishment of a transmission line between the site and a substation would impact the viability of the proposal. For example we do not know if there is a point at which the distance of any required transmission line would impact the feasibility of development and

consequently it is difficult to determine the range of sites available that can connect to a substation.

5.9 Nevertheless, in order to determine whether the characteristics of the site are unique, I have undertaken a high level analysis to determine whether there are any other sites or areas in the Selwyn District where it could be possible to establish an activity like the proposed without establishing on highly productive land. To do this this I have applied the following parameters:

- The site is not highly productive land (LUC 1, 2 or 3); and
- The site is in close proximity to a substation.

5.10 To undertake the above I have utilised the Manaakia Whenua Landcare Research mapping tool ([https://ourenvironment.scinfo.org.nz/maps-and-tools/app/Land%20Capability/Iri\\_luc\\_hpl](https://ourenvironment.scinfo.org.nz/maps-and-tools/app/Land%20Capability/Iri_luc_hpl)) which identifies soil maps with class LUC 1, 2 or 3 soils. I have then attempted to locate the various substations in the District using the , the Orion 2021 Asset Management Plan (<https://www.oriongroup.co.nz/assets/Company/Corporate-publications/Orion-AMP-2021.pdf>).

5.11 Without spending significant time researching sites and soils I have produced the three below soil maps for the Dunsandel, Te Pirita and Hights Corner areas. The location of each substation is marked with an approximate red dot. The shades of green on each map represent the different classes of soil. The darkest green is LUC1, mid green is LUC2 and lightest green is LUC3.

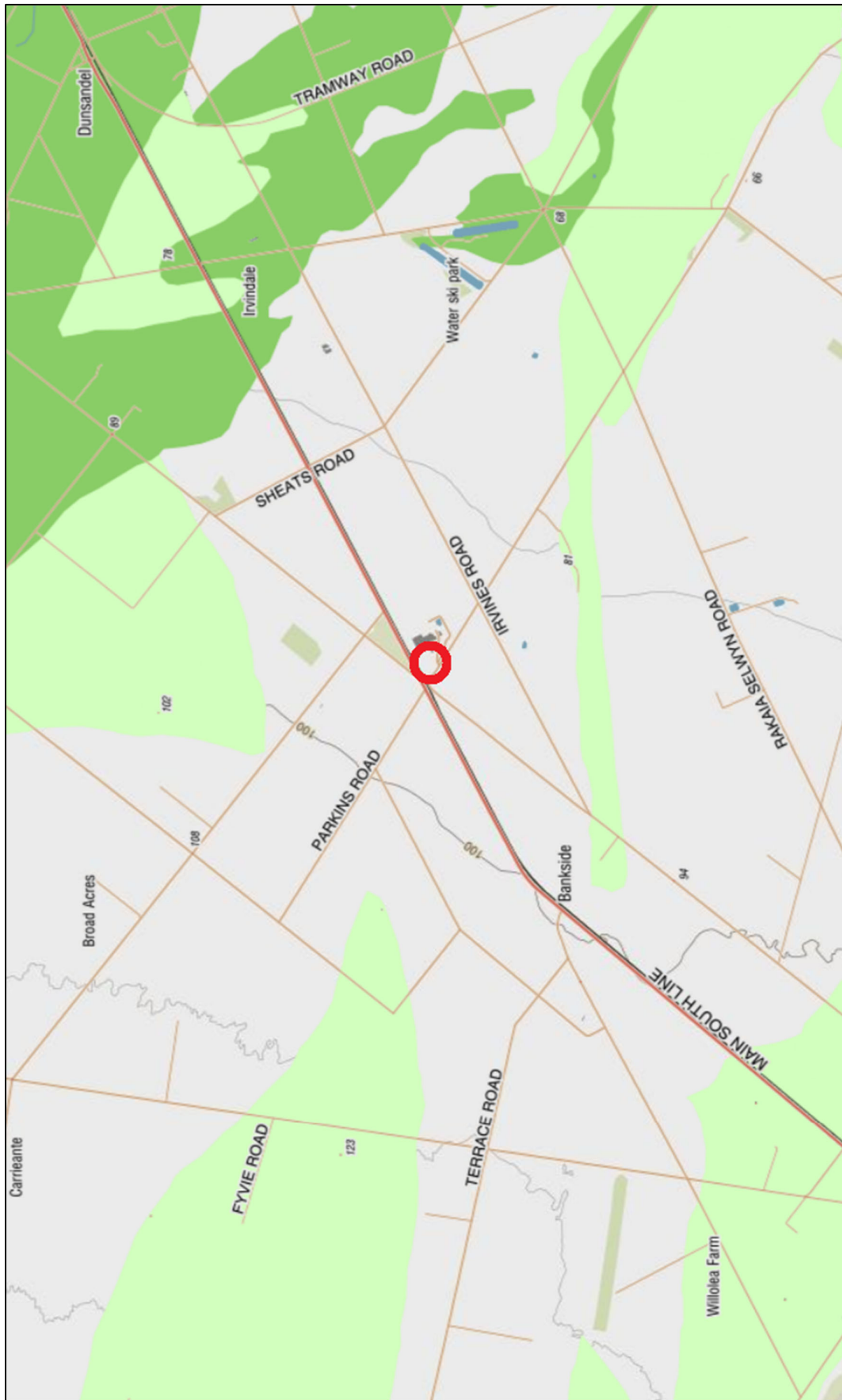


Figure 1: Dunsandel Substation with Soil Map Overlay

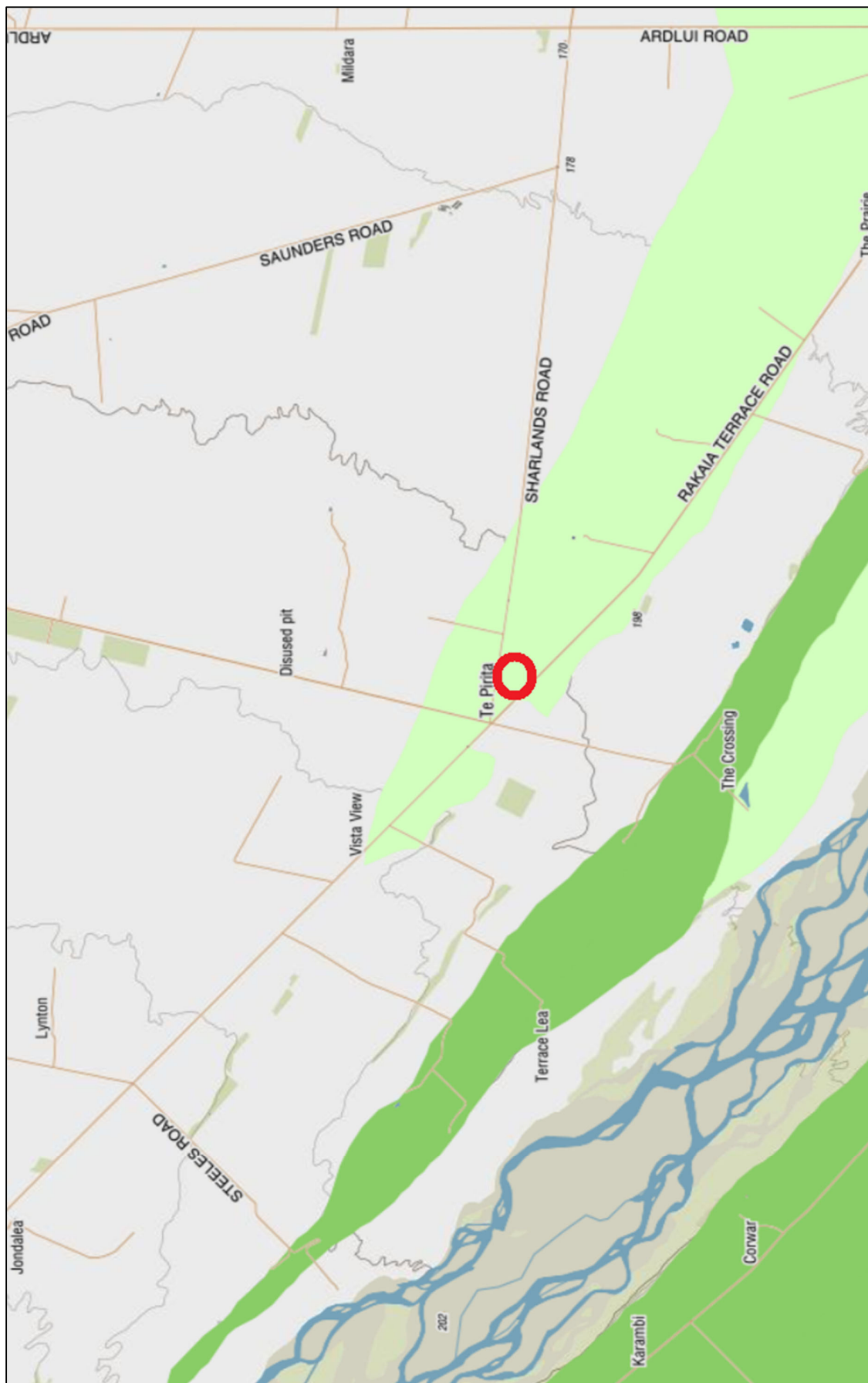


Figure 2: Te Piritā Substation with Soil Map Overlay



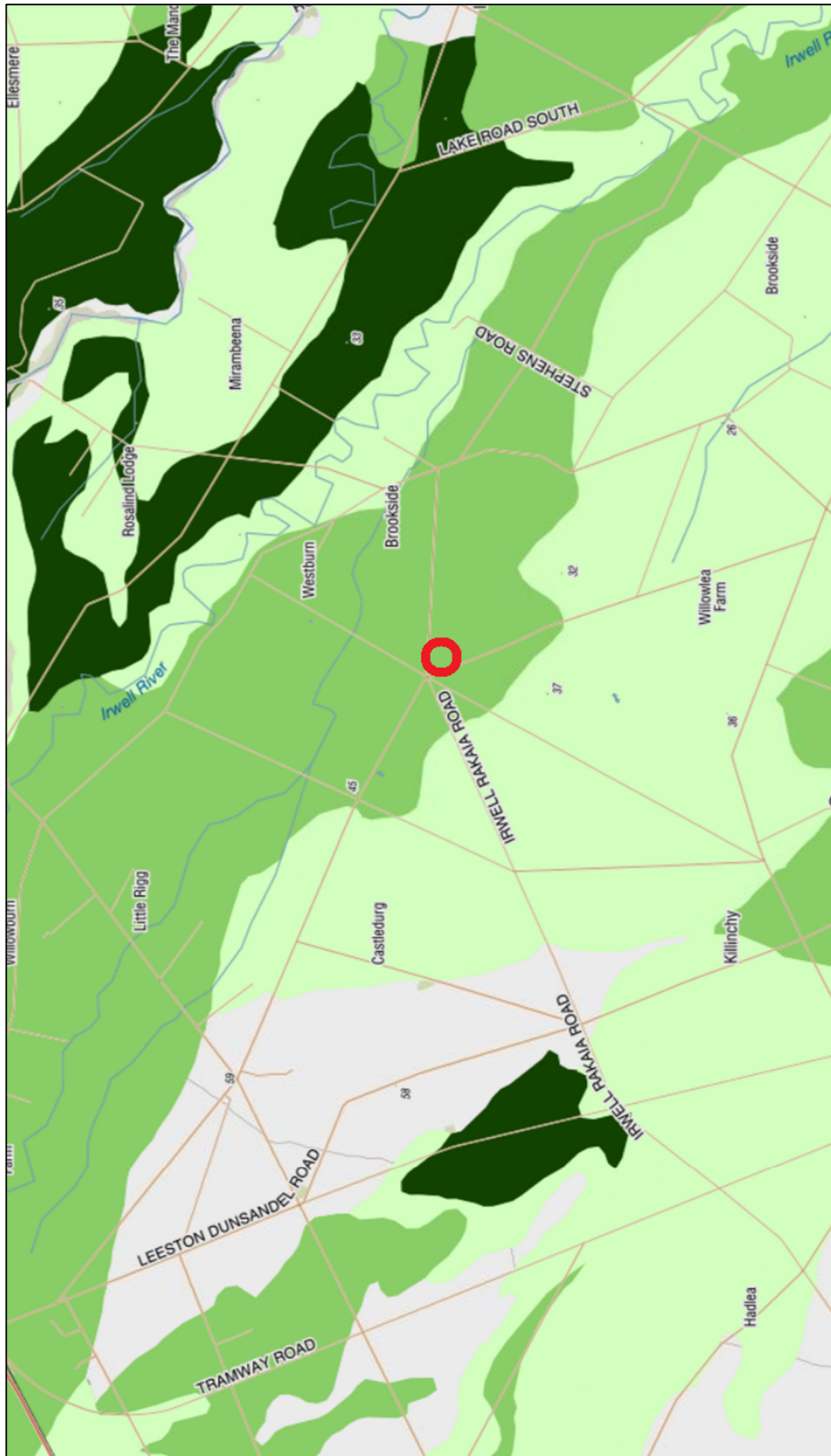


Figure 3: Heights Corner Substation with Soil Map Overlay

5.12 It is recognised that there are a variety of other factors that dictate whether land is available for a proposed activity, including whether the substation operator would be in agreement for a connection to be made, but again reference is made back to the concept of an 'operational need', as dictated by the policy statement.

5.13 With regards to Figure 1, being the Dunsandel substation, this substation adjoins the Synlait Dairy factory site southwest of Dunsandel village. As can be seen from the map there are substantial areas of land around the substation which are not classed as highly productive land. As a side note, and of less relevant to the purpose of this discussion, I consider that there is already significant built form in the area such that the impacts of introducing further built form may be reduced.

5.14 Figure 2 identifies the Te Pirita substation which is located in what could be considered a more isolated area. The map identifies that the substation is located within an area of highly productive land (LUC 3) but that there are areas in close proximity to the substation which are not classified as highly productive. This includes an area on the opposite side of the road and a broader area roughly 1.6 kilometres north of the substation.

5.15 Figure 3 identifies the substation at Hights Corner which is where the proposed activity seeks to establish and connect to the substation. As can be seen, the maps identify the site as predominantly being on LUC 2 soils which is generally encircled by LUC 3 soils. It is noted that the area of soils not classed as highly productive, to the west of the substation, are roughly 3.1 kilometres away.

5.16 In considering the above against the question of whether there is a operational need for the use or development to be on the highly productive land and operational need meaning there is some form of technical, logistical or operational characteristics or constraints, it is respectfully suggested that there are other sites and locations which would fulfil the operational needs of the activity without having to establish on highly productive land.

5.17 Beyond the above it is noted that evidence for the applicant explores whether the proposal will result in potentially improved water quality. This is relevant in section 3.9(2)(f) which specifies:

***3.9 Protecting highly productive land from inappropriate use and development***

.....

*(2) A use or development of highly productive land is inappropriate except where at least one of the following applies to the use or development, and the measures in subclause (3) are applied:*

*(f) it provides for the retirement of land from land-based primary production for the purpose of improving water quality:*

5.18 It is considered that while the intention is commendable, and there may be potential water quality improvements, the purpose of the proposal is not to improve water quality, nor is the land being retired. Instead the primary production of the land is being significantly reduced, as stated in the section 42A report.

5.19 Overall, it is recognised that the policy statement is applicable in assessing the proposal and section 3.9 is a key provision in determining whether the proposal satisfies the requirements of the policy statement. Section 3.9(2)(f) provides an exception for specified infrastructure to establish provided there is a functional or operational need for the use or development to be on the highly productive land. In my opinion the operational needs of the proposal do not necessitate the activity to be on the application site (being highly productive land) and there are other areas where the activity could be established without needing to be on highly productive land.

5.20 Section 3.9(1) of the policy statement specifies that territorial authorities must avoid the inappropriate use or development of highly productive land that is not land-based primary production. In determining whether a use or development is inappropriate an activity can only be considered appropriate if the proposed activity falls within one of the exceptions in section 3.9(2). In this instance it is not considered the proposal falls within one of the exceptions and accordingly the development of the site for the proposed activity must be avoided.

## **6 Potential Effects of the Proposed Activity**

6.1 On the basis of the above preliminary issues being considered and addressed, if possible, the question remains as to the potential approval of the resource consent. It is recognised that the proposed activity is provided for as a discretionary activity

and as such there are no tests that need to be met. On this basis, and given the points raised in the submissions, I have limited my consideration of the proposal to those areas of specific concern. The potential effects of the proposal are considered to include the following:

### ***Amenity***

6.2 I have previously commented on the effects of the proposed activity on the amenity of the area. It has been identified that users of public areas, particularly roads, will experience a change in amenity and as part of this I note that there are a number of local residents who are likely to pass by the site every day. In addition, property owners in the local area will experience changes to their amenity and these effects will be at least minor and realistically for some, will be more than minor. Effects particularly include noise from the activity and that the combination of the solar panels and plantings will change the character and amenity of the area which traditionally consists of a mix of plantings / shelter belts and open view shafts.

6.3 In my opinion a simplistic view of the activity has been taken with regards to the mitigation of effects on the amenity and character from the proposed activity, ie hide it behind some trees. I do not consider the effects of the activity can be reduced so as to be minor or less and this is a reflection of the fact that it is proposed to establish a large scale activity which is not rural in nature. As previously discussed, this definitely raises issues as to notification and the need to follow an appropriate process but once you get beyond this I would suggest it would be more appropriate to assume the effects of the activity will be more than minor and then work out the best way to incorporate the activity into the area. Don't just try to hide it. This is similar to many of the manmade dams and lakes across New Zealand whereby amenity areas and beautification is undertaken, there can also be an encouragement for education and interaction with the community. You do not try to hide the activity, you manage and enable it to become part of the local area which could include an element of community pride.

6.4 On this basis a change in mindset is required in order to consider the activity in a different manner. For example, changes could include:

- Variations in landscaping, including type and growth heights;
- The maintaining or incorporation of some view shafts;

- Allowing some visibility of the activity;
- Incorporating some internal shelterbelts to reduce the visual scale of the activity;
- Retaining some open areas on the site without solar panels to enhance view shafts;
- Setting back the activity from some neighbours / dwellings;
- Incorporating a public information area and
- Potentially incorporating other rural productive activities.

6.5 While these suggestions may not all appear to directly relate to amenity related effects they all combine to manage the relationship between the activity and the local area such that the amenity provided by the activity changes as peoples perceived amenity also changes.

6.6 As reiterated earlier, the activity is provided for as a discretionary activity. Tests do not have to be met in order to determine whether or not resource consent can be granted and it is not a question as to scale of effects. On this basis, there has been too much focus on attempting to reduce the effects of the activity through hiding it which leads to other effects and instead the focus should be on integrating the activity into the area so that it becomes an accepted part of the landscape and the amenity of the area.

### ***Productivity of Land***

6.7 Again, I have previously discussed the impacts of the proposal on the productivity of the site with reference to the National Policy Statement for Highly Productive Land. It is my opinion that the rural productive potential of the site will significantly reduce. The land will not be capable of producing crops, milk, meat or similar products to the same degree that it can now.

6.8 It is fair to consider this effect to be more than minor but this is only really relevant as to the question of notification. It is recognised that something else will be produced on the site, being electricity such that the site is not sitting dormant, underutilised. The question that does arise is whether those production related

effects are such that consideration should be given to alternative locations and methods for the activity.

### **Noise**

6.9 Noise has been previously discussed and I reiterate there is a difference between noise as a nuisance effect and noise as an amenity effect. A nuisance noise effect could include impacting a persons sleep or causing some form of irritation. An amenity related noise effect could include a heightening of one's awareness of an activity occurring nearby. A common example is a gravel quarry whereby there may be bunding and vegetation but a local resident remains aware that the activity is occurring as they can hear it (such as excavation, processing and vehicle movements) and it is not in character with the environment of the area.

6.10 Mr Mark Lewthwaite has provided acoustic evidence which assesses the composition of the noise and how noticeable it will be. This will include noise from the transformer, the inverters and cooling fans for batteries. It is my understanding that the sounds from the proposed activity will be audible from most surrounding properties some of the time and for some properties most of the time. In understanding this I have conferred with Mr Lewthwaite and he has suggested that the emitted noise from the activity will in effect replace the existing rural sounds of the area.

6.11 In my opinion this will impact local residents, including the submitters and walkers along public roads, and the change in amenity from the noise could be a more than minor effect. I also question whether the processing planner has suitably considered the noise effects of the activity and, on the basis of the noise generated, given adequate consideration to what parties will be affected by the proposal and the scale of effect on them.

6.12 Finally, I also note that the incorporation of batteries as part of the proposed activity will lead to noise from their associated cooling fans. Clarification needs to be provided as to the operation of the batteries including their operation. For example, if the batteries were to operate at night any potential noise effects would be heightened.

### **Contamination**

6.13 Evidence has been provided from Mr Ray Henderson regarding potential contamination related effects from the proposed activity. It is my understanding that if the proposed activity is not suitably managed or controlled, including in a hazard event, contamination related effects could arise. This could have significant impacts on the use of the application site, including productivity, and depending on the scale of such impacts it could render the site no longer being highly productive land.

6.14 The implications of this need to be considered in detail including whether any management procedures are available to adequately address any potential adverse effects.

## **7 Alternative Locations and Methods**

7.1 The fourth schedule of the Resource Management Act in Section 6(1)(a) specifies if it is likely that the activity will result in any significant adverse effect on the environment a description of any possible alternative location or methods for undertaking the activity should be provided as part of the resource consent application.

7.2 Through my evidence I consider that the introduction of the proposal will have a significant adverse effect on the environment. On this basis I consider that further consideration of alternatives is required. As part of this I note that earlier in my evidence I have identified that there are other potential sites which would not be located on highly productive land.

## **8 Objectives and Policies**

8.1 Consideration must be given to relevant objectives and policies in the Operative and Proposed Selwyn District Plans.

8.2 With regards to the Operative District Plan there are a number of objectives and policies but as part of this I note that those provisions regarding the Quality of the Environment include the following:

*Objective B3.4.1: The District's rural area is a pleasant place to live and work in.*

*Objective B3.4.2: A variety of activities are provided for in the rural area, while maintaining rural character and avoiding reverse sensitivity effects.*

*Policy B3.4.1: Recognise the Rural zone as an area where a variety of activities occur and maintain environmental standards that allows for primary production and other business activities to operate.*

*Policy B3.4.3: Avoid, remedy or mitigate significant adverse effects of activities on the amenity values of the rural area.*

*Policy B3.4.6: Maintain low levels of building density in the Rural zone and the predominance of vegetation cover.*

*Policy B3.4.7: Avoid high rise buildings or highly reflective utility structures.*

*Policy B3.4.18: Ensure buildings are setback a sufficient distance from property boundaries to:*

*(a) Enable boundary trees and hedges to be maintained;*

*(b) Maintain privacy and outlook for houses on small allotments; and*

*(c) Encourage a sense of distance between buildings and between buildings and road boundaries where practical.*

8.3 Objectives and Policies in the Proposed Selwyn District Plan include:

*General Rural Zone*

*GRUZ-O1 Subdivision, use, and development in rural areas that:*

*1. supports, maintains, or enhances the function and form, character, and amenity value of rural areas;*

*2. prioritises primary production, over other activities to recognise its importance to the economy and wellbeing of the district;*



*3. allows primary production to operate without being compromised by reverse sensitivity; and*

*4. retains a contrast in character to urban areas.*

*GRUZ-P1 Maintain or enhance rural character and amenity values of rural areas by:*

*1. retaining a low overall building density, and predominance of vegetation cover;*

*2. enabling primary production while managing adverse effects of intensive primary production, and mineral extractive industries;*

*3. managing the density and location of residential development; and*

*4. retaining a clear delineation and contrast between the district's rural areas and urban areas, including Christchurch City.*

*GRUZ-P4 Provide for the economic development potential of the rural area by enabling a range of activities that:*

*1. have a direct relationship with, or are dependent on, primary production;*

*2. have a functional need, or operational need to locate in the rural area;*

*3. represent an efficient use of natural and physical resources; and*

*4. maintain or enhance the character and amenity values of the surrounding area.*

*GRUZ-P7 Avoid reverse sensitivity effects on lawfully established primary production activities.*

8.4 I openly acknowledge that there are other objectives and policies that the Hearings Commissioner should consider, such as those regarding infrastructure, but I wish to make a simple point that the objectives and policies of the District Plans

include provisions seeking to avoid, remedy or mitigate significant environmental effects, maintain rural character and support, maintain or enhance the function and form, character and amenity of rural areas.

8.5 On the basis of my earlier comments regarding the effects of the proposed activity it is considered that the applicant could develop a more comprehensive proposal which better addresses the impacts of the proposal on the character and amenity of the area including integration with the area to remedy potential effects. On the basis of there being opportunities for effects to be better addressed it is suggested that the proposal is not supported by the objectives and policies of both plans.

## **9 Summary**

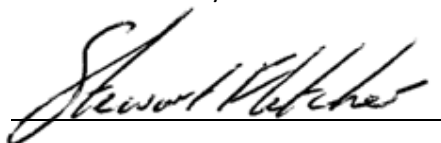
9.1 Overall, it is considered that the resource consent application should have been processed on a publicly notified basis or, at a minimum, other parties should have been notified. On this basis, and in accordance with the provisions of the Resource Management Act 1991, resource consent must not be granted.

9.2 If the question of notification is suitably resolved the next issue needing addressed is the National Policy Statement for Highly Productive Land. It is considered that there is no functional or operational need for the activity to establish on the highly productive land and on this basis the establishment of the activity must be avoided.

9.3 If the questions of notification and the policy statement are both resolved consideration should be given to whether or not resource consent can be granted. It is my opinion that the proposal will have more than minor adverse effects and that the proposal will is not supported by the provisions of the District Plans. This is particularly because not all efforts have been made to address the potential effects of the proposal. On this basis the purpose of the Resource Management Act 1991 would be better given effect to by declining resource consent.

**Stewart Fletcher**

Dated 16 February 2023

A handwritten signature in black ink, appearing to read 'Stewart Fletcher', is written over a horizontal line.

**APPENDIX 1:**  
**Council Notification Assessment**

## Section 95A-E Resource Management Act 1991



Report pursuant to section 42A of the Resource Management Act 1991 recommending whether an application for resource consent should be publicly notified, limited notified or non-notified

Decision pursuant to section 95A-E Resource Management Act 1991

**Author:** Jesse Aimer

**Position:** Consultant Planner

**Resource Consent Number:** RC225180

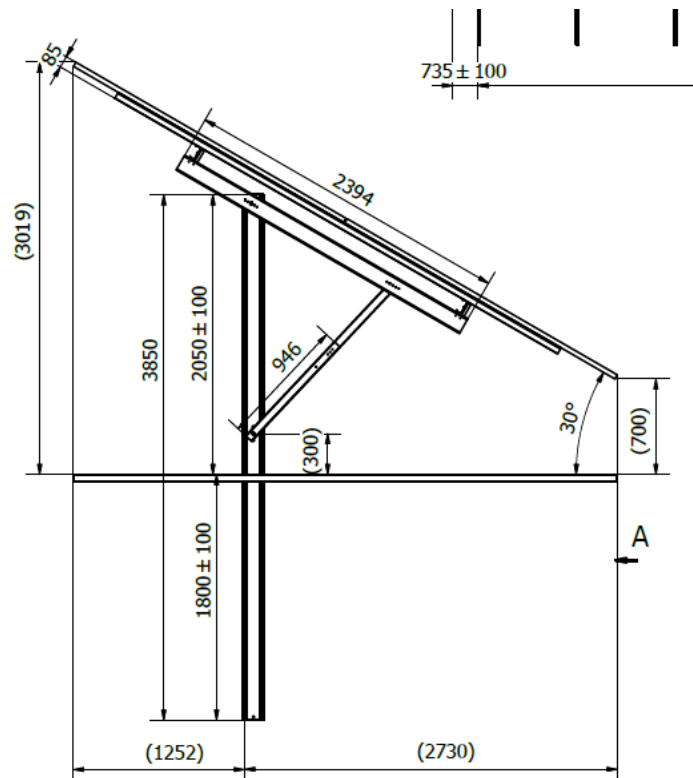
<b>APPLICANT:</b>	KeaX Limited
<b>LOCATION:</b>	115 and 150 Buckleys Road, 821 and 883 Hanmer Road, Leeston 7682
<b>LEGAL DESCRIPTION:</b>	<p>Lot 1 DP 7545 being 20.7857 hectares in area more or less, as contained in Record of Title CB751/93 Rural Section 9855 being 20.2343 hectares in area more or less, as contained in Record of Title CB512/201 Lot 2 DP 387576 being 58.5830 hectares in area more or less, as contained in Record of Title 352257 Rural Section 3658 being 40.4685 hectares in area more or less, as contained in Record of Title CB24F/97 Rural Section 5565 and Part Rural Section 9500 being 75.3273 hectares in area more or less, as contained in Record of Title CB16B/639 Lot 1 DP 54392 and Lot 1 DP 46472 being 73.9641ha in area more or less as contained in Record of Title CB32F/402</p>

## Description of the Proposal

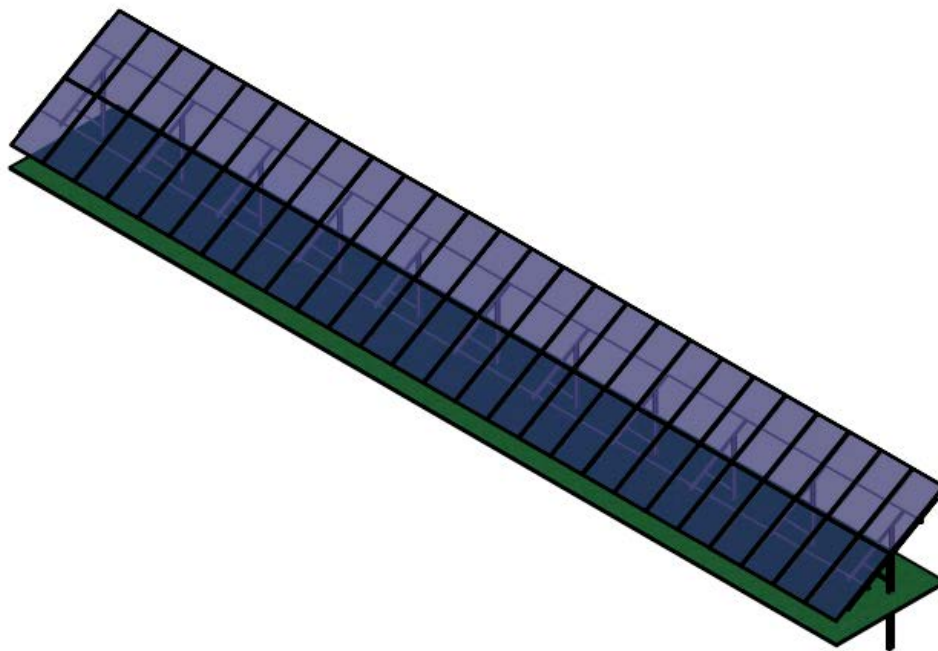
1. The applicant proposes to construct and operate a solar array (solar farm) on a 258ha site in the Rural Outer Plains zone, with a generating capacity of 160 MW on completion. The applicant proposes to feed the electricity into the network via Orion's Brookside Substation located in the north-western corner of the site. The proposal is described in in Section 4.0 (Proposal) of the application, which is considered accurate and is adopted for this report. The key elements of the proposal are set out below.
2. The solar array will comprise of a total (on completion) of 5,844 tables of panels (referred to as 'frames') and 26 'inverters' (technology which converts the current generated by the panels into a form that can be fed into the electricity grid). The proposed layout of the site is shown in Appendix 4 of the application and is reproduced below.



**Figure 1:** Site layout. Source: AEE, Figure 6.



**Figure 2:** Solar Panel Plan. Source: AEE, Appendix 5.



**Figure 3:** Image of solar panel. Source: Appendix 5 of Application.

3. Each table of panels will be set to a maximum height of 3.02m above ground level, with the lowest point of the table being 0.7m above ground level. The proposal is designed to allow sufficient space for internal roading within the site. Sheep grazing will occur underneath the panels to manage grass growth.
4. The solar array is proposed to be constructed in three stages over approximately 3 years. The staging is proposed as follows:<sup>1</sup>
  - a. Stage 1 (22 ha at the north-western corner of the site): Late 2022 – 2023;
  - b. Stage 2 (89 ha in northern and central parts of the site): 2024; and
  - c. Stage 3 (128 ha in the eastern and southern parts of the site): 2025

with the proposal taking approximately 12 months (split over three four-month periods) to complete.

5. Other ancillary infrastructure and equipment includes:
  - a. 1 Single Skid Inverter – 10.2m long, 2.1m wide, and 2.25m high, covering an area of approximately 21.42m<sup>2</sup>.
  - b. 13 Twin Skid Inverters (1 for Stage 1, 5 for Stage 2 and 7 for Stage 3) 9.2m long, 5.4m wide, and 2.35m high, covering an area of approximately 25m<sup>2</sup>.
  - c. Site office as shown in the plans in Appendix 8. This will be a relocatable building 12m in length and 4.198m in width, covering an area of approximately 50.4m<sup>2</sup>
  - d. Storage buildings for retaining equipment and materials on site. These will comprise two 40ft shipping containers approximately 29.7m<sup>2</sup> each (12.19m long, 2.44m wide, and 2.59m high).
  - e. 13 future battery sites (1 for Stage 1, 5 for Stage 2 and 7 for Stage 3). The batteries are not within the scope of this application, but may be installed in the future to manage power fluctuations and store excess energy.

<sup>1</sup> Noting that these are not exact dates at this stage.

6. Landscaping is proposed around the perimeter of the application site with all existing shelterbelts and landscaping, for the most part, being retained. The details of this, along with a landscape plan, are provided within the Landscape and Visual Effects Assessment completed by Boffa Miskell submitted with the application. Additional planting is proposed where there are gaps in the plantings around the perimeter of the site or where planting is minimal. A 3m wide native landscape buffer is proposed to be planted along all site boundaries prior to the construction of Stage 1. Once mature, the existing and proposed plantings would be maintained to a height of 4m, which is approximately 1m higher than the solar farm structures.
7. A 2.1 metre-high 'deer-type' security fence is proposed along the road boundaries and each side of the driveways for the dwellings located at 821 and 889 Hanmer Road. The fence will contain standard fencing wire on top, and be supported by fence posts up to 3m in height. The fencing will be located behind the existing and proposed planting. The entrances to the site will be protected with security gates 2.1m high.
8. No external lighting is required for the site.
9. 16,125m<sup>3</sup> of earthworks will be required to:
  - a. Drive piles up to 1.8m in depth to support the solar panel frames. The piling will be carried out using a pile-driving machine, meaning excavation is not required.
  - b. Trench up to 1m in depth to lay cables.
  - c. Disturb topsoil to prepare areas for the relocatable buildings, inverters and future battery sites.
  - d. Spread gravel to form internal tracks.
10. Vehicle access to the Site both during construction and operation will be via existing vehicle access points on Buckleys Road and Hanmer Road. During construction of each stage, there will be approximately five staff vehicles entering and leaving the site each day, equating to 10 equivalent car movements (ecm). Delivery of materials (including aggregate for tracks, inverters and containers, and the construction materials for the solar arrays) will be made using heavy goods vehicles. Other equipment will be required at times, such as pile driving machinery. The numbers and scale of vehicles will range depending on the deliveries and will require up to 4 trucks to enter and exit the site per day during the construction period, equating to 24 ecm.<sup>2</sup> Informal car parking will be provided within the site.
11. Up to twelve staff would be on site during the peak construction period. During the operational phase, staff will not be required on a permanent basis, with staff occasionally visiting (approximately 1 to 2 per month) to check site operations and carry out maintenance as required. Construction at the site will be restricted to weekdays from 8am to 6pm.
12. The existing dairy farm operations at the site will be phased out as construction moves across the site. Small animals, such as sheep, will continue to graze on the site following construction of the panels.
13. The site contains a Wāhi Taonga Management Site – C59, understood to be a midden. Existing fencing around the Wāhi Taonga Management Site – C59 will remain in place, with a 50m buffer proposed between the site and any earthworks and solar panels.
14. The proposal also requires resource consent from Environment Canterbury and these applications have been lodged. Application CRC223908 relates to the undertaking of earthworks over aquifers and CRC223909 relates to the discharge of operational stormwater to land.

## Description of the Existing Environment

15. The site is located on the Canterbury Plains, approximately 6km north of Leeston, and comprises two adjoining dairy farms held in 7 parcels. The area within the solar farm security fence will include approximately 258ha (as shown in Figure 1 above).

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<sup>2</sup> There will be total of 34 ecm during the construction phase of the project.

16. The sites are owned by the Ward and Price families and are currently utilised for dairy farming. The owners of the site have entered into a lease agreement with KeaX to construct and operate the solar array for 35 years.
17. The site currently contains irrigation infrastructure, several dwellings (which will remain), farm buildings, shelter belts, and a group of trees adjacent to the southwestern boundary. The shelter belt plantings surrounding the site are well established with generally mature plants. However, there are gaps in the shelter belt planting, either where there are smaller shelter belt plants, very young plantings, or no shelter belt planting at all.
18. The site is flat and is consists primarily of pasture grasses. A combination of exotic species including eucalyptus, pine trees and native trees are used for shelter belts and road boundary plantings. Artificial drains run adjacent to the roads surrounding the site. These drains provide a habitat for the Canterbury mudfish.
19. There are currently 2 access locations / vehicle crossings to the site – one off Buckleys road (“vehicle access point 1”) and one off Hanmer Road (“vehicle access point 2”).<sup>3</sup> Vehicle access 1 will be used to access stages 1 and 2, while stage 3 will be accessed from vehicle access point 2.

## Operative District Plan

20. The application site is zoned Outer Plans within the Rural Volume of the Operative District Plan.

RULE	TOPIC	COMPLIANCE
1.2	Earthworks and Contaminated Land	N/A
1.3	Earthworks and Sites of Significance to Tangata Whenua	Complies
1.4	Earthworks and Natural Hazards – Flood Areas	N/A
1.7	Earthworks- Setbacks and Volume	Does not comply
2.1	Shelterbelts and amenity planting	Does not comply
3.6	Buildings and sites of significant to Tangata Whenua	Complies
3.9	Buildings and access and parking	Complies
3.10	Buildings and residential density	N/A
3.11	Buildings and site coverage	Complies
3.12	Buildings and Building Height	Complies
3.13	Buildings and Building Position	Does not comply
3.15	Relocated Buildings	Does not comply

<sup>3</sup> Refer to Appendix 4 of the Application.



4.5	Vehicle Accessways and Vehicle Crossings	Does not comply
4.6	Vehicle parking and cycle parking	Complies
5.1.2	Utilities – Activities	Does not comply
5.2	Height and Setbacks – Utility Buildings	Complies
5.9	Natural Hazards - Utility Structures	N/A
5.11	Utility Buildings and sites of significance to Tangata Whenua	Complies
5.13	Waterbody setbacks- utility structures and utility buildings	Complies
9.2	Activities – Listed Activities	N/A
9.4	Scale of Non-Residential and Non-Rural Activities	N/A
9.12	Activities and Carparking, Vehicle Crossings, Access and Egress	Does not comply
9.13	Activities and Vehicle Movements	Complies
9.16	Activities and Noise	Complies
9.19	Activities and Dust	Complies

21. Rule 1.7.1.2 limits the volume of earthworks to 5000m<sup>3</sup> per project. The applicant has estimated that the proposal would involve earthworks of approximately 16,125m<sup>3</sup>. In accordance with Rule 1.7 the earthworks associated with the proposal are therefore a **Discretionary Activity**.
22. Rule 2.1 of the District Plan does not permit shelterbelts and amenity plantings if they shade any part of the road carriageway between 1000 and 1400 hours (inclusive) on the shortest day of the calendar year or any property under different ownership between 1000 and 1400 hours on the shortest day of any calendar year. The applicant has provided shading diagrams which confirm shading of Branch Drain Road, Hanmer Road, and Buckleys Road will occur, meaning the proposal will not comply with Rule 2.1.1.5(a). While no shading diagrams have been provided in relation to adjoining properties under different ownership, given the 4m height the perimeter plantings would be grown and maintained to, I consider it likely shading of two adjoining properties would also occur and, as such, the proposal would not comply with Rule 2.1.1.5(b). In accordance with Rule 2.1.6 this aspect of the proposal is therefore a **Restricted Discretionary** activity.
23. Rule 4.5.1 requires the formation of any vehicle crossing to comply with the requirements of Rule 4.5.1, Appendix 10. Taking a conservative approach, I consider that the scale of the (proposed) change of use in the site (and, correspondingly, changes to the use of the vehicle crossing) to require the use of commercial and trucking vehicles means that the vehicle crossings no longer have existing use rights, and therefore will need to comply with Rule 4.5.1. I note that the proposal results in the following breaches of this rule:
- Both vehicle does not meet the requirements of Appendix E10.2.2 Table E10.3 (Distances of vehicle crossings from road intersections) which requires a minimum setback of 60m for local roads. Vehicle Crossing 1 is located approximately 53m from a five-way intersection between

Buckleys, Branch Drain, Irwell Rakaia, Dunsandel and Brookside, and Stewarts Roads. 'Vehicle Crossing 2' is located adjacent to the Hanmer and Caldwell's Road intersection.

- b. Both 'Vehicle Crossing 1' and 'Vehicle Crossing 2' do not comply with the formation requirements of E10.2.4.2, Diagram E10.D (Commercial or heavy vehicle access).

Overall, given the non-compliances with Rules 4.5.1.2 and 4.5.1.3, the proposal is a **Discretionary Activity**.

24. The solar array and inverters are considered to fall within the definition of a 'utility'<sup>4</sup> under the District Plan. The table supporting the solar array is considered a 'utility structure'<sup>5</sup>, while the site office and storage containers are captured under the 'utility building'<sup>6</sup>
25. In determining the applicable rules applying to utilities, it is important to note the following, which is taken from the introductory 'notes' of Chapter 5 Rural Rules- Utilities:

*The undergrounding or ducting of any utility is permitted subject to compliance with [Rule 1- Earthworks](#), except where the provisions of [Rule 1.6 \(Earthworks and Protected Trees\)](#) apply.*

*The Rules in the Rural Volume of this Plan are applicable to activities generally, including utilities. However, the rules under [Rule 3 Buildings](#), [Rule 4 Roding](#) and [Rule 9.4 Scale of Non-Residential and Non-Rural Activities](#) do not apply to utilities, except the following:*

*Rule 3 Buildings:*

- [Rule 3.15.1 Relocated Buildings](#)
- [Rule 3.9.1.1 Access and Parking](#)
- [Rule 3.13.1.2 Line of sight – railway crossings](#)

*Rule 4 Roding:*

- [Rules 4.5.1.2 – 4.5.1.5 Roads, Accessways and Vehicular Crossings](#).
- [Rules 4.6 Parking](#)
- [Rule 4.1.1 Outstanding Landscapes](#)

26. In accordance with the above, the buildings and associated infrastructure on the site is to be assessed under the utilities chapter (C5- Utilities). Rules 3, 4 and 9.4 are not applicable to utilities, except for those rules listed above.
27. Rule 5.1 of the District Plan (Utilities and Activities) permits utilities if they meet the requirements of Rule 5.1.1 to 5.1.2. As the solar array would generate electricity that would not be used on the Site, the

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<sup>4</sup> includes the use of any structure, building or land for any of the following purposes:

(a) The generation, transformation and/or transmission of energy, ...

<sup>5</sup> includes any device, equipment or other facility which is used principally to house or support a utility including any antenna, mast, pole or pylon; or any structure housing a utility which is less than 10m<sup>2</sup> in gross floor area, or less than 2.5m in height.'

<sup>6</sup> includes any building or part of any building which is a utility or which is used principally to house or support a utility; and that building is 10m<sup>2</sup> or more in gross floor area and 2.5m or greater in height'.

Note that 'Building' has the following definition:

*"means any structure or part of any structure whether permanent, moveable or immovable, but does not include any of the following:  
Any fence or wall of up to 2m in height.*

...

*Any structure which is less than 10m<sup>2</sup> in area and 2m in height.*

*Any vehicle, trailer, tent, caravan or boat which is moveable and is not used as a place of storage, permanent accommodation or business (other than the business of hiring the facility for its intended use).*

*Any utility structure.*

Note:

*A utility structure is excluded from the definition of 'building' under this District Plan. However, such a structure is subject to the requirements of the Building Act and may require a Building Permit under that Act.*

*A utility building falls under the definition of a building if it does not constitute one of the structures listed under 'Building'."*

proposal does not comply with Rule 5.1.2.4. In accordance with Rule 5.1.3 this aspect of the proposal is therefore a **Discretionary Activity**.

28. Buildings are proposed to be relocated onto and will remain permanently on the Site. This requires resource consent for a **Controlled Activity**.
29. Rule 9.16.6.3 provides that the noise limits contained in Rule 9.16.1 do not apply to any temporary activity which operates between the hours of 7.00am and 9.00pm. The ODP defines “*temporary activity*” as including (relevantly) “*Buildings, structures and activities ancillary to a construction period of up to 12 months or the duration of the construction project, whichever is the lesser*”. Given the applicant proposes to complete the construction of the project across three four-month periods, I consider that the noise limits in the ODP do not apply to this application. In terms of construction noise, the application is therefore a **Permitted Activity**.
30. Rule 3.13.1 permits buildings that meet specified boundary setbacks. Table C3.2 requires accessory buildings (which include fences greater than 2m in height) to be setback 5m from the property boundary and 10m from roads. It is understood that the fences will be set back 10 metres the road boundaries, but will be within 5m of neighbouring properties. The Plan requires that a resource consent be obtained for this activity, but does not classify the status of the activity. In accordance with section 87B(1)(b) of the RMA, this requires resource consent as a **Discretionary Activity**.
31. Overall, the proposal is a **Discretionary Activity** under the Operative District Plan.

## Proposed Selwyn District Plan (Notified 05 October 2020)

32. No decisions have yet been made on the Proposed Plan (PDP). The site is located within the General Rural Zone in the PDP, and is located within the EIB Mudfish Habitat and EIB Management overlays.
33. There are no rules with immediate legal effect that apply to this proposal.

## National Environmental Standards

### National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health

34. The NES manages activities which involve the disturbance of land which may be contaminated. This is determined by whether activities have or are likely to have occurred on the site, which are listed in the Hazardous Activities and Industries List (HAIL).
35. Historical images show that there is an old farm shed and homestead that coincides with the location of one of the inverters. Based on advice received from Environment Canterbury,<sup>7</sup> It is likely that the site has been host to activities listed in the HAIL (being the storage of bulk hazardous substances ‘A’).
36. As the site has been used to store bulk hazardous substances, the NES applies to activities on the site.
37. Assuming the proposal complies with Regulation 8(3),<sup>8</sup> it will be a **Permitted Activity** in terms of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health.

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<sup>7</sup> Email from Madeline Sinha to Charlotte Scotchbrook dated 16 May 2022.

<sup>8</sup> This has been confirmed by the applicant (Form 1 PLG dated 22 May 2022).

## Public Notification

### Step 1 – Mandatory public notification

38. Does the application meet any of the following criteria?

		Y	N
1.1	The applicant has requested public notification	<input type="checkbox"/>	✓
1.2	Public notification is required under section 95C RMA (no response or refusal to provide information or agree to the commissioning of a report under section of the 92 RMA)	<input type="checkbox"/>	✓
1.3	The application has been made jointly with an application to exchange recreation reserve land under section 15AA of the Reserves Act	<input type="checkbox"/>	✓

If the answer is yes, **public notification is required**

If the answer is no, continue to **Step 2**.

### Step 2 – Public notification precluded in certain circumstances

39. Does the application meet either of the following criteria?

		Y	N
2.1	All activities in the application are subject to one or more rules or national environmental standards that preclude public notification	<input type="checkbox"/>	✓
2.2	The application is for one or more of the following, but no other types of activities		
	• A controlled activity	<input type="checkbox"/>	✓
	• A restricted discretionary, discretionary or non-complying activity that is a boundary activity	<input type="checkbox"/>	✓

If the answer is no, continue to **Step 3**

If the answer is yes, continue to **Step 4**

### Step 3 – Public notification required in certain circumstances

40. Does the application meet either of the following criteria?

		Y	N
3.1	Any activity in the application is subject to a rule or national environmental standard that requires public notification	<input type="checkbox"/>	✓
3.2	The activity has, or is likely to have, adverse effects on the environment that are more than minor in accordance with section 95D of the RMA ( <i>complete section 95D assessment, section 5 to this report</i> )	<input type="checkbox"/>	✓

If the answer is yes, **public notification is required**

If the answer is no, continue to **Step 4**

#### Step 4 – Public notification in special circumstances

		Y	N
4.1	Do special circumstances exist in relation to the application that warrant public notification?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If the answer is yes, **public notification is required**

If the answer is no, continue to **Step 5**

### Limited Notification

#### Step 1 – Certain affected groups and affected persons must be notified

41. Does the application meet any of the following criteria?

		Y	N
1.1	There are affected protected customary rights groups	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.2	There are affected customary marine title groups (in the case of an application for a resource consent for an accommodated activity	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.3	The proposed activity is on or adjacent to, or may affect, land that is the subject of a statutory acknowledgement made in accordance with the Act specified in Schedule 11 of the RMA; and the person to whom that statutory acknowledgement is made in accordance with an Act specified in Schedule 11 of the RMA; and the person to whom the statutory acknowledgement is made is affected under s95E of the RMA	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If the answer is yes, **notify the application to each affected group/person and continue to Step 2**

If the answer is no, continue to **Step 2**

#### Step 2 – Limited notification precluded in certain circumstances

42. Does the application meet either of the following criteria?

		Y	N
2.1	The application is for a resource consent of 1 or more activities, and each activity is subject to a rule or national environmental standard that precludes limited notification	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.2	The application is for a controlled activity (but no other activities) that requires a resource consent under a district plan (other than a subdivision of land).	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If the answer is yes continue to **Step 3**

If the answer is no continue to **Step 4**

### Step 3 – Certain other affected persons must be notified

43. Are any of the following eligible persons affected under section 95E of the RMA?

		Y	N
3.1	In the case of a boundary activity, an owner of an allotment with an infringed boundary	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.2	A person prescribed in regulations made under section 360H (1)(b) of the RMA (if any) in respect to the proposed activity	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3	For other activities, are there any affected persons in accordance with section 95E of the RMA ( <i>complete section 95E assessment, attachment 2 to this report</i> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If the answer is yes, **notify the application to each affected group/person and continue to Step 4**

44. If the answer is no, continue to **Step 4**

### Step 4 – Limited notification in special circumstances

		Y	N
4.1	Do special circumstances exist in relation to the application that warrant notification to any persons not already determined to be eligible for limited notification (excludes persons assessed under section 95E of the RMA as not being affected?)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Section 95D Assessment – Environmental Effects

45. Section 95D sets out the relevant considerations for determining whether adverse effects on the environment are likely to be more than minor for the purposes of making a decision on notification.

#### **95D Consent authority decides if adverse effects likely to be more than minor**

*A consent authority that is deciding, for the purpose of section 95A(8)(b), whether an activity will have or is likely to have adverse effects on the environment that are more than minor—*

- (a) *must disregard any effects on persons who own or occupy—*
  - (i) *the land in, on, or over which the activity will occur; or*
  - (ii) *any land adjacent to that land; and*
- (b) *may disregard an adverse effect of the activity if a rule or national environmental standard permits an activity with that effect; and*
- (c) *in the case of a restricted discretionary activity, must disregard an adverse effect of the activity that does not relate to a matter for which a rule or national environmental standard restricts discretion; and*
- (d) *must disregard trade competition and the effects of trade competition; and*

- (e) *must disregard any effect on a person who has given written approval to the relevant application.*

## Discussion

### *Permitted Baseline*

46. The consent authority may disregard an adverse effect of the activity on a person if a rule or national environmental standard permits an activity with that effect (a “permitted baseline”). The application of the permitted baseline is discretionary and case law has established that the permitted baseline test relates to the effects of non-fanciful hypothetical activities which could be carried out as of right under the District Plan, as well as any existing lawfully established activity on the site or any activity for which resource consent has been granted. I consider the following activities to be relevant to the permitted baseline:
- Any buildings can be constructed to a height of 8m, with any utility building permitted to a height of 12m.
  - Any fence over 2m high bordering a road is permitted (provided there is a 10m setback to the road boundary).
  - Any construction noise for a period of up to the lesser of 12 months or the completion of the project.
  - The removal of shelterbelt vegetation at the site is a permitted activity.

### Assessment

47. As a Discretionary Activity the Council's assessment is unrestricted and all actual and potential effects of this proposal must be considered.
48. It is in my view that, in considering the wider environment that is ‘non-adjacent’, any adverse effects resulting from this proposal relate to:
- Rural character and visual amenity
  - Glare and reflectivity
  - Traffic
  - Noise
  - Reverse sensitivity
  - Earthworks and dust
  - Loss of productive soils
  - Tangata Whenua/ cultural site
  - Safety, including potential fire risk
  - Land contamination
  - Shading
  - Ecological effects
49. The proposal would involve the discharge of stormwater to land which falls under the jurisdiction of the regional council (Environment Canterbury) and the appropriate consents have been applied for.

### ***Landscape and visual effects / rural character and amenity effects***

50. The AEE contains a visual amenity and landscape assessment in section 6.2, and is accompanied by a landscape and visual amenity assessment prepared by Boffa Miskell. The Council engaged a registered landscape architect, Graham Densem, to review the Boffa Miskell landscape assessment.
51. The site is located within a highly modified rural landscape characterised by several forms of linearity, including shelterbelts and paddocks. It is not located within any landscape or character overlays<sup>9</sup> in any relevant planning documents, but does possess a distinctive rural character that is sensitive to changes in character and land use. The Boffa Miskell landscape assessment assesses the following rural amenity values as applying to the site:

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<sup>9</sup> Such as an outstanding natural landscape or visual amenity landscape.



- i. Expansive areas of open pasture which creates a sense of spaciousness and openness.
- ii. A general lack of structures and buildings
- iii. A distinct linearity provided by established shelterbelts and fenced paddocks.

Mr Densem would add an additional value, being a sense of relative naturalness from the predominant green of the grass and trees.

52. The proposal will result in a significant change to the use of the site, with the site gradually transitioning from a rural productive landscape to that of a landscape containing energy infrastructure. With a total of approximately 258ha of solar panels proposed, the scale of the project is significant, being larger than the nearby township of Leeston.<sup>10</sup> While the solar panels would be spaced to accommodate internal roading and to allow for sheep to graze, the panels and supporting infrastructure will dominate the site.
53. As illustrated by the Visual Simulations, dated 1 September 2022, and provided by Boffa Miskell during the construction phase there would be open views onto the application site of the panels and framing and the presence of the large-scale operation would be apparent. The vegetation planted at the boundary of the site is estimated to take 4 years to fully establish, with the visibility of the structures gradually reducing over this period as the plants mature and become denser. Once fully established, the boundary vegetation will largely eliminate any visibility of the panels. Some panels may remain visible through the two entrances, but any visibility is likely to be relatively fleeting.
54. The addition of 2.1m high chain link security fencing around the perimeter of the site at the beginning of the site's development, which would include the placement of wiring along the top of the fencing and posts of up to 3m, will contribute to visual awareness of a non-rural activity operating from the site. To an extent this will be mitigated by the location of the fence behind the boundary landscape buffer.
55. I agree with Mr Densem that the proposal will result in a relatively significant change to the character of the landscape. However, while the proposal may result in a significant change to the character of the site, I agree with the comments in the Boffa Miskell assessment that this does not necessarily correspond to a significant effect. An assessment of the effects on the environment of the proposal is not something to be made in a vacuum – it is to be made in the context of the District Plan and Resource Management Act 1991 (RMA). The District Plan is the method within which the community expresses the qualities and characteristics of an area.
56. The RMA defines 'amenity values' as being '*those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes*'. I agree with Mr Densem that potential adverse effects of the proposal on rural amenity is not just limited to what can be seen, and that consideration also needs to be given to the qualities and characteristics of the landscape that people value.
57. Mr Densem notes that the tree pattern of the site would be significantly altered by the removal of shelterbelts and plantings and that existing spatial compartments would be opened to one large compartment of solar panels and that more winds would likely penetrate to ground level within the site and on adjoining properties. This would alter the key amenity values listed in paragraph 52 (above). I agree with Mr Densem that the removal of the internal shelterbelts within the site will alter the 'spatial compartment' of the site, but these effects will be contained within the site. Although I generally agree with Mr Densem's comments regarding the removal of the internal shelterbelts, I make the following observations:
  - a. internal shelterbelts to be removed are not protected under the ODP, meaning they can be removed as of right.
  - b. There are large open expanses of land within the vicinity of the site.
  - c. I agree with Boffa Miskell that the additional planting proposed is a benefit – and, as the planting matures, will directly mitigate the effects caused through the loss of any existing vegetation.

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<sup>10</sup> As at 2015, based on the Ellesmere Area Plan.



58. In determining the significance of the change in use of the site, I note that the landscape surrounding the site is not 'protected' in the ODP. This contrasts with land identified in the plan as being an 'outstanding natural landscape'<sup>11</sup> (such as the area surrounding Te Waihora/Lake Ellesmere, or in the High Country), a 'visual amenity landscape',<sup>12</sup> nor an area identified as being particularly valued for its rural amenity (such as the area of land between West Melton and Tai Tapu).<sup>13</sup> However, I do accept that the site possesses a distinctive rural character sensitive to changes in character and land use – and this character will be changed by the proposal. On balance, considering the nature of proposal, extent of change, and context of the landscape, I consider that the adverse effects of the proposal on landscape character and values will be minor.
59. I note that any effects of the proposal must be disregarded on owners/occupiers of the subject site and adjacent land. Given the flat topography of the site, I consider that the any adverse visual effects are likely to be limited to those members of the public using the roads within the vicinity of the site. I consider that the visual effects on public locations within the vicinity of the site (being Buckleys, Branch Drain, Grahams and Hanmer/Caldwells roads) will be minor, reducing to less than minor as the shelterbelts establish and mature. The visual effects of the array are likely to be largest during Stage 1 (particularly from Branch Drain Road) due to the plantings being less mature, but the plant growth will not obscure the construction of Stages 2 (which will primarily be visible from Buckleys Road) and 3 (which will primarily be visible from Hanmer/Caldwells and Grahams roads). In addition to the factors mentioned above, I note that relatively short duration within which road users will see the solar array will reduce any adverse visual effects experienced.
60. Mr Densem comments on the potential cumulative effect were multiple solar farms to establish within the vicinity of the site. This is a potential cumulative potential effect which I cannot consider.
61. The applicant has stated it is their intention to decommission the site if the solar farm ceases operation after the 35-year lease period. If the application was approved the applicant has volunteered a condition of consent requiring that the solar array be decommissioned within 12 months. This will prevent any permanent effects on the landscape beyond the expiry of the consent.
62. For the above reasons, I consider that the proposal will result in minor adverse landscape and visual/rural character and amenity effects on the environment.

### ***Glare and reflectivity***

63. The applicant has provided a solar photovoltaic glint and glare report prepared by Pager Power to assess potential glint and glare effects. The Pager Power Report has been peer reviewed by Rudi Van der Velden. Both assessments were undertaken on the basis of there being no mitigation (in the form of vegetation or other matter to obstruct the glare). There is no New Zealand-based methodology for assessing glint and glare effects. However, Pager Power have developed a methodology for assessing glint and glare effects that has been used to undertake over 900 glint and glare assessments world-wide, including for a proposed solar farm near Te Aroha that was recently approved under the COVID-19 Recovery (Fast-Track Consenting) Act 2020.
64. The Pager Power assessment concludes that the proposed solar array will have:
- No significant impacts upon road users, due to the low traffic density of the local roads in the vicinity of the site. Mr Van der Velden does not agree with this assessment, noting that a glare

<sup>11</sup> Policy B2.2.5(a) of the ODP seeks to "Avoid siting utility structures or buildings on hilltops in the margins of lakes or rivers or in areas identified as outstanding natural features and landscapes, sites with special cultural values (Silent File Areas, Wāhi Taonga Sites and Management Areas or Mahinga Kai Sites) or Heritage Sites in the Plan, unless operational necessity makes this impractical."

<sup>12</sup> Policy EI-P2 of the PDP seeks to "Minimise the adverse effects of important infrastructure, and renewable electricity generation on the physical and natural environment by... limiting the presence and effects of development within Outstanding Natural Landscapes, Visual Amenity Landscapes, areas of significant indigenous vegetation and habitats of indigenous fauna, sites of historic heritage and site and areas of significance to Māori to those which....

a. are recognised as important infrastructure; and

b. can demonstrate an operational or functional requirement for the location; and

c. can demonstrate through site, route or method selection the minimisation of effects on the environment; and

d. integrate design measures and management methods to mitigate adverse effects.

<sup>13</sup> Policy B1.4.17 of the ODP, which seeks to "Recognise that the land between Christchurch City and a line extending from West Melton to Tai Tapu is identified in the RPS as providing a 'rural' landscape in contrast to the 'urban' landscape of Christchurch City."

analysis is required regardless of the traffic density of the road. I agree with Mr Van der Velden's reasoning and assess this matter further below.

- b. No significant impact on aviation activity associated with Christchurch Airport, due to the size of the proposal and distance from the airport. Mr Van der Velden is in strong agreement with this assessment.
- c. No impact on nearby dwellings, due to existing and proposed planting. Mr Van der Velden is in general agreement with this assessment. This matter is discussed further in the limited notification section of this report.

65. In relation to Christchurch Airport, I accept the report's findings that there will not be any impact on the operation of the ATC tower, nor on runway thresholds 02, 02G, 11 and 29. The solar array will be within the pilots main field of view for the approach to runway thresholds 20 and 20G, but accept that, in a worst-case scenario, any reflections would have a 'low potential for temporary after image'. The Impact Significance definition in Appendix D describes 'low' as meaning: *"A solar reflection is geometrically possible however any impact is considered to be small such that mitigation is not required e.g. intervening screening will limit the view of the reflecting solar panels."* In light of this definition, and given the distance of the proposal from the airport, I am satisfied that the effects of the glare on Christchurch Airport will be less than minor.
66. Mr Van der Velden assessed the effects of glare on four roads to the north of the site. He found that glare conditions on Dunsandel and Brookside Road (some glare conditions in the morning) and Buckleys Road (significant glare conditions) could be expected where there are insufficient obstructions such as vegetation to shield glare effects from the photovoltaic rays, and this could pose a health and safety risk – notably at the intersection of these two roads. However, Mr Van der Velden notes that most of any potential glare is expected to be obstructed by the existing shelterbelts and vegetation. It is expected that the glare will be fully mitigated once the landscaping has matured to a height of at least 2 metres.
67. Given the extent of existing planting on the northern boundary of the site, the timing of the stages and the proposed planting, I consider that there is a potential minor effect of the glare on traffic.

### **Traffic safety and amenity effects**

#### **Traffic safety**

68. Vehicle access to the site during both construction and operation will be through existing vehicle access points on Buckleys and Hanmer Roads. During the construction phase, vehicles will access the site from the vehicle access on Buckleys Road, with Stage 3 being accessed through the existing vehicle crossing on Hanmer Road. Both Buckleys Road and Hanmer Road are formed and sealed local roads under the District Plan and, as such, 60 equivalent car movements are permitted per day (averaged over a one-week period) for the activity.
69. The AEE provides that, during the construction period, there will be five staff vehicles (equating to 10 ecm) and four heavy goods vehicles (equating to 24 ecm) entering and exiting the site each day. Overall, it is therefore estimated that there would be no more than 34 equivalent car movements per day and when averaged over seven days, which the District Plan allows for, the total number of equivalent car movements per day would not exceed 24. The applicant proposes to limit the hours of construction from 8am to 6pm Monday to Friday.
70. As each stage of construction commences across the application site, vehicle movements associated with the existing farming operation on the site would reduce. Vehicle movements generated by the existing dwellings and residential activities within Stage 3 would however continue to occur. Whilst these vehicle movements have not been included in the above calculation, it is not anticipated that this would result in the permitted number of vehicle movements being exceeded for the site.
71. Once all three stages of the solar array are complete, its ongoing maintenance and operation will be a largely passive activity, with approximately four vehicle trips per month.
72. To minimise potential adverse traffic effects on the adjoining roading network during the construction phase car parking and manoeuvring for all light and heavy vehicles would occur onsite. This would reduce

the potential for conflict with other road users to occur and would minimise any adverse amenity effects which may otherwise arise if vehicles were to park within the road reserve.

73. The applicant proposes two vehicle entrances to the site which would be used throughout the construction and the operational phase of the solar array. When considering the potential adverse effects on traffic safety and efficiency it is therefore important to consider whether the standard to which the existing vehicle crossings are formed are suitable to cater for the type and volume of traffic proposed.
- a. With regards to 'vehicle crossing 1', which would service Stages 1 and 2 the applicant has agreed to upgrade the existing crossing to comply with Appendix E10.C1, as requested by the Council's Transportation Department. However, the crossing is located only 53m from the nearest intersection.
  - b. In relation to 'vehicle crossing 2' located on Hanmer Road, the location of the vehicle crossing would not meet the 60m separation distance required from the intersection of Hanmer and Caldwell's Roads, and it would not be formed to the required commercial and heavy vehicle standard of Appendix 10 E10.D of the District Plan.

Despite the above, the Council's Transportation Department have reviewed the application and the only upgrade they consider necessary is for the vehicle crossing to be sealed to at least the property boundary or a distance of 10m, whichever is the lesser of the two.

74. Following comments from the Council's Transportation Department, I consider that the standard to which the vehicle crossings would be formed would be sufficient to cater for the volume of traffic generated during the construction and throughout the operational phase of the solar array. During the construction phase, as vehicle movements to and from the site would be spread out across the day this would minimise the potential for conflict to occur at the vehicle entranceways to the site. The adjoining roading network also caters for relatively low levels of traffic and other road users should have sufficient visibility of vehicles entering and exiting the vehicle crossings to the site from the vehicle crossings.
75. Overall, for the reasons discussed above, I consider that the adverse traffic safety effects of the proposal will be less than minor.

#### *Traffic amenity*

76. In addition to the above, traffic generated by the proposal has the potential to adversely impact upon the amenity values of adjoining and nearby owners and occupiers as a result of there being a noticeable increase in the concentration of traffic and vehicle noise on nearby roads and on the site.
77. In relation to noise nuisance effects associated with vehicles entering and exiting the site, I consider that noise and vibration associated with trucks slowing down and speeding up during construction would likely have the greatest impact on adjoining and adjacent property owners and occupiers. However, as discussed above, truck movements to and from the site would be spread out throughout the day and the number of trucks movements is anticipated to be relatively low with the total number of vehicles movements that would be generated by the activity being compliant with the District Plan. Whilst the construction period would extend over a number of years it is anticipated that each stage would only take 3 to 4 months to complete.
78. Noise associated with the loading and unloading of materials from trucks onsite is discussed in the later in this report as part of my assessment on noise and vibration effects.
79. For the reasons discussed, I consider that the proposal would have less than minor adverse traffic amenity effects.

#### **Earthworks and dust**

##### *Construction period*

80. Earthworks are proposed to drive piles to support the solar panel frames, trench to lay cables connecting the frames of the solar panels together, disturb topsoil to prepare areas for the locatable buildings, contains, inverters and future battery sites, and spread gravel for form internal tracks.
81. There is potential for dust to be generated during the construction of the Project due to the exposure and stockpiling of soil and movement of construction machinery, which may create potential effects on the surrounding environment. Dust effects on the environment may include the exposure of soil surfaces and

movement of construction machinery across these surfaces, creating the potential for mobilisation of dust particles and subsequent air quality effects, especially during dry and windy conditions. Dust may also be generated where internal tracks are not properly maintained.

82. To minimise potential dust nuisance effects on adjoining and adjacent landowners and occupiers and to minimise the migration of sediment offsite during construction, the applicant proposes to manage earthworks through the use of a Sediment Control Plan (SCP) that will incorporate a Dust Management Plan. The measures within the SCP are set out at pages 12 and 13 of the AEE, and will be generally in accordance with the Environment Canterbury (ECan) Erosion and Sediment Control Online Toolbox for erosion and sediment control.
83. In addition to the SCP, the staging of the development would also assist with minimising the potential for dust nuisance effects to arise by limiting the volume and physical extent of soil disturbed on the site at any one time. The application states that there is no requirement for large stockpiles and that if any stockpiles are proposed they would be located away from adjoining property boundaries. The internal tracks/accessways would be informal and no soil scraping is proposed to establish these.
84. The earthworks associated with each stage would be visible from a number of adjoining properties and the road to varying degrees. However, I consider that any adverse visual effects would be minimal due to the staging of the development and timeframe of each stage. Views of the earthworks would diminish across the site and once the installation of the panel framing and panels commence the infrastructure would likely dominate the site to a greater extent than the earthworks.

#### *Ongoing management*

85. To minimise the potential for dust nuisance effects to arise throughout the operational period grass cover would be maintained on the site and if required the internal tracks would be gravelled to manage potential dust and sediment effects. The application states that no stockpiling of material is proposed (page 11).
86. Clarification was sought from the applicant as to whether the maintenance of grass under the solar panels would be achievable and the applicant considers that it would be although it may overtime become patchy in parts. This is supported by photographs of an existing area of the application site that has solar panels erected on it.
87. Given the example provided by the applicant which indicates that a sufficient amount of grass should be able to be maintained under the panels I consider that dust nuisance effects should not be an issue. Due to this being a rural environment I consider that a small amount of dust is also not unexpected.

#### *Conclusion*

88. Overall, I consider that the adverse effects of earthworks and dust could be appropriately managed so that any effects of earthworks and dust resulting from both the construction and operation of the solar array will be less than minor and not be offensive or objectionable beyond the boundaries of the site.

#### **Noise and vibration**

89. Potential noise effects associated with the construction and operation of the solar array have been provided in the Assessment of Environmental Noise Effects report by Acoustic Engineering Services, (AES) which has been peer reviewed by Marshall Day.

#### *Construction noise assessment*

90. The AES report provides that the key sources of noise generated during the construction of each staging would be associated with piling, civil works, panel construction and tree clearing. The applicant proposes to limit the hours of construction from 8am to 6pm Monday to Friday. Although construction activity would move around the site, AES have modelled noise associated with piling, civil works, panel construction, and tree clearing at the closest distance to each adjoining receiver (dwelling) to capture a worst-case situation. The results of this modelling are attached as Appendix B of the AES report.
91. The District Plan exempts noise associated with a construction project not exceeding a 12-month duration from having to comply with the District Plan noise limit – and accordingly the effects of construction noise complying with this exception can be disregarded.
92. On the basis that the construction period is limited to three four-month periods (12 months total), I consider that the construction noise effects will be less than minor.



### *Operational noise assessment*

93. During the operational phase the key sources of noise would be the inverters, batteries, and transformers. Noise would also be generated at times from staff or maintenance workers visiting the site. The applicant proposes to operate the noise-emitting items of the solar farm between 7.30am to 8.00pm, seven days per week.
94. Rule 9.16.1 of the District Plan sets out the permitted noise levels at the notional boundary of any dwelling not located within a living zone. These noise restrictions are in place to reduce potential adverse effects of noise from activities on amenity.
95. It is expected that the day to day operation of the solar array would comply with the District Plan daytime noise standards in Rule 9.16.1, being 60dBA L10, and 85 dBA Lmax at the notional boundary of existing dwellings on adjoining sites (even taking into consideration adjoining sites that could erect a dwelling as of right).
96. The highest predicted level of noise is 48 dB LAq at 324 Branch Drain Road and 47 dB LAq at 870 Hanmer Road. MDA, in their peer review to Council, conclude that although underlying ambient noise levels have not been assessed by AES the predicted noise levels are below the World Health Organisation limits for the protection of residential amenity, being 50dB LAeq (16 hours) to prevent moderate annoyance. It is therefore considered that the operational noise effects of the proposal, including on the owners and occupiers of adjoining sites, would be less than minor.

### **Contaminated land**

97. As addressed above, it is considered that a HAIL activity occurred at the shed on 821 Hanmer Road. The Applicant has confirmed their compliance with Regulation 8.3 of the NES. To further reduce any adverse effects, the applicant has agreed to the following conditions to ensure that any potential adverse effects are managed:
- a. Any disturbed soil in the vicinity of the shed on 821 Hanmer Road is retained to that area and stabilised to an erosion resistant state within one month.
  - b. That soil disturbed during earthworks in the shed area on 821 Hanmer Road should not be deposited elsewhere on the wider site.
98. On the assumption that the applicant complies with the NES and the offered consent conditions, I consider that the proposal can be managed so that any effects will be less than minor.

### **Loss of productive soils**

99. Based on mapping information available to Council the application site contains Land Use Capability Class 2 soils in the north and Class 3 in the south. The National Policy Statement for Highly Productive Land categorises Land Use Capability Classes 2 and 3 as being highly productive and requires this land to be protected from inappropriate use and development. The proposal would result in the conversion of a site used for rural production purposes to one covered in solar panel infrastructure that has sheep grazing underneath and in between the panels. Whilst the grazing of sheep would still be supporting primary production, the productive potential of the land would be significantly reduced.
100. Although the area of the site is significant, I do not consider that the reduction in productive potential of the land constitutes a more than minor adverse effect. I note that, in contrast to other land uses, any productive loss will be temporary and reversible following the expiry of the 35-year term – meaning that the land could be used for more productive purposes once the solar array reaches its end of life.

### **Reverse sensitivity**

101. Reverse sensitivity effects have the potential to arise when incompatible activities are located in close proximity to one another. Much of the adjoining land is used for grazing purposes, and I consider there is a risk that dust generated from ploughing, harvesting or fertilising processes at these sites could settle on the panels and reduce their ability to absorb light and therefore generate energy.
102. I consider that any potential reverse sensitivity effects would likely be greater before the applicant's proposed screening matures. Once established, I consider that the vegetation would assist in reducing, but not eliminating, any dust entering the site.

103. I note that, while the solar farm is being established, the dust resulting from the construction of further stages is likely to create more of a nuisance than any dust generated from adjoining land uses. By the time Stage 3 is established, there will be a relatively short time before all landscaping at the site is fully established. I also note that any cultivation or soil disturbance occurring on adjoining properties is likely be seasonal, further reducing the window whereby the panels may be impacted by dust.
104. The issue of reverse sensitivity has been raised with the applicant, who stated that it *"is not viewed as a major concern... as Canterbury rain is sufficient to keep the panels clean and the proposed planting will also provide some dust mitigation from adjoining primary production activities."*
105. In combination, I consider that the factors set out above will ensure that any reverse sensitivity effects of the proposal will be less than minor.

### **Cultural effects**

106. The application site contains a site of significance to Tangata Whenua within Stage 2, being Wāhi Taonga Management Area C59 (Ovens/Midden) located on Lot 2 DP 387576 (formally RS 5974). In accordance with Rule 1.3 of the District Plan earthworks within this Wāhi Taonga Management Area are limited to the disturbance of soil over areas and depths where that soil has previously been disturbed by cultivation, plantings (trees, pasture or crops), buildings or earthworks. These restrictions are in place to minimise the risk of any artefacts or remnants associated with past settlement or occupation by Tāngata Whenua from being removed, damaged, or destroyed.
107. The applicant has consulted with the Tangata Whenua Advisory Service (TWAS) and Mahaanui Kurataiao Ltd (MKT) in relation to the proposal so that the location of C59 could be accurately defined and excluded from any earthworks associated with the development of the site. Through this consultation process, the applicant has agreed to place a 50m fenced exclusion buffer around the C59 within which no earthworks would be undertaken or solar panels constructed. This 50m exclusion zone has been identified on the site plan dated August 2022.
108. The TWAS advice provides that the rūnanga do not consider themselves to be an affected party, and that the existing fencing and proposed 50m setback from earthworks would be sufficient to protect the site. Clarification from Mahaanui Kurataiao Ltd was sought as to whether this extends to the Selwyn District Council application, who confirmed that the proposal was considered holistically, rather than only relation to the ECan application.<sup>14</sup> In line with the TWAS advice, the applicant has proposed an accidental discovery protocol, a 10-metre setback from the water races and drains surrounding the site, to implement an erosion and sediment control plan, and has undertaken to not undertake indigenous planting on the wāhi taonga site.
109. Persons who hold mana whenua are best placed to identify impacts of the proposal on the physical and cultural environment valued by them. Given that mana whenua do not consider themselves to be affected by the proposal, and the measures the applicant is proposing to put in place to address any effects on Ngāi Tahu values, I consider that the adverse effects on tāngata whenua/cultural values of the site would be less than minor and that mana whenua are not affected by the application.

### **Ecological Effects**

110. The application includes an Ecological Impact Assessment Memo completed by Ecologist, Dr Jaz Morris of Boffa Miskell. The application and assessment has been reviewed by the Council's Senior Biodiversity Advisor, Mr Andrew Spanton.
111. In relation to terrestrial vegetation, the assessment acknowledges that the proposal would result in the loss of existing vegetation on the site or modification of existing vegetation. However, it is understood that the site does not contain any indigenous vegetation. From an ecological perspective, the assessment concludes that the development of the site would have a very low level of ecological effect.
112. In relation to avifauna, the assessment found that:
- a. With regards to habitat loss, the assessment acknowledges that, although there would be a permanent loss of habitat due to the construction of buildings and clearance of shelterbelts, this

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<sup>14</sup> Email from Kenya Calder to Charlotte Scotchbrook dated 21 June 2022.

would only affect a small portion of the site and in general only offers very low quality and largely occasional or temporary feeding habitat for a limited range of indigenous and exotic bird species. Permanent habitat modification will occur largely across the site with the solar panels reducing habitat availability for those birds that use pastured areas of the site. For birds that use the site transiently, the panels may make the site less attractive for landing or flocking, although it is considered likely that the indigenous birds that currently use the site would continue to do so. Overall, the assessment concludes the habitat loss would have a Very Low level of effect on avifauna.

- b. Construction would also have a very low level of effect on avifauna, as the birds present on site during the construction would likely disperse readily into surrounding habitats. The assessment recommends that the clearance of shelterbelts and construction of the solar arrays occurs outside of the main breeding season – and the applicant has agreed to this.
- c. During the operational period, there is a potential risk of bird strike due to birds potentially mistaking light reflecting off the panels as water. Although there are no ponds within the vicinity of the site, Te Waihora / Lake Ellesmere is c.7 km away and supports a wide range of water bird species. The assessment found that a combination of the irregular shape of the site, distance from rivers (which form a key flight path for birds), orientation of the panels away from Te Waihora / Lake Ellesmere, the lack of visibility of the panels to birds flying at low to moderate elevations means that site is less likely to be seen and, if seen, less likely to be perceived as a waterbody by birds. The assessment concludes that the threat of bird strike, while possible, is negligible, and constitutes a very low to low level of effect.

113. The reflection of polarised light from solar panels has been speculated to have potential adverse effects to some emerged (adult) freshwater invertebrate taxa (particularly mayflies, stoneflies, and dipterans) that are naturally attracted to the similar light refraction properties of water (ponds). Invertebrates may therefore lay eggs on solar panels, thinking it to be ordinary pond habitat, leading to breeding failure. In the context of this proposal, the Boffa Miskell assessment notes that this possible effect is considered unlikely to be of any ecological concern, as it is unlikely that any important populations of indigenous invertebrates are present at the site. It is particularly unlikely that the site supports important populations of particularly vulnerable taxa such as indigenous mayflies or stoneflies due to their general habitat requirements for fast flowing clean waterways. I accept this assessment.

114. The water race along the southern side of Buckleys Road and the western side of Hanmer Road is identified as a mudfish habitat. Given the works will be located within the existing farmed area, and setback 10m from the waterways surrounding the site, it is not considered that the proposal will have any effects on surrounding waterways that support the Canterbury mudfish.

115. The application has also been reviewed by the Councils Senior Biodiversity Advisor, Mr Andrew Spanton, and no concerns have been raised with regards to the proposal from a biodiversity perspective if certain measures are implemented and adhered to. This includes the recommendations noted in Ecological Impact Assessment Memo. In particular, the construction of the solar panels occurring outside of the main bird breeding season, being September to January and notifying the Councils Biodiversity Officers, prior to any works, if an upgrade to the vehicle crossing on Buckleys Road is to be undertaken. The applicant does not have issues with this approach.

116. For the reasons discussed above, I consider that the ecological effects of the proposal would be less than minor.

### **Health and Safety Effects**

117. Throughout the solar arrays operation there is the potential for environmental health and safety effects to arise, including an increase in fire risk, if the site is not appropriately managed. To mitigate this, grass would largely be managed by the grazing of sheep on the site as it is in the interest of the applicant to keep grass growth low. Details provided with the application also confirm that the Health and Safety at Work Act and Fire Emergency Act require the applicant to put together a Health and Safety Management Plan and a Fire Emergency Plan. The Fire and Emergency Plan needs to be approved by the local fire service. In addition to these requirements, the applicant would be operating under the Electricity Act which requires Electrical Codes of Practice to be adhered to.

118. In relation to the potential environmental risks of the proposal I consider that these could appropriately be managed by the applicant so that the adverse effects would be minimal. The management of grass growth on the site could be managed through conditions of consent, if approved.
119. I note that potential contamination of the site associated with the materials used to construct the solar panels and from the use of batteries, if installed in the future to store and manage fluctuations in energy, may be of concern to people within the community. However, given that solar arrays are becoming more common and as maintaining the structural integrity of the panels is important from an operational perspective, I consider that such risks have likely been considered and minimised as part of the manufacturing process. With regards to the batteries, my understanding is that there would be storage regulations that would need to be complied with and therefore the land contaminations risks would also be minimised through appropriate management.
120. Accordingly, I consider that the proposal will have less than minor health and safety effects.

### ***Shading of the road***

121. The proposal would involve the planting of native and exotic plant species around the perimeter of the site for screening purposes. In some cases, this would involve infill planting but would also include the plantings of new species along boundaries of the application site where plantings may not currently exist. Once established, the mitigation plantings as shown on the 'Site Plan' dated August 2022 would be retained to a minimum height of 4m.
122. Boffa Miskell have provided shading diagrams which confirm that shading of the Hanmer Road and Branch Drain Road carriageways would occur between the hours of 1000 to 1400 (inclusive) on the shortest day of the year which therefore has the potential to generate adverse traffic safety effects by increasing the likelihood and duration that the carriageways may become iced over. Having reviewed the shading diagrams:
- a. In relation to Hanmer Road, I consider shading will be minimal, with shading largely occurring in the afternoon. The shading diagrams illustrate that at 10am no shading of the road carriageway would occur which would assist with reducing ice, if formed.
  - b. With regards to Branch Drain Road, the shading diagrams also showed that a substantial amount of shading would occur along the northern end at 10am. However, in response to concerns raised by Council's Transport Department, the applicant amended the landscaping so that it would be setback 10m from the road boundary. As a result, only minimal shading of the Branch Drain Road carriageway is anticipated, being approximately 3.25m at 10am and reducing throughout the day.
123. In relation to traffic safety effects, after consultation with the Council's Transport Department, I consider any adverse effects of the shading of the roads surrounding the site will be less than minor. No persons are considered to be affected as a result of the shading of the road carriageways.
124. The effects of shading on adjoining properties are considered in the section 95E assessment below.

### ***Special Circumstances***

125. Special circumstances are circumstances outside the common run of things, which are exceptional, abnormal or unusual but less than extraordinary or unique. Solar farms of the scale proposed are relatively new to New Zealand. However, this is not the first proposal of its size – noting that a farm of a similar scale was recently approved on land previously used for dairy farming in the Waikato.<sup>15</sup> In addition, planning documents are increasingly seeking to recognise and provide for renewable energy generation projects in appropriate forms and locations.
126. In any event, I do not consider the relatively novelty of an activity is sufficient reason, in of itself, to justify public notification. While the proposed solar array is the first of its scale in the Selwyn District, it does not contain any exceptional or unusual effects. There is clear guidance (albeit some of it international) for projects of this nature and scale, and the effects of the proposal can be managed through standard conditions. Although the site is located in a rural environment, the environment is not

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<sup>15</sup> Tauhei Solar Farm, approved under the COVID-19 Recovery (Fast-Track Consenting) Act 2020.



one identified in planning documents as containing any unique or outstanding attributes that warrant protection.

127. Accordingly, I do not consider that there are any special circumstances that exist in relation to the application that warrant public notification.

### **Conclusion**

128. For the reasons set out above, I consider that the application will have **minor** effects on the environment. Accordingly, I do not consider that the application warrants public notification.

## **Section 95E Assessment – Affected Person**

129. Section 95E sets out the relevant considerations for determining whether a person is an affected person in relation to the application.

### **95E Consent authority decides if person is affected person**

- (1) *For the purpose of giving limited notification of an application for a resource consent for an activity to a person under section 95B(4) and (9) (as applicable), a person is an affected person if the consent authority decides that the activity's adverse effects on the person are minor or more than minor (but are not less than minor).*
- (2) *The consent authority, in assessing an activity's adverse effects on a person for the purpose of this section,—*
  - (a) *may disregard an adverse effect of the activity on the person if a rule or a national environmental standard permits an activity with that effect; and*
  - (b) *must, if the activity is a controlled activity or a restricted discretionary activity, disregard an adverse effect of the activity on the person if the effect does not relate to a matter for which a rule or a national environmental standard reserves control or restricts discretion; and*
  - (c) *must have regard to every relevant statutory acknowledgement made in accordance with an Act specified in Schedule 11.*
- (3) *A person is not an affected person in relation to an application for a resource consent for an activity if—*
  - (a) *the person has given, and not withdrawn, approval for the proposed activity in a written notice received by the consent authority before the authority has decided whether there are any affected persons; or*
  - (b) *the consent authority is satisfied that it is unreasonable in the circumstances for the applicant to seek the person's written approval.*
- (4) *Subsection (3) prevails over subsection (1).*

NAME	ADDRESS/LEGAL DESCRIPTION	REASON	AFFECTED PARTY APPROVAL PROVIDED?
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[REDACTED]	115 and 150 Buckleys Road Lot 2 DP 387576, Lot 1 DP 46472, Lot 1 DP 7545 and RS 8955	Visual amenity, glare	✓
[REDACTED] [REDACTED]	115 Buckleys Road Lot 2 DP 387576	Visual amenity, glare	✓
[REDACTED] [REDACTED] [REDACTED]	187 Buckleys Road Lot 2 DP 54392	Visual amenity, glare	✓
[REDACTED] [REDACTED]	821 and 883 Hanmer Road RS 5565, Part RS 9500 and RS 3658	Visual amenity, glare	✓
[REDACTED] [REDACTED]	883 Hanmer Road RS 3658	Visual amenity, glare	✓
[REDACTED] [REDACTED] [REDACTED] [REDACTED]	180 Grahams Road, Leeston RS 9933, Lot 2 DP 78273, Lot 1 DP 21302, Lot 1 DP 37121, Lot 2 DP 81783	Visual amenity	<input type="checkbox"/>
[REDACTED] [REDACTED] [REDACTED] [REDACTED]	324 Branch Drain Road, Leeston Lot 1 DP 81783	Visual amenity	<input type="checkbox"/>
[REDACTED] [REDACTED]	265 Branch Drain Road Lot 1 DP 77659 and Lot 2 DP 77659	Visual amenity	<input type="checkbox"/>
[REDACTED] [REDACTED]	313 Branch Drain Road, Lot 1 DP 72671 and RS 37555	Visual amenity	<input type="checkbox"/>

## Discussion

130. The following outlines an assessment as to whether the activity is likely to have adverse effects on persons that are minor or more than minor. To avoid repetition, this section draws on the assessment of effects in the public notification assessment above and considers the following effects:

- a. Effects on visual amenity and rural character;
- b. Glint and glare effects;

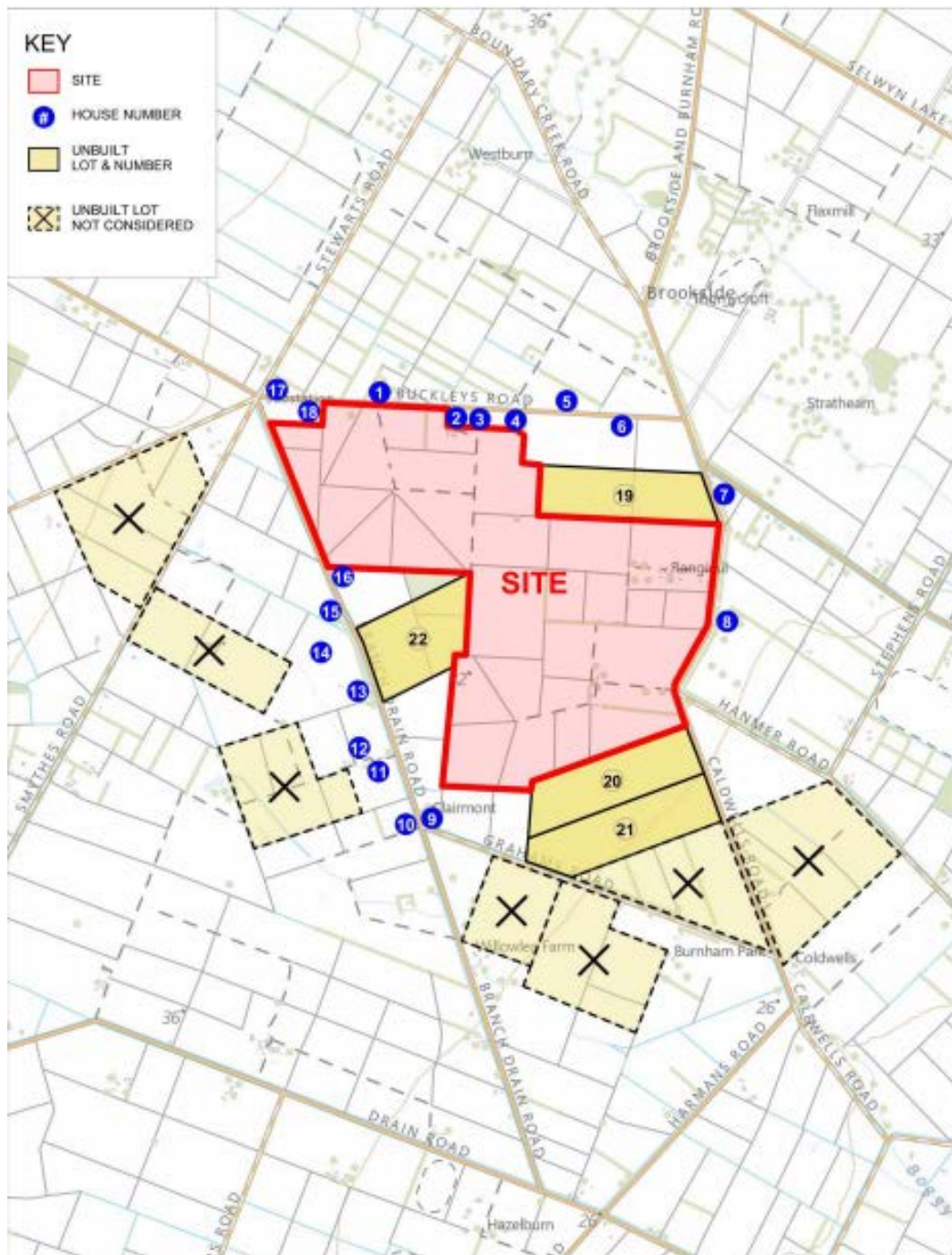
- c. Shading effects;
- d. Construction effects;
- e. Effects on property values

### *Permitted Baseline*

131. The consent authority may disregard an adverse effect of the activity on a person if a rule or national environmental standard permits an activity with that effect (a “permitted baseline”). Paragraph 47 above sets out the relevance of the permitted baseline to this application.

### ***Rural character and amenity***

132. The Landscape Assessment completed by Boffa Miskell identifies 18 dwellings and the public using Buckleys, Hamer, Caldwells, Grahams and Branch Drain Road as being within the visual catchment of the proposal. Mr Densem agrees with the visual catchment area but also notes a number of unbuilt properties that could erect dwellings as of right that should also be included for assessment purposes. The visual catchment of these properties, with the numbering given to them by Mr Densem, is set out below.



**Figure 4:** Identified houses and unbuilt lots subject to the landscape assessments. Source: Map 1, Densem Landscape Peer Review

133. The owners/occupiers of 115, 150 and 187 Buckleys Road, and 821 and 883 Hanmer Road, are all located on, or directly adjacent to, the subject site. Due to the close proximity to the site, I consider that the owners/occupiers of these properties will be affected by the proposal. Written approvals have been received from the following owners/occupiers:

[REDACTED]	105 Buckleys Road
[REDACTED]	150 Buckleys Road

[REDACTED]	115 and 150 Buckleys Road, 10 Stewarts Road
[REDACTED]	187 Buckleys Road
[REDACTED]	187 Buckleys Road
[REDACTED]	115 Buckleys Road
[REDACTED]	821 and 883 Hanmer Road
[REDACTED]	883 Hanmer Road

**Table 1:** Parties who have provided their written approval

134. I consider that written approvals from all owners/occupants of 115, 150 and 187 Buckleys Road, and 821 and 883 Hanmer Road have been obtained. Accordingly, I have disregarded any adverse effects of the proposal on these persons.

135. I agree with the assessment of Boffa Miskell and Mr Densem that the visual effects on a number of properties<sup>16</sup> will be less than minor. These properties are located some distance from the subject site, with existing shelterbelts reducing or eliminating any visibility of the subject site. The planting proposed as part of the proposal will act as an additional visual buffer to the solar panels. As such, I do not consider that any persons at these properties will be affected to a minor or more than minor degree by the changes to rural character of the subject site.

136. In relation to the other properties, I consider owners/occupants of the following two properties will be affected to a minor degree (and are therefore “affected persons” in accordance with section 95E RMA):<sup>17</sup>

- a. The owners/occupiers of 180 Grahams Road (RS 9333) (9), which is located to the south of Stage 3. There is existing screening between the site and house, but there will be views of the works to establish the solar array, and the solar array once constructed. Once the proposed buffer planting has matured, will largely eliminate the view of the array from the ground floor of the house and the surrounding paddocks, but the solar array may still be able to be seen from the second floor of the dwelling.<sup>18</sup> Viewed from the second storey, the proposed solar array will constitute a relatively significant change from the current rural outlook enjoyed by the property. For this reason, I consider that the proposal will have a minor effect on the owners and occupants of 180 Grahams Road.
- b. The owners/occupiers of 324 Branch Drain Road (Lot 1 DP 81783)(16), which is located directly adjacent to the Stage 1 of the proposal. There is an existing exotic shelterbelt that runs along the boundary of the subject site and this property. The two visual assessments diverge on their assessment of effects on this location: Boffa Miskell concludes that the existing shelterbelt reduces visibility such that any visual effects experienced by persons 324 Branch Drain Road will be less than minor, while Mr Densem considers that the permeability of the shelterbelt and close location to the proposal means that persons at the site will experience a ‘low-moderate’ effect. In my opinion, the combination of the site’s location directly adjacent to the proposal, and fact the shelterbelt will not completely screen the proposal, means that the owners/occupiers of this property will be affected to a minor degree.
- c. The owners/occupiers of 313 Branch Drain Road (Lot 1 DP 72671 and RS 37555) (15), which is located across the road from the subject site. There is some existing screening between this property and the subject site (both on the property/and on the subject site adjacent to Branch

<sup>16</sup> Including 23 and 56 Buckleys Road, 932 Hanmer Road and 191, 229, 233, 277, 313 Branch Drain Road. The same reasoning applies to all properties further from the subject site.

<sup>17</sup> Mr Densem’s numbering is placed in brackets.

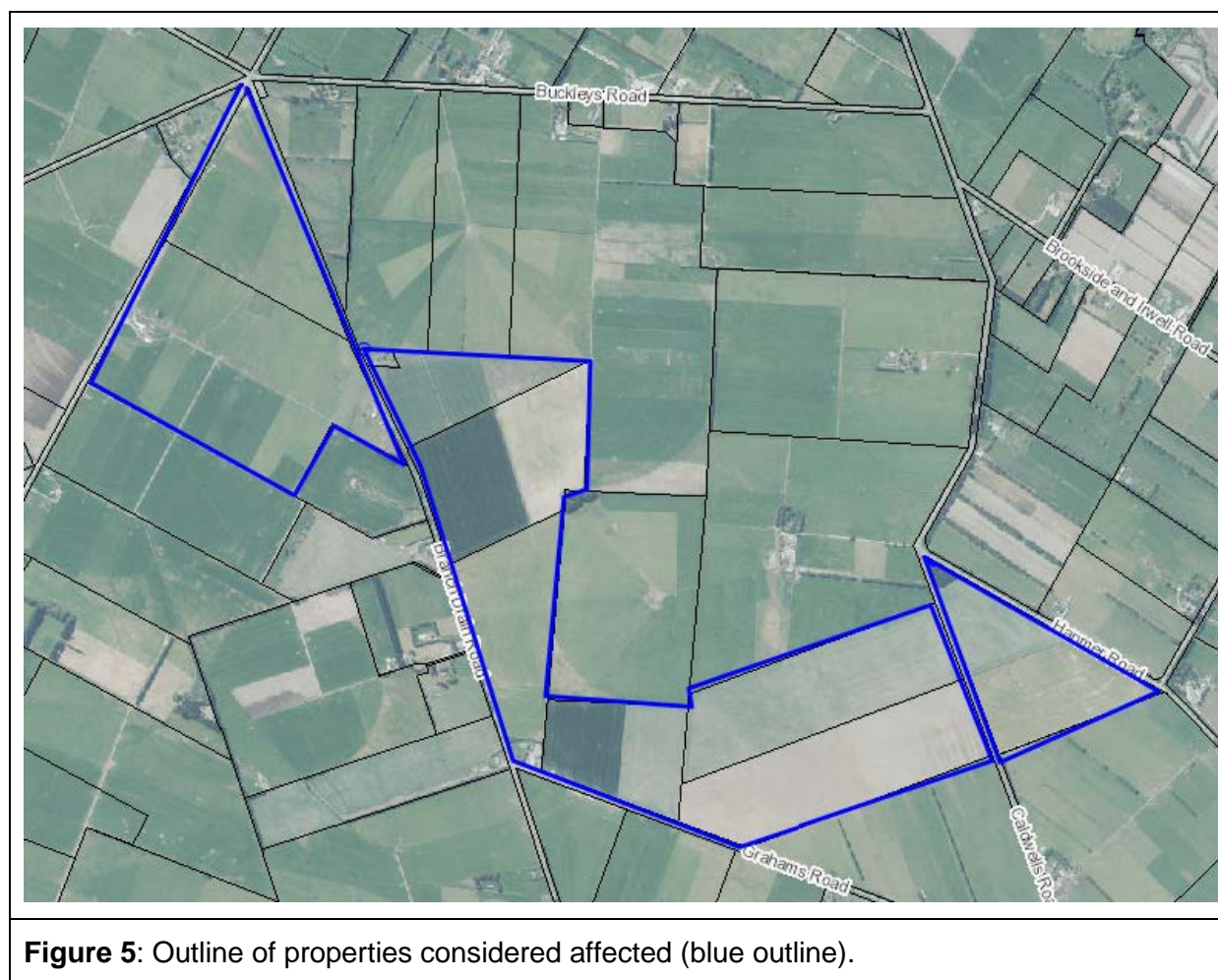
<sup>18</sup> Densem at Table 1.



Drain Road), but this screening will not entirely screen the solar panels from view until the screening proposed as part of the application fully matures. I consider that solar panels constructed as part of Stage 1 will be visible from the dwelling at the site. In addition, the farm paddocks to the north of the dwelling have clear views to the subject site from across Branch Drain Road, with limited planting to provide a visual buffer. I therefore consider that stage 1 of the proposal will result in a minor effect on the owners and occupiers of this property, up until a point where the proposed planting matures to block any views of the site.

- d. The owners/occupiers of Lot 1 DP 77659, Lot 1 DP 37121, Lot 2 DP 37121, Lot 2 DP 78273 and Lot 2 DP 81783, which are currently used primarily for cropping/agricultural purposes and are directly adjacent to the subject site (with the exception of Lot 1 DP 77659, which is located across Caldwell's Road, and Lot 2 DP 37121, which is located south of Lot 1 DP 37121). There is limited screening in place between these parcels and the subject site. Although there are not dwellings on any of these properties, I consider that the scale of the solar farm will impact the ability of the owners/occupants to use and enjoy these sites. Until the proposed planting is fully established, I consider that the temporary visual effects of the solar array on each of these land parcels will be minor.

137. A map of each of the above locations considered affected is set out below.



**Figure 5:** Outline of properties considered affected (blue outline).

138. I consider that the owners/occupants of the following are affected by the proposal to a less than minor extent, and therefore are not considered affected persons:

- a. 23 Buckleys Road (6) and (19) (RS 5849 and RS 5723) is located directly adjacent to the north and west of the subject site (Stages 2 and 3 of the proposal). There is a shelterbelt located between RS 5723 and the subject site which largely, but not completely, buffers the view to the subject site. Planting is proposed to fill in these gaps. Given the distance between the dwelling at 23 Buckleys Road and the proposed solar panels, and the screening surrounding that dwelling, I

do not consider the proposal will have any effect on its occupants. Although the site is located directly adjacent to the solar farm, I consider that the proposed gap-filling planting will reduce any effects on the ability of the owners/occupiers to enjoy their broader property (noting that this will have a year or two to establish prior to construction on stages 2 and 3 taking place).

- b. 79 and 105 Buckleys Road (3) and (4) are located very close to, but not directly adjacent to, the proposed solar array. There is an existing shelterbelt running to the south of the property which largely screens the proposal from view (even without the proposed screening). I accept the finding in the Boffa Miskell assessment that, in combination, the existing and proposed screening will fully screen the solar array from view. In my opinion, the combination of the screening and distance between the solar array and the dwelling (including the buffer between the edge of the property and the solar array) means that any adverse visual effects of the proposal on the owners/occupants of these properties<sup>19</sup> will be less than minor.
  - c. 870 Hanmer Road (8) is located relatively close to Stage 3 of the solar array. There is existing screening within both this property and within the subject site which largely screens the subject site from view. I consider that this existing planting, along with the proposed landscaping strip (which will be approximately 2 years old by the time Stage 3 is constructed) will sufficiently screen the proposed solar array when viewed from this property. In my opinion, the combination of the screening and distance between the solar array and the dwelling means that any adverse visual effects of the proposal on the owners/occupants will be less than minor.
  - d. 265 Branch Drain Road (13) and 10 Stewarts Road (17) is located further from the subject site than the properties assessed above. There is existing screening between these properties and the subject site (both on those/adjacent properties and on the subject site), but this screening will not entirely screen the solar panels from view until the screening proposed as part of the application fully matures. 10 Stewarts Road the site is also located near the Orion Brookside substation, meaning that energy infrastructure is already located within the receiving visual environment for this property. For these reasons, I consider that the proposal will result in less than minor adverse visual effects on the owners/occupants of these properties.
  - e. In all cases, I consider that the proposal will have a less than minor effect on the ability of the owners/occupiers to use and enjoy their properties outside of their dwellings.
139. Mr Densem has included an assessment of effects on several unbuilt lots (19), (20) (21) and (22), where a dwelling could potentially be established as a permitted activity under the ODP. The relevance of those unbuilt dwellings to the assessment of effects turns on whether they form part of the 'environment' upon which the effects of an activity must be assessed. In considering effects of an activity on the environment, the affected environment may include future activities permitted under a District Plan where that activity is likely to occur. Whether a potential future dwelling on those vacant lots forms part of the future environment is to be determined by asking whether or not it is likely (as in more likely than not) that such a house will be established. In relation to these lots:
- a. In the case of RS 5723 (19), I note that the land appears to be used as a dairy farm in combination with wider landholding owned by Haurere Farms Limited (RS 5849 and RS 5723). There is a centre pivot which appears to be used across the wider land holding. There is a gravel track accessing the site from Buckleys Road. There is dense hedging/planting running along the site boundary with Hanmer Road, from which it is also separated by a water race. From my site visit, I do not consider is likely that a dwelling would be constructed on RS 5723, despite the erection of a dwelling being permitted under the ODP (subject to compliance with all other relevant standards). Given this, and the uncertainty of any potential dwelling's location within the site, I consider it would be artificial to assess the effects on this lot as if a dwelling were present. In any event, even if a dwelling were to be established, I consider that the existing shelterbelts, in combination with the planting proposed by the applicant to fill in any gaps in these shelterbelts, would minimise any visual effects of the solar array on the proposed dwelling and its occupants so that any visual effects would be less than minor. I therefore do not consider the owner/occupants of RS 5723 to be affected by the proposal.

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<sup>19</sup> Noting that Hugh Catherwood of 105 Buckleys Road has not provided written approval.

- b. For similar reasons, I do not consider it is likely that a dwelling will be constructed on either Lots 1 and 2 DP 37121 and Lot 2 DP 78273 (20) and (21) and (22), with all three sites currently being used for cropping/agricultural purposes. Accordingly, I consider it would be artificial to assess the effects on this lots as if a dwelling is present at this site. However, for the reasons set out in paragraph 136, I consider that the proposal may result in a minor adverse visual amenity effect on the owner/occupier of these sites.

140. Mr Densem also assess the effects of the activity in the event the landscaping proposed was lost from the application site or neighbouring properties. While useful, I do not consider such an assessment to be relevant in determining potentially affected persons because:

- a. In terms of the landscaping proposed as part of the application, the Council is entitled as part of its notification decision to take into account conditions proposed to be imposed on the consent (if it is granted).
- b. In terms of the landscaping on neighbouring properties, I do not consider it is realistic to assume that any of the neighbouring properties will remove existing landscaping to increase views of the subject site.

### ***Glint and glare effects***

141. As addressed above, the Power Pager assessment concludes that the proposal will have no glint and glare impact on nearby dwellings, due to existing and proposed planting. Mr Van der Velden is in general agreement with this assessment, concluding that there will be minimal glare effect once the proposed buffer landscaping matures to a height of 2 metres. Accordingly, the key potential effect of concern is the temporary glint and glare effects that will arise until the proposed landscaping is established to a height of 2 metres.

142. Mr Van der Velden assesses the extent of glare that each property will experience in Table 2 of his assessment (without any vegetation to mitigate the glare). A summarised version of this table is incorporated below:

<b>Observation Point (dwelling)</b>	<b>Stage 1</b>	<b>Stage 2</b>	<b>Stage 3</b>
1	No glare	No glare	Glare duration of less than 14 minutes around 7am from February to April and September to November
2	No glare	No glare	Negligible glare of less than 3 minutes around 7am from mid-September to end of March
3	Glare duration less than 10 minutes around 7am from mid-September to end of March	Glare duration less than 10 minutes around 7am from mid-September to end of March	Glare <sup>20</sup> duration less than 10 minutes around 7am from late October to mid-February

<sup>20</sup> 'green' and 'yellow' glare. 'Green zone' glare is considered to have low potential to cause after –image (flash blindness) when observed prior to a typical blink response. 'Yellow zone' glare is considered to have potential to cause after image (flash blindness) when observed prior to a typical blink response time.



4	Negligible glare of less than 3 minutes	Glare duration less than 10 minutes around 7am from October to March	Glare <sup>21</sup> duration less than 10 minutes around 7am from late October to mid-February
5	No glare	Negligible glare	Glare <sup>22</sup> duration less than 10 minutes around 7am from November to February
6	Glare duration less than 10 minutes around 6pm from October to mid-March	Glare duration less than 15 minutes around 6pm from October to mid-March	No glare
7	Negligible glare of less than 3 minutes	Glare duration less than 10 minutes around 6pm from October to mid-March	No glare
8	Negligible glare of less than 11 minutes	Negligible glare of less than 3 minutes between 6-7pm October to March	Glare duration less than 6 minutes around 6-7pm from mid-October to mid-February
9	No glare	No glare	Negligible glare less than 2 minutes
10	No glare	Negligible glare	Glare duration less than 15 minutes around 6.30pm from late September to mid-March

143. Mr Van der Velden states that the existing vegetation is likely to be sufficient to block a majority of any potential glare at the site, but notes that the mitigating effect of the existing vegetation (and hence the temporary glint and glare effects) is difficult to quantify. He states that the potential effect of glint and glare will depend on that person's tolerance to glare. I note that, in considering people's varying levels of tolerance to glare, consideration should be given to normal physiological responses. The RMA is not a 'no effects' statute.

144. Based on the Power Pager assessment and Mr Van der Velden's assessment, it appears that the dwellings on/in the vicinity of Branch Drain Road and Hanmer Road will be primarily affected by glare from Stage 3 of the development. I consider that the combination of existing vegetation between those dwellings and the subject site, the proposed landscaping (which will be established by Stage 3 of the development) and duration of the glare means that the effect on these properties will be less than minor.

<sup>21</sup> 'green' and 'yellow' glare.

<sup>22</sup> 'green' glare.

145. In my opinion, the dwellings that could potentially be affected by glare to a minor degree (without taking into account existing and proposed vegetation) are the properties located to the north of the proposal.<sup>23</sup> In particular, I consider that the potential extent, duration and timing of the glare could result in dwellings 8 – 10, 12 – 23 and 48-49<sup>24</sup> being affected to a minor degree prior to the establishment of the proposed vegetation (without taking into account any existing vegetation). I consider that any glare effects on the remaining dwellings (and any owners/occupiers of those properties) assessed in the Power Pager report will be less than minor. I now turn to assess the effects on dwellings 8 – 10 and 12 – 23:

- a. Written approvals have been received from the owner/occupiers of dwellings 13, 14, 16 – 18 and 48-49. Therefore, potential glare effects on those persons have been disregarded in this assessment.<sup>25</sup>
- b. There is existing planting on the near the roadside of Smythes Road, and further planting within individual properties, which is likely to mitigate the potential effects of glare at properties 8<sup>26</sup> and 9<sup>27</sup>. Existing planting within property 10<sup>28</sup> is also likely to provide screening prior to the maturing of the proposed landscaping. Accordingly, I consider that the potential glare effects on these properties will be less than minor.
- c. I consider there is sufficient planting located between dwellings 12,<sup>29</sup> and 19 – 23<sup>30</sup> to mitigate any potential glare effects. Accordingly, I consider that the potential glare effects on these properties will be less than minor.

146. For the above reasons, I consider that the temporary glare effects will be less than minor on all other properties, reducing to a negligible effect following the proposed landscaping reaching a height of 2 metres.

### ***Shading of adjoining properties***

147. A total of 506m of new exotic plants, and 437m of new native plants, are proposed along the southern boundary of the site. Once fully established and matured, the mitigation plantings have the potential to shade adjoining properties along the southern boundary of the site between the hours of 1000 to 1400 (inclusive) on the shortest day of the year. For sites that are shaded, this has the potential to generate adverse amenity effects.

148. Planting is also proposed along the eastern and western boundaries of the site. However, do not consider that this planting will have any minor or more than minor adverse effects on any person, given that there will be limited shading between 1000 to 1400 (inclusive) on the shortest day of the year.

149. The applicant has not provided any shading diagrams to demonstrate the effects of shading from the proposed landscaping on adjacent properties. However, I consider the assessment provided in the application, in combination with the road shading diagrams provided, is sufficient information for me to assess the effects of shading on the neighbouring properties.

150. There are three properties located along the southern boundary of the site: 324 Branch Drain Road, 180 Grahams Road and Caldwell's Road. In relation to these properties:

- a. The dwelling at 324 Branch Drain Road is the closest to the existing and proposed shelterbelt. However, no changes are proposed to the existing shelterbelt. Therefore, I consider that the proposal will have less than minor effects on the owners and occupiers of this property.
- b. The dwelling at 180 Grahams Road is located approximately 150m to the southwest of the proposed southern boundary, and is therefore unlikely to experience any shading (and particularly

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<sup>23</sup> Such as those properties located on Buckleys Road, Stewarts Road, Smythes Road, Irwell Rakaia Road and Dunsandel and Brookside Road.

<sup>24</sup> As per the Power Pager assessment.

<sup>25</sup> However, given the location of those dwellings, I consider that they would otherwise have been affected to a minor degree.

<sup>26</sup> 29 Irwell Rakaia Road.

<sup>27</sup> 43 Dunsandel and Brookside Road.

<sup>28</sup> 85 Dunsandel and Brookside Road.

<sup>29</sup> 10 Stewarts Road.

<sup>30</sup> 23, 56, 79, 105, 115 Buckleys Road.

so between 1000 to 1400). As such, any shading effects will be limited to the paddocks directly adjacent to the subject site. Given the landscaping will be maintained to a height of 4m, I do not consider that this shading will constitute a minor or more than minor effect. The same reasoning is applicable to the Caldwells Road land.

151. Accordingly, I consider the effects of the proposed landscaping on neighbouring properties will be less than minor, and that no person will be adversely affected.

#### ***Effect of fencing on adjoining properties***

152. The proposed fence will be established within 5 metres from the boundary of the site with several neighbouring properties. I note that the height of this fence will be 0.1m above the 2m height permitted under the ODP – meaning that the assessment of effects is limited to the additional 0.1m height above the 2m permitted limit. The fence will be situated behind the proposed landscaping – meaning that it will largely be shielded from view once the landscaping has been established. A number of shelterbelts currently exist between the dwellings adjacent to the site and the proposed fence – meaning that it will be difficult to see even prior to the establishment of the proposed landscaping.

153. I consider that, given the relatively small breach of the height rule in the ODP, the extent to which the fence will be shielded from view from neighbouring properties (as a result of both the existing shelterbelts and following the establishment of the proposed landscaping), and distance of the fence from any adjacent dwellings, means that the proposed fence will have a less than minor adverse effect on the owners and occupiers of all adjacent properties.

#### ***Effect on property values***

154. It is well established that potential reduction in the property value is not relevant as a stand-alone effect, but rather serves as a proxy for the adverse effects of a proposal on amenity values and the like. In any event, the market can be an imperfect measure of the environmental effects of an activity. Therefore, I do not consider that any person will be adversely affected in an RMA sense by any potential effect on the value of nearby properties (if indeed the proposal will have any such impact).

#### ***Construction effects***

155. The public notification assessment contains an assessment of the construction effects (noise, dust, cultural and traffic). For the reasons contained in that section, I consider that the effects of the construction of the solar array on any person will be less than minor.
156. With regard to traffic safety, I do not consider that any person will be affected to a minor or more than minor degree by vehicle crossing non-compliances with Appendix 10 E10.D. This is due to the number of vehicles proposed during the construction phase being less than that permitted under the ODP, the relative lack of traffic using the local roads within the vicinity of the site and the visibility of the intersections close to the two vehicle crossings.

#### ***Operational effects***


157. The public notification assessment contains an assessment of the construction effects (noise, dust, traffic, cultural, reverse sensitivity, and health and safety). For the reasons contained in that section, I consider that the effects of the operation of the solar array on any person will be less than minor.

#### ***Special circumstances***

158. For the same reasons previously set out, I do not consider that this proposal contains any exceptional or unusual effects, and that any effects of the proposal can be managed using standard methods. While the proposal will change the character of the site, I do not consider the extent of this change is a special circumstance that warrants limited notification of the application.


## **Recommendation**

159. It is recommended that the application be processed on a limited notified basis.

<p><b>Reported and recommended by</b></p>  <p>Jesse Aimer Consultant Planner</p>	<p><b>Date: 21 October 2022</b></p>
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## Decision

That the above recommendation be adopted under delegated authority.

 <p><b>Emma Larsen, Planning Manager</b></p>	<p><b>Date: 21 October 2022</b></p>
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