From: Allie Dunn
To: [redacted]
Subject: Response to request for information re Solar farm Thorburn road
Date: Thursday, 19 December 2024 9:56:00 am
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image006.png
6 december 2024 - joint planning report - 133a notification recommendation~024204637.00. - ~ 850 top grass road, ~ 202.2024.29.1(d24_49913).pdf

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Kia ora
I refer to your official information request dated 18 December 2024 seeking information about a proposed Solar Farm on Thorburn Road.
Please find enclosed a copy of the Joint Resource Consent Decision for the establishment, maintenance and operation of a new solar farm at 850 Top Grass Road, which is the solar farm that you have sought information about.
If you have any further questions about this, please don't hesitate to get in contact with me.
Ngā mihi

TARARUA DISTRICT COUNCIL

Allie Dunn | Manager Democracy Services
Strategy and Community Wellbeing - Democracy Services | Tararua District Council

Phone: +64 6 3744080 | Mobile: +64 27 3331626
Allie.Dunn@Tararuadc.govt.nz
26 Gordon Street, Dannevirke 4930, PO Box 115
www.tararuadc.govt.nz
www.facebook.com/tararuadc

From: Allie Dunn
Sent: Wednesday, December 18, 2024 1:56 PM
To: [redacted]
Subject: CM: Acknowledgement - request for information re Solar farm Thorburn road

Kia ora
This email is to acknowledge receipt of your request for information, regarding a proposed solar farm at Thorburn Road, Dannevirke.
We will endeavour to respond to your request as soon as possible and in any event no later than 10 February 2025, being 20 working days after the day your request was received. If we are unable to respond to your request by then, we will notify you of an extension of that timeframe.
As part of our commitment to openness and accountability, we are now proactively

publishing copies of requests for information and the responses provided to these requests, on our website. In doing so, we will ensure we comply with the provisions of the Privacy Act 2020 and redact any personal / identifying information from any response published.
If you have any questions about this, please don't hesitate to get in contact with me.
Ngā mihi

TARARUA DISTRICT COUNCIL

Allie Dunn | Manager Democracy Services

Strategy and Community Wellbeing - Democracy Services | Tararua District Council

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www.facebook.com/tararuadc

From: [redacted]
Sent: Wednesday, 18 December 2024 12:20 pm
To: Info - Tararua District Council <Info@TararuaDC.Govt.NZ>
Subject: Solar farm Thorburn road

To whom it may concern,

We are requesting all available information about the proposed solar farm on Thorburn Road. We are a neighbouring property and have expressed our huge concern about the location of this solar farm and have heard nothing since.

Could you please let provide us with any information related to this as soon as possible.

Regard
[redacted]

JOINT RESOURCE CONSENT DECISION

Date : 18 November 2024

From : Natasha Adsett, Consultant Planner

Subject : Planning Report in respect of Resource Consent Applications:

- Tararua District Council: 202.2024.29.1; and
- Manawatū -Whanganui Regional Council: APP-2024204637.00.

APPLICATION SUMMARY:

Applicant:	**Dannevirke Solar and Energy Storage Limited**
Application:	**Establishment, maintenance and operation of a new solar farm**
Location:	**850 Top Grass Road, Dannevirke**
Legal Description:	**LOTS 11, 13 AND 14 DP 3137 (HELD IN RECORD OF TITLE HBA2/287)**
Zoning:	**Rural Management Area**
Activity Status:	**Controlled / Discretionary Activity**
Notification Status:	**Non-Notified (Notification decision attached as Appendix 2)**

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1. INTRODUCTION

This decision is subject to a section 133A Minor Amendment. The amendments all related to minor typos which were found following granting of the consent.

This report is in respect of an application for resource consent prepared and lodged, pursuant to Section 88 of the Resource Management Act 1991 (RMA), by Aurecon, on behalf of Dannevirke Solar and Energy Storage Limited (herein referred to as the Applicant), for a resource consent to Tararua District Council (TDC) and Manawatū-Whanganui Regional Council (MWRC) to establish, maintain and operate a solar farm at 850 Top Grass Road, Dannevirke (herein referred to as 'the Site').

The solar farm will occupy approximately 90ha, on a 148ha site legally described as Lots 11, 13 and 14 DP 3137 (held in Record of Title HBA2/287).

Establishment of the solar farm will take between 12 to 18 months and will involve traffic movements to and from a single access point located on Top Grass Road. In addition, to facilitate the construction of the solar farm the assessment of environmental effects (AEE) anticipates that approximately 93,135m^3 of earthworks across the site will be required. This includes earthworks associated with access tracks, cable trenching, construction of bases for the Power Conversion Units (PCU's) and Battery Energy Storage Units (BESS), development of laydown areas and the site compound.

Alongside the installation of the solar farm, the Applicant has proposed a number of mitigation measures including planting and restoration of existing areas of native bush.

2. APPLICATION AND PROPOSAL

Section 3 of the application and associated assessment of environmental effects (herein referred to as the AEE), along with the s92 responses, outlines what the Applicant is seeking to achieve. In summary, the Applicant seeks to establish and operate a solar farm located at 850 Top Grass Road, Dannevirke. The proposed solar farm is to be located on approximately 90ha of a large, 148ha, site which is currently utilised as part of a dry stock farming operation. The Applicant has provided a site layout which is copied below in ***Figure 1***.

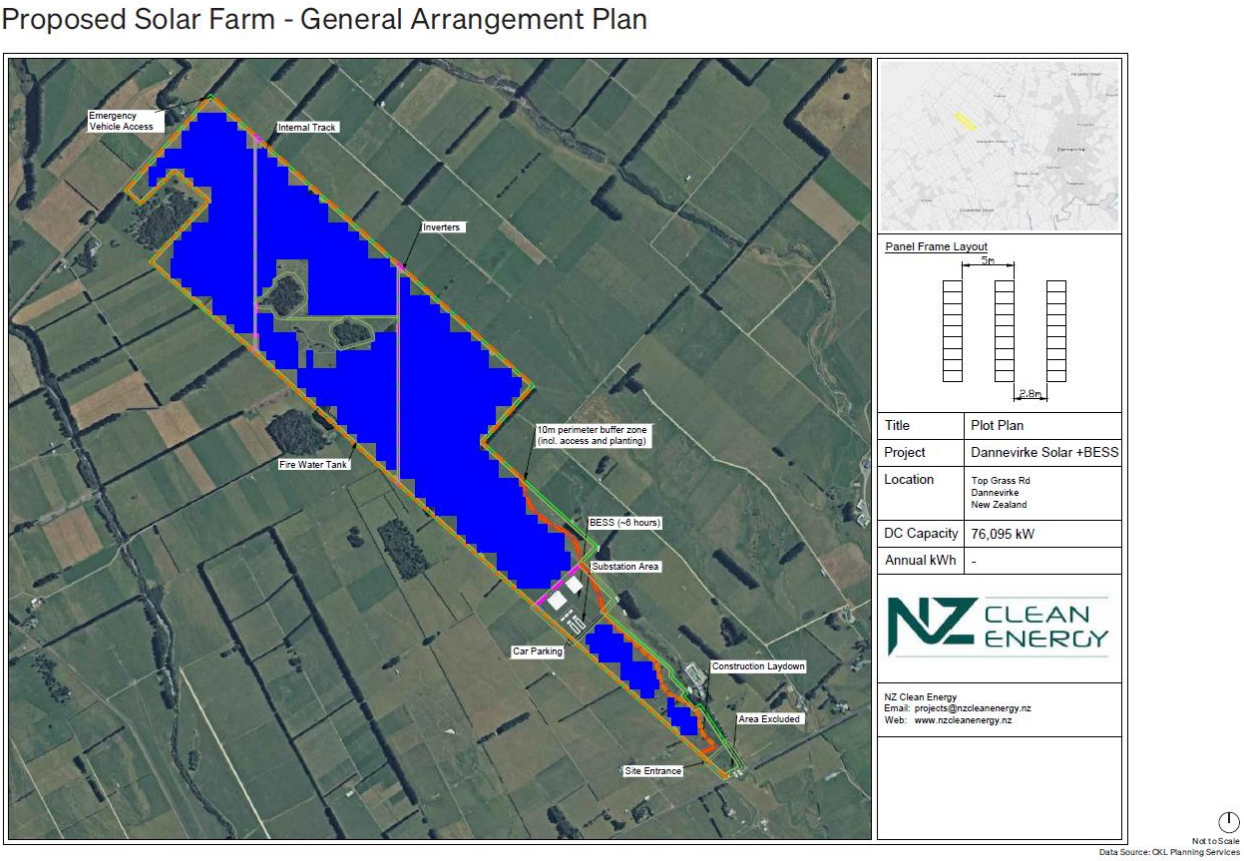


Figure 1: *Site layout.*

The Applicant provides the following description of the overall project in a set of points at the start of section 3 of the application. I consider these to provide a good overview of the elements that the project entails and have repeated it below:

"The Project includes the following:

- *Works to upgrade and maintain site entrances from Top Grass and Thorburn Roads, including a required culvert upgrade;*
- *Works to install temporary erosion and sediment controls prior to commencement of site/earth works.*
- *Works to establish, widen, upgrade and maintain approximately 1847m of internal access tracks and 7618m of perimeter access tracks within the Site;*

- *Works for site preparation, including associated works such as cut and fill earthworks, the removal of any existing redundant fencing and vegetation removal and site planting / rehabilitation;*
- *Works to install, construct, operate and maintain approximately 140,000 photovoltaic modules (PVs or solar panels) on single axis tracking tables;*
- *Works to construct, install, operate and maintain associated infrastructure including underground electrical and communication cables, a substation, a Battery Energy Storage System (BESS), nine (9) inverters and grid connection infrastructure;*
- *Works to undertake transmission line works through either the upgrading of the existing transmission line (GC1) or the installation of a new underground cable (GC2); and*
- *Works to establish and thereafter upgrade and maintain hardstand areas for the laydown areas, carparking, BESS and substation areas."*

Figure 2 below gives a description of the proposed solar panels including dimensions.

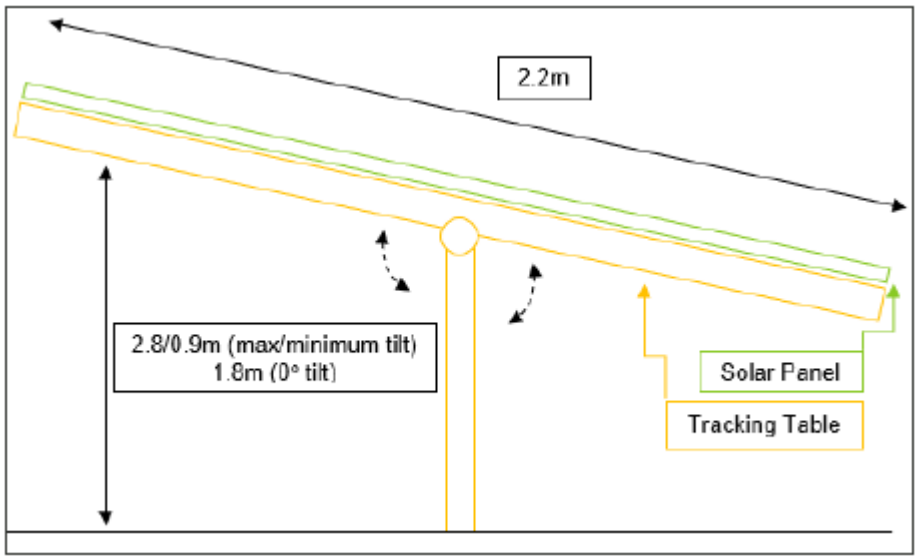


Figure 2: *Example images of the proposed solar panels (taken from Figure 3-1 of the AEE).*

As noted above the proposal involves the establishment of around 140,000 solar panels. These are located on tracking tables that measure approximately 78m in length. The AEE advises each panel will measure approximately 1.3m by 2.2m and 35mm in thickness. The solar panels will be constructed from a light-absorbing material to increase efficiency and include an anti-reflective coating, with the AEE noting they will appear black in colour.

In addition to the solar panels, the AEE outlines that there will be nine (9) inverter stations, each containing two (2) inverters, installed at regular intervals around the periphery of the Site. Inverters are required to convert direct current (DC) energy generated by the solar panels into alternating current (AC) energy, so that it is suitable for connection to the national grid.

The inverter stations will be supported by Battery Energy Storage Units (BESS) allowing the power to be stored and exported to the grid during peak demand times. The AEE advises each BESS will be located within a modified shipping container (or similar) and be approximately 6.1m in length, 2.4m in width and 2.9m in height (excluding foundations which will be 300-800mm above ground). At present the final design, type and number will be confirmed through detailed design and upon confirmation of final equipment selection.

To facilitate the construction of the solar farm the AEE anticipates that approximately 93,135m^3 of earthworks across the site will be required. This includes earthworks associated with access tracks including the importation of fill for the gravel base), cable trenching, creation of bases for the solar inverter stations, BESS's and development of laydown areas and the site compound. The Applicant estimates that construction of the site will take around 12-18 months.

The Applicant has undertaken a landscape assessment and as a result has proposed a landscape treatment plan as shown in ***Figure 3*** below. The Applicant proposes to plant a 3m wide native hedge of mixed species along Thorburn Road and along other sections of the boundary to assist with visual mitigation. An amendment to the AEE has clarified that the section of planting along Thorburn Road will incorporate trees that are already one metre in height along with shade cloth. Some existing shelter belts will also be retained.

Figure 3*: Proposed landscape mitigation plan*

In the further information response, the Applicant has confirmed fencing will also be installed around the perimeter of the site. The AEE details that this will extend the entire perimeter of the site at a height of 2.4m. The fence will be located on the outside of the hedge and will be a 'deer fence' style fence with wide square mesh.

Access to the site is detailed as follows:

> *"The proposed primary access to the Site will be via Top Grass Road. The current access will be upgraded to meet TDC's commercial rural standards. Primary access for firefighting purposes will be from Top Grass Road. Secondary access from Thorburn Road will provide emergency access only*

for fire appliances to enter the Site from the north when this is required. Internal access tracks will provide appropriate circulation throughout the Site. These will generally follow the perimeter of the Site, with north-south access tracks running through the internal section of the Site."

The Applicant advises that during construction there will be up to 160 vehicle movements per day during peak times. Once construction is completed the Applicant advises movement to and from the site will be limited to no more than 6 light vehicle movements, generally consisting of light traffic, per day.

Once operational, the Applicant intends to graze sheep beneath and between the solar panels and PCU's. The AEE anticipates that the solar farm will generate approximately 65MW(AC) of electricity, which is equivalent to supplying 18,000 households. The electricity will be fed into an existing substation adjacent to the property (being Dannevirke substation located on the corner of Top Grass Road and Tamaki River Road), and it has been confirmed by Transpower that the Applicant has commenced the investigation process for connection. In addition, the Applicant has advised they will have a firefighting water supply on site per SNZ PAS 4509:2008 Code of Practice for Firefighting Water Supplies.

3. SITE AND LOCATION

The Site is located at 850 Top Grass Road. The Site extends between Top Grass Road and Thorburn Road and is held in a single record of title, being Lots 11, 13 and 14 DP 3137 (Record of Title HBA2/287). The property covers 148ha and historically has been utilised as a dairy run off, and more recently as a dry stock farm. The planning maps note that an 110KV overhead line runs along the property boundary adjacent to the road. Other than this, no relevant interests are listed on the property title nor planning maps.

The solar farm is proposed to occupy 90ha of the property. The site is shown in context to surrounding towns below in ***Figure 4***.

Figure 4: *Subject Site (light blue) and Surrounding Area*

The area surrounding the site is typical of rural New Zealand, containing a mix of larger farming properties and smaller lifestyle blocks. The site itself is approximately 5.5km west from the township of Dannevirke. To the rear of the property is the Ruahine Ranges and associated forest park. The area is characterised by small headwater streams which can rise suddenly in flood events and tend to have large amounts of gravel. They can be intermittent in nature with water often running below the gravel and appearing otherwise dry.

This site is predominantly covered in pasture with hedgerows bordering parts of the site and several areas of native bush which are considered to be areas of threatened habitat under the MWRC combined Regional Policy Statement and Regional Plan (One Plan), being podocarp/tawa-māhoe forest or treeland.

In addition, a small stream runs into the site from the north from a neighbouring property. The stream enters the site from the northeast and traverses the lower portion of the property before it reaches Top Grass Road. The stream itself is unnamed but flows into the Otamaraho Stream which is a tributary of the Tamaki River. The Site is located within the Tamaki-Hopelands (Mana_5) surface water management zone, within the parent catchment of Manawatū, and the Lower Kumeti (Mana_5c) subzone. No site-specific values are afforded to the stream nor any region wide values other than life supporting capacity (hill mixed). It is noted that part of the site is covered by an existing intensive land use consent being ATH-2015200028.01.

A number of wetlands, associated with the stream, have also been identified. The first wetland is a riverine wetland surrounding the stream and covers approximately 1.6ha. The second wetland is approximately 555m^2 and is located within an area of pasture. The application shows the location of the wetlands and bush areas (along with extensive descriptions) in the terrestrial ecology reports. A copy of the image provided is included below as ***Figure 5***.

Figure 5: *Ecological features on site (source: AEE Appendix L – figure 6)*

Elements of the site are shown in ***Figure 6*** below which is extracted from the AEE.

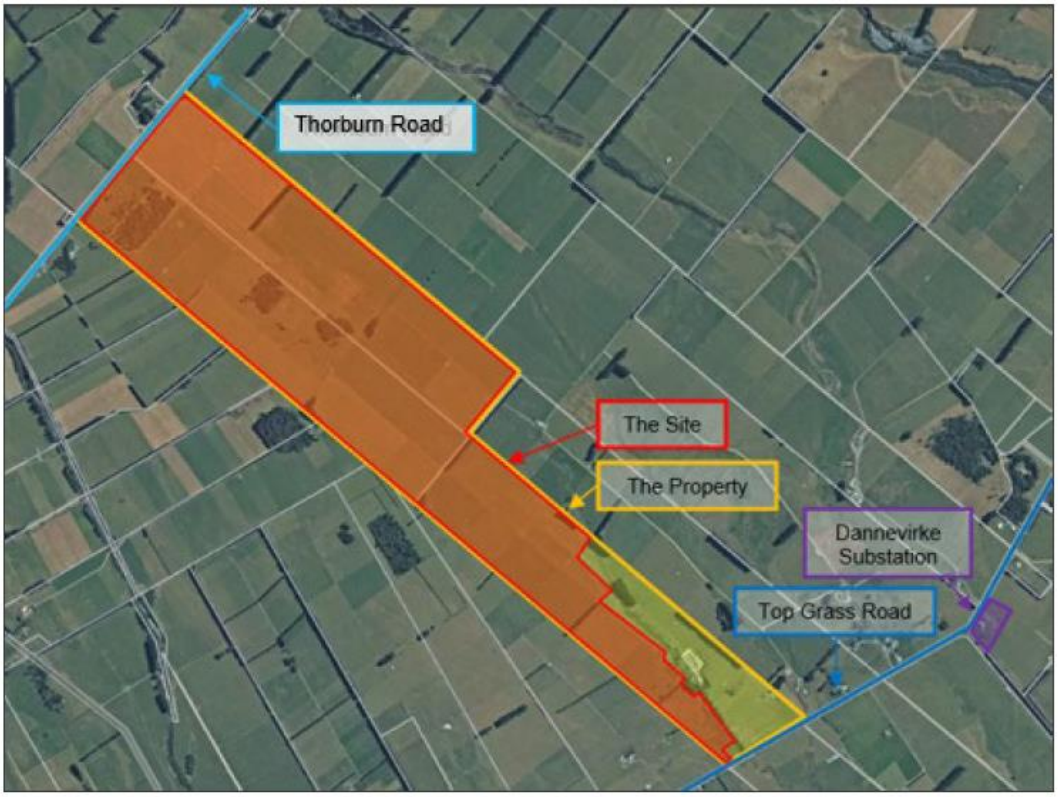


***Figure 6**: The site of the proposed activity and wider property.*

The site is zoned rural in the District Plan. No special features are noted in the planning maps relating to the property where the development is proposed other than the high voltage powerline which runs adjacent to the Site alongside the road. A copy of the district planning map is included below in ***Figure 7***.

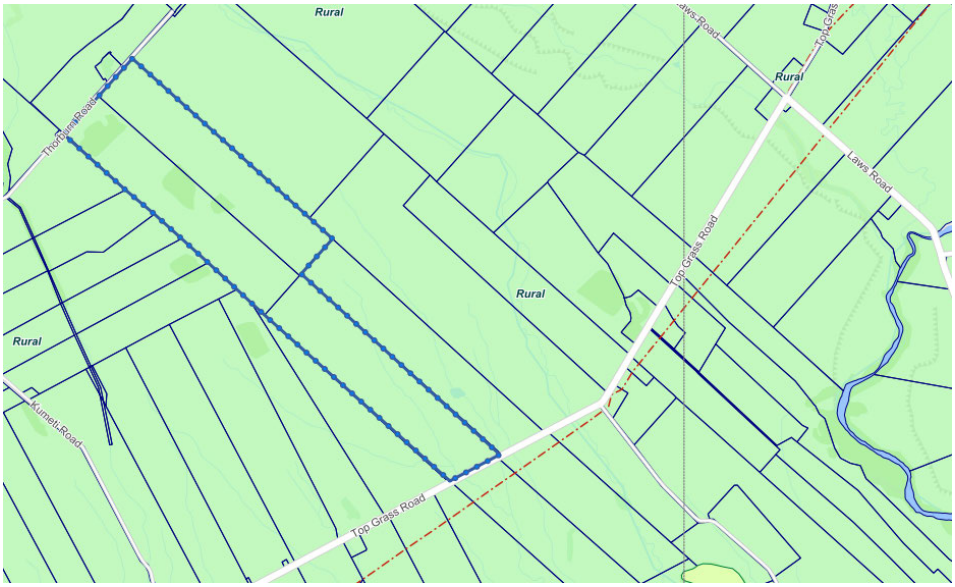


***Figure 7:** Subject Site (dotted outline) and District Plan Zone Layers*

I also note that the site is possibly subject to liquefaction. No fault lines are identified on or directly adjacent to the site, but it is noted that the Top Grass Road and Mohaka Faults and associated fault awareness areas

are located in the wider landscape. A copy of the fault map is included below in ***Figure 8*** while the liquefaction map is included in ***Figure 9***.

Figure 8: *Subject Site (red outline) and fault awareness areas and lines (blue) (source: tararuadc.govt.nz)*

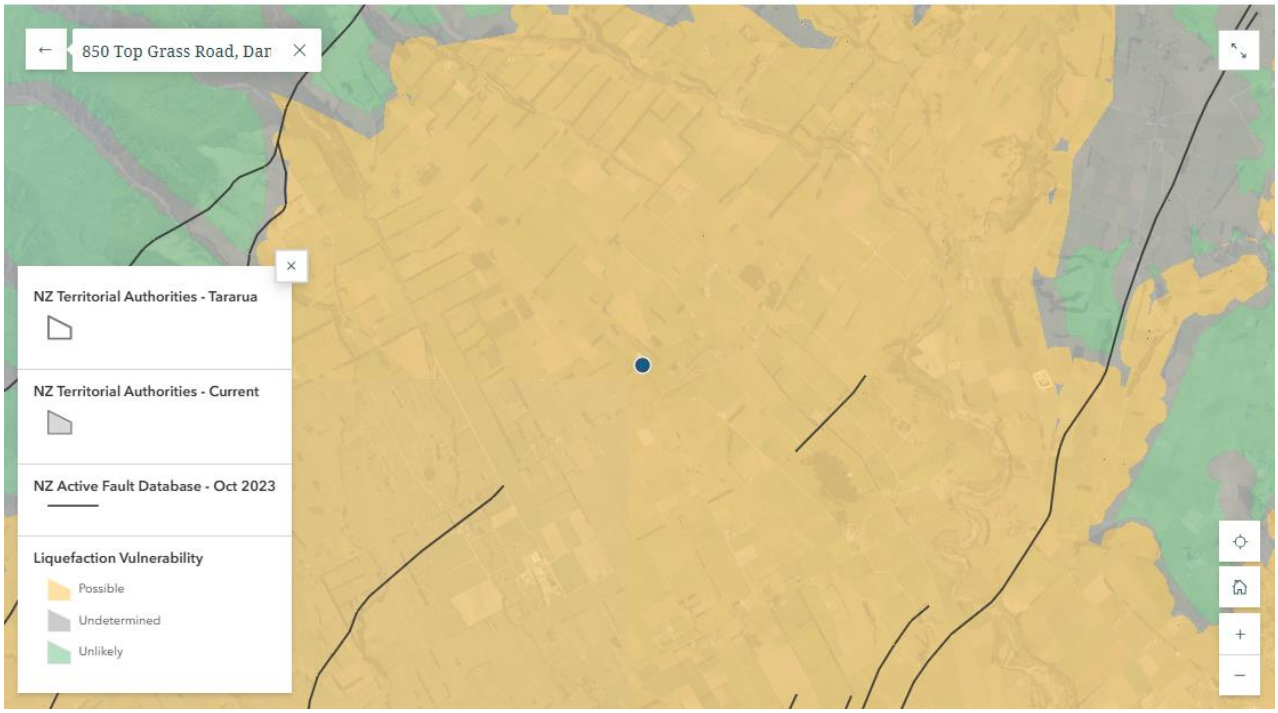


Figure 9: *Subject Site location (blue dot) and liquefaction vulnerability classification (source: tararuadc.govt.nz)*

4. RMA PROCESS TO DATE

The application was formally received by MWRC on 28 March 2024 and accepted for processing on 3 April 2024. The application was received by TDC and accepted for processing on 4 April 2024. The Applicant requested that the applications be jointly processed between the councils. The lodgement prompted Rangitāne o Tamaki nui-ā-Rua (Rangitane) to be informed of the application under the statutory acknowledgment process on 23 April 2024. The application was also circulated to Ngati Kahungunu on 23 April 2024 noting that the project is located within its rohe. In addition, reviews of the application were carried out by:

a. Mr Matthew Bronka of Bladon Bronka Acoustics Ltd, Acoustic Engineer, acting on behalf of TDC;
b. Mr Josh Hunt of Narrative Landscapes Ltd, Landscape Architect, acting on behalf of TDC;
c. Mr Peter Hayman of SLR Limited, Glint and Glare expert, acting on behalf of TDC;
d. Ms Sandi Morris, Land Development Engineer, TDC;
e. Mr Kerry Pearce, Erosion and Sediment Control Expert, acting on behalf of TDC and MWRC;
f. Mr James Lambie, Independent Ecologist, acting on behalf of MWRC;
g. Mr Neil Thomas, Groundwater Scientist, PDP, acting on behalf of MWRC;
h. Mr Kyle Christensen, Engineer, Christensen Consulting Limited acting on behalf of MWRC;
i. Mr Tyler Eaton-Palmer Freshwater Advisor, MWRC; and
j. Myself, Ms Natasha Adsett (Planner) on behalf of both TDC and MWRC.

On 29 April 2024 the consent was placed on hold under s92 for further information with questions relating to landscape, traffic, erosion and sediment control measures, ecology, iwi and the National Policy Statement for Highly Productive Land (NPSHPL). The s92 request noted that the glint and glare, and groundwater reviews were still pending. A further email was sent on 1 May 2024 confirming that no further information was required regarding groundwater and outlining two further questions from the glint and glare expert.

The further information request was formally responded to on 28 May 2024 noting that the information required to answer question 1 (relating to the glint and glare report) was not included, and the answers to questions 9 and 10 were incomplete. Further responses were received on 24 June 2024 in relation to question 1 and on 10 July 2024 in relation to questions 9 and 10. I consider that this satisfied the s92 request.

Following the s92 request the Applicant provided a number of additional amendments to the proposal and mitigations as follows:

a. Email of 30 June 2024 from Jess Bould on behalf of the Applicant, detailing the following mitigation:
    i. Use of larger specimen plants and planting of the Thorburn Road boundary prior to the start of works.
    ii. Use of shade cloth along the inside of the fence line, provided this is black shade cloth and regularly inspected and maintained/replaced. This cloth can be removed once landscape plantings are established to a minimum of two metres in height.
    iii. Staging of works to build from Top Grass Road towards Thorburn Road, with panels at the Thorburn Road end being placed last (noting that trenching and earthworks may take place as needed across the Site).
b. Email of 31 June 2024 detailing the area that would constitute the final stage of works (in regard to point 3 of the mitigations detailed in the email of 30 June 2024).

c. Email of 1 August 2024 from Ms Jess Bould on behalf of the Applicant confirming the shrubs to be planted will be at least 1.0m in height along Thorburn Road (in regard to point 1 of the mitigations detailed in the email of 30 June 2024).
d. Email of 19 August 2024 detailing a summary of consultation with Rangitane in relation to its CIA and outlining the status of each of the recommendations.
e. Email of 4 September 2024 providing a set of seven (7) proposed conditions detailing how the site will be staged and how the planting will interact with this staging should works commence outside of planting season.
f. Updated landscape mitigation conditions, updated and circulated on 30 October 2024.

To assist with clarifying the position of the landscape experts I requested they undertake expert conferencing to determine their respective positions on the effects as they related to visual effects on public locations and visual effects on individual neighbours. Mr Hunt on behalf of council and Mr Smith on behalf of the Applicant met and produced a joint statement dated 13 August 2024. This statement was then updated on 9 September 2024 and again on 30 October 2024 following the circulating of the additional mitigations proposed (ie. Proposed conditions relating to staging and landscaping).

A notification decision was formally made on 18 November 2024 and the application has subsequently been processed on a non-notified basis. This is discussed further in section 5 below. The notification decision is attached to this decision as Appendix 2 and this includes a copy of the joint statement from the landscape experts.

The consent was granted on 18th November 20224, 88 days after lodgement, with a s37 extension to timeframes in place.

This decision was then amended pursuant to section 133A of the Resource Management Act 1991 to address some minor amendments as discussed in the introduction section above. The revised decision was granted on 6 December 2024, 15 days following issue of consent.

5. NOTIFICATION

A copy of the notification decision is attached as Appendix 2.

In summary, the proposed solar farm development is not considered to create any adverse effects which are minor, or more than minor, on adjoining landowners, statutory acknowledgement holders, or the environment. In addition, the Applicant has not requested public or limited notification, there is no national environmental standard that requires public notification of the application, and unusual circumstances do not exist such as would warrant its notification.

As such the notification decision determined that the application should proceed on a non-notified basis. This was determined on 18 November 2024.

6. PLANNING RULES AND ACTIVITY STATUS

OPERATIVE TARARUA DISTRICT PLAN

The Applicant has set out the reasons for the consent application in section 4 of its AEE.

With regards to an assessment against the Tararua District Plan, the AEE notes that resource consent is required under the following rules:

a. Rules 4.1.6.1 and 5.3.7.2(b) – Renewable Electricity Generation Facilities – Discretionary Activity. The Applicant advises it is unable to meet standard 5.3.7.2 as the proposal is a new activity.

b. Rule 5.1.5.3 – Earthworks – Discretionary Activity. The Applicant advises it is unable to meet standard 5.1.5.2(b) as the earthworks will exceed 1,000m^3.

c. Rule 5.4.10.3 – Setbacks – Discretionary Activity. The Applicant advises it will be unable to meet the 20m setback from a high voltage transmission line, required under this rule.

d. Rule 5.4.4.3 – Structure height – Discretionary Activity. The Applicant advises grid connection equipment, located within the Site, will exceed the maximum height of a structure within the Rural Management Area as a Discretionary Activity.

Resource consents are also required from the Regional Council under the Regional Plan, held within a document named the "One Plan". The AEE notes that resource consent is required under the following rules:

e. Rule LF-LAND-R6 - Large scale earthworks - Controlled Activity. The Applicant advises that up to 13ha of land will be disturbed.

f. Rule LF-LW-R38 – discharge of cleanfill – Discretionary Activity. The Applicant advises consent is required for the discharge of cleanfill which exceeds the permitted activity standards of Rule LF-LW-R29.

I accept this assessment.

Permitted Activities

As part of its AEE, the Applicant has undertaken an assessment of activities which are permitted. The Applicant has identified the following:

- The installation of a culvert is located in a man-made drain, which is not a natural watercourse and therefore has been assessed as not requiring consent under the One Plan nor the National Environmental Standard for Freshwater (NESFW).;
- Connection to the grid under the National Environmental Standards for Electricity Transmission Activities (2009) is identified as being permitted; and
- Earthworks within the 10 to 100m buffer of the wetlands, which triggers regulation 45 of the NESFW. Such earthworks have been assessed as follows: "*pursuant to Regulation 45(3), the works are unlikely to result in the complete or partial drainage of the natural inland wetlands. Consequently, it is considered that consent is not required*".

These matters are canvassed in the notification decision (attached as Appendix 2) and are accepted as all being permitted activities.

It is also noted that the following are proposed, with the Applicant confirming it intends to undertake the activities in line with the relevant permitted activity rules:

- Enhancement of the wetlands by way of planting is a permitted activity under clause 38 of the NES-FW. I agree with this and note it is also permitted under One Plan rule RP-LF-AWBD-R71 in relation to the beds of rivers and lakes.
- The discharge of stormwater from the site is considered to be a Permitted Activity under Rule RP-LF-LW-R26 of the One Plan.

Based on the Applicant's assessment in relation to the enhancement of wetlands and discharge of stormwater and consider that they can comply with the relevant permitted activity rules and therefore consent is not required for these activities.

NATIONAL ENVIRONMENTAL STANDARDS

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

The National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) apply when a person wants to disturb a piece of land that is used or has been used for activities described in the HAIL.

The Applicant has canvassed the obligations under the NESCS in section 6.5 of the AEE. As part of its assessment, a Preliminary Site Investigation (PSI) has been completed. This investigation concludes:

1. That the site has been farmland since at least 1966, although is considered likely that the land has been pastoral grazing for much longer given the aerial photography at this time shows the land sectioned into paddocks.
2. Although fertiliser has likely been used on the site, that the area of the site proposed for development has not been exposed to HAIL activities.
3. The property is not recorded within the MWRC Sites Associated with Hazardous Substances database.

The PSI concludes that the proposed solar farm site is not a HAIL site. I accept this assessment and consider no further investigation is required.

National Environmental Standard for Electricity Transmission Activities

The Applicant has also indicated that consent will be needed under the National Environmental Standards for Electricity Transmission Activities (NESETA) for the undergrounding of an existing transmission line. An application is made under Regulation 12 which is a Controlled Activity.

CONCLUSION

Overall, seven activities requiring resource consent have been identified under the District Plan, Regional Plan and NESETA. It is considered that the above listed activities are inextricably linked, and the bundling principal should be applied to all except the large-scale earthworks made under One Plan Rule LF-LAND-R6, and under Regulation 12 of NESETA as these are controlled activities. The activity is considered to be a **Controlled Activity** in respect of the earthworks and NESETA, and a **Discretionary Activity** for the remainder of the activities.

7. STATUTORY FRAMEWORK FOR CONSIDERATION

The statutory framework for the Council's consideration of the application is correctly identified in Section 6 of the application, namely Sections 88, 104, 104A, 104B and 108 of the RMA. In considering an application for resource consent, the Council must, pursuant to Section 104(1) of the RMA and subject to Part 2, have regard to:

- Any actual or potential effects on the environment of allowing the activity
- Any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity
- Any relevant provisions of a national policy statement, New Zealand coastal policy statement, a regional policy statement, a plan or proposed plan; and
- Any other matter Council considers relevant and reasonably necessary to determine the application.

The Council may also, pursuant to Section 104B of the RMA, grant or refuse consent to the application and impose conditions, pursuant to Section 108, should consent be granted.

8. CONSIDERATION

ACTUAL AND POTENTIAL EFFECTS

An assessment of effects has been undertaken as part of the notification decision attached as Appendix 2, particularly paragraphs 48 – 168. In summary, technical reviews were undertaken on behalf of the respective councils as follows:

- Landscape and visual effects have been reviewed by Josh Hunt, Registered NZILA Landscape Architect, Narrative Landscapes.
- Noise (Acoustic) effects have been reviewed by Matthew Bronka, Director and Principal, Bladon Bronka Acoustics Ltd (BBA).
- Transport effects have been reviewed by Sandi Morris, Land Development Engineer, Tararua District Council.
- Glint and glare effects have been reviewed by Peter Hayman, Associate - CFD, Wind & Energy, SLR Consulting.
- Erosion and sediment control and associated effects have been reviewed by Mr Kerry Pearce, Erosion and Sediment Control expert.
- Terrestrial ecology effects have been reviewed by Mr James Lambie, Independent Ecologist.
- Groundwater effects, including the effect of flows on wetlands, have been reviewed by Mr Neil Thomas, Groundwater Scientist, PDP.
- Engineering design and stormwater controls have been reviewed by Mr Kyle Christensen, Engineer, Christensen Consulting Limited.
- Freshwater quality effects have been reviewed by Mr Tyler Eaton-Palmer Freshwater Advisor, MWRC.

In addition, feedback has been received from local tangata whenua - Rangitāne o Tamaki nui ā Rua and Ngati Kahungunu ki Tamaki nui a Rua. This feedback was used to inform my assessment on cultural effects. Overall, with the proposed mitigations in place, it is considered that effects on the wider environment are less than minor.

A number of adjacent properties have also been identified and an assessment of effects on these properties undertaken. This concluded that the effect on any particular person is also less than minor.

Conditions of consent

The Applicant has offered up draft conditions of consent as outlined in Appendix E of the application. Additional conditions have also been proffered through further information, particularly relating to earthworks, landscaping and involvement of Tangata Whenua.

These conditions are largely accepted. In particular the accepted conditions include:

- The submission of a final set of drawings prior to construction.
- The development of a construction management plan and construction traffic management plan.
- Development of an ecological restoration plan.
- Conditions for the ongoing operation of the site including noise levels that must be adhered to.
- Finalisation of the ESCP.
- Conditions regarding ongoing management of the landscape mitigation including replacement of dead or dying trees.
- Decommissioning plans.

In addition, the joint statement produced by the respective landscape experts was based on a series of conditions offered by the applicant, including splitting the site into two stages as shown below in **Figure 10**.

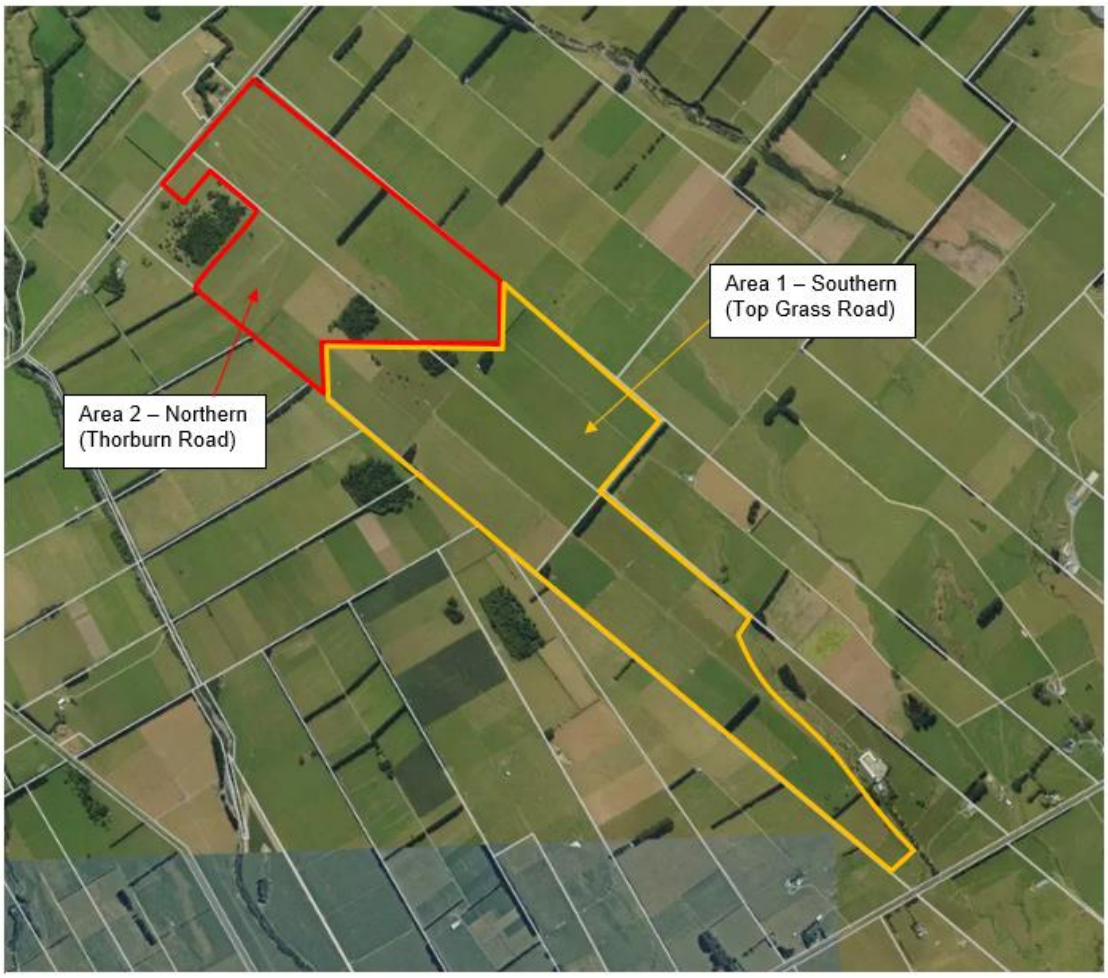


***Figure 10**: proposed staging plan.*

These conditions broadly include:

- Staging of works to build from Top Grass Road (ie. Area 1) towards Thorburn Road (Area 2), with panels at the Thorburn Road end (Area 2) being placed last (noting that trenching and earthworks may take place as needed across the Site).
- Use of larger specimen plants, at least 1m in height, and planting of the Thorburn Road boundary, in the first growing season following the start of works in Area 1.
- Use of black shade cloth along the inside of the fence line, and with regular inspections and maintained/replaced. This cloth is to be removed once landscape plantings are established to a minimum of two metres in height.

The conditions proposed by the applicant seek to allow a level of flexibility with the commencement date should works start outside of a planting season. The aim is to ensure that the fence line along Thorburn Road is planted as soon as possible and given maximum growing time to be established, before built infrastructure is installed in Area 2. Conversely, if the installation of the solar farm commences during a planting season it is expected that planting of the boundary along Thorburn Road will commence immediately with the remaining areas to be completed before the built infrastructure is installed. There is also an allowance for the final split between areas 1 and 2 to be defined at detailed design stage with a 25m leeway from the points given in the consent conditions. This is recognising that the detailed design stage may result in some slight changes to the overall layout.

In addition a number of conditions relating to the culvert replacement have been offered by the Applicant on an Augier Basis. These relate to monitoring of it including ensuring it provides for fish passage on an ongoing basis. As the installation of the culvert is a Permitted Activity there is no specific decision which these would best fit within. However, as the Regional Council would ultimately monitor the culvert the conditions have been included within the earthworks consent.

In addition, as a result of the technical feedback some additions have been recommended to the conditions. These broadly include:

- Conditions restricting the removal of native trees on the property to five individual trees with a requirement to check for bird roosting and relocating of lizards (if discovered).
- Processes for technical certification for various management plans including the construction management plan and landscape plan.
- Maintenance of a complaints register.

It is noted that Mr Lambie has also suggested a condition around ensuring net gain in biological diversity as is predicted to occur. However, as the removal of the trees is a permitted activity, it is not considered it would be appropriate to impose a condition of this type.

A number of conditions, particularly those relating to the development of management plans, require feedback from iwi to be incorporated. This is to give effect to the CIA's prepared by the respective iwi and the inclusion of the conditions is on an Augier basis.

THE DISTRICT PLAN

Objectives and Policies

The District Plan has several sections that contain objectives and policies that are relevant to the application. The applicant has detailed these in section 7.5 of its report. I agree with the assessment and do not consider there are any further sections of the plan which require evaluation. For brevity the full objectives and policies are not repeated here, rather a summary of the relevant objectives and policies are given below.

- Section 2.3 - Activities in Rural Areas.
    - Objectives 2.3.2.1 and Policies 2.3.2.2 (a) and (b),
    - Objective 2.3.3.1 and Policies 2.3.3.2 (a), (b) and (c),
    - Objective 2.3.4.1 and Policies 2.3.4.2 (a) and (b)
- Section 2.5 – Natural Hazards.
    - Objective 2.5.2.1 and policies 2.5.2.2 (a) and (b)
- Section 2.6 – Amenity and Environmental Quality.
    - Objective 2.6.2.1 and Policy 2.6.2.2 (a)
- Section 2.8 – Infrastructure.
    - Objective 2.8.2.2 and Policies 2.8.2.2 (a) to (e),
    - Objective 2.8.3.1 and Policies 2.8.3.1 (a) – (h) and
    - Objective 2.8.4.1 and Policies 2.8.4.2 (a) and (b)
- Section 2.10 – Treaty of Waitangi and Maori Resource Management Values.
    - Objective 2.10.3.1 and Policies 2.10.3.2(a).
- Section 3.2.1 – Desired area characterises for the Rural Management Zone.

Assessment:
Section 2.3 relates to rural land use management and includes Objective 2.3.2.1 "*to achieve sustainable rural land use and efficient use of resources*". This is supported by a series of policies relating to retaining the productive capabilities of the land and avoiding irreversible loss of the productive capability of the LUC Class 1 and 2 land. The applicant has detailed that the site will continue to have a level of productive capability retained through the grazing of grass underneath the panels. I agree with this assessment. I also consider that the solar farm will not result in any of the other adverse effects that the policy seeks to avoid including land instability, contamination discharge or land subsidence.

Objective 2.3.3.1 seeks to maintain the vitality and character of the district's rural areas. Supporting policies (b) and (c) are considered most relevant to this application. Policy (b) seeks to enable activities which are compatible with the rural area and require a rural location. The applicant has noted that while the project will modify the rural landscape character to a semi-industrial/power generating character, it will maintain the underlying pastoral use. In addition, it is noted that there are a number of proposed visual and landscape mitigations, particularly the dense boundary planting and the addition of shade cloth on the Thorburn Road Boundary. There is also a risk that noise can be generated, particularly from the inverters. The Applicant proposes to mitigate this by imposing noise restrictions in line with the District Plan noise limits. This will enable effects of the activity to be mitigated to a level which is less than minor.

Objective 2.3.4.1 seeks to ensure a high level of environmental quality and amenity throughout the rural areas of the district. The supporting policies seek to avoid, remedy or mitigate adverse effects, maintain and/or enhance the character and amenity and reduce conflict between incompatible activities in the rural area. The desired Area Characteristics, and Objective 2.6.2.1 and the supporting policy are similarly worded and are considered here also.

As discussed above, the applicant has proposed mitigations for visual effects by way of dense boundary planting and shade cloth where required. It is considered this will mitigate the effects on neighbouring properties to a level that is less than minor and will result in an effective mitigation in the long term. The shelter belt planting, proposed deer fencing and shade cloth (which in the long term will be removed once the

planting is established) are not considered to be out of character with a rural environment. Overall, the proposal is considered consistent with these objectives and policies.

Section 2.5.2 focuses on natural hazards with Objective 2.5.2.1 seeking to reduce the risks imposed by, and the effects of, natural hazards on the people, property and infrastructure of the Tararua District. Supporting Policy (b) seeks to reduce the risk of natural hazards through development patterns and mitigation measures. In this instance the site has been identified as being in a high wind zone and has a liquefaction class of 'possible'. The site is not subject to flooding nor are there any known faults within the site extent. Given the solar farm will consist of non-habitable building types, it is considered the risk in relation to natural hazards is low. Overall, the proposal is considered consistent with these objectives and policies.

Section 2.6 states that a high-quality environment is an important element of an area and contains objectives and policies that seek to maintain and enhance amenity values and quality of the environment. Objective 2.6.2.1 aims to maintain and/or enhance amenity values and environmental quality for present and future generations, while Policy 2.6.2.2(a) directs the management of adverse effects on amenity values through the implementation of environmental standards.

As discussed above the amenity of the site is proposed to be maintained through dense buffer planting. The effects assessment concludes that this buffer planting allows the visual amenity, and consequently the rural amenity, to be maintained.

Objective 2.6.4.1 protects natural features and landscapes, and areas of indigenous vegetation and habitats of indigenous fauna from inappropriate use and subdivision. Policy 2.6.4.2(b) sets out the matters for consideration for the identification of significant indigenous vegetation and habitats. Finally, Policy 2.6.4.2(c) aims to encourage the protection of these features from inappropriate development and use.

A number of bush remnants have been identified on site alongside two wetlands and a stream. The Applicant has proposed a number of restoration measures that will effectively enhance these existing indigenous features. Consequently, it is considered that the Project is consistent with the objectives and policies of Section 2.6 of the TDP.

Section 2.8.2 focuses on infrastructure with Objective 2.8.2.1 and the supporting policies seeking to maintain and develop infrastructure while avoiding, remedying or mitigating adverse effects. Of particular relevance is Policy (c) which states "*To encourage the co-siting of network utility equipment where practicable*". Objective 2.8.4.1 focus on renewable electricity generation with the supporting policies seeking to recognise the local, national and regional benefits and to remedy, mitigate, or avoid, where possible, the actual and potential adverse effects, noting that renewable energy infrastructure can result in effects relating to amenity values, landscape ecology, noise and traffic, and may therefore be inappropriate in some locations.

As discussed above the Applicant has undertaken an assessment considering the technical and operational requirements to establish a new solar farm. In particular this is the presence of the substation nearby. The Applicant has proposed mitigations for visual effects by way of dense shelter belt planting which will provide visual mitigations.

Consideration also needs to be given to the benefits, which is the generation of up to 65MW(AC) of electricity supply direct to the National Grid. This volume of power is capable of powering approximately 18,000 average New Zealand homes. Overall, the proposal is considered consistent with these objectives and policies.

Lastly, Objective 2.10.3.1 seeks to provide and recognise Māori values with supporting Policy (a) recognising specifically the connection with land, water, sites, waahi tapu and other taonga.

The Applicant has provided letters of support from the respective iwi, Rangitāne o Tamaki nui-ā-Rua (Rangitāne) and Ngati Kahungunu ki Tamaki-nui-a-Rua (Ngati Kahungunu). In addition, cultural impact assessments (CIA) have been provided by both iwi.

The CIA from Ngati Kahungunu canvasses the history of the site. It notes the area surrounding the site was traditional food source grounds and remain so. Likewise, the Otamaraho Stream is traditionally recognised as being of cultural significance where the ritual of circumcision was practiced. The CIA also noted that the site contains remnants of 70-mile bush with the CIA detailing the types of trees and shrubs traditionally found here and their medicinal uses.

Ngati Kahungunu reiterated its intention to uphold their partnership with the applicant and provide a list of agreements which will provide opportunities to enhance their aspirations and role as ia-tuku o te ika. These include offset planting for the individual trees that are to be removed, job opportunities, and including iwi throughout the project including archaeological processes and monitoring processes.

The CIA from Rangitāne canvasses the application alongside aspects of New Zealand law which are relevant to the proposal. The CIA goes on to discuss the concept of cultural values highlighting the importance of Māori beliefs and values about the natural environment.

The CIA also discusses the history and settlement of Rangitāne in the Tararua District and tells of ancestors travelling Aotearoa before following the Manawatu River east (upstream) to find an area that was referred to by the early settlers as the 40, 70, or 90 mile bush depending on where settlers were resident at the time. The accounts tell of European settlement and substantial land acquisitions from both settlers and the crown. The result left Rangitāne with very little of its original land in its ownership. This, combined with urbanisation and assimilation pressures, has created significant social deprivation.

Rangitāne's CIA also discusses cultural and environmental effects it is concerned about. The CIA canvasses values Rangitāne hold and how they apply to the natural ecosystem and in turn the outcomes Rangitāne seeks from a proposal such as this. The outcomes have been agreed by the applicant and range from matters that can be included in the consent as an advice note through to matters which are considered matters separate to the consent such as a request for solar panels to be provided to the marae. I note that the Applicant has shown commitment to resolve this with Rangitane and in addition I do not consider this a resource management matter.

The applicant has shown a willingness to work with both iwi and has agreed to various conditions to support this, including consultation with iwi throughout the development of management plans. I consider the proposal is consistent with this objective and supporting policies.

Conclusion

Overall, I consider the proposed solar farm activity is consistent with the relevant objectives and policies of the District Plan.

REGIONAL POLICY STATEMENTS AND PLANS

One Plan Regional Policy Statement and Plan

OBJECTIVE RMIA-O1 Resource Management
POLICY RMIA-P1 Hapu and Iwi Involvement in Resource Management

POLICY RMIA-P2	Wahi Tapu, Wahi Tupuna and Other Sites of Significance
OBJECTIVE EIT-O2	Energy
OBJECTIVE EIT-O1	Infrastructure & Other Physical Resources of Regional or National Importance
POLICY EIT-P1	Benefits of Infrastructure and Other Physical Resources of Regional and National Significance
POLICY EIT-P3	Adverse Effects of Infrastructure and Other Physical Resources of Regional or National Importance on the Environment
OBJECTIVE LF-FW-O3	Water Management Values
OBJECTIVE LF-FW-O4	Water Quality
POLICY LF-FW-P5	Water Quality Targets
POLICY LF-FW-P6	Ongoing Compliance where Water Quality Targets are Met
POLICY LF-FW-P7	Enhancement where Water Quality Targets are not Met
OBJECTIVE ECO-O1	Indigenous Biological Diversity
POLICY ECO-P1	Responsibilities for maintaining indigenous biological diversity
POLICY ECO-P2	Regulation of activities affecting indigenous biological diversity
OBJECTIVE LF-LAND-O1	Managing Accelerated Erosion
OBJECTIVE LF-LAND-O2	Regulating Potential Causes of Accelerated Erosion
POLICY LF-LAND-P2	Regulation of Land Use Activities
POLICY LF-LAND-P3	Supporting Codes of Practice, Standards, Guidelines, Environmental Management Plans and Providing Information on Best Management Practices

There are several sections of the RPS which are relevant to the application and the Applicant has canvassed these in Section 7.4 of its application.

Objective RMIA-O1 and the supporting policies relate to the involvement of local mana whenua. As noted above, the site is located within the rohe of two iwi being:

- Rangitāne o Tamaki nui-ā-Rua and
- Ngati Kahungunu ki Tamaki nui a Rua

Both iwi have provided letters of support and also provided CIA. The intention in the long term is for iwi to have active involvement in the installation of the solar farm including the buffer planting within the existing areas of native bush, the unnamed tributary of the Otamaraho Stream and associated wetlands. In conclusion, I consider that the Applicant has undertaken appropriate consultation in line with the objective and policies. Therefore, it is considered that the proposal is consistent with these provisions.

Objective EIT-O2 and the supporting policies, similar to the NPS-REG, seeks to recognise the benefits of renewable energy. As noted above under positive effects, this solar farm will generate 65MW(AC) of electricity, enough electricity to supply 18,000 homes. Being renewable energy, the AEE states that this assists in reducing greenhouse emissions. I agree these elements are both significant benefits of the activity.

With regards to Objective LF-FW-O3 and Objective LF-FW-O4 and supporting policies, these relate to water quality and the values associated with the waterbody. Objective LF-LAND-O1 and Objective LF-LAND-O2, and supporting policies, have a similar intent and look to control loss of sediment to water resulting from earthworks.

In this instance the unnamed tributary has the region wide value of Life Supporting Capacity. Effects on water quality, the values of the steam and fish passage have been assessed by Mr Eaton-Palmer. While the mitigation measures relating to erosion and sediment control have been reviewed by Mr Pearce.

Mr Eaton-Palmer notes that overall, there will be improvements to the water quality resulting from the proposal through the implementation of the Ecological Restoration Plan (ERP). He notes that the ERP proposes fencing areas of vegetation and wetland areas and planting of native species in appropriate areas around the site, including the wetland and waterway, and pest control. Mr Eaton-Palmer is of the opinion these measures will result in a net positive impact on the freshwater ecology of the site.

Further to this Mr Pearce is satisfied that the ESCP measures will adequately control erosion loss and ensure water quality is maintained during construction works. This is consistent with this set of objectives and policies.

Lastly, Objective ECO-O1 and supporting policies look to protect areas of significant indigenous vegetation which includes wetlands and land based terrestrial areas such as the native bush areas on the property.

The three areas of native bush on the property meet the definition of being a threatened habitat under the One Plan. Of the two wetlands, only one wetlands meets the threshold of being a wetland type under the One Plan, and both are recognised under the NPS-FW.

No works are proposed within these areas with the Applicant instead seeking to undertake enhancement through buffer planting.

Based on the assessment undertaken by Mr Lambie, I am satisfied that the proposed planting and fencing will enhance both the areas of bush and the wetland.

It is noted that the works to install the solar panels will take place within the 10 to 100m buffer around the wetland. However, I am satisfied, based on the feedback from both the Applicant and the review undertaken by Mr Thomas, that the wetland will not be affected by this. Overall, it is considered that this application is consistent with this objective and policy set.

Based on the assessment above I consider the proposal consistent with the relevant objectives and policies of the Regional Policy Statement and Regional Plan.

NATIONAL POLICY STATEMENTS AND PLANS

The following National Policy Standards are currently in force.

- National Policy Statement for Highly Productive Land 2022
- National Policy Statement on Freshwater Management 2023
- National Policy Statement on Urban Development 2020
- National Policy Statement on Renewable Electricity Generation 2011
- New Zealand Coastal Policy Statement 2010
- National Policy Statement on Electricity Transmission 2008
- National Policy Statement for Indigenous Biodiversity 2023

The applicant has identified the following policies as relevant to the application.

- National Policy Statement on Electricity Transmission 2008 (NPSET)
- National Policy Statement on Renewable Electricity Generation 2011 (NPSREG)
- National Policy Statement on Freshwater Management 2023 (NPSFM)
- National Policy Statement for Highly Productive Land 2022 (NPSHPL)
- National Policy Statement for Indigenous Biodiversity 2023 (NPSIB)

I agree with this assessment and canvas them below in turn.

National Policy Statement on Electricity Transmission (2008)

The NPSET came into force on 10 April 2008. It was developed to acknowledge the national significance of the National Grid and guide the balanced consideration of the national benefits and the local effects of electricity transmission.

The objective of the NPSET is to:

"*To recognise the national significance of the electricity transmission network by facilitating the operation, maintenance and upgrade of the existing transmission network and the establishment of new transmission resources to meet the needs of present and future generations, while:*

- *Managing the adverse environmental effects of the network; and*
- *Managing the adverse effects of other activities on the network.*"

The NPSET contains a number of polices which the applicant has canvassed in section 7.2.2 of their AEE. Policies 1 and 2 require decision makers to consider the benefits of electricity transmission including the development of new electricity generation and the benefits of renewable energy. Policies 3 and 4 focus on the environmental effects and requiring consideration of mitigations proposed.

The Applicant reiterates the benefits the project will create including the generation of a significant amount of electricity. The Applicant also notes the mitigations enable the effects to be less than minor.

I agree with the Applicant's assessment and consider that the proposal will be consistent with the policy direction of the NPSET.

National Policy Statement on Renewable Electricity Generation (2011)

POLICY A	Recognising Benefits of Renewable Electricity Generation Activities
POLICY B	Acknowledge Practical Implications
POLICY C1	Acknowledge Practical Constraints

The NPSREG was introduced in 2011. I agree with the applicant, in section 7.2.1 of its AEE, that it has a significant role in promoting renewable electricity generation. I also agree that it provides strong directional support for the establishment of new renewable electricity generation activity where the resource is available and the connection to existing infrastructure, especially the national grid within Policy C1. Policy A1 requires decision makers to recognise the benefits of renewable energy, while Policy B1 requires decision makers to have regard to targets relating to renewable energy generation.

In this instance, it is clear the location meets Policy C1 being within close proximity to an existing substation. I have also reflected on the Applicant's assertion that the solar farm will be able to generate up to 65MW(AC) of power, enough to power approximately 18,000 homes. I agree that this assists with the government targets relating to renewable energy generation and the consequential reduction in greenhouse gases. Furthermore, it is noted that the effects on the environment from the establishment of the solar farm are expected to be less than minor.

National Policy Statement for Freshwater Management (2020, Amended 2023)

OBJECTIVE	Natural & Physical Resources Management
POLICY 1	Freshwater Management gives effect to Te Mana o te Wai
POLICY 2	Tangata Whenua Freshwater Management Active Involvement
POLICY 3	Land Use, Catchment & Receiving Environment Effects
POLICY 9	Indigenous Freshwater Species Habitat Protection
POLICY 15	Social, Economic & Cultural Well-being

The NPSFM was originally introduced in 2011 and subsequently superseded in 2014, updated in 2017, replaced in August 2020 and updated again in February 2023. The 2020 and 2023 version of the NPSFM is similar to the previous versions in that it largely directs regional councils to prepare or make changes to regional plans to give effect to Te Mana o te Wai, and all local councils to actively involve tangata whenua in freshwater management.

The NPSFM contains an overarching objective and a number of supporting policies. The objective states:

> *The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:*
>
> *a) first, the health and well-being of water bodies and freshwater ecosystems*
>
> *b) second, the health needs of people (such as drinking water)*
>
> *c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.*

Fifteen supporting policies support the objective seeking specific actions relating to the management of freshwater including giving effect to Te Mana o te Wai, the involvement of tangata whenua, considering a whole catchment approach and protection of specific habitats.

In relation to this proposal the key aspect is the discharges, to the unnamed tributary of the Otamaraho Stream from the erosion and sediment control devices. Based on the assessment undertaken by the Applicant and reviews undertaken by local iwi along with Mr Christenson and Mr Pearce I am satisfied that the effects as a result of the discharge can be suitably managed through the imposition of consent conditions.

In addition, feedback from tangata whenua and Mr Lambie indicate that the proposal will improve the immediate environment overall, through the additional planting proposed around the existing areas of native bush and within the wetland environment.

I am of the opinion that the application is consistent with the framework of the NPSFM and the relevant objectives and policies particularly the requirement of putting the health and well-being of water bodies and freshwater ecosystems first.

National Policy Statement for Highly Productive Land (2024)

The National Policy Statement for Highly Productive Land (NPSHPL) came into force in 2022 and was amended in August 2024. I consider it is relevant as the land on which the proposal is located is LUC Class 2 and 3 land, meeting the interim definition of highly productive land.

The NPSHPL requires councils to avoid inappropriate use or development of highly productive land that is not land based primary production (Policy 8 and Clause 3.9(1)). A use or development is considered inappropriate unless one of the matters contained in Clause 3.9(2) applies to the use or development and the matters under Clause 3.9(3) are applied. The matters in Clause 3.9(2) include whether the use is associated with specified infrastructure and there is a functional or operational need for the use to be on highly productive land.

Specified Infrastructure includes infrastructure that is recognised as regionally or nationally significant in a national policy statement or regional policy statement or regional plan. The need to develop, operate, maintain and upgrade renewable energy generation activities throughout New Zealand is recognised as a matter of national significance in the NPS for Renewable Electricity Generation. Likewise, renewable electricity generation is recognised in the Manawatu-Whanganui Regional Policy Statement as having

regional significance. I am satisfied that the proposal meets the definition of 'specified infrastructure' under the NPSHPL.

The functional or operational need for the solar farm to be on highly productive land in this instance is its locality near to a substation that feeds the National Grid. The location does not require a significant transmission solution, meaning the solar farm has a higher chance of actually being constructed. In my opinion this provides an operational need for the solar farm to be in its proposed location.

In addition to the above, council must take measures to ensure that any use or development on highly productive land minimises or mitigates any actual loss or potential cumulative loss of the availability and productive capacity of highly productive land in its district; and avoids if possible, or otherwise mitigates, any actual or potential reverse sensitivity effects on land-based primary production activities from the use or development. In this instance I consider that there will not be any loss of productive land. While the land will be used for an alternative use, the land will still be available for rural productive purposes.

The Applicant states that it will be able to run sheep alongside the solar farm to graze grass that will be maintained under the panels. The Applicant asserts that solar panel coverage equates to just under 45% of the Site, demonstrating that 55% of the site will remain in productive use through the grazing of sheep. As such, it is not considered that the Project restricts the Sites ability from being utilised as land-based primary production, rather the two activities can harmoniously exist within the Site.

Overall, I consider that the solar farm meets the requirements under Clause 9.3 of the NPSHPL and that the NPSHPL does not prevent the granting of the application.

9. OTHER MATTERS

MATTERS RELEVANT TO CERTAIN APPLICATIONS (SECTION 104)

Section 104(3) of the RMA lists a number of matters where a consent is unable to be granted if it if found to be contrary to this section. A notification decision has been undertaken, separate to the substantive decision, which has established that trade competition, or effects on persons who have provided written approval (being on neighbour), are not matters that have been considered. In addition, I am satisfied the granting of this consent will not be contrary to any of the matters listed in s104(3)(c).

Lastly, I am satisfied the consent is not being granted when the application should have been notified, based on the outcome of the notification decision.

MATTERS RELEVANT TO CERTAIN APPLICATIONS (SECTION 105)

Section 105(1) of the RMA lists a number of matters which must be had regard to if an application is to do something that would contravene section 15 (discharges of contaminants to the environment). In this instance while no direct discharges are proposed it is possible that the earthworks will result in a discharge of sediment to water.

Specific consideration must be given to the following set out in s105(1)(a) to (c)

> *(a) the nature of the discharge and the sensitivity of the receiving environment to adverse* effects*; and*
>
> *(b) the applicant's reasons for the proposed choice; and*

(c) any possible alternative methods of discharge, including discharge into any other receiving environment.

As noted above the site will be subject to earthworks which cover much of the area where the proposed solar farm is to be constructed. The earthworks will result in a risk of sediment laden water entering the identified wetlands and/or stream.

The Applicant has proposed a comprehensive ESCP which will avoid or manage the loss of sediment to the environment. No alternative has been proposed. However, it is considered that the use of an ESCP which is consistent with the "*Erosion and Sediment Control Guideline for Land Disturbing Activities in the Wellington Region*" is best practice for the management of sediment during earthworks.

Based on this assessment, I am satisfied the granting of this consent is not restricted by s105(1).

RESTRICTION ON GRANT OF CERTAIN DISCHARGE PERMITS (SECTION 107)

Section 107 of the RMA lists a number of effects that must be assessed when assessing an application is to do something that would contravene section 15 (discharges of contaminants to the environment).

It states that consent must not be granted:

"if, after reasonable mixing, the contaminant or water discharged (either by itself or in combination *with the same, similar, or other contaminants or water), is likely to give rise to all or any of the following effects in the receiving waters:*

(c) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:

(d) any conspicuous change in the colour or visual clarity:

(e) any emission of objectionable odour:

(f) the rendering of fresh water unsuitable for consumption by farm animals:

(g) any significant adverse effects on aquatic life."

The Applicant has stated:

*"*Earthworks *undertaken in accordance with the aforementioned guidelines will minimise and/or mitigate any adverse environmental effects of sediment discharge during the works through appropriate use and design of ESC methodologies.*

I agree with the Applicant's assessment noting that the ESCP will ensure that effects of the discharge of sediment to the environment will be adequately avoided or mitigates.

Overall, I am satisfied that s107 does not prevent the granting of this consent.

10. DURATION AND REVIEW

While a District land use consent can be granted for an unlimited period, regional consents generally have a maximum of 35 years, under the RMA. With respect to the consent term for activities managed within the jurisdiction of the Regional Council, the One Plan contains general objectives and policies including those used to set a consent term.

The following objectives and Policies are relevant to this consent:

POLICY IP-P5 Consent Durations
POLICY IP-P6 Consent Review

Policy IP-P5 outlines that consent durations for applications required under sections 13 and 14 of the RMA will generally be set at the next common catchment expiry date specified in Table 12.1 (for the Tamaki-Hopelands this is 1 July 2011) Expiry dates can be set longer than 10 years after consideration of certain factors including:

A. The extent to which an activity is carried out in accordance with a recognised code of practice, environmental standards or good practice guideline.

B. The most appropriate balance between environmental protection and investment by the Applicant.

C. The provision of s128 review opportunities.

D. Whether the activity is one of several facilities listed. I note that this project would fit within the definition of infrastructure which includes electricity generating facilities.

The following is a summary of the terms of the activities:

Activity	Rule	Term
Land Use, Land, Earthworks	RP-LF-LAND-R1 Controlled Activity	The initial installation will result in land disturbance as will the decommissioning of the solar farm. No specific term has been requested. However, I consider a 35-year term to allow for both the earthworks associated with the commissioning and again with the decommissioning activities (ie. Physical removal of the infrastructure) to occur, is appropriate. In addition, I have recommended it be coupled with a review clause that allows for a yearly review, if required.
Discharge Permit, Cleanfill Discharge (to land)	Rule LF-LW-R38 Discretionary Activity.	The initial installation will result in the discharge of cleanfill, being fill imported to site for the purpose of developing roads and tracks within the site. Once this is completed no further import will be required. I have recommended a term of 10 years be applied to this aspect of the consent.

Activity	Rule	Term
Land Use, Establishment, maintenance and operation of a new solar farm.	NESETA – Regulation 12 5.3.7.2(b) – Renewable Electricity Generation Facilities – Discretionary Activity. Rule 5.1.5.3 – Earthworks – Discretionary Activity. Rule 5.4.10.3 – Setbacks – Discretionary Activity. Rule 5.4.4.3 – Structure height – Discretionary Activity.	A Land Use consent is considered to have an unlimited term. In this instance the lifespan of the solar farm is expected to be up to 40 years. It is noted that the proposal includes decommissioning of the solar farm. It is recommended that if the farm is to be decommissioned then the land use consent should be surrendered.

In this instance, while not in alignment with the common catchment expiry date, I am satisfied that the consent can be granted for 35 years noting the level of investment by the Applicant and expected lifespan of the solar farm to be 40 years. In addition, the mitigations proposed are in accordance with best practice, particularly for erosion and sediment control and the improvements to the local environs including the wetlands and stream habitat.

With regards to a lapse date, the Applicant has not addressed this. However, I consider a 5-year lapse date will allow sufficient time for the solar farm to be installed and all consents to be given effect to.

With regards to review dates, using the guidance of Policy IP-P6, I consider that it is appropriate to apply a frequent review date for the first 10 years, reducing to 10-year increments thereafter ie. July 2026, 2028, 2031, 2036, 2041, 2051.

With regards to the Land Use consent issued under the District Plan I consider it appropriate that the consent be surrendered upon decommissioning of the solar farm. I have recommended conditions to this effect.

11. PART 2 MATTERS

I am aware of the recent case in the Court of Appeal being "R J Davidson Family Trust v Marlborough District Council [2018] NZCA 316". My understanding of this case is it essentially applies the principles of the King Salmon case to consents. Therefore, a full Part 2 assessment need not be undertaken provided there is no known illegality, uncertainty, or incompleteness in the relevant part of the Regional and District Plans. As there are no known illegalities, uncertainties or incompleteness with the District Plan relating to this consent therefore no further assessment against Part 2 of the Resource Management Act, 1991 is necessary.

12. CONCLUSION

For the reasons set out above, it is considered that the proposed activity will have less than minor effects. Furthermore, it is considered that the proposal is consistent with the relevant objectives and policies of the district plan, regional plan, regional policy statement and is not prevented by any National Policy Statements and consent to it is therefore able to be granted.

13. RECOMMENDATION AND DECISION – TARARUA DISTRICT COUNCIL

Recommendation

THAT, pursuant to Sections 104 and 104B of the Resource Management Act 1991, the Tararua District Council grant its consent to the application lodged by Aurecon on behalf of the applicant, Dannevirke Solar and Energy Storage Limited, for the establishment, maintenance and operation of a solar farm at 850 Top Grass road, Dannevirke on the land legally described as LOTS 11, 13 AND 14 DP 3137 (held In Record of Title HBA2/287) under both the Tararua District Plan and the National Environmental Standards for Electricity Transmission Activities (2009).

The activity is recommended to be approved for the reasons outlined in the above report and the following:

a. There will be a less than minor effect on the environment as a consequence of granting consent to the proposed activity.

b. The activity is consistent with the relevant objectives and policies of the Tararua District Plan.

c. The application made under the National Environmental Standards for Electricity Transmission Activities (2009) is for a Controlled Activity and therefore must be granted.

And subject to the following conditions imposed pursuant to Section 108 of the Resource Management Act 1991

Recommendation:

Natasha Adsett
Senior Planner
Evergreen Consulting Limited

Decision

The Tararua District Council grants resource consent for the reasons stated in the recommendation above to Dannevirke Solar and Energy Storage Limited under sections 104, 104B and 108 of the Resource Management Act 1991 to:

> Establish and operate a solar farm at 850 Top Grass road, Dannevirke on the land legally described as Lots 11, 13 and 14 DP 3137 (held in Record of Title HBA2/287) under both the Tararua District Plan and the National Environmental Standards for Electricity Transmission Activities.

Planning Report Decision Approval:

…… Aimee Charmley, Planning Services Manager

Dated: 18 November 2024

14. RECOMMENDATION AND DECISION– MANAWATŪ - WHANGANUI REGIONAL COUNCIL

Recommendation

It is recommended that the resource consent application by Dannevirke Solar and Energy Storage Limited to undertake earthworks, for the establishment, maintenance and operation of an approximately 90ha solar farm at 440 Tamaki River Road, Dannevirke be granted, subject to the conditions outlined in the attached condition schedules for the following reasons:

a. The activities have been assessed by a range of technical experts as outlined in section 8.0 above, on behalf of the MWRC. Based on these reviews I am satisfied the proposal will have less than minor actual or potential adverse effects on the environment; and

b. The activity is consistent with the relevant objectives and policies of the One Plan; and

c. The activity is consistent with the relevant objective and policies of the National Policy Statement for Freshwater Management and the National Policy Statement for Renewable Energy Generation.

d. The application is for a controlled activity, meaning the consent must be granted.

Natasha Adsett
Senior Planner
Evergreen Consulting Limited

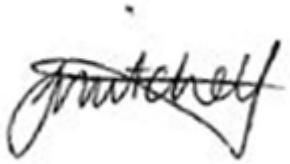
Decision

The Manawatu-Whanganui Regional Council grants resource consent for the reasons stated in the recommendation above to **Dannevirke Solar Farm Limited** under sections 104, 104A, 104B and 108 of the Resource Management Act 1991 to undertake:

a. The large scale disturbance of land at 850 Top Grass Road, Dannevirke, for a term expiring on 1 July 2059; and

b. The discharge of cleanfill to land at 850 Top Grass Road, Dannevirke, for a term expiring on 1 July 2034.

Subject to the conditions in the attached condition schedule.



Team Leader Consents
Made Under Authority Delegated to the Team Leader Consents
18 November 2024

Tararua District Council Resource Consent Conditions

General Accordance

1. The consent holder must undertake the activity in general accordance with the consent application including all accompanying plans and documents first lodged with the Tararua District Council on 4 April 2024, and the following further information and amendments received:

    a. A response to the further information request of 29 April 2024 received on 28 May 2024 by email to questions 2-8.

    b. A response to the further information request of 29 April 2024 received on 24 June 2024 by email to question 1.

    c. A response to the further information request of 29 April 2024 received on 10 July 2024 by email to questions 9 and 10.

    d. Email of 30 June 2024 from Jess Bould on behalf of the Applicant, detailing the following mitigation:

        i. Use of larger specimen plants and the intention to plant the Thorburn Road boundary prior to the start of works.
        ii. Use of shade cloth along the inside of the fence line, provided this is black shade cloth and regularly inspected and maintained/replaced. This cloth can be removed once landscaping is established to 2m+ height.
        iii. Staging of works to build from Top Grass Road towards Thorburn Road, with panels at the Thorburn Road end being placed last (noting that earthworks may occur across the site as required).

    e. Email of 31 June 2024 detailing the area that would constitute the final stage of works (in regard to point 3 of the mitigations detailed in the email of 30 June 2024).

    f. Email of 1 August 2024 from Ms Jess Bould on behalf of the Applicant confirming the shrubs to be planted will be at least 1.0m in height along Thorburn Road (in regard to point 1 of the mitigations detailed in the email of 30 June 2024).

    g. Email of 19 August 2024 detailing a summary of consultation with Rangitane in relation to its CIA and outlining the status of each of the recommendations.

    h. Email of 4 September 2024 detailing a set of seven (7) proposed conditions detailing how the site will be staged and how the planting will interact with this staging should works commence outside of planting season.

    i. Email of 30 October 2024 detailing an updated set of proposed conditions detailing how the site will be staged and how the planting will interact with this staging should works commence outside of planting season.

    j. Email of 30 October 2024 with a finalised CIA from Rangitane.

    ADVICE NOTE: This is a joint decision issued by the Tararua District Council and Manawatū -Whanganui Regional Council. The Manawatū -Whanganui Regional Council consent for land disturbance, ATH-2024206836.00 and ATH-2024207464.00 should be read in conjunction with this condition set**.**

2. The consent holder must ensure that the solar panels of the Solar Farm conforms to the following setbacks as specified in the application and in general accordance with the site and landscape plan attached as **Appendix 1**:

    a. Not within, or within **ten (10) meters** of, the identified wetland areas.

    b. Not within the identified areas of native bush.

    c. Not within **ten (10) meters** of the property boundary.

    ADVICE NOTE: The applicant intends to undertake a **three (3) meter** wide planting buffer between the property boundary and solar farm and enable a **ten (10) metre** buffer to also allow for access ways to be formed.

3. The consent holder must construct, operate and maintain the Solar Farm in general accordance with all management plans submitted to, and certified by, the Team Leader Compliance & Monitoring, Tararua District Council as part of the conditions of this resource consent.

4. The consent holder must ensure that all contractors engaged to undertake activities authorised by this resource consent are supplied with a copy of and made aware of the conditions and management plans that apply to this resource consent that are relevant to their work area and the measures required for compliance with the conditions.

5. The consent holder must notify the Team Leader Compliance & Monitoring, Tararua District Council at least **20 working days** before works on the site commences.

    ADVICE NOTE: The notification of work can be sent to the following email planning@tararuadc.govt.nz using the reference **Condition 5** of 202.2024.29.1

6. The following timing restrictions apply to this consent:

    a. If construction works are to commence between 1 November and 30 April of any given year, the following site establishment works may occur across the site (being both Areas 1 and 2 shown in **Figure 1** below, or any updated figure as allowed for by condition 7 (k), and shall be limited to:

        i. fencing;

        ii. earthworks including trenching, cabling and establishment of access tracks; and

        iii. piling.

        Built infrastructure is not able to be installed until the landscaping requirements of **Conditions 16, 17 and 18** are met. At this point the works shall be undertaking so that any individual component is completely installed in Area 1, moving towards Area 2.

    b. If construction works commence between 1 May and 31 October (ie. Within the planting season) landscape planting in accordance with **Conditions 16, 17 and 18** apply. Works shall then be undertaken with site establishment occurring first, followed by built Infrastructure. Built infrastructure shall be undertaken so that any individual component is completely installed in Area 1, moving towards Area 2.

    ADVICE NOTE: For the purpose of this condition set, site establishment works includes cabling, associated earthworks/ trenching and piling. Built infrastructure includes substation building, transformer, BESS, solar panel support structures and solar panels. For

clarification, built infrastructure does not include any fencing (boundary or otherwise), development of access tracks or planting.

ADVICE NOTE: For clarification the installation of the solar farm is proposed to be undertaken in layers. Site establishment works are completed initially across site and then the solar farm is progressively built with the support structures, followed by the solar panels last. The intention of this condition is enabling the installation so that each component (ie. Support tables, and then solar panel) are installed in turn starting at Top Grass Road (ie. Area 1), moving towards Thorburn Road (Area 2). The intent is that the support tables should be installed across the site from Area 1 then into Area 2, followed by the solar panels in the same manner. The final part of the built infrastructure should the installation of the solar panels in Area 2.

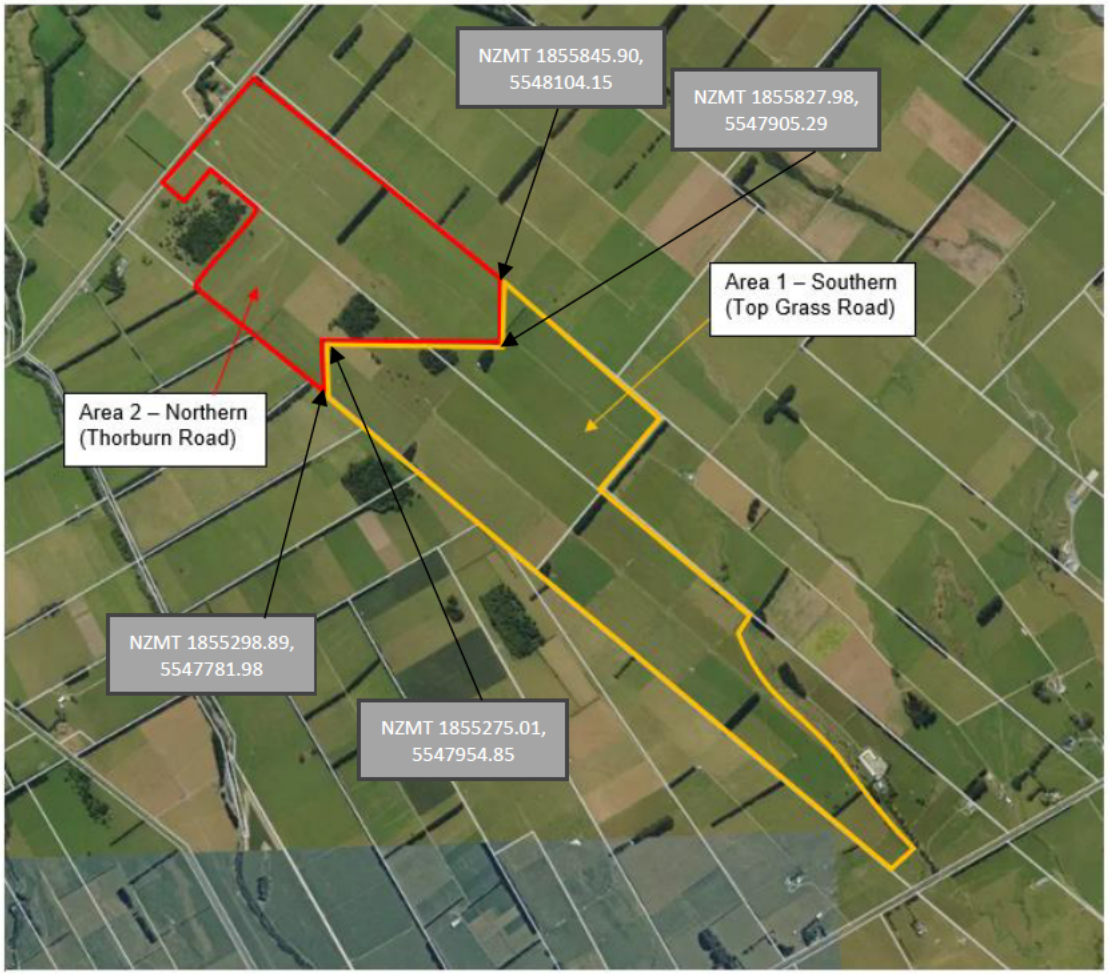


***Figure 1**: Image showing how the site is split into Areas 1 and 2, along with approximate coordinates, for the purpose of these consent conditions.*

Detailed Design Process

7. Prior to construction, the consent holder shall submit a finalised drawing set for technical certification. These drawings must detail:
    a. Internal layout of the solar farm including the:
        i. Location of the internal roads.

ii. The layout of the solar arrays and setbacks from road frontages, property boundaries and natural features including streams, wetlands and areas to native bush.
iii. Location and design of the BESS units/ inverters.

b. Layout within the Site Compound including:
   i. Storage and maintenance buildings.
   ii. Welfare buildings and offices
   iii. Switchgear buildings
   iv. Firefighting water tanks.
   v. Carparks.
   vi. Inverters and BESS.
c. Details of the internal roads.
d. Locations of vehicle access crossings.
e. Stormwater management across the site noting the requirements of **Condition 42** and the stormwater management measures and devices, as outlined within the Stormwater Management Plan accompanying the application.
f. Demonstrating that the layout will ensure the activity meets the noise limits in **Condition 46**.
g. Earthworks Plan including the:
   i. Total volume and area of earthworks;
   ii. Cut and fill heights;
   iii. Extent and detail of trenches;
   iv. Demonstrate how and where surplus material is to be managed on site.

The drawing set shall demonstrate:

h. Detailed design of the construction site access onto Top Grass Road and Thorburn Road noting the requirements of **Conditions 32 and 33**;
i. Site boundary setbacks and mitigation planting is consistent with the site and landscape plan included in **Appendix 1** and meets the requirements of any landscape conditions including **Conditions 1, 11, 49, 50 and 51.**
j. Maximum height of buildings, facilities and structures
k. The exact slip between areas 1 and 2 as shown in **Figure 1**, associated with **Condition 6**. An allowance of plus or minus (+/-) 25 metres is allowed from the co-ordinates given.
l. How feedback from iwi groups Rangitāne o Tamaki-nui-ā-Rua's and Ngāti Kahungunu Ki Tamaki nui-a-Rua has been provided for.

ADVICE NOTE: The condition seeking feedback from iwi has been included on an Augier basis. To provide for Rangitāne o Tamaki-nui-ā-Rua's and Ngāti Kahungunu Ki Tamaki nui-a-Rua involvement in the development of the final site plans, Taiao Groups will be invited to review the document and make recommendations to provide for their cultural values.

8. The drawing set must be submitted to the Team Leader Compliance & Monitoring, Tararua District Council for technical certification at least **twenty (20) working days** before works commence on the site.

ADVICE NOTE: Team Leader Compliance & Monitoring will provide technical certification of the drawing set in consultation with Council's Land Development Engineer.

ADVICE NOTE: The drawing set can be sent to the following email planning@tararuadc.govt.nz using the reference **Condition 8** of 202.2024.29.1

9. Certification (or withholding certification) of the drawing set is based on whether the drawing set meets the requirements of the conditions of this resource consent, with specific focus on the matters outlined in **Condition 7**.

10. If technical certification is refused under **Condition 9,** The Consent Holder must then submit a revised drawing set following the procedure set out in **Conditions 7 and 8**.

Planting requirements

11. A Landscape Planting Methodology (LPM) shall be developed prior to the commencement of construction. It shall be provided Tararua District Council for certification at least **20 working days** prior to the commencement of construction. The LPM shall at a minimum set out:

    a. The implementation and maintenance of native plants, including demonstrating:

        i. That plant will be planted at a PB3 size at a minimum height of 25cm tall, except the plants along Thorburn Road, that will be planted at **one (1) meter** tall.

        ii. The hedgerow will be fenced off so it will not be affected by stock grazing.

        iii. The proposed plants will be irrigated for the first **three (3) years** via an automatic irrigation system.

        iv. Plant spacings as indicated on **Figure 2** below.

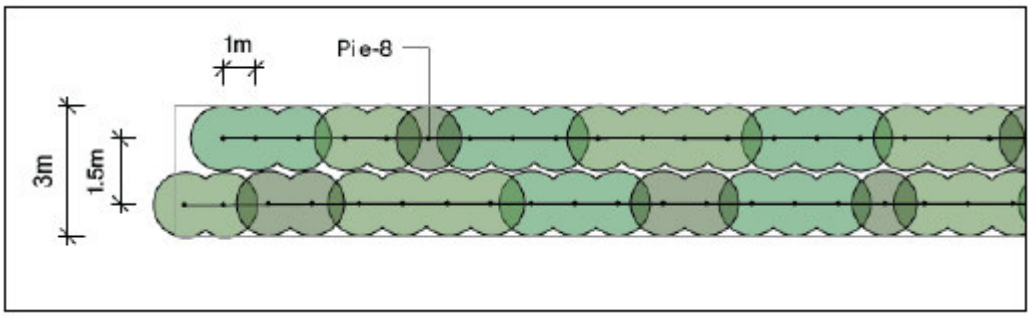


***Figure 2**: indicative planting spacing*

    b. Programme of landscaping for the Site and how this interacts with the construction programme including timing of removal of existing vegetation where relevant and detailing how the landscaping meets the requirements of **Conditions 16, 17, 18**

    c. Methodology for providing temporary screening, (noting the requirement of **Condition 15**), or retaining existing shelterbelts within Area 1 (being Area 1 as defined in **Condition 6, and Figure 1**) if the earthworks programme for Area 1 is completed prior to the start of the next planting season (May to October). The methodology is to include maintenance requirements for temporary screening of the above ground infrastructure prior to all native vegetation being installed.

    d. Ongoing management of the site including tree replacement to meet **Condition 49** and trimming and maintenance to meet **Conditions 50 and 51**.

12. The LPM must be submitted to the Team Leader Compliance & Monitoring, Tararua District Council for technical certification at least **twenty (20) working days** before works commence on the site.

    ADVICE NOTE: The drawing set can be sent to the following email planning@tararuadc.govt.nz using the reference **Condition 12** of 202.2024.29.1

ADVICE NOTE: If the LPM is certified before the 20 working days elapse this condition does not prevent works commencing.

13. Certification (or withholding certification) of the LPM set is based on whether the drawing set meets the requirements of the conditions of this resource consent, with specific focus on the matters outlined in **Condition 11**.

14. If technical certification is refused under **Condition 13,** The Consent Holder must then submit a revised drawing set following the procedure set out in **Conditions 11 and 12**.

15. If temporary screening is required per **Condition 11(c)**, the temporary screening shall consist of **1.8 meters** tall black shade cloth attached to the fence until plants reach a height of **two (2) meters**, at which point it must be removed.

16. The landscaping within the site will be completed prior to the installation of the built infrastructure components, with the exception of:

    a) The Top Grass Road boundary which will be completed in the first available planting season following the below ground infrastructure being installed provided that suitable screening (e.g. retaining existing shelterbelts as per **Condition 11**) is utilised; and

    b) The Thorburn Road boundary, which will have landscape treatments applied in accordance with **Conditions 17 and 18** of this resource consent.

    ADVICE NOTE: For the purpose of this condition set, below ground infrastructure includes cabling, associated earthworks/ trenching and piling. Built infrastructure includes substation building, transformer, BESS, solar panels and panel support structures. For clarification, built infrastructure does not include any fencing (boundary or otherwise), development of access tracks or planting.

17. Landscape treatments along the Thorburn Road (northern) boundary shall be undertaken in the first available planting season following any of the site works. This will consist of:

    a) *Griselinia littoralis* (broadleaf) and *Pittosporum crassifolium* (NZ Karo) at a minimum planted height of **one (1) meter** along the entirety of the Thorburn Road (northern) boundary in Area 2 (as defined in **Figure 1**).

    b) **1.8 meter** tall black shade cloth attached to the **1.8 meter** tall deer fence on the Thorburn Road (northern) boundary.

    ADVICE NOTE: For clarification any below ground or built infrastructure works in Area 1 triggers this condition.

    ADVICE NOTE: For the purpose of this condition set, below ground infrastructure includes cabling and associated earthworks/ trenching and piling. Built infrastructure includes substation building, transformer, BESS, solar panels and panel support structures. For clarification, built infrastructure does not include any fencing (boundary or otherwise), development of access tracks or planting.

18. Shade cloth must be inspected on a monthly basis, maintained, and replaced if damaged, until such time as the planting specified in **Condition 17 (a)**, reaches a minimum height of **1.8 meters.**

19. An Ecological Restoration Plan (ERP) shall be developed prior to the commencement of construction. It shall be provided Tararua District Council for certification at least **20 working days** prior to the commencement of construction. The ERP shall at a minimum set out:

    a. A plan prepared by suitably qualified ecologist that identifies the location and extent of the wetlands and bush areas to be fenced and buffer planted.

b. Details of the standard of fence to be placed around the wetland, stream and bush areas noting the requirements of **Condition 23**.

c. Details of the frequency of fence maintenance and checks to ensure livestock are excluded from the areas identified in (a). Any maintenance is to be at least once annually.

d. Lists the species to be planted, planting density, and planting season including a timetabling for planting with the aim of reaching 80% canopy coverage within 10 years.

e. Specify the locality of the plant sourcing.

f. How pest plant control within the fenced areas will achieve zero-density of non-native invasive pest plants.

g. How possum, feral deer, pig, and goats, within the fenced areas, will be controlled to achieve a zero-density.

h. The regime for infill of areas that may experience plant failure and how this will be monitored.

i. How feedback from iwi groups Rangitāne o Tamaki-nui-ā-Rua's and Ngāti Kahungunu Ki Tamaki nui-a-Rua has been provided for.

ADVICE NOTE: The condition seeking feedback from iwi has been included on an Augier basis. To provide for Rangitāne o Tamaki-nui-ā-Rua's and Ngāti Kahungunu Ki Tamaki nui-a-Rua's involvement in the development of the final ERP, Taiao Groups will be invited to review the document and make recommendations to provide for their cultural values.

ADVICE NOTE: Plants are to be sourced from within the Manawatu Gorge and/or Pahiatua Ecological Regions where possible.

20. The ERP must be submitted to the Team Leader Compliance & Monitoring, Tararua District Council for technical certification at least **twenty (20) working days** before works commence on the site.

ADVICE NOTE: The drawing set can be sent to the following email planning@tararuadc.govt.nz using the reference **Condition 20** of 202.2024.29.1

ADVICE NOTE: The Team Leader Compliance & Monitoring, Tararua District Council may choose to undertake consultation with the Manawatū -Whanganui Regional Council during the certification process.

ADVICE NOTE: If the ERP is certified before the 20 working days elapse this condition does not prevent works commencing.

21. Certification (or withholding certification) of the ERP set is based on whether the ERP meets the requirements of the conditions of this resource consent, with specific focus on the matters outlined in **Condition 19**.

22. If technical certification is refused under **Condition 21,** The Consent Holder must then submit a revised drawing set following the procedure set out in **Conditions 19 and 20**.

23. Fencing of the wetland W1 as identified in the Ecological Assessment prepared by Ecological Solutions (and attached within **Appendix 1),** shall have at least a **ten (10) meter** setback. All other ecological areas shall have a fencing setback of at least **three (3) meters**.

Construction Management

24. Prior to construction, the consent holder shall submit a draft Construction Management Plan (CMP) and have certified by, the Team Leader Compliance and Monitoring, Tararua District Council. The CMP is to cover at minimum the following matters:

    a. Confirm and demonstrate compliance with New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) as per **Condition 55**.

    b. Confirm construction activities, staging and scheduling, anticipated equipment and the processes to be undertaken.

    c. Confirmation of roading routes to be utilised.

    d. Location of any temporary laydown areas.

    e. Location and treatment of topsoil stockpiles.

    f. Location and use of erosion and sediment controls.

    g. Dust management, particularly during summer months.

    h. Hours of operation noting the requirements of **Condition 37**.

    i. Schedule and methods to ensure adherence with the New Zealand Standard NZS 6803:1999 "Acoustics – Construction Noise", particularly Schedule E, noting the requirements of **Condition 35 and 36.**

    j. Mitigation options if full compliance with the relevant noise and vibration criteria cannot be achieved. Specific noise and vibration mitigation measures must be implemented which may include, but not limited to acoustic screening, alternative equipment / processes and different piling methodology where noise or vibration levels are predicted or demonstrated to approach or exceed the relevant limits.

    k. Details of specific times and days when construction activities causing noise and vibration would occur.

    l. Details of how non compliances with the noise and/or vibration standards will be managed including any additional monitoring proposes.

    m. Accidental discovery protocol – key contacts, processes and procedures to follow.

    n. Community liaison and notifying or proposed construction activities along with community complaints procedure and contacts.

    o. Contractor contact information, roles, responsibilities and training.

    p. Monitoring of the roading surface as per **Condition 34** both prior to and during construction.

    q. Te Whare Taiao and/or Taiao Ūkaipō de-fish the stream including relocation of any aquatic life, before the culvert replacement works begin.

    r. That the existing culverts are assessed for barriers to fish migrations.

    s. Feedback from iwi groups Rangitāne o Tamaki-nui-ā-Rua's and Ngāti Kahungunu Ki Tamaki nui-a-Rua particularly in relation to accidental discovery, monitoring and Karakia opportunities.

ADVICE NOTE: The condition seeking feedback from iwi and involvement in de-fishing/ culvert assessment, has been included on an Augier basis. To provide for Rangitāne o Tamaki-nui-ā-Rua's and Ngāti Kahungunu Ki Tamaki nui-a-Rua's involvement in the development of the final CMP, Taiao Groups will be invited to review the document and make recommendations to provide for their cultural values during construction activities including the allowance to do a pre-work karakia.

25. The CMP must be submitted to the Team Leader Compliance & Monitoring, Tararua District Council for technical certification at least **twenty (20) working days** before construction works commence on the Solar Farm site.

    ADVICE NOTE: Team Leader Compliance & Monitoring will provide technical certification of this plan in consultation with Council's Land Development Engineering and Council's Roading Manager.

    ADVICE NOTE: The CMP can be sent to the following email planning@tararuadc.govt.nz using the reference **Condition 25** of 202.2022.136.1

    ADVICE NOTE: If the CMP is certified before the 20 working days elapse this condition does not prevent works commencing.

26. Certification (or withholding certification) of the CMP is based on whether the CMP meets the requirements of the conditions of this resource consent, with specific focus on the matters outlined in **Condition 24**.

27. If technical certification is refused under **Condition 26**, the Consent Holder must then submit a revised CMP following the procedure set out in **Conditions 24 and 25**.

28. The CMP may be amended or updated without the need for certification where:

    a. The amendment is an administrative change, including nominating personnel; and

    b. The revised CMP is provided to the Team Leader Compliance & Monitoring, Tararua District Council and, within **five (5) working days** of receiving the revised CMP, if the Tararua District Council has not advised in writing that the amendment must be certified under **Condition 28** on the basis that the amendments do not meet the requirements of clause A.

29. Except as provided for in **Condition 28**, amendments to the CMP and any appendices must be certified in writing by Team Leader Compliance & Monitoring, Tararua District Council within **ten (10) working days** of receipt, acting in a technical certification capacity prior to the commencement of any works to which the amended CMP relate.

    a. Certification (or withholding certification) to any amendment to the SMP is based on the Team Leader Compliance & Monitoring, Tararua District Council assessment of whether the amended CMP meets the requirements of the conditions of this resource consent.

    b. Where Council is unable to certify the amendment to the CMP the Council will advise the Consent Holder in writing, outlining the reasons why technical certification has been refused within **ten (10) working days** of receipt. The Consent Holder must then submit a revised amendment to the CMP.

30. The Consent Holder shall prepare a Fire Safety Management Plan and provide to Tararua District Council and Fire and Emergency New Zealand for information purposes, The Fire Safety Management Plan shall include, but is not limited to:
    a. A Site Plan, showing emergency vehicle access, internal roading network and location of Fire Fighting Water Supply Tanks (noting the requirements of **Conditions 7 and 52**);
    b. Location of hazardous substances stored on site (if any);
    c. Location of other equipment such as battery equipment, the substation area, transformers and buildings; and

d. Confirmation that sufficient water volume, pressure and flow will be provided in accordance with NZFS Fire Fighting Water Supplies Code of Practice (CoP) SNZ 4509:2008 and that this water supply is accessible for firefighting purposes.

In addition, a memo shall accompany the plan containing feedback from Fire and Emergency New Zealand.

ADVICE NOTE: The Fire Safety Management Plan can be sent to the following email planning@tararuadc.govt.nz using the reference **Condition 30** of 202.2022.136.1

31. The Fire Safety Management Plan referred to in **Condition 30**, shall be reviewed and if required, updated, every **five (5) years** or where there are site changes including changes to equipment. Where changes to the Fire Safety Management Plan are made, a revised plan shall be provided to Council and FENZ.

ADVICE NOTE: The Fire Safety Management Plan can be sent to the following email planning@tararuadc.govt.nz using the reference **Condition 31** of 202.2022.136.1

Construction and Earthworks

32. Prior to construction, the vehicle crossing on Top Grass Road to be used for construction traffic is to be designed in general accordance with the standards outlined in **Appendix 8.2** of the Tararua District Plan. However, the consent holder may exclude developing/ widening the opposite side of the road to the entrance as shown in the lower portion of the diagram. Any additional variations from the standard vehicle crossing design set out in **Appendix 8.2** of the Tararua District Plan are to be certified by the Team Leader Compliance & Monitoring, Tararua District Council, in writing prior to works occurring. The consent holder must notify the Team Leader Compliance & Monitoring, Tararua District Council of the intent to upgrade any vehicle crossing **Ten (10) working days** prior to construction commencing to allow time for an inspection should it be deemed necessary.

ADVICE NOTE: The Corridor Access Request number and photographic evidence can be sent to: planning@tararuadc.govt.nz reference 202.2023.136.1, **Condition 32**.

ADVICE NOTE: Information on Corridor Access Requests can be found here: https://www.tararuadc.govt.nz/services/roading/vehicle-and-stock-crossings.

ADVICE NOTE: It is intended that the access be developed to include the widened access and tapering adjacent to the access. However, it is considered that the widening of the road on the opposite side to the access is not necessary, due to the relatively low traffic volumes.

33. Prior to construction, the vehicle crossing on Thorburn Road to be used as an emergency access, is to be designed in general accordance with the standards outlined in **Appendix 8.2** of the Tararua District Plan. The consent holder must notify the Team Leader Compliance & Monitoring, Tararua District Council of the intent to upgrade any vehicle crossing **Ten (10) working days** prior to construction commencing to allow time for an inspection should it be deemed necessary.

ADVICE NOTE: The Corridor Access Request number and photographic evidence can be sent to: planning@tararuadc.govt.nz reference 202.2023.136.1, **Condition 33**.

ADVICE NOTE: Information on Corridor Access Requests can be found here: https://www.tararuadc.govt.nz/services/roading/vehicle-and-stock-crossings.

ADVICE NOTE: It is intended that the access be developed to include the widened access and tapering adjacent to the access. However, it is considered that the widening of the road on the opposite side to the access is not necessary, due to the relatively low traffic volumes.

34. The applicant must remedy any significant damage to Tamaki River Road and/or Top Grass Road (or any other road identified in the CMP under **condition 24(c)**), caused by the increased volume of heavy vehicle movements, to the satisfaction of the Tararua Alliance. In order to monitor this the applicant must:

    a. Prior to works commencing (where heavy vehicles associated with the construction of the solar farm use Tamaki River Road and/or Top Grass Road, or any other road identified in the CMP under **Condition 24(c)**) the applicant shall engage an appropriately experienced and qualified roading engineer to undertake a joint road inspection with Tararua Alliance Representative from the access points on the subject site to the intersection of Tamaki River Road and State Highway 2 and submit a summary report of the road survey to the Tararua Alliance that describes:
        i. The quality and state of this section of road; and
        ii. Identifies any damage to the road.
    b. A roadside counter shall be installed at the vehicle access on Top Grass Road to record the number of heavy vehicles associated with the solar farm.
    c. Within **one (1)** month of the completion of construction works (being the completion of both Areas 1 and 2 as shown in **Figure 1** of this condition set) the consent holder must submit a final road survey prepared by a suitably qualified roading engineer to the satisfaction of the Tararua Alliance that identifies:
        i. The quality and state of this section of road; and
        ii. Identifies any damage to the road; and
        iii. Using the heavy vehicle traffic data from (b) pro-rata the remediation works required by the consent holder;
        iv. Proposed remediation works required to reinstate the road to the initial quality of the road (prior to commencement of works).
    d. The survey in a) must be submitted to Tararua Alliance within 1 week of it taking place.
    e. Any damage found to have been caused or exacerbated by the activity shall be programmed for remediation works with Tararua Alliance Maintenance Team within three months of the Final Road Survey being submitted to Tararua Alliance.
    f. All costs associated with the remediation are to be paid in full by the Consent Holder.

ADVICE NOTE: The Road Survey Summary Reports can be sent to the following email planning@tararuadc.govt.nz using the reference 202.2022.29.1, **Condition 34**.

ADVICE NOTE: Please contact the Tararua Alliance to organise the joint road inspection. Tararua Council's Land Development Engineer will be your contact person.

ADVICE NOTE: Please contact the Tararua Alliance to engage their maintenance team to complete the road remediation works, the cost of completing these works will be on charged directly to the Consent Holder.

ADVICE NOTE: Consideration shall be given to any other consented activity involving construction traffic within the vicinity that results in increased traffic volumes along Tamaki River Road or Top Grass Road. Damage costs shall be pro-rata between all projects occurring within the same period as the construction period for the consented

activity, while also taking into account the impact associated with the public use of these roads. This can be achieved by recording the number of heavy vehicles associated with each project as percentages of the overall number of vehicles utilising the affected roads using roadside counters.

35. The consent holder must ensure that construction noise complies with the noise limits in Table 2 of New Zealand Standard NZS 6803:1999 “Acoustics - Construction Noise”. Any measurement and assessment of construction noise must be undertaken in accordance with that Standard.

    ADVICE NOTE: These limits relate to construction noise only. Upon the site becoming operational the operational noise conditions must be complied with as detailed in **Condition 46.**

    ADVICE NOTE: Table 2 of NZS 6803:1999 “Acoustics - Construction Noise” specifies Construction noise levels must not exceed the NZS 6803: 1999 “typical duration” limits of 75dB LAeq and 90dB LAmax when measured at the façade of a receiver building.

36. Vibration from construction activities on the site shall not exceed the guideline values of German Standard DIN 4150-3 (1999): “Structural Vibration Part 3 Effects of Vibration on Structures’ as specified in Line 2 of the Standard.

37. Construction activities shall only operate within the hours of Monday to Saturday 7.30 am - 6.00pm, excluding public holidays. On-site work prior to 7.30am Monday to Saturday, or anytime on Sundays, shall be limited to activities that do not involve machinery/impact/drilling such as, but not limited to works involving hand tools only, checking erosion and sediment controls, walking the site and site meetings.

    Over the construction period, up to five (5) Sundays can be used for construction activities where the consent holder provides the Team Leader Compliance & Monitoring, Tararua District Council notice of this, at least five (5) working days beforehand and demonstrating compliance with the applicable NZS 6803: 1999 Sunday limits as shown below at the façade of any residential receiver surrounding the site:

    0630 - 0730: 45dB LAeq / 75dB LAmax

    0730 - 1800: 55dB LAeq / 85dB LAmax

    1800 - 0630: 45dB LAeq / 75dB Lamax

38. All loading and unloading of trucks with excavation or fill material must be carried out within the Solar Farm site.

39. The consent holder must ensure that any debris tracked onto Top Grass Road, from construction traffic, is cleared from the carriageway as soon as practicable.

40. In the event of an archaeological site, waahi tapu or koiwi being discovered or disturbed during the activities authorised by this consent, the consent holder must immediately cease further works in the immediate vicinity of the accidental discovery and inform:

    a. Rangitāne o Tamaki nui-ā-Rua (06) 374 6860,
    b. Ngati Kahungunu ki Tamaki nui-ā-Rua (06) 374 9224,
    c. Tararua District Council Manager Regulatory Services (06) 374 4080; and
    d. Heritage New Zealand Pouhere Taonga (04) 472 4341.

    Further work in the immediate vicinity of the accidental discovery must be suspended while iwi carry out their procedures for removal of taonga. The Tararua District Council’s Manager Regulatory Services will advise the consent holder when work in the Solar Farm site may recommence.

In the event that human remains (koiwi) are found the New Zealand Police must be contacted immediately and all works must cease until the Tararua District Council's Manager Regulatory Services advises that works can recommence.

41. The consent holder must ensure the Solar Farm site is managed in accordance with the certified CMP during the construction period until the Solar Farm site is stabilised (i.e., no longer producing dust, water-borne sediment or potential contaminants).

42. The finished ground levels (after the cut and fill works) shall not cause ponding/drainage/run-off related nuisance to the neighbouring (surrounding) properties or change of the current drainage patterns (existing overland flow paths) to the detriment of the surrounding properties. In the event that the consented works result in effects of that character these shall be rectified at the expense of the consent holder and to the satisfaction of the Council Infrastructure Team.

43. Removal of native trees on the property is restricted to the following five trees, across four locations as detailed in Table 1:

Table 1: Individual native trees to be removed

	NZTM	
Species	**Easting**	**Northing**
Tawa/(rewarewa or hīnau)	1855436	5548188
Tītoki	1856836	5546516
Tawa/(rewarewa or hīnau) x 2 individual trees	1855338	5548055
Tītoki	1856837	5546511

ADVICE NOTE: A forestry permit may be needed depending on the use of the timber. The Ministry for Primary Industries should be approached for comment.

ADVICE NOTE: Consultation should occur with Rangitāne o Tamaki-nui-ā-Rua and Ngāti Kahungunu Ki Tamaki nui-a-Rua on the use or otherwise of the trees removed under **Condition 43**.

44. Removal of the trees noted in **Condition 43 / Table 1** shall only be removed:
    a) Once the trees have been inspected by a suitably qualified ecologist to confirm the absence of roosting native bats or the presence of lizards;
    b) Outside the bird nesting period **1 September to 31 March**

45. Any lizards discovered on site during construction shall be moved to one of the bush areas identified in **Condition 19 (a).**

ADVICE NOTE: Authorisation may be required under the Wildlife Act for the relocation of any lizards. The Department of Conservation should be approached for comment.

Operational management

46. The consent holder must ensure that the noise levels from the operation of the solar farm does not exceed the following noise limits at the notional boundary of any receiver site when measured and assessed in

accordance with NZS 6801:2008 Acoustics Measurement of Environmental Sound and NZS 6802:2008 Acoustics – Environmental Noise.

a. Daytime (0700 – 1900 hrs) 50 dB LAeq (15-min)
b. Nightime (1900-0700 hrs) 40 dB LAeq (15-min) and 75 dB LAFmax

47. Prior to the operation of the solar farm, certification via a desktop assessment or measurements must be provided from a suitably qualified acoustic consultant that noise from the BESS, inverters or any other equipment associated with the solar farm can achieve the limits specified in **Condition 46**. The certification must ensure the following has been considered:

    a. Noise levels have been assessed for the PCU's at their full operating duty
    b. An assessment of Special Audible Characteristics for tonality using the methodology prescribed within either B4.3 or B4.4 of NZS 6802: 2008
    c. Evidence that plant is oriented to maximise noise directivity away from neighbouring receivers wherever practicable.

48. A report detailing the outcome of the monitoring under **Condition 47** shall be provided to Team Leader Compliance & Monitoring, Tararua District Council within **one (1) month** of the testing occurring.

    ADVICE NOTE: The report can be sent to the following email planning@tararuadc.govt.nz using the reference **Condition 48** of 202.2024.29.1

49. The consent holder shall ensure that all boundary landscape plantings established for the Solar Farm (as set out on the Landscape Mitigation Plan) are maintained to a minimum height of **three (3.0) metres** from ground level, once they have reached that height, except for:

    (a) Landscaping along the Thorburn Road boundary, which shall be maintained at a height of between **two (2) and three (3) metres**.

50. All landscape plantings are to be maintained annually, to the heights specified in **Condition 49.**

    ADVICE NOTE: Prior to the first three annual rounds of maintenance, the consent holder will give notice to the residents at 137 Thorburn Road, Dannevirke, 20 working days prior to proposed maintenance works being carried out. The notice must allow a period of no less than 10 working days for the residents to provide feedback on the height of the hedge trimming and what height it should be trimmed to, between the heights of 2m and 3m. Provided there is an agreement on hedge height between 2m and 3m as per the condition, the hedge will be trimmed annually to this height.

    Where there is no response from the residents to the notice or where the requested vegetation height from the residents is consistent for 2 consecutive years, the consent holder will no longer be required to provide notice of maintenance.

    This advice note relates to the residents residing at 137 Thorburn Road at the time this resource consent was granted and does not apply to future residents of the property.

51. If any tree within the landscape planting around the perimeter of the site, dies or becomes diseased, it will be replaced with a new plant as listed on the planting palette as detailed in the Landscape Mitigation Plan Plant Palette; prepared by Rough Milne Mitchell Landscape Architects and included in the Landscape Assessment Reports Graphic Attachment, dated 9 August 2024.

52. The water tank(s) referred to in the plans approved under **Condition 7,** shall be checked as part of regular site checks and must be maintained at all times to ensure they remain full.

53. The consent holder shall keep a register of any complaints received in respect of the solar farm and make the register available to an officer of the Tararua District Council upon request.

54. Detailed design of the final grid connection option, and Transpower's agreement of the same, shall be provided to Tararua District Council **Twenty (20) working days** prior to the commencement of construction of the connection to the National Grid.

55. Prior to the commencement of grid connection construction works the consent holder shall prepare a Construction Management Plan – Grid Connection (CMP-GC) for the works related to the connection of the Site to the Dannevirke substation in partnership with Transpower NZ Ltd and provided to Council. The CMP-GC shall include, as a minimum, the following:

    a. The name, experience and qualifications of the person(s) nominated by the Consent Holder to supervise the implementation of, and adherence to, the CMP-GC;

    b. Construction drawings, plans, procedures, methods and measure to demonstrate that all construction activities will meet the safe distances within the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) or any subsequent revision of the code;

    c. Details of any areas that are 'out of bounds' during construction and/or areas within which additional management measures are required, such as fencing off, entry and exit hurdles, maximum height limits, or where a safety observer may be required;

    d. Details of proposed contractor training for those working near the transmission lines. All activities are to be undertaken in accordance with the approved CMP-GC.

Decommissioning

56. At least **three (3) months** prior to the commencement of decommissioning of the Solar Farm, the consent holder must submit a Decommissioning Plan to the Team Leader Compliance & Monitoring, Tararua District Council for certification ensuring that it fulfils the requirements of **Conditions 34, 35, 36 and 37**.

    ADVICE NOTE: The notification of the decommissioning commencement date can be sent to the following email planning@tararuadc.govt.nz using the reference **Condition 56** of 202.2024.29.1.

57. The Decommissioning Plan must be prepared by a suitably qualified and experienced person and meet the following objectives:
    a. Decommissioning of the solar panels and all associated infrastructure in a manner that complies with all legislative requirements.
    b. Leaving the land in a condition that is safe and suitable for the subsequent rural land use.
    c. Ensuring that the components and infrastructure are disposed of in a way that maximises re-use and recycling. For any parts that cannot be reused or recycled, ensuring that they are disposed of in an environmentally responsible way in accordance with industry best practice.

58. The Decommissioning Plan must include but not be limited to:
    a. Details on all infrastructure to be decommissioned, including details, method and location of reuse, recycling or disposal and the reasons why the options have been chosen.
    b. Details of specific infrastructure to remain on-site post-closure and reasons why it will remain on Solar Farm site.
    c. Scheduling and timing for decommissioning.
    d. Details for finished ground cover at completion of decommissioning and future rural pastoral land use.
    e. How feedback from iwi groups Rangitāne o Tamaki-nui-ā-Rua's and Ngāti Kahungunu Ki Tamaki nui-a-Rua has been provided for.

    ADVICE NOTE: The condition seeking feedback from iwi has been included on an Augier basis. To provide for Rangitāne o Tamaki-nui-ā-Rua's and Ngāti Kahungunu Ki Tamaki nui-a-Rua's involvement in the development of the final Decommissioning Plan, Taiao Groups will be invited to review the document and make recommendations to provide for their cultural values.

59. The consent holder must notify Tararua District Council at least **15 working days** prior, of the commencement date for decommissioning the Solar Farm to allow Council staff to carry out site inspections to determine compliance with the certified Decommissioning Plan.

    ADVICE NOTE: The **15 day** notification of the decommissioning date can be sent to the following email planning@tararuadc.govt.nz using the reference **Condition 59** of 202.2024.29.1.

60. The consent holder must ensure that:
    a. a Decommissioning Report is prepared and submitted to Tararua District Council following completion of the decommissioning of the solar farm and no later than **20 working days** after the works have been completed. The report shall detail evidence demonstrating that the site is left in a condition that is safe and suitable for the subsequent rural pastoral land use.
    b. The consent holder must surrender its land use consents at the conclusion of decommissioning.

    ADVICE NOTE: The Decommissioning Report and surrendering of consent can be sent to the following email planning@tararuadc.govt.nz using the reference **Condition 60** of 202.2024.29.1

Review

61. The Tararua District Council, under s128 of the Resource Management Act, may once per year, during July, serve notice of its intention to review all conditions of this resource consent for the purpose of reviewing the effectiveness of these conditions in avoiding and mitigating any adverse effects on the environment. The review of conditions must allow for:

    a. Deletion or amendments to any conditions of this resource consent to ensure adverse effects (including noise and dust) are appropriately mitigated, and/or

    b. Addition of new conditions as necessary, to avoid, remedy or mitigate any unforeseen adverse effects on the environment.

GENERAL ADVICE NOTES

a. Pursuant to Section 357 of the Resource Management Act 1991, if you disagree with this decision or any of the conditions of consent, you may lodge an objection in writing to the Tararua District Council. The objection must be received within 15 working days of the receipt of this written decision.

b. No buildings, vehicles, materials or debris associated with construction may be kept on Council land, including the road, without prior approval from the Council.

MWRC Resource Consent Conditions

1. Land Use, Land Disturbance

The following details the location, classifications and conditions associated with the activity.

Authorisation Number	**ATH-2024206836.00**
Activity Type	**Land Use, Land**
Activity Class	**Controlled**
Activity Primary Industry	Power Generation
Activity Primary Purpose	Construction | Access Road (includes Paths, Walkways & Underpass)

Location

The following summarises the authorised location for the consented activity.

Activity Location Description	850 TOP GRASS ROAD, DANNEVIRKE
Valuation Number	11170/124.00
Legal Description	Lots 11, 13 and 14 DP 3137
Map References	NZ Topo50: BM36 559 477

Classifications

The following summarises the classifications associated with the application activity.

Groundwater Management Zone	Manawatu
Water Management Zone	Manawatu Catchment, Manawatu Tamaki Confluence to Hopelands, Lower Kumeti (Mana_5c)
Estuary Management Zone	N/a
Associated River	MANAWATU RIVER, South East Ruahine, Tamaki River (325300)

Descriptive Specification

1. This consent authorises the disturbance of land and the associated discharge of sediment associated with the development, construction, operation and decommissioning of a solar farm on the property legally described as Lots 11, 13 and 14 DP 3137 (Held in record of title HBA2/287) (hereafter referred to as the property), at approximate map reference NZTopo 50: BM36 559 477**,** as shown on the **Site Plan LOC-2024100172** attached as Appendix 1 and forming part of this resource consent.

   ADVICE NOTE: This is a joint decision issued by the Tararua District Council and Manawatū - Whanganui Regional Council. The Tararua District Council consent for land use, Consent number 201.2024.29.1, should be read in conjunction with this condition set**.**

2. The consent holder must undertake the activity in general accordance with the consent application including all accompanying plans and documents first lodged with the Manawatū -Whanganui Council on 4 April 2024, and the following further information and amendments received:

   a. A response to the further information request of 29 April 2024 received on 28 May 2024 by email to questions 2-8.

   b. A response to the further information request of 29 April 2024 received on 24 June 2024 by email to question 1.

   c. A response to the further information request of 29 April 2024 received on 10 July 2024 by email to questions 9 and 10.

   d. Email of 30 June 2024 from Jess Bould on behalf of the Applicant, detailing the following mitigation:

      i. Use of larger specimen plants and plant the Thorburn Road boundary prior to the start of works.
      ii. Use of shade cloth along the inside of the fence line, provided this is black shade cloth and regularly inspected and maintained/replaced. This cloth can be removed once landscaping is established to 2m+ height.
      iii. Staging of works to build from Top Grass Road towards Thorburn Road, with panels at the Thorburn Road end being placed last. Trenching / earthworks are ok to occur as needed.

   e. Email of 31 June 2024 detailing the area that would constitute the final stage of works (in regard to point 3 of the mitigations detailed in the email of 30 June 2024).

   f. Email of 1 August 2024 from Ms Jess Bould on behalf of the Applicant confirming the shrubs to be planted will be at least 1.0m in height along Thorburn Road (in regard to point 1 of the mitigations detailed in the email of 30 June 2024).

   g. Email of 19 August 2024 detailing a summary of consultation with Rangitane in relation to their CIA and outlining the status of each of the recommendations.

   h. Email of 4 September 2024 detailing a set of seven (7) proposed conditions detailing how the site will be staged and how the planting will interact with this staging should works commence outside of planting season.

   i. Email of 30 October 2024 detailing an updated set of proposed conditions detailing how the site will be staged and how the planting will interact with this staging should works commence outside of planting season

   j. Email of 30 October 2024 with a finalised CIA from Rangitane.

3. The conditions in the General Condition Schedule apply to this consent.

Review

4. The Manawatū-Whanganui Regional Council, under s128 of the Resource Management Act, **may once per year, during July**, serve notice of its intention to review all conditions of this resource consent (including those conditions contained in the general condition schedule) for the purpose of reviewing the effectiveness of these conditions in avoiding and mitigating any adverse effects on the environment. The review of conditions shall allow for:

    a. deletion or amendments to any conditions of this resource consent to ensure adverse effects are appropriately mitigated; and / -OR-
    b. addition of new conditions as necessary, to avoid, remedy or mitigate any unforeseen adverse effects on the environment; and / -OR-
    c. if necessary and appropriate, the adoption of the best practicable options to avoid, remedy or mitigate any adverse effects on the environment.

Duration

5. This resource consent will expire on **1 July 2059**.
6. If this resource consent is not given effect to by **1 July 2029** it shall lapse pursuant to s125 of the Resource Management Act 1991.

2. Discharge Permit, Cleanfill Discharge (to Land)

The following details the location, classifications and conditions associated with the activity.

Authorisation Number	**ATH- 2024207464.00**
Activity Type	**Discharge, Discharge to Land**
Activity Class	Discretionary
Activity Primary Industry	Power Generation
Activity Primary Purpose	Construction | Access Road (includes Paths, Walkways & Underpass)

Location

The following summarises the authorised location for the consented activity.

Activity Location Description	850 TOP GRASS ROAD, DANNEVIRKE
Valuation Number	11170/124.00
Legal Description	Lots 11, 13 and 14 DP 3137
Map References	BM36 559 477

Classifications

The following summarises the classifications associated with the application activity.

Groundwater Management Zone	Manawatu
Water Management Zone	Manawatu Catchment, Manawatu Tamaki Confluence to Hopelands, Lower Kumeti (Mana_5c)
Estuary Management Zone	N/a
Associated River	MANAWATU RIVER, South East Ruahine, Tamaki River (325300)

Descriptive Specification

1. This consent authorises the discharge of cleanfill associated with the development, construction, operation and decommissioning of a solar farm on the property legally described as Lots 11, 13 and 14 DP 3137 (Held in record of title HBA2/287) (hereafter referred to as the property), at approximate map reference NZ Topo50: BM36 559 477**,** as shown on the **Site Plan LOC-2024100172** attached as Appendix 1 and forming part of this resource consent.

   ADVICE NOTE: This is a joint decision issued by the Tararua District Council and Manawatū - Whanganui Regional Council. The Tararua District Council consent for land use,201.2024.29.1 should be read in conjunction with this condition set**.**

2. The consent holder must undertake the activity in general accordance with the consent application including all accompanying plans and documents first lodged with the Manawatū -Whanganui Council on 4 April 2024, and the following further information and amendments received:

   a. A response to the further information request of 29 April 2024 received on 28 May 2024 by email to questions 2-8.

   b. A response to the further information request of 29 April 2024 received on 24 June 2024 by email to question 1.

   c. A response to the further information request of 29 April 2024 received on 10 July 2024 by email to questions 9 and 10.

   d. Email of 30 June 2024 from Jess Bould on behalf of the Applicant, detailing the following mitigation:

      i. Use of larger specimen plants and plant the Thorburn Road boundary prior to the start of works.
      ii. Use of shade cloth along the inside of the fence line, provided this is black shade cloth and regularly inspected and maintained/replaced. This cloth can be removed once landscaping is established to 2m+ height.
      iii. Staging of works to build from Top Grass Road towards Thorburn Road, with panels at the Thorburn Road end being placed last. Trenching / earthworks are ok to occur as needed.

   e. Email of 31 June 2024 detailing the area that would constitute the final stage of works (in regard to point 3 of the mitigations detailed in the email of 30 June 2024).

   f. Email of 1 August 2024 from Ms Jess Bould on behalf of the Applicant confirming the shrubs to be planted will be at least 1.0m in height along Thorburn Road (in regard to point 1 of the mitigations detailed in the email of 30 June 2024).

   g. Email of 19 August 2024 detailing a summary of consultation with Rangitane in relation to their CIA and outlining the status of each of the recommendations.

   h. Email of 4 September 2024 detailing a set of seven (7) proposed conditions detailing how the site will be staged and how the planting will interact with this staging should works commence outside of planting season.

   i. Email of 30 October 2024 detailing an updated set of proposed conditions detailing how the site will be staged and how the planting will interact with this staging should works commence outside of planting season

   j. Email of 30 October 2024 with a finalised CIA from Rangitane.

3. The conditions in the General Condition Schedule apply to this consent.

Environmental Standards

4. The consent holder must ensure that all materials to be discharged is cleanfill material that when buried or placed will not breakdown, decay, give rise to gas or leachates, is not combustible, is not toxic or damaging to humans, animals or plants. Acceptable cleanfill material must consist of those materials listed within Table 4.1 of the MfE "Guide to the Management of Cleanfills' 2002 which includes: cured asphalt, bricks, ceramics, concrete (no exposed reinforcing), fibre cement products (non-asbestos), glass, road sub-base, tiles, gravels, rock, clay, sand and soil.
5. Natural timber (tree stumps, branches (over 80 mm diameter) and roots) may be disposed of at the cleanfill site provided it accounts for no more than 5% of the total cleanfill material used at the site. Such material must be evenly dispersed throughout the matrix of cleanfill material.
6. Building plastics (plumbing pipes and plastic sheeting) must be removed from cleanfill material where practicable. Any small quantities of building plastics remaining within the cleanfill materials may be disposed of at the site provided that it is dispersed throughout the matrix of cleanfill material.

   ADVICE NOTE: In terms of this condition, 'small quantities' means any plastics remaining after each load of cleanfill material has been examined and visible plastics have been removed.

Monitoring Provision

7. The Consent Holder must keep records of the following:

   a. The source, composition and volume of all material disposed of at the site.

   b. The nature and volume of all materials removed from the cleanfill (i.e. prohibited materials and plastics) and/or rejected from the site.

   This log must be maintained and provided to the Regulatory Manager, Manawatū-Whanganui Regional Council on request.

Review

8. The Manawatū-Whanganui Regional Council, under s128 of the Resource Management Act, **may once per year, during July**, serve notice of its intention to review all conditions of this resource consent (including those conditions contained in the general condition schedule) for the purpose of reviewing the effectiveness of these conditions in avoiding and mitigating any adverse effects on the environment. The review of conditions shall allow for:

   a. deletion or amendments to any conditions of this resource consent to ensure adverse effects are appropriately mitigated; and / -OR-
   b. addition of new conditions as necessary, to avoid, remedy or mitigate any unforeseen adverse effects on the environment; and / -OR-

c. if necessary and appropriate, the adoption of the best practicable options to avoid, remedy or mitigate any adverse effects on the environment.

Duration

9. This resource consent will expire on **1 July 2034**.

10. If this resource consent is not given effect to by **1 July 2029** it shall lapse pursuant to s125 of the Resource Management Act 1991.

General Condition Schedule - Applies to all Activities (being ATH-2024206836.00 and ATH-2024207464.00)

1. The consent holder must ensure that the solar panels of the Solar Farm conforms to the following setbacks as specified in the application and in general accordance with the site and landscape plan attached as **Appendix 1**:

    a. Not within, or within **ten (10) metres** of, the identified wetland areas.
    b. Not within the identified areas of native bush.
    c. Not within **ten (10) metres** of the property boundary.

    ADVICE NOTE: The applicant intends to undertake a **three (3) metre** wide planting buffer between the property boundary and solar farm and enable a **ten (10) metre** buffer to also allow for access ways to be formed.

Pre-Development Assurance

2. The consent holder must be responsible for all contracted operations related to the exercise of this resource consent; and must ensure contractors are made aware of the conditions of this resource consent and ensure compliance with those conditions.

3. A copy of this consent must be kept onsite at all times that physical works authorised by this resource consent are being undertaken and must be produced without unreasonable delay upon request from a servant or agent of the Manawatu-Whanganui Regional Council.

4. The consent holder must inform the Manawatu-Whanganui Regional Council in writing at least **Five (5) working days** prior to the commencement of activities of the start date of the works authorised by this resource consent.

    ADVICE NOTE: The Team Leader for Consents Monitoring can be notified on Freephone 0508 800 800 or by email at consents.monitoring@horizons.govt.nz.

5. Prior to activities commencing as authorised by this resource consent, the consent holder must appoint a representative(s) who must be the Manawatu-Whanganui Regional Council's principal contact person(s) in regard to matters relating to this resource consent. The consent holder must inform the Manawatu-Whanganui Regional Council of the representative's name and how they can be contacted, prior to this resource consent being exercised. Should that person(s) change during the either the establishment or disestablishment of the solar farm, the consent holder must immediately inform the Manawatu-Whanganui Regional Council and must also give written notice to the Manawatu-Whanganui Region Council of the new representatives' name and how they can be contacted.

    ADVICE NOTE: The Team Leader for Consents Monitoring can be notified on Freephone 0508 800 800 or by email at consents.monitoring@horizons.govt.nz .

ADVICE NOTE: This consent condition shall apply initially at the time of establishing the solar farm until the point that the ESCP controls are removed under **Condition 22**, and again at the time of decommissioning. If the contact person changes between these two activities the applicant does not need to not notify the council.

6. The consent holder must arrange and conduct a pre-construction site meeting and/or a pre-decommissioning site meeting and invite, with a minimum of **5 working days'** notice, the Manawatu-Whanganui Regional Council, the site representative(s) nominated under **condition 5** of this consent, the contractor, and any other party representing the consent holder prior to any work authorised by this consent commencing on site.

   The following information must be made available at the pre-start meeting:

   a. Timeframes for key stages of the works authorised under this consent;
   b. Resource consent conditions; and
   c. Finalised Erosion and Sediment Control Plan

   A pre-start meeting must be held prior to the commencement of the earthworks activity for construction or decommissioning works, in each year that this consent is exercised.

   ADVICE NOTE: In the case that any of the invited parties, other than the site representative does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.

   ADVICE NOTE: The Team Leader for Consents Monitoring can be notified on Freephone 0508 800 800 or by email at consents.monitoring@horizons.govt.nz .

7. **Twenty days working days** (20 days) prior to the commencement of earthworks authorised by this consent, a Finalised Erosion and Sediment Control Management Plan (ESCP) must be prepared in accordance with *Greater Wellington Regional Council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region (February 2021)* (GWRC Guidelines) and submitted to Council for certification. No earthworks activity authorised by this consent may commence until the Council has certified that that the Finalised ESCP.

   ADVICE NOTE: The Team Leader for Consents Monitoring can be notified on Freephone 0508 800 800 or by email at consents.monitoring@horizons.govt.nz .

   ADVICE NOTE: Regarding Manawatū-Whanganui Regional Council Approvals: Several conditions require the certification of the Manawatū-Whanganui Regional Council. That certification (or withholding of approval) shall be based on the Manawatū-Whanganui Regional Council's assessment of whether the matters being considered achieve the objective of minimising sediment discharges from the site to the extent practicable.

8. The Finalised Erosion and Sediment Control Plan required by **Condition 7** must contain sufficient detail to address the following matters:
   a. specific design of erosion and sediment control measures in accordance with GWRC Guidelines
   b. supporting calculations and design drawings

c. catchment boundaries and contour information including slopes
d. details of construction methods
e. timing and duration of construction and operation of control works (in relation to the staging and sequencing of earthworks)
f. details relating to the management of exposed areas and stabilisation in accordance with GWRC Guidelines
g. monitoring and maintenance requirements

In addition, A memo should accompany the Erosion and Sediment Control Plan to show how feedback from iwi groups Rangitāne o Tamaki-nui-ā-Rua's and Ngāti Kahungunu Ki Tamaki nui-a-Rua has been provided for.

ADVICE NOTE: The aspect of **Condition 8** seeking feedback from iwi, has been included on an Augier basis. To provide for Rangitāne o Tamaki-nui-ā-Rua's and Ngāti Kahungunu Ki Tamaki nui-a-Rua's involvement in the development of the final ESCP, Taiao Groups will be invited to review the document and make recommendations to provide for their cultural values

ADVICE NOTE: The Finalised Erosion and Sediment Control Plan must include details on the 'cut and cover' approach to earthworks including daily stabilisation requirements to meet the requirements of a 'cut and cover' approach, along with the construction details for the proposed culvert replacement.

9. Any changes proposed to the ESCP provided as part of the application must be confirmed in writing by the consent holder and certified in writing by the Manawatu-Whanganui Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.

10. The consent holder must ensure that a copy of the certified ESCP, including any certified amendments, is kept onsite and this copy is updated within **5 working days** of any amendments being certified.

11. The Consent Holder must prior to 'bulk earthworks' commencing, submit to the Manawatū – Whanganui Regional Council a statement signed by an appropriately qualified and experienced professional certifying that all erosion and sediment control structures have been constructed in accordance with the certified ESCP required by **Condition 7**. Erosion and sediment controls covered within the statement must include at least all sediment retention ponds, decanting earth bunds, diversion channels and/or bunds, silt fences, super silt fences. The certification statement must be supplied to the Manawatū-Whanganui Regional Council within **five (5) working days** of the completion of the construction of the structures concerned. Information contained in the certification statement must include at least the following;
    a. Confirmation of contributing catchment areas;
    b. The location, capacity and design of each structure;
    c. Position of inlets and outlets;
    d. Stability of the structures;
    e. Measures to control erosion; and
    f. Any other relevant matter.

ADVICE NOTE: Bulk earthworks includes cut and fill operations required to re-grade an area. It also applies to larger scale earthworks such as for building excavations, construction of temporary access tracks and earthworks associated with the activity.

Environmental Standard

12. There must be no discharge of airborne particulate matter that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property as shown in the site plan attached as **Appendix 1**.

    ADVICE NOTE: The Frequency, Intensity, Duration, Offensiveness/Character, and Location of Exposure (FIDOL) of any discharge to air may be assessed to determine whether the discharge is Offensive, Objectionable, Noxious and/or Dangerous. Definitions of these aspects are provided in Chapter RP-AIR of the One Plan (2024) Regional Plan, or any superseding Regional Plan.

13. The consent holder must ensure that sediment losses to natural water arising from the exercise of this resource consent are minimised during the duration of the works and during the term of this consent. In this regard, erosion and sediment control measures must be established and maintained in accordance with the application and *Greater Wellington Regional Council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region (February 2021).*

14. All earthmoving machinery, pumps, generators and ancillary equipment must be operated in a manner, which ensures spillages of fuel, oil and similar contaminants are prevented, particularly during refuelling and machinery servicing and maintenance. Refuelling and lubrication activities must be carried out away from any water body, ephemeral water body, or overland flow path, such that any spillage can be contained so that it does not enter surface water.

15. The consent holder must ensure that, as far as practicable, all clean water run-off from stabilised surfaces including catchment areas above the site must be diverted away from the exposed areas via a stabilised system to prevent erosion. The consent holder must also ensure the outfall(s) of these systems are protected against erosion.

16. The consent holder must ensure that all sediment laden run-off from the site is treated by sediment retention structures. These structures must be fully operational before bulk earthworks commence and must be maintained to perform at least at 80% of their operational capacity.

17. All trenching must be backfilled with low permeability material if the trench is located within **Fifty (50) metres** of any wetland.

    ADVICE NOTE: **Condition 17** has been offered by the applicant on an Augier Basis.

18. The Consent Holder must ensure that the total suspended solids concentration of any discharge from the sediment retention devices does not exceed **120 grams per cubic metre**. This standard does not apply when the emergency spillway on a sediment retention device is operating.

Operational Restrictions

19. The consent holder must ensure that the site is appropriately stabilised by **30 April of each year** unless otherwise certified in writing by the Manawatu-Whanganui Regional Council. Stabilisation must be undertaken by providing adequate measures (vegetative and/or structural and including, pavement,

metalling, hydro-seeding, re-vegetation and mulching) that will minimise erosion of exposed soil to the extent practical.

20. Earthworks (Land disturbance) must not be conducted during the period **1 May to 30 September inclusive during any year** that this resource consent is current, apart from necessary maintenance works, unless certified in writing by the Manawatu-Whanganui Regional Council.

21. Requests to undertake earthworks during the period **1 May to 30 September inclusive, for any year** that this resource consent is current, must be submitted in writing to the Manawatu-Whanganui Regional Council by **1 April** and shall be in the form of amendments to the certified ESCP.

    In considering a request for the continuation of winter earthworks, the Manawatu-Whanganui Regional Council will consider a number of factors; including:

    a. The nature of the site and the winter soil disturbance works proposed;
    b. The quality of the existing/proposed erosion and sediment controls and proposed mitigation methods for undertaking work in winter;
    c. The compliance history of the site/operator;
    d. Seasonal/local soil and weather conditions;
    e. Sensitivity of the receiving environment; and
    f. Any other relevant factor.

Post-Development Assurance

22. The removal of any erosion and sediment control measure from any area where soil has been disturbed as a result of the exercise of this resource consent must only occur after consultation and written approval has been obtained from the Manawatu-Whanganui Regional Council acting in a technical certification capacity. In this respect, the main issues that will be considered by the Manawatu-Whanganui Regional Council include:
    a. The quality of the soil stabilisation and/or covering vegetation;
    b. The quality of the water discharged from the rehabilitated land; and
    c. The quality of the receiving water.

    ADVICE NOTE: The Team Leader for Consents Monitoring can be notified on Freephone 0508 800 800 or by email at consents.monitoring@horizons.govt.nz.

    ADVICE NOTE: For clarity, this consent condition shall apply at the time of both the initial construction and again at decommissioning.

23. The consent holder must ensure those areas of the site where works have been completed must be progressively stabilised against erosion as soon as practically possible. Stabilisation must be undertaken by providing adequate measures (vegetative and/or structural) that will minimise sediment runoff and erosion and in accordance with *Greater Wellington Regional Council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region (February 2021).* The consent holder must monitor and maintain the site until vegetation is established to such an extent that it prevents erosion and prevents sediment from entering any surface water.

24. Re-vegetation and/or stabilisation of all disturbed areas must be completed in accordance with the measures detailed in *Greater Wellington Regional Council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region (February 2021).*

Monitoring Provision

25. Should airborne particulate matter resulting from the exercise of this consent generate a complaint, the consent holder must provide a written report to the Manawatu-Whanganui Regional Council within **five (5) working days** of the complaint being made known to the consent holder. The report must specify:

    a. The cause or likely cause of the event and any factors that influenced its severity,
    b. The nature and timing of any measures implemented by the consent holder to avoid, remedy or mitigate any adverse effects and,
    c. The steps to be taken in future to prevent recurrence of similar events.

26. If required by the Manawatu-Whanganui Regional Council, the consent holder must carry out immediate sealing of any problematic dust generating surfaces within the site using hydro-seed/hydro-mulch, polymer soil stabilisers or a similar dust control product to provide instant remediation of dust effects to the satisfaction of the Manawatu-Whanganui Regional Council.

27. The Consent Holder must ensure that all erosion and sediment control structures are inspected on a weekly basis and within **twenty-four (24) hours** of rainfall greater than **25 millimetres per day (25mm/day),** to ensure sediment retention structures are operating effectively and efficiently.

28. The consent holder must carry out monitoring and maintenance of erosion and sediment controls in accordance with the conditions of this resource consent and must maintain records detailing:
    a. The date, time and results of the monitoring undertaken; and
    b. The erosion and sediment controls that required maintenance; and
    c. The date and time when the maintenance was completed.

    These records must be provided to the Manawatu-Whanganui Regional Council at all reasonable times and within **72 hours** of a written request to do so.

    ADVICE NOTE: The Team Leader for Consents Monitoring can be notified on Freephone 0508 800 800 or by email at consents.monitoring@horizons.govt.nz.

29. Within **one (1) month** following completion of the installation of a new culvert at Top Grass Road, the Consent Holder must submit to the Consent Authority the information required by **Regulations 62 and 63** of the National Environmental Standard for Freshwater (2020), specifying the time and date of collection.

    ADVICE NOTE: This information can be submitted by email to consents.monitoring@horizons.govt.nz.

    ADVICE NOTE: **Condition 29** has been offered by the applicant on an Augier Basis.

30. Within **one (1) month** following completion of the installation of a new culvert at Top Grass Road, the Consent Holder must submit to the Consent Authority a Fish Passage Monitoring and Maintenance Plan (FPMMP) for certification. The FPMMP must specify the ongoing monitoring and maintenance measures of each of the culvert structures to ensure fish passage is maintained and does not reduce over the lifetime of the culvert structures, and include the following details and processes:

    a. Specific aspects of the structure to be monitored to ensure that the structures provision for the passage of fish does not reduce over its lifetime.
    b. Programme and frequency of routine monitoring and maintenance.
    c. Method of visual inspection of the structure within five (5) days following a significant natural hazard, or events that may otherwise affect the culverts provision for fish passage.
    d. Follow up actions including the preparation of as-built plans and supporting information, further steps, and remediation measures.

    ADVICE NOTE: This information can be submitted by email to consents.monitoring@horizons.govt.nz.

    ADVICE NOTE: **Condition 30** has been offered by the applicant on an Augier Basis.

Appendix 1 / LOC-2024100172 – Site Arrangement Plan, Landscape Mitigation Plan and Site Features Plan

Landscape Mitigation Plan

Legend

- Site Boundary
- Proposed Native Planting
- Proposed Native Planting To Be Planted Once Adjacent Shelterbelt is Removed
- Existing Shelterbelt/ Vegetation to be Retained
- Existing Native Trees to be Protected
- Proposed Accessway
- Proposed Solar Panels
- Proposed Inverters

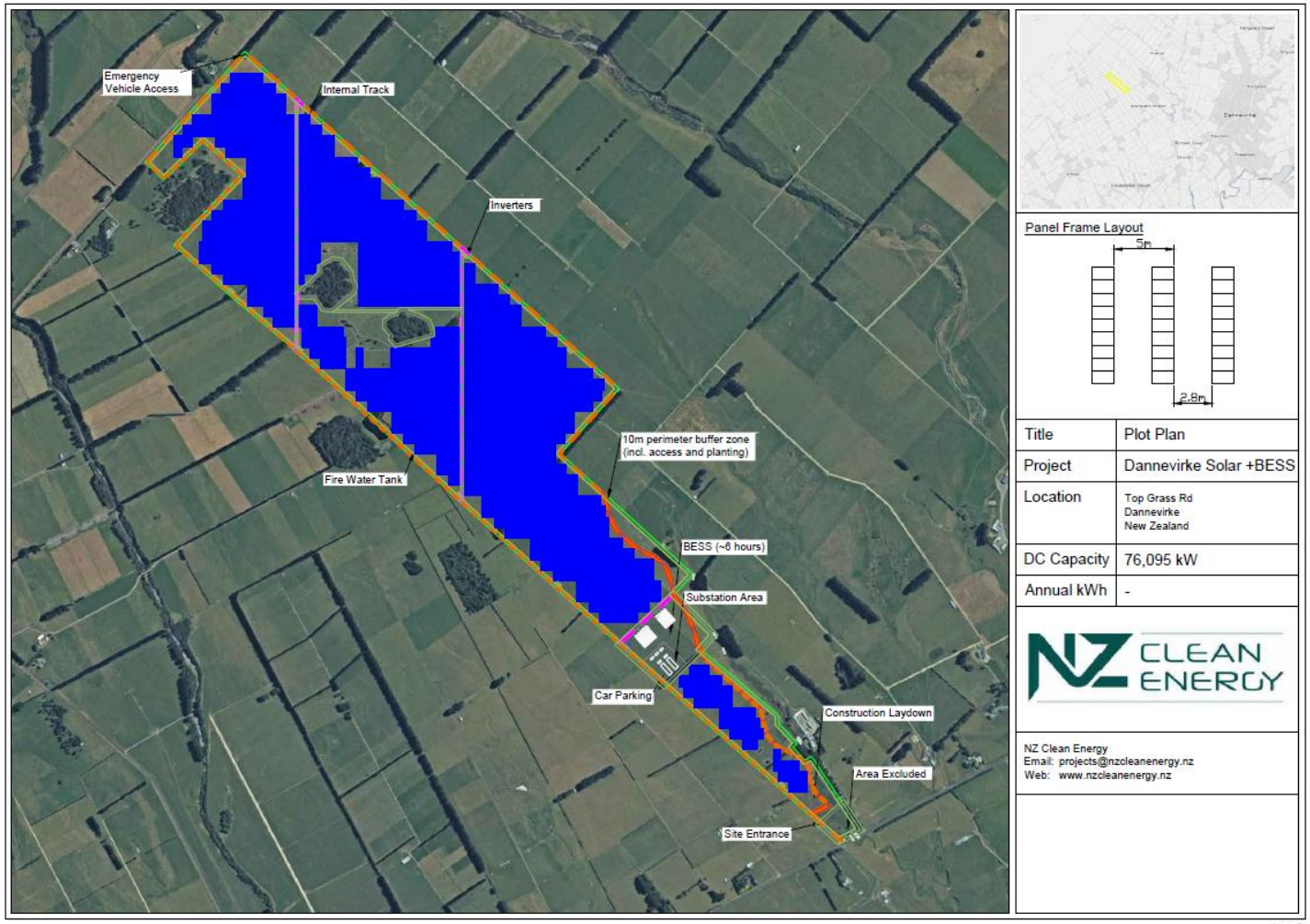
Scale 1:10,000 @ A3

RMM

Proposed Solar Farm

850 Top Grass Road, Dannevirke

Proposed Solar Farm - General Arrangement Plan



Panel Frame Layout

Title	Plot Plan
Project	Dannevirke Solar +BESS
Location	Top Grass Rd Dannevirke New Zealand
DC Capacity	76,095 kW
Annual kWh	-

NZ CLEAN ENERGY

NZ Clean Energy
Email: projects@nzcleanenergy.nz
Web: www.nzcleanenergy.nz

Not to Scale

Data Source: CKL Planning Services

RMM | Proposed Solar Farm | 850 Top Grass Road, Dannevirke | 12


1.2 ha
(treeland)
2.5 ha
1.3 ha
0.95 ha
Otamaraho Stream
Mangapuraka Stream
Boundaries
Site Boundary
100 m buffer
Wetland Habitat
NPS-Natural Inland Wetland (riverine)
Seepage
Watercourse
Stock water pond (artifical)
Stock water pond (online)
Off-Site wetland (indicative)
Terrestrial Habitat ('Threatened', One Plan)
Podocarp/tawa-māhoe forest
Tawa dominated treeland
Recently felled (indicative)
Trees of Interest
Podocarps
Kahikatea
Matai
Miro
Rimu
Tōtara
Hardwoods
Tawa/(rewarewa and/or hīnau)
Kāpuka
Pukatea
Kāmahi
Tītoki
Hīnau
0
250
500 m
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Appendix 2 – Notification Decision

Resource Consent Reference:
Tararua District Council: 202.2024.29.1
Manawatū-Whanganui Regional Council: APP-2024204637.00

18 November 2024

NOTIFICATION REPORT PURSUANT TO SECTIONS 95A TO 95F OF THE RESOURCE MANAGEMENT ACT 1991

RESOURCE CONSENT APPLICATION TO THE TARARUA DISTRICT COUNCIL AND MANAWATU-WHANGANUI REGIONAL COUNCIL FOR THE ESTABLISHMENT AND OPERATION OF A SOLAR FARM AT 850 TOP GRASS ROAD, DANNEVIRKE

THE APPLICANT:	**DANNEVIRKE SOLAR AND ENERGY STORAGE LIMITED**
LOCATION:	**850 TOP GRASS ROAD, DANNEVIRKE**
LEGAL DESCRIPTION:	**LOTS 11, 13 AND 14 DP 3137 (HELD IN RECORD OF TITLE HBA2/287)**
ZONING:	**RURAL MANAGEMENT AREA**
ACTIVITY STATUS:	**CONTROLLED / DISCRETIONARY**

A. INTRODUCTION & BACKGROUND

1. This decision is subject to a section 133A Minor Amendment. The amendments all related to minor typos which were found following granting of the consent. Aurecon has made an application, on behalf of Dannevirke Solar and Energy Storage Limited (herein referred to as the Applicant), for a resource consent to Tararua District Council (TDC) and Manawatū -Whanganui Regional Council (MWRC) to establish and operate a solar farm at 850 Top Grass Road, Dannevirke (herein referred to as 'the site').

2. The application was formally received by MWRC on 28 March 2024 and accepted for processing on 3 April 2024. The application was received by TDC and accepted for processing on 4 April 2024. The applicant requested that the applications be jointly processed between the councils. The lodgement prompted Rangitāne o Tamaki nui-ā-Rua (Rangitane) to be informed of the application under the statutory acknowledgment process on 23 April 2024. The application was also circulated to Ngati Kahungunu on 23 April 2024 noting that the project is located within their rohe. In addition, reviews of the application were carried out by:

    a. Mr Matthew Bronka of Bladon Bronka Acoustics Ltd, Acoustic Engineer, acting on behalf of TDC;
    b. Mr Josh Hunt of Narrative Landscapes Ltd, Landscape Architect, acting on behalf of TDC;
    c. Mr Peter Hayman of SLR Limited, Glint and Glare expert, acting on behalf of TDC;
    d. Ms Sandi Morris, Land Development Engineer, TDC;
    e. Mr Kerry Pearce, Erosion and Sediment Control Expert, acting on behalf of TDC and MWRC;
    f. Mr James Lambie, Independent Ecologist, acting on behalf of MWRC;
    g. Mr Neil Thomas, Groundwater Scientist, PDP, acting on behalf of MWRC;
    h. Mr Kyle Christensen, Engineer, Christensen Consulting Limited acting on behalf of MWRC;

i. Mr Tyler Eaton-Palmer Freshwater Advisor, MWRC; and
j. Myself, Ms Natasha Adsett (Planner) on behalf of both TDC and MWRC.

3. I visited the site with Mr Pearce, on 17 May 2024. I also consider that I am generally familiar with the area.

4. On 29 April 2024 the consent was placed on hold under s92 for further information with questions relating to Landscape, Traffic, ESCP, Ecology, Iwi and the National Policy Statement for Highly Productive Land. The s92 request noted that the Glint and Glare and Groundwater reviews were still pending. A further email was sent on 1 May 2024 confirming that no further information was required regarding Groundwater and outlining two questions from the Glint and Glare expert.

5. The further information request was formally responded to on 28 May 2024 noting that the information required to answer question 1 (relating to the glint and glare report) was not included, and the answers to questions 9 and 10 were incomplete.

6. Further responses were received on 24 June 2024 in relation to question 1 and 10 July 2024 in relation to questions 9 and 10. I consider that this satisfied the s92 request.

7. Following the s92 request the Applicant provided a number of additional amendments to the proposal and mitigations as follows:

    a. Email of 30 June 2024 from Jess Bould on behalf of the Applicant, detailing the following mitigation:
        i. Use of larger specimen plants and plant the Thorburn Road boundary prior to the start of works.
        ii. Use of shade cloth along the inside of the fence line, provided this is black shade cloth and regularly inspected and maintained/replaced. This cloth can be removed once landscaping is established to 2m+ height.
        iii. Staging of works to build from Top Grass Road towards Thorburn Road, with panels at the Thorburn Road end being placed last. Trenching / earthworks are ok to occur as needed.
    b. Email of 31 June 2024 detailing the area that would constitute the final stage of works (in regard to point 3 of the mitigations detailed in the email of 30 June 2024).
    c. Email of 1 August 2024 from Ms Jess Bould on behalf of the Applicant confirming the shrubs to be planted will be at least 1.0m in height along Thorburn Road (in regard to point 1 of the mitigations detailed in the email of 30 June 2024).
    d. Email of 19 August 2024 detailing a summary of consultation with Rangitane in relation to their CIA and outlining the status of each of the recommendations.
    e. Email of 4 September 2024 detailing a set of seven (7) proposed conditions detailing how the site will be staged and how the planting will interact with this staging should works commence outside of planting season.
    f. Updated landscape mitigation conditions, updated and circulated on 30 October 2024.
    g. Email of 30 October 2024 with a finalised CIA from Rangitane.

8. To assist with clarifying the position of the landscape experts I requested they undertake expert conferencing to determine their respective positions on the effects as they related to visual effects on public locations and visual effects on individual neighbours. Mr Hunt on behalf of council and Mr Smith on behalf of the Applicant met and produced a joint statement dated 13 August 2024. This statement was then updated on 9 September 2024 and again on 30 October 2024 following the

circulating of the additional mitigations proposed (ie. Proposed conditions relating to staging and landscaping). This has been used to inform my recommendation below and is attached as Appendix 1.

B. THE PROPOSAL

9. Section 3 of the application and associated assessment of environmental effects (herein referred to as the AEE), along with the s92 responses (as summarised in paragraph 7), outlines what the Applicant is seeking to achieve. In summary, the Applicant seeks to establish and operate a solar farm located at 850 Top Grass Road, Dannevirke. The proposed solar farm is to be located on approximately 90ha of a large, 148ha, site which is currently utilised as part of a dry stock farming operation. The Applicant has provided a site layout which is copied below in ***Figure 1***.

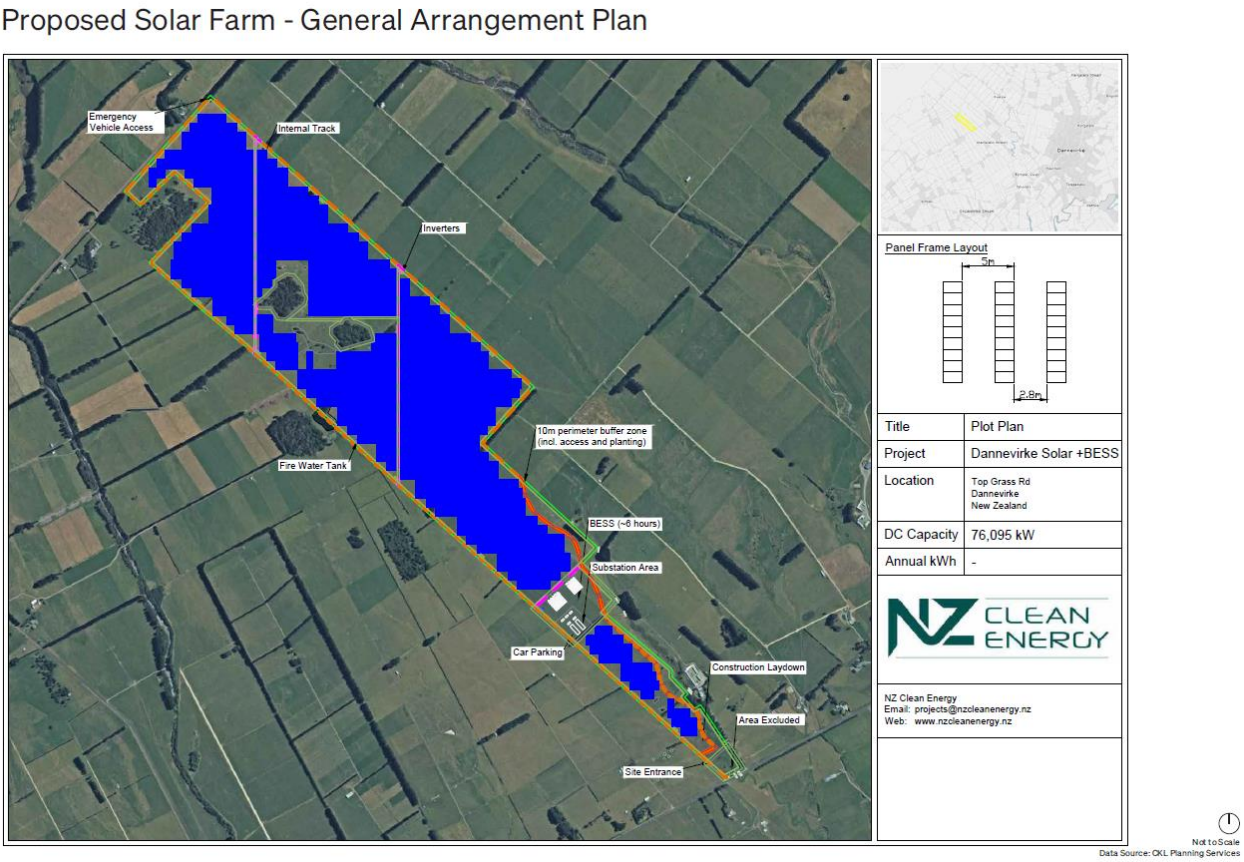


Figure 1: *Site layout.*

10. The Applicant provides the following description of the overall project in a set of points at the start of section 3. I consider these to provide a good overview of the elements that the project entails and have repeated it below:

> *"The Project includes the following:*
>
> - *Works to upgrade and maintain site entrances from Top Grass and Thorburn Roads, including a required culvert upgrade;*
> - *Works to install temporary erosion and sediment controls prior to commencement of site/earth works.*

- *Works to establish, widen, upgrade and maintain approximately 1847m of internal access tracks and 7618m of perimeter access tracks within the Site;*
- *Works for site preparation, including associated works such as cut and fill earthworks, the removal of any existing redundant fencing and vegetation removal and site planting / rehabilitation;*
- *Works to install, construct, operate and maintain approximately 140,000 photovoltaic modules (PVs or solar panels) on single axis tracking tables;*
- *Works to construct, install, operate and maintain associated infrastructure including underground electrical and communication cables, a substation, a Battery Energy Storage System (BESS), nine (9) inverters and grid connection infrastructure;*
- *Works to undertake transmission line works through either the upgrading of the existing transmission line (GC1) or the installation of a new underground cable (GC2); and*
- *Works to establish and thereafter upgrade and maintain hardstand areas for the laydown areas, carparking, BESS and substation areas."*

11. ***Figure 2*** below gives a description of the proposes solar panels including dimensions.

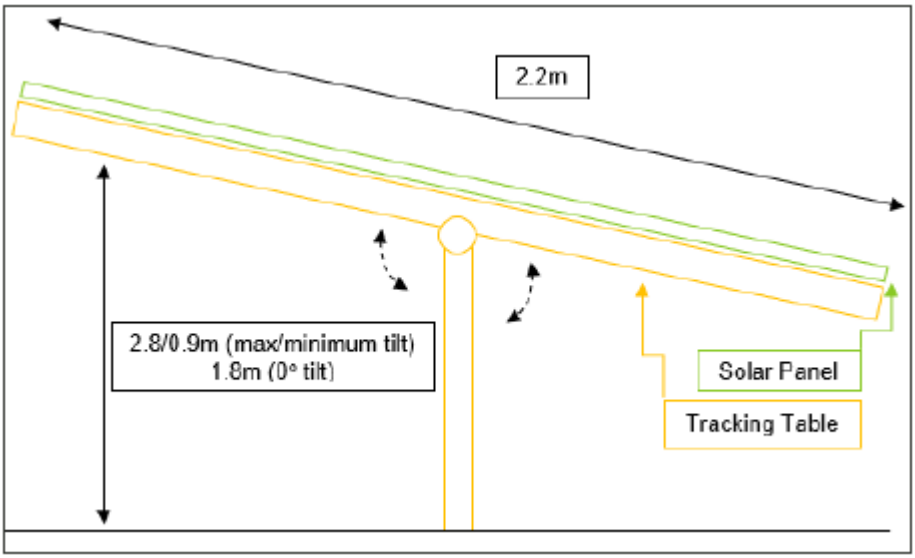


Figure 2: *Example images of the proposed solar panels (taken from Figure 3-1 of the AEE).*

12. As noted above the proposal involves the establishment of around 140,000 solar panels. These are located on tracking tables that measure approximately 78m in length. The AEE advises each panel will measure approximately 1.3m by 2.2m and 35mm in thickness. As a mitigation, it is noted that the solar panels will be constructed from a light-absorbing material to increase efficiency and include an anti-reflective coating with the AEE noting, visually, they will appear black in colour.

13. In addition to the solar panels, and as described above, the AEE outlines that there will be Nine (9) solar inverter stations, each containing two (2) inverters, installed at regular intervals around the periphery of the Site. Inverters are required to convert direct current (DC) energy generated by the solar panels into alternating current (AC) energy, so that it can enter the national electricity grid.

14. The solar inverter stations will be supported by Battery Energy Storage Units (BESS) allowing the power to be stored and exported during peak demand times. The AEE advises each BESS will be located within a modified shipping container (or similar) and be approximately 6.1m in length, 2.4m in width and 2.9m in height (excluding foundations which will be 300-800mm above ground). At

present the final design, type and number will be confirmed through detailed design and upon confirmation of final equipment selection.

15. To facilitate the construction of the solar farm the AEE anticipates that approximately 93,135m^3 of earthworks across the site will be required. This includes earthworks associated with access tracks, cable trenching, creation of bases for the solar inverter stations, BESS's and development of laydown areas and the site compound. The Applicant estimates that construction of the site will take around 12-18 months.

16. The Applicant has undertaken a landscape assessment and as a result has proposed a landscape treatment plan as shown in ***Figure 3*** below. The Applicant proposes to plant a 3m wide native hedge of mixed species along Thorburn Road and along other sections of the boundary to assist with visual mitigation. An amendment to the AEE has clarified that the section of planting along Thorburn Road will incorporate trees that are already 1m in height along with shade cloth. Some existing shelter belts will also be retained.

Figure 3*: Proposed landscape mitigation plan*

17. In the further information response the Applicant has confirmed deer fencing will also be installed around the perimeter of the site. The AEE details that this will extend the entire perimeter of the site at a height of 2.4m. The fence will be located on the outside of the hedge and will be a 'deer fence' style fence with wide square mesh.

18. Access to the site is detailed as follows:

> *"The proposed primary access to the Site will be via Top Grass Road. The current access will be upgraded to meet TDC's commercial rural standards. Primary access for firefighting purposes will be from Top Grass Road. Secondary access from Thorburn Road will provide emergency access only for fire appliances to enter the Site from the north when this is required. Internal access tracks will provide appropriate circulation throughout the Site. These will generally follow the perimeter of the Site, with north-south access tracks running through the internal section of the Site."*

19. The Applicant advises that during construction there will be up to 160 vehicle movements per day during peak times. Once construction is completed the Applicant advises movement to and from the site will be limited to no more than 6 light vehicle movements, generally consisting of light traffic, per day.

20. Once operational, the Applicant intends to graze sheep beneath and between the solar panels and PCU's. The AEE anticipates that the solar farm will generate approximately 65MW(AC) of electricity, which is equivalent to supplying 18,000 households. The electricity will be fed into an existing substation adjacent to the property (being Dannevirke substation located on the corner of Top Grass Road and Tamaki River Road), and it has been confirmed by Transpower that the Applicant has commenced the investigation process for connection. In addition, the Applicant has advised they will have a firefighting water supply on site per SNZ Pas 4509:2008 Code of Practice for Firefighting Water Supplies.

C. THE SITE AND SURROUNDING AREA

21. The site is located at 850 Top Grass Road. 850 Top Grass Road extends between Top Grass Road and Thorburn Road and is held in a single record of title, being Lots 11, 13 and 14 DP 3137 (Record of title HBA2/287). The property covers 148ha and historically has been utilised as a dry stock farm. The planning maps note that an 110KV overhead line runs along the property boundary adjacent to the road. Other than this, no relevant interests are listed on the property title nor planning maps.

22. The solar farm is proposed to occupy 90ha of the property. The site is shown in context to surrounding towns below in ***Figure 4***.

23. The area surrounding the site is typical of rural New Zealand, containing a mix of larger farming properties and smaller lifestyle blocks. The site itself is approximately 5.5km west from the township of Dannevirke. To the rear of the property is the Ruahine Ranges and associated forest park. The area is characterized by small headwater streams which can rise suddenly in flood events and tend to have large amounts of gravel. They can be ephemeral in nature with water often running below the gravel and appearing otherwise dry.

Figure 4: *Subject Site (light blue) and Surrounding Area*

24. This site is predominantly covered in pasture with hedgerows bordering parts of the site and several areas of native bush which are considered to be areas of threatened habitat under the Regional Councils One Plan, being Podocarp/tawa-māhoe forest or treeland.

25. In addition, a small stream runs into the site from the north from a neighbouring property. The stream enters the site from the northeast and traverses the lower portion of the property before it reaches Top Grass Road. The stream itself is unnamed but drains into the Otamaraho Stream which is a tributary of the Tamaki River. The Site is located within the Tamaki-Hopelands (Mana_5) surface water management zone, within the parent catchment of Manawatū, and the Lower Kumeti (Mana_5c) subzone. No site-specific values are afforded to the stream nor any region wide values other than life supporting capacity (Hill mixed).

26. It is noted that part of the site is covered by an existing intensive land use consent being ATH-2015200028.01.

27. A number of wetlands, associated with the stream, have also been identified. The first wetland is a riverine wetland surrounding the stream and covers approximately 1.6ha. The second wetland is approximately 555m^2 and is located within an area of pasture. The application shows the location of the wetlands and bush areas (along with extensive descriptions) in the terrestrial ecology reports. A copy of the image provided is included below as ***Figure 5.***

Figure 5: *Ecological features on site (source: AEE Appendix L – figure 6)*

28. Elements of the site are shown in ***Figure 6*** below which is extracted from the AEE.

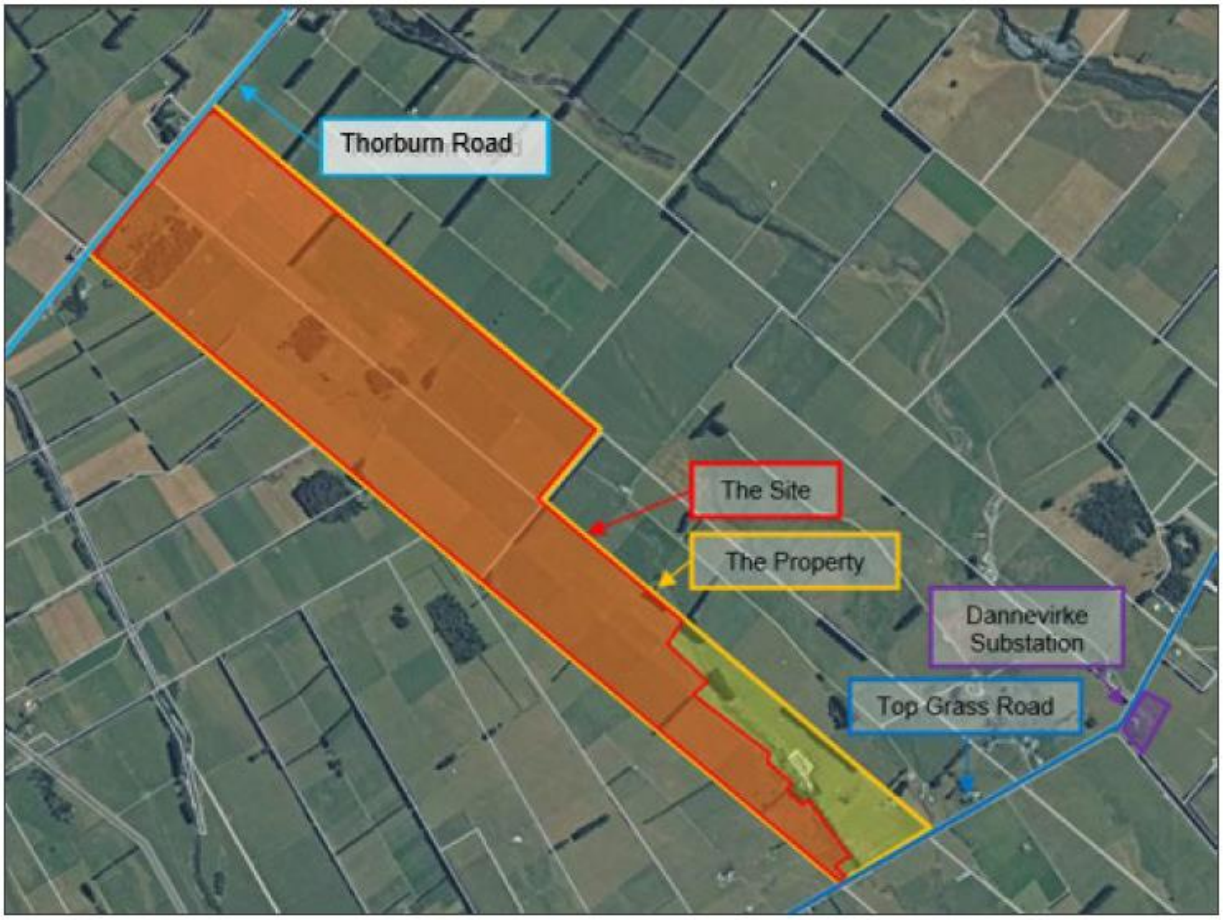


Figure 6: The site of the proposed activity and wider property.

29. The site is zoned rural in the District Plan. No special features are noted in the planning maps relating to the property where the development is proposed other than the high volage powerline which runs adjacent to the side alongside the road. A copy of the district planning map is included below in ***Figure 7***.

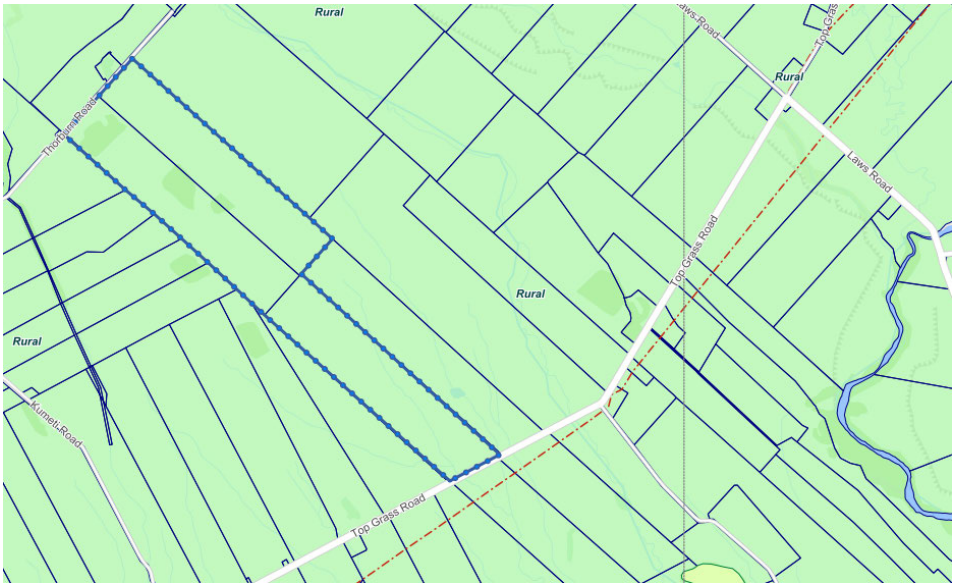


Figure 7: *Subject Site (dark blue outline) and District Plan Zone Layers*

30. I also note that the site is possibly subject to liquefaction. With regards to fault lines, no fault lines are identified on or directly adjacent to the site but it is noted that the Top Grass road and Mohaka Faults and fault awareness areas are located in the wider landscape. A copy of the fault map is included below in **Figure 8** while the liquefaction map is included in **Figure 9**.

Figure 8: *Subject Site (red outline) and fault awareness areas and lines (blue) (source: tararuadc.govt.nz)*

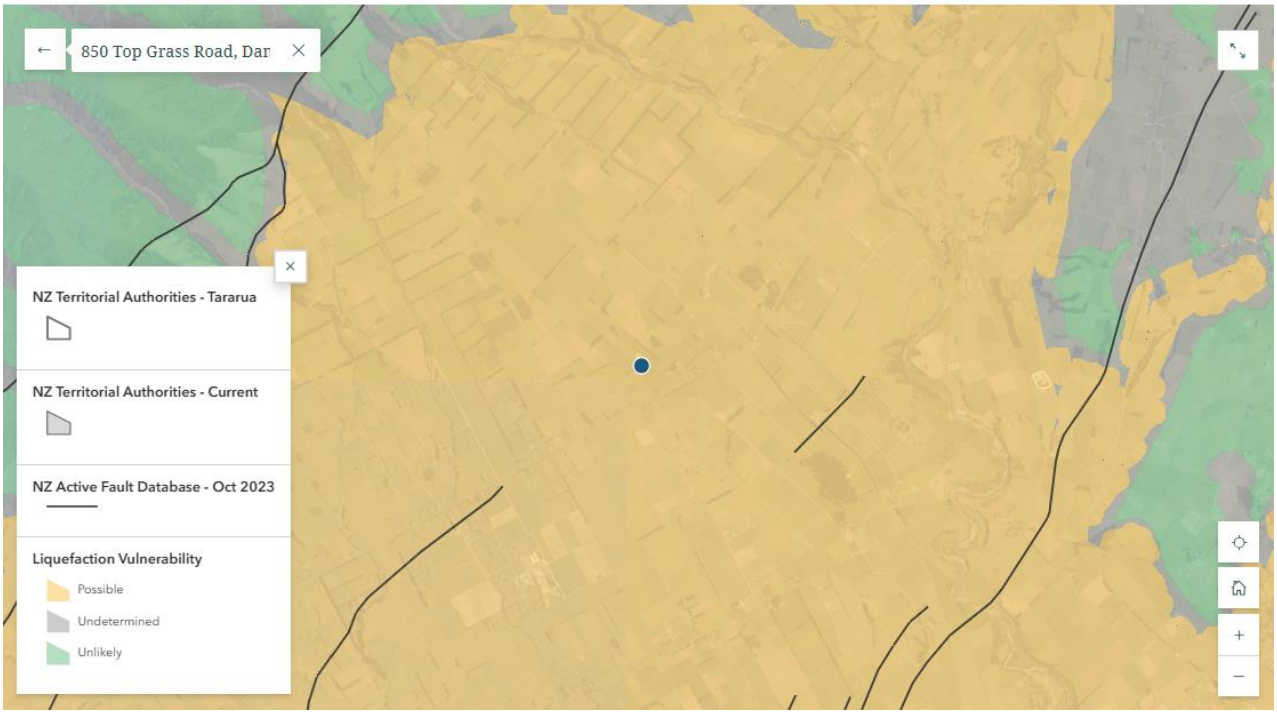


Figure 8: *Subject Site location (blue dot) and liquefaction vulnerability classification (source: tararuadc.govt.nz)*

D. REASON FOR CONSENT

31. The Applicant has set out the reasons for consent in section 4 of its AEE.

32. With regards to an assessment against the Tararua District Plan, the AEE notes that resource consent is required under the following rules:

    a. Rules 4.1.6.1 and 5.3.7.2(b) – Renewable Electricity Generation Facilities – Discretionary Activity. The Applicant advises they are unable to meet standard 5.3.7.2 as the proposal is a new activity.

    b. Rule 5.1.5.3 – Earthworks – Discretionary Activity. The Applicant advises they are unable to meet standard 5.1.5.2(b) as the earthworks will exceed 1,000m^3.

    c. Rule 5.4.10.3 – Setbacks – Discretionary Activity. The Applicant advises they will be unable to meet the 20m setback from a high voltage transmission line, required under this rule.

    d. Rule 5.4.4.3 – Structure height – Discretionary Activity. The Applicant advises grid connection equipment, located within the Site, will exceed the maximum height or structure within the Rural Management Area as a Discretionary Activity.

33. Resource consents are also required from the Regional Council under the Regional Plan, held within a document named the “One Plan”. The AEE notes that resource consent is required under the following rules:

    a. Rule LF-LAND-R6 - Large scale earthworks - Controlled Activity. The Applicant advises that up to 13ha of land will be disturbed.

b. Rule LF-LW-R38 – discharge of cleanfill – Discretionary Activity. The Applicant advises consent is required for the discharge of cleanfill which exceeds the permitted activity standards of Rule LF-LW-R29.

I accept this assessment.

34. The Applicant has also indicated that consent will be needed under the National Environmental Standards for Electricity Transmission Activities (NESETA) for the undergrounding of an existing transmission line. An application is made under Regulation 12 which is a Controlled Activity.

35. The Applicant has also canvassed the obligations under the under the National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) in section 6.5 of the AEE. As part of their assessment, a Preliminary site investigation (PSI) has been completed. This investigation concludes:
    a. that the site has been a farmland since at least 1966, although is considered likely that the land has been pastoral grazing for much longer given the aerial photography at this time shows the land sectioned into paddocks.
    b. Although fertiliser has likely been used on the site, that the area of the site proposed for development is has not been exposed to HAIL activities.
    c. The property is not recorded within Horizons' Sites Associated with Hazardous Substances database.

36. The PSI concludes that the proposed solar farm site is not a HAIL site. I accept this assessment and consider no further investigation is required.

Permitted Activities

37. As part of their AEE the Applicant has undertaken an assessment of activities which are permitted. The Applicant has identified the following:
    a. The installation of a culvert has been assessed as not being restricted by the One Plan nor the National Environmental Standard for Freshwater as it is located in a man-made drain, which is not a natural watercourse;
    b. Connection to the grid under the National Environmental Standards for Electricity Transmission Activities (2009) is identified as being permitted; and
    c. Earthworks within the 10 to 100m buffer of the wetlands which triggers regulation 45 of the National Environmental Standard for Freshwater. However, they have assessed that the works will "*pursuant to Regulation 45(3), the works are unlikely to result in the complete or partial drainage of the natural inland wetlands. Consequently, it is considered that consent is not required*".

38. Points 'a' and 'c' are canvassed further below (and ultimately agreed with/ accepted). Point 'b' is accepted.

39. It is also noted that the following are proposed, with the Applicant confirming they intend to undertake the activities in line with the relevant permitted rules:
    a. Enhancement of the wetlands by way of planting is a permitted activity under clause 38 of the NES-FW. I agree with this and note it is also permitted under One Plan rule RP-LF-AWBD-R71 in relation to the beds of rivers and lakes;
    b. The discharge of stormwater from the site is considered to be a Permitted Activity under Rule RP-LF-LW-R26 of the One Plan.

40. I accept the Applicant's assessment in relation to the enhancement of wetlands and discharge of stormwater and consider that they can comply with the relevant permitted activity rules and therefore consent is not required for these activities.

Overall Activity Status

41. Overall, seven consents have been identified under the District Plan, Regional Plan and NESETA. It is considered that the above listed activities are inextricably linked, and the bundling principal should be applied to all except the large-scale earthworks (made under Rule LF-LAND-R6 – Controlled Activity) and under Regulation 12 of NESETA. Overall, the activity is considered to be a Controlled Activity in respect of the earthworks and NESETA and Discretionary Activity for the remainder of the activity.

G. THE EXISTING ENVIRONMENT AND PERMITTED BASELINE

42. The existing environment is described in the site description above and within the AEE. As stated above, the site and surrounding area is rural in nature with dairy farming being the predominate land use. The area does contain some slight industrial elements with the Dannevirke substation located nearby. Land use consent for a new solar farm has also been granted for a site adjacent to the Dannevirke Substation at 440 Tamaki River Road. This is considered further below in the context of cumulative effects.

43. In terms of the permitted baseline the Applicant has not specifically canvassed this matter in their AEE. However, in their s92 response, they noted that shelterbelt planting is a permitted activity when considering visual effects that may occur on neighbouring properties from the proposed planting mitigation for the solar farm. I also note that the erection of deer fencing is a permitted activity under the District Plan as are large farm sheds. This is considered to be of relevance when considering the effects of the proposal on landscape, natural character and visual amenity values.

44. In terms of the main solar panel structures, inverters and other equipment required, I consider that there is no permitted baseline to apply.

H. PUBLIC NOTIFICATION ASSESSMENT (SECTION 95A)

45. The Council must follow the steps outlined in Section 95A to determine whether to publicly notify an application for resource consent. The Council's assessment against the mandatory steps is set out below.

Step 1: Mandatory Public Notification in certain circumstances:	YES	NO
Has the applicant requested public notification?		X
Is public notification required under s95C?		X
Is the application made jointly with an application to exchange recreation reserve land under s15AA of the Reserves Act 1977?		X

*Note: If any of the above matters apply, the application **must** be publicly notified and steps 2, 3 and 4 are not required.*

Step 2: Public Notification **precluded** in certain circumstances:	YES	NO

Does a rule or NES preclude public notification of the application?	X	
Is the application for 1 or more of the following but no other activities? • A controlled activity; • A restricted discretionary, discretionary, or non-complying activity, but only if the activity is a boundary activity.		X X

Step 3: Public Notification **required** in certain circumstances:	YES	NO
Does a rule or NES require public notification of the application?		X
Will the activity have, or is likely to have, adverse effects on the environment that are more than minor? *(See assessment below)*		X

Section 95D Effects Assessment:

46. The adverse effects of the proposed activity on the environment are assessed under section 95D RMA, to assist with the decision made under Section 95A(8) RMA.

47. Section 95D of the Act states that a consent authority that is deciding 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 the land in, on, or over which the activity will occur, or any land adjacent to that land.
    b. May disregard adverse effects if a rule or NES permits an activity with that effect (permitted baseline),
    c. Must disregard effects that do not relate to a matter for which a rule or NES restricts discretion (for restricted discretionary activities),
    d. Must disregard trade competition, and
    e. Must disregard effects on persons who have provided written approval.

48. In this instance, any effects on people who own or occupy properties adjacent to the site have been excluded from this assessment.

49. **Figure 10**, below, is taken from the Applicant's consultation summary showing neighbouring properties.

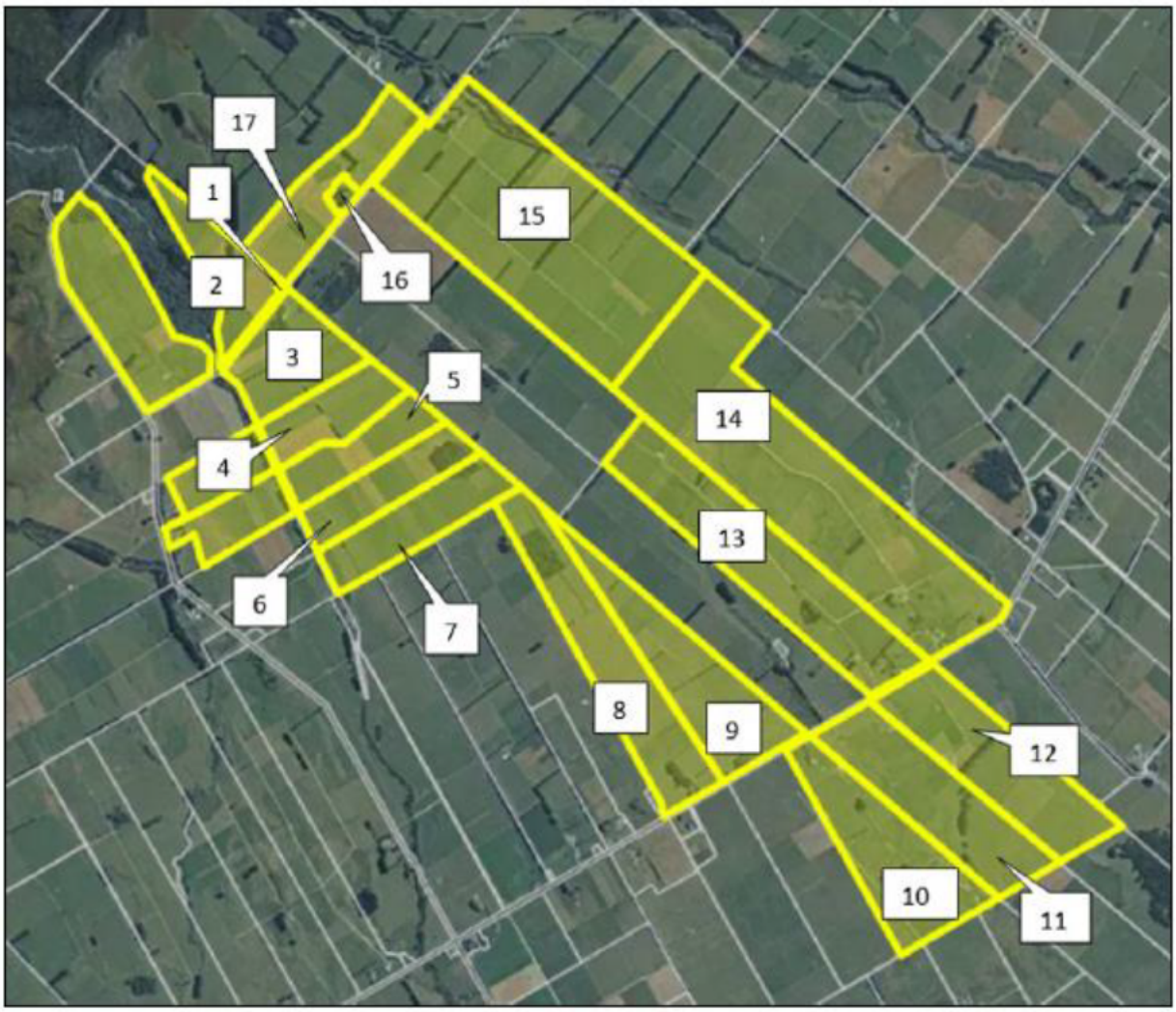


Figure 10: Properties surrounding the site. Taken from AEE with additional annotations.

Table 1: Properties considered adjacent for s95D assessment

Property	Address	Legal description
1	82 Thorburn Road, Dannevirke	Section 15 Block XII Norsewood Survey District (ROT: HB135/252)
2	19 Thorburn Road, Dannevirke	Part Section 7 Block XII Norsewood Survey District (ROT: HBE4/1474)
3	82 Thorburn Road, Dannevirke	PtS: 10 Blk: XII SD: NORSEWOOD (HB110/217)
4	82 Thorburn Road, Dannevirke	Part Lot 1 Deposited Plan 11794 (ROT: HBP1/584)
5	694 Kumeti Road, Dannevirke	Lot 2 DP 11794 (HBP3/1033)
6	674 Kumeti Road, Dannevirke	Lot 1 and Lot 3 Deposited Plan 8938 (ROT: HB149/151)
7	642 Kumeti Road, Dannevirke	Lot 2 and Lot 4 Deposited Plan 8938 (ROT: HB149/152)
8	914 Top Grass Road, Dannevirke	Lot 1 Sec 35 Block I Tahoraiti SD (ROT: 967589)

Property	Address	Legal description
9	890 Top Grass Road, Dannevirke	Lot 2 Sec 35 Block I Tahoraiti SD (ROT: HBC4/1211)
10	857/ 861 Top Grass Road	Allotment 25 Block I Tahoraiti SD
11	797 Top Grass Road	Lot: 5 DP 3137 (ROT: HBK4/1484) and Lot 6 DP: 3137 (ROT HBK4/1484)
12		
13	806 Top Grass Road, Dannevirke, 786 Top Grass Road, Dannevirke, 784 Top Grass Road, Dannevirke	ML TAMAKI No 2A2B1 (ROT: HBC4/923) and Lot 12 DP 3137 (HB157/158)
14		
15	188 Thorburn Road, Dannevirke	ML TAMAKI No 2A2B2 (ROT: HBC4/924)
16	137 Thorburn Road, Dannevirke	Lot 1 DP 24574 (ROT: HBV2/1212)
17	19 Thorburn Road, Dannevirke	Lot 2 Deposited Plan 25688 (ROT: HBV4/1014)

50. As discussed above, the permitted baseline is not considered to be overly relevant to the main activity being a solar farm. Trade competition has not been considered in the assessment below. Furthermore it is noted that Rule LF-LAND-R6 precludes public notification.

51. At the time of writing this report, the following written approval had been received from the following landowner:

    a. Graham Howse, 694 Kumeti Road, Dannevirke [Property #5 in table 1 above]

52. The Applicant has provided an assessment of effects on the environment at Section 7 of its AEE. The assessment covers matters such as landscape and visual effects, noise, transportation, natural hazards, reverse sensitivity, earthworks including dust, glint and glare, ecological (both wetlands and terrestrial ecology), engineering, stormwater, freshwater quality and cultural matters. I agree that these are the relevant effects that are likely to arise from the proposed activities. The Applicant's assessment is supported by technical reports. These have been reviewed by technical experts on behalf of TDC and MWRC as follows:

    a. Mr Matthew Bronka of Bladon Bronka Acoustics Ltd, Acoustic Engineer, acting on behalf of TDC;
    b. Mr Josh Hunt of Narrative Landscapes Ltd, Landscape Architect, acting on behalf of TDC;
    c. Mr Peter Hayman of SLR Limited, Glint and Glare expert, acting on behalf of TDC;
    d. Ms Sandi Morris, Land Development Engineer, TDC;
    e. Mr Kerry Pearce, Erosion and Sediment Control Expert, acting on behalf of TDC and MWRC;
    f. Mr James Lambie, Independent Ecologist, acting on behalf of MWRC;
    g. Mr Neil Thomas, Groundwater Scientist, PDP, acting on behalf of MWRC;
    h. Mr Kyle Christensen, Engineer, Christensen Consulting Limited acting on behalf of MWRC, and;
    i. Mr Tyler Eaton-Palmer Freshwater Advisor, MWRC.

53. In addition, feedback has been received from local Mana Whenua - Rangitāne o Tamaki nui-ā-Rua and Ngati Kahungunu ki Tamaki nui a Rua. This will be used to inform my assessment on cultural effects.

Noise

54. The AEE includes an acoustic report prepared by Marshall Day, which recognises that the key operational noise source is the inverters and battery energy storage systems (BESS). Marshall Day also note that transformers and tracker motors will also generate noise but to a lesser degree than the inverters.

55. Mr Matthew Bronka of BBA has reviewed the acoustic report on behalf of TDC. Mr Bronka notes that the predictions show compliance with daytime permitted activity standards (55 dB) and for night-time he notes that MDA suggest that the solar farm should operate at a reduced limit of 40dB taking into account the operational noise of the BESS.

56. However, Mr Bronka reflects on one of the key areas of concern from solar farm noise being tonality. He expresses the opinion that the +5dB penalty for Special Audible Characteristics in accordance with NZS 6802: 2008 may not be adequate to fully control potential effects, specifically during the daytime periods. This is due to the potential for a prominent and constant “buzz/hum” compared to a more fluctuating or intermittent noise that just has some tonal characteristics.

57. Mr Bronka notes this type of noise is most sensitive during the daytime periods when neighbouring receivers are expected to use their outdoor living space more often. As such Mr Bronka recommends reducing the daytime limits of 55dB LAeq to 50dB LAeq. This would ensure noise levels and associated effects are in line with the MDA assessment of up to 47dB LAeq as per table 5 of the MDA report.

58. Mr Bronka has also commented on construction activity. With regards to construction noise, the sound criteria set out in NZS 6803: 1999 Acoustics - Construction Noise is applicable. Although Mr Bronka notes that the 70dB LAeq limit would be applied due to the duration of the work exceeding 20 weeks.

59. Mr Bronka notes pile driving demonstrates the highest levels of noise and vibration – showing an exceedance of the limits (up to 83dB LAeq) when at operating at the closest separation distance of 50m. The MDA report concludes that the piling will occur for short duration only, and if possible vibro or bored piling may be implemented – resulting in reduced noise levels

60. Mr Broka advises the MDA report does not provide an assessment of construction vibration levels but concludes that construction vibration levels are expected to be sufficiently low so as to not cause building damage. Mr Bronka agrees with the conclusions regarding construction vibration with the exception that vibration amenity levels from impact piling are expected to be perceived at the closest residential dwelling. However, with prior notification of the works and the implementation of a construction management plan – effects will be mitigated.

61. Overall, I agree with Mr Bronka’s assessment, particularly noting that the District Plan noise limits will not be exceeded in regard to the ongoing operation of the site. As such, I consider effects on the environment from noise to be **less than minor**.

Visual and landscape effects on the rural character and amenity

62. As part of its AEE, the Applicant has provided an assessment of landscape effects by Paul Smith of Rough Milne Mitchel (RMM). The assessment of effects has been reviewed by Josh Hunt of Narrative Landscape.

63. As outlined above in paragraph 8, the respective experts were requested to caucus on their views in relation to visual effects and produce a statement outlining their agreements and disagreements. As a result of this process a statement, dated 30 October 2024, was provided showing that they reached agreement on all matters. This is attached to this decision as Appendix 1.

64. As part of its AEE, the Applicant has provided a range of measures to mitigate the effects of the activity – particularly visual effects. These are canvassed in the statement noting that the Applicant intends to utilise new planting in the form of a 3m wide vegetation strip. The species planted are a range of seven natives capable of achieving a height of 3m within 5 years. Additional mitigation has been offered for Thorburn Road where more mature plants will be planted at 1m tall. It is also noted that the site will be fenced in deer style fencing. The fence will also have shade cloth applied at a height of 1.8m.

65. In their initial assessment, the applicants landscape architect, RMM, advise that the solar farm, unlike most rural activities will consist of a significant amount of built form. In particular, it will result in approximately 90ha of long lines of solar panels running north to south through the site, nine inverters located around the perimeter of the site, and the BESS and substation within its southern half. RMM advise, in terms of wider landscape views it is possible the proposed solar farm will be seen from
    - Top Grass Road.
    - Kumeti Road.
    - Thorburn Road.
    - Kumeti Road to Opawe Road Tramping Track

66. The AEE was accompanied by an extensive assessment of each of the viewpoints, along with viewpoints from private properties (which are discussed further on in this assessment). RMM state that "*Whether the proposal is considered appropriate is determined by the visual effects on the landscape character and values within receiving environment and whether the landscape values attributed to the setting are maintained or whether, if adversely affected, effects can be satisfactorily avoided, remedied or mitigated*".

67. Each of the four locations noted above were discussed in the joint statement. A table summarising their agreed opinion, using the Te Tangi a Te Manu NZILA Guidelines, has been produced and is copied below as ***Figure 11***.

Public Road	Construction	Short term	Mid to Long Term
Top Grass Road	Low-moderate to Low	Low	Very Low to Nil
Kumeti Road	Nil / Neutral	Nil / Neutral	Nil / Neutral
Thorburn Road	Low	Very Low	Nil / Neutral
The Kumeti Road to Opawe Road Tramping Track	Nil / Neutral	Nil / Neutral	Nil / Neutral

Table 5: *Visual Effects Ratings from Public Roads where the proposed solar farm may be seen from.*

Very Low	Low	Low - Moderate	Moderate	Moderate - High	High	Very High

Table 1: *The seven-point landscape and visual effects rating scale.* [1]

Very Low	Low	Low - Moderate	Moderate	Moderate - High	High	Very High
Less than Minor		Minor	More than Minor		Significant	

Table 2: *The comparative scale of degree of effects.* [2]

Figure 11*: Extract from joint statement showing the landscape experts agreement on the level of effects on various locations and the corresponding table based on the Te Tangi a Te Manu NZILA Guidelines*.

68. With regard to Top Grass Road, RMM note in their AEE that the solar farm proposal can be seen from a short, 1.5km, stretch of Top Grass Road due to mature shelter belts on neighbouring properties. RMM note that while these cannot technically be relied on as mitigation measures, they are unlikely to be removed leaving the landscape void of planting. I agree that this is unlikely. The assessment notes that in this area, while the proposed mitigation vegetation matures, the solar farm will have a low to low-moderate degree of adverse visual effects on road user's travelling along Top Grass Road. These adverse effects will be reduced to a very low to nil degree once the proposed vegetation matures. The joint statement between the respective experts agrees that the above assessment is correct as reflected in ***Figure 11*** above. The effects on the environment are likely to be minor for a short period of time during construction reducing to less than minor over time.

69. With regard to Kumeti Road the assessment notes that the site is unable to be seen from the road, again due to existing mature vegetation on neighbouring properties. RMM notes that, like Top Grass Road, these cannot technically be relied on as mitigation measures as they are unlikely to be removed leaving the landscape void of planting. I agree that this is unlikely. Overall RMM assess that the proposed solar farm will not be seen from Kumeti Road, therefore it will not adversely affect the amenity that these road user's experience. The assessment above in ***Figure 11*** shows that the experts are in agreement that the effects are nil.

70. Thornburn Road is the last road viewpoint to be assessed. RMM advises this road is a local, no exit, road which provides access to eight rural properties. A number of mitigations have been offered as outlined in the joint statement and above. ***Figure 11*** above shows that the effects are low, reducing to very low and nil over time. This equates to a less than minor effect.

71. The Applicant has also assessed the effect of the solar farm on users of the Kumeti Road to Opawe Road Tramping Track. This is a public tramping track located in the Ruahine Ranges. RMM have used photography, including drone captured images, to demonstrate that views of the solar farm are unlikely, particularly with the dense vegetation lining the track. It is concluded by RMM that the solar farm will not adversely affect the users of the track. The assessment above in ***Figure 11*** shows that the experts are in agreement that the effects are nil.

72. The overall conclusion is that the effects on the wider environment are expected to be moderate along Top grass Road reducing to low or Nil as the vegetation establishes. Other locations are expected to have an effect of low reducing to very low or nil in other locations.

73. Cumulative effects are also a matter that has been considered, noting that land use consent for a solar farm has been granted at 440 Tamaki River Road[1]. This farm is approximately 1km to the north. Mr Hunt has provided comment separately on this matter and advised

    "*In relation to landscape and visual cumulative effects, it is my opinion that the separation, intervening vegetation across the landscape, and proposed mitigation planting located toward the Top Grass Road end of each of the two solar farms will limit potential cumulative effects. Additionally, the nearest portion of this Top Grass Road solar farm is a relatively small and narrow portion of the total site that is set back over 100m from the Top Grass Rd site boundary."*

74. I accept this and consider cumulative effects on the wider landscape will be **no more than minor**.

75. Based on the above, I agree with the Applicant's conclusion in their AEE and consider both the visual and landscape effects on the environment to be **no more than minor**. This does not necessitate public notification.

Effects on the Roading Network

76. The solar farm is located on Top Grass Road and extends through to Thorburn Road. It is proposed that access will be primarily from Top Grass Road with plans to upgrade the culvert to enable heavy traffic movement. An access will also be formed from Thorburn Road. However, this is proposed to be for emergency access only, with this confirmed in the initial s92 response received 28 May 2024. During my site visit I noted that both roads are sealed and have long straight sections of road affording good sightlines. Thorburn Road is quite narrow reflecting its relatively low use and no-exit nature.

77. The AEE and associated Traffic Assessment Report (TAR) has been reviewed by Sandi Morris. Ms Morris notes that Top Grass Road is a secondary collector road with 12% of its traffic being heavy traffic use. Ms Morris also noted that Thorburn Road is classed as an access route with 12.5% heavy vehicle use.

78. Ms Morris further details construction traffic movements over an approximate 18-month period with construction peaking half way through. The AEE advises is estimated for peaks up to 100 people on site and approximately 160 vehicle movements per day (made up of 10 light vehicle return trips and 20 heavy vehicle return trips).

79. Given the number of additional vehicle movements proposed and with a number of them being heavy vehicles, Ms Morris has noted that a pre-condition survey and post-construction survey should be undertaken. This is to ensure the road condition is maintained and any upgrades or restorations are undertaken by the Applicant that are attributable to the construction.

80. In terms of effects on the roading network, the Applicant proposes that this will be managed through a construction management plan and any cumulative effects associated with other projects – such as the Solar Farm proposed at 440 Tamaki River Road, will be managed through this process. It is further noted that the main access has good sightlines with long, straight sections of road either side of the entrance. In the longer term, post construction, I agree with the Applicant that the site is unlikely to generate a large volume of traffic.

[1] Tararua District Council consent 202.2023.136.1, granted 19 July 2024.

81. In terms of the accessways, the construction access point on Top Grass Road is recommended by Ms Morris to be upgraded and maintained throughout the construction phase to be in general accordance with Appendix 8. Likewise, the access point on Thorburn Road, while it is set aside for emergency use, Ms Morris recommends it is brought up to standard and upgraded to the standards set out in Appendix 12.

82. With regards to noise generated from traffic, the Applicant has advised their intention to comply with the District Plan noise limits. Although the exact details of hours of work are intended to be included in the final construction management plan, I am comfortable that the noise limits will naturally limit the times which traffic is generated and in turn will ensure the effects on the surrounding environment are also limited.

83. Based on Ms Morris' advice and given the road layout and low traffic volumes, the roading network is expected to cope with this traffic with little effect on the safe operation of the network. Overall, with the sightlines available and low traffic environment in which the site will be accessed I consider that effects on the roading network to be **less than minor**.

Soil Erosion, Sediment Control and Dust

84. As part of the site preparation, earthworks are required to form the site and allow for the installation of the solar panel structures and for trenching for services. In addition it is proposed that a number of areas will have excess cut material which will be deposited back to land along with imported gravel for the formation of access tracks.

85. The Applicant, as part of the further information request has provided a draft erosion and sediment control plan (ESCP) which addresses the above works. Mr Kerry Pearce has reviewed the proposal noting:

> *"The earthworks are associated with the construction of a solar farm and battery storage facility, including construction of internal roads and internal site compound, along with installation of cables and infrastructure at 850 Top Grass Road, Dannevirke. The proposed volume of earthworks is limited to the removal of topsoil and trenching, with 14,197.5m^3 of topsoil strip for the proposed access tracks, and 5,500m^3 of topsoil strip for the proposed hardstand areas. All topsoil is to remain and be spread on site.*
>
> *The area of the earthworks required for the proposed solar farm development is approximately 90ha and is located on an 148ha rural property at 850 Top Grass Road. The property is currently used for grazing of drystock cattle and is generally flat to gently undulating. There is a watercourse running through part of the site, which is generally unaffected by the proposed earthworks. The site gently slopes towards this watercourse, which in turn drains into the Otamaraho Stream."*

86. The Applicant describes they intend to use a cut and cover method which involves progressively stabilising exposed areas as earthworks progress. Mr Pearce advises the success of a 'cut and cover' approach relies upon progressively stabilising exposed areas on a daily basis to ensure minimisation of exposed areas throughout the earthwork's operation.

87. In addition, the Applicant intends to install a clean water diversion and silt fence will be constructed for the construction of the new hardstand areas, and this will remain in place for the duration of the earthworks. Given the flat nature of the site, and minimisation of exposed areas with progressive stabilisation Mr Pearce is satisfied this allows silt fences to be considered in this instance.

88. In regard to dust effects the Applicant has advised that dust management will be an aspect of their draft construction management plan to ensure that dust effects are mitigated. In addition, they proposed that no dust will be discharged beyond the boundary of the property.

89. Based on the above assessment I am satisfied that erosion and sediment control, including dust can be adequately managed to ensure a **less than minor** effect.

Glint and Glare

90. The Applicant has provided a glint and glare report with their AEE written by Vector Powersmart. Further questions were asked of the Applicant in regard to the initial report with responses provided by Mansergh Graham Landscape Architect Ltd. Peter Hayman has undertaken a comprehensive review of the report and subsequent further information to assess effects. This includes consideration of the extensive mitigations proposed including vegetation planting and inclusion of shade cloth along the perimeter fences.

91. In terms of the wider environment, the review has considered effects on the Dannevirke aerodrome along with effects on the wider environment including road users. Mr Hayman outlines at the start of his reports that glare falls into three distinct categories being red, yellow and green. Yellow and red cause the most issues for viewers with red causing potential eye damage and yellow causing potential for 'after image'. Green has a low potential to cause after images.

92. In regard to the wider environment, the impacts are likely to occur on users of the area. In this case, this includes road users and users of nearby recreational areas such as the walking track discussed above by Mr Hunt along with users of airspace.

93. Mr Hayman comments that the aerodrome is approximately 6km away and there is no global industry standard. Mr Hayman notes that he recommends a cut off distance between 5-8km depending on runway orientation and relative position. Mr Hayman has recently undertaken a review of a nearby solar farm at 440 Tamaki River Road which shows there would be very little glare impact for pilots (up to 4.9 hours, or around 300 minutes, of annual green glare. No yellow or red glare was detected). Mr Hayman expresses the same outcome will be achieved for this site.

94. With regards to the Kumeti Road to Opawe Road Tramping Track, Mr Hayman advises there could be up to 119 minutes annually of yellow glare at 'location 1' (as identified in the RMM report). However, Mr Hayman is of the opinion that the existing heavy vegetation is likely to assist in shielding this glare so the actual impacts may well be less. In any case, the amount of glare falls within a realm of low impact. Further information from the Applicant confirmed that the solar farm site was not in fact visible from this location on the walking track meaning that the glare impacts can be discounted.

95. With regards to effects on road users, Mr Hayman is satisfied that the vegetation mitigation strategy coupled with the shade cloth will adequately mitigate effects on ground-based road users. I note that the model has been run based on a truck drivers height (2.4m) allowing for all types of road users to be accounted for.

96. With regard to cumulative effects, Mr Hayman provides the following opinion:

"The applicant states that no cumulative effects are expected due to the findings of the glare reports submitted for each site. SLR agrees with this assessment with the added note that due to the

orientation and layout of the proposed sites and existing vegetation it is highly unlikely that any observer location would be impacted by both developments"

97. I agree with this statement and consider that cumulative effects will be **less than minor**.

98. With the retention of existing vegetation and the establishment of longer-term vegetation mitigations, coupled with the very low length of time of glint or glare for aviation users, I consider the effects on the environment, including cumulative effects, to be **less than minor**.

Ecology

99. Mr Lambie has reviewed the ecology of the site undertaken by EcoLogical Solution Limited on behalf of the Applicant. Mr Lambie advises from a terrestrial and wetlands ecological resources perspective; the description of the resource is sound and thorough.

100. Mr Lambie notes that the site on which the solar farm is to be located contains both terrestrial features, including native stands of bush and individual native trees, along with wetland environment. These features are likely to support habitat for native lizards, birds and bats.

101. In terms of the stands of bush (shown above in Figure 5), the Applicant has assessed these as a threatened habitat type under the One Plan definition. Mr Lambie agrees with this assessment and notes the intention that these are fenced and managed through an Ecological Restoration Plan, will facilitate buffer/ infill planting and pest management within these areas. Mr Lambie agrees that this will result in a positive benefit for this area.

102. The Applicant has proposed the removal of several individual trees, both exotic and eight native trees. Mr Lambie agrees that these trees do not meet the definition of a threatened habitat type as they are not within the definition of tree land and therefore their removal is not restricted by the plan. However, Mr Lambie also agrees that their removal will have a negligible environmental effect.

103. With regards to the wetlands Mr Lambie agrees with the Applicant's assessment and describes the two wetlands as follows:

- *"Wetland 1 is a mix of riverine (not defined as a One Plan wetland type) and seepage wetland (a rare habitat type) that is dominated by non-indigenous vegetation. The lack of indigenous dominance means that this wetland fails to meet the One Plan Seepage Wetland definition that would make the wetland significant under the One Plan.*

- *Wetland 2 has a significantly disturbed hydrological regime, but there remains vestiges of seepage and spring elements that are sustaining a small fragment of 555 square metres (just over 0.05 ha) dominated by kahikatea. The fragment meets the Seepage Wetland definition and is sufficiently large enough to be considered a rare habitat under the One Plan."*

104. The Applicant notes that they intend to undertake earthworks within the 10m to 100m buffer of the wetlands specified within Regulation 45 of the National Environmental Standard for Freshwater. However, they assert that the works will "*pursuant to Regulation 45(3), the works are unlikely to result in the complete or partial drainage of the natural inland wetlands. Consequently, it is considered that consent is not required*".

105. To qualify this statement advice was sought from Mr Thomas. Mr Thomas has reviewed the available groundwater data for the area and also reviewed the intentions of the Applicant in relation to the works planned within the 10m-100m buffer around the wetlands.

106. Mr Thomas advises it is possible the wetlands, although located within a stream margin, will rely on groundwater fed sources. Mr Thomas notes that although the groundwater levels at the site are not known with certainty, it is likely that they are around 1.8 to 4 m below ground, based on nearby shallow bores. Trenching associated with the installation of electrical cabling for the agrivoltaic facility could extend to 1.5 m below ground and in general is unlikely to encounter groundwater, although close to the stream, groundwater levels may be shallower.

107. However, Mr Thomas advises that any effects on the movement of shallow groundwater (and consequently on the wetland levels) can be readily overcome through the use of permeable materials in the backfilling process. The Applicant has agreed with this assessment and offered to include this as a mitigation. On this basis Mr Thomas is content that the risk to the wetlands is low.

108. Based on the feedback from Mr Lambie and Mr Thomas I am satisfied that no consent is required in relation to this aspect of the activity.

Freshwater Quality

109. Mr Eaton-Palmer has reviewed the AEE noting that the effects on freshwater quality may arise from the replacement of the culvert along with disturbance of soil as part of the Solar Farm construction. He has also provided comment on the proposed ecological restoration plan.

110. With regards to the culvert assessment, Mr Eaton-Palmer notes that there is an existing culvert which is to be upgraded (replaced) to provide access to heavy machinery. Mr Eaton-Palmer agrees with the Applicant's assessment that the culvert is being placed in an artificial, roadside, drain. However, he notes that the drain flows into a permanent waterway which then runs through the site.

111. The Applicant has carried out eDNA sampling and the results, found Bullies, Galaxiids and Eel species. Mr Eaton-Palmer notes that if placed incorrectly the culvert can restrict the migration of these species. However, so long as the culvert is appropriately embedded as is proposed, he is of the opinion that it will be passable for fish and the effects will be less than minor.

112. Mr Eaton-Palmer has also provided comment on the earthworks portion of the proposal and possible effects arising from this activity. These effects include loss of sediment to waterways which can result in impacts in-stream. He has noted that a separate assessment of the erosion and sediment control plans is being undertaken by Mr Peace and has advised that he will rely on this assessment instead.

113. Lastly, Mr Eaton-Palmer has commented on the Ecological Restoration Plan (ERP). He notes that the ERP proposes fencing areas of vegetation and wetland areas and planting of native species into appropriate areas around the site, including the wetland and waterway and pest control. Mr Eaton-Palmer is of the opinion these measures will result in a net positive impact on the freshwater ecology of the site.

114. Overall, it is noted that the activity is Permitted and no further consideration is required.

Instream works

115. Mr Kyle Christenson has reviewed the proposal and provided comments on engineering aspects including the replacement of existing culvert and planned stormwater management.

116. In regard to instream works, Mr Christenson advises:

> *"No modifications are proposed to the existing main drainage channels or culverts on the site. It is noted that the existing 300 mm culvert under the entranceway is being upgraded to provide capacity for heavy vehicle loading."*

117. As discussed above, Mr Eaton-Palmer agrees with the Applicant's assessment that the culvert is being placed in an artificial, roadside, drain. Mr Christenson is satisfied that the culvert is appropriately sized at 300mm and will not have an effect on the flow regime nor on erosion in the immediate vicinity nor upstream and downstream.

118. With regards to onsite stormwater management, it is noted that a soakage trench is proposed to dispose of stormwater from the hardstand areas. Mr Christenson is satisfied that reasonable assumptions have been made in regard to the calculations here and he does not expect effects to arise from the disposal of stormwater onsite.

119. Overall, I am satisfied that the disposal of stormwater will be appropriately managed, and the replacement of the culvert is suitable in terms of its installation and risks to release of sediment instream. Overall, I consider that the discharge of stormwater and replacement of the culvert are permitted activities.

Natural Hazards

120. In its AEE, the Applicant advises:

> *"The Site is not located in an area which is prone to natural hazards, such as flooding (which is confirmed in the Stormwater Management Plan, Appendix Q). Furthermore, the Project is not considered to fall under the definition of new hazard-sensitive development. As discussed above, the Project is* seeking *to make a contribution to New Zealand's efforts to mitigate climate change and its effects, which is directly related to resilience and prevention of future atmospheric natural hazard events."*

121. I also note that the site is located within a high wind zone and is possibly subject to liquefaction. With regards to fault lines, no fault lines are identified on or directly adjacent to the site, but it is noted that the Top Grass Road and Mohaka Faults and fault awareness areas are located in the wider landscape. A copy of the fault map is included below in **Figure 8** while the liquefaction map is included in **Figure 9**.

122. I agree with the Applicant's assessment particularly the aspect that the structures are unmanned. In addition, I note that the proposed activity will not create or exacerbate the likelihood of a natural hazard event occurring.

123. Overall, I agree with the Applicant's assessment and do not consider that the development will cause or worsen any risk from natural hazards and consider the effects to be **less than minor**.

Reverse Sensitivity

124. The Applicant has not discussed the topic of reverse sensitivity in their AEE. However, it is a matter that should be addressed for completeness of this report and as such was addressed via email on 10 July 2024.

125. It is noted that the adjoining activities are farming, with a predominance of dairy or dry stock farming. A substation is located approximately 1km to the north along Top Grass Road. There are also a number of lifestyle block size properties (ie 1-2ha) in close proximity. The Applicant has advised there are no concerns relating to reverse sensitivity effects arising from the proposal. They note that while the construction activities will result in an increased presence of people on site and a range of activities which are consistent with temporary effects related to construction elements of most projects.

126. The Applicant continues to advise that from an operational perspective, the agrivoltaic facility will not result in an increase in activity or in activities inconsistent with the rural environment. Grazing of sheep will continue in accordance with activities anticipated within this environment.

127. I agree with the Applicant's response and consider there are no reverse sensitivity issues that need to be considered.

Cultural Effects

128. This site is recognised as being within the rohe of Rangitāne o Tamaki nui-ā-Rua and Ngati Kahungunu.

129. The applicant has undertaken consultation with both iwi and provided written feedback from each in the form of a cultural impact assessment (CIA). The outcomes of the CIA's are discussed further in the below sections and for brevity are not repeated here. These sections conclude that the effect on each iwi is less than minor.

130. Based on this assessment I am satisfied that any cultural effects on the wider environment are also less than minor.

Effects Summary

131. Overall, I consider that the effects of the proposal on the environment to be **no more than minor**.

Step 4: Public notification **required in special circumstances**:	YES	NO
Do special circumstances apply that warrant public notification?		X

132. 'Special circumstances' are those that are unusual or exceptional, but they may be less than extraordinary or unique. They will make notification desirable despite the general provisions excluding the need for notification. In my opinion, there are no special circumstances that exist in this particular case which would warrant the public notification of the application.

Section 95A Conclusion:

133. In my opinion, the proposal passes through the relevant 'steps' of Section 95A and there are no circumstances which warrant public notification of the application.

I. LIMITED NOTIFICATION ASSESSMENT (SECTION 95B)

134. The Council must follow the steps outlined under Section 95B, in order, to determine whether to publicly notify or limited notify an application for resource consent.

Step 1: Certain affected groups and affected persons **must be notified**:	YES	NO
Are there any affected protected customary rights groups? [s95F]		X
Is the activity on, adjacent to or likely to affect a statutory acknowledgement area?	X	
Would you consider the person(s) for whom the statutory acknowledgement is made to be affected? [s95E(2)(c)]		X

135. The Manawatū River and its tributaries are included as a statutory acknowledgement area under the Rangitāne Tū Mai Rā (Wairarapa Tamaki nui-ā-Rua) Claims Settlement Act 2017. The site contains an unnamed stream that drains into the Otamaraho Stream which is a tributary of the Tamaki River. The waterways are located in the Upper Manawatū Catchment. In accordance with their claim, Rangitāne o Tamaki nui-ā-Rua were made aware of the application on 23 April 2024 under the Statutory Acknowledgment process.

136. Rangitāne o Tamaki nui-ā-Rua have provided a letter of support which the Applicant has included with their application. This letter advised Rangitāne o Tamaki nui-ā-Rua are in support of the project and advised that a cultural impact statement (CIA) would be available in due course. A copy of the CIA was forwarded on 30 July 2024 reiterating their support. A number of recommendations are included, including accidental discovery, cultural use of trees removed, preforming a Karakia, wetland restoration and ESCP. The Applicant advised by email on 1 August 2024 that all matters except one are accepted or resolved.

137. The Applicant has advised that these requests have been allowed for and provided an update on 19 August 2024 demonstrating the recommendations and how they have been provided for. This update shows the only outstanding matter was the request for solar panels to be provided to the marae. I note that the applicant has shown commitment to resolve this with Rangitane and in addition I do not consider this a resource management matter. A final CIA was provided on 30 October 2024. This still contains the request for solar panels. A new, additional request for cordoning off any accidental discoveries has also been included which the applicant has indicated they are agreeable to.

138. Overall, I consider that the outcome sought by Rangitāne o Tamaki nui-ā-Rua has been met and their letter clearly supports the application I consider effects on Rangitāne o Tamaki nui-ā-Rua to be **less than minor**.

Step 2: Limited Notification **precluded** in certain circumstances:	YES	NO
Does a rule or NES preclude limited notification of the application?		X
Is the land use consent a controlled activity?		X

There is no rule or National Environment Standard that precludes limited notification of the application.

Step 3: Certain other affected persons **must be notified**:	YES	NO
Are adverse effects on any person minor or more than minor?		X

Section 95E Assessment

139. Section 95E(1) of the Act states that 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). In assessing the effects on a person, the consent authority:
    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.
    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.
    c. Must have regard to every relevant statutory acknowledgement made in accordance with an Act specified in Schedule 11.

140. It is also noted that a person is not to be considered affected if 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.

141. Table 1, above, outlines all of the surrounding properties adjacent to or near the subject site. They are also displayed on the map above in ***Figure 8***. One written approval has been received as detailed above and also as detailed below in Table 2, in the second to last column.

142. In this instance, it is considered that the permitted baseline has limited application, except in respect of deer fences and perimeter plantings, where the relevant plan permits activities with the same effect. The activity is a discretionary activity overall so matters of control or discretion are irrelevant to this assessment. Regard has also been had to the statutory acknowledgements as discussed above.

143. The type of effects that could potentially affect nearby neighbours are landscape, noise, traffic, and glare. These are considered in turn below along with cultural effects.

Landscape and Visual Effects

144. The landscape and visual effects have been discussed above in regard to effects on the wider environment. Here I consider the effects on the people who reside or own property in the immediate locality.

145. It is noted that the adjacent landowners are generally larger landholdings which span across large areas. I have reviewed ***Figure 8*** above and consider it is accurate when assessing adjacent properties and do not consider there are any additional properties that should be included.

146. As outlined above in paragraph 8, the respective experts were requested to caucus on their views in relation to visual effects and produce a statement outlining their agreements and disagreements. As a result of this process a statement, dated 9 September 2024, was provided showing that they reached agreement on all matters.

147. Key to the discussion was the mitigations offered by the applicant confirming the shrubs to be planted will be at least 1.0m in height on Thorburn Road, and a set of seven (7) proposed conditions detailing how the site will be staged and how the planting will interact with this staging should works commence outside of planting season.

148. Table 2 below provides a summary of effects on each of these individual properties. As with effects on the wider environment the assessment is based on the Te Tangi a Te Manu NZILA Guidelines with a copy of the scale included above as ***Figure 11***.

Table 2: *Assessment of neighbouring properties from joint statement dated 30 October 2024*

Property	Address	Assessment of effects
1	82 Thorburn Road, Dannevirke	[Assessed below under property 3 and 4]
2	19 Thorburn Road, Dannevirke	This is a vacant property forming part of a larger farm and is less frequented than a property which contains a dwelling. The experts agree that the effects will be very low reducing to nil over time. Effects on this property are considered to be **less than minor.**
3	82 Thorburn Road, Dannevirke	The experts agree this property contains a dwelling and is relatively closer proximity than other dwellings. The experts note that the proposal includes staging the solar farm so that the rear portion, closest to Thorburn Road is left until last. In addition, the dwelling is at a lower elevation and will be separated by an extensive area of native trees on the solar farm which are proposed to be retained. As such the effects are considered to be low during construction, reducing to very low and nil over time and the vegetation established. The experts agree that the assessment of 'low' is in the **less than minor** scale.
4	82 Thorburn Road, Dannevirke	

Property	Address	Assessment of effects
5	694 Kumeti Road, Dannevirke	This property is approximately 29ha and is located to the west of the site. The landowner has provided written approval but indicated that they do not occupy the property. The experts agree that in the sensitive parts of the property (i.e. Dwelling and main living areas), the solar farm will not be visually prominent. It is noted that this is assisted by established vegetation that is not on the solar farm site. However, I am of the opinion that there is a low probability that all of this vegetation would be removed before the onsite mitigations are established. From less sensitive parts of the site, the experts consider the solar farm will be visible until onsite mitigation establish. However, they will not disrupt the wider surrounding views. The experts agree that this property will likely experience low effects during construction. However, the assessment of 'low' is in the **less than minor** scale. Over time these will diminish to very low. Effects on this property are considered to be **less than minor**.
6	674 Kumeti Road, Dannevirke	This property is approximately 29.8ha and is located to the west of the site. The experts agree that in the sensitive parts of the property (i.e. Dwelling and main living areas), the solar farm will not be visually prominent. It is noted that this is assisted by established vegetation that is not on the solar farm site. However, I am of the opinion that there is a low probability that all of this vegetation would be removed before the onsite mitigations are established. From less sensitive parts of the site, the experts consider the solar farm will be visible until onsite mitigation establish. However, they will not disrupt the wider surrounding views. The experts agree that this property will likely experience low effects during construction. However, the assessment of 'low' is in the **less than minor** scale. Over time these will diminish to very low. Effects on this property are considered to be **less than minor**.

Property	Address	Assessment of effects
7	642 Kumeti Road, Dannevirke	This property is approximately 27ha and is located to the west of the site. The experts agree that in the sensitive parts of the property (i.e. Dwelling and main living areas), the solar farm will not be visually prominent. It is noted that this is assisted by established vegetation that is not on the solar farm site. However, I am of the opinion that there is a low probability that all of this vegetation would be removed before the onsite mitigations are established. From less sensitive parts of the site, the experts consider the solar farm will be visible until onsite mitigation establish. However, they will not disrupt the wider surrounding views. The experts agree that this property will likely experience low effects during construction. However, the assessment of 'low' is in the **less than minor** scale. Over time these will diminish to very low. Effects on this property are considered to be **less than minor**.
8 9	914 Top Grass Road, Dannevirke 890 Top Grass Road, Dannevirke	This property is approximately 112ha and is located to the west of the site. Two dwellings are present numbered 914 and 890 Top Grass Road. The experts agree that in the sensitive parts of the property (i.e. Dwelling and main living areas) the solar farm will not be visually prominent. It is noted that this is assisted by established vegetation that is not on the solar farm site. However, I am of the opinion that there is a low probability that all of this vegetation would be removed before the onsite mitigations are established. From less sensitive parts of the site, the experts consider the solar farm will be visible until onsite mitigation establish. However, they will not disrupt the wider surrounding views. The experts agree that this property will likely experience low effects during construction. However, the assessment of 'low' is in the **less than minor** scale. Over time these will diminish to very low. Effects on this property are considered to be **less than minor**.

Property	Address	Assessment of effects
10	857/ 861 Top Grass Road	This property is approximately 225ha and is located to the south-west of the site. One dwelling is present numbered 861 Top Grass Road. A dairy shed is also present on the same property at 857 Top Grass Road. The experts agree that in the sensitive parts of the property (i.e. Dwelling and main living areas) the solar farm will not be visually prominent. It is noted that this is assisted by established vegetation that is not on the solar farm site. However, I am of the opinion that there is a low probability that all of this vegetation would be removed before the onsite mitigations are established. The experts further agree that the dwelling appears to be orientated to the north-east (ie. Not towards the proposal). The experts agree that this property will likely experience low effects during construction. However, the assessment of 'low' is in the **less than minor** scale. Over time these will diminish to very low. Effects on this property are considered to be **less than minor**.
11 12	797 Top Grass Road	This property is approximately 208ha and is located to the south-west of the site. One dwelling is present numbered 797 Top Grass Road. A dairy shed is also present on the same property to the rear of the dwelling. The experts agree that in the sensitive parts of the property (i.e. Dwelling and main living areas) the solar farm will not be visually prominent. It is noted that this is assisted by established vegetation that is not on the solar farm site. However, I am of the opinion that there is a low probability that all of this vegetation would be removed before the onsite mitigations are established. The experts further agree that the dwelling appears to be orientated to the north-east (ie. Not towards the proposal). The experts agree that this property will likely experience low effects during construction. However, the assessment of 'low' is in the **less than minor** scale. Over time these will diminish to very low. Effects on this property are considered to be **less than minor**.

Property	Address	Assessment of effects
13 14	806 Top Grass Road, Dannevirke, 786 Top Grass Road, Dannevirke, 784 Top Grass Road, Dannevirke	This property is a 144ha property located to the north of the proposal. It contains three dwellings respectively numbered 806, 786 and 784 Top Grass Road. The experts agree that in the sensitive parts of the property (i.e. Dwelling and main living areas) the solar farm will not be visually prominent. It is noted that this is assisted by established vegetation that is not on the solar farm site. However, I am of the opinion that there is a low probability that all of this vegetation would be removed before the onsite mitigations are established. From less sensitive parts of the site, the experts consider the solar farm will be visible until onsite mitigation establish. However, they will not disrupt the wider surrounding views. The experts agree that this property will likely experience low effects during construction. However, the assessment of 'low' is in the **less than minor** scale. Over time these will diminish to very low. Effects on this property are considered to be **less than minor**.
15	188 Thorburn Road, Dannevirke	This property is a 94ha property located to the north of the proposal. It contains a single dwelling. The experts agree that in the sensitive parts of the property (i.e. Dwelling and main living areas) the solar farm will not be visually prominent. It is noted that this is assisted by established vegetation that is not on the solar farm site. However, I am of the opinion that there is a low probability that all of this vegetation would be removed before the onsite mitigations are established. From less sensitive parts of the site, the experts consider the solar farm will be visible until onsite mitigation establish. However, they will not disrupt the wider surrounding views. The experts agree that this property will likely experience low effects during construction. However, the assessment of 'low' is in the **less than minor** scale. Over time these will diminish to very low. Effects on this property are considered to be **less than minor**.

Property	Address	Assessment of effects
16	137 Thorburn Road, Dannevirke	This dwelling is located opposite to the northern end of the site. It is a 1.4ha property with a single dwelling. The experts canvas the mitigations proposed including the provision of shade cloth, taller shrubs which are planted at 1m high (and maintained at 2-3m). In addition, the applicant has proposed that the solar farm be staged so that the solar farm construction commences at Top Grass Road and gradually progressing construction towards the Thorburn Road end over the space of 12-18 Months. It is anticipated that the staging will allow the shrubs to establish with the experts noting that they should reach 3m in height within 3 years of being planted. The experts agree that these mitigations will ensure that the identified 'Low' visual effect (during construction) and 'Low to Very Low' visual effect (during the short-term timeframe) are reliable and would be at the lesser extent of the rating category (i.e. this 'Low' effect would be less than minor). Over time, as vegetation is established, it is expected that the visual effects will diminish to very low. Effects on this property are considered to be **less than minor**.
17	19 Thorburn Road, Dannevirke	[Address under property 2]

149. Overall, I agree with the conclusions of the landscape assessment and consider the effects on the neighbouring properties to be **less than minor**.

Noise

150. As discussed above, the Applicant has shown that the noise expected to be generated from the solar farm is to be less than minor at all sensitive receivers. Mr Bronka has reviewed the information provided and agreed with the applicant that the nighttime noise limit should be set at 40dB. With regards to the daytime limits, Mr Bronka agrees with the MDA assessment and predictions contained in Table 5 of their assessment. Mr Bronka has suggested that a daytime limit of 50dB be applied, slightly above the maximum production of 47dB. Mr Bronka notes setting the limits at these levels will also account for tonality annoyances.

151. Mr Bronka has also commented on construction activity. With regards to construction noise, the sound criteria set out in NZS 6803: 1999 Acoustics - Construction Noise is applicable. Although Mr Bronka notes that the 70dB LAeq limit would be applied due to the duration of the work exceeding 20 weeks.

152. Mr Bronka notes pile driving demonstrates the highest levels of noise and vibration – showing an exceedance of the limits (up to 83dB LAeq) when at operating at the closest separation distance of 50m. The MDA report conclude that the piling will occur for short duration only, and if possible vibro or bored piling may be implemented – resulting in reduced noise levels.

153. Mr Broka advises the MDA report does not provide an assessment of construction vibration levels, but concludes that construction vibration levels are expected to be sufficiently low so as to not cause building damage. Mr Bronka agrees with the conclusions regarding construction vibration with the exception that vibration amenity levels from impact piling are expected to be perceived at the closest residential dwelling. However, with prior notification of the works and the implementation of a construction management plan – effects will be mitigated.

154. Overall, I agree with Mr Bronka's assessment, particularly noting that the noise limits will assist in ensuring that the effects on any neighbouring properties remain **less than minor**.

Traffic

155. An increase in traffic has the potential to affect immediate neighbours and residents further away from the site. However, vehicle movements from the solar farm operation are not expected to be of such a level to cause any adverse effects. Whilst there will be an increase in traffic during construction this will be during daylight hours with construction crews arriving in the morning and leaving in the evening. It will be required that heavy vehicles will also deliver materials for the construction during day light hours. It is further noted that the roading network in the locality has low traffic volumes and consists of roads that are generally straight and have good sightlines. In addition the applicant has proposed that traffic be managed through a construction management plan.

156. Overall, with the low level of traffic likely to be generated across the life of the solar farm and considering that any traffic generated as a result of construction will be temporary, I consider that effects of traffic on neighbouring properties to be **less than minor**.

Glint and Glare

157. As discussed above, glint and glare from solar panels can have effects on neighbouring properties. As discussed above, the Applicant has offered a number of further mitigations including the provision of shade cloth on the Thornburn Road fence boundary, planting which is 1m high on the Thorburn road boundary and staging of the construction. It is expected they will reach 3m in height within 3 years of being planted.

158. Following the s92 request, the Applicant chose to re-run the glint and glare analysis. An assessment has been provided by Mansergh Graham Landscape Architects dated 13 June 2024. With these mitigations in place, the analysis demonstrates that all effects are mitigated and no green nor yellow glare will be present.

159. Mr Hayman accepts the analysis noting that the shade cloth is a suitable method to prevent glint and glare.

160. Furthermore, Mr Hayman accepts the effect on the Kumeti Road dwellings will also be nil due to the intervening landscape including riparian planting.

161. Overall, I consider the effects of glint and glare on nearby dwellings to be **less than minor**.

Cultural

162. In addition to the assessment above regarding Rangitāne o Tamaki nui-ā-Rua, an assessment must also be made in respect of cultural effects as they relate to other iwi whose rohe covers the site. In this instance the rohe of Ngati Kahungunu extends over the locality. The Applicant has provided

correspondence of consultation undertaken with Jarrod Hape on behalf of Ngati Kahungunu prior to lodgement.

163. The email received on 30 April 2024 shows that Mr Hape supports the solar farm application through to the next stage. It is expressed that a CIA had been commissioned.

164. The CIA was provided on 30 July 2024 and contains a number of agreements in section 6.0 including offset planting, creation of jobs, including iwi throughout the construction process, creating opportunities for future recycling of material when the farm is decommissioned. The Applicant further advised on 1 August 2024 that all matters are agreed to or resolved. Overall, based on the feedback received, I consider Ngati Kahungunu to be affected by the proposed solar farm in a way that **less than minor**.

Effects Summary

165. Table 2 below sets out the various properties and summarises the above conclusion of effects.

Table 3: Summary of effects

Plan reference	Address	Legal description	Approvals received?	Glint and glare effects?	Landscape effects?	Noise effects?	Affected person?
1	82 Thorburn Road, Dannevirke	Section 15 Block XII Norsewood Survey District (ROT: HB135/252)	No	No	No	No	No
2	19 Thorburn Road, Dannevirke	Part Section 7 Block XII Norsewood Survey District (ROT: HBE4/1474)	No	No	No	No	No
3	82 Thorburn Road, Dannevirke	PtS: 10 Blk: XII SD: NORSEWOOD (HB110/217)	No	No	No	No	No
4	82 Thorburn Road, Dannevirke	Part Lot 1 Deposited Plan 11794 (ROT: HBP1/584)	No	No	No	No	No
5	694 Kumeti Road, Dannevirke	Lot 2 DP 11794 (HBP3/1033)	Yes – Landowner only	No	No	No	No
6	674 Kumeti Road, Dannevirke	Lot 1 and Lot 3 Deposited Plan 8938 (ROT: HB149/151)	No	No	No	No	No
7	642 Kumeti Road, Dannevirke	Lot 2 and Lot 4 Deposited Plan 8938 (ROT: HB149/152)	No	No	No	No	No
8	914 Top Grass Road, Dannevirke	Lot 1 Sec 35 Block I Tahoraiti SD (ROT: 967589)	No	No	No	No	No
9	890 Top Grass Road, Dannevirke	Lot 2 Sec 35 Block I Tahoraiti SD (ROT: HBC4/1211)	No	No	No	No	No
10	857/ 861 Top Grass Road	Allotment 25 Block I Tahoraiti SD	No	No	No	No	No
11	797 Top Grass Road	Lot: 5 DP 3137 (ROT: HBK4/1484) and Lot 6 DP: 3137 (ROT HBK4/1484)	No	No	No	No	No
12			No	No	No	No	No
13	806 Top Grass Road, Dannevirke, 786 Top Grass Road, Dannevirke, 784 Top Grass Road, Dannevirke	ML TAMAKI No 2A2B1 (ROT: HBC4/923) and Lot 12 DP 3137 (HB157/158)	No	No	No	No	No
14			No	No	No	No	No

Plan reference	Address	Legal description	Approvals received?	Glint and glare effects?	Landscape effects?	Noise effects?	Affected person?
15	188 Thorburn Road, Dannevirke	ML TAMAKI No 2A2B2 (ROT: HBC4/924)	No	No	No	No	No
16	137 Thorburn Road, Dannevirke	Lot 1 DP 24574 (ROT: HBV2/1212)	No	No	No	No	No
17	19 Thorburn Road, Dannevirke	Lot 2 Deposited Plan 25688 (ROT: HBV4/1014)	No	No	No	No	No

Step 4: Limited notification **required in special circumstances**:	YES	NO
Do special circumstances apply?		X

166. There are no special circumstances that exist in this instance that warrant the limited notification of the application to any other parties.

Conclusions

167. Effects on the immediate environment, including neighbouring properties, can be mitigated to a level where they are considered to be **less than minor**

168. On this basis the application should be assessed on a non-notified basis.

J. CONCLUSIUONS AND RECOMMENDATION

169. It is my opinion that the adverse effects of the proposal on the environment will be **no more than minor** to users of Top Grass Road, diminishing to **less than minor** over time. Effects on other parts of the environment will be **less than minor**. Effects on surrounding neighbouring properties will be **less than minor**.

170. I recommend that the application be assessed on a non-notified basis.

Recommendation prepared by

Natasha Adsett
CONSULTANT PLANNER

DECISION – TARARUA DISTRICT COUNCIL

I record that I have considered all the material provided by the Applicant and the recommendation report prepared by Ms Adsett, as set out above.

I accept and adopt reasons set out in the recommendation report above and find that the application should not be publicly or limited notified and should proceed on a non-notified basis.

_____

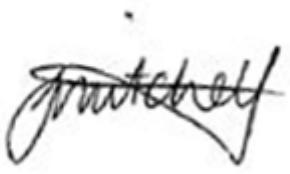
Aimee Charmley
Planning Services Manager (delegated authority)
Tararua District Council

DATE: 18 November 2024

DECISION – MANAWATŪ-WHANGANUI REGIONAL COUNCIL

I record that I have considered all the material provided by the Applicant and the recommendation report prepared by Ms Adsett, as set out above.

I accept and adopt reasons set out in the recommendation report above and find that the application should not be publicly or limited notified and should proceed on a non-notified basis.



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Jasmine Mitchell
Team Leader Consents (delegated authority)
Manawatū-Whanganui Regional Council

DATE: 18 November 2024

Appendix 1 – Landscape Joint Expert Statement

Proposed Solar Farm - 850 Top Grass Road, Dannevirke

Application No. 202.2024.29.1 / APP-2024204637.00

Dannevirke Solar and Energy Storage Limited

Joint Statement – Landscape and Visual Effects

30 October 2024

A. INTRODUCTION

1. This joint statement relates to resource consent applications lodged by Dannevirke Solar and Energy Storage Limited (**Applicant**) to Tararua District Council (**TDC**) and Manawatu-Wanganui Regional Council (**Horizons**), to be processed jointly, for the establishment and operation of a solar farm at 850 Top Grass Road, Dannevirke.

2. This joint statement relates to expert conferencing on the topic of 'landscape and visual effects'. The purpose of it is to determine the matters of agreement and disagreement between the two landscape experts, regarding effects on both the receiving environment and individual neighbours.

3. The expert conferencing occurred during August and the start of September 2024 and consisted of a series of phone calls, online meetings and emails.

4. Attendees at the conference were:

    a. Mr Josh Hunt for TDC; and

    b. Mr Paul Smith for the Applicant.

B. PURPOSE AND SCOPE OF CONFERENCING

5. The purpose of conferencing was to identify, discuss and highlight points where there is agreement and disagreement on matters pertaining to landscape and visual effects arising from the resource consent application and subsequent information/ amendments to the application following the further information requests.

6. The scope of the issues addressed during conferencing included:

    a. Visual effects on the public locations

    b. Visual effects on individual neighbours

C. PRIMARY DATA RELIED ON

7. The following documents, data and information have been relied on in this expert conference:

    a. Appendix O.1: Landscape Assessment Report – Rough Milne Mitchell Landscape Architects (25 March 2024).

    b. Appendix 1 to this Joint Statement: Graphic Attachment to Landscape Assessment Report – Rough Milne Mitchell Landscape Architects (2 August 2024). Noting this document supersedes two previous Graphic Attachments.

    c. Response to Request for Further Information (28 May 2024 – Updated 24 June 2024).

    d. Glint and Glare Analysis - Mansergh Graham Landscape Architects (13 June 2024).

    e. Email of 30 June 2024 from Jess Bould on behalf of the applicant, detailing the following mitigation:

        - *Use of larger specimen plants and plant the Thorburn Road boundary prior to the start of works.*

        - *Use of shade cloth along the inside of the fence line, provided this is black shade cloth and regularly inspected and maintained/replaced. This cloth can be removed once landscaping is established to 2m+ height.*

        - *Staging of works to build from Top Grass Road towards Thorburn Road, with panels at the Thorburn Road end being placed last. Trenching / earthworks are ok to occur as needed.*

    f. Email of 31 June 2024 detailing the area that would constitute the final stage of works (in regard to point 3 of the mitigations detailed in the email of 30 June 2024).

    g. Email of 1 August 2024 from Ms Jess Bould on behalf of the applicant confirming the shrubs to be planted will be at least 1.0m in height (in regard to point 1 of the mitigations detailed in the email of 30 June 2024).

    h. Proposed set of landscape conditions, as circulated on 30 October 2024.

D. METHODOLOGY

8. Firstly, and for reference, Mr Hunt and Mr Smith both used the seven-point rating scale included in the Te Tangi a Te Manu NZILA Guidelines when assessing the actual and potential landscape effects of the proposed Solar Farm.

9. Figure 2 below, outlines the rating scales for adverse and positive effects that are referred to in this report. When there are no adverse or positive effects, the term nil / neutral is used. Figure 3 below is a comparative scale for the RMA s95 notification determination test. Noting that some interpretation of a 'low degree' of adverse effects is required when translating this to a 'less than minor' or 'minor' degree.

Very Low	Low	Low - Moderate	Moderate	Moderate - High	High	Very High

Table 1: *The seven-point landscape and visual effects rating scale.*[1]

Very Low	Low	Low - Moderate	Moderate	Moderate - High	High	Very High
Less than Minor	Minor		More than Minor		Significant	

Table 2: *The comparative scale of degree of effects.* [2]

E. UPDATES TO THE PROPOSAL

10. The application was lodged on 4 April 2024. Since it was lodged the following landscape related updates to the proposal have occurred:

    a. The proposed native planting along the site's northern boundary, adjacent to Thorburn Road will solely consist of *Griselinia littoralis* (Broadleaf) and *Pittosporum crassifolium* (NZ Karo) that will be planted at 1m tall. For reference, the mix of seven native plant species will be used along all other boundary lines.

    b. The proposed native shrub vegetation alongside Thorburn Road will be planted at the start of the first planting season following the granting of consent. For reference, the planting season is the start of April to the end of October.

[1] 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'. Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022. Page 140.

[2] 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'. Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022. Page 151.

c. The solar farm, in particular the installation of the solar tables and panels will be constructed south-east to north-west, starting near Top Grass Road, and working towards Thorburn Road. This is outlined on the Area 1/Area 2 Plan attached to the Proposed Landscape Conditions. For reference, it is estimated that it will take 12-18 months to construct the solar farm.

d. A 1.8m tall black shade cloth will be attached to the deer fence along the site's northern boundary, adjacent to Thorburn Road until the planting provides a solid 1.8m tall screen.

11. Mr Smith's LAR did not define the plant spacings for the proposed vegetation around the site, although the intention has always been to provide a dense vegetated screen. The plant spacing is intended to follow the indicative layout in Figure 1 below with two rows of 1m staggered plant spacings.

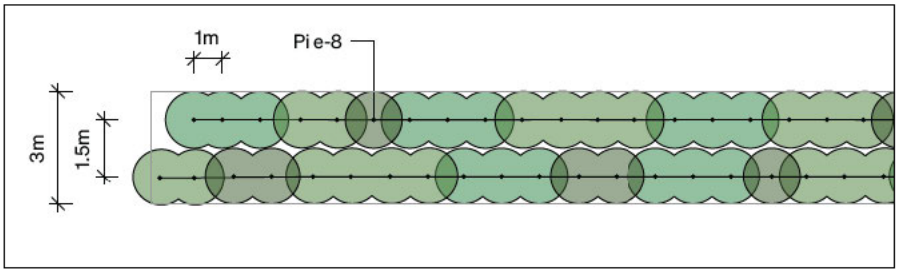

Figure 1: *Indicative Plant Spacings*

F. PLANT GROWTH RATES AND CONSTRUCTION TIMEFRAMES

12. Section 2.1.8 of the RMM Landscape Assessment and the Graphic Attachment illustrates that all proposed native shrubs planted at 25cm tall (PB3 / 1L) will reach 3m tall after 5 years of growth.

13. The *Griselinia littoralis* and *Pittosporum crassifolium* will be planted at 1m tall. Based on advice from Leafland, a local plant nursery, *Griselinia littoralis* and *Pittosporum crassifolium* have growth rates of 0.6cm and 0.8cm per year, respectively (for the purpose of the table below, we have assumed a growth rate of 0.7m per year). Therefore, the proposed native shrub planting adjacent to Thorburn Road will take 3 years to reach 3m tall. This is 2 years sooner than the originally assessed timeframe in Mr Smith's LAR.

14. It is noted that all native shrub plants will be implemented prior to the construction of the built infrastructure of the solar farm (Ref: Proposed Landscape Condition X4 – Advice Note).

15. Also, the purpose of the below table is to assist with providing indicative timeframes around the above ground built infrastructure for 'construction', 'short term' and 'mid-long term' terminology that has been used when assessing

timeframes of adverse visual effects. Noting that the tables differ slightly, due to the Day 1 planting height difference between Thorburn Road and the planting along all of the other boundaries.

	Construction	Short Term	Mid-Long Term
Day 1 Shrub Height	**Day 1 – End of Construction (likely 18 Months)**	**End of Construction - End of Year 3 (18 months)**	**Year 3 Onwards**
1.0m	1.0m – 2.05m	2.05m – 3.1m	Maintained at a height between 2m and 3m

Table 3: *Approximate growth rates of the Griselinia littoralis and Pittosporum crassifolium shrubs along the site's northern boundary, adjacent to Thorburn Road in relation to the construction and operation of the solar farm.*

	Construction	Short Term	Mid-Long Term
Day 1 Shrub Height	**Day 1 – End of Construction (likely 18 Months)**	**End of Construction - End of Year 3 (18 months)**	**Year 3 – Year 5 Onwards**
0.25m	0.25m – 1.15m	1.15m - 2.05m	2.05m – 3.25m (then maintained at a minimum height of 3m)

Table 4: *Approximate growth rates of the seven native shrubs along the site's east, west and southern boundaries in relation to the construction and operation of the solar farm.*

G. AGREED ISSUES

16. Mr Smith, through his landscape assessment of the proposed solar farm has assessed the actual and potential adverse effects on landscape character and values of the receiving environment as a 'low to low-moderate' degree. The effects on landscape character and values have not altered from the original application. Mr Hunt, through his peer review, agrees with the identified level of effect on landscape character and values.

17. Also Mr Smith, through his landscape assessment of the proposed solar farm (including the recent updates to the proposal), has assessed the actual and potential adverse visual effects that will be experienced from the surrounding public places and neighbouring properties. Mr Hunt is generally in agreement with the identified level of adverse visual effects. This joint statement focuses on these potential adverse 'visual effects'.

Public Roads and Tracks

18. When considering the updated landscape mitigation plan, Mr Smith is of the opinion that the adverse visual effects on Thorburn Road will be lower than originally assessed. Reducing from 'Low to Low-Moderate' to 'Low'. This is because the further refinement to the proposed vegetation along Thorburn Road (i.e. an increase in planted height from 0.25m to 1.0m), will achieve the intended level of visual mitigation in a timelier manner.

19. Regarding this and the other surrounding public roads, Mr Hunt agrees with Mr Smith's assessment, that the adverse visual effects are as concluded below, and are no more than minor.

Public Road	Construction	Short term	Mid to Long Term
Top Grass Road	Low-moderate to Low	Low	Very Low to Nil
Kumeti Road	Nil / Neutral	Nil / Neutral	Nil / Neutral
Thorburn Road	Low	Very Low	Nil / Neutral
The Kumeti Road to Opawe Road Tramping Track	Nil / Neutral	Nil / Neutral	Nil / Neutral

Table 5: *Visual Effects Ratings from Public Roads where the proposed solar farm may be seen from.*

Neighbouring Properties

20. Mr Smith and Mr Hunt have considered the visual effects ratings from 694 Kumeti Rd, 642/674 Kumeti Rd, 890/914 Top Grass Rd, 786/806 Top Grass Rd, and 188 Thorburn Rd slightly differently. These five properties that had been identified as a potentially 'minor' adverse visual effect in Mr Smith's Landscape Assessment Report.

21. Mr Smith has considered the visual effects experienced from their respective dwellings (including main outdoor living areas) and their less frequented paddocks separately. Noting, that the eastern most paddocks within these properties are adjacent to the site. Whereas, the dwellings are situated approximately 1.2kms from the site with numerous rows of intervening vegetation (including shelterbelts) screening the view towards the site. Concluding that "*the proposal will have a **very low degree** of adverse visual effects when experienced from the dwellings and main outdoor living areas within these nine[3] identified properties. These adverse effects will reduce to **nil** when the proposed vegetation reaches 3m tall. However, when experienced from the less frequented parts of these properties, these adverse effects will be of a **low to low-moderate degree***".

22. Mr Hunt has also considered the visual effects experienced from each of these properties and is of the opinion that the less frequented parts of these properties have a much lower sensitivity to that of the dwellings and primary outdoor living areas.

[3] Mr Smith, in his LAR incorrectly referred to these five properties as nine properties. This was due to the split addresses, and previously including 82 Thorburn Road in this grouping.

23. After further review, and when considering the visual effects experienced from each of these properties as one respectively, Mr Smith has summarised his conclusions for these five properties in Table 6 below. Notably:

    a. The proposed solar farm will not be visually prominent from each of the respective dwellings and their main indoor and outdoor living areas within these properties. This is because there are mature amenity trees and hedging around each of these neighbouring dwellings, and there are multiple shelterbelts and stands of mature trees within these properties and the site that will provide immediate screening of the majority of the solar farm.

    b. Views gained from the nearby paddocks are less frequented and are therefore less sensitive to change when compared with the views from their respective dwellings.

    c. The solar farm will form a small part of the overall view from these paddocks, the solar tables will be seen at 1.5m tall during the majority of the day allowing views to the surrounding grazed pasture and over them to the Ruahine Ranges.

    d. The Glint and Glare reports conclude that these properties will not be affected by glare.

24. Mr Hunt agrees with the below conclusions and is of the opinion that even the 'Low' adverse effects ratings are at a 'less than minor' level.

Neighbouring Property	Construction	Short term	Mid to Long Term
694 Kumeti Road	Low	Low to Very Low	Very Low
642/674 Kumeti Road	Low	Low to Very Low	Very Low
890/914 Top Grass Road	Low	Low to Very Low	Very Low
786/806 Top Grass Road	Low	Low to Very Low	Very Low
188 Thorburn Road	Low	Low to Very Low	Very Low

Table 6: *Private Properties where the dwellings are not located near the proposed solar farm.*

25. Unlike the five above properties, 82 and 137 Thorburn Road contain dwellings that are located in closer proximity to the proposed solar farm.

26. Mr Smith has assessed the degree of adverse visual effects when experienced from both of these properties. Regarding 82 Thorburn Road, Mr Smith states that:

27. "*Whilst within close proximity of the solar farm, only the small portion of the solar tables immediately south of the existing stand of native trees will be seen. This is due to the change in topography and exiting vegetation screening the view.*

28. *This change in land use, appearing as utility infrastructure will adversely affect the amenity that is currently gained. However, the potential effects will be mitigated by the fact that the solar farm will not reduce the long ranging views that are gained and will form a very small part of the overall scene. And, in the mid-long term, the solar farm will be screened from view by the proposed vegetation. The glint and glare report identified this property (**OP5**) as being potentially affected by glare, which would exacerbate the visual effects. These potential effects can be mitigated by manually controlling specific solar tables and in the long term will be mitigated by the vegetation within the site*."[4]

29. Regarding the final point, the staged construction of the solar farm will allow the proposed mitigation vegetation to mature to a slightly taller height prior to the solar farm being constructed near this dwelling, that will assist with reducing the degree of adverse visual effects, as concluded below in Table 7.

30. Mr Hunt considers that the elevation change (the dwelling being 10m lower than the nearest point of the solar array along Thorburn Road), the extensive area of native trees to be protected (in the north-west corner of the solar farm site), the proposed boundary mitigation planting, and the separation to the nearest solar array (of over 200m) are all contributing mitigation factors which reduce the potential adverse effect to less than minor from this dwelling and its curtilage area.

31. Regarding 137 Thorburn Road, Mr Smith states:

32. "*The dwelling… is located opposite the site, and the dwelling and its outdoor areas are orientated to face south and west to take advantage of the views over the valley to the Puketoi Ranges which includes views over the site, refer to **Viewpoint 15**. The view from 137 Thorburn Road has been a key design driver to establish the 2m height of the proposed boundary treatment of the site. This will enable the solar farm to be screened from the forecourt and entranceway into this property. Although the solar farm may be overlooked from the slightly elevated porch and outdoor area, the height limit of the proposed vegetation will maintain their long-range view.*

33. *Whilst the solar farm may be partially seen, it will form a small part of the neighbour's foreground view, which will generally be maintained. The boundary treatment, as a permitted activity, could be taller and screen the solar farm from view, however, this would reduce the long-range view from 137 Thorburn Road.*

[4] Pages 22 and 23.

Whilst this cannot be considered an adverse visual effect, because it is a permitted activity, the reduction to this view would not be a neighbourly response."

34. In addition to the above, the updates to the proposal including the planting of 1m tall native shrubs, their maintained height being between 2 – 3m, and the staged construction of the solar farm (progressing from Top Grass Road toward Thorburn Road), will assist with reducing the potential adverse visual effects.

35. Mr Hunt considers that the updates to the proposal that are mentioned above (larger grade initial planting, maintained 2-3m height and staged construction) will ensure that the identified 'Low' visual effect (during construction) and 'Low to Very Low' visual effect (during the short term timeframe) are reliable and would be at the lesser extent of the rating category (i.e. this 'Low' effect would be less than minor).

36. The approach outlined in the Section 92 RFI Response (Point 5), where the applicant has proffered an advice note to confirm the suitability of the Thorburn Rd planting height once it has established, is still considered to be appropriate and beneficial to maintaining the amenity to the 137 Thorburn Rd dwelling.

Neighbouring Property	Construction	Short term	Mid to Long Term
82 Thorburn Road	Low	Low – Very Low	Very Low to Nil / Neutral
137 Thorburn Road	Low	Low – Very Low	Low – Very Low

Table 7: *Private Properties where the dwellings are located near the proposed solar farm.*

37. In addition to the above properties, Ms Natasha Adsett, TDC's consultant Planner has requested that we also assess the actual and potential visual effects of the solar farm from 19 Thorburn Road, 857 / 861 Top Grass Road and 797 Top Grass Road.

38. Based on aerial imagery and reviewing on site photographs, there isn't a dwelling within 19 Thorburn Road. Rather, this property forms part of a larger farm, with the farm workers dwelling located at 701 Kumeti Road. Due to this, Mr Hunt and Mr Smith consider that the adverse visual effects are as described in Table 8. This is because the outlook is similar to Thornburn Road, this property is less frequented than a dwelling, therefore is less sensitive to change and the proposed landscaping will appropriately mitigate the visibility of the solar farm, while maintaining long ranging views to the distant mountains.

39. Based on aerial imagery and reviewing on site photographs, the dwellings within 797 and 857 / 861 Top Grass Road are well setback from Top Grass Road and the solar farm, beyond 200m, each with intervening vegetation (including shelterbelts) which reduce/screen the view towards the site. In both instances, the dwellings appear to be orientated to maximise north-eastern views (i.e. not

orientated directly towards the proposal). Therefore, whilst a small part of the proposed solar farm may be seen prior to the mitigation vegetation matures, its low lying 1.5m tall structures will form a very small part of the view and that will not be visually prominent.

Neighbouring Property	Construction	Short term	Mid to Long Term
19 Thorburn Rd	Very Low	Very Low	Very Low - Nil / Neutral
797 Top Grass Road	Very Low	Very Low	Nil / Neutral
857 / 861 Top Grass Road	Low	Low – Very Low	Very Low - Nil / Neutral

Table 8: *Additional properties that Mr Smith and Mr Hunt did not previous consider in their respective assessment reports.*

H. CONCLUSION

40. Overall, in light of the updates to the landscape mitigation of the proposed solar farm, as enforced by the proposed landscape conditions, Mr Smith and Mr Hunt have come to the same effects conclusions. That is;

    a. the resulting adverse landscape character effects will be a low to low-moderate degree, equating to no more than minor adverse effects;

    b. the resulting adverse visual effects from public location will be nil/neutral to low with only one exception (a low-moderated effect during construction along Top Grass Road), equating to no more than minor adverse effects; and

    c. the resulting adverse visual effects from neighbouring properties will be nil/neutral to low, equating to less than minor adverse effects.

Date: 9 September 2024

Mr Paul Smith
Senior Landscape Architect - NZILA (Registered)
RMM Landscape Architects

Mr Joshua Hunt
Senior Landscape Architect - NZILA (Registered)
Director Narrative Landscape